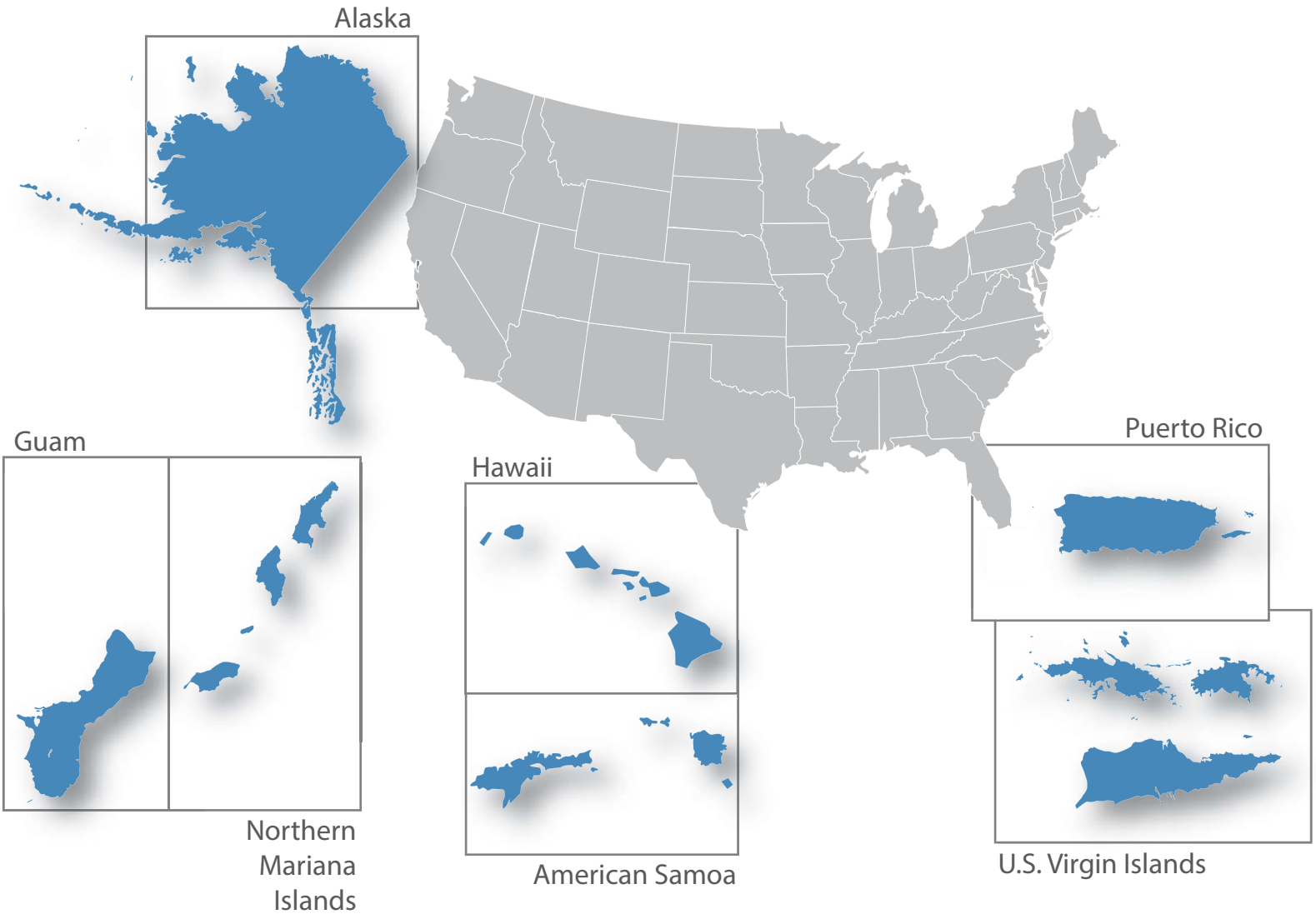
Nationwide Public Safety Broadband Network
Final Programmatic Environmental Impact Statement for the Non-Contiguous United States

FirstNet®

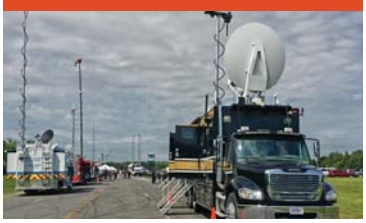
First Responder Network Authority

Volume 8 - Chapters 10-18 & Appendices

Alaska
Hawaii
American Samoa
Guam
Northern Mariana Islands
Puerto Rico
U.S. Virgin Islands



May 2017



-Page Intentionally Left Blank-

First Responder Network Authority

Nationwide Public Safety Broadband Network
Final Programmatic Environmental Impact Statement for the Non-Contiguous United States

Volume 8

Amanda Goebel Pereira, AICP
NEPA Coordinator
First Responder Network Authority
U.S. Department of Commerce
12201 Sunrise Valley Dr. M/S 243
Reston, VA 20192

Cooperating Agencies
Federal Communications Commission
General Services Administration
U.S. Department of Agriculture—Natural Resource Conservation Service
U.S. Department of Agriculture—Rural Utilities Service
U.S. Department of Agriculture—U.S. Forest Service
U.S. Department of Commerce—National Telecommunications and Information Administration
U.S. Department of Defense—Department of the Air Force
U.S. Department of Energy
U.S. Department of Homeland Security

May 2017

Cover Art Sources:

DVM (Digital Vector Maps). 2007. Blank Puerto Rico Outline. Digital Map. Accessed: April 2017. Retrieved from: http://digital-vector-maps.com/state-maps-detail/2194/Blank-Puerto-Rico-Outline-Adobe-Illustrator.htm

Environmental Resources Management, Inc. 2017. Map artwork: contiguous United States and states of Alaska and Hawaii.

Getty Images. Undated. Maps of Guam, U.S. Virgin Islands, and American Samoa. Accessed: April 2017. Retrieved from: http://www.gettyimages.com/

Marine Mammal Commission. Undated. *Polar bear (Ursus maritimus)*. Uncredited Marine Mammal Commission Photograph. Accessed: February 2017. Retrieved from: https://www.mmc.gov/priority-topics/species-of-concern/polar-bear/

Nakano, Hajime. 2006. *Latte Stones in Latte Stone Park, Hagnata, Guam*. Photograph. Wikimedia Commons. Accessed: March 2017. Retrieved from: https://upload.wikimedia.org/wikipedia/commons/a/ad/Latte_stones_in_Hagatna.jpg <https://upload.wikimedia.org/wikipedia/commons/a/ad/Latte_stones_in_Hagatna.jpg>

NPS (National Park Service). 2016. *Fruit Bat [White-necked Flying Fox (Pteropus tonganus)]*. Uncredited NPS Photograph. Accessed: January 2016. Retrieved from: http://www.nps.gov/npsa/learn/education/fruit-bats-are-our-friends.htm

Tapilatu, R. 2016. *Leatherback Turtle*. Photograph. National Marine Fisheries Service. Accessed: March 2017. Retrieved from: http://www.nmfs.noaa.gov/pr/species/turtles/images/leatherback_r.tapilatu.jpg

U.S. Census Bureau, Department of Commerce. 2012. TIGER/Line Shapefile, Commonwealth of the Northern Mariana Islands. Metadata updated May 17, 2013. Accessed: April 2017. Retrieved from: https://catalog.data.gov/dataset/tiger-line-shapefile-2012-state-commonwealth-of-the-northern-mariana-islands-current-census-tra

USFWS (U.S. Fish and Wildlife Service). 2013a. *Mariana Fruit Bat Pteropus mariannus / Fanihi*. Uncredited USFWS Photograph. Accessed: January 2016. Retrieved from: http://www.fws.gov/refuge/guam/wildlife_and_habitat/mariana_fruit_bat.html

_____. 2013b. *Nēnē Branta sandvicensis / Hawaiian Goose*. Photograph by Laura Beauregard, USFWS. Accessed: January 2016. Retrieved from: http://www.fws.gov/refuge/Hakalau_Forest/wildlife_and_habitat/nene.html

_____. 2015. *Rota blue damselfly (Ischura luta)*. Photograph by A. Asquith, USFWS. Accessed: January 2016. Retrieved from: https://www.fws.gov/news/ShowNews.cfm?ID=4DA36523-E516-A820-414BB2B0165E7461

_____. 2016. *West Indian Manatee.* Photograph by Keith Ramos, USFWS. Accessed: January 2016. Retrieved from: http://www.fws.gov/southeast/wildlife/mammal/manatee/

TABLE OF CONTENTS

APPENDICES

LIST OF TABLES

LIST OF FIGURES

ACRONYMS AND ABBREVIATIONS

°F	degree Fahrenheit
°N	degrees north
µg/m^3	microgram(s) per cubic meter
µPa	micro Pascal
%	percent
A	attained
AAC	Alaska Administrative Code
AAFIS	Alaska Public Safety Identification System
AAQS	Ambient Air Quality Standards
ACHP	Advisory Council on Historic Preservation
ACS	American Community Survey (U.S. Census Bureau)
ADEC	Alaska Department of Environmental Conservation
ADFG	Alaska Department of Fish and Game
AGL	above ground level
AIRFA	American Indian Religious Freedom Act
AJRCCM	American Journal of Respiratory and Critical Care Medicine
AKNHP	Alaska National Heritage Program
AKOSH	Alaska Occupational Safety and Health
AKWAS	Alaska Warning System
ALMR	Alaska Land Mobile Radio
ANCSA	Alaska Native Claims Settlement Act
ANFIRS	Alaska Fire Incident Reporting System
ANSI	American National Standards Institute
APE	Area of Potential Effect
APLIC	Avian Power Line Interaction Committee
APSIN	Alaska Public Safety Information Network
AQCR	air quality control region
ARFF	Aircraft Rescue and Firefighting
ARMS	Alaska Records Management System
ARPA	Archaeological Resources Protection Act of 1979
AS	Alaska Statute
ASAC	American Samoa Administrative Code
ASCA	American Samoa Code Annotated
ASCMP	American Samoa Coastal Management Program
ASDHS	American Samoa Department of Homeland Security
ASDMWR	American Samoa Department of Marine and Wildlife Resources
ASEPA	American Samoa Environmental Protection Agency
ASHPO	American Samoa Historic Preservation Office
ASPA	American Samoa Power Authority
ATO	Air Traffic Organization
ATWC	Alaska Tsunami Warning Center
AURORA	Alaska Uniform Response Online Reporting Access
BACT	best available control technology
BCE	before Common Era
BCR	Bird Conservation Regions
BGEPA	Bald and Golden Eagle Protection Act
BLM	Bureau of Land Management
BLS	U.S. Bureau of Labor Statistics
BMP	best management practice
BRFSS	Behavioral Risk Factor Surveillance System
BSAI	Bering Sea/Aleutian Island
BWG	BioInitiative Working Group
CAA	Clean Air Act
CAB	Clean Air Branch
CARB	California Air Resources Board
CBIA	Coastal Barrier Improvement Act of 1990
CBRA	Coastal Barrier Resources Act of 1982
CCP	Comprehensive Conservation Plan
CDC	Center for Disease Control
CDLNR	Commonwealth Department of Lands and Natural Resources
CE	Common Era
CELCP	Coastal and Estuarine Land Conservation Program
CEPD	Caribbean Environmental Protection Division
CEQ	Council on Environmental Quality
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CFMC	Caribbean Fisheries Management Council
CFR	Code of Federal Regulations
cfs	cubic feet per second
CH_4	methane
CHC	Commonwealth Health Center
CIA	Central Intelligence Agency
CMIP3	Coupled Model Intercomparison Project phase 3
CNMI	Commonwealth of Northern Mariana Islands
CNMIAC	Commonwealth of Northern Mariana Islands Administrative Code
CO	carbon monoxide
CO_2	carbon dioxide
CO_2e	carbon dioxide equivalents
COMAR	Committee on Man and Radiation

CPA	Commonwealth Ports Authority
CRMP	Coastal Resources Management Program
CSP	Central South Pacific
CUC	Commonwealth Utilities Corporation
CWA	Clean Water Act
CZMA	Coastal Zone Management Act
CZMP	Coastal Zone Management Program
DACA	Deployable Airborne Communications Architecture
DAR	Division of Aquatic Resources (Hawaii)
DAWR	Division of Aquatic and Wildlife Resources (Guam)
dB	decibel(s)
dBA	A-weighted decibel(s)
DBCP	1,2-dibromo-3-chloropropane
dBZ	Z-weighted decibel(s)
DCP	1,2-dichloropropane
DEC	Department of Environmental Conservation
DHHL	Department of Hawaiian Homelands
DLNR	Department of Land and Natural Resources (Hawaii)
DMA	Disaster Mitigation Act of 2000
DNER	Department of Natural and Environmental Resources of Puerto Rico
DOA	Department of Agriculture
DOD	Department of Defense
DOE	U.S. Department of Energy
DOH	Department of Health
DOH-CAB	Hawaii Department of Health, Clean Air Branch
DOT	U.S. Department of Transportation
DPNR	Department of Planning and Natural Resources (U.S. Virgin Islands)
DPS	Department of Public Safety
EA	Environmental Assessment
EAS	Emergency Alert System
EBS	Emergency Broadcast System
EDB	ethylene dibromide
EFH	essential fish habitat
EMS	emergency medical services
ENSO	El Niño/Southern Oscillation
EO	Executive Order
EPCRA	Emergency Planning and Community Right-to-Know Act
ERP	effective radiated power
ESA	Endangered Species Act
ESI	Environmental Sensitivity Index
FAA	Federal Aviation Administration
FAD	Fish Aggregating Device
FCC	Federal Communications Commission
FEMA	Federal Emergency Management Agency
FirstNet	First Responder Network Authority
FMP	Fishery Management Plan
FPPA	Farmland Protection Policy Act of 1981
FR	Federal Register
ft	feet
g/hp-hr	grams per horsepower-hour
g/mi	grams per mile
GAP	Gap Analysis Program
GCA	Guam Code Annotated
GDA	Guam Department of Agriculture
GEPA	Guam Environmental Protection Agency
GHG	greenhouse gas
GIS	geographic information system
GMP	General Management Plan
GOA	Gulf of Alaska
GRHP	Guam Register of Historic Places
GWP	global warming potential
H_2S	hydrogen sulfide
HDOH	Hawaii Department of Health
HEI	Health Effects Institute
HHCA	Hawaiian Homes Commission Act of 1920
HI-EMA	Hawaii Emergency Management Agency
HIANG	Hawaii Air National Guard
HIARNG	Hawaii Army National Guard
HIHWNMS	Hawaiian Islands Humpback Whale National Marine Sanctuary
HIOSH	Hawaii Occupational Safety and Health Division
hp	horsepower
HRD	(Guam) Historic Resources Division
HRHP	Hawaii Register of Historic Places
HRS	Hawaii Administrative Rules, Revised Statute
HTA	Hawai'i Tourism Authority
HUC	hydrologic unit code
I/M	Inspection/Maintenance
IARC	International Agency for Research on Cancer
IBA	Important Bird Area
IEEE	Institute of Electrical and Electronics Engineers
IFC	International Finance Corporation
in	inches
IPCC	Intergovernmental Panel on Climate Change
IR	ionizing radiation
ITCZ	Intertropical Convergence Zone
IUCN	International Union for Conservation of Nature
kg/gal	kilograms per gallon
KIRC	Kaho'olawe Island Reserve Commission

LAER	lowest achievable emission rate
lb/day	pounds per day
lb/hp-hr	pounds per horsepower-hour
LBJ	Lyndon B. Johnson
Ldn	day-night average sound level
Leq	equivalent noise levels
LNG	liquefied natural gas
LTE	Long Term Evolution
$\mu g/m^3$	microgram(s) per cubic meter
µPa	micro Pascal
m/s	meter per second
MBTA	Migratory Bird Treaty Act
mg/m^3	Milligram(s) per cubic meter
mgd	million gallons per day
MHz	megahertz
MLRA	Major Land Resource Area
mm/s	millimeters per second
MMPA	Marine Mammal Protection Act
MOA	Memorandum of Agreement
MPA	Marine Protected Area
mph	miles per hour
MSA	Magnuson-Stevens Fishery Conservation and Management Act
MTR	Military Training Route
MUID	Map Unit Identification Data
MW	megawatt
mW/cm^2	milliwatts per centimeter squared
N	north; not attained
N_2O	nitrous oxide
NA	not applicable; not assessed
NAAQS	National Ambient Air Quality Standards
NAGPRA	Native American Graves Protection and Repatriation Act
NANSR	Nonattainment New Source Review
NAWAS	National Warning System
NCA	National Climate Assessment
NCD	non-communicable disease
NCDC	National Climatic Data Center
NCN	no common name
NCRP	National Council on Radiation Protection and Measurements
ND	no data
NE	northeast
NEPA	National Environmental Policy Act
NESHAP	National Emission Standards for Hazardous Air Pollutants
NFIP	National Flood Insurance Program
NFIRS	National Fire Incident Reporting System
NHPA	National Historic Preservation Act
NIR	non-ionizing radiation
NMFS	National Marine Fisheries Service
NMHC	non-methane hydrocarbon compounds
NMOG	non-methane organic compounds
NNE	north-northeast
NOAA	National Oceanic and Atmospheric Administration
NOx	nitrogen oxides
NP	National Park
NPDES	National Pollutant Discharge Elimination System
NPL	National Priorities List
NPS	National Park Service
NPSBN	nationwide public safety broadband network
NRCS	Natural Resources Conservation Service
NRHP	National Register of Historic Places
NSPS	New Source Performance Standards
NTIA	National Telecommunications and Information Administration
NVSR	National Vital Statistics Report
NWI	National Wetland Inventory
NWR	National Wildlife Refuge
NWWS	National Weather Wire Satellite System
OHA	Office of History and Archaeology
OIA	Office of Insular Affairs (USDI)
OSHA	Occupational Safety and Health Administration
PA	Programmatic Agreement
PAG	Port Authority of Guam
PAHO	Pan American Health Organization
PCB	polychlorinated biphenyl
PCP	pentachlorophenol
PCS	Personal Communications Service
PDO	Pacific Decadal Oscillation
PEIS	Programmatic Environmental Impact Statement
PL	Public Law
PM	particulate matter
PM_{10}	particulate matter up to 10 micrometers in diameter
$PM_{2.5}$	particulate matter up to 2.5 micrometers in diameter
POPs	points of presence
ppm	parts per million
PRDNER	Puerto Rico Department of Natural and Environmental Resources
PREQB	Puerto Rico Environmental Quality Board
PR OSHA	The Puerto Rico Occupational Safety and Health Administration
PRASA	Puerto Rico Aqueduct and Sew Authority
PREPA	Puerto Rico Electric Power Authority
PRSHPO	Puerto Rico State Historic Preservation Office
PSD	Prevention of Significant Deterioration
PUAG	Public Utility Agency of Guam
Pub. L.	Public Law

PV	photovoltaic
RAN	radio access network
RCP	Representative Concentration Pathway
RCRA	Resource Conservation and Recovery Act
RF	radio frequency
RIN	Regulation Identification Number
rms	root mean square
ROW	right-of-way
SAAQS	State Air Quality Standards
SAFETEA-LU	Safe, Accountable, Flexible, Efficient Transportation Equity Act:A Legacy for Users
SARA	Superfund Amendments and Reauthorization Act of 1986
SE	Standard of Error
SHPO	State Historic Preservation Office
SIP	State Implementation Plan
SLR	sea level rise
SMA	Special Management Area
SMS	Scenery Management System
SO_2	sulfur dioxide
SOx	sulfur oxides
SPCC	Spill Prevention, Control, and Countermeasure
SPCZ	South Pacific Convergence Zone
SPOC	State Single Point of Contact
SRES	Special Report on Emission Scenarios
SSA	sole source aquifer
STATSGO2	State Soil Geographic [Database]
SW	southwest
TAAQS	Territory Ambient Air Quality Standards
TCP	traditional cultural property
TEMCO	Territorial Emergency Management Coordinating Office
TMDL	Total Maximum Daily Load
TOC	total organic compound
tpy	tons per year
TRI	Toxic Release Inventory
TSCA	Toxic Substances Control Act
U.S.	United States
UAMES	University of Alaska Museum Earth Sciences
USACE	U.S. Army Corps of Engineers
USC	United States Code
USDA	U.S. Department of Agriculture
USDI	U.S. Department of the Interior
USEPA	U.S. Environmental Protection Agency
USFWS	U.S. Fish and Wildlife Service
USGCRP	U.S. Global Climate Change Research Program
USGS	U.S. Geological Survey
USVIDOH	U.S. Virgin Islands Department of Health
USVIPD	U.S. Virgin Islands Police Department
UVA	University of Virginia
VdB	vibration decibel(s)
VIC	Virgin Islands Code
VIPA	Virgin Islands Port Authority
VISHPO	Virgin Islands State Historic Preservation Office
VOC	volatile organic compound
vog	volcanic smog
VRM	Visual Resource Management
W	watt(s)
W/m^2	watts per meters squared
WAPA	Water and Power Authority
WHO	World Health Organization
WIMARCS	West Indies Marine Animal Research and Conservation Science
WNP	Western North Pacific
WNW	west-northwest
WPC	watts per channel
WPRFMC	Western Pacific Regional Fishery Management Council

-Page Intentionally Left Blank-

APPENDIX A

Invited Cooperating Agencies

-Page Intentionally Left Blank-

INVITED COOPERATING AGENCIES

The following is a list of agencies invited to become cooperating agencies:

- Advisory Council on Historic Preservation
- Environmental Protection Agency
- Executive Office of the President—Council on Environmental Quality
- Federal Communications Commission (accepted invitation)
- General Services Administration (accepted invitation)
- U.S. Army Corps of Engineers
- U.S. Department of Agriculture
- U.S. Department of Agriculture—Farm Service Agency
- U.S. Department of Agriculture—Natural Resources Conservation Service (accepted invitation)
- U.S. Department of Agriculture—Rural Utilities Service (accepted invitation)
- U.S. Department of Agriculture—U.S. Forest Service (accepted invitation)
- U.S. Department of Commerce—National Marine Fisheries Service
- U.S. Department of Commerce—National Oceanic and Atmospheric Administration
- U.S. Department of Commerce—National Telecommunications and Information Administration (accepted invitation)
- U.S. Department of Commerce—National Weather Service
- U.S. Department of Defense—Department of the Air Force (accepted invitation)
- U.S. Department of Defense—National Guard Bureau
- U.S. Department of Defense—Operational Environmental Planning and Readiness
- U.S. Department of Energy (accepted invitation)
- U.S. Department of Health and Human Services
- U.S. Department of Health and Human Services—Centers for Disease Control and Prevention
- U.S. Department of Homeland Security (accepted invitation)
- U.S. Department of Homeland Security—Federal Emergency Management Agency (accepted invitation)
- U.S. Department of Homeland Security—U.S. Coast Guard (accepted invitation)

- U.S. Department of Homeland Security—U.S. Customs and Border Protection (accepted invitation)
- U.S. Department of Justice—Federal Bureau of Investigation
- U.S. Department of Justice—Natural Resources Section
- U.S. Department of the Interior—Bureau of Indian Affairs
- U.S. Department of the Interior—Bureau of Land Management
- U.S. Department of the Interior—Bureau of Reclamation
- U.S. Department of the Interior—National Park Service
- U.S. Department of the Interior—Office of Environmental Affairs
- U.S. Department of the Interior—U.S. Fish and Wildlife Service
- U.S. Department of the Interior—U.S. Geological Survey
- U.S. Department of Transportation—Federal Aviation Administration
- U.S. Department of Transportation—Federal Highway Administration
- U.S. Department of Transportation—Federal Railroad Administration

APPENDIX B

First Responder Network Authority Nationwide Public Safety Broadband Network Programmatic Environmental Impact Statement Scoping Summary Report

-Page Intentionally Left Blank-

FirstNet Nationwide Public Safety Broadband Network
Programmatic Environmental Impact Statement

Scoping Summary Report

Overview

The First Responder Network Authority (FirstNet), an independent authority within the Department of Commerce, is preparing five regional Programmatic Environmental Impact Statements (PEIS) to evaluate the potential impacts of establishing of a nationwide public safety broadband network (NPSBN) based on a single national network architecture. Title VI of the Middle Class Tax Relief and Job Creation Act of 2012 *§ 6203(f), Pub. L. No. 112-96, 126 Stat. 156 (2012) (codified at 47 USC § 1401 et seq.)* charges FirstNet with taking all actions necessary to ensure the building, deployment, and operation of NPSBN, by, at a minimum:

- Ensuring nationwide standards for use and access to the network;
- Issuing open, transparent, and competitive requests for proposals to the private sector;
- Encouraging use of existing commercial wireless infrastructure to speed deployment; and
- Managing and overseeing the implementation and execution of contracts or agreements with non-Federal entities to build, operate, and maintain the network.

FirstNet has determined that a PEIS is the appropriate level of environmental review (at this point in the process prior to having site-specific projects) under the National Environmental Policy Act of 1969 (NEPA). FirstNet will use the NEPA planning process to encourage agency and public involvement in the review of the proposed projects. Public involvement allows for full and fair discussion of the project scope and potential environmental impacts. The procedural aspects of NEPA promote better decision-making by providing a means for open communication between FirstNet and the public.

The Council of Environmental Quality regulations (*40 CFR §§ 1500-1508*) provide guidance on opportunities for public participation. Public participation activities include providing notice to potentially interested parties, holding public meetings, soliciting comments, and making the PEISs available to the public. This report provides an overview of the FirstNet PEIS scoping activities, including the public scoping meetings and comments received during the comment period.

Public Notification

On November 12, 2014, FirstNet published a Notice of Intent (NOI) in the *Federal Register* to prepare five coordinated PEISs (*79 FR § 67156 [November 12, 2014]*). This initiated a 45-day scoping comment period that ended on December 29, 2014. The NOI, provided in **Attachment A**, stated that FirstNet would be developing regional PEISs and solicited input from the public on potential concerns associated with the Proposed Action and the purpose and need, and provided background information on the project. The NOI also included an announcement of PEIS scoping meetings.

FirstNet placed advertisements in local newspapers to invite the public to the scoping meetings, identifying the dates and locations. Publication of the notices occurred in the following papers:

- Washington Post and Washington Post Express (November 23, 2014)
- Honolulu Star-Advisor(November 30, 2014)
- San Francisco Chronicle (November 30, 2014)
- Arizona Republic and Arizona Daily Star (November 30, 2014)
- Kansas City Star (December 7, 2014)
- The Times-Picayune (December 7, 2014)
- New York Times (December 14, 2014)

Copies of the newspaper notices are included in **Attachment B**.

Scoping Meetings

FirstNet held seven in-person scoping meetings throughout the nation. These meetings provided the general public and interested stakeholders opportunities to learn about the Proposed Action, talk directly with FirstNet environmental staff, and provide input regarding the scope of the analysis and alternatives. Organized as informal gatherings, the scoping meetings provided the public with an opportunity to learn about FirstNet, alternative ways to implement the NPSBN that will be analyzed in the PEISs, and the overall NEPA process. The meetings also provided the public with the opportunity to give comments and input to the FirstNet team. FirstNet held scoping meetings at the following locations:

- *Washington, D.C.* - Tuesday, November 25, 2014; 4-8 p.m.
  Department of Commerce lobby, 1401 Constitution Avenue NW, Washington, DC 20230
- *Honolulu, HI* - Tuesday, December 2, 2014; 4-8 p.m.
  Neal Blaisdell Center, 777 Ward Avenue, Honolulu, HI 96814
- *San Francisco, CA* - Thursday, December 4, 2014; 4-8 p.m.
  Holiday Inn Civic Center, 50 Eighth Street, San Francisco, CA 94103
- *Tucson, AZ* - Thursday, December 4, 2014; 4-8 p.m.
  Embassy Suites – Williams Center, 5335 E. Broadway Boulevard, Tucson, AZ 85711

- *Kansas City, MO* - Tuesday, December 9, 2014; 4-8 p.m.
  Kansas City University of Medicine and Biosciences, Classroom Annex Building, Classroom A, 1750 East Independence Avenue, Kansas City, MO 64106
- *New Orleans, LA* - Thursday, December 11, 2014; 5-9 p.m.
  Loyola University, Thomas Hall, 6363 St. Charles Avenue, New Orleans, LA 70118
- *New York, NY*- Monday, December 15, 2014; 4-8 p.m.
  New York University, Kimmel Center Grand Hall, 60 Washington Square South, New York, NY 10012

Each scoping meeting included a poster session that allowed individuals to review posters describing the Proposed Action, purpose and need, alternatives considered, geographic scope, and the NEPA process. The posters and handouts provided at the meetings are included in **Attachment C**. At each meeting, attendees could fill out a comment card and sign up for the distribution list.

Attendance lists from the meetings are included in **Attachment D** (redacted due to personal information provided). Nineteen people attended the seven scoping meetings. FirstNet received written comments from 48 individuals and organizations (one commenter submitted two comments). Table 1 provides the breakdown of comments received for each meeting and during the scoping comment period. Comments received both via U.S. Postal Service mail and electronically (email) were counted once as U.S. Postal Service.

Table 1. Summary of Scoping Period Comments Received

Comment Format	Number
Scoping Meetings	
November 25, 2014 (Washington, DC)	
Attendees	6
Written Comments	0
December 2, 2014 (Honolulu, HI)	
Attendees	0
Written Comments	0
December 4, 2014 (San Francisco, CA)	
Attendees	0
Written Comments	0
December 4, 2014 (Tucson, AZ)	
Attendees	2
Written Comments	0
December 9, 2014 (Kansas City, MO)	
Attendees	3
Written Comments	0

Comment Format	Number
December 11, 2014 (New Orleans, LA)	
Attendees	4
Written Comments	1
December 15, 2014 (New York, NY)	
Attendees	4
Written Comments	0
Email	41
U.S. Postal Service Mail	7
Written Comments	1
Total Attendees	19
Total Comments	49

Summary of Comments

The public and local agencies raised several concerns during the scoping comment period. FirstNet reviewed the comments received and grouped them by resource area or PEIS topic. Table 2 summarizes the general concerns raised during scoping.

Table 2. Summary of Comments Received during Scoping

Issues/Concerns
• Agencies to provide FirstNet with state-specific environmental compliance information and points of contact
• Agencies to provide FirstNet with contacts within their local organizations and trade organizations
• Concern that placement of towers would impact historic/recreational/ecological study use of a specific area (i.e., new tower in Tucson, AZ at/on Tumamoc Hill or in/near the historic district)

Table 3 provides a summary of the comments received from federal agencies, state agencies, and local government organizations; comments are paraphrased and condensed from the actual comments. The environmental analysis included in the PEIS will rely on the full text of the comments as submitted. Original copies of the comments received are included in **Attachment E** (redacted due to personal information). **Attachment F** provides text of comments received and FirstNet responses.

Table 3. Summary of Comments Received from Federal, State, and Local Government

Agency / Interest Group	Comment Summary
Federal Government	
U.S. Environmental Protection Agency, Region 9 (Ann McPherson)	• Notification of areas of particular concern, including impacts to water, air, biological resources, invasive species, and habitat protection • Included information regarding suggested content for particular topics and resource areas
State Government	
Virginia Department of Environmental Quality (Ellie Irons)	• Request for Federal Consistency Determination under the Coastal Zone Management Act
Virginia Department of Environmental Quality (Mark Alling)	• Water: ensure that construction best management practices will be used to avoid erosion and sedimentation; provide point of contact for wetland permits and for construction and stormwater permits • Waste: ensure that hazardous and solid waste be disposed of according to Virginia regulations; provide point of contact for hazardous and solid waste concerns
Local Government Organizations	
Orleans Parish Communications District (Catherine Cargo)	• Provide outreach to Neighborhood Empowerment Network Association (NENA), Association of Public-Safety Communications Officials (APCO), and their local chapters
Pima County, Arizona, District 5 Supervisor (Richard Elias)	• Concern that FirstNet activities may affect cultural resources in Tucson, Arizona (i.e., Tumamoc Hill)

-Page Intentionally Left Blank-

ATTACHMENT A

Notice of Intent

-Page Intentionally Left Blank-

Notices

Federal Register
Vol. 79, No. 218
Wednesday, November 12, 2014

This section of the FEDERAL REGISTER contains documents other than rules or proposed rules that are applicable to the public. Notices of hearings and investigations, committee meetings, agency decisions and rulings, delegations of authority, filing of petitions and applications and agency statements of organization and functions are examples of documents appearing in this section.

DEPARTMENT OF COMMERCE

Census Bureau

Proposed Information Collection; Comment Request; Survey of Housing Starts, Sales, and Completions

AGENCY: U.S. Census Bureau, Commerce.

ACTION: Notice.

SUMMARY: The Department of Commerce, as part of its continuing effort to reduce paperwork and respondent burden, invites the general public and other Federal agencies to take this opportunity to comment on proposed and/or continuing information collections, as required by the Paperwork Reduction Act of 1995.

DATES: To ensure consideration, written comments must be submitted on or before January 12, 2015.

ADDRESSES: Direct all written comments to Jennifer Jessup, Departmental Paperwork Clearance Officer, Department of Commerce, Room 6616, 14th and Constitution Avenue NW., Washington, DC 20230 (or via the Internet at *jjessup@doc.gov*).

FOR FURTHER INFORMATION CONTACT: Requests for additional information or copies of the information collection instrument(s) and instructions should be directed to Erica Filipek, U.S. Census Bureau, MCD, CENHQ Room 7K057, 4600 Silver Hill Road, Washington, DC 20233, telephone (301) 763–5161 (or via the Internet at *Erica.Mary.Filipek@census.gov*).

SUPPLEMENTARY INFORMATION:

I. Abstract

The U.S. Census Bureau plans to request a three-year extension of the current Office of Management and Budget (OMB) clearance of the Survey of Housing Starts, Sales and Completions, also known as the Survey of Construction (SOC). The SOC collects monthly data on new residential construction from a sample of owners or builders. The Census Bureau uses the Computer-Assisted Personal Interviewing (CAPI) electronic questionnaires SOC–QI/SF.1 and SOC–QI/MF.1 to collect data on start and completion dates of construction, physical characteristics of the structure (floor area, number of bathrooms, type of heating system, etc.), and if applicable, date of sale, sales price, and type of financing. The SOC provides widely used measures of construction activity, including the economic indicators Housing Starts and Housing Completions, which are from the New Residential Construction series, and New Residential Sales.

We sample about 1,700 new buildings each month (20,400 per year). We inquire about the progress of each building multiple times until it is completed (and a sales contract is signed, if it is a single-family house that is built for sale). For single-family buildings, we conduct an average of 8.17 interviews and for multifamily buildings, we conduct an average of 7.0 interviews. The total number of interviews conducted each year for single-family buildings is about 107,844 and for multifamily buildings is about 50,400. Each interview takes 5 minutes on average. Therefore, the total annual burden is 13,187 hours.

II. Method of Collection

The Census Bureau uses its field representatives to collect the data. The field representatives conduct interviews to obtain data.

III. Data

OMB Control Number: 0607–0110.
Form Number(s): SOC–QI/SF.1 and SOC–QI/MF.1.
Type of Review: Regular submission.
Affected Public: Individuals or households, business, or other for-profit institutions.
Estimated Number of Respondents: 20,400.
Estimated Time per Response: 5 minutes.
Estimated Total Annual Burden Hours: 13,187.
Estimated Total Annual Cost to Public: The estimated cost to the respondent is $404,841 based on an average hourly pay for the respondent of $30.70. This estimate was taken from the Department of Labor, Bureau of Labor Statistics, Occupational Employment Statistics Survey for 2013.
Respondent's Obligation: Voluntary.
Legal Authority: Title 13 U.S.C. 182.

IV. Request for Comments

Comments are invited on: (a) Whether the proposed collection of information is necessary for the proper performance of the functions of the agency, including whether the information shall have practical utility; (b) the accuracy of the agency's estimate of the burden (including hours and cost) of the proposed collection of information; (c) ways to enhance the quality, utility, and clarity of the information to be collected; and (d) ways to minimize the burden of the collection of information on respondents, including through the use of automated collection techniques or other forms of information technology.

Comments submitted in response to this notice will be summarized and/or included in the request for OMB approval of this information collection; they also will become a matter of public record.

Dated: November 6, 2014.

Glenna Mickelson,

Management Analyst, Office of the Chief Information Officer.

[FR Doc. 2014–26734 Filed 11–10–14; 8:45 am]

BILLING CODE 3510–07–P

DEPARTMENT OF COMMERCE

National Telecommunications and Information Administration

First Responder Network Authority

[Docket Number: 141104926–4926–01]

RIN 0660–XC014

Notice of Intent To Prepare Programmatic Environmental Impact Statements and Conduct Scoping for the Nationwide Public Safety Broadband Network

AGENCY: First Responder Network Authority, National Telecommunications and Information Administration, U.S. Department of Commerce.

ACTION: Notice of Intent.

SUMMARY: The First Responder Network Authority (''FirstNet'') announces its intent to prepare five regional

Programmatic Environmental Impact Statements (''PEISs'') and conduct public scoping meetings to evaluate the potential environmental impacts of the proposed nationwide public safety broadband network. The specific locations, dates, and times for the scoping meetings will be announced on the FirstNet Web site, no later than one week prior to each meeting.

DATES: The scoping period for this notice will begin on the date of publication of this notice and will end December 29, 2014. Comments to this notice must be submitted on or before December 29, 2014.

ADDRESSES: The public is invited to submit written comments to this Notice. Written comments may be submitted electronically via email to *PEIScomments@firstnet.gov* or by mail (to the address listed in **FOR FURTHER INFORMATION CONTACT**). Comments received will be made a part of the public record and may be posted to FirstNet's Web site (*www.firstnet.gov)* without change. Comments should be machine readable and should not be copy-protected. All personally identifiable information (*e.g.,* name, address) voluntarily submitted by the commenter may be publicly accessible. Do not submit confidential business information or otherwise sensitive or protected information.

FOR FURTHER INFORMATION CONTACT: Amanda Pereira, NEPA Coordinator, First Responder Network Authority, National Telecommunications and Information Administration, U.S. Department of Commerce, 12201 Sunrise Valley Drive, M/S 243, Reston, VA 20192.

SUPPLEMENTARY INFORMATION: The Middle Class Tax Relief and Job Creation Act of 2012 (Pub. L. 112–96, Title VI, 126 Stat. 256 (codified at 47 U.S.C. 1401 *et seq.*)) (the ''Act'') created and authorized FirstNet to take all actions necessary to ensure the building, deployment, and operation of an interoperable, nationwide public safety broadband network (''NPSBN'') based on a single, national network architecture. The Act meets a long-standing and critical national infrastructure need, to create a single, nationwide network that will, for the first time, allow police officers, fire fighters, emergency medical service professionals, and other public safety entities to effectively communicate with each other across agencies and jurisdictions.

The National Environmental Policy Act of 1969 (42 U.S.C. 4321–4347) (''NEPA'') requires federal agencies to undertake an assessment of environmental effects of their proposed actions prior to making a final decision and implementing the action. NEPA requirements apply to any federal project, decision, or action that may have a significant impact on the quality of the human environment. NEPA also establishes the Council on Environmental Quality (''CEQ''), which issued regulations implementing the procedural provisions of NEPA (see 40 CFR parts 1500–1508). Among other considerations, CEQ regulations at 40 CFR 1508.28 recommend the use of *tiering* from a ''broader environmental impact statement (such as a national program or policy statements) with subsequent narrower statements or environmental analysis (such as regional or basin wide statements or ultimately site-specific statements) incorporating by reference the general discussions and concentrating solely on the issues specific to the statement subsequently prepared.''

Due to the geographic scope of FirstNet (all 50 states, the District of Columbia, and five territories) and the diversity of ecosystems potentially traversed by the project, FirstNet has elected to prepare five regional PEISs. The five PEISs will be divided as follows:

East	Central	West	South	Non-contiguous
Delaware	Colorado	Arizona	Alabama	Alaska
District of Columbia	Illinois	California	Arkansas	American Samoa
Connecticut	Indiana	Idaho	Florida	CNMI
Maine	Iowa	Nevada	Georgia	Guam
Maryland	Kansas	Oregon	Kentucky	Hawaii
Massachusetts	Michigan	Washington	Louisiana	Puerto Rico
New Hampshire	Minnesota		Mississippi	U.S. Virgin Islands
New Jersey	Missouri		New Mexico	
New York	Montana		North Carolina	
Pennsylvania	Nebraska		Oklahoma	
Rhode Island	North Dakota		South Carolina	
Vermont	Ohio		Tennessee	
Virginia	South Dakota		Texas	
West Virginia	Utah			
	Wisconsin			
	Wyoming			

Once a PEIS is completed and a Record of Decision (ROD) is signed, the proposed FirstNet projects can begin to submit the site-specific environmental documentation to determine if the proposed project has been adequately evaluated in the PEIS or warrants a Categorical Exclusion, an Environmental Assessment, or an Environmental Impact Statement.

Dated: November 6, 2014.

Genevieve Walker,

Director of Environmental Compliance, First Responder Network Authority.

[FR Doc. 2014–26772 Filed 11–10–14; 8:45 am]

BILLING CODE 3510–TL–P

DEPARTMENT OF COMMERCE

National Telecommunications and Information Administration

First Responder Network Authority

Special Meeting of the First Responder Network Authority Board Finance Committee

AGENCY: First Responder Network Authority, National Telecommunications and Information

ATTACHMENT B

Newspaper Notices

-Page Intentionally Left Blank-

Made of mushrooms and wasp spit, the drone goes green

Students' plan could solve the mess made by crashing robots

BY RACHEL FELTMAN

A group of college students has created an environmentally friendly drone — think veggie leather.

Led by one of NASA's synthetic biology experts, the students made an unmanned aerial vehicle almost entirely out of biodegradable materials. After a crash, these little fliers would basically disappear.

Drones can be a great help in dealing with environmental issues, flying into protected wooded areas to count the surviving population of an endangered animal, or over remote coral reefs to assess their condition.

But sometimes they can turn into litter: If a drone goes down in a protected area, it might not be possible for anyone to retrieve the hunk of metal and plastic.

"I have colleagues who do remote sensing in sensitive areas, and there was a UAV lost for a couple months in an area you really wouldn't want to lose one in," said Lynn Rothschild of NASA's Ames Research Center.

Rothschild serves as an adviser for a team competing in the International Genetically Engineered Machine competition, and the issue of downed-drone litter seemed like a good one for her group to tackle.

"Normally I just give them free reign, but then there are 15 very bright students who all want to do 15 or 30 different things," she said. "So this year, I suggested an overall project. But they really just ran with it from there."

One of her students found a company called Ecovative Design that was growing the team's dream material: Blocks of fungal foam.

Mushrooms are made up of a structure called mycelium. It grows looking almost like a spider web when it's spread out, but it can grow to fit the confines it's placed in, eventually forming a tough chunk of foamy material. By putting mycelium into a mold filled with a tasty growing medium — like dead leaves or straw — you can create a custom-shaped mushroom block. Or in this case, a custom-shaped mushroom drone frame. A blast of heat kills the mycelium to stop its growth.

"You end up with this great material that just leftover fungal bits," Rothschild said.

To make the frame more durable, the students created a bioplastic to coat it.

You can make a kind of veggie leather using bacteria that create cellulose — the tough stuff that creates cell walls in plants. The bacterial cellulose is grown in a sheet and harvested, then wrapped around the mycelium frame. When it dries, it's tough and hard.

But the team's biohacking didn't stop there: They also harnessed the power of the insect world to keep their drone from dissolving in midair. The drone is covered in proteins cloned from paper wasp saliva, which the insects use to waterproof their nests.

For now, that's as far as the drone's biodegradability goes: It still uses a traditional rotor, battery and controls. But other researchers around the world are working on creating biodegradable versions of these components, Rothschild said. And her team is investigating the use of biological sensors, which would allow them to replace some of the sensors on the drone with bacteria.

"Eventually, I'd say that most, if not all, of the drone could be made from biological materials," she said.

Rothschild is excited about the ways the drone could be used in research on Earth, but she has bigger plans for them, too: She has already submitted a proposal to NASA to push this technology forward for Mars missions. The lightweight, unobtrusive, home-grown nature of the robots would make them perfect for use on the red planet.

More at washingtonpost.com/blogs/**speaking-of-science**

Islamic State kills tribesmen in Iraq

REUTERS

BAGHDAD — Islamic State militants have killed at least 25 members of a Sunni Muslim tribe in a village on the eastern edge of the provincial capital Ramadi, local officials said Saturday, in apparent revenge for tribal opposition to the radical Islamists.

They said the bodies of the men from the Albu Fahd tribe were discovered by the Iraqi army when it launched a counteroffensive against the Islamic State forces near the capital of Anbar province.

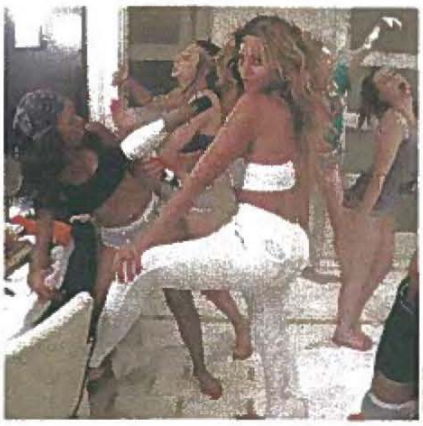
Last month, Islamic State fighters killed hundreds of members of the Albu Nimr tribe in Anbar in an attempt to break local resistance to their advances in the Sunni Muslim province they have largely controlled for nearly a year.

Islamic State, which has seized control of large parts of Syria and Iraq, continues to gain territory in Anbar despite three months of U.S.-led airstrikes.

og

omething to be
t that excuses
ıt of the way by
e did it because
-rather than first
ers the idea that
hority figures."

PIN.COM is incredulous
ate quarterback Jameis
0-17 win over Boston
ter, Winston physically
Seminoles could run a
ving the Eagles' defense
ejected from the game,
could have been.



"The video is a low-budget, no frills look at the super-silly side of the hottest woman in entertainment."

NEHA PRAKASH AT MASHABLE.COM analyzes the music video dropped late Friday by Beyonce. For "7/11," a surprise single from the singer's four-disc Platinum Edition Box Set, due out today, the DIY-esque video features Beyonce twerking, doing the Harlem Shake and wearing a "kale" sweatshirt.

"That was one of the most disrespectful headlines I have ever read."

COMMENTER DERRICFROMDC AT TMZ.COM is outraged by celebrity news website TMZ's headline announcing the death of former D.C. Mayor Marion Barry. When TMZ posted the article Sunday morning, headlined "CRACK MAYOR DEAD AT 78," it prompted outrage on social media. A petition asking TMZ to apologize for and remove the distasteful headline garnered more than 10,000 signatures by Sunday evening.

"Can I just say how much I love that every single comment here is pointing out the superiority of the single blade razor?"

COMMENTER NATHAN LOFTIES AT FACEBOOK.COM finds the main takeaway of a photo posted last week by Gillette to its Facebook page. In honor of its 110th anniversary, the men's razor maker posted an image of its 1904 patent alongside the 2014 swiveled version. Instead of commending its innovation and how far the technology has come, most users spoke of their disappointment in the product's evolution.

AFFIDAVIT OF PUBLICATION

IN THE MATTER OF
Interested in the Nationwide Public Safety Broadband Network?

STATE OF HAWAII }
} SS.
City and County of Honolulu }

Doc. Date: DEC - 1 2014 **# Pages:** 1

Notary Name: Patricia K. Reese First Judicial **Circuit**

Doc. Description: Affidavit of Publication

PATRICIA K. REESE NOTARY PUBLIC Comm. No. 86-467 STATE OF HAWAII

Notary Signature DEC - 1 2014 Date

Lisa Kaukani being duly sworn, deposes and says that she is a clerk, duly authorized to execute this affidavit of Oahu Publications, Inc. publisher of The Honolulu Star-Advertiser and MidWeek, that said newspapers are newspapers of general circulation in the State of Hawaii, and that the attached notice is true notice as was published in the aforementioned newspapers as follows:

Honolulu Star-Advertiser 1 times on:
11/30/2014

Midweek Wed. 0 times on:

_____ times on:

And that affiant is not a party to or in any way interested in the above entitled matter.

Lisa Kaukani

Subscribed to and sworn before me this 1ST day of December A.D. 2014

Patricia K. Reese, Notary Public of the First Judicial Circuit, State of Hawaii

My commission expires: Oct 07, 2018

Interested in the Nationwide Public Safety Broadband Network?

You're invited to attend a public scoping meeting to start the environmental review of the First Responder Network Authority (FirstNet) Nationwide Public Safety Broadband Network (NPSBN).

December 2, 2014 from 4-8 PM
Neal Blaisdell Center
Hawaii Suites 7 and 8 (located behind the box office)
777 Ward Avenue
Honolulu, HI 96814

Drop by any time during meeting hours to get information and give input on the scope of this programmatic environmental study. Comments accepted via mail to Ms. Amanda Pereira, NEPA Coordinator, FirstNet, 12201 Sunrise Valley Drive, M/S 243, Reston, VA 20192, or via e-mail to PEIScomments@firstnet.gov through close of business December 29, 2014. For more information, please visit www.firstnet.gov.
(SA692549 11/30/14)

PATRICIA K. REESE NOTARY PUBLIC Comm. No. 86-467 STATE OF HAWAII

Ad # 0000692549

SP.NO.: _____ L.N.

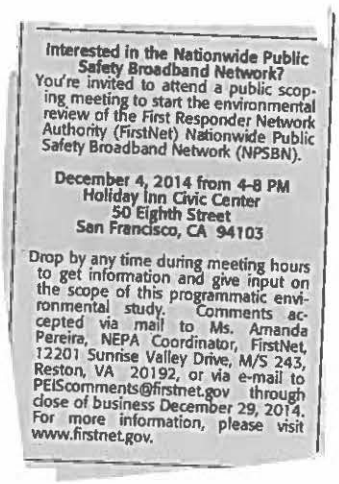
DECLARATION OF PUBLICATION OF
SAN FRANCISCO CHRONICLE

Lori Gomez

Declares that:
The annexed advertisement has been regularly published In the

SAN FRANCISCO CHRONICLE

Which is an was at all times herein mentioned established as newspaper of general circulation in the City and County of San Francisco, State of California, as the term is defined by Section 6000 of the Government Code



Interested in the Nationwide Public Safety Broadband Network?
You're invited to attend a public scoping meeting to start the environmental review of the First Responder Network Authority (FirstNet) Nationwide Public Safety Broadband Network (NPSBN).

December 4, 2014 from 4–8 PM
Holiday Inn Civic Center
50 Eighth Street
San Francisco, CA 94103

Drop by any time during meeting hours to get information and give input on the scope of this programmatic environmental study. Comments accepted via mail to Ms. Amanda Pereira, NEPA Coordinator, FirstNet, 12201 Sunrise Valley Drive, M/S 243, Reston, VA 20192, or via e-mail to PEIScomments@firstnet.gov through close of business December 29, 2014. For more information, please visit www.firstnet.gov.

SAN FRANCISCO CHRONICLE

(Name of Newspaper)

901 Mission Street

San Francisco, CA 94103

From 11/30/14

To 11/30/14

Namely on 11/30/14

(Dates of Publication)

I declare under penalty of perjury that the foregoing is true and correct.

Executed on 12/4/14

At San Francisco, California

ARIZONA DAILY STAR

Tucson, Arizona

STATE OF ARIZONA)
COUNTY OF PIMA)

Debbie Capanear, being first duly sworn deposes and says: that she is the Advertising Representative of **TNI PARTNERS,** a General Partnership organized and existing under the laws of the State of Arizona, and that it prints and publishes the Arizona Daily Star, a daily newspaper printed and published in the City of Tucson, Pima County, State of Arizona, and having a general circulation in said City, County, State and elsewhere, and that the attached ad was printed and

Legal Notice

published correctly in the entire issue of the said Arizona Daily Star on each of the following dates, to-wit:

NOVEMBER 30, 2014

Debbie Capanear

Subscribed and sworn to before me this 3 day of December, 2014

Lydia Fimbres

Notary Public

LYDIA FIMBRES
Notary Public - Arizona
Pima County
My Comm. Expires Oct 18, 2015

My commission expires

AD NO. 8316430

Interested in the Nationwide Public Safety Broadband Network?

You're invited to attend a public scoping meeting to start the environmental review of the First Responder Network Authority (FirstNet) Nationwide Public Safety Broadband Network (NPSBN).

December 4, 2014 from 4-8 PM
Embassy Suites – Williams Center
5335 E. Broadway Blvd
Tucson, AZ 85711

Drop by any time during meeting hours to get information and give input on the scope of this programmatic environmental study. Comments accepted via mail to Ms. Amanda Pereira, NEPA Coordinator, FirstNet, 12201 Sunrise Valley Drive, M/S 243, Reston, VA 20192, or via e-mail to PEIScomments@firstnet.gov through close of business December 29, 2014. For more information, please visit www.firstnet.gov.

Publish November 30, 2014 • Arizona Daily Star

Interested in the Nationwide Public Safety Broadband Network?

You're invited to attend a public scoping meeting to start the environmental review of the First Responder Network Authority (FirstNet) Nationwide Public Safety Broadband Network (NPSBN).

Kansas City University of Medicine and Biosciences

Classroom Annex Building, Classroom A
1750 East Independence Avenue
Kansas City, MO 64106

Drop by any time during meeting hours to get information and give input on the scope of this programmatic environmental study. Comments accepted via mail to Ms. Amanda Pereira, NEPA Coordinator, FirstNet, 12201 Sunrise Valley Drive, M/S 243, Reston, VA 20192, or via e-mail to PEIScomments@firstnet.gov through close of business December 29, 2014. For more information please visit www.firstnet.gov.

METRO AREA BRIEFS

Police arrest suspect in Algiers shooting death

New Orleans police have arrested the man they say fatally shot a 30-year-old man Sunday night in Algiers. Jeremie Bailey, 26, was picked up Wednesday at his mother's home in Marrero and booked with second-degree murder and aggravated battery. He is accused of killing Cornell Glover, according to police and court records. Authorities found Glover shot multiple times in the 3300 block of De Armas Street. Police credited "witness participation" with helping detective Tindell Murdock identify Bailey as the suspected shooter. Bailey appeared in court Thursday, where records show his bond was set at $650,000.

Man found fatally shot in the 7th Ward

New Orleans police are investigating the shooting death of a man Saturday morning in the 7th Ward. The incident was reported before 7:30 a.m. in the 1500 block of North Roman Street. When officers arrived, they found an unidentified man fatally shot in the grass, police said. Dozens of people gathered in the block. A young woman consumed with grief collapsed and wailed. "That can't be my husband. He promised he'd never leave me." Homicide Detective Joseph Jefferson is in charge of the investigation. Anyone with information is asked to call Crimestoppers at 504.822.1111.

Victim ID'd in shooting near Tulane and Broad

Authorities on Friday identified the victim of a fatal shooting near New Orleans police headquarters. Ronald Rudolph, 51, was shot multiple times Thursday night in the 2600 block of Gravier Street, according to the Orleans Parish Coroner's Office. Police found Rudolph around 10:20 p.m., within a block of NOPD headquarters and the Orleans Parish Criminal District Courthouse. He was taken to a hospital, where he was pronounced dead. Several yellow evidence markers dotted the sidewalk in front of Falstaff Apartments, formerly home to the Falstaff brewery, as investigators searched for clues along Gravier. A group of four people lingered outside the yellow police tape, marveling at the apparent brazenness of shooting someone so close to police headquarters. "How could you feel safe when this building has a million cameras, and police are right here?" asked one of the onlookers, who wished to remain anonymous. "How can that be safe?"

LaPlace man arrested for mailed marijuana

A LaPlace man has been jailed on a charge of receiving a pound of high-grade marijuana via the U.S. Postal Service, authorities said Friday. The marijuana was mailed from Los Angeles to a fictitious person at an Edgard address and ended up at the Edgard post office, according to the after St. John the Baptist Parish Sheriff's Offices. Deputies obtained a search warrant for the package. After 35-year-old Alan Burl collected it, they executed the warrant, found the marijuana and arrested him Thursday, the Sheriff's Office said. They estimated the marijuana's street value at $5,600. Burl was booked with possession with intent to distribute marijuana, driving on a suspended license and driving without a rear-view mirror. He remained in custody Friday in lieu of a $50,750 bond.

Pedestrians targeted in armed robberies

New Orleans police are investigating three armed robberies that occurred over a four-hour period Friday night. Around 5:14 p.m. in the 4700 block of Redwood Street, two men approached the victims, ages 14 and 15, demanding their property. The teens complied, according to NOPD's major offense report. Three hours later, two suspects in a vehicle approached a man in the 3700 block of Baronne Street, seeking cash. The 56-year-old victim gave up his money and the perpetrators fled, according to police reports. The last incident was reported at 8:59 p.m. at Leonidas and Sycamore streets. Two suspects armed with guns demanded property from two women and a man, police said. The suspects took a purse from a 17-year-old woman. Anyone with information is asked to call Crimestoppers at 504.822.1111.

Man wounded in drive-by

A 24-year-old man was wounded in a drive-by shooting on a 7th Ward street Friday night, New Orleans police said. The incident was reported at 8:49 p.m. in the 1800 block of Lapeyrouse Street. The victim said a vehicle pulled up and fired on him. He was struck in the leg and taken to a hospital by car, police said. On Saturday morning, police would return to the neighborhood after a man was found shot to death in the 1500 block of North Roman Street. Anyone with information should call Crimestoppers at 504.822.1111.

Teen accused of shooting up porch in Kenner

A teenager Friday shot up just about everything on a Kenner man's porch except for his intended victim. Bullets struck the porch, the handrail, the garbage can and even the phone that the victim was holding, police said. The assault unfolded about noon in the 400 block of Warren Street. Police said a 25-year-old man was sitting on his porch when Darren "D-Whiz" Thomas, 18, Apt. C, 850 Rev. Richard Wilson Drive, Kenner, began shooting at him. Thomas fled but was eventually found about a half mile away in the 400 block of Farrar Avenue and arrested. The victim and other witnesses identified him as the gunman, police said. They booked him with attempted second-degree murder. The gun was not found, but police said Thomas' hand tested positive for gunshot residue. They were still investigating the motive for the shooting.

Second suspect booked in Avondale burglary

The second suspect in an Avondale home burglary was identified Friday by the Jefferson Parish Sheriff's Office. Deputies are seeking Michael Smith, 35, 145 Nicole Blvd., Avondale. A Sheriff's Office spokesman said detective Steve Heggerson matched a photo of Smith to a man who had been seen leaving a Marrero pawn shop after selling property stolen in the burglary. Heggerson made the connection after the Sheriff's Office distributed an image from the pawn shop's surveillance camera, which generated tips from the public. The first suspect was previously identified as Jameron Wood, 31. Both are at large, and anyone with information on their whereabouts was asked to call Heggerson at 504.364.5300 or Crimestoppers Inc. at 504.822.1111.

Suspect nabbed blocks from store robbery

After a Kenner jewelry store was robbed Wednesday afternoon, police chased down a suspect and arrested him four blocks away. They booked Tajan McGee, 21, of Apt. A, 1717 42nd St., Kenner, with simple robbery and resisting an officer. The robbery was reported at 4:55 p.m. at Raymonds Jewelers, 4103 Williams Blvd. Police said a customer was looking at a fleur-de-lis pendant behind the counter when he jumped onto the counter, snatched the piece and ran out. Police said they found McGee running in the 3700 block of 42nd Street, chased him and arrested him.

Plaquemines drive-by strikes home, vehicle

Plaquemines Parish Sheriff's Office is investigating an early morning drive-by shooting in the 400 block of Walker Road at Belle Chasse. At least two bullets were fired into a home, and a vehicle was struck, police said. No one was injured in the shooting. It is the second drive-by shooting incident in a week in the parish. On Wednesday, an 18-year-old Buras man was booked on charges related to a drive-by shooting in Boothville that left no injuries, according to Plaquemines Sheriff Lonnie Greco. Police ask anyone with information to call Crimestoppers at 504.822.1111.

— From staff reports

Algiers street improvements officially start

Project designed for greater safety

From staff reports

Improvements to Gen. de Gaulle Drive and Newton Street are just the beginning of a plan to rehabilitate Algiers roads, officials said Thursday.

Elected officials, business leaders and residents cut the ribbon on the $3 million Paths to Progress project designed to make streets safer and add sidewalks, ramps and landscaping.

About $15 million has been spent on Algiers streets in the past two to three years. Another $90 million is being spent on Gen. de Gaulle to address chronic flooding on the community's main evacuation route, said state Sen. David Heitmeier, D-Algiers.

More construction is coming. Work will begin on MacArthur Boulevard and Sullen Street in the next few months, Heitmeier said, and efforts are underway to find money to fix Old Behrman Highway. Repairs also are planned for Somerset, Berkley and Huntlee, said Mark Jernigan, New Orleans' public works director.

"This is the beginning, far from the end," Heitmeier said. "When you're able to not have to bring your car in and get it aligned every week, it makes a difference. The streets are something that government can do."

State Rep. Jeff Arnold, D-Algiers, said the investment in infrastructure is paying off. He pointed to the newly expanded Algiers Plaza on Gen. de Gaulle and two new buildings under construction on a long-vacant tract on Gen. de Gaulle near Life Center Drive.

"It's not a coincidence that you're see economic development starting to bloom," Arnold said. "The improvements coming on Gen. de Gaulle are spurring and giving confidence to those developers to reinvest in those properties."

The Paths to Progress program is a $90 million initiative to rehabilitate 60 street segments in New Orleans and Jefferson Parish. It is sponsored by the state Department of Transportation and Development, Federal Highway Administration, Regional Planning Commission and New Orleans.

Heitmeier thanked state Transportation Secretary Sherri LeBas, Arnold and Regional Planning Commission Executive Director Walter Brooks for helping secure funding. "When you're dealing with limited resources and how to make things happen, it's real easy to say we can't do something," Heitmeier said. "Secretary LeBas figures out how we can do it. She has a can-do attitude."

In the past five years, almost $1.2 billion has been spent on infrastructure in Jefferson and Orleans, LeBas said. "The Paths to Progress is a testament of our continued commitment to this area," she said.

Gretna considers garage sale limits

Officials want them on weekends only

By Andrea Shaw
Staff writer

Complaints about garage sales lasting several days in residential neighborhoods have prompted Gretna officials to consider restricting the sales to Saturdays and Sundays.

A measure on the City Council agenda next week would limit yard sales, rummage sales and estate sales to those days from 8 a.m. until 5 p.m.

Councilman Wayne Rau said some residents called code enforcement to complain about neighbors who hold garage sales five or six days a week, which disrupt their quality of life. "We're trying to set some limits. We're trying to tighten and clean up the ordinance," he said.

Residents must still apply and pay a $25 fee for a permit, and only two permits are issued within a 12-month period, "per piece of residentially zoned property." They must be displayed prominently during set-up and the event.

The proposed amendment also prohibits items from being purchased for the purpose of resale and bans garage sale signs from public property, including utility poles.

Violation of the ordinance carries up to 60 days in jail and a $500 fine. The council meets Dec. 10 at 5:30 p.m. at City Hall, Huey P. Long Avenue and Second Street.

* * * * * * *

Andrea Shaw can be reached at ashaw@nola.com or 504.826.3780.

Plans for pharmacy on Magazine Street met with mixed reactions

Sale of alcohol opposed by some

By Richard A. Webster
Staff writer

Plans to turn a vacant store space that once housed a Blockbuster Video on Magazine Street into a CVS pharmacy have been met with opposition from nearby residents, the Uptown Messenger reports.

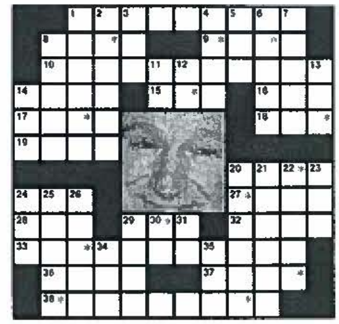
"The corner building at Louisiana Avenue and Magazine Street has sat largely vacant since the recent wave of Blockbuster Video closings, though the Subway sandwich shop and Green Tea Chinese Restaurant remain open on the Louisiana Avenue side of the building," according to the story. "Now, CVS hopes to buy the building, renovate it completely, and use the entire space for a pharmacy, said land-use attorney Michael Sherman in a meeting with neighbors Tuesday evening."

Residents say they oppose the opening of another drug store in the neighborhood because there is already a Walgreens located a few blocks away. But their main objection is to CVS's plan to sell alcohol.

"Sherman said the store would not sell any alcohol as singles for individual consumption, but neighbors said that the Walgreens down the street has thrived despite an agreement not to sell alcohol," the story reports. "If the CVS receives permission to sell alcohol, they said, the Walgreens will likely feel compelled to follow suit."

The City Planning Commission and the City Council must approve the proposal though no hearings have been scheduled.

THE TV CROSSWORD



The identity of the featured performer is found within the answers in the puzzle. To take the TV challenge, unscramble the letters in [illegible] with asterisks within the puzzle.

ACROSS
1. Role on "Person of Interest" (2)
6. Tender to the touch
9. "__ __ out?"; [illegible] question to a dog standing in the doorway
10. "Last __ __"
14. Dog in "Peter Pan"
15. Beast of burden
16. Actress on "Elementary"
17. Lawrence Olivier or Sean Connery, for short
18. Power of McCain: abbr.
19. To __ __; exactly
20. Ms. Mazar
24. Jolson and McInnard
27. Misfortunes
28. Pres. Arthur's monogram
29. Actress Peri Baker
32. Job opening
33. Actress on "Grey's Anatomy" (2)
36. [illegible]
37. Disease [illegible]
38. Actor in "[illegible]"

DOWN
1. Role on "Happy Days"
2. Decorated [illegible]
3. "__ Just Not That Into You"; 2009 movie
4. [illegible]
5. "This Is the __"; 2013 James Franco film
6. Duties
7. One of the Muppets
8. "Cel __"
11. Casual farewell
12. "__ the World Turns"
13. "[illegible] __"; 1946 [illegible] film
14. Org. for Bucks and Bulls
20. Banish, as a feeling or idea
21. "__ Queen" [illegible]
22. "The Brothers __"; 2006 Mark Ruffalo movie
23. [illegible]
24. "__ Ventura: Pet Detective"; Jim Carrey movie
25. [illegible]
26. Actor Englund [illegible] __
27. [illegible] problem
30. [illegible] initials
31. Greeting [illegible]
34. Letter from Greece
35. Store supervisor: abbr.

Robin Williams Solution

© TapOn. All rights reserved.

Hidato Sol.

12/7

		103	105	106	36	38	40	41	42		
		102	104	107	35	37	39	43	54		
100	101	97	108	109	110	34	44	45	55	53	52
99	98	96	112	111	33	32	31	46	56	49	51
123	121	120	95	113	114	30	2	57	47	48	50
122	124	119	94	115	29	28	3	1	58	59	60
125	127	93	116	117	118	24	27	4	5	6	61
126	128	129	92	22	23	25	26	13	7	64	62
88	90	91	130	21	20	16	14	12	8	65	63
89	87	134	133	131	19	17	15	11	9	68	66
84	85	86	132	79	78	18	75	10	69	70	67
	83	82	81	80	77	76	74	73	72	71	

The New York Times
620 8TH AVENUE • NEW YORK, NY 10018

WE 7

Interested in the Nationwide Public Safety Broadband Network?

You're invited to attend a public scoping meeting to start the environmental review of the First Responder Network Authority (FirstNet) Nationwide Public Safety Broadband Network (NPSBN).

December 15, 2014 from 4–8 PM
New York University
Kimmel Center, Grand Hall
60 Washington Square South
New York, NY 10012

Drop by any time during meeting hours to get information and give input on the scope of this programmatic environmental study. Comments accepted via mail to Ms. Amanda Pereira, NEPA Coordinator, FirstNet, 12201 Sunrise Valley Drive, M/S 243, Reston, VA 20192, or via e-mail to *PEIScomments@firstnet.gov* through close of business December 29, 2014. For more information, please visit *www.firstnet.gov*

5407-FEB 05

CERTIFICATION OF PUBLICATION

DEC 16 2014 20____

I, Alice Weber, in my capacity as a Principal Clerk of the Publisher of The New York Times a daily newspaper of general circulation printed and published in the City, County and State of New York, hereby certify that the advertisement annexed hereto was published in the editions of The New York Times on the following date or dates, to wit on

DEC 14 2014 20____

Alice Weber

Approved:

Maria Pannullo

THIS CERTIFICATION NOT VALID WITHOUT NYT RAISED SEAL

ATTACHMENT C

Scoping Meeting Posters and Handouts

-Page Intentionally Left Blank-

FirstNet™
U.S. DEPARTMENT OF COMMERCE

Programmatic Environmental Impact Statement

What are the Project Alternatives?

Mixed Technologies Alternative:

FirstNet intends to construct a long-term evolution (LTE) nationwide public safety broadband network (NPSBN) using a combination of the following methods:

- Collocation of the network equipment on existing towers, poles and structures, some of which would require structural hardening or reinforcement to improve disaster resistance and resiliency;
- Construction of new communication towers, poles and associated structures to include generators, equipment sheds, fencing, and concrete pads;
- Collocation on existing fiber facilities, including lighting dark fiber and installation of new fiber on existing poles and in existing conduit;
- Installation of new conduit and fiber using trenching (including vibratory plowing) or directional boring (including horizontal directional drilling);
- Deployment of satellite phones and other portable satellite technology;
- Installation of microwave facilities for cell-site backhaul communication; and
- Utilization of deployable technologies to reach rural and remote areas. Deployable technologies encompass a range of items, generally characterized as the following:
  - Cell on Wheels (COW): a cellular base station on a trailer with an expandable antenna mast and usually a microwave or satellite link back to the main controller;
  - Cell on Light Truck (COLT): a cellular base station on a light truck platform with an expandable antenna mast and usually a microwave or satellite link back to the main controller;
  - System on Wheels (SOW): a full base station and controller on a trailer/truck/big rig/etc. A SOW is a fully self-contained cellular system that can provide an island system with no need for satellite/microwave link back; applicability of this type of deployable technology may be limited if there is no internet connectivity; and,
  - Deployable Aerial Communications Architecture: Aerial vehicles, including, but not limited to, drones, weather balloons, and blimps, which would be deployed at high altitudes and are capable of providing wide-area coverage, although with relatively low capacity/throughput.

Deployable Technologies Only Alternative:

Procure, deploy, and maintain a nationwide fleet of mobile communications systems to provide temporary coverage in areas not covered by existing, usable infrastructure, as there would be no collocation of equipment or new construction. Generally, these units would be deployed at times of an incident to the affected area. These mobile communication units would be temporarily installed and may use existing satellite, microwave, or radio systems for backhaul.

No Action Alternative:

Under the No Action Alternative, the Nationwide Public Safety Broadband Network (NPSBN) would not be constructed; there would be no nationwide, coordinated system dedicated to public safety interoperable communications. The existing multiplicity of communications networks would remain in place, as would the current, known limitations and problems of existing communication networks during times of emergency or disaster. This alternative would require an act of Congress to revise the Act, which currently requires the NPSBN.

FirstNet™
U.S. DEPARTMENT OF COMMERCE

Programmatic Environmental Impact Statement

Description of the Project Area

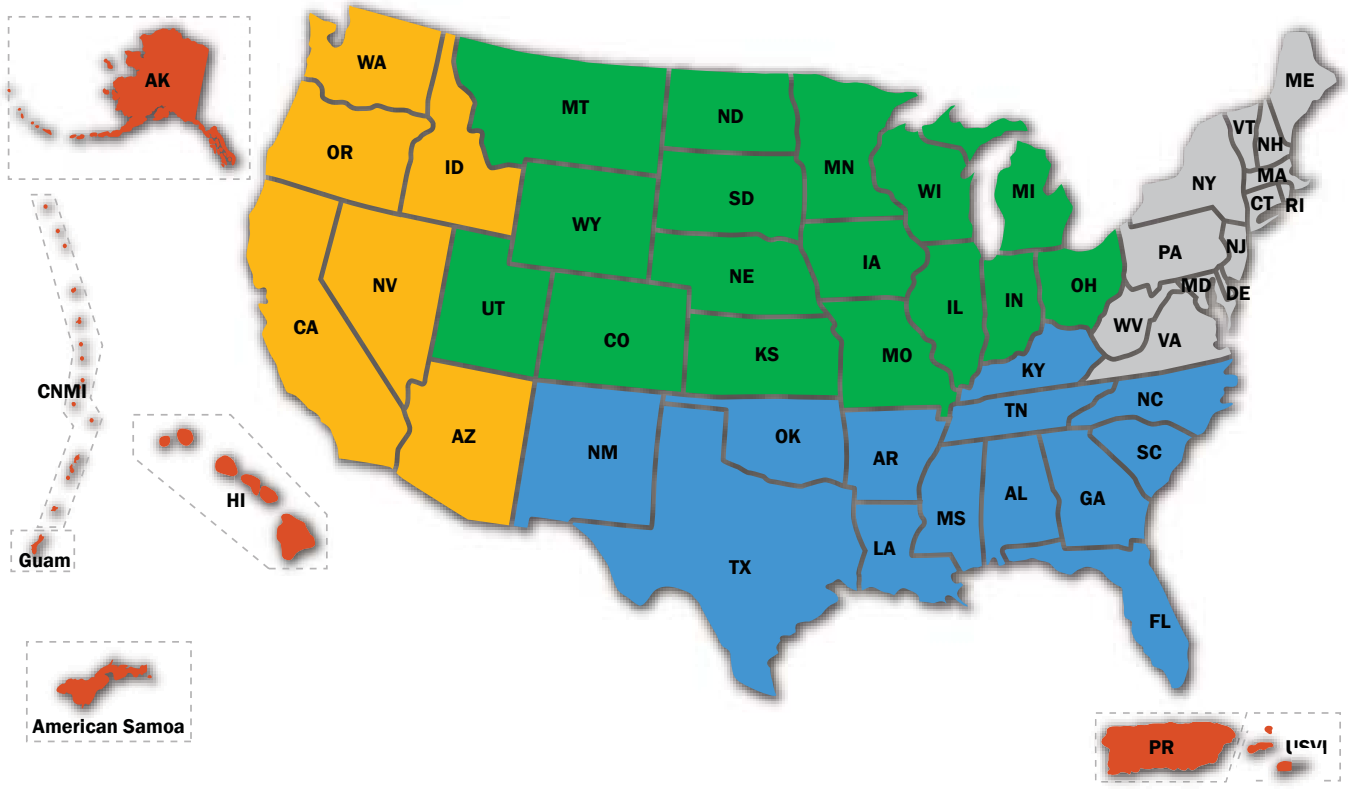
The FirstNet Programmatic Environmental Impact Statement project area would cover the geography of 50 states, 5 territories, the District of Columbia, and 566 tribal nations. Over the past 30 years, wireless operators have invested tens of billions of dollars in terrestrial networks covering over 60% of the U.S. land mass. The Nationwide Public Safety Broadband Network (NPSBN) is intended to provide nationwide service, including substantial rural milestones as part of each phase of the construction and deployment of the network.

FirstNet has determined that the design, construction, and operation of the NPSBN is a broad action with nationwide implications. This approach provides for the broadest and most extensive analysis in order to support the balancing of different considerations, including social, economic, and environmental issues. The programmatic approach creates a comprehensive analytical framework that assesses impacts expected from the NPSBN as a whole. It also supports any subsequent site-specific environmental analyses that may be required for individual actions at specific locations, once they are identified.

The programmatic approach allows FirstNet to identify and define three categories of actions: those types of actions that would not have a significant impact on the environment; those actions that would not have a significant impact if certain mitigation measures or best management practices are implemented; and those actions that will require site-specific analysis to determine the nature and extent of impacts.

The project area is divided into five regions:

- **East** – comprised of FEMA regions 1, 2, and 3 (with the exception of PR and USVI)
- **Central** – comprised of FEMA regions 5, 7, and 8
- **South** – comprised of FEMA regions 4 and 6
- **West** – comprised of FEMA regions 9 and 10 (except for AK and the Pacific Islands)
- **Non-Contiguous** – comprised of AK, HI, PR, USVI, CNMI, AS, and Guam



FirstNet™
U.S. DEPARTMENT OF COMMERCE

Programmatic Environmental Impact Statement

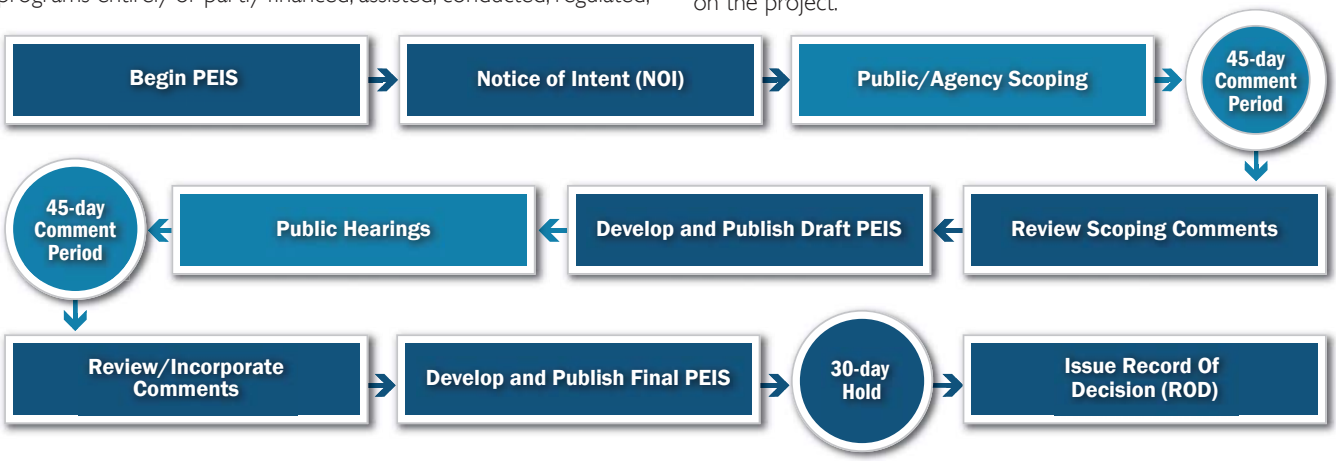
NEPA Process

The National Environmental Policy Act of 1969 (NEPA) (42 U.S.C. 4321 et seq.) provides a framework to evaluate the impact of major federal actions on the environment and allows the public the opportunity to provide input on implementation alternatives. NEPA requires federal agencies to integrate environmental values into their decision-making processes by considering the environmental impacts of their proposed actions and reasonable alternatives to those actions. NEPA also established the Council on Environmental Quality (CEQ). As part of the Executive Office of the President, CEQ coordinates federal environmental efforts and is responsible for advising the President on environmental policy matters. CEQ has also promulgated regulations implementing NEPA which are binding for all federal agencies. These regulations address the procedural provisions of NEPA and the administration of the NEPA process, including preparation of Environmental Impact Statements (EIS).

NEPA is applicable to all "major" federal actions affecting the quality of the human environment. A major federal action is an action with effects that may be major and which are potentially subject to federal control and responsibility. These actions may include new and continuing activities, including projects and programs entirely or partly financed, assisted, conducted, regulated, or approved by federal agencies; new or revised agency rules, regulations, plans, policies, or procedures; and legislative proposals. FirstNet has determined the construction, operation, and maintenance of the Nationwide Public Safety Broadband Network (NPSBN) qualifies as a major federal activity under these criteria and triggers a NEPA review.

Because of this, FirstNet is required to comply with NEPA, which requires that the government examine the environmental, social, historic, and cultural impacts of its proposed actions before it irretrievably commits resources to undertake them. Furthermore, FirstNet must comply with its own NEPA implementing procedures, which were finalized and published in the Federal Register on April 29, 2014. On November 12, 2014, FirstNet published a Notice of Intent (NOI) to prepare five coordinated Programmatic Environmental Impact Statements (PEIS) in the Federal Register. The PEISs will analyze the direct, indirect, and cumulative impacts of the alternative approaches to the construction, operation, and maintenance of the NPSBN on natural, cultural, and social resources.

The NEPA process is depicted in the diagram below. The light blue coloring indicates those opportunities for the public to comment on the project.



The PEIS process started with publication of the Notice of Intent in the Federal Register on November 12, 2014. The scoping/public comment period for this PEIS will end on December 29, 2014.

Currently, the PEIS is at the scoping phase. During the scoping phase, a wide range of partners including the public, interest groups, and agencies at all levels of government are encouraged to provide input about the project. The PEIS will incorporate and build upon the prior planning efforts, environmental studies, and public input.

All of the collected information will form the basis for a range of alternatives to implement the project and eventually the selection of a preferred alternative.

The preferred alternative will be identified in the Draft PEIS when it is made available to the public for review and comment. A 45-day public comment period with public hearings similar to the scoping meetings will be held. The Final PEIS will incorporate comments received on the Draft PEIS. After publication of the Final PEIS, FirstNet will make the decision regarding the selection of an alternative within a Record of Decision.

FirstNet™
U.S. DEPARTMENT OF COMMERCE

Programmatic Environmental Impact Statement

Public Involvement

The National Environmental Policy Act (NEPA) regulations require that a lead agency preparing an Environmental Impact Statement (EIS) is to involve the public, along with government agencies, American Indian tribes, private-sector organizations, and other interested parties in scoping (40 CFR 1501.7).

The public scoping process for the FirstNet Programmatic EIS (PEIS) began with publication of the Notice of Intent in the Federal Register on November 12, 2014. Scoping is the first phase of the NEPA analysis process and gives interested parties the chance to comment on the proposed action and to offer suggestions about the issues to be considered in the EIS analyses. Interested government agencies, American Indian tribes, private-sector organizations, and the general public are encouraged to participate in this scoping process. The scoping period will last for 45 days, ending on December 29, 2014. Written comments can be submitted either electronically or by paper copy. Information and public comments received during the Scoping Period will be reviewed for consideration in the development of each regional Draft PEIS.

To receive updates and announcements regarding the project and public involvement opportunities on this project, email ***PEIScomments@firstnet.gov***.

Public Scoping Comment Period: November 12 to December 29, 2014

Scoping Meetings

FirstNet is holding scoping meetings in the following locations to obtain comments from the public:

- Tuesday, November 25: Washington DC, 4 – 8 p.m., EST
- Tuesday, December 2: Honolulu, HI, 4 – 8 p.m., HST
- Thursday, December 4: San Francisco, CA, 4 – 8 p.m., PST
- Thursday, December 4: Tucson, AZ, 4 – 8 p.m., MST
- Tuesday, December 9: Kansas City, MO, 4 – 8 p.m., CST
- Thursday, December 11: New Orleans, LA, 5 – 9 p.m., CST
- Monday, December 15: New York, NY, 4 – 8 p.m., EST

Each scoping meeting will provide an opportunity for the public to speak with subject matter experts and FirstNet staff. The scoping meetings are an open format, allowing the public to drop in at their convenience throughout the evening. Comments can be provided to FirstNet staff with a note taker present to transcribe their comments. In addition, attendees can provide their comments in writing at the meeting.

Submitting Comments

The public is invited to submit written comments for consideration during scoping. Written comments may be submitted electronically via email to ***PEIScomments@firstnet.gov***, in person using the comment forms provided at this scoping meeting, or by mail to:

Amanda Pereira, NEPA Coordinator
FirstNet
12201 Sunrise Valley Drive, M/S 243
Reston, VA 20192

Comments received will be made a part of the public record and may be posted to the FirstNet website without change. Comments should be machine readable and should not be copy-protected. All personally *identifiable information (e.g., name, address) voluntarily submitted* ***by the commenter may be publicly accessible. Do not submit*** *confidential business information or otherwise sensitive or protected* ***information.***

How Are Scoping Comments Used?

Scoping for the Draft PEIS will provide several key elements to assist in the preparation of the document:

1. Gathering information and ideas from the public and key stakeholder groups, such as the public safety community, about the analytical issues related to the Nationwide Public Safety Broadband Network;
2. Making determinations about which issues should be analyzed; and
3. Identifying alternatives to the proposed action that should be considered for analysis.

The scoping process is ongoing and critical to informing federal agency actions, in that it begins before the PEIS analyses are initiated and continues throughout document development of the PEIS.

FirstNet™
U.S. DEPARTMENT OF COMMERCE

Programmatic Environmental Impact Statement

What is the Proposed Action?

The purpose of the proposed action is to develop a nationwide, interoperable, public safety broadband network (NPSBN). The goal of FirstNet is to provide dedicated services that are comparable to or better than those services public safety has access to today through commercial broadband wireless carriers. These applications and services are intended to enhance the ability of the public safety community to perform more reliably, effectively and safely. FirstNet's goal is that the NPSBN would also provide a backbone to allow for improved communications by carrying high-speed data, location information, images, and, eventually, streaming video. This capability is intended to increase situational awareness during an emergency and improve the ability of the public safety community to effectively engage in those critical activities.

Description of the Proposed Action

The Proposed Action would encompass the design, construction, and operation of the NPSBN by FirstNet or a partner organization(s). By statute, the network must have several characteristics, including security, resiliency, backwards compatibility with existing commercial networks, integration with public safety access point (PSAPs) or their equivalents, substantial rural coverage, it must be built to open, non-proprietary, commercially available standards, and it must use existing infrastructure to the maximum extent economically desirable.

FirstNet intends to construct a core network, comprised of all standard Evolved Packet Core elements under the 3rd Generation Partnership Project (3GPP) standards (including the Serving and Packet Data Network Gateways, Mobility Management Entity, and the Policy and Charging Rules Function), device services, location services, billing functions, and all other network elements and functions other than the Radio Access Network (RAN). FirstNet expects to construct RAN networks that would consist of all cell site equipment, antennas, and backhaul equipment and services required to enable wireless communications with devices using the public safety broadband spectrum. In addition, FirstNet must continue to maintain and improve the NPSBN to account for new and evolving technologies.

The Promise of FirstNet

WHAT IS THE FIRST RESPONDER NETWORK AUTHORITY (FIRSTNET)?

FirstNet is an independent authority within the U.S. Department of Commerce's National Telecommunications and Information Administration. FirstNet is governed by a 15-member Board consisting of the Attorney General of the United States, the Secretary of Homeland Security, the Director of the Office of Management and Budget, and 12 members appointed by the Secretary of Commerce. The FirstNet Board is composed of representatives from public safety; local, state and federal government; and the wireless industry.

Signed into law on February 22, 2012, the Middle Class Tax Relief and Job Creation Act created FirstNet. The law gives FirstNet the duty to build, operate and maintain the first high-speed, nationwide wireless broadband network dedicated to public safety entities. FirstNet will provide a single interoperable platform for public safety communications.

WHAT WILL BE POSSIBLE WITH THE FIRSTNET NETWORK?

The FirstNet network will improve citizen and responder safety and increase the efficiency and effectiveness of emergency response through cutting edge broadband communications. Imagine a day when a single communications network can be used to dispatch EMS personnel, a medical helicopter, police officers, and fire personnel from different jurisdictions all at the same time, utilizing voice, video, and data at broadband speeds.

Public safety personnel using the FirstNet network will be able to share applications, access databases, and provide better informed responses to incidents through integrated communications.

FirstNet's goal is to provide public safety-grade reliability and nationwide coverage so all public safety personnel can count on the network when they are on the job. FirstNet is also aiming to provide coverage solutions that let public safety "take the network along" to the destination in certain geographies. FirstNet will create a nationwide standard of service while affording localized customization and control.

When the FirstNet network launches, it will provide mission-critical, high-speed data services to supplement the voice capabilities of today's Land Mobile Radio (LMR) networks. Initially, the FirstNet network will be used for sending data, video, images and text. The FirstNet network will also carry location

WHY WAS FIRSTNET CREATED?

The public safety community fought hard to fulfill the 9/11 Commission's last standing recommendation and lobbied Congress to pass legislation establishing a dedicated, reliable network for advanced data communications nationwide. During emergencies, public safety personnel need priority access and preemption, which are not available on commercial networks.

HOW WILL THE FIRSTNET NETWORK BENEFIT PUBLIC SAFETY?

Using the FirstNet network will improve situational awareness, decision-making and responder and citizen health and safety. Just as smartphones have changed personal lives, FirstNet devices and applications will ultimately change the way public safety operates. FirstNet devices will work anywhere on the network and will save time when seconds matter. A market of millions of public safety users will bring savings opportunities to state and local budgets. FirstNet will bring the benefits of a single, nationwide, interoperable network that is built to open standards to public safety agencies across the country. With millions of users on a single network, FirstNet can take advantage of increased vendor competition and economies of scale to drive down the final cost to the public safety user.

WHAT WILL USERS PAY FOR FIRSTNET'S SERVICES?

FirstNet intends to offer services at a compelling and competitive cost to attract millions of public safety users and make FirstNet self-sustaining. The use of FirstNet services and applications will be voluntary. The costs for FirstNet services and devices have not yet been set.

HOW WILL STATES AND AGENCIES PARTICIPATE IN THE BUILDOUT OF FIRSTNET?

The law that established FirstNet requires it to consult with regional, state, tribal and local jurisdictions to ensure that the FirstNet network is designed to meet the needs of public safety across the country. State consultation will be a collaborative process, involving key stakeholders and leadership from each state and territory, and will be iterative to allow for enhancements and improvements from the state and territory. FirstNet will work through the designated single officer or governmental body during consultation to gather requirements from key stakeholders for developing its deployment plan. Additional information on state consultation is available at http://firstnet.gov/consultation.

FirstNet™

PROGRAMMATIC ENVIRONMENTAL IMPACT STATEMENT

Public Involvement

The public scoping process began with publication of the Notice of Intent in the Federal Register on November 12, 2014. Scoping is the first phase of the NEPA analysis process and gives interested parties the chance to comment on the proposed action and to offer suggestions about the issues to be considered in the EIS analyses. Interested government agencies, American Indian tribes, private-sector organizations, and the general public are encouraged to participate in this scoping process.

The scoping period will last for 45 days, ending on December 29, 2014. Written comments can be submitted either electronically or by paper copy. Information and public comments received during the scoping period will be reviewed for consideration in the development of each regional Draft PEIS.

Submitting Comments

The public is invited to submit written comments for consideration during scoping. Written comments may be submitted electronically via email to **PEIScomments@firstnet.gov** or by mail to:

Amanda Pereira, NEPA Coordinator
FirstNet
12201 Sunrise Valley Drive, M/S 243
Reston, VA 20192

Comments received will be made a part of the public record and may be posted to the FirstNet website without change. Comments should be machine readable and should not be copy-protected. All personally identifiable information (e.g., name, address) voluntarily submitted by the commenter may be publicly accessible. Do not submit confidential business information or otherwise sensitive or protected information.




FirstNet™
U.S. DEPARTMENT OF COMMERCE

PROGRAMMATIC ENVIRONMENTAL IMPACT STATEMENT

What is NEPA?

The National Environmental Policy Act of 1969 (NEPA) provides a framework to evaluate the impact of major Federal actions on the environment and through the PEIS process, allows the public the opportunity to provide input on implementation alternatives.

The NEPA process is depicted in the diagram below. The light blue coloring indicates those opportunities for the public to comment on the project.

The PEIS process began with publication of the Notice of Intent in the Federal Register on November 12, 2014. The scoping/public comment period for this PEIS will end on December 29, 2014.

FirstNet™
U.S. DEPARTMENT OF COMMERCE

PROGRAMMATIC ENVIRONMENTAL IMPACT STATEMENT

Description of the Project Area

The FirstNet Programmatic Environmental Impact Statement project area would cover the geography of 50 states, 5 territories, the District of Columbia, and 566 Federally recognized tribes. Over the past 30 years, wireless operators have invested tens of billions of dollars in terrestrial networks covering over 60% of the U.S. land mass. The NPSBN is intended to provide nationwide service, and it is intended to include milestones that address wilderness and rural coverage gaps.

The project area is divided into five regions:

- **East** – comprised of FEMA regions 1, 2, and 3 (with the exception of PR and USVI)
- **Central** – comprised of FEMA regions 5, 7, and 8
- **South** – comprised of FEMA regions 4 and 6
- **West** – comprised of FEMA regions 9 and 10 (except for AK and the Pacific Islands)
- **Non-Contiguous** – comprised of AK, HI, PR, USVI, CNMI, AS, and Guam

FirstNet™
U.S. DEPARTMENT OF COMMERCE

PROGRAMMATIC ENVIRONMENTAL IMPACT STATEMENT

What are the Project Alternatives?

Mixed Technologies Alternative:

Potential elements to be considered for the construction of a long-term evolution (LTE) nationwide public safety broadband network (NPSBN):

- Collocation of the network equipment on existing towers, poles and structures;
- Construction of new communication towers, poles and associated structures;
- Collocation on existing fiber facilities;
- Installation of new conduit and fiber using trenching or directional boring;
- Deployment of satellite phones and other portable satellite technology;
- Installation of microwave facilities for cell-site backhaul communication; and
- Utilization of deployable technologies to reach rural and remote areas, such as;
  - Cell on Wheels (COW)
  - Cell on Light Truck (COLT)
  - System on Wheels (SOW)
  - Deployable Aerial Communications Architecture: Aerial vehicles, including, but not limited to, drones, weather balloons, and blimps, which would be deployed at high altitudes and are capable of providing wide-area coverage, although with relatively low capacity/throughput.

Deployable Technologies Alternative:

Procure, deploy, and maintain a nationwide fleet of mobile communications systems to provide temporary coverage in areas not covered by existing, usable infrastructure, for deployment at times of an incident to the affected area. These mobile communication units would be temporarily installed and may use existing satellite, microwave, or radio systems for backhaul.

No Action Alternative:

Under the No Action, the NPSBN would not be constructed; there would be no nationwide, coordinated system dedicated to public safety interoperable communications. This alternative would require an act of Congress to revise the Act, which currently requires the NPSBN.

FirstNet™
U.S. DEPARTMENT OF COMMERCE

PROGRAMMATIC ENVIRONMENTAL IMPACT STATEMENT

What is the Proposed Action?

The proposed action is to develop a nationwide, interoperable, public safety broadband network (NPSBN) with the goal of being comparable to or better than those services public safety has access to today through commercial broadband wireless carriers. These applications and services are intended to enhance the ability of the public safety community to perform more reliably, effectively and safely.

FirstNet's goal is that the NPSBN would also provide a backbone to allow for improved communications by carrying high-speed data, location information, images, and, eventually, streaming video. This capability is intended to increase situational awareness during an emergency and improve the ability of the public safety community to effectively engage in those critical activities.

Description of the Proposed Action

The Proposed Action would encompass the design, construction, and operation of the nationwide NPSBN by FirstNet or a partner organization(s). By statute, the network must have several characteristics, including security, resiliency, backwards compatibility with existing commercial networks, integration with public safety answering points (PSAPs) or their equivalents, substantial rural coverage, it must be built to open, non-proprietary, commercially available standards, and it must use existing infrastructure to the maximum extent economically desirable.

FirstNet intends to construct a core network, comprised of all standard Evolved Packet Core elements under the 3rd Generation Partnership Project (3GPP) standards, device and location services, billing functions, and all other network elements other than the Radio Access Network (RAN). FirstNet expects to construct RAN networks that would consist of all cell site equipment, antennas, and backhaul equipment required to enable wireless communications with devices using the public safety broadband spectrum.

Finally, the Act states that FirstNet must continue to maintain and improve the NPSBN to account for new and evolving technologies.

FirstNet™
U.S. DEPARTMENT OF COMMERCE

ATTACHMENT D

Attendance Lists

REDACTED FOR PERSONAL INFORMATION

-Page Intentionally Left Blank-

ATTACHMENT E

Comments

REDACTED FOR PERSONAL INFORMATION

-Page Intentionally Left Blank-

ATTACHMENT F

Responses to Comments

-Page Intentionally Left Blank-

FirstNet Nationwide Public Safety Broadband Network
Programmatic Environmental Impact Statement
Scoping Comments

Date Rec'd	Format	Name	Organization	Topic	Comment	Response
11/18/2014	Mail	Ellie L. Irons	Commonwealth of VA - Department of Environmental Quality	RFI	Dear Ms. Pereira: This letter responds to the above Notice of Intent, which appeared in the November 12 Federal Register (Volume 79, Number 218) at pages 67156-67157 (hereinafter cited as "the Notice"). The Department of Environmental Quality ("DEQ") is responsible for coordinating Virginia's review of federal environmental documents prepared pursuant to the National Environmental Policy Act ("NEPA") and responding to appropriate federal officials on behalf of the Commonwealth. DEQ also coordinates Virginia's review of federal consistency determinations and certifications prepared pursuant to the Coastal Zone Management Act ("CZMA") and the Virginia Coastal Zone Management Program ("VCP"). DESCRIPTION OF PROPOSED ACTION According to the Notice,the First Responder Network Authority ("FirstNet") is a unit of the Department of Congress, created by the Middle Class Tax Relief and Job Creation Act of 2012 (Public Law 112-96, codified at Title 47, United States Code sections 1401 et seq.) and authorized to "take all actions necessary to ensure the building, deployment, and operation of an interoperable, nationwide public safety broadband network." The network is intended to "allow police officers, fire fighters, emergency medical service professionals, and other public safety entities to effectively communicate with each other across agencies and jurisdictions." (Notice, page 67157, center column). According to the Notice, FirstNet will prepare five regional Programmatic Environmental Impact Statements (PEISs) and conduct scoping meetings, notice of which will be given in the FirstNet" web site (http://www.firstnet.gov). Following completion of the PEISs, proponents of proposed projects will submit site-specific environmental documentation to determine whether a proposed project warrants a Categorical Exclusion, an Environmental Assessment, or an Environmental Impact Statement. The concept of tiering (see National Environmental Policy Act regulations at Title 40, Code of Federal Regulations, part 1508, section 1508.28) will be employed as FirstNet moves from the five PEISs to regional, basin-wide, or site-specific project considerations (Notice, pages 67156-67157).	Once specific projects are identified, FirstNet will work with the appropriate federal, state, and local agencies to comply with all requirements.
11/18/2014	Mail	Ellie L. Irons	Commonwealth of VA - Department of Environmental Quality	Scoping / Request for copies of DPEIS and FPEIS	ENVIRONMENTAL REVIEW UNDER THE NATIONAL ENVIRONMENTAL POLICY ACT: PROJECT SCOPING AND AGENCY INVOLVEMENT While this Office does not participate in scoping efforts beyond the advice given herein, other agencies are free to provide scoping comments concerning the preparation of the NEPA document. Accordingly, we are sharing this response to the Notice, and copies of the Notice itself, with selected state and local Virginia agencies whose responsibilities may affect, or be affected by, the plans and/or projects considered in the PEIS covering the eastern states. These agencies are likely to include the following (note: starred (*) agencies administer one or more of the enforceable policies of the Virginia Coastal Zone Management Plan; see "Federal Consistency ..." heading, next): Department of Environmental Quality: -Office of Environmental Impact Review -Northern Regional Office* -Piedmont Regional Office* -Tidewater Regional Office -Valley Regional Office -Blue Ridge Regional Office -Southwest Regional Office -Division of Air Program Coordination* -Division of Land Protection and Revitalization (formerly Waste Division) Office of Stormwater Management* Department of Conservation and Recreation Department of Health (Division of Water Programs*) Department of Game and Inland Fisheries* Virginia Marine Resources Commission* Department of Historic Resources Department of Forestry Department of Transportation Department of Mines, Minerals, and Energy Virginia State Police Department of Emergency Management. In keeping with our regular practice, we will solicit comments from regional planning district commissions and localities when EISs, EAs, or federal consistency documents (again, see next heading) are prepared for programs or projects, based on their nature and geographic impacts. In order to ensure an effective coordinated review of the PEIS, we will require at least 19 copies of it when it is published. This submission may include at least 3 printed copies and 16 CDs, or at least 3 printed copies and an electronic copy available for download at a web site or ftp site. If the PEIS addresses geographic reach or impacts of the program or projects, then it should include one or more U.S. Geological Survey topographic maps as part of its information. We recommend, as well, that project details unfamiliar to people outside FirstNet be adequately described in the PEIS.	Due to the nationwide scope of our current programmatic analysis and the considerable size of the documents, it may not be possible for FirstNet to provide hard copies of the draft and final documents to all interested parties. However, the documents will be available for download on our website to all interested parties.
11/18/2014	Mail	Ellie L. Irons	Commonwealth of VA - Department of Environmental Quality	Coastal Zone Management Act	FEDERAL CONSISTENCY UNDER THE COASTAL ZONE MANAGEMENT ACT Pursuant to the Coastal Zone Management Act of 1972, as amended, and the Federal Consistency Regulations (15 CFR Part 930), federal projects with reasonably foreseeable effects on Virginia's coastal uses or resources must be conducted in a manner which is consistent, to the maximum extent practicable, with the Virginia Coastal Zone Management Program (VCP). The VCP is comprised of a network of programs administered by several agencies. FirstNet must submit a federal consistency determination (FCD) which analyzes the coastal effects of the project in light of the enforceable policies of the VCP (first enclosure), and provides a commitment to comply with the enforceable policies. In addition, we invite FirstNet's attention to the advisory policies of the VCP (second enclosure). Requirements for the contents of FCDs are found in the Federal Consistency Regulations (15 CFR Part 930, Sub-part D, sections 930.39) and also in DEQ's Federal Consistency Information Package (available online at http://www.deq.virginia.gov/Portals/O/DEQ/EnvironmentalImpactReview/FederalConsistencyManual.7.27.1 1. pdf. The Federal Consistency Information Package defines Virginia's coastal zone, among other things. The Federal Consistency Regulations allow up to 60 days for our review of an FCD (15 CFR Part 930, Sub-part C, section 930.41(b)). The FCD may be submitted as a part of and EIS or separately, as you prefer. We recommend that the FCD for a particular project or plan be submitted with the Final EIS rather than the Draft EIS, in order that it reflect resolution of coastal issues that may arise during the comment period for the Draft EIS. In the event broadband network project proponents should seek FirstNet licensing or permitting for their projects, the Federal Consistency Regulations have slightly different requirements and time frames. Three examples of these differences will suffice here: • The federal consistency document is called a "federal consistency certification" rather than a "federal consistency determination." • Projects or plans subject to federal licensing or permitting must be consistent with the enforceable policies of the VCP; the qualifier "to the maximum extent practicable" applies only to direct federal actions. • The time frame for the state's response is 180 days, with a requirement that the state provide a progress report in 90 days and an explanation of the reason for further delay in the response. The Federal Consistency Regulations address federal licensing and permitting in Sub- part D (sections 930.50 through 930.66).	Once specific projects are identified, FirstNet will work with the appropriate federal, state, and local agencies to comply with all requirements.

FirstNet Nationwide Public Safety Broadband Network
Programmatic Environmental Impact Statement
Scoping Comments

Date Rec'd	Format	Name	Organization	Topic	Comment	Response
11/18/2014	Mail	Ellie L. Irons	Commonwealth of VA - Department of Environmental Quality	Information on existing environment	DATABASE LIST Below is a list of databases that may assist you in the preparation of the NEPA document: • DEQ Online Database: Virginia Environmental Geographic Information Systems Information on Permitted Solid Waste Management Facilities, Impaired Waters, Petroleum Releases, Registered Petroleum Facilities, Permitted Discharge (Virginia Pollution Discharge Elimination System Permits) Facilities, Resource Conservation and Recovery Act (RCRA) Sites, Water Monitoring Stations, National Wetlands Inventory www.deq.virginia.gov/ConnectWithDEQNEGIS.aspx • DEQ Virginia Coastal Geospatial and Educational Mapping System (GEMS) Virginia's coastal resource data and maps; coastal laws and policies; facts on coastal resource values; and direct links to collaborating agencies responsible for current data http://128.172.160.131/gems2/ • DEQ Permit Expert Helps determine if a DEQ permit is necessary www.deq.virgi nia.gov/permitexpert/ • OHR Data Sharing System Survey records in the OHR inventory www.dhr.virginia.gov/archives/datasharingsys.htm • OCR Natural Heritage Search Produces lists of resources that occur in specific counties, watersheds or physiographic regions www.dcr.virgi nia.gov/naturalheritage/dbsearchtool.shtml • DGIF Fish and Wildlife Information Service Information about Virginia's Wildlife resources http://vafwis.org/fwis/ • Environmental Protection Agency (EPA) Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS) Database: Superfund Information Systems Information on hazardous waste sites, potentially hazardous waste sites and remedial activities across the nation, including sites that are on the National Priorities List (NPL) or being considered for the NPL www.epa.gov/superfund/sites/cursites/index.htm • EPA RCRAInfo Search Information on hazardous waste facilities www.epa.gov/enviro/facts/rcrainfo/search.html • EPA Envirofacts Database EPA Environmental Information, including EPA-Regulated Facilities and Toxics Release Inventory Reports www.epa.gov/enviro/index.html • EPA NEPAssist Database Facilitates the environmental review process and project planning http: //nepaassisttool.epa.gov/nepassist/entry. aspx If you have questions about the environmental review process and/or the federal consistency review process, please feel free to contact me (telephone (804) 698-4325 or e-mail ellie.irons@deq.virgi nia.gov) or John Fisher of this Office (telephone (804)698-4339 or e-mail john.fisher@deq. virginia.gov). I hope this information is helpful to you. Ellie L. Irons, Program Manager Environmental Impact Review	Thank you for your comment.
12/2/2014	Mail	Mark Alling	Commonwealth of VA - Department of Environmental Quality	Water Resources	Dear Ms. Pereira: I have reviewed the Scoping for the above referenced project proposed by the National Telecommunications and Information Administration to prepare five regional Programmatic Environmental Impact Statements and conduct scoping meetings. FirstNet intends to build, deploy and operate an interoperable, nationwide public safety broadband network based on a single national network which will allow police, fire emergency medical and other professionals and entities to effectively communicate with each other across agencies and jurisdictions. PRO comments for this project are as follows: Water: Where building and deployment cross or impact surface and groundwater features, erosion and sediment controls should be properly implemented and maintained throughout all phases of construction. E & S controls and Best Management Practices (BMPs) should be inspected/repaired before and after rain events. Please follow all standards and specifications under the Virginia DCR Erosion & Sediment Controls Handbook (1992, 3rd Edition). DEQ recommends maximizing pervious surface areas and green spaces in the construction design to reduce runoff and the environmental impact associated with urban runoff. Please contact Allison Dunaway at (804) 527-5086 for questions dealing with permitting of construction in and near wetlands. Please contact Emilee Adamson at (804) 527-5072 for questions dealing with construction or industrial stormwater permitting.	Once specific projects are identified, FirstNet will work with the appropriate federal, state, and local agencies to comply with all requirements.
12/2/2014	Mail	Mark Alling	Commonwealth of VA - Department of Environmental Quality	Waste	Waste: Hazardous or solid waste materials generated should be tested and removed in accordance with the Virginia Hazardous Waste Management Regulations (9 VAC 20-60) and/or the Virginia Solid Waste Management Regulations (9 VAC 20-80). Please understand that it is the generator's responsibility to determine if a solid waste meets the criteria of a hazardous waste and as a result be managed as such. In addition, asbestos waste, lead waste, or contaminated residues generated must be handled and disposed of in accordance with the VSWMR or VHWMR as applicable. DEQ recommends that pollution prevention principles be implemented to reduce the amount of wastes at the source, such as the re-use and recycling of waste materials. If you have any questions concerning hazardous/solid waste management, please contact Jason Miller at (804)527-5028.	Once specific projects are identified, FirstNet will work with the appropriate federal, state, and local agencies to comply with all requirements.
12/2/2014	Mail	Mark Alling	Commonwealth of VA - Department of Environmental Quality	Air	Air: DEQ recommends following all air quality standard and specifications to reduce or avoid the emissions of VOCs, especially during periods of high ozone. Fugitive dust should be kept to a minimum, (9 VAC 5-40-5630 et seq). Permits may be required for any boilers or fuel-burning equipment. For further questions, please contact James Kyle at (804) 527-5047. Sincerely, Mark S. Alling Water Monitoring and Planning Manager	Once specific projects are identified, FirstNet will work with the appropriate federal, state, and local agencies to comply with all requirements.
12/11/2014	Meeting (New Orleans)	Catherine Cargo	Orleans Parish Communications District (OPCD)	FirstNet outreach	Work on outreach to NENA APCO and their local chapters.	FirstNet will continue to provide information regarding the NEPA process to our stakeholders and provide opportunities for all interested parties to provide inut during the release of the draft and final PEISs.
12/11/2014	Mail and Email	Ronald P. Spark, M.D.	Public	Biological Resources	Ms. Pereira: For over a decade I've been one of the hundreds of Tucsonans who dally walk Tucson's Tumamoc Hill. Sited in the midst of Downtown, this volcanic outcropping and Sonoran desert respite affords both the layman and the scientist the engagement and delight in a more than 100 years of reclaimed natural setting. In particular, I'm continually amazed when observing the broadly diverse and robust desert plants and animal species.	Thank you for your comment.
12/11/2014	Mail and Email	Ronald P. Spark, M.D.	Public	Cultural / Historic resources	Its built structures are of a recognized historic character and the trencheras and rock art recall the place as being sacred to the indigenous and extent peoples.	Thank you for your comment.
12/11/2014	Mail and Email	Ronald P. Spark, M.D.	Public	Aesthetics / Recreational Use	As a physician, I am touched by seeing some walkers using canes, braces and, even oxygen, to ascend and absorb the meaningfulness of the Hill. The place has an innate inspiring character. I trust the National Wifi Network will ensure the Public Safety but we must not allow any footprint to lessen the intrinsic public, scientific and cultural value of Tumamoc Hill. Sincerely yours, Ronald P. Spark, M.D. Past-President, Pima County Medical Society Clinical Associate Professor, University of Arizona College of Medicine	Thank you for your comment.

Date Rec'd	Format	Name	Organization	Topic	Comment	Response
12/15/2014	Email	Michael Rosenzweig	Unviversity of Arizona	NOI	Dear Ms. Pereira, Please accept the attached pdf file as my comment on the proposed Firstnet system in Pima County, Arizona. BTW I met with four Firstnet people in Tucson at the scoping meeting. They brought professionalism and interest to it. I thought they included their contact information in the material they gave me, but I could not find it when I returned home. The first name of the leader was Genevieve and I would like very much to get in touch and thank her. Sincerely, Mike Michael I. Rosenzweig Director Tumamoc: People & Habitats Professor University of Arizona	Thank you for your comment.
12/15/2014	Email Attachment	Michael Rosenzweig	Unviversity of Arizona	Cultural / Historic resources	Because of its location in the heart of Tucson, and its prominent elevation and many straight-line radio access paths to the city, this US National Historic Landmark was selected as one of the sites for a transmission tower in the Pima County system to insure interoperability among first responders. The tower is now working as legs for numerous antennae. But its construction was an historic mistake because it greatly erodes the integrity of the NHL. As it seems likely that FirstNet's new technology will collocate by default on the Tumamoc tower, I believe FirstNet needs to learn about the NHL so that its decisions will be fully informed and not directed to such a default position for lack of background data. I add that the County of Pima & The University of Arizona agreed that as new technology was needed to replace the old on Tumamoc, the new would be deployed elsewhere and the old removed from Tumamoc Hill.	Once specific projects are identified, FirstNet will work with the appropriate federal, state, and local agencies to comply with all requirements.
12/15/2014	Email Attachment	Michael Rosenzweig	Unviversity of Arizona	Cultural / Historic resources	Ownership The Landmark has four major ownership divisions: • 350 acres of fee simple land; owner, U of A • 200 acres from the original U of A land grant • 300 acres open space; owner, Pima County • 20 acres of former landfill; owner, City of Tucson (capped with an ecologically sound, evapotranspirative layer of soil that makes it available for experiments)	Thank you for your comment.
12/15/2014	Email Attachment	Michael Rosenzweig	Unviversity of Arizona	Biological Resources	Ecology Founded as The Carnegie Desert Botanical Laboratory in 1903, it instantly became a leader in ecological research. In 1975, the US Department of the Interior designated part of it and some of its structures a US National Historical Landmark. In 1981, the State of Arizona designated the Hill an "Environmental Research Natural Area." Most of what the world knows about the physiology and ecology of Arizona's iconic saguaro cactus comes from research that began on Tumamoc Hill in 1903 and continues to this very day. In 1985, University and USGS investigators were finally able to establish the nature of the sporadic reproduction of saguaros — it had taken us 80 years! More recently, the Hill hosted the discovery that the isotope ratios of saguaro cactus spines allow us to measure, for the first time, the climate of the Sonoran Desert during the past two centuries. And in 2014, one of its saguaros provided a tissue sample that resulted in the first genome description of any cactus species in the world. Tumamoc Hill is the site of nine plant ecology study quadrats that date from 1906 and are the world's oldest permanent ecology study plots. From 2010-2012, all quadrats were resurveyed with modern optical and digital tools, given GPS coordinates and recensused. All the data of the previous century-plus were digitized, filed with the National Park Service and made publicly available via the Ecological Society of America. Beginning in 1982, long transects were established to record and understand the ecology of more than 100 species of annuals (wildflowers). We now have an unbroken and growing record of 33 generations, capable of detecting subtle variations in environmental conditions such as water regime and weather.	Thank you for your comment.
12/15/2014	Email Attachment	Michael Rosenzweig	Unviversity of Arizona	Cultural / Historic resources	Conservation In 1987, the Interior Dept added the remainder of the 680-acre scientific reservation to the landmark in recognition of the Hill's importance to conservation. In 1906, it banished its active stone quarries and excluded domestic grazers and browsers with a 5(+) mile-long fence in order to allow the desert to return to a natural state. Thus was established the world's first restoration ecology project. It is the Hill's conservation status, one of national and international historical significance, whose integrity is severely damaged by the tower.	Thank you for your comment.
12/15/2014	Email Attachment	Michael Rosenzweig	Unviversity of Arizona	Cultural / Historic resources	Archaeology For nearly half a century, research on Tumamoc Hill has produced archaeological knowledge about the people who farmed in Tucson starting thousands of years ago. Archaeological remains on the Hill include massive, 2300-yr old trincheras (encircling walls and terraces), more than 150 structures, an array of almost 1000 petroglyphs, and an elaborate prehistoric trail system. The Hill was the site of three successive hilltop settlements with masonry architecture. Very recent work with the isotopes in potsherds shows that, for two millennia or more, Native Americans have been gathering together on the Hill from all around the Tucson basin. In 2010, the US Department of the Interior designated the land and its remains, The Tumamoc Hill Archaeological District of the United States of America. The present communications tower and its associated structures sit on the mesa top where much of the most charismatic ruins are located. Archaeologists must quickly rebury any new excavation to protect it. Any hope of creating an educational experience for visitors is thwarted.	Thank you for your comment.
12/15/2014	Email Attachment	Michael Rosenzweig	Unviversity of Arizona	Cultural / Historic resources	Significance to Native American Cultures Tumamoc Hill is a centerpiece of the history of the ancestors of Arizona's O'odham, including the Tohono O'odham Nation, the Ak Chin Indian Community, the Gila River Indian Community, and the Salt River (Pima-Maricopa) Indian Community. The Hill is sacred to all of them. The same is true of the Hopi Nation, and the Pasqua Yaqui, too. Both the University of Arizona and Pima County respect the sensitivity and traditions of native people regarding Tumamoc Hill. The university and the Nations agreed in writing that the footprint of western culture on the Hill would not be increased. When their permission was sought by the county to erect the current tower, they consented only because they were told it was necessary to save lives. Absent that consideration, they would surely prefer to see the tower removed.	Once specific projects are identified, FirstNet will work with the appropriate federal, state, and local agencies, and federally-recognized Indian tribes, to comply with all requirements.
12/15/2014	Email Attachment	Michael Rosenzweig	University of Arizona	Aesthetics / Recreational Use	Walking the Hill Each week, thousands of people wend their way along the Tumamoc Hill Road, ascending 800 feet to its mesa top. Without promotion or marketing, "Walking the Hill" has become a Tucson institution woven into the fabric of the community, uniting people from every socio-economic group within our region. The Hill hosts approximately 300,000 to 500,000 walking trips per year. For many, their Tumamoc walk has become a daily ritual. Recently the University of Arizona College of Medicine has begun work on a research project focused on the walkers. It studies the effects of the green desert environment in the midst of an urban heat island on the allostatic load of stress, well-being and spirituality. Meanwhile, despite the crowds, the Hill has no security apparatus or personnel. Instead it relies on the honor and sound judgment of walkers to stay off the mesa top itself. But the need for good security for the FirstNet system would seem to promise tension between the need for reliable interoperability and the demand for liberal public use. Put simply, if FirstNet's needs interfere with easy access to Tumamoc by walkers, the result will be a sustained gnashing of teeth.	Thank you for your comment.
12/15/2014	Email Attachment	Michael Rosenzweig	University of Arizona	Cultural / Historic resources	SUMMARY OF IMPACTS Use of the mesa top of Tumamoc Hill for a communication tower to support interoperability in Pima County will have the following negative impacts. • It will establish, far into the future, a communication superstructure that amounts to a serious cultural, environmental and historical mistake. • It will erode the integrity of a National Historic Landmark. • It will prevent important archaeological resources from being made available to educate the public. • Either it will risk a clash between public use of the Hill for recreation, or else it will occupy an area without security. • It will frustrate the desire of six Native American nations to reduce the presence of unwelcome technical apparatus on a Hill invested with deep religious significance. Michael Rosenzweig 15 December 2014	Once specific projects are identified, FirstNet will work with the appropriate federal, state, and local agencies, and federally-recognized Indian tribes, to comply with all requirements.

FirstNet Nationwide Public Safety Broadband Network
Programmatic Environmental Impact Statement
Scoping Comments

Date Rec'd	Format	Name	Organization	Topic	Comment	Response
12/15/2014	Email	Paul Dayton	University of California San Diego	Cultural / Historic resources	Dear Friends, this note relates to the importance of including Tumamoc Hill, in Tucson, Arizona, in FirstNet. I write to support the inclusion of this facility. As you know it has several historic buildings but its most important ongoing legacy is the science.	Once specific projects are identified, FirstNet will work with the appropriate federal, state, and local agencies, and federally-recognized Indian tribes, to comply with all requirements.
12/15/2014	Email	Paul Dayton	University of California San Diego	Biological Resources	It very much is the home of the science of desert ecology starting over 100 years ago with Carnegie support. Over the century some of the best desert ecologists in the world spent their careers there developing a unique understanding of the evolution of a desert ecosystem over the last 100 thousand years. In recent time they established unique baseline data on desert plants that span most of the century. They organization is unique and the facility priceless. I hope you can help protect it with FirstNet. Sincerely Paul Dayton	Thank you for your comment.
12/16/2014	Email	Rich Watson	Public	Cultural / Historic resources	I recently heard about the future involvement of First Net on Tumamoc Hill and am encouraged that the Federal Government is concerned about secure communications. However, on a more personal level, I am concerned about maintaining the integrity of this unique and irreplaceable historical and scientific resource. Unique, in part, because it has been guarded, researched and protected by the University of Arizona and many others for over a century. In ancient times, this was home to native people long before Europeans imagined our existence and a strong remnant of those people is still intact on the property. In addition, severe encroachment by recreational users (welcomed with sensitivity), the City of Tucson and high traffic on the perimeter causes substantial risk to this delicate property. Prior to construction of the new towers on Tumamoc, I was personally involved in discussions relating to use, impact and future maintenance. When bonds are passed, funding is available and agreement reached between multiple agencies and jurisdictions it is easy to make well intended promises. Such promises were made prior to the tower development with good intentions. History dictates that memories become short and promises are forgotten over time. In this particular case, it is my sincere hope that you take seriously your new responsibility as a joint caretaker of the history, management and protection of Tumamoc. Once damaged or destroyed, it can never be restored. Consequently, it is imperative that all who are caretakers never lose vigilance as we move into the future. Please respect the ancient people, the century of scientific study and Dr.Michael Rosensweig, who is a highly qualified and deeply invested steward of this property. Rich Watson	Once specific projects are identified, FirstNet will work with the appropriate federal, state, and local agencies, and federally-recognized Indian tribes, to comply with all requirements.
12/16/2014	Email	Russell P. Long, CRB, CLHS	Long Realty Company	Cultural / Historic resources	To Whom It May Concern, Tumamoc Hill has been a fixture in our family since the very early 1900's when our great grandfather, Burton Bovee, began working there. Long before we every visited there and as children our mother told us tales of Burton working there, riding his horse and mule all over the Tucson basin collecting samples and specimens. As adults we became aware of the cultural and historical significance of the site as a result of the approximately 3,000 year old Hohokam Indian village atop the hill as well the historic volcanic stone buildings and their current uses. Certainly Tumamoc Hill is a local and national treasure worthy of preservation. Please feel free to contact me if you would like to discuss this or have questions. Thank you. Russell P. Long, CRB, CLHS	Once specific projects are identified, FirstNet will work with the appropriate federal, state, and local agencies, and federally-recognized Indian tribes, to comply with all requirements.
12/19/2014	Email	R. Brooks Jeffrey	University of Arizona	Cultural / Historic resources	Ms. Pereira: I'm writing at the request of Dr. Michael Rosenzweig to express my advocacy on behalf of Tumamoc Hill's preservation as a rich cultural landscape. Instead of a long essay defining cultural landscapes (if you don't already know) and recognizing Tumamoc Hill's significance as a multi-layered tell of natural and cultural features, I've attached a presentation I've given many times as a vehicle to educate the various constituencies for whom Tumamoc Hill holds value. I hope this assists to inform any future decisions that may impact Tumamoc Hill. Feel free to contact me directly with any specific questions. Sincerely, Brooks R. Brooks Jeffery	Once specific projects are identified, FirstNet will work with the appropriate federal, state, and local agencies, and federally-recognized Indian tribes, to comply with all requirements.
12/20/2014	Mail	Michael Kaiserman	Public	Cultural / Historic resources	Dear Ms. Pereira, I am writing to you to encourage your organization to join forces with many other organizations that are already supporting members for the preservation of the archaeology, cultural history and ecology of Tumamoc Hill. It is my perception that the FirstNet activity would provide a beneficial service to significantly broaden the exposure Tumamoc Hill would have nationally. As I have travelled to Egypt, Greece, Turkey, Israel , Great Britain, Norway, and Mexico were I have visited many of the historical and ancient wonders, not to mention many sites here in the U.S., I believe Tumamoc Hill ranks up there with all these sites in the same historical and ancient context. I trust your organization will come to the same conclusion and move forward with plans to include Tumamoc Hill in the FirstNet activity. Thank you very much for your consideration. Michael Kaiserman Engineering Fellow, Raytheon Missile Systems (Retired)	Thank you for your comment.
12/22/2014	Email	Bruce Hilpert	Public	Cultural / Historic resources	I urge you to protect the cultural resources on the top of Tumamoc Hill in Tucson. This historic/prehistoric site has unique constructions that give insight into the prehistory of the Southwest. Further constructions endangers these resources. I urge you to limit construction on this site to areas that have been previously disturbed and allow no further destruction of these resources. Thank you, Bruce Hilpert	Thank you for your comment.
12/22/2014	Email	Charles Broder	Public	Cultural / Historic resources	Allowing first responders to communicate with each other is a very important goal. I sincerely hope that this goal will not be allowed to compromise the important cultural remnants and significance of Tumamoc Hill. It is a treasure which must be preserved.	Thank you for your comment.
12/22/2014	Email	Gayle Harrison Hartman	Public	Cultural / Historic resources	Firstnet, I don't know exactly what you are planning for Tumamoc Hill but you need to know that it is a National Historic Landmark and, as an archaeological site, is listed on the National Register of Historic Places. The hill was used by prehistoric people at least as long ago as 500 B.C. The summit is surrounded by low basalt "walls" (linear rock piles extending for many yards), and the summit itself contains dozens of prehistoric pit structures. There are also over 700 examples of prehistoric rock art on the summit and slopes of the hill. These were recently recorded and published as "Tumamoc Rock Art Revisited: With a Focus on Temporal Affiliation and Management" by Gayle Harrison Hartmann and Peter C. Boyle. The monograph was part of Arizona State Museum Archaeological Series No. 208; the entire publication was entitled New Perspectives on the Rock Art and Prehistoric Settlement Organization of Tumamoc hill, Tucson, Arizona, edited by Gayle Harrison Hartmann and Peter C. Boyle. It is extremely important that no damage be done to the basalt "walls," (trincheras in Spanish), pit house structures, rock art and other manifestations of prehistoric or historic activity on the hill. If you have not already done so, please contact Todd Pitezel at the Arizona State Museum as soon as possible. He is the archaeologist in charge of protecting the hill. pitezel@email.arizona.edu. Thank you, Gayle Harrison Hartmann	Thank you for your comment.
12/22/2014	Email	Georgia Erdmann	Arizona Site Steward	Cultural / Historic resources	Thank you for your consideration when you make decisions regarding placing a tower on Historic Tumamoc Hill. It is a great relief to know that you will use the pads that are already in existence and thus save some endangerment of this ancient site. It is such a great opportunity to work together to honor the ancient archaeology of the area. Thank you again. Respectfully, Georgia Erdmann	FirstNet does not yet have a network design, however we will work to avoid adverse impacts to sensitive resources wherever possible. Once specific projects are identified, FirstNet will work with the appropriate federal, state, and local agencies, and federally-recognized Indian tribes, to comply with all requirements.
12/22/2014	Email	Jane Levin	Public	Cultural / Historic resources	I am a volunteer archeological site steward in Pima County. I am writing to encourage you to restrict any construction on the antenna pads on Tumamoc Hill. The trincheras there are ancient and precious and need to be protected. Thank you for your consideration. Sincerely, Jane Levin	Thank you for your comment.

FirstNet Nationwide Public Safety Broadband Network
Programmatic Environmental Impact Statement
Scoping Comments

Date Rec'd	Format	Name	Organization	Topic	Comment	Response
12/22/2014	Email	Jaye S. Smith	Public	Cultural / Historic resources	Dear Ms. Pereira; As a Pima County resident and an avid archaeological enthusiast, I am extremely concerned about the proposed impact to the most important site, both historically and archaeologically, in Pima County - Tumamoc Hill. This site is extremely important for ongoing research about Hohokam Cultures, as well as immense local historical value to many of Pima County's first pioneer families, the University of Arizona, the UA School of Anthropology and the Arizona State Museum. Please help protect Tumamoc Hill by limiting the proposed construction to the existing antenna pads. I fully realize the importance of providing advanced communications for our first responders, but it is also important to protect the ancient trincheras sites and petroglyphs such as those found on Tumamoc Hill that we can never replace or restore once impacted. So many important archaeological sites in Pima County have been lost in recent years; we just can not afford to lose a treasure as important as Tumamoc Hill. As a proud member the Arizona State Museum, the Arizona Archaeological and Historical Society and Archaeology Southwest, I am committed to offer whatever help or assistance is needed to develop a plan that will provide the necessary communications structure and preserve this irreplaceable Hohokam site. Thank you for your attention; Sincerely; Jaye S. Smith	FirstNet does not yet have a network design, however we will work to avoid adverse impacts to sensitive resources wherever possible. Once specific projects are identified, FirstNet will work with the appropriate federal, state, and local agencies, and federally-recognized Indian tribes, to comply with all requirements.
12/22/2014	Email	Judith Reisman	Site Steward	Cultural / Historic resources	As an archeological site steward, I help protect a very old Hohokam site from theft and vandalism. I am in complete support of creating a first responders wifi network, but respectfully ask that any new hardware installations on Tumamoc Hill be confined to existing hardware sites so that the rest of this precious archeological site remains. It is wonderful to think of using the internet to help our first responders in disasters and emergencies. It is also wonderful that you'all are so ready to be partners in preserving the rest of the aspects of this site. Thank you, Judith Reisman, site steward	Thank you for your comment.
12/22/2014	Email	Kaitlin Meadows & Albert Lannon	Wild Heart Ranch	Cultural / Historic resources	Please limit FirstNet construction on Tucson's Tumamoc Hill to existing antenna sites so that new footprints are not created. Any new work away from already-disturbed areas will impact negatively on ancient archeological sites, sites that contain habitation and farming areas, rock art with an amazing number of solstice and equinox markers, and artifacts that continue to help archaeologists understand the ancient history of this important area. Several years ago we helped document some of those solstice markers. To stand on the top of Tumamoc Hill as the sun rose in the east and the full moon set in the west on the Winter Solstice and see the sudden light -- "sun daggers"-- on petroglyphs mark the changing of the season was a magical and humbling experience. It speaks to the knowledge, skill, and ability of those ancient people as something well worth preserving. Thank you, Kaitlin Meadows & Albert Lannon	Thank you for your comment.
12/22/2014	Email	Katherine Cerino	Arizona Archaeological and Historical Society	Cultural / Historic resources	First, I am pleased with the Firstnet efforts - this seems like a very sensible idea. The purpose of this note is to bring to your attention the importance archaeologically of Tumamoc Hill in Tucson. The Hill has already been impacted by many towers some of which are no longer in use. I would like to ensure that the development you carry out on the Hill uses the existing disturbed footprint rather than adding to it. The Hill is archaeologically unique in the Tucson Basin in that it has some of the earliest habitation sites dating to 500 BC and some of the earliest pottery in the Basin. It was later used by the Hohokam people who pecked rock art over a great deal of the hill concentrating on the top where developmental impact is greatest. In addition, there are unique prehistoric walls around the hill. It was clearly an important and sacred place in the past and if you go up there today and simply look at the spectacular 380 degree view without even considering the importance of the past it is obviously a special place. Thank you, Katherine Cerino	Thank you for your comment.
12/22/2014	Email	Lance Trask	Public	Cultural / Historic resources	Dear Sir or Madam; I applaud the government for coming up with plans to have Wi-Fi available to first responders and an agency to oversee those plans. Communication at the beginning of an event is critical and can make the difference between life and death. It is likely that antennae(s) or repeaters will be considered at a location called Tumamoc Hill. It is ideal because it has a 360 degree view of a considerable portion of Southern Arizona. It is also on the National Register and holds valuable cultural resources. Some disturbances have already occurred on Tumamoc Hill and I urge you to consider placing any equipment in areas already impacted. Access to the top of the hill is via existing roads and these roads should be adequate for transporting and installing the equipment for the proposed Wi-Fi system. Currently the top of the hill is off limits and behind locked gates, so any installed equipment will be fairly well protected. I also urge you to work closely with the archaeological community within the Tucson area as they can provide expertise and work with the agency so it's needs are met and the cultural resources are preserved for the future. Thank you very much, Lance K. Trask	FirstNet does not yet have a network design, however we will work to avoid adverse impacts to sensitive resources wherever possible. Once specific projects are identified, FirstNet will work with the appropriate federal, state, and local agencies, and federally-recognized Indian tribes, to comply with all requirements.
12/22/2014	Email	Linda Stelljes	Public	Cultural / Historic resources	As a historically and archaeologically sensitive area, I am asking that FirstNet help protect the ancient trincheras on Tumamoc Hill by restricting construction to the existing antenna pads, so our first responders can communicate while still allowing Pima County and the University of Arizona to protect this important place of the past. I am a member of Arizona State Parks Site Stewards, and we are all volunteers who devote our time and energy to preserving, monitoring and protecting historical Hohokam and other paleo-Indian sites in Arizona. Human history in the Southwest (and everywhere) is essential to understanding our ancestors and we should all be stewards of the sites that reveal clues to human civilization and how people lived in the past. What may not look important to the untrained eye can hold great significance to our understanding. Thank you for your attention on this matter. We can all work together to preserve and protect our history. Sincerely, Linda Stelljes	FirstNet does not yet have a network design, however we will work to avoid adverse impacts to sensitive resources wherever possible. Once specific projects are identified, FirstNet will work with the appropriate federal, state, and local agencies, and federally-recognized Indian tribes, to comply with all requirements.
12/22/2014	Email	Peggy Wenrick	Arizona Site Steward	Cultural / Historic resources	I understand how important the project proposed for installation on Tumamoc Hill in Tucson, Arizona is for promoting quick response in emergencies. However, I want to stress the need for careful planning and execution of the project. I am an Arizona Site Steward who regularly monitors the condition of the archeological district elements on Tumamoc. Even after many visits, I am still awed to realize that early peoples created structures and lived in this special space. I request that every effort be made to minimize the footprint of the upcoming work and strongly urge the structure(s) be confined to the antennae pads already existing. Thank you for the opportunity to comment. Peggy Wenrick	FirstNet does not yet have a network design, however we will work to avoid adverse impacts to sensitive resources wherever possible. Once specific projects are identified, FirstNet will work with the appropriate federal, state, and local agencies, and federally-recognized Indian tribes, to comply with all requirements.
12/22/2014	Email	Peter J. Baum	Public	Cultural / Historic resources	Hello Ms Pereira; Please accept my fervent plea that any Firstnet access to, and construction on, Tumamoc Hill be done with the utmost sensitivity to the petroglyphs and ruins of Tucson's first public architecture, going back over two thousand years! I've called Tucson home for fifty 50 years and worked downtown for the last 38. I've had the privilege of spending time atop the hill with extraordinary experts Paul and Suzi Fish, as well as fascinating petroglyph experts. I've sadly watched Tumamoc being "loved too much" by looters,and "loved too little" by Pima County's and the University of Arizona's budgetary stinginess. Too much irreversible damage has been done already. Please encourage Firstnet to be extraordinarly sensitive to the unique culture treasures still left on Tumamoc, minimize work to existing pads and overall trod with the lightest footprint possible. Thank you Peter J. Baum	FirstNet does not yet have a network design, however we will work to avoid adverse impacts to sensitive resources wherever possible. Once specific projects are identified, FirstNet will work with the appropriate federal, state, and local agencies, and federally-recognized Indian tribes, to comply with all requirements.
12/22/2014	Email	Robert Wenrick	Arizona Site Steward	Cultural / Historic resources	I understand how important the project proposed for installation on Tumamoc Hill in Tucson, Arizona is for promoting quick response in emergencies. However, I want to stress the need for careful planning and execution of the project. I am an Arizona Site Steward who regularly monitors the condition of the archeological district elements on Tumamoc. Even after many visits, I am still awed to realize that early peoples created structures and lived in this special space. I request that every effort be made to minimize the footprint of the upcoming work and strongly urge the structure(s) be confined to the antennae pads already existing. Thank you for the opportunity to comment. Robert Wenrick	FirstNet does not yet have a network design, however we will work to avoid adverse impacts to sensitive resources wherever possible. Once specific projects are identified, FirstNet will work with the appropriate federal, state, and local agencies, and federally-recognized Indian tribes, to comply with all requirements.

FirstNet Nationwide Public Safety Broadband Network
Programmatic Environmental Impact Statement
Scoping Comments

Date Rec'd	Format	Name	Organization	Topic	Comment	Response
12/23/2014	Email	Denise Waldo	Pima County Procurement	Cultural / Historic resources	Please help protect the ancient trincheras on Tumamoc Hill by restricting construction to the existing antenna pads, so our first responders can communicate while still allowing Pima County and the University of Arizona to protect this important place of the past. My husband & I have been involved in a volunteer program to help protect archaeology sites for years. We are lucky in Arizona to have many wonderful & important sites, Tomamoc Hill being one of them. We respectfully ask that you consider the adverse impact your project could have on this site & do all you can to help protect it. Thank you. Denise Waldo, CPPB	FirstNet does not yet have a network design, however we will work to avoid adverse impacts to sensitive resources wherever possible. Once specific projects are identified, FirstNet will work with the appropriate federal, state, and local agencies, and federally-recognized Indian tribes, to comply with all requirements.
12/23/2014	Email	Fran Maiuri	Public	Cultural / Historic resources	Dear Ms. Amanda Pereira: I am a resident of Tucson, Arizona and I am writing to ask you to minimize the impact on Tumamoc Hill in Tucson, AZ during the construction of the FirstNet communication system. This is an extremely rich Archaeological site, one of the most important in the Tucson area. There is much on the mountain that could still inform us about our early ancestors and those features and artifact should not be disturbed. I understand the value of the FirstNet communication being put in place and support the project as long as the land where current antenna pads exist is used for the work. Please do not disturb any of the rest of this site, the archaeological site and any of the natural features and environment. Let's do this work so that the area where our prehistoric ancestors lived, worked, worshipped and recreated is untouched	FirstNet does not yet have a network design, however we will work to avoid adverse impacts to sensitive resources wherever possible. Once specific projects are identified, FirstNet will work with the appropriate federal, state, and local agencies, and federally-recognized Indian tribes, to comply with all requirements.
12/23/2014	Email	Fran Maiuri	Public	Biological Resources	and where native plants, animals, insects and birds continue to enjoy this natural area within Tucson. What is disturbed cannot be brought back again and will no longer be available as natural habitat and for future research and better understanding of the past. Thank you. Sincerely, Fran Maiuri	
12/23/2014	Email	John A. Armstrong	Public	Cultural / Historic resources	Please help preserve areas of archaeological interest on Tumamoc Hill in Tucson, Arizona by limiting construction to existing antenna pads.	FirstNet does not yet have a network design, however we will work to avoid adverse impacts to sensitive resources wherever possible. Once specific projects are identified, FirstNet will work with the appropriate federal, state, and local agencies, and federally-recognized Indian tribes, to comply with all requirements.
12/23/2014	Email	Keith Bagwell	District Five Pima County Supervisor	NOI	Ms. Amanda Pereira, Please see the attached letter, submitted on behalf of District Five Pima County Supervisor Richard Elias as comments on activities FirstNet is considering with regard to Tumamoc Hill in Tucson, Arizona. The original letter will be sent to you via postal mail. Yours truly, Keith Bagwell	FirstNet does not yet have a network design, however we will work to avoid adverse impacts to sensitive resources wherever possible. Once specific projects are identified, FirstNet will work with the appropriate federal, state, and local agencies, and federally-recognized Indian tribes, to comply with all requirements.
12/23/2014	Email	M. Nichols	Public	Cultural / Historic resources	Tumamoc Hill is a critical site of an ancient inhabited area, 10,000 plus years ago, in North America. There is only one other site similar to this one, in Sonora, Mexico. It is imperative that old pads be used for the towers, protecting the areas that have not been disturbed. This site is not only a treasure for the residents of Tucson and the University of Arizona, it is a treasure on the North American Continent. Your help in protecting this site is invaluable and will become an excellent public relations tool as your company expands. Thank you for becoming partners in protecting such a unique and ancient example of early civilization in the Americas. M. Nichols	FirstNet does not yet have a network design, however we will work to avoid adverse impacts to sensitive resources wherever possible. Once specific projects are identified, FirstNet will work with the appropriate federal, state, and local agencies, and federally-recognized Indian tribes, to comply with all requirements.
12/23/2014	Mail	Richard Elias	Pima County Board of Supervisors	Cultural / Historic resources	Dear Ms. Pereira, It has come to my attention that FirstNet activities might have an impact on Tumamoc Hill,an iconic landmark that towers over the west side of the Tucson metropolitan area, in the Pima County District that I am elected to represent. Tumamoc Hill is a very special place. As a result the Pima County Board of Supervisors,upon which Iserve,bought 320 acres of land on and around the hill in 2009 to protect it from development and unsuitable uses. There are now 860 acres of land on and around the hill protected in perpetuity. This hill was inhabited by Native Americans for thousands of years,ancestors of today's Tohono O'Odham Nation members,and carries an O'Odham name, Tumamoc, which is their word for horned lizard. Remains of their residency and farming on the hill are visible and subject of substantial study.	FirstNet does not yet have a network design, however we will work to avoid adverse impacts to sensitive resources wherever possible. Once specific projects are identified, FirstNet will work with the appropriate federal, state, and local agencies, and federally-recognized Indian tribes, to comply with all requirements.
12/23/2014	Mail	Richard Elias	Pima County Board of Supervisors	Biological Resources	The Carnegie Foundation established a Desert Botanical Laboratory on Tumamoc Hill in 1903 to study scientifically the unique flora of the Sonoran Desert, and the buildings associated with it are together a National Historic Landmark. A University of Arizona operation since 1960,the laboratory has studied desert flora continuously for longer than any other facility in the world. Its records are priceless.	Once specific projects are identified, FirstNet will work with the appropriate federal, state, and local agencies, and federally-recognized Indian tribes, to comply with all requirements.
12/23/2014	Mail	Richard Elias	Pima County Board of Supervisors	Aesthetics / Recreational Use	Tumamoc' s unique shape and urban presence set it off as a unique and special sight for area residents and their visitors. The narrow, winding road up it leading to the laboratory has become a very popular exercise path for thousands of local residents. Tumamoc Hill is a special iconic feature that deserves protection and its many fragile featues require careful treatment. Sincerely Richard Elias District Five Pima County Supervisor	Thank you for your comment.
12/23/2014	Email	Sherry Massie	Public	Cultural / Historic resources	Dear Ms. Pereira, I understand that FirstNet is a federal program which will allow first responders all over the U.S. to communicate with each other, as needed, by deploying a new national Wi-Fi network using a reserved public safety broadband range. I think this is a wonderful goal for our nation, but I realize this may also impact a very important historical/archaeological site - the ancient trincheras on Tumamoc Hill in Tucson, AZ. Would you please consider restricting construction to the existing antenna pads so that as little impact as possible occurs to this historic area? Although I have lived in Tucson for 13 years, I only recently visited this site through the auspices of the Arizona Archaeological and Historical Society. I had no idea that there were trincheras there dated to 300 B.C., and that there was evidence of Hohokam settlement dating to 800 A.D. I saw some amazing rock art, as well as evidence of solar markers and alignments. It's an impressive site so close to a major urban area, and one that needs to be preserved for everyone to be able to have to same opportunity as I had to learn and enjoy part of our southwestern legacy. I hope you will be able to complete your Wi-Fi goal as well as helping preserve this important landmark. Thank you for your consideration. Sincerely yours, Sherry Massie	FirstNet does not yet have a network design, however we will work to avoid adverse impacts to sensitive resources wherever possible. Once specific projects are identified, FirstNet will work with the appropriate federal, state, and local agencies, and federally-recognized Indian tribes, to comply with all requirements.
12/24/2014	Email	Aaron D. Flesch, Ph.D.	University of Arizona	Cultural / Historic resources	Dear Ms. Amanda Pereira: It has come my attention that the activities of Firstnet may eventually affect the ecological, social, and cultural values of Tumamoc Hill. Thus, I wanted to write to you to express the value of Tumamoc so that this information can be applied when evaluating the potential impacts of any proposed Firstnet activities on or around Tumamoc. Tumamoc Hill is a National Historic Landmark, a U.S. Archaeological District, and its value to the local, regional, national, and global communities are immense.	FirstNet does not yet have a network design, however we will work to avoid adverse impacts to sensitive resources wherever possible. Once specific projects are identified, FirstNet will work with the appropriate federal, state, and local agencies, and federally-recognized Indian tribes, to comply with all requirements.

FirstNet Nationwide Public Safety Broadband Network
Programmatic Environmental Impact Statement
Scoping Comments

Date Rec'd	Format	Name	Organization	Topic	Comment	Response
12/24/2014	Email	Aaron D. Flesch, Ph.D.	University of Arizona	Biological Resources	As an ecologist that works on the Hill, and as a member of the Tucson community that walks the Hill and helps interpret its natural history and ecology to the public, I can speak specifically about Tumamoc's ecological and social values. In the first decade of the 1900s, some of our nation's first ecologists were tasked with locating a site to study desert plants and placing what would become the US' first ecological research station. At that time when the landscape was largely undeveloped and options for placing the stations nearly unlimited, they considered sites in Arizona, New Mexico, California, and the neighboring Mexican states of Sonora and Chihuahua. In the end, they chose Tumamoc for the site because of its remarkable diversity, exceptional natural qualities, and the fact that the Hill and surroundings included a large number of plant communities for study. Those facts speak to the uniqueness and incredible value of the Hill and the natural vegetation that still covers it. For the next 100 years scientists working on the Hill have made immeasurable contributions to our understanding of how the natural world is structured and how it functions, and those activities continue to this day under the leadership of Director Rosenzweig.	Thank you for your comment.
12/24/2014	Email	Aaron D. Flesch, Ph.D.	University of Arizona	Aesthetics / Recreational Use	As the surroundings around the Hill have changed over the last 100 years, the values of Tumamoc have grown. Tumamoc sees tens or perhaps hundreds of thousands of visitors each year of all ages and backgrounds. Many of those visitors live in a suburban or urban environment where they have little opportunity to experience the Sonoran Desert in its natural state and to connect with nature on deeper spiritual and aesthetic levels. Those qualities and experiences are offered by Tumamoc because of its close proximity to those populations and the accessibility the University of Arizona and the station's Director have provided. Please consider the remarkable and multifaceted values of Tumamoc Hill and the Desert Laboratory in your plans and proposals related to the Firstnet project. Feel free to contact me at the address below if I can be of help. My regards Aaron D. Flesch, Ph.D.	FirstNet does not yet have a network design, however we will work to avoid adverse impacts to sensitive resources wherever possible. Once specific projects are identified, FirstNet will work with the appropriate federal, state, and local agencies, and federally-recognized Indian tribes, to comply with all requirements.
12/24/2014	Email	Brian Metcalf	Public	Cultural / Historic resources	Ms. Amanda: I am contacting you regarding the planned update of the communications infrastructure on Tumamoc Hill for first responders. Tumamoc is almost in the heart of Tucson. It is been a protected area of biological research for over a century. contains invaluable archaeological artifacts that ere well over 2000 years old. I ask you to please protect those irreplaceable resources for future generations. Please restrict your construction activities to existing antenna pads. Thank you. Brian Metcalf	FirstNet does not yet have a network design, however we will work to avoid adverse impacts to sensitive resources wherever possible. Once specific projects are identified, FirstNet will work with the appropriate federal, state, and local agencies, and federally-recognized Indian tribes, to comply with all requirements.
12/24/2014	Mail	Courtney Rose, PhD.	Pima County Sustainability and Conservation	Cultural / Historic resources	Dear Ms. Pereira: This letter is a response to the request for comments on the proposed undertaking published in the Notice in the Federal Register (Vol. 79, No. 218). Tumamoc Hill has several important federal and state designations. Comprised of some 870 acres, it is an Archaeological District listed in the National Register of Historic Places and the Desert Laboratory was designated a National Historic Landmark in 1965. In 1976, the Desert Laboratory and Tumamoc Hill were together designated a National Environmental Study Area by the Department of Interior; and designated by the State of Arizona as a State Scientific and Educational Natural Area in 1981. Tumamoc Hill is also considered a traditional cultural property and ancestral site to local Tribes. Tumamoc Hill's peak rises to an elevation of 3,108 ft (947 m) above sea level. Located just west of downtown Tucson in T14S, R13E, Sections 9, 10, 16, and 15, the preservation of its cultural and scientific significance is of great importance to the local community and at a national level. Land ownership includes the University of Arizona on behalf of the Board of Regents, Pima County, Arizona State Land Department, and the City of Tucson. Archaeol ogical surveys of Tumamoc Hill began in the 1970s followed by subsequent limited archaeological excavations. Known as Cemamagi Do'ag in O'odham,Tumamoc Hill, archaeological site designated AZ AA:16 :6(ASM)], is known to have multiple prehistoric occupations that left behind remnants of large rock walls (trincheras) , petroglyphs, agricultural fields, pithouses, and O'odham cemeteries. A recent undertaking on Tumamoc Hill included the consolidation of wireless facilities and replacing several towers with a single communications tower (by the Pima County Wireless Integrative Network (PCWIN) project implemented in 2014). As the construction included consolidation and the dismantling unused buildings, the overall footprint was reduced . State, Federal, and Tribal consultation resulted in a determination of Adverse Effect to the Area of Potential Effect for Direct Effects and for Visual Effects to the Tumamoc Hill Archaeologi cal District. The undertaking licensed by the Federal Communications Commission (FCC) required an Environmental Assessment to fulfill requirements under the National Environmental Policy Act (NEPA) and a Memorandum of Agreement was executed to fulfill Section 106 of the National Historic Preservation Act (NHPA). Mitigation strategies included archaeological data recovery and cultural sensitivity education program in accordance with the Arizona State Historic Preservation Office and the Advisory Council on Historic Preservation .The Univers ity of Arizona Tumamoc Hill Cultural Resources Policy and Management Plan (2008) specifies tribal interests in restoring Tumamoc Hill to its former natural condition.	FirstNet does not yet have a network design, however we will work to avoid adverse impacts to sensitive resources wherever possible. Once specific projects are identified, FirstNet will work with the appropriate federal, state, and local agencies, and federally-recognized Indian tribes, to comply with all requirements.
12/24/2014	Mail	Courtney Rose, PhD.	Pima County Sustainability and Conservation	Cultural / Historic resources	In summary, Tumamoc Hill official designations include: -The Desert Laboratory (comprising 870 acres on Tumamoc Hill) was designated a National Historic Landmark in 1965, and in 1966 was listed in the National Register of Historic Places (National Register No.66000190).Active biological studies are ongoing on a portion of the hill, which was designated as a National Environmental Study area in 1976 by the U.S. Department of the Interior and designated as an Arizona State Scientific and Educational Natural Area in 1981 by the Arizona State Parks Board. -The same 870 acres comprises the Tumamoc Hill Archaeological District, which was listed in the National Register of Historic Places in 2010. -The Tohono O'odham Nation, the Hopi Tribe, the Pascua Yaqui Tribe, the Gila River Indian Community, the Ak-Chin Indian Community, and the Salt River Pima-Maricopa Indian Community consider Tumamoc Hill an ancestral site of cultural significance. -Should FirstNet propose to include Tumamoc Hill in its network planning, it is critical that the cultural, natural, and scientific significance of this site be considered and impacts to the site be avoided. Sincerily, Courtney Rose, Ph.D., Program Coordinator Pima County Office of Sustainability & Conservation Cultural Resources and Historic Preservation Division	FirstNet does not yet have a network design, however we will work to avoid adverse impacts to sensitive resources wherever possible. Once specific projects are identified, FirstNet will work with the appropriate federal, state, and local agencies, and federally-recognized Indian tribes, to comply with all requirements.
12/24/2014	Email	Courtney Rose, PhD.	Pima County Public Works Center, Office of Sustainability and Conservation	NOI	Good afternoon: Please see attached document with comments regarding Tumamoc Hill, located in Tucson, Arizona. The letter is a response to a request for comments by the First Responder Network Authority NOI to Prepare Programmatic Environmental Impact Statements and Conduct Scoping for the Nationwide Public Safety Broadband Network [Federal Register/Vol 79/No. 218]. Thank you for your consideration. Courtney Rose	Thank you for your comment.
12/26/2014	Email	Steve Long	Long Realty Company	Cultural / Historic resources	Thank you Russell! Let me know how I can help. Steve On Tue, Dec 16, 2014 at 6:36 AM, Long, Russell <longs@longrealty.com> wrote: To Whom It May Concern, Tumamoc Hill has been a fixture in our family since the very early 1900's when our great grandfather, Burton Bovee, began working there. Long before we every visited there and as children our mother told us tales of Burton working there, riding his horse and mule all over the Tucson basin collecting samples and specimens. As adults we became aware of the cultural and historical significance of the site as a result of the approximately 3,000 year old Hohokam Indian village atop the hill as well the historic volcanic stone buildings and their current uses. Certainly Tumamoc Hill is a local and national treasure worthy of preservation. Please feel free to contact me if you would like to discuss this or have questions. Thank you. Russell P. Long, CRB, CLHS	Thank you for your comment.
12/27/2014	Email	Quincy M. Kennedy	Public	Cultural / Historic resources	Thank you for offering to read our comments on the proposed communications towers on Tumamoc Hill. I study archaeology and am intimately aware of the hill's value as a cultural resource. Communication for first responders is very important, but please be careful with the cultural resources up there.	Thank you for your comment.
12/28/2014	Email	Doug Little	Public	Cultural / Historic resources	Please protect the ancient *trincheras* on Tumamoc Hill by restricting construction to the existing antenna pads, so our first responders can communicate while still allowing Pima County and the University of Arizona to protect this important place of the past.	Thank you for your comment.
12/28/2014	Email	Larry Venable	University of Arizona	Cultural / Historic resources	I am writing to explain to you the high cultural, historic and ecological value of Tumamoc, a research station of the University of Arizona in Tucson. This property is sacred to 5 southwestern native American tribes, with human constructions dating back at least 2,000 years.	Thank you for your comment.

FirstNet Nationwide Public Safety Broadband Network
Programmatic Environmental Impact Statement
Scoping Comments

Date Rec'd	Format	Name	Organization	Topic	Comment	Response
12/28/2014	Email	Larry Venable	University of Arizona	Biological Resources	Since 1903 it has been an ecological research station, first of the Carnegie Institute of Washington, now of the University of Arizona. Important work in the history of ecology was and is conducted here. Some ongoing long-term ecological projects have been running for over 100 years and the data has been recently archived at Ecological Archives, Ecological Society of America. There are over 20 ongoing ecological projects, some funded by the National Science Foundation. I invite you to please join us in preserving and enhancing this wonderful long-standing resource. Larry Venable	Thank you for your comment.
12/28/2014	Email	Marilyn Guida	Public	Cultural / Historic resources	Dear Ms Amanda Pereira, I write to urge that the FirstNet need for access to Tumamoc Hill in Tucson, Arizona will contribute to preservation of the cultural, archaeological and biological resources of the area by making use of the existing pads for the antennas, transmitters, and other equipment needed by FirstNet. This is an area of cultural significance to the Tohono O'odham Tribe from the 15th Century to modern times. It also contains evidence of occupation from the Early Agricultural Period of the indigenous people as far back as 2,000 years ago as well as the Hohokam people circa A.D. 800 (1100 years ago). This length of human occupation is highly significant and an important reason why modern construction in this area should not be expanded. The University of Arizona currently manages many currently active research projects into the cultural and biological resources of this area. This is an additional reason why expansion of present areas impacted construction should not be allowed. Perhaps most important of all is the impact to the Tohono O'odham people who have used this area for at least five centuries and continue to use it today. As the first Americans, we should respect their longstanding rights to use of Tumamoc Hill as our first priority. Thank you for considering this plea, Marilyn Guida	FirstNet does not yet have a network design, however we will work to avoid adverse impacts to sensitive resources wherever possible. Once specific projects are identified, FirstNet will work with the appropriate federal, state, and local agencies, and federally-recognized Indian tribes, to comply with all requirements.
12/28/2014	Email	Michael Rosenzweig	Unviversity of Arizona	Cultural / Historic resources	Dear Ms Pereira, I have more to add to the FirstNet scoping process. As I promised, I have tracked down and am sending a number of documents relating to Tumamoc Hill. Eight pdf files are attached. (There could have been more if there had been more time.) The files include: ** three from county documents of November 2007. One of these contains comments of US Rep Raúl M. Grijalva, as well as the strong point made by Dr. Ned Norris Jr. (Chairman of the Tohono O'odham Nation), i.e., that Tumamoc has spiritual significance to the Nation and other tribes. (By the way, Pima County, in early 2009, did buy the land mentioned in the discussions. I have a video of the auction.) ** three from The University of Arizona management plan for Tumamoc. These cover the 2007 plan of the City of Tucson, acknowledgment of the importance of the Hill to native tribes, and restrictions on lessees to prevent further degradation of the Hill. ** an excerpt from an Island Press book about restoration ecology, acknowledging that Tumamoc Hill originated this crucial part of environmental conservation. ** an excerpt from a recent newsletter of the University's Dept of Ecology & Evolutionary Biology. Thank you again for the care you have taken to learn about our area in preparation for FirstNet planning. Sincerely, Michael Rosenzweig Director, Tumamoc: People & Habitats University of Arizona Tucson	Thank you for your comment.
12/29/2014	Email Attachment	Ann McPherson	U.S. Environmental Protection Agency Region IX	NOI	Dear Ms. Pereira : The U.S. Environmental Protection Agency has reviewed the November 12, 2014 Notice of Intent to prepare Programmatic Environmental Impact Statements and Conduct Scoping for the Nationwide Public Safety Broadband Network. Our comments are provided pursuant to the National Environmental Policy Act, Council on Environmental Quality regulations (40 CFR Parts 1500-1508) and § 309 of the Clean Air Act. To assist in the scoping process for this project , we have identified several issues for your attention in the preparation of the Western regional EIS. We are most concerned about the following issues: impacts to water and air, impacts to biological resources, invasive species management , and habitat protection. We appreciate the opportunity to review this NOI and are available to discuss our comments. Please send one hard copy of the Draft PEIS and one CD ROM copy to this office at the same time it is officially filed with our Washington D.C. Office. If you have any questions, please contact me at (415) 972-3545, or contact Scott Sysum, the lead reviewer for this project. Scott can be reached at (415) 972- 3742 or sysum.scott @epa.gov.	Thank you for your comment.
12/29/2014	Email Attachment	Ann McPherson	U.S. Environmental Protection Agency Region IX	Purpose and Need	US EPA DETAILED COMMENTS ON THE NOTICE OF INTENT TO PREPARE PROGRAMMATIC ENVIRONMENTAL IMPACT STATEMENTS AND CONDUCT SCOPING FOR THE NATIONWIDE PUBLIC SAFETY BROADBAND NETWORK, DECEMBER 29, 2014 Statement of Purpose and Need The Draft Programmatic Environmental Impact Statement should clearly identify the underlying purpose and need to which the First Responder Network Authority is responding in proposing the alternatives (40 CFR 1502.13). The purpose of the proposed action is typically the specific objectives of the activity, while the need for the proposed action may be to eliminate a broader underlying problem or take advantage of an opportunity. Recommendation: The purpose and need should be a clear, objective statement of the rationale for the proposed project.	The Programmatic Environmental Impact Statements will comply with all requirements under NEPA and other relevant laws, regulations, and Executive Orders.
12/29/2014	Email Attachment	Ann McPherson	U.S. Environmental Protection Agency Region IX	Alternatives	Alternatives Analysis The National Environmental Policy Act requires evaluation of reasonable alternatives, including those that may not be within the jurisdiction of the lead agency (40 CFR Section 1502.14(c)). A robust range of alternatives will include options for avoiding significant environmental impacts. The DPEIS should provide a clear discussion of the reasons for the elimination of alternatives which are not evaluated in detail. Alternative network routes, including buried or aerial options, as well as environmentally preferable routes, should be evaluated. The DPEIS should also evaluate alternative configurations for access roads. The alternatives analysis should describe the approach used to identify the alternative routes and the criteria used to select the different routes. The environmental impacts of the proposed action and alternatives should be presented in comparative form, thus sharply defining the issues and providing a clear basis for choice among options by the decision maker and the public (40 CFR 1502.14). The potential environmental impacts of each alternative should be quantified to the greatest extent possible (e.g., acres of forest impacted, tons per year of emissions produced). Recommendations: The DPEIS should describe how each alternative was developed, how it addresses each project objective, and how it will be implemented. The DPEIS should describe the methodology and criteria used for determining the network route and alternative routes. The alternatives analysis should include a discussion of environmentally preferable options for the network, including the use of underground cables versus overhead wires; alternative configurations for access roads; and alternative methods of construction, such as using heavy lift helicopters to transport and set cell towers. The DPEIS should clearly describe the rationale used to determine whether impacts of an alternative are significant or not. Thresholds of significance should be determined by considering the context and intensity of an action and its effects (40 CFR 1508.27).	The Programmatic Environmental Impact Statements will comply with all requirements under NEPA and other relevant laws, regulations, and Executive Orders.

Date Rec'd	Format	Name	Organization	Topic	Comment	Response
12/29/2014	Email Attachment	Ann McPherson	U.S. Environmental Protection Agency Region IX	Water Resources	Water Resources Geographic Extent of Waters of the United States The project applicant should coordinate with the U.S. Army Corps of Engineers to determine if the proposed project requires a Section 404 permit under the Clean Water Act. Section 404 regulates the discharge of dredged or fill material into waters of the United States (WUS), including wetlands and other special aquatic sites. The DPEIS should describe all WUS that could be affected by the project alternatives, and include maps that clearly identify all waters within the project area. A jurisdictional delineation will confirm the presence or absence of WUS in the project area and help determine whether or not the proposed project would require a Section 404 permit. Recommendation: The DPEIS should discuss the potential that WUS could be affected and that consultation with the USACE may be required to determine if there are jurisdictional WUS present at individual project sites. Drainages, Ephemeral Washes, and Floodplains Natural washes perform a diversity of hydrologic, biochemical, and geochemical functions that directly affect the integrity and functional condition of higher-order waters downstream. Healthy ephemeral waters with characteristic plant communities control rates of sediment deposition and dissipate the energy associated with flood flows. Ephemeral washes also provide habitat for breeding, shelter, foraging, and movement of wildlife. Many plant populations are dependent on these aquatic ecosystems and adapted to their unique conditions. The potential damage that could result from disturbance of flat-bottomed washes includes alterations to the hydrological functions that natural channels provide in arid ecosystems, such as adequate capacity for flood control, energy dissipation, and sediment movement; as well as impacts to valuable habitat for desert species. Recommendations: The DPEIS should discuss the potential that individual projects may impact aquatic features that are determined not to constitute WUS, and discuss potential mitigation. The DPEIS should address the potential effects of project discharges, if any, on surface water quality.	The Programmatic Environmental Impact Statements will comply with all requirements under NEPA and other relevant laws, regulations, and Executive Orders.
12/29/2014	Email Attachment	Ann McPherson	U.S. Environmental Protection Agency Region IX	Biological Resources	Biological Resources, Habitat and Wildlife The DPEIS should identify all petitioned and listed threatened and endangered species and critical habitat that might occur within individual project areas. The document should identify and quantify which species or critical habitat might be directly, indirectly, or cumulatively affected by each alternative and mitigate impacts to these species. Emphasis should be placed on the protection and recovery of species due to their status or potential status under the federal or state Endangered Species Act. Network line rights of way are anthropogenic disturbances which alter the spatial structure of habitat elements, creating linear patches or line corridors which in turn impact ecological integrity by modifying ecological processes (abiotic & biotic) at various scales. Network line ROWs can result in habitat fragmentation and increased habitat edge effects, affecting individual species with different intensity. Recommendations: The DPEIS should discuss how the proposed action would comply with ESA requirements, including any necessary ESA Section 7 consultation efforts with the U.S. Fish and Wildlife Service. EPA recommends that FirstNet coordinate with USFWS field offices and with applicable state biological resource management agencies to ensure that current and consistent surveying, monitoring, and reporting protocols will be applied in protection and mitigation efforts. The DPEIS should describe the potential for habitat fragmentation and obstructions for wildlife movement from the construction of individual projects and other projects in the area. Discuss the need for monitoring, mitigation, and if applicable, translocation management plans for the sensitive biological resources. This could include, but is not limited to, a Bird and Bat Conservation Strategy, a Raven Monitoring, Management, and Control Plan, and Special - Status Plant Impact Avoidance and Mitigation Plan. The DPEIS should include assurances that the design of the aerial lines would be in compliance with current standards and practices that reduce the potential for raptor fatalities and injuries.	The Programmatic Environmental Impact Statements will comply with all requirements under NEPA and other relevant laws, regulations, and Executive Orders.
12/29/2014	Email Attachment	Ann McPherson	U.S. Environmental Protection Agency Region IX	Biological Resources	The EPA is also concerned about the potential impacts of construction, installation, and maintenance activities (grading, filling) on habitat. We encourage the use of alternatives that avoid and protect high value habitat and create or preserve linkages between habitat areas. We are also concerned with management of the ROW, specifically vegetation control, in order to prevent natural forest succession. ROW management is usually practiced to protect the system from windfall, contact with trees and branches, and other potential hazards. Additionally access roads are maintained in order to ensure access for maintenance and upkeep of the system components. Recommendations: , The DPEIS should describe potential impacts from construction, installation, and maintenance activities on habitat and threatened and endangered species. The DPEIS should describe the ROW vegetation management techniques to be used and potential associated environmental impacts, especially if mechanical methods or herbicides are to be used. The DPEIS should indicate the location of important wildlife habitat areas. The DPEIS should describe what measures will be taken to protect important wildlife habitat areas and to preserve linkages between them.	
12/29/2014	Email Attachment	Ann McPherson	U.S. Environmental Protection Agency Region IX	Biological Resources	Invasive Species Human actions are the primary means of invasive species introductions. The construction of network lines may cause disturbance of ROW soils and vegetation through the movement of people and vehicles along the ROW, access roads, and laydown areas. These activities can contribute to the spread of invasive species. Parts of plants, seeds, and root stocks can contaminate construction equipment and essentially "seed" invasive species wherever the vehicle travels. Invasive species infestations can also occur during periodic buried/aerial line ROW maintenance activities especially if these activities include mowing and clearing of vegetation. Once introduced, invasive species will likely spread and impact adjacent properties with the appropriate habitat. Executive Order 13112, Invasive Species (February 3, 1999), mandates that federal agencies take actions to prevent the introduction of invasive species, provide for their control, and minimize the economic, ecological, and human health impacts that invasive species cause. Executive Order 13112 also calls for the restoration of native plants and tree species. Ifthe proposed project will entail new landscaping, the DPEIS should describe how the project will meet the requirements of Executive Order 13112. In addition, we encourage alternative management practices that limit herbicide use, focusing instead on other methods to limit invasive species vegetation and decrease fire risk. Recommendations: The DPEIS should describe the invasive plant management plan used to monitor and control noxious weeds. Iftherbicides or pesticides will be used to manage vegetation, the DPEIS should disclose the projected quantities and types of chemicals. The invasive plant management plan should identify methods that can be used to limit the introduction and spread of invasive species during and post-construction. These measures can include marking and avoidance of invasive species, timing construction activities during periods that would minimize their spread, proper cleaning of equipment, and proper disposal of woody material removed from the ROW. Because construction measures may not be completely effective in controlling the introduction and spread of invasives, the DPEIS should describe post-construction activities that will be required such as surveying for invasive species following restoration of the construction site and measures that will be taken if infestations are found.	The Programmatic Environmental Impact Statements will comply with all requirements under NEPA and other relevant laws, regulations, and Executive Orders.

Date Rec'd	Format	Name	Organization	Topic	Comment	Response
12/29/2014	Email Attachment	Ann McPherson	U.S. Environmental Protection Agency Region IX	Air Quality	Air Quality The DPEIS should provide a discussion of ambient air conditions (baseline or existing conditions), National Ambient Air Quality Standards, criteria pollutant nonattainment areas, and potential air quality impacts. The DPEIS should describe and estimate air emissions from potential construction and maintenance activities, as well as proposed mitigation measures to minimize those emissions. The EPA recommends an evaluation of the following measures to reduce emissions of criteria air pollutants and hazardous air pollutants (air toxics). Recommendations: • Existing Conditions - The DPEIS should provide a detailed discussion of ambient air conditions, NAAQS, and criteria pollutant nonattainment areas in the vicinity of the project. • Quantify Emissions - The DPEIS should estimate emissions of criteria pollutants and green house gasses from the proposed individual projects and discuss the timeframe for release of these emissions over the lifespan of the projects. The DPEIS should describe and estimate emissions from potential construction activities, as well as proposed mitigation measures to minimize these emissions. • Specify Emission Sources - The DPEIS should specify the emission sources by pollutant from mobile sources, stationary sources, and ground disturbance. This source specific information should be used to identify appropriate mitigation measures and areas in need of the greatest attention. • Construction Emissions Mitigation Plan -The DPEIS should include a draft Construction Emissions Mitigation Plan and ultimately adopt this plan in the Record of Decision. In addition to all applicable local, state, or federal requirements, we recommend the following control measures (Fugitive Dust, Mobile and Stationary Source and Administrative) be included in the Construction Emissions Mitigation Plan in order to reduce impacts associated with emissions of particulate matter and other toxics from construction-related activities:	The Programmatic Environmental Impact Statements will comply with all requirements under NEPA and other relevant laws, regulations, and Executive Orders.
					o Fugitive Dust Source Controls: The DPEIS should identify the need for a Fugitive Dust Control Plan to reduce Particulate Matter 10 and Fine Particulate Matter 2.5 emissions during construction and operations. We recommend that the plan include these general commitments: • Stabilize heavily used unpaved construction roads with a non-toxic soil stabilizer or soil weighting agent that will not result in loss of vegetation, or increase other environmental impacts. • During grading, use water, as necessary, on disturbed areas in construction sites to control visible plumes. • Vehicle Speed • Limit speeds to 25 miles per hour on stabilized unpaved roads as long as such speeds do not create visible dust emissions. • Limit speeds to 10 miles per hour or less on unpaved areas within construction sites on un-stabilized (and unpaved) roads. • Post visible speed limit signs at construction site entrances. • Inspect and wash construction equipment vehicle tires, as nt?cessary, so they are free of dirt before entering paved roadways, if applicable. • Provide gravel ramps of at least 20 feet in length at tire washing/cleaning stations, and ensure construction vehicles exit construction sites through treated entrance roadways, unless an alternative route has been approved by appropriate lead agencies, if applicable. • Use sandbags or equivalent effective measures to prevent run-off to roadways in construction areas adjacent to paved roadways. Ensure consistency with the project's Storm Water Pollution Prevention Plan, if such a plan is required for the project • Sweep the first 500 feet of paved roads exiting construction sites, other unpaved roads en route from the construction site, or construction staging areas whenever dirt or runoff from construction activity is visible on paved roads, or at least twice daily (less during periods of precipitation). • Stabilize disturbed soils (after active construction activities are completed) with a non-toxic soil stabilizer, soil weighting agent, or other approved soil stabilizing method. • Cover or treat soil storage piles with appropriate dust suppressant compounds and disturbed areas that remain inactive for longer than 10 days. Provide vehicles (used to transport solid bulk material on public roadways and that have potential to cause visible emissions) with covers. Alternatively, sufficiently wet and load materials onto the trucks in a manner to provide at least one foot of freeboard. • Use wind erosion control techniques (such as windbreaks, water, chemical dust suppressants, and/or vegetation) where soils are disturbed in construction, access and maintenance routes, and materials stock pile areas. Keep related windbreaks in place until the soil is stabilized or permanently covered with vegetation.	The Programmatic Environmental Impact Statements will comply with all requirements under NEPA and other relevant laws, regulations, and Executive Orders.
					o Mobile and Stationary Source Controls: • If practicable, lease new, clean equipment meeting the most stringent of applicable Federal 1 or State Standards.2 In general, commit to the best available emissions control technology. Tier 4 engines should be used for project construction equipment to the maximum extent feasible.3 • Where Tier 4 engines are not available, use construction diesel engines with a rating of 50 hp or higher that meet, at a minimum, the Tier 3 California Emission Standards for Off-Road Compression-Ignition Engines,4 unless such engines are not available. • Where Tier 3 engine is not available for off-road equipment larger than 100 hp, use a Tier 2 engine, or an engine equipped with retrofit controls to reduce exhaust emissions of nitrogen oxides and diesel particulate matter to no more than Tier 2 levels. • Consider using electric vehicles, natural gas, biodiesel, or other alternative fuels during construction and operation phases to reduce the project's criteria and greenhouse gas emissions. • Plan construction scheduling to minimize vehicle trips. • Limit idling of heavy equipment to less than 5 minutes and verify through unscheduled inspections. • Maintain and tune engines per manufacturer's specifications to perform at EPA certification levels, prevent tampering, and conduct unscheduled inspections to ensure these measures are followed. o Administrative controls: • Develop a construction traffic and parking management plan that maintains traffic flow and plan construction to minimize vehicle trips. • Identify any sensitive receptors in the project area, such as children, elderly, and the infirm, and specify the means by which impacts to these populations will be minimized (e.g. locate construction equipment and staging zones away from sensitive receptors and building air intakes). • Include provisions for monitoring fugitive dust in the fugitive dust control plan and initiate increased mitigation measures to abate any visible dust plumes.	The Programmatic Environmental Impact Statements will comply with all requirements under NEPA and other relevant laws, regulations, and Executive Orders.
12/29/2014	Email Attachment	Ann McPherson	U.S. Environmental Protection Agency Region IX	Infrastructure	Hardening of Infrastructure We understand that FirstNet will likely utilize existing commercial infrastructure to the maximum extent possible in its deployment of the Public Safety Broadband Network. Most likely, existing cellular towers, transport backhaul and data centers will need to be hardened to meet the stringent requirements of the PSBN. Hardening typically includes back up power supply, incorporating backhaul that is not easily disrupted (microwave or satellite), and stockpiling portable sites (Cell on Light Trucks or Cell on Wheels). Some of the larger cell phone companies have been hardening their infrastructure in disaster prone areas. Recommendation: The DPEIS should discuss the need for hardening sites, the use of portable equipment and the need for redundant or alternative backhaul equipment. FirstNet should commit to using as much commercially available equipment as possible and consider using as much renewable energy sources for backup power as is economically feasible.	The Programmatic Environmental Impact Statements will comply with all requirements under NEPA and other relevant laws, regulations, and Executive Orders.
12/29/2014	Email Attachment	Ann McPherson	U.S. Environmental Protection Agency Region IX	Climate Change	Climate Change Scientific evidence supports the concern that continued increases in greenhouse gas emissions resulting from human activities will contribute to climate change. Global warming is caused by emissions of carbon dioxide and other heat-trapping gases. On December 7, 2009, the EPA determined that emissions of GHGs contribute to air pollution that "endangers public health and welfare" within the meaning of the Clean Air Act. One report indicates that observed changes in temperature, sea level, precipitation regime, fire frequency, and agricultural and ecological systems reveal .that parts of the western United States is already experiencing the measurable effects of climate change. 5 The report indicates that climate change could result in the following changes: poor air quality; more severe heat; increased wildfires; shifting vegetation; declining forest productivity; decreased spring snowpack; water shortages; a potential reduction in hydropower; a loss in winter recreation; agricultural damages from heat, pests, pathogens, and weeds; and rising sea levels resulting in shrinking beaches and increased coastal floods. Recommendation: The DPEIS should consider how climate change could potentially influence the proposed project, specifically within sensitive areas, and assess how the projected impacts could be exacerbated by climate change.	The Programmatic Environmental Impact Statements will comply with all requirements under NEPA and other relevant laws, regulations, and Executive Orders.

Date Rec'd	Format	Name	Organization	Topic	Comment	Response
12/29/2014	Email Attachment	Ann McPherson	U.S. Environmental Protection Agency Region IX	Waste	Hazardous Materials/Hazardous Waste/Solid Waste The DPEIS should address potential direct, indirect and cumulative impacts of hazardous waste from construction and operation of the proposed individual projects and facilities. The document should identify projected hazardous waste types and volumes, and expected storage, disposal, and management plans. It should address the applicability of state and federal hazardous waste requirements. Appropriate mitigation should be evaluated, including measures to minimize the generation of hazardous waste (i.e., hazardous waste minimization). Alternate industrial processes using less toxic materials should be evaluated as mitigation since such processes could reduce the volume or toxicity of hazardous materials requiring management and disposal as hazardous waste.	The Programmatic Environmental Impact Statements will comply with all requirements under NEPA and other relevant laws, regulations, and Executive Orders.
12/29/2014	Email Attachment	Ann McPherson	U.S. Environmental Protection Agency Region IX	Cumulative and Indirect Impacts	Cumulative and Indirect Impacts The cumulative impacts analysis should identify how resources, ecosystems, and communities in the vicinity of the project have already been, or will be, affected by past, present, or future activities in the project area. These resources should be characterized in terms of their response to change and capacity to withstand stresses. Trends data should be used to establish a baseline for the affected resources, to evaluate the significance of historical degradation, and to predict the environmental effects of the project components. For the cumulative impacts assessment, we recommend focusing on resources of concern or resources that are "at risk" and/or are significantly impacted by the proposed project, before mitigation. The EPA supports a regional assessment of the potential cumulative effects of other projects in the area to a range of resources, including aquatic, biological, and cultural resources. These findings should help inform current and future development proposed in the region. The EPA assisted in the preparation of a guidance document for assessing cumulative impacts in California that we find to be very useful. While this guidance was prepared for transportation projects in California, the principles and the 8-step process outlined therein can be applied to other types of projects and offers a systematic way to analyze cumulative impacts for a project. The guidance is available at: http://www.dot.ca.gov/ser/cumulative_guidance/purpose.htm. In accordance with this guidance, the EPA recommends that the DPEIS identify which resources are analyzed, which ones are not, and why. For each resource analyzed, the DPEIS should: • Identify the current condition of the resource as a measure of past impacts. For example, the percentage of species habitat lost to date. • Identify the trend in the condition of the resource as a measure of present impacts. For example, the health of the resource is improving, declining, or in stasis. • Identify all on-going, planned, and reasonably foreseeable projects in the study area that may contribute to cumulative impacts. • Identify the future condition of the resource based on an analysis of impacts from reasonably foreseeable projects or actions added to existing conditions and current trends. • Assess the cumulative impacts contribution of the proposed alternatives to the long-term health of the resource, and provide a specific measure for the projected impact from the proposed alternatives. • When cumulative impacts are identified for a resource, mitigation should be proposed. • Disclose the parties that would be responsible for avoiding, minimizing, and mitigating those adverse impacts. • Identify opportunities to avoid and minimize impacts, including working with other entities. Recommendations: The DPEIS should consider the cumulative impacts associated with other development projects proposed in the individual project areas and the potential impacts on various resources including: water supply, endangered species, and habitat.	The Programmatic Environmental Impact Statements will comply with all requirements under NEPA and other relevant laws, regulations, and Executive Orders.
12/29/2014	Email Attachment	Ann McPherson	U.S. Environmental Protection Agency Region IX	Cultural / Historic resources	Coordination with Tribal Governments Executive Order 13175, Consultation and Coordination with Indian Tribal Governments (November 6, 2000), was issued in order to establish regular and meaningful consultation and collaboration with tribal officials in the development of federal policies that have tribal implications, and to strengthen the United States government-to-government relationships with Indian tribes. Recommendation: The DPEIS should describe the process and outcome of government-to-government consultation between FirstNet and each of the tribal governments within the individual project areas, issues that were raised (if any), and how those issues were addressed in the selection of the proposed alternative.	The Programmatic Environmental Impact Statements will comply with all requirements under NEPA and other relevant laws, regulations, and Executive Orders.
					National Historic Preservation Act and Executive Order 13007 Consultation for tribal cultural resources is required under Section 106 of the National Historic Preservation Act. Historic properties under the NHPA are properties that are included in the National Register of Historic Places or that meet the criteria for the National Register. Section 106 of the NHPA requires a federal agency, upon determining that activities under its control could affect historic properties, consult with the appropriate State Historic Preservation Officer/Tribal Historic Preservation Officer. Under NEPA, any impacts to tribal, cultural, or other treaty resources must be discussed and mitigated. Section 106 of the NHPA requires that Federal agencies consider the effects of their actions on cultural resources, following regulation in 36 CFR 800. Executive Order 13007, Indian Sacred Sites (May 24, 1996), requires federal land managing agencies to accommodate access to, and ceremonial use of, Indian sacred sites by Indian Religious practitioners, and to avoid adversely affecting the physical integrity, accessibility, or use of sacred sites. It is important to note that a sacred site may not meet the National Register criteria for a historic property and that, conversely, a historic property may not meet the criteria for a sacred site. Recommendation: The DPEIS should address the existence of Indian sacred sites in the individual project areas. It should address Executive Order 13007, distinguish it from Section 106 of the NHPA, and discuss how FirstNet will avoid adversely affecting the physical integrity, accessibility, or use of sacred sites, if they exist. The DPEIS should provide a summary of all coordination with Tribes and with the SHPO/THPO (if any), including identification of NRHP eligible sites, and development of a Cultural Resource Management Plan.	The Programmatic Environmental Impact Statements will comply with all requirements under NEPA and other relevant laws, regulations, and Executive Orders.
12/29/2014	Email Attachment	Ann McPherson	U.S. Environmental Protection Agency Region IX	Environmental Justice	Environmental Justice and Impacted Communities Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations (February 11, 1994) and the Interagency Memorandum of Understanding on Environmental Justice (August 4, 2011) direct federal agencies to identify and address disproportionately high and adverse human health or environmental effects on minority and low-income populations, allowing those populations a meaningful opportunity to participate in the decision-making process. Guidance6 by CEQ clarifies the terms low-income and minority population (which includes Native Americans) and describes the factors to consider when evaluating disproportionately high and adverse human health effects. Recommendations: The DPEIS should discuss the potential need to evaluate environmental justice populations within the geographic scope of the individual projects. If such populations exist, the DPEIS should discuss the potential for disproportionate adverse impacts to minority and low-income populations, and the approaches used to foster public participation by these populations. Assessment of the projects impact on minority and low-income populations should reflect coordination with those affected populations. The DPEIS should discuss the potential need to provide outreach to all communities that could be affected by the individual projects.	The Programmatic Environmental Impact Statements will comply with all requirements under NEPA and other relevant laws, regulations, and Executive Orders.
12/29/2014	Email Attachment	Ann McPherson	U.S. Environmental Protection Agency Region IX	Land Use	Coordination with Land Use Planning Activities The DPEIS should discuss how the proposed action would support or conflict with the objectives of federal, state, tribal or local land use plans, policies and controls in the individual project areas. The term "land use plans" includes all types of formally adopted documents for land use planning, conservation, zoning and related regulatory requirements. Proposed plans not yet developed should also be addressed it they have been formally proposed by the appropriate government body in a written form (CEQ's Forty Questions, #23b).	The Programmatic Environmental Impact Statements will comply with all requirements under NEPA and other relevant laws, regulations, and Executive Orders.

FirstNet Nationwide Public Safety Broadband Network
Programmatic Environmental Impact Statement
Scoping Comments

Date Rec'd	Format	Name	Organization	Topic	Comment	Response
12/29/2014	Email Attachment	Ann McPherson	U.S. Environmental Protection Agency Region IX	Public Health and Safety	Public Health and Safety - Valley Fever Coccidioidomycosis, (kok-sid-oy-doh-my-KOH-sis), or Valley Fever, is a fungal infection that is almost always acquired from the environment via the inhalation of fungal spores. It can affect humans, many species of mammals and some reptiles .7 The fungus, Coccidioides, is endemic in the soil of the southwestern United States, Mexico, and parts of Central and South America. Coccidioides can live for long periods of time in soil under harsh environmental conditions including heat, cold, and drought. 8 Coccidioides can be released into the air when soil containing the fungus is disturbed, either by strong winds or activities such as farming or construction. Distribution of the fungus is typically patchy, but in some "hot spots," up to 70% of the human population has been infected. The number ofreported Valley Fever cases in the U.S. has risen from less than 5,000 in 2001 to more than 20,000 cases in 2011.9 An estimated 150,000 more cases go undiagnosed every year. The majority of reported cases are located in Arizona and California. 10 The reason for the recent increase in cases, however, is unclear. Dust storms in endemic areas are often followed by outbreaks of coccidioidomycosis. If the dust storms are severe, the fungal spores can be carried outside the endemic area into neighboring counties, where outbreaks follow. According to the Centers for Disease Control and Prevention, workers engaged in soil-disturbing activities in endemic areas should be considered at risk for the disease. 12 Occupational groups at risk include farmers, agricultural workers, construction workers and archaeologists. Some groups of people appear to be at increased risk for disseminated disease and can become seriously ill when infected. People at risk for severe disease include those with weakened immune systems, persons with cancer or who are on chemotherapy, or persons who are HIV-infected. Also at higher risk for serious illness are the elderly, persons of African or Filipino descent, and women in the third trimester of pregnancy. Recommendations: The EPA recommends that the DPEIS discuss potential exposures to the fungus, Coccidioides, and susceptibilities of workers and nearby residents to Valley Fever due to soil-disturbing activities of the project. The Environmental Awareness Program for the workers should include training on the health hazards of Valley Fever, how it is contracted, what symptoms to look for, proper work procedures, how to use personal protective equipment, the need to wash prior to eating, smoking or drinking and at the end of the shift, and the need to inform the supervisor of suspected symptoms of work- related Valley Fever. The training should identify those groups of individuals most at risk and urge individuals to seek prompt medical treatment if Valley Fever symptoms (flu-like illness with cough, fever, chest pain, headache, muscle aches, and tiredness) develop.	The Programmatic Environmental Impact Statements will comply with all requirements under NEPA and other relevant laws, regulations, and Executive Orders.
12/29/2014	Mail	Diana Rhoades	Public	Cultural / Historic resources	Dear Ms. Pereira, Tumamoc Hill is a sacred place. It is on the National Register of Historic Places. It is a landmark, it is a University research station, studying plants and the changes in climate since 1903. It is a national archeological district, a burial ground for Native American People. It was an early trading post for the First People. It is rich in natural and cultural history. It should not be a place where the government places large towers or builds huge power lines. I hope you will carefully consider all the implications of FirstNet. All my best Diana Rhoades	Thank you for your comment.
12/29/2014	Email	Doug Gann, Ph.D.	Archaeology Southwest	Cultural / Historic resources	Dear Firstnet I am writing in support of what I understand will be a new installation for our first responders on top of Tumamoc Hill in Tucson Arizona. I would like to offer the suggestion that Firstnet keep any new construction to areas of this hilltop that have already been disturbed by previous construction activities. We have known Tumamoc was an important archaeological site for 100 years, but it has only been in the past 10 years that the evidence has been understood in proper contexts. The ancient homes built on Tumamoc were constructed at the beginning of what we now know of as the ancient southwest culture area. The Cliff Dwellings in Mesa Verde, the stunning buildings of Chaco Canyon, the 5 story adobe Casa Grande, all of these places were built by a people who apparently got their start 4000 years ago, along the Santa Cruz River, where modern Tucson sits today. Though partially disturbed, the village on top of Tumamoc still contains evidence about how this pan-Southwestern culture began. What has not been destroyed should be preserved when ever possible. I think everyone in the archaeological community believes that your project needs to be supported, our community's safety has to come first. However, if new construction can be steered away from archaeologically critical areas, we also believe that we can achieve a win-win scenario here. Best Wishes, Doug Gann, Ph.D. Preservation Archaeologist	FirstNet does not yet have a network design, however we will work to avoid adverse impacts to sensitive resources wherever possible. Once specific projects are identified, FirstNet will work with the appropriate federal, state, and local agencies, and federally-recognized Indian tribes, to comply with all requirements.
12/29/2014	Email	Scott Sysum	U.S. Environmental Protection Agency Region IX	NOI	Dear Ms. Pereira I have been assigned as the lead reviewer for the U.S. EPA Region 9 for the FirstNet National Public Safety Broadband Network PEIS Project. I have attached a pdf file of our scoping comment letter regarding this project. The signed letter was mailed today to Ms. Amanda Pereira. Thank you for providing us the opportunity to review this interesting project. Please feel free to contact us if you have any questions, seek clarifications or if we can help in any other way. v/r Scott Sysum	Thank you for your comment.
12/30/2014	Email Attachment	jph7890@aol.com	Public	Alternatives	The FirstNet Dilemma In order for FirstNet to succeed, it must provide broadband wireless service to public safety users for less than market rates. In addition, the FirstNet infrastructure must be more robust and more resilient than commercial wireless networks. The only way for FirstNet to achieve both of these goals is to leverage excess Nationwide Public Safety Broadband Network (NPSBN) capacity to create a revenue stream that subsidizes public safety user recurring monthly fees to the point that no commercial operator can undercut them. If the recurring monthly fees charged to public safety users by FirstNet is not significantly lower than commercial wireless rates, the commercial networks will likely simply lower their rates for public safety subscribers to undercut and undermine FirstNet. Financially strapped localities will likely choose the less expensive commercial network rather than subscribe to FirstNet, despite the fact that FirstNet will offer priority access to a more robust network. If such a scenario plays out, FirstNet will fail. Rather than becoming a customer of commercial wireless network operators, public safety should leverage the excess capacity in the NPSBN so that commercial operators and other secondary users become FirstNet customers, not vice versa. If Public Safety does not control the network, it will never achieve its goal of unrestricted priority access to broadband wireless, supported by a public safety grade (bulletproof) network infrastructure. One way to address the FirstNet Dilemma is for FirstNet to petition the FCC to issue an Order that would require all new 700MHz. broadband wireless subscriber devices be capable of accessing FirstNet spectrum (Band 14). This single regulatory action would create an immediate market for FirstNet spectrum, even in the absence of a deployed network. By creating an environment that ensures that band 14 capable devices become ubiquitous, the FCC Order would increase the value of FirstNet spectrum to potential lessees, enabling FirstNet to generate a revenue stream prior to the deployment of the NPSBN simply by leasing the spectrum until the NPSBN is ready to deploy in a given locale. In addition, the FCC Order would ensure the availability of band 14 devices and substantially lower their cost to public safety users when the NPSBN is deployed. Every day that FirstNet spectrum lays fallow is a lost opportunity to generate revenue that could help fund NPSBN construction, deployment and ongoing operating expenses. Once the NPSBN is deployed, FirstNet (or the designated local network operator) could continue to lease excess NPSBN capacity to secondary users through a public private partnership, thus reducing public safety user recurring user recurring monthly fees to a level far below commercial market rates, whilst encouraging public safety network participation and discouraging potential competitors.	Thank you for your comment.

FirstNet Nationwide Public Safety Broadband Network
Programmatic Environmental Impact Statement
Scoping Comments

Date Rec'd	Format	Name	Organization	Topic	Comment	Response
12/31/2014	Email	Patricia A. Gilman, Ph.D., RPA	University of Arizona	Cultural / Historic resources	Ms. Pereira, I am writing in support of the idea that FirstNet use the existing antenna pads on Tumamoc Hill in Tucson. The entire top and sides of the hill are an archaeological site that is very important in the history of Tucson. It has hundreds of rock-ringed houses that are about 2000 years old along with petroglyphs and a very early community building. For an archaeologist like me, it is a very cool site because it has told us about the lives of people living at this time in the Tucson Basin. The site is unique, by the way. There are no others like it, which suggests its importance. Most of the site has not been excavated, and so there is much more we could learn here. But the most important thing is to preserve the site for the future so that others, both the public and archaeologists, can appreciate the lives of these people. Please do the right thing for the history of Tucson and use only the existing antenna pads. That way, everyone gets what they want and need. Thank you for you attention to this. Patricia A. Gilman, Ph.D., RPA	FirstNet does not yet have a network design, however we will work to avoid adverse impacts to sensitive resources wherever possible. Once specific projects are identified, FirstNet will work with the appropriate federal, state, and local agencies, and federally-recognized Indian tribes, to comply with all requirements.
1/1/2015	Email	Paul Mirocha	Public	Aesthetics / Recreational Use	Dear Amanda, Mike Rosenzweig, my boss at Tumamoc: People and Habitats, asked me to comment on my perspective on Tumamoc Hill. I have been artist-in-residence there since 2011. You can see a more of what I've done there on my blog: http://TumamocSketchbook.com.	Thank you for your comment.
1/1/2015	Email	Paul Mirocha	Public	Geology	What is Tumamoc Hill? It's a highly protected natural wild-lands Sonoran Desert mountain, National Historic Landmark, ecological research preserve, U.S. Archaeological District, and community icon—all of two miles from downtown and surrounded by growing urban Tucson. But there is no single description of Tumamoc Hill that is complete. There are many layers to the place, with different meanings depending on who you are talking to. A geologist will tell you that Tumamoc is an inselberg of volcanic rock remaining from eruptions between 20 – 30 million years ago. And it originally was formed near what is now the Santa Catalina Mountains.	Thank you for your comment.
1/1/2015	Email	Paul Mirocha	Public	Cultural / Historic resources	A paleontologist will tell you that the current Sonoran Desert environment came about 8–15 million years ago during a drying trend, when the unique desert plants here evolved from tropical ancestors moving north from Mexico. The Tohono O'odham call it Cemamagl Doag, "Horned Lizard Mountain." The Hill is considered a sacred ancestral site for O'odham, Yaqui, and Hopi Indians.	Thank you for your comment.
1/1/2015	Email	Paul Mirocha	Public	Infrastructure	The summit is now a site for a number of communications and homeland security communications towers, yet this role has probably been played for thousands of years. We know that up until historic times, Sentinal Peak, Tumamoc's sister peak was used, for it's broad view of the valley, as a lookout post, especially for marauding Apaches.	Thank you for your comment.
1/1/2015	Email	Paul Mirocha	Public	Cultural / Historic resources	It has been called many names. Lawrence Clark Powell, famed librarian and writer who lived in Tucson, called Tumamoc "Tucson's Acropolis." It's been called by various names, including "A Mecca for botanists, and "The Jerusalem of desert rats."	Thank you for your comment.
1/1/2015	Email	Paul Mirocha	Public	Biological Resources	The first thing a modern ecologist will say to you is "don't stray off the road." Beginning with the establishment of the Desert Botanical Laboratory in 1903 by the Carnegie Institution of Washington, Tumamoc is the oldest continually monitored ecological research preserve in the world, with data from over 100 years of study. This is the world's first restoration ecology project. The nature here is to look at, to study, to appreciate, but not to exploit–not even to use.	Thank you for your comment.
1/1/2015	Email	Paul Mirocha	Public	Cultural / Historic resources	To an archeologist, Tumamoc is a mystery that would challenge even Sherlock Holmes. Ruins of cultures living on Tumamoc go back 3,500 years, and at various times in prehistory, the Tumamoc hilltop was probably an important landmark, cultural focal point, and ceremonial ground.	Thank you for your comment.
1/1/2015	Email	Paul Mirocha	Public	Aesthetics / Recreational Use	To the thousands of people who walk the road daily (only authorized vehicles are allowed) Tumamoc is the best workout in town, a treadmill with a spectacular view. It's a source of healing and health. It's a place where one can stroll among grazing deer five minutes from downtown. Dig a little deeper and many walkers will confide that Tumamoc is a very personal emotional or spiritual sanctuary.	Thank you for your comment.
1/1/2015	Email	Paul Mirocha	Public	Cultural / Historic resources	Urban culture and ecological research can co-exist on Tumamoc Hill. It is a sanctuary for humans as well as other Sonoran Desert life forms, but the boundaries are clear: no one steps off the road without special permission. Scientists have protected the Hill for the last century. Now it's up to the community to take part in stewardship of the Hill as a special place and a cultural value for the next 100 years. At that time, we'll check in again and see how it's going. In the mean time I urge Firstnet to join the other institutions, groups, and governmental entities that are united as part of the stewardship of this valuable site. best regards, Paul Mirocha	Thank you for your comment.
1/3/2015	Email	Marc Severson	Public	Cultural / Historic resources	Dear Ms. Periera, I am writing to urge you to protect the cultural resources on the top of Tumamoc Hill in Tucson. This historic/prehistoric site has unique constructions that give insight into the prehistory of the Southwest. Further constructions endangers these resources. There are archaeological resources on and around this site that are irreplaceable. Considerable damage has already occurred over the years. I urge you to limit construction on this site to areas that have been previously disturbed and allow no further destruction of these resources. Thank you, Marc Severson	Thank you for your comment.
1/6/2015	Email	Matt Goode	University of Arizona	Biological Resources	Dear Ms. Pereira, I am a Research Scientist at the University of Arizona and my lab is situated on Tumamoc Hill. I am writing to let you know how important Tumamoc Hill is to me and my students, as well as the community of Tucson. I have been conducting research on reptiles on Tumamoc for the past three years. Besides providing us with an incredible opportunity to better understand how reptiles persist in fragmented habitats, Tumamoc also enables us to provide unprecedented opportunities to educate the general public about scientific research and conservation of natural resources. Your help in keeping Tumamoc Hill healthy and productive is greatly appreciated by a lot of diverse stakeholders who care about Tucson's history and it's future! Thank you so much for your support! Matt	Thank you for your comment.

-Page Intentionally Left Blank-

APPENDIX C

Environmental Laws and Regulations

-Page Intentionally Left Blank-

ENVIRONMENTAL LAWS AND REGULATIONS

The proposed implementation of the Proposed Action must meet the requirements of the National Environmental Policy Act and other applicable federal laws and regulations, Executive Orders, and implementing guidance for the resource areas evaluated in the Programmatic Environmental Impact Statement. Titles are listed alphabetically.

Table 1: Applicable Laws and Regulations, Executive Orders, and Guidance

Title	Description
Laws and Regulations	
American Indian Religious Freedom Act (AIRFA) (*42 USC §1996*)	Protects and preserves for American Indians their inherent right of freedom to believe, express, and exercise the traditional religions of the American Indian, Alaska Native, and Native Hawaiians, including access to culturally significant sites, use and possession of sacred objects, and the freedom to worship through ceremonial and traditional rites.
Archaeological Resources Protection Act of 1979 (ARPA) (*16 USC §§ 470aa-470mm; Pub. L. No. 96-95*)	Establishes requirements to protect archaeological resources and sites on public lands and Indian lands, including civil and criminal penalties for the destruction or alteration of cultural resources.
Bald and Golden Eagle Protection Act (*16 USC § 668 et seq.*)	Prohibits the taking, possession, sale, purchase, barter, or offer to sell, purchase, or barter, export, or import of any part of a bald eagle or golden eagle.
Clean Air Act (CAA) (*42 USC §§ 7401-7671g*)	Protects air quality; authorizes the U.S. Environmental Protection Agency (USEPA) to establish National Ambient Air Quality Standards for six criteria pollutants that threaten human health and welfare: carbon monoxide (CO), lead (Pb), nitrogen dioxide (NO_2), ozone (O_3), sulfur dioxide (SO_2), and particulate matter with a diameter equal to or less than 10 microns (PM_{10}) or less than 2.5 microns (fine particles) ($PM_{2.5}$). Includes provisions for reducing soil erosion to preserve air quality.
Coastal Barrier Improvement Act of 1990 (CBIA) (*Pub. L. No. 101-591*)	Adds additional areas to the Coastal Barrier Resources System and secondary barriers within large embayments (coastline indentations that form a bay), and establishes a process to transfer interests in land to public or non-profit conservation organizations.
Coastal Barrier Resources Act of 1982 (CBRA) (*Pub. L. No. 97–348*)	Established the John H Chafee Coastal Barrier Resource System to protect sensitive and vulnerable barrier islands found along the U.S. Atlantic, Gulf, and Great Lakes coastlines, as well as Puerto Rico and the U.S. Virgin Islands.
Coastal Zone Management Act (CZMA) (*16 USC § 1451 et seq.*)	Enacted to protect the coastal environment from growing demands associated with residential, recreational, commercial and industrial uses. Coastal states with an approved Coastal Zone Management Plan identifying permissible land and water use within the state's coastal zone can review federal actions for federal consistency to determine if the actions are consistent with the state program's enforceable policies.
Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA - Superfund Law) (*42 USC § 9601*)	Authorizes the USEPA to respond to releases, or threatened releases, of hazardous substances that may endanger public health, welfare, or the environment. Requires the USEPA to establish criteria for determining priorities among releases (or threatened releases) of hazardous substances for the purpose of taking remedial action.

Title	Description
Construction, Marking, and Lighting of Antenna Structures of the Federal Communications Commission regulations, Part 17 (*47 CFR Chapter 1*)	Governs communications infrastructure under Part 17, which prescribes procedures for antenna structure registration and requires the Federal Aviation Administration (FAA) to conduct an aeronautical study of the navigation airspace to determine appropriate tower marking and lighting requirements for safe airspace. Before the Federal Communications Commission authorizes the construction of new antennae or alteration of existing antennae structures, an FAA determination of "no hazard" may be required. FAA notification is required for new any construction greater than 200 feet above the ground, and near an airport runway (if near an airport runway, taller than 100:1 for a horizontal distance of 20,000 feet away from the nearest runway, 50:1 for a horizontal distance of 10,000 feet away from the nearest runway, and 25:1 for a horizontal distance of 5,000 feet of a heliport). The FAA can vary marking and lighting when requested if aviation safety is not compromised.
Council on Environmental Quality Regulations for Implementing the Procedural Provisions of the National Environmental Policy Act (NEPA) (*40 CFR §§ 1500-1508*)	Provides direction to ensure compliance with procedures to achieve the goals of NEPA. Public officials are able to make decisions based on understanding of environmental consequences and take actions to protect, restore, and enhance the environment.
Critical Infrastructure Protection Act of 2001 (*42 USC § 5195*)	Defines critical infrastructure as the assets, systems, and networks (physical or virtual) vital to the U.S., which if incapacitated or destroyed, would have a debilitating effect on security, national economic security, public health or safety, or a combination of these.
Disaster Mitigation Act of 2000 (DMA 2000) (*Pub. L. No. 106-390*)	Establishes the basis for Federal Environmental Management Agency disaster mitigation planning requirements as a condition of mitigation grant assistance to states, tribes, and local governments. Mitigation planning may be incorporated into a comprehensive master plan identifying hazards, analyzing risks, establishing priorities, and describing specific actions to address those risks.
Emergency Planning and Community Right-to-Know Act of 1986 (EPCRA) (*42 USC §§ 11004-11049*)	Improves community access to information about chemical hazards and facilitates the development of chemical emergency response plans by states, tribes, and local governments. Establishes the Toxic Release Inventory to inform the public about potentially dangerous chemicals in their community.
Endangered Species Act (ESA) of 1973 (*16 USC § 1531 et seq.*)	Ensures the protection and recovery of imperiled species and the habitats upon which they depend. Prohibits take, which is defined as harming, up to and including killing, or harassing a listed species. Section 7 of the ESA requires federal agencies to ensure that any action it authorizes, funds, or carries out is not likely to jeopardize the threatened or endangered species or result in destruction or adverse modification of critical habitat.
Energy Independence and Security Act of 2007 (*Pub. L. No. 110-140*)	Expands the production of renewable fuels and contains provisions for energy efficiency, smart grid, and carbon dioxide and incentives for plug-in hybrid electric vehicles to assist the electric power industry's efforts to reduce greenhouse gas emissions.
Energy Policy Act of 2005 (*Pub. L. No. 109-58*)	Provides tax incentives and loan guarantees for energy production of various types.
Farmland Protection Policy Act of 1981 (FPPA) (*Pub. L. No. 97–98; 7 USC § 4201*)	Requires federal agencies to examine the potentially adverse effects to "prime" and "unique" farmland resources before approving any action that would irreversibly convert farmlands to non-farm uses.

Title	Description
Federal Facility Compliance Act of 1992 (*Pub. L. No. 102–386*)	Amends the Solid Waste Disposal Act and expands the enforcement authority of federal and state regulators with respect to solid and hazardous waste management at federal facilities. Requires federal facilities to pay any nondiscriminatory fees or service charges assessed in connection with a federal, state, interstate, or local solid or hazardous waste regulatory program. Waives immunity for federal facilities under solid and hazardous waste laws by allowing states to fine and penalize for violations.
Federal Insecticide, Fungicide, and Rodenticide Act (*7 USC § 136 et seq.*)	Provides for regulation of the distribution, sale, and use of pesticides. Pesticides are generally defined as substances for preventing, destroying, repelling, or mitigating pests; substances for use as a plant regulator, defoliant, or desiccant; and any nitrogen stabilizer.
Federal Land Policy and Management Act of 1976 (*43 USC § 1701 et seq.*)	Directs management of public lands, administered by the Bureau of Land Management, to protect the quality of the land and preserve certain public lands in their natural conditions.
Federal Telecommunications Act of 1996	Establishes general criteria for the siting of telecommunication facilities.
Federal Water Pollution Control Act (Clean Water Act [CWA]) (*33 USC § 1251 et seq.*)	Protects water quality and aims to restore and maintain the chemical, physical, and biological integrity of "waters of the United States." Section 303(d) requires states and USEPA to identify waters not meeting state, territory, or tribal water quality standards and to develop total maximum daily loads, defined as the maximum amount of a pollutant a waterbody can receive and still meet water quality standards. After determining total maximum daily loads for impaired waters, states are required to identify all point and nonpoint sources (runoff) of pollution in a watershed that are contributing to the impairment and to develop an implementation plan that will allocate reductions to each source in order to meet the state standards. Section 320 establishes the National Estuary Program, which identifies nationally significant estuaries threatened by pollution, and requires federal grants to states, interstate, and regional water pollution control agencies to prepare and implement conservation and management plans. Section 404 addresses prohibition and permitting for dredged materials and fill material into waters of the United States.
Fish and Wildlife Conservation Act of 1980 (*16 USC §§2901-2911*)	Declares that fish and wildlife are of ecological, educational, aesthetic, cultural, recreational, economic, and scientific value to the nation, and encourages all federal agencies to conserve and promote conservation of non-game fish and wildlife and their habitats.
Fish and Wildlife Coordination Act of 1934 (*16 USC §§ 661-667e*)	Mandates that fish and wildlife resources receive adequate and equal consideration in conjunction with other values during the planning of water resources development projects that may conflict with the goal of conserving fish and wildlife resources.
Flood Plain Management Criteria for Flood-prone Areas (*44 CFR § 60.3*)	Provides guidance on Federal Emergency Management Agency floodplain management criteria for land management and use.
Intermodal Surface Transportation Efficiency Act of 1991 (*23 USC § 101 [note]*)	Establishes new U.S. transportation planning and policy for highway construction, highway safety, and mass transit funding. Provides funds for the Bridge Replacement and Rehabilitation Program, Scenic Byways Program, pedestrian and bicycle facilities (such as pedestrian bridges), and designation of high-speed rail corridors.

Title	Description
Landownership Adjustments (*36 CFR § 254*)	Sets procedures for conducting exchanges of National Forest System lands and requires consideration of the public interest, including protection of fish and wildlife habitats, cultural resources, watersheds, and wilderness and aesthetic values, as well as enhancement of recreation opportunities and public access.
Magnuson-Stevens Fishery Conservation and Management Act of 1976 (*16 USC §§ 1801-1882*)	Requires conservation and management of U.S. fishery resources through implementation of fishery management plans and Regional Fishery Management Councils. Fishery management plans enable stakeholders to participate in the administration of fisheries, consider social and economic needs of states, develop underutilized fisheries, and protect essential fish habitats.
Marine Mammal Protection Act of 1972 (MMPA) *16 USC § 1361 et seq.*	Prohibits the taking of marine mammals and enacts moratoriums on imports, exports, and sales of marine mammals and marine mammal parts or products within the United States. Defines "take" as "the act of hunting, killing, capture, and/or harassment of any marine mammal; or, the attempt at such." Defines "harassment" as "any act of pursuit, torment or annoyance" that has potential to injure or disturb a marine mammal.
Marine Protection, Research, and Sanctuaries Act of 1972 (*33 USC §§ 1401–1445*)	Establishes the marine sanctuaries program and provides a permitting process for the dumping of materials, including dredged materials, into U.S. ocean water.
Migratory Bird Treaty Act (MBTA) (*16 USC §§ 703-712*)	Regulates the taking, possession, import, export, transport, sale, purchase, barter, or offer for sale, purchase, or barter, of any migratory bird, or the parts, nests, or eggs of such a bird except under the terms of a valid permit.
National Environmental Policy Act (NEPA) (*42 USC § 4321 et seq.*)	Requires federal agencies to integrate environmental values into their decision-making processes by considering the environmental impacts of their Proposed Actions and reasonable alternatives to those actions. Established CEQ; CEQ promulgated regulations implementing NEPA, which are binding on all federal agencies, to address the procedural provisions of NEPA and the administration of the NEPA process, including preparation of Environmental Impact Statements.
National Forest Management Act of 1976 (*Pub. L. No. 94-588*) National Forest System Land and Resource Management Planning (*36 CFR § 219*)	Governs the administration of national forests and removal of trees. Includes requirements for consideration, treatment, and protection of intangible resources such as scenery and aesthetics.
National Historic Preservation Act (NHPA) (formerly *16 USC § 470 et seq.,* now *54 USC § 100101 et seq.*)	Ensures protection of cultural resources and historic properties. Established the Advisory Council on Historic Preservation (ACHP) to promote the preservation, enhancement, and productive use of our nation's historic resources. Authorizes the Secretary of the Interior to maintain a National Register of Historic Places composed of districts, sites, buildings, structures, and objects significant in American history and culture. Section 106 of the NHPA requires federal agencies to identify the effects of proposed actions on any district, site, building, structure, or object that is included in or eligible for inclusion in the National Register. Under Section 106, the NHPA requires that federal agencies consult with federally-recognized Indian tribes and Native Hawaiian Organizations that attach traditional religious and cultural significance to eligible or listed historic properties that may be affected by the agency's actions.

Title	Description
National Marine Sanctuaries Act (*16 USC § 1431 et seq.*)	Authorizes the Secretary of Commerce to designate national marine sanctuaries based on statutory criteria and specifies consultation requirements.
National Trails System Act of 1968 (*16 USC § 1241*)	Authorizes the Secretary of Agriculture to administer and manage national scenic trails for conservation and enjoyment.
Native American Graves Protection and Repatriation Act (NAGPRA) (*Pub. L. No. 101–601; 104 Stat. 3048*)	Establishes a process for museums and federal agencies to manage certain Native American cultural items in their possession or inadvertently discovered during a project; establishes the rights of Native American lineal descendants, American Indian tribes, and Native Hawaiian organizations with respect to the treatment, repatriation, and disposition of Native American human remains, funerary objects, sacred objects, and objects of cultural patrimony (referred to collectively in the statute as cultural items), with which they can show a relationship of lineal descent or cultural affiliation.
North American Wetlands Conservation Act of 1989 (*Pub. L. No. 101-233*)	Recognizes the aesthetic values of fish, shellfish, and other wildlife, and recognizes that wetlands provide aquatic areas important for recreational and aesthetic purposes. Federal agencies (to the extent possible) should cooperate to restore, protect, and enhance wetlands and other habitats for migratory birds, fish, and wildlife.
Occupational Safety and Health Act (OSHA) of 1970 (*Pub. L. No. 91-596*)	Mandates that employers provide a safe place of employment to assure safe and healthful working conditions for working men and women by setting and enforcing standards and by providing training, outreach, education, and assistance.
Plant Protection Act (*7 USC § 7701 et seq.*)	Establishes a program to control the spread of noxious weeds.
Procedures for Abatement of Highway Traffic Noise and Construction Noise (*23 CFR § 772*)	Establishes procedures for conducting noise studies and implementing noise abatement measures, and provides guidelines to plan and design highway projects.
Resource Conservation and Recovery Act (RCRA) of 1976 (*40 CFR §§ 239-282*)	Amends the Solid Waste Disposal Act of 1965 to address how to safely manage and dispose of municipal and industrial waste generated nationwide. Identifies more stringent hazardous waste management standards, and a comprehensive regulatory program for underground storage tanks that store petroleum or certain hazardous materials.
Rivers and Harbors Act of 1899 (*33 USC § 403*)	Addresses projects and activities in navigable waters and harbor and river improvements and prohibits the unauthorized obstruction or alteration of any navigable water of the United States, including altering any port, harbor, or channel.
Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU) (*Pub. L. No. 109–59*)	Addresses maintenance and growth challenges of the U.S. transportation system (e.g., improving safety, reducing traffic congestion, improving efficiency in freight movement, increasing intermodal connectivity, and protecting the environment). Regulates efforts to address national transportation problems and provides state and local decision makers the flexibility to solve transportation problems at the regional and local levels.
Safe Drinking Water Act (*42 USC §§ 300d-300j-9*, as amended by *Pub. L. No. 93-523*)	Protects public health by regulating the nation's public drinking water and its sources, including protection of surface water and groundwater. Section 1424(e) of the Safe Drinking Water Act authorizes the Sole Source Aquifer Protection Program. Sole source aquifers are the sole or principal source of drinking water for an area, defined as providing 50 percent or more an area's drinking water supply. Any federally funded proposed project with the potential to contaminate a designated sole source aquifer is subject to USEPA review.

Title	Description
Superfund Amendments and Reauthorization Act of 1986 (SARA) (*Pub. L. No. 99-499*)	Amends the Comprehensive Environmental Response, Compensation, and Liability Act as a result of lessons learned from managing the Superfund program. Stresses the importance of permanent remedies and innovative treatment technologies in cleaning up hazardous waste sites, encourages greater citizen participation in cleanup decisions, and increases the size of the trust fund.
Toxic Substances Control Act of 1976 (TSCA) (*15 USC § 53*)	Gives the USEPA the authority to require reporting, record-keeping, and testing relating to toxic chemical substances or mixtures.
Wild and Scenic Rivers Act (*16 USC §§ 1271–1287*) Wild and Scenic Rivers (*36 CFR § 297*)	Provides for a Wild and Scenic River System by recognizing the remarkable values (scenic, recreational, geologic, fish and wildlife, historic, cultural, or other values) of specific rivers of the United States. The Wild and Scenic Rivers designation includes requirements for the protection of scenic and natural values from the effects of any water resources project.
Wilderness Act of 1964 (*16 USC § 1131*)	Provides for the preservation of wilderness character and protects and manages the natural conditions of wilderness areas to negate human impacts.
Executive Orders	
Executive Order 11988 Floodplain Management	Requires federal agencies to avoid, to the extent possible, the long and short-term adverse impacts associated with the occupancy and modification of floodplains and to avoid direct and indirect support of floodplain development wherever there is a practicable alternative. Aspects of EO 11988 have been updated in EO 13690 (see below).
Executive Order 12898 Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations	Ensures that federal agencies avoid taking actions that have a disproportionately high and adverse impact on low-income populations or minority populations. Emphasizes the importance of NEPA's public participation process and provides minority and low-income communities' access to public information and public participation.
Executive Order 13007 Indian Sacred Sites	Directs federal agencies to accommodate access to and avoid adversely affecting American Indian sacred sites.
Executive Order 13089 Coral Reef Protection	Directs federal agencies to avoid degradation of coral reef ecosystems and implement measures to restore affected ecosystems.
Executive Order 13112 Invasive Species	Directs federal agencies to prevent the introduction of plant, animal, and microorganism invasive species, and control and minimize the economic, ecologic, and human health impacts that invasive species may cause.
Executive Order 13175 Consultation and Coordination with Indian Tribal Governments	Reaffirms the federal government's commitment to tribal sovereignty, self-determination, and self-government. Its purpose is to ensure that all executive departments and agencies consult with Indian tribes and respect tribal sovereignty as they develop policy on issues that impact Indian communities.
Executive Order 13340 Great Lakes Interagency Task Force and Promotion of a Regional Collaboration of National Significance for the Great Lakes	Specifies 11 federal agency and Cabinet-level departments to provide strategic direction on federal Great Lakes policies, priorities, and programs.
Executive Order 13547 Stewardship of the Ocean, Our Coasts, and the Great Lakes	Provides national policy to ensure the protection, maintenance, and restoration of the health of ocean, coastal, and Great Lakes ecosystems and resources.

Title	Description
Executive Order 13653 Preparing the United States for the Impacts of Climate Change	Directs federal agencies to take steps that will make it easier for American communities to strengthen their resilience to climate change impacts.
Executive Order 13690 Establishing a Federal Flood Risk Management Standard and a Process for Further Soliciting and Considering Stakeholder Input	Implements the Federal Flood Risk Management Standard as part of a national policy on resilience and risk reduction, consistent with the President's Climate Action Plan. Amends EO 11988 (see above), and emphasizes consideration by agencies of ecosystem-based alternatives and long-term resilience and risk reduction when managing flood risks.
Executive Order 13693 Planning for Federal Sustainability in the Next Decade	Outlines goals for federal agencies related to climate change, energy, water use, vehicle fleets, construction, and acquisition. Establishes targets for greenhouse gas emissions, water use and efficiency, and clean energy use for federal operations by 2025, relative to various baselines (depending on resource reduction or improvement).
Guidance	
Council on Environmental Quality Final NEPA Guidance on Consideration of the Effects of Climate Change and Greenhouse Gas Emissions	Provides guidance on how to incorporate the environmental effects of greenhouse gas emissions and the relationship of climate change in NEPA documentation.

-Page Intentionally Left Blank-

APPENDIX D

Threatened and Endangered Species

-Page Intentionally Left Blank-

Table 1: Bureau of Land Management Sensitive Plants and Animals in Alaska

Scientific Name	Common Name
Birds	
Gavia adamsii	Yellow-billed Loon
Cygnus buccinator	Trumpeter Swan
Chen canagica	Emperor Goose
Branta canadensis occidentalis	Dusky Canada Goose
Aquila chrysaetos	Golden Eagle
Numenius tahitiensis	Bristle-thighed Curlew
Calidris canutus	Red Knot
Calidris ptilocnemis tschuktschor	Bering Sea Rock Sandpiper
Brachyramphus brevirostris	Kittlitz's Murrelet
Brachyramphus marmoratus	Marbled Murrelet
Asio flammeus	Short-eared Owl
Contopus cooperi	Olive-sided Flycatcher
Dendroica striata	Blackpoll Warbler
Euphagus carolinus	Rusty Blackbird
Plectrophenax hyperboreus	McKay's Bunting
Mammals	
Lepus othus	Alaskan Hare
Spermophilus parryii osgoodi	Osgood's Arctic Ground Squirrel
Sorex yukonicus	Alaskan Tiny Shrew
Mustela americana kenaiensis	Kenai Marten
Fish	
Lampetra alaskensis	Alaskan Brook Lamprey
Salvelinus alpinus	Arctic Char (Kigluaik Mtns)
Insect	
Acentrella feropagus	A mayfly
Rhithrogena ingalik	Alaska Endemic Mayfly
Alaskaperla ovibovis	Alaska Sallfly
Plants	
Antennaria densifolia	No common name
Arnica lonchophylla	Northern Arnica
Artemisia globularia ssp. *lutea*	No common name
Artemisia laciniata	Siberian Wormwood
Artemisia senjavinensis	Arctic Sage
Aster pygmaeus (Eurybia pygmaea)	Pygmy Aster
Botrychium ascendens	Moonwort
Carex adelostoma	Circumpolar Sedge
Claytonia arctica	Arctic Springbeauty
Claytonia ogilviensis	Ogilvie Mts Spring Beauty
Cryptantha shackletteana	Shacklettes' Catseye
Douglasia alaskana	Alaska Rock-jasmine
Douglasia arctica	Mackenzie River Douglasia
Douglasia beringensis	Arctic Dwarf Primrose
Draba micropetala	Alpine Whitlow-grass
Draba murrayi	Murray's Whitlow-grass
Draba ogilviensis	No common name
Draba pauciflora	Adam's Whitlow-grass
Erigeron muirii	Muir's Fleabane
Erigeron yukonensis	No common name
Eriogonum flavum var. *aquilinum*	Yukon Wild-buckwheat

Scientific Name	Common Name
Erysimum asperum var. *angustatum*	A wallflower
Gentianopsis detonsa ssp. *detonsa*	Sheared Gentian
Koeleria asiatica	Oriental Junegrass
Lesquerella calderi	Calder's Bladderpod
Mertensia drummondii	Drummond's Bluebell
Montia bostockii	Bostock's Miner's-lettuce
Oxytropis arctica var. *barnebyana*	Barneby's Locoweed
Oxytropis huddelsonii	No common name
Oxytropis kobukensis	Kobuk Locoweed
Papaver alboroseum	Pale Poppy
Papaver gorodkovii	No common name
Papaver walpolei	Walpole Poppy
Parrya nauruaq	No common name
Pedicularis hirsuta	No common name
Phacelia mollis	Macbride Phacelia
Pleuropogon sabinei	Sabine-grass
Poa hartzii ssp. *alaskana*	No common name
Poa porsildii	No common name
Potentilla stipularis	Circumpolar Cinquefoil
Primula tschuktschorum	Chukchi Primrose
Puccinellia wrightii	No common name
Ranunculus camissonis	No common name
Ranunculus glacialis var. *1*	No common name
Ranunculus turneri	Turner's Butter-cup
Rumex graminifolius	No common name
Rumex krausei	Cape Krause Sorrel
Smelowskia johnsonii	No common name
Smelowskia pyriformis	No common name
Trisetum sibiricum ssp. *litorale*	Siberian False-oats

REFERENCES

Bureau of Land Management. 2010. BLM-Alaska Revised Sensitive Species List. Accessed: September 2015. Retrieved from: http://www.blm.gov/style/medialib/blm/ak/aktest/ims.Par.47439.File.dat/im_ak_2010_018.pdf

Table 2: Threatened and Endangered Plant Species Known to Occur in the Hawaiian Islands

Common Name and Scientific Name	Listing Status[a]	Habitat Description	Hawaii	Maui	Lanai	Molokai	Oahu	Kauai	N.W. Islands,[b] Kahoolawe, Niihau, or Oceanic
No common name *Abutilon eremitopetalum*	E	Dry forests and shrublands in gulches, ~1,100 feet			✓				
Ko`oloa`ula *Abutilon menziesii*	E	Dry forests and shrublands. Found on old lava flows, seasonally dry eroded slopes and along washed out gullies, 656-1,739 feet	✓	✓	✓		✓		
No common name *Abutilon sandwicense* **(CH)**	E	On steep slopes in dry forests, 1,312-1,969 feet					✓CH		
Liliwai *Acaena exigua*	E	Montane bogs, 5,250-5,906 feet		✓				✓	
No common name *Achyranthes mutica* **(CH)**	E	Koa (*Acacia koa*) lowland dry forest, ~3,030 feet	✓CH					✓	
Hinahina ewa *Achyranthes splendens* var. *rotundata*	E	Low elevation, open, dry forest remnants and open thickets, on talus or rocky slopes and on coralline plains			✓	✓	✓		
No common name *Adenophorus periens* **(CH)**	E	Epiphyte usually growing on ohia (*Metrosideros polymorpha*) trunks in closed canopy wet forests, 1,540-4,150 feet	✓CH		✓	✓CH	✓CH	✓CH	
Mahoe *Alectryon macrococcus* var. *auwahiensis* **(CH)**	E	Various dry to mesic forest types on well-weather substrate, 1,092-3,969 feet		✓CH					

Common Name and Scientific Name	Listing Status[a]	Habitat Description	Hawaii	Maui	Lanai	Molokai	Oahu	Kauai	N.W. Islands,[b] Kahoolawe, Niihau, or Oceanic
Mahoe *Alectryon macrococcus* var. *macrococcus* **(CH)**	E	Various dry to mesic forest types, 1,181-3,510 feet		✓CH		✓CH	✓CH	✓CH	
No common name *Amaranthus brownii* **(CH)**	E	Shallow soil on rocky outcrops in fully exposed locations, 100-800 feet							Ni CH
`Ahinahina, Ka`u silversword *Argyroxiphium kauense* **(CH)**	E	Bogs and openings in wet ohia forests, or areas of smooth lava within mesic shrubby ohia forests, 5,331-6,234 feet	✓CH						
`Ahinahina, Haleakala silversword *Argyroxiphium sandwicense* ssp. *macrocephalum* **(CH)**	T	Barren, unstable slopes of recent (<1,000 years) volcanic cinder cones		✓CH					
`Ahinahina, Mauna Kea *Argyroxiphium sandwicense* ssp. *Sandwicense*	E	Dry alpine desert and dry to moist subalpine shrublands and forests. Found on cinder cone slopes, cinder fields, lava flows, in rock gulches, and on cliffs	✓						
No common name *Asplenium diellaciniatum*	E	Fern found in montane, mesic forests at Kawaiiki and Kaluahaulu Ridge, Kauai						✓	
No common name *Asplenium peruvianum* var. *insulare* **(CH)** (listed as Asplenium fragile var. insulare)	E	Dark, moist areas, in rock crevices or at the mouths of lava tubes that receive very little light, 5,413-7,218 feet	✓CH	✓CH					
painiu *Astelia waialealae* **(CH)**	E	Bog san don bog hummocks in ohia montane wet forests, 4,000-5,000 feet						✓CH	

Common Name and Scientific Name	Listing Status[a]	Habitat Description	Hawaii	Maui	Lanai	Molokai	Oahu	Kauai	N.W. Islands,[b] Kahoolawe, Niihau, or Oceanic
Ko`oko`olau *Bidens micrantha* ssp. *kalealaha* **(CH)**	E	Sheer rock walls at elevations of 5,250-7,545 feet		✓CH	✓CH				
Ko`oko`olau *Bidens wiebkei* **(CH)**	E	Moist shrublands and forests dominated by ohia, in gulches and on ridges, 820-3,450 feet				✓CH			
No common name *Bonamia menziesii* **(CH)**	E	Dry to mesic forest, rarely in wet forest, 492-2,050 feet	✓CH	✓CH	✓	✓	✓CH	✓CH	
`Olulu *Brighamia insignis* **(CH)**	E	Sea cliffs and coastal bluffs, <1,575 feet						✓CH	Niihau CH
Pua `ala *Brighamia rockii* **(CH)**	E	Sea cliffs in coastal dry to mesic forests or shrublands, <1,542 feet		✓CH	✓	✓CH			
Uhiuhi *Caesalpinia kavaiensis*	E	Dry and moist forests, 262-3,018 feet	✓	✓	✓		✓	✓	
Maui reedgrass *Calamagrostis expansa*	E	Montane ridges above 6,000 feet or on raised hummocks in wet forests and bogs in montane wet ecosystem	✓	✓					
`Awikiwiki *Canavalia molokaiensis* **(CH)**	E	Moist shrublands and forests on gulch slopes and bottoms, 2,788-3,051 feet				✓CH			
Awikiwiki *Canavalia napaliensis* **(CH)**	E	Dry and moist shrublands and forests in gulches, on ridges, and on gently slopes valley bottoms, 20-1,900 feet						CH	
Kamanomano *Cenchrus agrimonioides* var. *agrimonioides* **(CH)**	E	Dry, rocky ridges or slopes, or ridges in mesic ohia-koa forest, 1,830-2,700 feet	✓	✓CH	✓		✓CH		

Common Name and Scientific Name	**Listing Status[a]**	**Habitat Description**	**Hawaii**	**Maui**	**Lanai**	**Molokai**	**Oahu**	**Kauai**	**N.W. Islands,[b] Kahoolawe, Niihau, or Oceanic**
Kamanomano *Cenchrus agrimonioides* var. *Laysanensis*	E	Atoll dunes							L, Ku, M
`Awiwi *Centaurium sebaeoides* **(CH)**	E	Volcanic or clay soils or on cliffs in arid coastal areas, <400 feet		✓CH	✓	✓CH	✓CH	✓CH	
`Akoko *Chamaesyce celastroides* var. *kaenana* **(CH)**	E	Exposed, windswept ridges of moderate to steep slope in wet ohia-uluhe shrublands, 2,300-2,800 feet					✓CH		
`Akoko *Chamaesyce deppeana* **(CH)**	E	Moist shrublands on windswept steep slopes, cliffs and ledges, ~1,000 feet					✓CH		
`Akoko *Chamaesyce eleanoriae* **(CH)**	E	Moist areas on narrow ridges crests and outcrops and less commonly on steep rocky slopes and cliffs, 885-3,499 feet						✓CH	
`Akoko *Chamaesyce halemanui* **(CH)**	E	Steep slopes of gulches in mesic koa forests, 2,160-3,600 feet						✓CH	
`Akoko *Chamaesyce herbstii* **(CH)**	E	Moist koa-ohia forests in gulch bottoms or gulch slopes, 1,750-2,300 feet					✓CH		
`Akoko *Chamaesyce kuwaleana* **(CH)**	E	Arid basaltic cliffs, exposed rocky dry ridges and on sparsely vegetated steep cliffs, 600-1,050 feet					✓CH		
`Akoko *Chamaesyce remyi* var. *kauaiensis* **(CH)**	E	Wet forest dominated by ohia, 1,900-2,297 feet						✓CH	

Common Name and Scientific Name	Listing Status[a]	Habitat Description	Hawaii	Maui	Lanai	Molokai	Oahu	Kauai	N.W. Islands,[b] Kahoolawe, Niihau, or Oceanic
`Akoko *Chamaesyce remyi* var. *remyi* **(CH)**	E	Wet forest dominated by ohia and uluhe, 1,200-4,100 feet						✓CH	
`Akoko *Chamaesyce rockii* **(CH)**	E	Rainforests and shrublands, primarily along cloud-swept ridges, <2,720 feet					✓CH		
`Akoko *Chamaesyce skottsbergii* var. *kalaeloana* (listed as *Euphorbia skottsbergii* var. *kalaeloana*)	E	Ewa Plains					✓		
Papala *Charpentiera densiflora* **(CH)**	E	Moist forests, especially in gulch bottoms, 400-2,200 feet						✓CH	
`Oha wai *Clermontia drepanomorpha* **(CH)**	E	Wet forests, 3,850-5,150 feet	✓CH						
`Oha wai *Clermontia lindseyana* **(CH)**	E	Montane rainforest, <7,054 feet	✓CH	✓CH					
`Oha wai *Clermontia oblongifolia* ssp. *brevipes* **(CH)**	E	Wet forest on slopes, 3,610-3,937 feet				✓CH			
`Oha wai *Clermontia oblongifolia* ssp. *mauiensis* **(CH)**	E	Sides of ridges in ohia-dominated montane wet forest, 2,790-2,950 feet		✓CH	✓				
`Oha wai *Clermontia peleana* ssp. *peleana* **(CH)**	E	Montane wet forests of windward slopes, 1,800-3,800 feet	✓CH						
`Oha wai *Clermontia peleana* ssp. *singuliflora* **(CH)**	E	Montane wet forests of windward slopes, 1,800-3,800 feet	✓CH	✓					
`Oha wai *Clermontia pyrularia* **(CH)**	E	Koa (*Acacia koa*) and ohia dominated montane wet forests and subalpine dry forests, 3,000-7,000 feet	✓CH						

Common Name and Scientific Name	Listing Status[a]	Habitat Description	Hawaii	Maui	Lanai	Molokai	Oahu	Kauai	N.W. Islands,[b] Kahoolawe, Niihau, or Oceanic
`Oha wai *Clermontia samuelii* ssp. *hanaensis* **(CH)**	E	Wet forests dominated by ohia and uluhe (*Dicranopteris linearis*)		✓CH					
`Oha wai *Clermontia samuellii* ssp. *samuelii* **(CH)**	E	Wet forests dominated by ohia and olapa (*Cheirodendron trigynum*), 2,380-7,365 feet		✓CH					
Kauila *Colubrina oppositifolia* **(CH)**	E	Dry to moist forest, 787-3,018 feet	✓CH	✓CH			✓CH		
Pauoa *Ctenitis squamigera* **(CH)**	E	Understory of lowland mesic forests, 1,247-3,002 feet		✓CH	✓	✓CH	✓CH	✓CH	
Haha *Cyanea acuminata* **(CH)**	E	Wet forests in gulch bottoms, on gulch slopes, on ridge crests, and on streambanks, 1,000-3,000 feet					✓CH		
Haha *Cyanea asarifolia* **(CH)**	E	Grows in pockets of soil on sheer rock cliffs in lowland wet forests, ~1,080 feet						✓CH	
Haha *Cyanea copelandii* ssp. *copelandii*	E	Wet montane forests dominated by *Cibotium* spp, 2,165-5,249 feet	✓						
Haha *Cyanea copelandii* ssp. *haleakalaensis* **(CH)**	E	Stream banks and wet scree slopes at the base of cliffs and in forest understory in montane wet or mesic forest dominated by ohia and/or koa, 2,018-4,625 feet		✓CH					

Common Name and Scientific Name	Listing Status[a]	Habitat Description	Hawaii	Maui	Lanai	Molokai	Oahu	Kauai	N.W. Islands,[b] Kahoolawe, Niihau, or Oceanic
Haha *Cyanea crispa* **(CH)**	E	Habitats range from steep, open mesic forests to gentle slopes or moist gullies in closed wet forests, 600-2,400 feet					✓CH		
Haha *Cyanea dolichopoda* **(CH)**	E	Ohia lowland wet shrubland on cliff faces, ~2,300 feet						✓CH	
Haha *Cyanea dunbariae* **(CH)**	E	Moist and wet forests on moderate to steep slopes along streams				✓CH			
Haha *Cyanea eleeleensis* **(CH)**	E	Wet forests, shaded gulches, ~699 feet						✓CH	
Haha *Cyanea glabra* **(CH)**	E	Wet forests dominated by ohia and/or koa on gulch slopes, 3,200-4,400 feet		✓CH					
Haha *Cyanea grimesiana* ssp. *grimesiana* **(CH)**	E	Mesic forest dominated by ohia or ohia and koa, on rocky or steep slopes of stream banks, 1,150-3,100 feet				✓CH	✓CH		
Haha *Cyanea grimesiana* ssp. *obatae* **(CH)**	E	Steep, moist, shady slopes in medium to wet forests, 1,800 to 2,200 feet					✓CH		
Haha *Cyanea hamatiflora* ssp. *carlsonii* **(CH)**	E	Mesic montane forest dominated by ohia, 4,000-5,700 feet	✓CH						
Haha *Cyanea hamatiflora* ssp. *hamatiflora* **(CH)**	E	Rainforests, 3,937-4,593 feet		✓CH					
Haha *Cyanea humboldtiana* **(CH)**	E	Wet shrubland dominated by ohia and uluhe, 1,800-3,150 feet					✓CH		

Common Name and Scientific Name	Listing Status[a]	Habitat Description	Hawaii	Maui	Lanai	Molokai	Oahu	Kauai	N.W. Islands,[b] Kahoolawe, Niihau, or Oceanic
No common name *Cyanea kauaulaensis*	E	Leeward west Maui, on talus or basalt boulder-strewn slopes along perennial streams from 2.400 to 3,000 feet, in the lowland wet ecosystem		✓					
Haha *Cyanea kolekoleensis* **(CH)**	E	Lowland wet forest dominated by ohia and uluhe						✓CH	
Haha *Cyanea koolauensis* **(CH)**	E	Slopes and ridge crests in wet forest or shrubland dominated by ohia and uluhe, 1,700-2,660 feet					✓CH		
Haha *Cyanea kuhihewa* **(CH)**	E	Streambanks in wet forests						✓CH	
Haha *Cyanea lobata* ssp. *baldwinii* (listed as *Cyanea lobata*)	E	Steep stream banks, 1,805-3,000 feet			✓				
Haha *Cyanea magnicalyx* (listed as *Cyanea grimesiana* ssp. *grimesiana*) (**CH**)	E	Lowland mesic forests in valleys or on rocky or steep slopes of stream banks, 1,150-3,100 feet		✓CH					
Haha *Cyanea mannii* **(CH)**	E	Sides of deep gulches in ohia-dominated mesic to wet forests, 3,300-4,000 feet				✓CH			
Haha *Cyanea mauiensis* (listed as *Cyanea grimesiana* ssp. *grimesiana*)	E	Unknown, not seen for over 100 years		✓					
Haha *Cyanea mceldowneyi* **(CH)**	E	Montane wet forest with mixed ohia and koa, 3,034-4,200 feet		✓CH					
Haha *Cyanea munroi* (listed as *Cyanea grimesiana* ssp. *grimesiana*) (**CH**)	E	Wet cliffs			✓	✓CH			

Common Name and Scientific Name	Listing Status[a]	Habitat Description	Hawaii	Maui	Lanai	Molokai	Oahu	Kauai	N.W. Islands,[b] Kahoolawe, Niihau, or Oceanic
Haha *Cyanea pinnatifida* **(CH)**	E	Steep, wet, rocky slopes and shady ravines in diverse mesic forests, 1,608-1,706 feet					✓CH		
`Aku`aku *Cyanea platyphylla* **(CH)**	E	Lowland and montane wet forests dominated by ohia and koa, 390-3,000 feet	✓CH						
Haha *Cyanea procera* **(CH)**	E	Wet ohia dominated forest on steep rock walls with thin soil, ~3,480 feet				✓CH			
Haha *Cyanea recta* **(CH)**	T	Lowland wet or mesic ohia forest or shrubland, usually in gulches or on slopes, 1,300 to 3,070 feet						✓CH	
Haha *Cyanea remyi* **(CH)**	E	Lowland wet forests or shrubland, 1,180 to 3,060 feet						✓CH	
No common name *Cyanea rivularis* (listed as *Delissea rivularis*) **(CH)**	E	Steep slopes in ohia-olapa montane wet or mesic forests, near streams						✓CH	
Haha *Cyanea salicina* (listed as *Cyanea recta*) (**CH**)	T	Lowland wet or mesic ohia forest or shrubland, usually in gulches or on slopes						✓CH	
Haha *Cyanea shipmanii* **(CH)**	E	Koa and ohia dominated montane mesic forests, 5,400-6,200	✓CH						
Haha *Cyanea st.-johnii* **(CH)**	E	Wet, windswept slopes and ridges in ohia mixed shrubland or ohia-uluhe shrubland, 2,260-2,800 feet					✓CH		

Common Name and Scientific Name	**Listing Status[a]**	**Habitat Description**	**Hawaii**	**Maui**	**Lanai**	**Molokai**	**Oahu**	**Kauai**	**N.W. Islands,[b] Kahoolawe, Niihau, or Oceanic**
Haha *Cyanea stictophylla* **(CH)**	E	Koa and ohia dominated lowland mesic and wet forests, 3,500-6,400 feet	✓CH						
Haha *Cyanea superba* ssp. *regina* **(CH)**	E	Understory of lowland forests, 1,755-2,297 feet					✓CH		
Haha *Cyanea superba* ssp. *superba* **(CH)**	E	Understory of sloping terrain on well drained, rocky substrate, 1,760-2,200 feet					✓CH		
Haha *Cyanea truncata* **(CH)**	E	Windward slopes in mesic to wet forests, 800-1,300 feet					✓CH		
Haha *Cyanea undulata* **(CH)**	E	Ohia-uluhe wet forest, often on streambanks or steep-to-vertical slopes, from 2,200-2,600 feet						✓CH	
Kupukupu makalii *Cyclosorus boydiae*	E	In the lowland wet and montane wet ecosystems; on exposed, rocky, or moss-covered banks of stream courses	✓	✓			✓		
No common name *Cyperus fauriei* **(CH)**	E	Lowland dry forest, typically dominated by ohia and lama (*Diospyros* spp.), on a'a lava substrates, 380-6,000 feet	✓CH		✓	✓CH			
No common name *Cyperus neokunthianus*	E	Lowland wet ecosystem on west Maui		✓					
No common name *Cyperus pennatiformis* ssp. *bryanii* **(CH)** (listed as *Mariscus pennatiformis*)	E	Coastal sandy substrate at elevations just above sea level							L CH
No common name *Cyperus pennatiformis* ssp. *pennatiformis* **(CH)** (listed as *Mariscus pennatiformis*)	E	Open sites in mesic forests and low elevation grasslands , <3,900 feet		✓CH			✓CH	✓CH	

Common Name and Scientific Name	**Listing Status[a]**	**Habitat Description**	**Hawaii**	**Maui**	**Lanai**	**Molokai**	**Oahu**	**Kauai**	**N.W. Islands,[b] Kahoolawe, Niihau, or Oceanic**
Pu`uka`a *Cyperus trachysanthos* **(CH)**	E	Wet sites (mud flats, wet clay soil, or wet steep cliffs) on coastal cliffs or talus slopes, 10-525 feet			✓	✓	✓CH	✓CH	Niihau
Ha`iwale *Cyrtandra crenata*	E	Ravines or gulches in mesic to wet forests, 1,250-2,400 feet					✓		
Mapele *Cyrtandra cyaneoides* **(CH)**	E	Steep slopes or cliffs near streams or waterfalls in lowland or montane wet forest or shrubland dominated by ohia or ohia and uluhe						✓CH	
Ha`iwale *Cyrtandra dentata* **(CH)**	E	Gulches, slopes or ravines in mesic forest with ohia, ohia ha (*Syzigium sandwicensis*), and kukui (*Aleurites moluccanus*), 1,900-2,360 feet					✓CH		
Ha`iwale *Cyrtandra giffardii* **(CH)**	E	Wet montane forest dominated by tree fern (*Cibotium*), 2,400-4,900 feet	✓CH						
Ha`iwale *Cyrtandra kealiae* ssp. *kealiae* (listed as *Cyrtandra limahuliensis*) **(CH)**	T	Ohia-uluhe wet forest, wet cliffs and along drainages						✓CH	
Haiwale *Cyrtandra hematos*	E	Occurs in wet forest from 3,400 to 3,800 feet on eastern Molokai, in the montane wet ecosystem				✓			

Common Name and Scientific Name	Listing Status[a]	Habitat Description	Hawaii	Maui	Lanai	Molokai	Oahu	Kauai	N.W. Islands,[b] Kahoolawe, Niihau, or Oceanic
Ha`iwale *Cyrtandra munroi* **(CH)**	E	Lowland, diverse, mixed mesic to wet ohia forest, typically on rich, moist to wet, moderately steep talus slopes, 960-3,020 feet		✓CH	✓				
Ha`iwale *Cyrtandra oenobarba* **(CH)**	E	Lowland wet forest dominated by ohia						✓CH	
Ha`iwale *Cyrtandra paliku* **(CH)**	E	Vertical, shaded, north-facing basalt rock faces, which are windswept and often mist-shrouded within lowland wet forest dominated by ohia						✓CH	
Ha`iwale *Cyrtandra polyantha* **(CH)**	E	Ridges in ohia mesic or wet forests, 1,086-2,499 feet					✓CH		
Ha`iwale *Cyrtandra subumbellata* **(CH)**	E	Moist, forested slopes or gulch bottoms dominated by ohia or ohia and uluhe, 1,500-2,200 feet					✓CH		
Ha`iwale *Cyrtandra tintinnabula* **(CH)**	E	Lowland wet forest dominated by dense koa, ohia and tree fern, 2,100-3,400 feet	✓CH						
Ha`iwale *Cyrtandra viridiflora* **(CH)**	E	Windblown ridgetops in cloud-covered wet forest or shrubland, 2,260-2,800 feet					✓CH		
No common name *Delissea argutidentata* (listed as *Delissea undulata*) **(CH)**	E	Dry and mesic forests in open ohia and mamane (*Sophora chrysophylla*) forest, 3,300-5,700 feet	✓CH						
No common name *Delissea kauaiensis* (listed as *Delissea undulata*) **(CH)**	E	Rainforest. Considered extinct						✓CH	

Common Name and Scientific Name	Listing Status[a]	Habitat Description	Hawaii	Maui	Lanai	Molokai	Oahu	Kauai	N.W. Islands,[b] Kahoolawe, Niihau, or Oceanic
No common name *Delissea niihauensis* (listed as *Delissea undulata*)	E	Rainforest. Considered extinct							Niihau
No common name *Delissea rhytidosperma* **(CH)**	E	Diverse lowland mesic forests and koa dominated lowland dry forests that have well drained soils with medium to fine textured subsoil, 394-3,000 feet						✓CH	
No common name *Delissea subcordata* **(CH)**	E	Moderate to steep gulch slopes in mixed mesic forests, 531-3,362 feet					✓CH		
No common name *Delissea takeuchii* (listed as *Delissea subcordata*) **(CH)**	E	Lowland mesic forests, 1,805- 3,000 feet					✓CH		
No common name *Delissea undulata*	E	Dry and mesic forests in open ohia and mamane (*Sophora chrysophylla*) forest, 3,300-5,700 feet		✓					
No common name *Delissea waianaeensis* (listed as *Delissea subcordata*) **(CH)**	E	Lowland mesic forests, 804-2,493 feet					✓CH		
No common name *Deparia kaalaana*	E	Lowland wet ecosystem, on rocky stream banks and wet forests	✓	✓				✓	
No common name *Diellia erecta* **(CH)**	E	Lowland mesic forests dominated by ohia and lama, 700-5,200 feet	✓CH	✓CH	✓	✓CH	✓CH	✓CH	
No common name *Diellia falcata* **(CH)**	E	Deep shade or open understory in dryland forest, 1,280-2,700 feet					✓CH		
No common name *Diellia mannii* **(CH)**	E	Steep, dry, upland forest slopes, 1,640-3,280 feet						✓CH	

Common Name and Scientific Name	Listing Status[a]	Habitat Description	Hawaii	Maui	Lanai	Molokai	Oahu	Kauai	N.W. Islands,[b] Kahoolawe, Niihau, or Oceanic
No common name *Diellia pallida* **(CH)**	E	Bare soil on steep, rocky, dry slopes of lowland mesic forests, 1,700-2,300 feet						✓CH	
No common name *Diellia unisora* **(CH)**	E	Deep shade or open understory in dryland forest, 1,750-2,500 feet					✓CH		
No common name *Diplazium molokaiense* **(CH)**	E	Lowland to montane habitats, including montane mesic ohia-koa forest, 2,800-5,500 feet		✓CH	✓	✓CH	✓CH	✓CH	
No common name *Doryopteris angelica* **(CH)**	E	Ohia-koa montane mesic forest, 2,000-3,300 feet						✓CH	
Palapalai aumakua *Dryopteris crinalis* var. *Podosorus*	E	Steep to vertical riparian basalt walls within dark seeping drainages in ohia montane wet forest, 4,000-5,100 feet						✓CH	
Hohiu *Dryopteris glabra* var. *pusilla*	E	Montane wet ecosystem on Kauai, in deep shade on rocky, mossy streambanks, in wet forests above 4,000 feet						✓	
Na`ena`e *Dubautia herbstobatae* **(CH)**	E	Rock outcrops on north-facing ridges in dry shrubland, 1,900-3,000 feet					✓CH		
Na`ena`e *Dubautia imbricata* ssp. *imbricata* **(CH)**	E	Lowland wet ohia forest and bogs, 2,165-3,640 feet						✓CH	
Na`ena`e *Dubautia kalalauensis* **(CH)**	E	Ohia wet forests, 4,000-4,050 feet						✓CH	
Na`ena`e *Dubautia kenwoodii* **(CH)**	E	Cliff face in mesic shrubland and forest, ~2,625 feet						✓CH	

Common Name and Scientific Name	Listing Status[a]	Habitat Description	Hawaii	Maui	Lanai	Molokai	Oahu	Kauai	N.W. Islands,[b] Kahoolawe, Niihau, or Oceanic
Kaholapehu *Dubautia latifolia* **(CH)**	E	Gentle to steep slopes on well-drained soil in semi-open, diverse montane mesic forest dominated by koa and ohia, 3,200-3,900 feet						✓CH	
Na`ena`e *Dubautia pauciflorula* **(CH)**	E	Stunted mesic forests and uluhe slopes, 2,000-3,300 feet						✓CH	
Na`ena`e *Dubautia plantaginea* ssp. *humilis* **(CH)**	E	Wet, barren, steep, rocky, wind-blown cliffs, 870-5,230 feet		✓CH					
Na`ena`e *Dubautia plantaginea* ssp. *magnifolia* **(CH)**	E	Wet cliff and wet forest and shrubland, 1,542-2,395 feet						✓CH	
Na`ena`e *Dubautia waialealae* **(CH)**	E	Bogs in montane wet areas, 3,980-5,249 feet						✓CH	
No common name *Eragrostis fosbergii* **(CH)**	E	Ridge crests or moderate slopes in native or alien forests, 2,360-2,720 feet					✓CH		
Nioi *Eugenia koolauensis* **(CH)**	E	Dry gulches and ridges in mesic forests dominated by ohia and/or lama, 350-1,000 feet				✓CH	✓CH		
No common name *Euphorbia haeleeleana* **(CH)**	E	Lowland mixed mesic or dry forests often dominated by ohia, ohia and koa, lama, or kukui, 680-2,200 feet					✓CH	✓CH	

Common Name and Scientific Name	Listing Status[a]	Habitat Description	Hawaii	Maui	Lanai	Molokai	Oahu	Kauai	N.W. Islands,[b] Kahoolawe, Niihau, or Oceanic
Heau *Exocarpos luteolus* **(CH)**	E	Variety of habitats: wet places bordering swamps; open, dry ridges; lowland to montane, ohia-dominated wet forest communities; 2,000-3,500 feet						✓CH	
Heau *Exocarpos menziesii*	E	Within the montane dry ecosystem, in Metrosideros shrubland or drier forest areas, and on lava flows with sparse vegetation, from 4,600 to 6,900 feet	✓		✓				
No common name *Festuca hawaiiensis*	E	Within montane dry ecosystem in dry forests at 6,500 feet elevation	✓	✓					
Mehamehame *Flueggea neowawraea* **(CH)**	E	Dry to mesic forest, 820-3,280 feet	✓CH	✓CH		✓CH	✓CH	✓CH	
No common name *Gahnia lanaiensis*	E	Shrubby rainforest on flat to gentle ridge crest topography, 3,000-3,360 feet			✓				
Nanu *Gardenia brighamii*	E	Dry forest, in rocky gulches, or on plateau lands with deep soils, or old forested lava flows, 1,000-1,800 feet	✓	✓	✓	✓	✓		
Nanu *Gardenia mannii* **(CH)**	E	Moderate to moderately steep gulch slopes in mesic or wet forests where ohia co-dominated with a mixture of native plants, 980-2,460 feet					✓CH		

Common Name and Scientific Name	Listing Status[a]	Habitat Description	Hawaii	Maui	Lanai	Molokai	Oahu	Kauai	N.W. Islands,[b] Kahoolawe, Niihau, or Oceanic
Nanu *Gardenia remyi*	E	Within lowland mesic and wet ecosystems, in mesic to wet forest from 190 to 3,000 feet	✓	✓		✓		✓	
Nohoanu *Geranium arboreum* **(CH)**	E	Moist gulches, steep, narrow canyons in shaded, cloudy areas near the upper limit of native forest growth, 5,000-7,000 feet		✓CH					
Nohoanu *Geranium kauaiense* **(CH)**	E	Montane wet bogs and bog margins dominated by ohia and *Rhynchospora*, 4,000-4,800 feet						✓CH	
Nohoanu *Geranium multiflorum* **(CH)**	E	Found mostly in wet forests; however, also found in montane grasslands, montane bog edges, fog-swept lava flows, gulch slopes of montane wet forests, and subalpine shrublands, 5,183-7,415 feet		✓CH					
No common name *Gouania hillebrandii* **(CH)**	E	Lowland dry tropical ridges of weathered lava		✓CH	✓	✓			Kahoolawe
No common name *Gouania meyenii* **(CH)**	E	Rocky ledges, cliff faces, and ridge tops in dry shrubland or ohia lowland mesic forest, 1,900-2,700 feet					✓CH	✓CH	
No common name *Gouania vitifolia* **(CH)**	E	Dry to mesic forests, in gulches	✓CH	✓CH			✓CH		

Common Name and Scientific Name	Listing Status[a]	Habitat Description	Hawaii	Maui	Lanai	Molokai	Oahu	Kauai	N.W. Islands,[b] Kahoolawe, Niihau, or Oceanic
No common name *Haplostachys haplostachya*	E	Montane shrubland on basaltic plains, often associated with cinder cones and small hills, 5,000-6,000 feet	✓	✓				✓	
`Awiwi *Hedyotis cookiana* **(CH)**	E	Streambeds or steep cliffs close to water sources in lowland wet forests, 560-1,200 feet	✓					✓CH	
Kio`ele *Hedyotis coriacea* **(CH)**	E	Steep, rocky slopes in dry to mesic in aalii (*Dodonaea viscosa*) dominated shrublands or forests, 1,560-7,500 feet	✓CH	✓CH			✓CH		
No common name *Hedyotis degeneri* var. *coprosmifolia* **(CH)**	E	Diverse mesic forests, 1,198-1,247 feet					✓CH		
No common name *Hedyotis degeneri* var. *degeneri* **(CH)**	E	Dry to mesic habitats on and around steep cliffs in montane forests, 1,198-1,247 feet					✓CH		
Pilo *Hedyotis mannii* **(CH)**	E	Dark, narrow, rocky gulch walls in mesic and wet forests, 490-3,450 feet		✓CH	✓	✓			
No common name *Hedyotis parvula* **(CH)**	E	On and at the bases of cliff faces, rock outcrops, and ledges in dry habitat, 2,350-2,730 feet					✓CH		
Kopa *Hedyotis schlechtendahliana* var. *remyi*	E	On or near ridge crests in mesic windswept mixed shrubland, 2,400-3,000 feet			✓				

Common Name and Scientific Name	Listing Status[a]	Habitat Description	Hawaii	Maui	Lanai	Molokai	Oahu	Kauai	N.W. Islands,[b] Kahoolawe, Niihau, or Oceanic
No common name *Hedyotis st.-johnii* **(CH)**	E	Crevices of near-vertical coastal cliff faces, confined to north-facing cliffs within the spray zone below 250 feet						✓CH	
No common name *Hesperomannia arborescens* **(CH)**	E	Slopes or ridges in lowland wet forests or scrub, 1,200-2,500 feet		✓	✓	✓CH	✓CH		
No common name *Hesperomannia arbuscula* **(CH)**	E	Slopes and ridges in mesic to wet forests dominated by koa and ohia, 1,200-3,000 feet		✓CH			✓CH		
No common name *Hesperomannia lydgatei* **(CH)**	E	Ohia wet forests on or near streambanks, 2,165-2,540 feet						✓CH	
Hau kuahiwi *Hibiscadelphus distans*	E	Dry forests and shrublands on bluffs and cliff edges on basaltic bedrock overlain by dry, crumbly red-brown soil (inceptisol), 1,000-1,800 feet						✓	
Hau kuahiwi *Hibiscadelphus giffardianus* **(CH)**	E	Mixed montane mesic forests, 3,900-4,300 feet	✓CH						
Hau kuahiwi *Hibiscadelphus hualalaiensis* **(CH)**	E	Mixed dry to mesic forests remnants on lava fields, 3,000-3,350 feet	✓CH						
Hau kuahiwi *Hibiscadelphus woodii* **(CH)**	E	Basalt talus or cliff walls in ohia montane mesic forest around 3,000 feet						✓CH	
Koki`o ke`oke`o *Hibiscus arnottianus* ssp. *immaculatus* **(CH)**	E	Mesic forests, 50-1,600 feet				✓			
Ma`o hau hele *Hibiscus brackenridgei* ssp. *brackenridgei* **(CH)**	E	Lowland dry forest and plains, 800-1,400 feet	✓CH	✓CH	✓				

Common Name and Scientific Name	Listing Status[a]	Habitat Description	Hawaii	Maui	Lanai	Molokai	Oahu	Kauai	N.W. Islands,[b] Kahoolawe, Niihau, or Oceanic
Ma`o hau hele *Hibiscus brackenridgei* ssp. *mokuleianus* **(CH)**	E	Lowland dry to mesic forest and shrubland, 394-787 feet				✓CH	✓CH		
Ma`o hau hele *Hibiscus brackenridgei* ssp. *molokaiana* **(CH)**	E	Dry grassland, shrubland and forest				✓CH	✓CH		
Koki`o `ula`ula *Hibiscus clayi* **(CH)**	E	Lowland dry forest on slopes, 750-1,150 feet						✓CH	
Koki`o ke`oke`o *Hibiscus waimeae* ssp. *hannerae* **(CH)**	E	Lowland wet or mesic forest, 620-1,850 feet						✓CH	
Wawae`iole *Huperzia mannii* **(CH)**	E	Grows on plants such as ohia, aalii or koa in mesic to wet montane forests, 1,969-5,250 feet	✓	✓				✓	
Wawae`iole *Huperzia nutans* **(CH)**	E	Grows on the ground or on tree trunks and limbs, in wet forests and shrubland on ridge crests and slopes in ohia-dominated wet and mesic forests, 2,000-3,500 feet					✓	✓	
No common name *Huperzia stemmermanniae*	E	Within montane wet ecosystem, on rough bark of living trees or fallen logs in *Metrosideros polymorpha-Acacia koa* forest on the island of Hawaii, from 3,200 to 3,800 feet	✓	✓					
Olua *Hypolepis hawaiiensis* var. *mauiensis*	E	Wet forests within montane wet ecosystem		✓					
Hilo ischaemum *Ischaemum byrone* **(CH)**	E	Coastal dry shrubland near the ocean among rocks and cliffs, 0-250 feet	✓CH	✓CH		✓CH	✓	✓CH	

Common Name and Scientific Name	Listing Status[a]	Habitat Description	Hawaii	Maui	Lanai	Molokai	Oahu	Kauai	N.W. Islands,[b] Kahoolawe, Niihau, or Oceanic
Aupaka *Isodendrion hosakae* **(CH)**	E	Dry shrubland and grassland on cinder cones, 2,953-3,379 feet	✓CH						
Aupaka *Isodendrion laurifolium* **(CH)**	E	Diverse mesic forest, or rarely wet forest, dominated by ohia, koa and ohia, or ohia and lama, 1,620-2,700 feet					✓CH	✓CH	
Aupaka *Isodendrion longifolium* **(CH)**	T	Steep slopes, gulches, and stream banks in mixed mesic or wet ohia forest, 1,350-2,500 feet					✓CH	✓CH	
Wahine noho kula *Isodendrion pyrifolium* **(CH)**	E	Bare rocky hills and wooded ravines in dry shrublands, 1,191-3,162 feet	✓	✓CH	✓	✓CH	✓CH		Niihau
Ohe *Joinvillea ascendens* ssp. *Ascendens*	E	Wet to mesic lowland and montane forests	✓	✓		✓	✓	✓	
Kamapuaa *Kadua fluviatilis*	E	On Kauai, within lowland mesic ecosystem, in mixed native shrubland and *Metrosideros* forest from 750 to 2,200 feet and in open shrubland with sparse tree cover; on Oahu, occurs along rocky streambanks in wet *Metrosideros* forest from 820 to 1,990 feet					✓	✓	

Common Name and Scientific Name	**Listing Status[a]**	**Habitat Description**	**Hawaii**	**Maui**	**Lanai**	**Molokai**	**Oahu**	**Kauai**	**N.W. Islands,[b] Kahoolawe, Niihau, or Oceanic**
No common name *Kadua haupuensis*	E	Limited historical information, but recently discovered from one occurrence along cliffs in an isolated area of southern Kauai, from 980 to 1,640 feet, within a lowland mesic ecosystem						✓	
Kohe malama malama o Kanaloa *Kanaloa kahoolawensis* **(CH)**	E	Steep rocky talus slopes in mixed coastal shrubland, 150-200 feet							Kahoolawe CH
No common name *Keysseria erici* **(CH)**	E	Ohia mixed bogs, 4,000-5,120 feet						✓CH	
No common name *Keysseria helenae* **(CH)**	E	Ohia or mixed sedge and grass bogs, 3,900-5,120 feet						✓CH	
Koki`o *Kokia cookei*	E	Dryland forest on the western (leeward) end of Molokai, ~660 feet				✓			
Hau hele `ula; koki`o *Kokia drynarioides* **(CH)**	E	Native dry forests on rough lava with a thin, extremely well-drained soil, 1,493-6,283 feet	✓CH						
Koki`o *Kokia kauaiensis* **(CH)**	E	Diverse mesic forest, 1,960-2,600 feet						✓CH	
Kamakahala *Labordia cyrtandrae* **(CH)**	E	Shady gulches, slopes, and glens in mesic to wet forests and shrublands dominated by ohia, uluhe lau nui (*Diplopterygium pinnatum*), and/or koa, 695-4,044 feet					✓CH		
Kamakahala *Labordia helleri* **(CH)**	E	Ohia-koa-uluhe mesic to wet forest, 1,200-3,900 feet						✓CH	

Common Name and Scientific Name	Listing Status[a]	Habitat Description	Hawaii	Maui	Lanai	Molokai	Oahu	Kauai	N.W. Islands,[b] Kahoolawe, Niihau, or Oceanic
No common name *Labordia lorenciana*	E	Forests in montane mesic ecosystem at 3,800 feet						✓	
Kamakahala *Labordia lydgatei* **(CH)**	E	Wet forests on ridge slopes dominated by ohia and uluhe, ~1,300 feet						✓CH	
Kamakahala *Labordia pumila* **(CH)**	E	Ohia mixed sedge and grass bogs in montane wet ecosystems, 3,478-5,100 feet						✓CH	
Kamakahala *Labordia tinifolia* var. *lanaiensis*	E	Lowland mesic forest associated with uluhe and naupaka kuahiwi (*Scaevola chamissoiniana*), 2,330-3,350 feet			✓				
Kamakahala *Labordia tinifolia* var. *wahiawaensis* **(CH)**	E	Along streams in lowland wet forests dominated by ohia, often in association with olapa or uluhe						✓CH	
Kamakahala *Labordia triflora* **(CH)**	E	Gulch slopes in mixed mesic ohia forest, 625-3,755 feet				✓CH			
`Anaunau *Lepidium arbuscula* **(CH)**	E	Exposed ridge tops and cliff faces in mesic communities, 755-3,000 feet					✓CH		
Anaunau *Lepidium orbiculare*	E	Mesic forests in the lowland mesic ecosystem						✓	
Nehe *Lipochaeta lobata* var. *leptophylla* **(CH)**	E	Dry coastal habitats and shrubland, 1500-2,500 feet					✓CH		
No common name *Lobelia gaudichaudii* ssp. *koolauensis* **(CH)**	E	Moderate to steep slopes in ohia or ohia-uluhe lowland wet shrublands, 2,100-2,400 feet					✓CH		

Common Name and Scientific Name	Listing Status[a]	Habitat Description	Hawaii	Maui	Lanai	Molokai	Oahu	Kauai	N.W. Islands,[b] Kahoolawe, Niihau, or Oceanic
No common name *Lobelia monostachya* **(CH)**	E	Steep, sparsely vegetated cliffs in mesic shrubland, 144-2,014 feet					✓CH		
No common name *Lobelia niihauensis* **(CH)**	E	Exposed mesic to dry cliffs, 330-2,720 feet					✓CH	✓CH	Niihau
No common name *Lobelia oahuensis* **(CH)**	E	Summit cliffs in cloud-swept wet forests or in areas of low shrub cover frequently exposed to heavy wind and rain, 2,800-3,000 feet					✓CH		
Lehua makanoe *Lysimachia daphnoides* **(CH)**	E	Ohia mixed bogs on hummocks, 3,960-4,440 feet						✓CH	
No common name *Lysimachia filifolia* **(CH)**	E	Mossy banks at the base of cliff faces, within the spray zone of waterfalls, or along streams in lowland wet forests, 800-2,200 feet					✓CH	✓CH	
No common name *Lysimachia iniki* **(CH)**	E	Wet, mossy, or rocky cliffs in wet cliff communities, ~2,400 feet						✓CH	
No common name *Lysimachia lydgatei* **(CH)**	E	Stunted native vegetation on the sides of steep ridges and slopes in mesic shrubland, 2,700-3,200 feet		✓CH					
No common name *Lysimachia maxima* **(CH)**	E	Ohia-uluhe montane wet forest, ~3,200 feet				✓CH			
No common name *Lysimachia pendens* **(CH)**	E	Wet, mossy, or rocky cliffs in wet cliff ecosystem, ~2,400 feet						✓CH	

Common Name and Scientific Name	Listing Status[a]	Habitat Description	Hawaii	Maui	Lanai	Molokai	Oahu	Kauai	N.W. Islands,[b] Kahoolawe, Niihau, or Oceanic
No common name *Lysimachia scopulensis* **(CH)**	E	Cliffs in lowland diverse mesic forest pockets, 2,950-3,200 feet						✓CH	
No common name *Lysimachia venosa* **(CH)**	E	Ohia dominated wet forest areas in wet cliff ecosystem, 3,000-5,700 feet						✓CH	
`Ihi`ihi *Marsilea villosa* **(CH)**	E	Open areas that flood periodically, such as shallow depressions and floodplains with clay soils, <500 feet				✓	✓CH		Niihau
Nehe *Melanthera fauriei* **(CH)** (listed as *Lipochaeta fauriei)*	E	Moderate shade to full sun, often on the sides of steep gulches in diverse lowland mesic forests, 1,570-2,950 feet						✓CH	
Nehe *Melanthera kamolensis* **(CH)** (listed as *Lipochaeta kamolensis*)	E	Lowland dry forest or shrubland, 131-1,969 feet		✓CH					
Nehe *Melanthera micrantha* ssp. *exigua* **(CH)** (listed as *Lipochaeta micrantha*)	E	Diverse mesic forest, 980-1,310 feet						✓CH	
Nehe *Melanthera micrantha* ssp. *micrantha* **(CH)** (listed as *Lipochaeta micrantha*)	E	Diverse mesic forest, 980-1,310 feet						✓CH	
Nehe *Melanthera tenuifolia* **(CH)** (listed as *Lipochaeta tenuifolia*)	E	Ridgetops and cliff faces in open areas and protected pockets of diverse mesic forest dominated by ohia, 1,200-3,000 feet					✓CH		

Common Name and Scientific Name	Listing Status[a]	Habitat Description	Hawaii	Maui	Lanai	Molokai	Oahu	Kauai	N.W. Islands,[b] Kahoolawe, Niihau, or Oceanic
Nehe *Melanthera venosa* (listed as *Lipochaeta venosa)*	E	Dry and windy montane dry shrubland dominated by exotic grasses, associated with well drained volcanic cinder or ash	✓						
Nehe *Melanthera waimeaensis* **(CH)** (listed as *Lipochaeta waimeaensis*)	E	Shrub-covered gulch in diverse lowland mesic forest, 1,150-1,300 feet					✓CH		
Alani *Melicope adscendens* **(CH)**	E	Dry, open forest, 3,280-4,000 feet		✓CH					
Alani *Melicope balloui* **(CH)**	E	Koa and ohia dominated montane wet forests, 2,500-5,000 feet		✓CH					
Alani *Melicope degeneri* **(CH)**	E	Ohia-olapa-uluhe montane wet forest, 3,000-3,800 feet						✓CH	
Alani *Melicope haupuensis* **(CH)**	E	Moist talus slopes in ohia dominated lowland mesic forests, 1,230-2,690 feet						✓CH	
Alani *Melicope knudsenii* **(CH)**	E	Forested flats or talus slopes in lowland dry to mesic forests, 1,500-3,300 feet		✓CH				✓CH	
Alani *Melicope lydgatei* **(CH)**	E	Open ridges in mesic forests and occasionally in wet forests, 1,350-1,800 feet					✓CH		
Alani *Melicope mucronulata* **(CH)**	E	Dryland forest on leeward side, 2,200-2,850 feet		✓CH		✓CH			
Alani *Melicope munroi*	E	Slopes in lowland wet shrublands, 2,600-3,350 feet			✓	✓			

Common Name and Scientific Name	Listing Status[a]	Habitat Description	Hawaii	Maui	Lanai	Molokai	Oahu	Kauai	N.W. Islands,[b] Kahoolawe, Niihau, or Oceanic
Alani *Melicope ovalis* **(CH)**	E	Ohia and koa forest, especially on stable banks of watercourses, 2,800-4,700 feet		✓CH					
Alani *Melicope pallida* **(CH)**	E	Steep rock faces in drier regions of lowland mesic forest, 1,600-3,000 feet					✓CH	✓CH	
Alani *Melicope paniculata* **(CH)**	E	Lowland wet forests dominated by ohia, 1,200-2,680 feet						✓CH	
Alani *Melicope puberula* **CH)**	E	Lowland wet and montane forests and bogs, 2,080-4,100 feet						✓CH	
Alani *Melicope quadrangularis*	E	Diverse lowland mesic to wet forests						✓	
Alani *Melicope reflexa* **(CH)**	E	Wet ohia-dominated forests, 2,490-3,900 feet				✓CH			
Alani *Melicope saint-johnii* **(CH)**	E	Mesic forested ridges, 1,640-2,800 feet					✓CH		
Alani *Melicope zahlbruckneri* **(CH)**	E	Koa and ohia dominated montane mesic forest, 3,920-4,265 feet	✓CH						
No common name *Microlepia strigosa* var. *mauiensis*	E	Mesic to wet forest from 1,400 to 6,000 feet, in the lowland mesic (Oahu), montane mesic (island of Hawaii), and montane wet (Maui and island of Hawaii) ecosystems	✓	✓				✓	

Common Name and Scientific Name	Listing Status[a]	Habitat Description	Hawaii	Maui	Lanai	Molokai	Oahu	Kauai	N.W. Islands,[b] Kahoolawe, Niihau, or Oceanic
No common name *Munroidendron racemosum* **(CH)**	E	Steep exposed cliffs or on ridge slopes in coastal to lowland mesic forests, few populations in mesic hala (*Pandanus tectorius*) forest						✓CH	
Kolea *Myrsine fosbergii*	E	In Oahu, *Metrosideros*–mixed native shrubland, from 2,200 to 2,800 feet; in Kauai, *Metrosideros-Diospyros* (ohia-lama) lowland mesic forest and *Metrosideros Cheirodendron* (ohia-olapa) montane wet forest, often on watercourses or stream banks, from 900 to 4,300 feet; in the lowland mesic, lowland wet, and montane wet ecosystems					✓	✓	
Kolea *Myrsine juddii* **(CH)**	E	Wet forests dominated by ohia or ohia and uluhe, 1,900-2,820 feet					✓CH		
Kolea *Myrsine knudsenii* **(CH)**	E	Koa-ohia-uluhe forest, 3,200-3,900 feet						✓CH	
Kolea *Myrsine linearifolia* **(CH)**	T	Mesic to wet ohia forests sometimes co-dominant with uluhe or olapa, 1,920-4,200 feet						✓CH	
Kolea *Myrsine mezii* **(CH)**	E	Montane mesic to wet koa-ohia forest, 3,380-3,480 feet						✓CH	

Common Name and Scientific Name	**Listing Status[a]**	**Habitat Description**	**Hawaii**	**Maui**	**Lanai**	**Molokai**	**Oahu**	**Kauai**	**N.W. Islands,[b] Kahoolawe, Niihau, or Oceanic**
No common name *Neraudia angulata* var. *angulata* **(CH)**	E	Slopes, ledges, or gulches in diverse mesic forest, 1,200-2,700 feet					✓CH		
No common name *Neraudia angulata* var. *dentata* **(CH)**	E	Slopes, ledges, or gulches in diverse mesic forest, 1,200-2,700 feet					✓CH		
No common name *Neraudia ovata* **(CH)**	E	Open ohia and mamane (*Sophora chrysophylla*) lowland and montane dry forests, 380-5,000 feet	✓CH						
No common name *Neraudia sericea* **(CH)**	E	Lowland dry to mesic ohia-aalii-pukiawe (*Styphelia tameiameiae*) shrubland or forest, 2,200-4,500 feet		✓CH	✓	✓CH			Kahoolawe
`Aiea *Nothocestrum breviflorum* **(CH)**	E	Lowland and montane dry forest and montane mesic forest dominated by ohia, koa, and/or lama, on a'a lava substrate, 260-6,000 feet	✓CH						
Aiea *Nothocestrum latifolium*	E	Dry to mesic forest in the dry cliff (Kauai, Oahu, Lanai, and Maui), lowland dry (Oahu, Lanai, and Maui), and lowland mesic (Oahu, Molokai, Lanai, and Maui) ecosystems		✓	✓	✓	✓	✓	
`Aiea *Nothocestrum peltatum* **(CH)**	E	Rich soils in steep slopes in montane mesic forests dominated by koa or ohia and koa, 3,000-4,000 feet						✓CH	

Common Name and Scientific Name	**Listing Status[a]**	**Habitat Description**	**Hawaii**	**Maui**	**Lanai**	**Molokai**	**Oahu**	**Kauai**	**N.W. Islands,[b] Kahoolawe, Niihau, or Oceanic**
Kulu`i *Nototrichium humile* **(CH)**	E	Cliff faces, gulches, or steep slopes in remnants of open dry forests often dominated by aulu (*Sapindus*) or lama, 200-2,300 feet		✓CH			✓CH		
Holei *Ochrosia haleakalae*	E	Dry to mesic forest, wet forest, and often lava, from 2,300 to 4,000 feet, in the dry cliff (Maui), lowland mesic (Maui and island of Hawaii), and montane mesic (Maui) ecosystems	✓	✓					
Holei *Ochrosia kilaueaensis*	E	Montane mesic forest, 2,200-4,000 feet	✓						
Carter's panic grass *Panicum fauriei* var. *carteri* **(CH)**	E	Basalt substrate of windward coastal cliffs within the salt spray zone		✓	✓	✓	✓CH		
Lau`ehu *Panicum niihauense* **(CH)**	E	Dry coastal habitats, calcareous sand dunes and rocky knolls, 30-50 feet						✓CH	Niihau
Makou *Peucedanum sandwicense* **(CH)**	T	Cliff habitats up to 3,000 feet		✓CH		✓CH	✓CH	✓CH	
No common name *Phyllostegia brevidens*	E	Wet forest on the islands of Maui and Hawaii from 2,900 to 3,200 feet, in the lowland wet (Maui), montane wet (Hawaii), and wet cliff (Maui) ecosystems	✓	✓					

Common Name and Scientific Name	Listing Status[a]	Habitat Description	Hawaii	Maui	Lanai	Molokai	Oahu	Kauai	N.W. Islands,[b] Kahoolawe, Niihau, or Oceanic
Ulihi *Phyllostegia glabra* var. *lanaiensis*	E	Lowland mesic to wet forest in gulch bottoms and sides, often in quite steep areas			✓				
No common name *Phyllostegia haliakalae* (listed as *Phyllostegia mollis*) **(CH)**	E	Steep slopes and gulches in diverse mesic to wet forests, 1,500-6,000 feet		✓CH		✓	✓CH		
No common name *Phyllostegia helleri*	E	On ridges or spurs from 2,800 to 4,000 feet in diverse forest in the lowland wet, montane wet, and wet cliff ecosystems						✓	
No common name *Phyllostegia hirsuta* **(CH)**	E	Steep, shaded slopes in mesic to wet forests dominated by ohia or ohia and uluhe, 1,970-3,610 feet					✓CH		
No common name *Phyllostegia hispida*	E	Wet ohia-dominated forest, dependent on disturbed habitat such as landslides and riparian areas 3,650-4,200 feet				✓			
No common name *Phyllostegia kaalaensis* **(CH)**	E	Gulch slopes and bottom and on almost vertical rock faces in mesic forest or aulu forest, 1,227-2,611 feet					✓CH		
No common name *Phyllostegia knudsenii* **(CH)**	E	Ohia lowland mesic forest, ~2,840 feet						✓CH	
No common name *Phyllostegia mannii* **(CH)**	E	Shaded sites in sometimes foggy and windswept, wet, open, ohia-dominated forests, 3,300-5,000 feet		✓CH		✓CH			

Common Name and Scientific Name	Listing Status[a]	Habitat Description	Hawaii	Maui	Lanai	Molokai	Oahu	Kauai	N.W. Islands,[b] Kahoolawe, Niihau, or Oceanic
No common name *Phyllostegia mollis*	E	Steep slopes and gulches in diverse mesic to wet forests, 1,500-6,000 feet					✓CH		
No common name *Phyllostegia parviflora* var. *glabriuscula*	E	Moderate to steep slopes in diverse wet forest, 1,640-2,700 feet	✓						
No common name *Phylostegia parviflora* var. *lydgatei* **(CH)**	E	Mesic forests on gulch slopes, restricted to north-facing slopes					✓CH		
No common name *Phyllostegia parviflora* var. *parviflora* **(CH)**	E	Wet submontane forest dominated by ohia, restricted to streambanks and below waterfalls		✓			✓CH		
No common name *Phyllostegia pilosa* (listed as *Phyllostegia mollis*)	E	Steep slopes and gulches in diverse mesic to wet forests, 1,500-6,000 feet		✓CH		✓CH			
Kiponapona *Phyllostegia racemosa* **(CH)**	E	Epiphyte on disturbed koa, ohia, and tree fern dominated montane mesic or wet forests, 4,650-6,070 feet	✓CH						
No common name *Phyllostegia renovans* **(CH)**	E	Ohia dominated wet forests, often near streams, 2,700-3,700 feet						✓CH	
No common name *Phyllostegia stachyoides*	E	Mesic to wet forest from 3,600 to 4,600 feet, in the montane wet (island of Hawai, Maui, and Molokai) and montane mesic (island of Hawaii and Maui) ecosystems	✓	✓		✓			
No common name *Phyllostegia velutina* **(CH)**	E	Ohia and koa dominated montane mesic and wet forests, 4,900-6,000 feet	✓CH						

Common Name and Scientific Name	Listing Status[a]	Habitat Description	Hawaii	Maui	Lanai	Molokai	Oahu	Kauai	N.W. Islands,[b] Kahoolawe, Niihau, or Oceanic
No common name *Phyllostegia waimeae* **(CH)**	E	Well-drained soils in clearings or along the banks of streams of diverse montane mesic to wet forests, 3,000-3,900 feet						✓CH	
No common name *Phyllostegia warshaueri* **(CH)**	E	Wet forests on old volcanic substrates, grows in ohia and hapuu montane wet forest where koa or olapa may codominate, 2,395-3,773 feet	✓CH						
No common name *Phyllostegia wawrana* **(CH)**	E	Ohia-dominated forest with either olapa or uluhe as codominant						✓CH	
Hoawa *Pittosporum napaliense* **(CH)**	E	*Pandanus* and lowland mesic forest, 400-2,100 feet						✓CH	
Laukahi kuahiwi *Plantago hawaiensis* **(CH)**	E	Variable, either in montane wet sedgeland with mixed sedges and grasses, or in montane mesic forest with stunted koa and ohia often growing in lava cracks, 5,900-8,040 feet	✓CH						
Laukahi kuahiwi *Plantago princeps* var. *anomala* **(CH)**	E	Steep slopes, rock walls, or at bases of waterfalls, 1,580-3,600 feet						✓CH	
Laukahi kuahiwi *Plantago princeps* var. *laxiflora* **(CH)**	E	Steep slopes, rock walls, or at bases of waterfalls, 1,580-3,600 feet	✓	✓CH		✓CH			

Common Name and Scientific Name	Listing Status[a]	Habitat Description	Hawaii	Maui	Lanai	Molokai	Oahu	Kauai	N.W. Islands,[b] Kahoolawe, Niihau, or Oceanic
Laukahi kuahiwi *Plantago princeps* var. *longibracteata* **(CH)**	E	Steep slopes, rock walls, or at bases of waterfalls, 1,580-3,600 feet					✓CH	✓CH	
Laukahi kuahiwi *Plantago princeps* var. *princeps* **(CH)**	E	Steep slopes, rock walls, or at bases of waterfalls, 1,580-3,600 feet					✓CH		
No common name *Platanthera holochila* **(CH)**	E	Ohia-uluhe montane wet forest or ohia mixed montane bog, 3,450-6,120 feet		✓CH		✓	✓CH	✓CH	
Pilo kea lau lii *Platydesma rostrata* **(CH)**	E	Lowland mesic, lowland wet, wet cliff, montane mesic, and montane wet ecosystems in forest dominated by koa and ohia, 2,500-4,000 feet						✓CH	
Hala pepe *Pleomele hawaiiensis* **(CH)**	E	Open a'a lava in diverse lowland dry forests, 1,000-2,700 feet	✓CH						
No common name *Poa mannii* **(CH)**	E	Cliffs and rock faces in lowland and montane mesic forests, 1,510-3,700 feet						✓CH	
No common name *Poa sandvicensis* **(CH)**	E	Wet, shaded, gentle to usually steep slopes, ridges and rock ledges in semi-open to closed, mesic to wet, diverse montane forest dominated by ohia, 3,400-4,100 feet						✓CH	
No common name *Poa siphonoglossa* **(CH)**	E	Shady banks near ridge crests in predominantly native mesic ohia forest, 3,300-3,900						✓CH	

Common Name and Scientific Name	Listing Status[a]	Habitat Description	Hawaii	Maui	Lanai	Molokai	Oahu	Kauai	N.W. Islands,[b] Kahoolawe, Niihau, or Oceanic
Po`e *Portulaca sclerocarpa* **(CH)**	E	Montane dry shrubland, often on bare cinder, near steam vents, and in open ohia woodlands, 1,030-1,630 feet	✓CH		✓CH				
Ihi *Portulaca villosa*	E	Dry, rocky, clay, lava, or coralline reef sites, from sea level to 1,600 feet, in the coastal and lowland dry ecosystems	✓	✓	✓	✓	✓	✓	✓
Loulu *Pritchardia affinis*	E	Coastal mesic forest, often near or in brackish water, <2,000 feet	✓						
Wahane *Pritchardia aylmer-robinsonii*	E	Rugged, steep talus slopes							Niihau
Baker's loulu *Pritchardia bakeri*	E	Lowland mesic ecosystem in the Koolau Mountains on Oahu, from 1,500 to 2,100 feet, in disturbed, windswept, and mostly exposed shrubby or grassy areas, and sometimes on steep slopes in these areas					✓		
Loulu *Pritchardia hardyi*	E	Lowland wet ohia-uluhe forest and shrubland and on windswept windward ridges and headwater drainages, 1,800-3,400 feet						✓CH	
Loulu *Pritchardia kaalae*	E	Steep slopes and gulches in mesic forest and shrubland, 1,500-3,100 feet					✓		

Common Name and Scientific Name	**Listing Status[a]**	**Habitat Description**	**Hawaii**	**Maui**	**Lanai**	**Molokai**	**Oahu**	**Kauai**	**N.W. Islands,[b] Kahoolawe, Niihau, or Oceanic**
Loulu *Pritchardia munroi*	E	Remnant dry to mesic forest, ~2,000 feet				✓			
Loulu *Pritchardia napaliensis*	E	Wide variety of habitats from lowland dry to mesic forests to montane wet forests, 500-3,800 feet						✓	
Loulu *Pritchardia remota* **(CH)**	E	Valleys and at the base of basaltic cliffs, 50-500 feet							Nihoa CH
Loulu *Pritchardia schattaueri*	E	Ohia dominated lowland mesic forest, 1,970-2,600 feet	✓						
Loulu *Pritchardia viscosa*	E	Ohia-uluhe lowland wet forest, 1,640-2,300 feet						✓	
Enaena *Pseudognaphalium sandwicensium* var. *molokaiense*	E	Strand vegetation in dry consolidated dunes, in the coastal ecosystem		✓	✓	✓	✓		
Kopiko *Psychotria grandiflora* **(CH)**	E	Koa-ohia mesic to wet forests, 3,400-4,100 feet						✓CH	
Kopiko *Psychotria hobdyi* **(CH)**	E	Lowland koa-ohia mesic forest, 1,700-2,700 feet						✓CH	
Kaulu *Pteralyxia kauaiensis* **(CH)**	E	Slopes and ridges in diverse mesic to sometimes wet forests, 810-1,990 feet						✓CH	
No common name *Pteris lidgatei* **(CH)**	E	Lowland wet ohia forest, generally on streambanks near waterfalls, 1,750-3,000 feet		✓CH		✓CH	✓CH		

Common Name and Scientific Name	Listing Status[a]	Habitat Description	Hawaii	Maui	Lanai	Molokai	Oahu	Kauai	N.W. Islands,[b] Kahoolawe, Niihau, or Oceanic
Makou *Ranunculus hawaiensis*	E	Mesic forest on grassy slopes and scree, and in open pastures, from 6,000 to 6,700 feet, in the montane mesic (island of Hawaii), montane dry (island of Hawaii), and subalpine (island of Hawaii and Maui) ecosystems	✓	✓					
Makou *Ranunculus mauiensis*	E	Open sites in mesic to wet forest and along streams, from 3,500 to 5,600 feet, in the montane wet (Kauai, Oahu, Molokai, and Maui), montane mesic (Kauai, Molokai, Maui, and island of Hawaii), and wet cliff (Molokai and Maui) ecosystems	✓	✓		✓	✓	✓	
No common name *Remya kauaiensis* **(CH)**	E	Steep, north or northeast facing slopes in mesic forests or remnants, 2,800-4,100 feet						✓CH	
No common name *Remya mauiensis* **(CH)**	E	Steep, north or northeast facing slopes in mixed forest or remnants, 2,790-4,100 feet		✓CH					
No common name *Remya montgomeryi* **(CH)**	E	Steep, north or northeast facing slopes in mesic forest or remnants, 2,800-4,100 feet						✓CH	
No common name *Sanicula mariversa* **(CH)**	E	Well-drained dry slopes, 2,500-2,800 feet					✓CH		

Common Name and Scientific Name	Listing Status[a]	Habitat Description	Hawaii	Maui	Lanai	Molokai	Oahu	Kauai	N.W. Islands,[b] Kahoolawe, Niihau, or Oceanic
No common name *Sanicula purpurea* **(CH)**	E	Open ohia mixed montane bogs, or occasionally ohia mixed montane wet shrubland, 2,300-5,570 feet		✓CH			✓CH		
No common name *Sanicula sandwicensis*	E	Shrubland and woodland from 6,500 to 8,500 feet, in the montane mesic (island of Hawaii and Maui), montane dry (island of Hawaii), and subalpine (island of Hawaii and Maui) ecosystems	✓	✓					
`Iliahi *Santalum freycinetianum* var. *lanaiense*	E	Diverse, including lowland dry forest on well-drained barren soils to mesic forest on shallow soils		✓	✓				
Iliahi *Santalum involutum*	E	Mesic and wet forest on, from 400 to 2,500 feet, in the lowland mesic and lowland wet ecosystems						✓	
Dwarf naupaka *Scaevola coriacea*	E	Hot, dry coastal sites on low, consolidated sand dunes near sea level	✓	✓	✓	✓	✓	✓	Niihau
No common name *Schiedea adamantis*	E	Volcanic cone of consolidated ash					✓		
No common name *Schiedea apokremnos* **(CH)**	E	Crevices of near-vertical coastal cliff faces with sparse, dry coastal shrubland, 200-1,100 feet						✓CH	
No common name *Schiedea attenuata* **(CH)**	E	Diverse mesic forest pockets and vertical cliffs, 2,297-2,625 feet						✓CH	

Common Name and Scientific Name	Listing Status[a]	Habitat Description	Hawaii	Maui	Lanai	Molokai	Oahu	Kauai	N.W. Islands,[b] Kahoolawe, Niihau, or Oceanic
No common name *Schiedea diffusa* ssp. *diffusa*	E	Wet forest from 3,000 to 5,300 feet on Molokai, and to 6,700 feet on Maui, in the lowland wet (Maui) and montane wet (Maui and Molokai) ecosystems		✓		✓			
No common name *Schiedea haleakalensis* **(CH)**	E	In rock cracks on sheer cliffs adjacent to barren lava and subalpine shrubland and grassland, 5,910-8,010 feet		✓CH					
No common name *Schiedea helleri* **(CH)**	E	Steep cliffs in closed ohia-uluhe montane wet forest, ~3,500 feet						✓CH	
No common name *Schiedea hookeri* **(CH)**	E	Diverse mesic or dry lowland forest, often with ohia or lama dominant, 1,200-2,950 feet		✓			✓CH		
No common name *Schiedea kaalae* **(CH)**	E	Steep slopes and shaded site sin diverse mesic forests, 700-2,600 feet					✓CH		
No common name *Schiedea kauaiensis* **(CH)**	E	Diverse mesic to wet forest on steep slopes						✓CH	
No common name *Schiedea kealiae* **(CH)**	E	Steep slopes and cliff faces in dry remnant wiliwili (*Erythrina sandwicensis*) or aulu forest, 200-1,000 feet					✓CH		
No common name *Schiedea laui*	E	Montane wet forest along streams				✓CH			
Kuawawaenohu *Schiedea lychnoides* (listed as *Alsinidendron lychnoides*) **(CH)**	E	Montane wet forest dominated by ohia or by ohia and uluhe, 3,600-4,330 feet						✓CH	

Common Name and Scientific Name	Listing Status[a]	Habitat Description	Hawaii	Maui	Lanai	Molokai	Oahu	Kauai	N.W. Islands,[b] Kahoolawe, Niihau, or Oceanic
No common name *Schiedea lydgatei* **(CH)**	E	Along ridges and on cattle trails in dry to mesic grasslands, shrublands, and forests, 2,000-2,100 feet				✓CH			
No common name *Schiedea membranacea* **(CH)**	E	Cliffs and cliff bases in a variety of mesic to wet habitats, 1,700-3,800 feet						✓CH	
No common name *Schiedea nuttallii* **(CH)**	E	Diverse lowland mesic forest, often ohia dominant, 1,360-2,590 feet		✓		✓	✓CH		
No common name *Schiedea obovata* (listed as *Alsinidendron obovatum*) **(CH)**	E	Ridges and slopes in lowland diverse mesic forest dominated by ohia and koa, 1,850-2,500 feet					✓CH		
No common name *Schiedea perlmanni* (listed as *Schiedea nuttallii)* **(CH)**	E	Diverse lowland mesic forest, often ohia dominant, 1,360-2,590 feet						✓CH	
Maolioli *Schiedea pubescens*	E	Mesic to wet *etrosideros* forest from 2,000 to 4,000 feet in the lowland wet, montane wet, montane mesic, and wet cliff ecosystems		✓	✓	✓			
No common name *Schiedea sarmentosa* **(CH)**	E	Steep slopes in ohia-aalii lowland dry or mesic shrubland, 2,000-2,600 feet				✓CH			

Common Name and Scientific Name	Listing Status[a]	Habitat Description	Hawaii	Maui	Lanai	Molokai	Oahu	Kauai	N.W. Islands,[b] Kahoolawe, Niihau, or Oceanic
No common name *Schiedea spergulina* var. *leiopoda* (listed as *Schiedea spergulina*) **(CH)**	E	Bare rock outcrops or sparsely vegetated portions of rocky cliff faces or cliff bases in diverse lowland mesic forest, 590-3,000 feet						✓CH	
No common name *Schiedea spergulina* var. *spergulina* (listed as *Schiedea spergulina*) **(CH)**	T	Bare rock outcrops or sparsely vegetated portions of rocky cliff faces or cliff bases in diverse lowland mesic forest, 590-3,000 feet						✓CH	
Laulihilihi *Schiedea stellarioides* **(CH)**	E	Steep Slopes in closed koa-ohia lowland to montane mesic forest, 2,000-3,680 feet						✓CH	
No common name *Schiedea trinervis* (listed as *Alsinidendron trinerve)* (**CH)**	E	Slopes in wet forest or wetter portions of diverse mesic forest dominated by ohia and kawau (*Ilex anomala*), 3,000-4,000 feet					✓CH		
No common name *Schiedea verticillata* **(CH)**	E	Soils pockets and cracks on coastal cliff faces, 100-800 feet							Ni
No common name *Schiedea viscosa* (listed as *Alsinidendron viscosum*) **(CH)**	E	Steep slopes in koa-ohia lowland mesic or wet forest, 2,700-3,510 feet						✓CH	
`Ohai *Sesbania tomentosa* **(CH)**	E	Sandy beaches, dunes, soil pockets on lava, and along pond margins in coastal dry shrublands or grasslands, or in open ohia forests	✓CH	✓CH	✓	✓CH	✓CH	✓CH	Kahoolawe, Niihau, Ne

Common Name and Scientific Name	Listing Status[a]	Habitat Description	Hawaii	Maui	Lanai	Molokai	Oahu	Kauai	N.W. Islands,[b] Kahoolawe, Niihau, or Oceanic
`Anunu *Sicyos alba* **(CH)**	E	Ohia and hapuu dominated montane wet forests, 3,200-3,720 feet	✓CH						
Anunu *Sicyos lanceoloideus*	E	Ridges or spurs in mesic forest from 1,800 to 2,700 feet, in the dry cliff (Oahu), lowland mesic (Oahu, Kauai), and montane mesic (Kauai) ecosystems					✓	✓	
Anunu *Sicyos macrophyllus*	E	Wet *Metrosideros polymorpha* forest and *Sophora chrysophylla-Myoporum sandwicense* (mamane-naio) forest, from 4,000 to 6,600 feet in the montane mesic (island of Hawaii), montane wet (Maui), and montane dry (island of Hawaii) ecosystems	✓	✓					
No common name *Silene alexandri* **(CH)**	E	Along cattle trail in remnant dry forest and shrubland, 2,00-2,500 feet				✓CH			
No common name *Silene hawaiiensis* **(CH)**	T	Montane and subalpine dry shrubland on weathered lava, lava flows, and cinder substrates, 3,000-8,500 feet	✓CH						
No common name *Silene lanceolata* **(CH)**	E	Dry to mesic shrubland and grassland, may grow on a'a lave, cliff faces, or ledges	✓CH		✓	✓CH	✓CH	✓	

Common Name and Scientific Name	Listing Status[a]	Habitat Description	Hawaii	Maui	Lanai	Molokai	Oahu	Kauai	N.W. Islands,[b] Kahoolawe, Niihau, or Oceanic
No common name *Silene perlmanii* **(CH)**	E	Cliff faces in diverse mesic forest, ~2,600 feet					✓CH		
Popolo ku mai *Solanum incompletum* **(CH)**	E	Dry and mesic shrublands and forests on ridges and in gulches, may be found on cinder cones or older lava flows, 1,000-6,700 feet	✓CH	✓	✓	✓		✓	
Popolo *Solanum nelsonii*	E	Coral rubble or sand in coastal sites up to 490 feet in the coastal ecosystem	✓	✓		✓			✓
Popolo `aiakeakua *Solanum sandwicense* **(CH)**	E	Open, sunny areas in diverse lowland to montane mesic forests, 2,500-4,000 feet					✓CH	✓CH	
No common name *Spermolepis hawaiiensis* **(CH)**	E	Various, including ohia forest, aalii lowland dry shrubland, cultivated fields, and pastures, 1,000-2,000 feet	✓CH	✓CH	✓	✓CH	✓CH	✓CH	
No common name *Stenogyne angustifolia* (listed as *Stenogyne angustifolia* var. *angustifolia*)	E	Montane shrubland on basaltic plains, often associated with cinder cones and small hills, 5,000-6,000 feet	✓	✓		✓			
No common name *Stenogyne bifida* **(CH)**	E	Steep ridges in ohia dominated montane mesic to wet forests, 1,1450-4,000 feet				✓CH			
No common name *Stenogyne campanulata* **(CH)**	E	Rock face of nearly vertical, north-facing cliffs, ~3,560 feet						✓CH	

Common Name and Scientific Name	Listing Status[a]	Habitat Description	Hawaii	Maui	Lanai	Molokai	Oahu	Kauai	N.W. Islands,[b] Kahoolawe, Niihau, or Oceanic
No common name *Stenogyne kaalae* ssp. *Sherffii*	E	Diverse forest from 1,500 to 1,600 feet in the lowland wet ecosystem					✓		
No common name *Stenogyne kanehoana* **(CH)**	E	Lowland mesic forest, 1,834-3,831 feet					✓CH		
No common name *Stenogyne kealiae* **(CH)**	E	Ohia, ohia-koa, and ohia-uluhe forests and shrublands, 3,550-4,100 feet						✓CH	
No common name *Tetramolopium arenarium* ssp. *arenarium* (listed as *Tetramolopium arenarium*)	E	Lowland and montane dry shrublands dominated by aalii, 2,600-5,500 feet	✓	✓					
No common name *Tetramolopium arenarium* ssp. *laxum* (listed as *Tetramolopium arenarium*)	E	Lowland and montane dry shrublands dominated by aalii, 2,600-5,500 feet		✓					
No common name *Tetramolopium arenarium* var. *arenarium* (listed as *Tetramolopium arenarium*)	E	Lowland and montane dry shrublands dominated by aalii, 2,600-5,500 feet	✓	✓					
No common name *Tetramolopium arenarium* var. *confertum (listed as Tetramolopium arenarium)*	E	Lowland and montane dry shrublands dominated by aalii, 2,600-5,500 feet	✓						
No common name *Tetramolopium capillare* **(CH)**	E	Dryland forest and shrubland		✓CH					
No common name *Tetramolopium filiforme* var. *filiforme* (listed as *Tetramolopium filiforme)* **(CH)**	E	Dry to mesic, on exposed rocky ridges and sparsely vegetated cliffs, often rooted in rock					✓CH		
No common name *Tetramolopium filiforme* var. *polyphyllum* (listed as *T. filiforme)* **(CH)**	E	Dry to mesic, on exposed rocky ridges and sparsely vegetated cliffs, often rooted in rock					✓CH		

Common Name and Scientific Name	Listing Status[a]	Habitat Description	Hawaii	Maui	Lanai	Molokai	Oahu	Kauai	N.W. Islands,[b] Kahoolawe, Niihau, or Oceanic
No common name *Tetramolopium lepidotum* ssp. *lepidotum* **(CH)**	E	Grassy ridgetop slopes, or west-facing cliffs, mesic forest, 1,200-3,000 feet			✓		✓CH		
No common name *Tetramolopium remyi* **(CH)**	E	Dry shrublands on ridgetops		✓CH	✓CH				
No common name *Tetramolopium rockii* var. *calcisabulorum* (listed as *Tetramolopium rockii)* **(CH)**	T	Hardened calcareous sand dunes or ash-covered basalt in the coastal spray zone or dry shrublands and grasslands, 30-650 feet				✓CH			
No common name *Tetramolopium rockii* var. *rockii* (listed as *Tetramolopium rockii)* **(CH)**	T	Hardened calcareous sand dunes or ash-covered basalt in the coastal spray zone or dry shrublands and grasslands, 30-650 feet				✓CH			
No common name *Tetraplasandra bisattenuata* **(CH)**	E	Uluhe covered slopes with patches of mesic forest, 1,800-2,100 feet						✓CH	
No common name *Tetraplasandra flynnii* **(CH)**	E	Ohia montane mesic to wet forests, 2,600-4,000 feet						✓CH	
`Ohe`ohe *Tetraplasandra gymnocarpa* **(CH)**	E	Windswept summit ridges or in gullies in wet or sometimes mesic forests, 820-2,790 feet					✓CH		
No common name *Trematolobelia singularis* **(CH)**	E	Steep, windswept cliff faces or slopes in ohia-uluhe montane wet shrubland, 2,300-3,150 feet					✓CH		

Common Name and Scientific Name	**Listing Status[a]**	**Habitat Description**	**Hawaii**	**Maui**	**Lanai**	**Molokai**	**Oahu**	**Kauai**	**N.W. Islands,[b] Kahoolawe, Niihau, or Oceanic**
Opuhe *Urera kaalae* **(CH)**	E	Slopes and in gulches in diverse mesic forest dominated by papala kepau (*Pisonia umbellifera*), 980-2,700 feet					✓CH		
Hawaiian vetch *Vicia menziesii*	E	Wet to mesic forest, 5,150-5,643 feet	✓						
No common name *Vigna o-wahuensis* **(CH)**	E	Lowland dry to mesic grassland and shrubland, 30-4,500 feet	✓CH	✓CH	✓	✓	✓CH		Kahoolawe, Niihau
`olopu; pamakani *Viola chamissoniana* ssp. *chamissoniana* **(CH)**	E	Dry cliffs in mesic shrubland, 2,300-3,040 feet					✓CH		
No common name *Viola helenae* **(CH)**	E	Wet forests and shrublands in gulch bottoms, gulch slopes, and on exposed ridge tops						✓CH	
Nani wai`ale`ale *Viola kauaensis* var. *wahiawaensis* **(CH)**	E	Open bog surrounded by low scrub of ohia and uluhe, or wet shrubland dominated by uluhe 2,100-2,840						✓CH	
No common name *Viola lanaiensis*	E	Moderate to steep slopes from lower gulches to ridgetops in mesic to wet forest, 2,200-3,200 feet			✓				
No common name *Viola oahuensis* **(CH)**	E	Exposed, windswept ridges of moderate to steep slope in wet ohia-uluhe shrublands, 2,300-2,800 feet					✓CH		
Akia *Wikstroemia skottsbergiana*	E	Wet forest in the lowland ecosystem						✓	

Common Name and Scientific Name	**Listing Status[a]**	**Habitat Description**	**Hawaii**	**Maui**	**Lanai**	**Molokai**	**Oahu**	**Kauai**	**N.W. Islands,[b] Kahoolawe, Niihau, or Oceanic**
Iliau *Wilkesia hobdyi* **(CH)**	E	Degraded cliff sites and very dry ridges surrounded by shrubby vegetation, 90-1,312 feet						✓CH	
No common name *Xylosma crenatum* **(CH)**	E	Diverse koa-ohia montane mesic forest sometimes along streambanks, 3,200-3,500 feet						✓CH	
A`e *Zanthoxylum dipetalum* var. *tomentosum* **(CH)**	E	Degraded ohia-dominated montane mesic forest, often on a'a lava, 3,000-3,400 feet	✓CH						
A`e *Zanthoxylum hawaiiense* **(CH)**	E	Lowland dry and mesic forests and montane dry forests, 1,800-5,710 feet	✓CH	✓CH	✓	✓CH		✓CH	

[a] Listing status: CH = critical habitat designated; E = endangered; T = threatened
[b] N.W. Hawaiian Islands = Frigate (F); Kure (Ku); Laysan (L); Midway (M); Necker (Ne); Nihoa (Ni)

REFERENCES

Center for Plant Conservation. *National Collection Plant Profiles*. Accessed: November 2015. Retrieved from: http://saveplants.org/national-collection/ (updated October 24, 2016)

Hawaii Department of Land and Natural Resources. 2015. *Division of Forestry and Wildlife Species Endangered Species Fact Sheets*

International Union for Conservation of Nature. 2015. *IUCN Red List of Threatened Species Version 2015.2*. Species accounts. Accessed: August 2015. Retrieved from: http://www.iucnredlist.org/

Palmer, Daniel. 2008. *Hawaii's Ferns and Allies*. University of Hawaii Press; 1st edition. 328 pp.

U.S. Fish and Wildlife Service. 1994. *Recovery Plan for the Wahiawa Plant Cluster*.

_____. 1995. *Lana'i Plant Cluster Recovery Plan*.

_____. 1995. *Recovery Plan for the Kaua'i Plant Cluster*.

_____. 1996. *Recovery Plan for the Molokai Plant Cluster*.

_____. 1997. *Recovery Plan for the Maui Plant Cluster*.

_____. 1998. *Recovery Plan for the Oahu Plants*.

_____. 1998. *Kauai II Addendum to the Recovery Plant for the Kauai Plant Cluster*.

_____. 1998. *Big Island II Addendum to the Recovery plan for the Big Island Plant Cluster*.

_____. 1998. *Molokai II Addendum to the Recovery Plan for the Molokai Plant Cluster*.

_____. 1999. *Recovery Plan for the Multi-Island Plants*.

_____. 2002. *Addendum to the Recovery Plan for the Multi-Island Plants*.

_____. 2010. *Determination of Endangered Status for 48 Species on Kauai and Designation of Critical Habitat; Final Rule*.

_____. 2013. *Determination of Endangered Status for 38 Species on Molokai, Lanai, and Maui; Final Rule*.

_____. 2016. *Final Rule: Endangered and Threatened Wildlife and Plants; Endangered Status for 49 Species from the Hawaiian Islands*. 50 CFR § 17, Docket No. FWS–R1–ES–2015–0125; 4500030113. September 30, 2016.

APPENDIX E

Environmental Justice Demographic Data

-Page Intentionally Left Blank-

ENVIRONMENTAL JUSTICE DEMOGRAPHIC DATA

The tables below provide demographic data characteristics for all block groups in Alaska, Hawaii, American Samoa, Guam, Northern Mariana Islands, Puerto Rico, and the United States (U.S.) Virgin Islands.

Table 1: Block Group Demographic Data, Alaska

Block Group	Race (Percent)[a]							Ethnicity (Percent)[a]		Percent of Residents in Poverty[a]	Median Household Income
	White	Black or African American	American Indian or Alaska Native	Asian	Native Hawaiian or Other Pacific Islander	Some Other Race Alone	Multiple Races	Hispanic or Latino	Not Hispanic or Latino		
BG1, CT 1	24%	20%	8%	41%	1%	4%	2%	82%	18%	14.4%	$50,000
BG2, CT 1	22%	3%	32%	38%	1%	1%	3%	88%	12%	16.4%	$60,357
BG3, CT 1	23%	12%	25%	33%	1%	2%	4%	89%	11%	18.7%	$71,250
BG1, CT 1	26%	6%	49%	5%	5%	2%	8%	96%	4%	11.8%	$46,250
BG1, CT 2	27%	9%	3%	50%	2%	5%	4%	92%	8%	8.7%	$92,639
BG2, CT 2	41%	5%	6%	30%	1%	9%	9%	84%	16%	8.6%	$86,641
BG1, CT 1.01	76%	0%	12%	1%	0%	1%	10%	98%	2%	7.1%	$120,795
BG2, CT 1.01	85%	0%	10%	0%	0%	1%	4%	97%	3%	2.6%	$96,938
BG3, CT 1.01	90%	0%	3%	1%	0%	3%	3%	94%	6%	5.5%	$111,696
BG1, CT 1.02	93%	0%	7%	0%	0%	0%	0%	84%	16%	0.3%	$103,958
BG2, CT 1.02	79%	0%	8%	0%	0%	4%	9%	93%	7%	5.0%	$52,569
BG3, CT 1.02	86%	0%	6%	0%	0%	0%	8%	96%	4%	0.0%	$101,350
BG4, CT 1.02	70%	0%	13%	4%	0%	0%	12%	91%	9%	1.8%	$69,886
BG1, CT 2.01	80%	5%	4%	8%	0%	2%	2%	97%	3%	2.0%	$82,300
BG2, CT 2.01	70%	2%	3%	7%	3%	0%	15%	92%	8%	2.7%	$68,636
BG1, CT 2.02	78%	0%	0%	3%	0%	4%	15%	91%	9%	30.2%	$44,115
BG2, CT 2.02	89%	0%	0%	4%	1%	3%	2%	89%	11%	4.7%	$91,324
BG3, CT 2.02	64%	1%	26%	0%	0%	1%	9%	94%	6%	4.6%	$112,790
BG4, CT 2.02	90%	0%	7%	3%	0%	0%	1%	95%	5%	0.9%	$77,348
BG1, CT 2.03	90%	0%	7%	1%	0%	0%	3%	97%	3%	1.8%	$109,470
BG2, CT 2.03	88%	0%	2%	5%	0%	0%	6%	83%	17%	0.0%	$146,750
BG3, CT 2.03	80%	12%	0%	3%	0%	1%	3%	87%	13%	3.2%	$101,792
BG4, CT 2.03	90%	1%	0%	3%	0%	0%	6%	96%	4%	0.0%	$102,763
BG5, CT 2.03	88%	5%	3%	4%	0%	0%	0%	97%	3%	1.3%	$93,679
BG1, CT 2.04	90%	0%	3%	2%	0%	0%	5%	99%	1%	7.1%	$122,123
BG2, CT 2.04	80%	2%	5%	2%	0%	2%	9%	95%	5%	0.1%	$137,159
BG1, CT 3	66%	18%	1%	2%	1%	3%	9%	87%	13%	5.4%	$54,919
BG1, CT 4	74%	14%	0%	4%	0%	4%	5%	89%	11%	6.4%	$61,528
BG1, CT 5	58%	22%	5%	3%	0%	5%	7%	70%	30%	5.8%	$66,346

Block Group	Race (Percent)[a]							Ethnicity (Percent)[a]		Percent of Residents in Poverty[a]	Median Household Income
	White	Black or African American	American Indian or Alaska Native	Asian	Native Hawaiian or Other Pacific Islander	Some Other Race Alone	Multiple Races	Hispanic or Latino	Not Hispanic or Latino		
BG2, CT 5	31%	8%	20%	20%	1%	9%	11%	89%	11%	7.7%	$41,053
BG1, CT 6	63%	0%	34%	0%	0%	0%	2%	100%	0%	84.5%	ND
BG2, CT 6	30%	7%	2%	3%	2%	0%	56%	86%	14%	28.7%	$34,868
BG3, CT 6	45%	6%	25%	0%	0%	5%	19%	95%	5%	21.5%	$39,500
BG4, CT 6	24%	9%	12%	21%	9%	11%	15%	83%	17%	49.3%	$43,674
BG5, CT 6	23%	7%	8%	21%	23%	3%	15%	96%	4%	32.7%	$43,380
BG6, CT 6	61%	0%	0%	19%	20%	0%	0%	96%	4%	30.3%	$29,952
BG7, CT 6	42%	18%	15%	19%	0%	0%	7%	88%	12%	20.3%	$42,898
BG8, CT 6	2%	29%	2%	17%	2%	3%	46%	84%	16%	6.1%	$35,870
BG1, CT 7.01	34%	10%	23%	7%	7%	7%	12%	86%	14%	1.2%	$77,405
BG2, CT 7.01	60%	18%	3%	1%	11%	0%	7%	89%	11%	12.2%	$56,458
BG3, CT 7.01	41%	12%	28%	1%	0%	2%	17%	65%	35%	16.0%	$39,028
BG4, CT 7.01	39%	11%	0%	1%	0%	0%	48%	100%	0%	0.0%	$63,906
BG1, CT 7.02	61%	15%	1%	9%	13%	0%	1%	92%	8%	12.5%	$40,341
BG2, CT 7.02	45%	22%	6%	10%	1%	0%	16%	92%	8%	5.2%	$82,692
BG3, CT 7.02	67%	12%	5%	7%	4%	1%	5%	92%	8%	8.9%	$85,217
BG1, CT 7.03	57%	7%	25%	7%	0%	0%	5%	98%	2%	16.1%	$19,087
BG2, CT 7.03	50%	18%	9%	6%	1%	0%	18%	96%	4%	31.0%	$54,595
BG3, CT 7.03	32%	9%	5%	42%	0%	4%	8%	85%	15%	5.4%	$57,600
BG4, CT 7.03	46%	0%	0%	46%	0%	1%	8%	99%	1%	10.9%	$50,357
BG5, CT 7.03	41%	14%	5%	11%	24%	0%	5%	94%	6%	6.0%	$85,344
BG1, CT 8.01	55%	9%	6%	1%	24%	4%	0%	88%	12%	11.3%	$61,231
BG2, CT 8.01	59%	13%	0%	2%	0%	0%	26%	88%	12%	0.0%	$93,100
BG3, CT 8.01	29%	6%	28%	6%	2%	12%	17%	64%	36%	7.5%	$51,892
BG4, CT 8.01	28%	1%	19%	27%	0%	11%	13%	76%	24%	18.8%	$55,357
BG5, CT 8.01	35%	19%	2%	39%	0%	0%	5%	83%	17%	31.0%	$60,139
BG6, CT 8.01	16%	3%	15%	64%	0%	1%	1%	96%	4%	22.6%	$47,602
BG7, CT 8.01	27%	6%	5%	26%	21%	0%	15%	94%	6%	18.1%	$38,058
BG1, CT 8.02	60%	0%	25%	3%	0%	10%	2%	75%	25%	57.2%	$24,283
BG2, CT 8.02	25%	20%	4%	20%	5%	1%	25%	95%	5%	15.4%	$49,757
BG3, CT 8.02	48%	14%	0%	14%	9%	0%	16%	88%	12%	23.9%	$63,438

Block Group	Race (Percent)[a]							Ethnicity (Percent)[a]		Percent of Residents in Poverty[a]	Median Household Income
	White	Black or African American	American Indian or Alaska Native	Asian	Native Hawaiian or Other Pacific Islander	Some Other Race Alone	Multiple Races	Hispanic or Latino	Not Hispanic or Latino		
BG4, CT 8.02	71%	7%	14%	3%	0%	0%	6%	99%	1%	17.6%	$78,000
BG5, CT 8.02	63%	10%	7%	4%	0%	5%	11%	93%	7%	18.8%	$32,788
BG1, CT 9.01	37%	9%	18%	7%	4%	4%	21%	81%	19%	30.9%	$26,600
BG2, CT 9.01	27%	11%	23%	11%	9%	0%	20%	88%	12%	17.8%	$45,865
BG3, CT 9.01	35%	17%	22%	12%	0%	0%	14%	95%	5%	11.1%	$47,955
BG1, CT 9.02	36%	22%	11%	2%	11%	0%	18%	76%	24%	34.1%	$43,664
BG2, CT 9.02	47%	9%	6%	26%	7%	0%	5%	99%	1%	10.5%	$40,172
BG3, CT 9.02	87%	0%	3%	0%	0%	0%	10%	100%	0%	4.0%	$78,182
BG1, CT 10	68%	2%	18%	0%	6%	2%	5%	94%	6%	8.3%	$55,921
BG2, CT 10	67%	10%	12%	1%	2%	3%	5%	88%	12%	23.8%	$30,986
BG3, CT 10	23%	18%	43%	0%	0%	0%	16%	92%	8%	26.9%	$22,473
BG4, CT 10	64%	10%	18%	6%	0%	3%	0%	95%	5%	10.0%	$56,797
BG1, CT 11	70%	2%	6%	10%	0%	0%	12%	93%	7%	17.1%	$40,972
BG2, CT 11	65%	12%	11%	2%	2%	0%	8%	97%	3%	10.5%	$29,327
BG1, CT 12	91%	0%	2%	8%	0%	0%	0%	97%	3%	1.5%	$66,786
BG2, CT 12	84%	4%	8%	0%	0%	0%	4%	95%	5%	7.9%	$70,703
BG3, CT 12	67%	0%	23%	0%	0%	0%	10%	94%	6%	0.0%	$109,911
BG4, CT 12	86%	3%	3%	7%	0%	1%	0%	99%	1%	1.7%	$89,256
BG5, CT 12	82%	2%	0%	0%	0%	11%	5%	88%	12%	1.2%	$89,297
BG1, CT 13	81%	1%	8%	0%	0%	0%	10%	86%	14%	1.2%	$118,807
BG2, CT 13	93%	0%	1%	1%	0%	0%	5%	100%	0%	1.3%	$92,159
BG3, CT 13	91%	0%	2%	5%	0%	0%	2%	94%	6%	5.8%	$112,893
BG1, CT 14	93%	0%	5%	2%	0%	0%	0%	100%	0%	0.0%	$58,693
BG2, CT 14	88%	0%	2%	4%	0%	0%	6%	98%	2%	3.2%	$79,154
BG3, CT 14	50%	8%	9%	10%	9%	0%	14%	92%	8%	14.4%	$76,338
BG4, CT 14	63%	11%	1%	11%	0%	0%	13%	89%	11%	6.4%	$51,771
BG5, CT 14	54%	35%	7%	3%	0%	0%	0%	100%	0%	35.0%	$31,806
BG6, CT 14	39%	6%	14%	27%	0%	3%	11%	90%	10%	25.6%	$29,484
BG1, CT 15	93%	0%	1%	1%	0%	0%	5%	92%	8%	0.0%	$87,098
BG2, CT 15	85%	0%	4%	0%	0%	0%	11%	99%	1%	10.9%	$126,397
BG3, CT 15	72%	2%	2%	17%	0%	0%	7%	98%	2%	4.9%	$53,452

Block Group	Race (Percent)[a]							Ethnicity (Percent)[a]		Percent of Residents in Poverty[a]	Median Household Income
	White	Black or African American	American Indian or Alaska Native	Asian	Native Hawaiian or Other Pacific Islander	Some Other Race Alone	Multiple Races	Hispanic or Latino	Not Hispanic or Latino		
BG4, CT 15	80%	0%	2%	8%	0%	0%	10%	98%	2%	2.9%	$115,524
BG5, CT 15	38%	14%	3%	9%	0%	0%	36%	93%	7%	41.2%	$21,354
BG1, CT 16.01	66%	12%	8%	3%	0%	3%	8%	87%	13%	4.1%	$59,276
BG2, CT 16.01	37%	9%	4%	13%	3%	6%	29%	86%	14%	2.1%	$95,083
BG3, CT 16.01	78%	0%	8%	1%	4%	0%	9%	99%	1%	1.8%	$86,750
BG1, CT 16.02	71%	3%	12%	2%	1%	0%	12%	93%	7%	24.3%	$49,875
BG2, CT 16.02	70%	0%	11%	2%	8%	0%	8%	88%	12%	0.0%	$90,417
BG3, CT 16.02	63%	7%	16%	5%	3%	0%	7%	97%	3%	6.9%	$62,472
BG4, CT 16.02	64%	16%	13%	2%	0%	0%	4%	97%	3%	3.2%	$83,831
BG1, CT 17.01	51%	15%	9%	12%	0%	1%	13%	99%	1%	2.5%	$43,634
BG2, CT 17.01	53%	9%	7%	2%	25%	0%	3%	100%	0%	6.9%	$91,797
BG3, CT 17.01	65%	3%	9%	3%	0%	0%	20%	90%	10%	3.3%	$107,400
BG4, CT 17.01	56%	17%	20%	0%	0%	0%	7%	95%	5%	12.6%	$84,803
BG5, CT 17.01	37%	42%	0%	8%	0%	2%	12%	95%	5%	2.1%	$66,375
BG1, CT 17.02	61%	7%	9%	6%	0%	0%	17%	88%	12%	21.1%	$55,474
BG2, CT 17.02	88%	1%	1%	0%	4%	0%	5%	100%	0%	13.6%	$94,177
BG3, CT 17.02	71%	15%	3%	4%	0%	0%	7%	90%	10%	1.9%	$131,875
BG4, CT 17.02	60%	8%	2%	3%	16%	0%	13%	92%	8%	7.0%	$85,833
BG5, CT 17.02	79%	0%	19%	0%	0%	0%	2%	96%	4%	0.0%	$66,094
BG1, CT 17.31	28%	4%	0%	0%	0%	0%	68%	89%	11%	3.1%	$61,479
BG2, CT 17.31	75%	11%	8%	1%	0%	0%	5%	98%	2%	3.4%	$87,577
BG3, CT 17.31	58%	2%	13%	9%	0%	2%	16%	97%	3%	15.9%	$74,107
BG4, CT 17.31	74%	3%	9%	1%	0%	3%	11%	89%	11%	6.2%	$81,912
BG5, CT 17.31	59%	13%	0%	13%	0%	0%	16%	100%	0%	32.5%	$73,750
BG1, CT 17.32	68%	3%	18%	1%	0%	2%	7%	99%	1%	0.0%	$106,905
BG2, CT 17.32	62%	7%	7%	7%	12%	0%	5%	97%	3%	17.5%	$86,136
BG3, CT 17.32	70%	12%	13%	1%	0%	0%	3%	98%	2%	0.0%	$110,781
BG4, CT 17.32	72%	3%	7%	10%	0%	3%	5%	88%	12%	2.5%	$87,212
BG1, CT 18.01	73%	3%	4%	13%	0%	0%	7%	100%	0%	0.5%	$89,056
BG2, CT 18.01	49%	17%	15%	9%	0%	1%	10%	96%	4%	2.2%	$60,474
BG3, CT 18.01	76%	4%	4%	6%	2%	1%	6%	90%	10%	11.3%	$67,560

Block Group	Race (Percent)[a]							Ethnicity (Percent)[a]		Percent of Residents in Poverty[a]	Median Household Income
	White	Black or African American	American Indian or Alaska Native	Asian	Native Hawaiian or Other Pacific Islander	Some Other Race Alone	Multiple Races	Hispanic or Latino	Not Hispanic or Latino		
BG1, CT 18.02	72%	2%	8%	0%	1%	4%	14%	78%	22%	30.1%	$38,438
BG2, CT 18.02	48%	4%	7%	29%	0%	4%	8%	94%	6%	31.3%	$41,458
BG3, CT 18.02	58%	20%	0%	6%	0%	14%	2%	82%	18%	6.6%	$56,319
BG4, CT 18.02	54%	5%	5%	19%	3%	7%	6%	88%	12%	6.8%	$75,802
BG1, CT 19	28%	4%	22%	29%	10%	4%	5%	92%	8%	20.9%	$37,550
BG2, CT 19	45%	4%	5%	29%	11%	0%	6%	96%	4%	18.4%	$38,158
BG3, CT 19	78%	0%	0%	15%	0%	7%	0%	93%	7%	0.0%	$67,143
BG4, CT 19	15%	5%	11%	39%	10%	0%	21%	90%	10%	20.5%	$62,000
BG5, CT 19	55%	6%	16%	3%	9%	3%	8%	92%	8%	24.2%	$45,398
BG1, CT 20	68%	17%	1%	14%	0%	0%	0%	66%	34%	17.6%	$38,664
BG2, CT 20	47%	0%	3%	0%	26%	2%	22%	79%	21%	17.4%	$27,399
BG3, CT 20	40%	6%	4%	36%	0%	11%	4%	78%	22%	11.9%	$39,167
BG4, CT 20	63%	2%	4%	13%	0%	0%	18%	89%	11%	9.1%	$46,417
BG1, CT 21	83%	5%	0%	4%	0%	0%	9%	94%	6%	1.8%	$77,961
BG2, CT 21	48%	3%	6%	12%	1%	0%	29%	100%	0%	1.5%	$41,154
BG3, CT 21	62%	2%	0%	0%	27%	0%	8%	98%	2%	8.8%	$75,118
BG4, CT 21	80%	1%	2%	13%	0%	0%	4%	100%	0%	5.0%	$60,368
BG5, CT 21	61%	4%	13%	3%	11%	6%	3%	90%	10%	5.1%	$53,295
BG1, CT 22.01	87%	3%	4%	1%	0%	1%	5%	99%	1%	4.3%	$83,095
BG2, CT 22.01	53%	0%	10%	27%	0%	0%	10%	97%	3%	5.0%	$74,375
BG3, CT 22.01	74%	6%	2%	7%	0%	2%	11%	89%	11%	7.6%	$91,750
BG4, CT 22.01	80%	0%	9%	3%	0%	2%	6%	90%	10%	12.4%	$57,204
BG1, CT 22.02	65%	5%	9%	10%	0%	0%	10%	93%	7%	9.7%	$61,250
BG2, CT 22.02	57%	6%	19%	9%	0%	0%	10%	63%	37%	36.6%	$39,735
BG3, CT 22.02	80%	0%	7%	6%	0%	0%	6%	99%	1%	1.5%	$89,375
BG4, CT 22.02	56%	0%	4%	22%	0%	13%	5%	87%	13%	22.4%	$55,781
BG1, CT 23.01	87%	3%	1%	1%	0%	0%	8%	95%	5%	2.4%	$130,144
BG2, CT 23.01	91%	1%	0%	6%	0%	0%	1%	98%	2%	19.4%	$101,484
BG3, CT 23.01	49%	0%	20%	10%	0%	2%	20%	94%	6%	1.9%	$104,246
BG4, CT 23.01	86%	0%	3%	0%	0%	11%	0%	84%	16%	3.4%	$114,519
BG1, CT 23.02	88%	2%	5%	1%	0%	0%	3%	96%	4%	7.6%	$78,333

Block Group	Race (Percent)[a]							Ethnicity (Percent)[a]		Percent of Residents in Poverty[a]	Median Household Income
	White	Black or African American	American Indian or Alaska Native	Asian	Native Hawaiian or Other Pacific Islander	Some Other Race Alone	Multiple Races	Hispanic or Latino	Not Hispanic or Latino		
BG2, CT 23.02	56%	0%	21%	6%	7%	0%	9%	99%	1%	4.6%	$92,772
BG3, CT 23.02	78%	0%	19%	0%	0%	0%	2%	98%	2%	7.6%	$120,875
BG4, CT 23.02	79%	0%	7%	0%	0%	0%	14%	90%	10%	4.0%	$53,790
BG5, CT 23.02	82%	0%	15%	1%	0%	1%	0%	94%	6%	7.3%	$78,750
BG1, CT 23.03	46%	28%	10%	0%	0%	0%	15%	100%	0%	38.0%	$49,779
BG2, CT 23.03	75%	2%	11%	4%	0%	0%	7%	91%	9%	0.0%	$102,396
BG3, CT 23.03	70%	0%	11%	11%	0%	4%	3%	92%	8%	1.8%	$97,044
BG4, CT 23.03	54%	2%	9%	20%	5%	1%	10%	91%	9%	13.5%	$77,250
BG5, CT 23.03	63%	10%	3%	17%	2%	1%	5%	89%	11%	0.0%	$61,579
BG6, CT 23.03	68%	6%	4%	0%	0%	0%	22%	100%	0%	41.2%	$33,839
BG1, CT 24	88%	0%	3%	5%	2%	0%	2%	98%	2%	20.7%	$63,355
BG2, CT 24	71%	3%	5%	3%	0%	0%	18%	98%	2%	8.7%	$62,891
BG3, CT 24	66%	4%	14%	2%	1%	2%	11%	80%	20%	5.9%	$107,283
BG1, CT 25.01	70%	2%	9%	9%	7%	3%	1%	92%	8%	0.0%	$99,259
BG2, CT 25.01	66%	4%	1%	14%	0%	1%	13%	91%	9%	24.6%	$33,571
BG3, CT 25.01	61%	9%	7%	1%	2%	1%	19%	87%	13%	11.3%	$57,614
BG4, CT 25.01	62%	14%	1%	5%	0%	11%	7%	86%	14%	5.0%	$85,278
BG5, CT 25.01	67%	1%	8%	18%	0%	0%	6%	97%	3%	1.7%	$93,906
BG1, CT 25.02	70%	2%	7%	16%	0%	3%	2%	96%	4%	2.3%	$55,625
BG2, CT 25.02	53%	3%	5%	14%	8%	0%	17%	79%	21%	4.1%	$75,280
BG3, CT 25.02	73%	3%	2%	1%	1%	0%	20%	96%	4%	14.5%	$57,168
BG4, CT 25.02	76%	9%	2%	1%	0%	0%	12%	99%	1%	2.6%	$89,477
BG1, CT 26.01	60%	3%	13%	7%	0%	11%	6%	88%	12%	7.1%	$72,992
BG2, CT 26.01	62%	5%	14%	7%	0%	0%	12%	94%	6%	3.6%	$77,679
BG3, CT 26.01	24%	11%	12%	33%	0%	1%	19%	86%	14%	1.3%	$91,250
BG1, CT 26.02	53%	8%	3%	18%	0%	1%	17%	94%	6%	7.8%	$90,000
BG2, CT 26.02	69%	7%	3%	5%	2%	0%	15%	100%	0%	8.7%	$76,964
BG3, CT 26.02	73%	1%	4%	11%	0%	1%	10%	91%	9%	6.8%	$103,500
BG1, CT 26.03	55%	1%	8%	5%	7%	0%	24%	98%	2%	3.0%	$93,706
BG2, CT 26.03	86%	1%	3%	4%	0%	5%	1%	94%	6%	6.3%	$104,324
BG3, CT 26.03	77%	2%	4%	11%	0%	0%	6%	84%	16%	1.8%	$123,839

Block Group	Race (Percent)[a]							Ethnicity (Percent)[a]		Percent of Residents in Poverty[a]	Median Household Income
	White	Black or African American	American Indian or Alaska Native	Asian	Native Hawaiian or Other Pacific Islander	Some Other Race Alone	Multiple Races	Hispanic or Latino	Not Hispanic or Latino		
BG1, CT 27.02	59%	0%	7%	23%	1%	0%	10%	97%	3%	0.7%	$108,989
BG2, CT 27.02	80%	2%	1%	8%	1%	0%	8%	96%	4%	3.5%	$85,685
BG3, CT 27.02	88%	2%	3%	3%	0%	0%	4%	94%	6%	1.3%	$73,235
BG4, CT 27.02	80%	0%	0%	15%	0%	3%	3%	85%	15%	0.0%	$142,422
BG5, CT 27.02	79%	1%	2%	4%	0%	1%	14%	94%	6%	0.9%	$78,915
BG1, CT 27.11	82%	3%	5%	10%	0%	0%	0%	99%	1%	2.2%	$93,750
BG2, CT 27.11	65%	4%	22%	0%	3%	0%	6%	100%	0%	0.0%	$80,417
BG3, CT 27.11	95%	0%	2%	3%	0%	0%	0%	100%	0%	3.0%	$77,240
BG4, CT 27.11	81%	1%	5%	13%	0%	0%	0%	92%	8%	1.0%	$111,379
BG1, CT 27.12	57%	9%	8%	6%	3%	0%	17%	90%	10%	4.5%	$52,813
BG2, CT 27.12	55%	0%	8%	35%	0%	0%	2%	78%	22%	12.9%	$53,361
BG3, CT 27.12	57%	11%	7%	14%	0%	4%	7%	91%	9%	7.4%	$58,843
BG4, CT 27.12	68%	3%	4%	17%	0%	1%	7%	96%	4%	1.0%	$115,268
BG5, CT 27.12	71%	12%	3%	7%	1%	0%	7%	87%	13%	3.6%	$80,052
BG1, CT 28.11	45%	2%	32%	0%	3%	0%	19%	94%	6%	8.1%	$56,176
BG2, CT 28.11	49%	2%	9%	21%	0%	5%	14%	91%	9%	5.5%	$76,699
BG3, CT 28.11	62%	6%	8%	2%	0%	3%	19%	90%	10%	6.6%	$44,510
BG4, CT 28.11	62%	0%	3%	28%	0%	1%	7%	94%	6%	2.9%	$78,750
BG1, CT 28.12	84%	0%	8%	5%	0%	0%	3%	97%	3%	1.4%	$119,250
BG2, CT 28.12	75%	18%	1%	3%	0%	0%	4%	93%	7%	5.0%	$138,000
BG3, CT 28.12	95%	0%	2%	0%	0%	0%	2%	100%	0%	0.0%	$155,030
BG1, CT 28.13	96%	0%	1%	2%	0%	0%	2%	95%	5%	1.3%	$141,438
BG2, CT 28.13	85%	0%	4%	3%	0%	2%	6%	98%	2%	2.8%	$165,625
BG3, CT 28.13	97%	0%	0%	0%	0%	0%	3%	100%	0%	3.8%	$155,054
BG1, CT 28.21	82%	0%	0%	6%	0%	3%	9%	94%	6%	3.5%	$168,654
BG2, CT 28.21	90%	2%	1%	0%	5%	0%	2%	99%	1%	4.6%	$161,094
BG3, CT 28.21	81%	8%	2%	5%	0%	0%	4%	97%	3%	0.7%	$144,000
BG1, CT 28.22	90%	2%	5%	0%	0%	0%	3%	100%	0%	0.0%	$147,321
BG2, CT 28.22	82%	0%	4%	0%	0%	3%	11%	92%	8%	0.0%	$142,727
BG3, CT 28.22	95%	0%	3%	1%	0%	0%	0%	99%	1%	5.0%	$110,221
BG1, CT 28.23	95%	1%	2%	0%	0%	0%	1%	95%	5%	4.0%	$112,604

Block Group	Race (Percent)[a]							Ethnicity (Percent)[a]		Percent of Residents in Poverty[a]	Median Household Income
	White	Black or African American	American Indian or Alaska Native	Asian	Native Hawaiian or Other Pacific Islander	Some Other Race Alone	Multiple Races	Hispanic or Latino	Not Hispanic or Latino		
BG2, CT 28.23	83%	3%	2%	3%	0%	1%	8%	97%	3%	0.8%	$183,793
BG1, CT 29	95%	0%	0%	0%	0%	0%	5%	100%	0%	0.0%	$72,500
BG2, CT 29	79%	0%	0%	0%	0%	0%	21%	83%	17%	2.3%	$84,554
BG3, CT 29	100%	0%	0%	0%	0%	0%	0%	88%	12%	9.6%	$82,667
BG4, CT 29	75%	0%	0%	25%	0%	0%	0%	100%	0%	8.9%	$67,188
BG1, CT 1	3%	0%	96%	0%	0%	0%	1%	100%	0%	21.9%	$44,200
BG2, CT 1	1%	0%	94%	0%	0%	0%	4%	100%	0%	31.6%	$43,583
BG3, CT 1	3%	0%	94%	0%	0%	0%	2%	98%	2%	31.6%	$38,182
BG4, CT 1	3%	0%	92%	0%	0%	0%	5%	100%	0%	30.5%	$34,808
BG5, CT 1	3%	0%	96%	0%	0%	0%	1%	100%	0%	26.4%	$36,792
BG6, CT 1	2%	0%	96%	0%	0%	0%	1%	100%	0%	35.2%	$29,659
BG1, CT 2	12%	2%	81%	0%	0%	0%	5%	100%	0%	15.9%	$61,285
BG2, CT 2	37%	2%	42%	3%	2%	0%	14%	94%	6%	7.7%	$92,991
BG3, CT 2	44%	0%	51%	4%	0%	0%	2%	90%	10%	3.1%	$92,434
BG4, CT 2	30%	0%	55%	6%	0%	0%	9%	100%	0%	16.4%	$64,350
BG1, CT 3	14%	0%	74%	4%	0%	0%	8%	99%	1%	23.3%	$45,500
BG2, CT 3	12%	0%	80%	0%	0%	0%	8%	99%	1%	34.6%	$37,750
BG1, CT 1	56%	0%	31%	0%	0%	1%	12%	95%	5%	7.9%	$79,531
BG2, CT 1	75%	0%	0%	0%	0%	25%	0%	75%	25%	ND	ND
BG1, CT 1	92%	2%	3%	0%	0%	0%	4%	98%	2%	2.5%	$70,893
BG2, CT 1	90%	0%	4%	4%	0%	0%	1%	97%	3%	12.4%	$72,917
BG1, CT 1	6%	0%	87%	0%	0%	0%	7%	100%	0%	23.6%	$47,083
BG2, CT 1	8%	0%	84%	2%	0%	0%	5%	100%	0%	19.3%	$36,375
BG3, CT 1	4%	0%	87%	0%	2%	2%	4%	96%	4%	23.8%	$43,333
BG1, CT 2	42%	0%	38%	2%	0%	1%	17%	96%	4%	3.7%	$71,250
BG2, CT 2	16%	0%	73%	0%	0%	2%	9%	98%	2%	32.5%	$51,875
BG3, CT 2	33%	2%	44%	0%	0%	0%	20%	94%	6%	12.3%	$93,750
BG1, CT 1	61%	6%	28%	1%	0%	0%	4%	94%	6%	15.7%	$27,971
BG2, CT 1	91%	0%	9%	0%	0%	0%	1%	94%	6%	12.9%	$38,447
BG1, CT 2	72%	9%	7%	7%	1%	0%	4%	98%	2%	16.8%	$42,500
BG2, CT 2	69%	7%	13%	1%	0%	1%	10%	99%	1%	13.9%	$58,036

Block Group	Race (Percent)[a]							Ethnicity (Percent)[a]		Percent of Residents in Poverty[a]	Median Household Income
	White	Black or African American	American Indian or Alaska Native	Asian	Native Hawaiian or Other Pacific Islander	Some Other Race Alone	Multiple Races	Hispanic or Latino	Not Hispanic or Latino		
BG1, CT 3	64%	6%	20%	0%	0%	0%	9%	96%	4%	21.8%	$47,857
BG2, CT 3	41%	23%	11%	8%	0%	6%	11%	92%	8%	8.8%	$63,750
BG3, CT 3	43%	19%	18%	9%	0%	2%	10%	98%	2%	21.1%	$42,813
BG4, CT 3	65%	14%	8%	3%	1%	0%	8%	93%	7%	17.4%	$41,667
BG1, CT 4	76%	1%	9%	2%	0%	1%	11%	87%	13%	1.7%	$75,417
BG2, CT 4	38%	1%	28%	18%	0%	2%	12%	98%	2%	10.5%	$56,591
BG3, CT 4	54%	1%	16%	11%	2%	0%	16%	96%	4%	24.0%	$52,847
BG4, CT 4	84%	4%	8%	2%	0%	0%	2%	93%	7%	6.9%	$62,737
BG1, CT 5	83%	0%	2%	3%	3%	5%	5%	85%	15%	6.0%	$69,375
BG2, CT 5	66%	5%	14%	3%	0%	0%	12%	82%	18%	6.8%	$52,946
BG1, CT 6	66%	2%	16%	0%	0%	0%	16%	95%	5%	13.8%	$72,578
BG2, CT 6	73%	3%	11%	3%	0%	0%	10%	98%	2%	10.4%	$82,688
BG3, CT 6	67%	0%	23%	0%	0%	0%	10%	90%	10%	1.6%	$100,824
BG4, CT 6	78%	1%	14%	6%	0%	0%	1%	100%	0%	18.3%	$53,125
BG1, CT 7	81%	11%	2%	3%	0%	0%	2%	92%	8%	2.6%	$72,366
BG2, CT 7	52%	12%	22%	7%	0%	0%	8%	92%	8%	24.2%	$46,875
BG3, CT 7	68%	12%	5%	2%	6%	0%	6%	77%	23%	10.2%	$69,118
BG1, CT 8	58%	2%	4%	2%	0%	5%	29%	83%	17%	3.8%	$41,544
BG2, CT 8	57%	12%	8%	12%	0%	1%	10%	90%	10%	15.4%	$48,795
BG3, CT 8	88%	0%	2%	0%	0%	0%	10%	97%	3%	2.8%	$95,536
BG4, CT 8	66%	3%	9%	5%	1%	0%	15%	100%	0%	0.0%	$110,750
BG1, CT 9	76%	0%	14%	1%	0%	4%	4%	90%	10%	0.8%	$104,583
BG2, CT 9	89%	1%	3%	1%	2%	0%	4%	87%	13%	6.3%	$74,154
BG1, CT 10	84%	0%	5%	2%	0%	0%	9%	94%	6%	6.2%	$66,438
BG2, CT 10	75%	0%	9%	0%	0%	0%	16%	100%	0%	28.8%	$48,674
BG1, CT 11	70%	16%	1%	2%	2%	3%	5%	84%	16%	15.2%	$54,479
BG1, CT 12	82%	0%	5%	3%	0%	0%	10%	98%	2%	2.5%	$69,667
BG2, CT 12	85%	0%	15%	0%	0%	0%	0%	95%	5%	0.0%	$93,068
BG3, CT 12	83%	0%	7%	1%	0%	1%	9%	93%	7%	4.1%	$67,969
BG1, CT 13	86%	0%	7%	7%	0%	0%	0%	100%	0%	11.1%	$65,563
BG2, CT 13	94%	0%	0%	0%	0%	0%	6%	100%	0%	9.5%	$99,554

Block Group	Race (Percent)[a]							Ethnicity (Percent)[a]		Percent of Residents in Poverty[a]	Median Household Income
	White	Black or African American	American Indian or Alaska Native	Asian	Native Hawaiian or Other Pacific Islander	Some Other Race Alone	Multiple Races	Hispanic or Latino	Not Hispanic or Latino		
BG3, CT 13	88%	0%	5%	2%	0%	1%	4%	98%	2%	1.2%	$92,067
BG4, CT 13	93%	0%	4%	3%	0%	0%	0%	97%	3%	10.9%	$71,277
BG5, CT 13	71%	4%	11%	4%	0%	0%	9%	96%	4%	31.6%	$58,780
BG1, CT 14	87%	0%	2%	0%	0%	0%	11%	93%	7%	5.8%	$88,984
BG2, CT 14	97%	0%	3%	0%	0%	0%	0%	100%	0%	0.0%	$75,942
BG3, CT 14	93%	0%	3%	0%	0%	0%	3%	98%	2%	6.7%	$79,009
BG4, CT 14	75%	3%	0%	0%	0%	0%	23%	83%	17%	7.0%	$34,250
BG5, CT 14	89%	0%	0%	2%	0%	0%	9%	97%	3%	5.4%	$84,313
BG1, CT 15	84%	0%	3%	1%	0%	0%	13%	91%	9%	3.7%	$82,031
BG2, CT 15	81%	4%	8%	0%	0%	0%	7%	100%	0%	3.8%	$74,638
BG3, CT 15	96%	0%	0%	2%	0%	0%	2%	100%	0%	17.6%	$77,012
BG4, CT 15	92%	4%	0%	0%	0%	0%	4%	100%	0%	0.6%	$78,702
BG5, CT 15	80%	1%	11%	3%	0%	0%	5%	95%	5%	1.7%	$100,000
BG6, CT 15	100%	0%	0%	0%	0%	0%	0%	100%	0%	7.9%	$50,430
BG1, CT 16	62%	8%	20%	0%	0%	1%	9%	95%	5%	8.0%	$43,304
BG2, CT 16	74%	2%	9%	3%	0%	0%	12%	99%	1%	15.1%	$65,966
BG3, CT 16	80%	4%	2%	6%	0%	0%	8%	89%	11%	7.1%	$52,727
BG4, CT 16	90%	10%	0%	0%	0%	0%	0%	98%	2%	6.8%	$79,500
BG1, CT 17	97%	0%	3%	0%	0%	0%	0%	97%	3%	17.6%	$77,721
BG2, CT 17	84%	0%	0%	0%	0%	0%	16%	100%	0%	4.4%	$57,667
BG1, CT 18	No population										
BG2, CT 18	76%	14%	2%	0%	0%	0%	8%	87%	13%	1.6%	$71,650
BG1, CT 19	87%	0%	0%	0%	0%	0%	13%	100%	0%	4.2%	$78,315
BG2, CT 19	92%	0%	1%	0%	0%	4%	2%	90%	10%	2.0%	$90,938
BG3, CT 19	84%	0%	6%	7%	0%	0%	3%	100%	0%	3.4%	$71,816
BG4, CT 19	94%	0%	2%	0%	0%	0%	4%	99%	1%	4.9%	$93,705
BG5, CT 19	89%	1%	5%	1%	1%	0%	4%	99%	1%	23.3%	$40,814
BG1, CT 1	80%	0%	4%	0%	0%	0%	15%	100%	0%	8.8%	$47,422
BG2, CT 1	78%	0%	10%	1%	0%	1%	11%	99%	1%	5.9%	$60,313
BG3, CT 1	86%	1%	9%	1%	0%	0%	3%	99%	1%	9.9%	$41,327
BG1, CT 2	19%	0%	46%	0%	0%	0%	35%	97%	3%	3.6%	$51,250

Block Group	Race (Percent)[a]							Ethnicity (Percent)[a]		Percent of Residents in Poverty[a]	Median Household Income
	White	Black or African American	American Indian or Alaska Native	Asian	Native Hawaiian or Other Pacific Islander	Some Other Race Alone	Multiple Races	Hispanic or Latino	Not Hispanic or Latino		
BG1, CT 3	85%	0%	5%	2%	0%	1%	7%	97%	3%	10.4%	$51,731
BG2, CT 3	37%	1%	44%	0%	0%	1%	17%	97%	3%	16.1%	$47,969
BG3, CT 3	29%	0%	62%	2%	1%	0%	6%	99%	1%	20.8%	$33,750
BG1, CT 1	93%	0%	1%	1%	0%	0%	5%	100%	0%	4.8%	$99,688
BG2, CT 1	89%	1%	1%	1%	0%	0%	8%	95%	5%	1.4%	$86,420
BG3, CT 1	83%	0%	4%	0%	0%	0%	13%	98%	2%	0.8%	$88,287
BG4, CT 1	87%	0%	1%	2%	0%	4%	7%	94%	6%	4.5%	$115,347
BG1, CT 2	62%	0%	6%	9%	0%	1%	21%	96%	4%	0.1%	$103,487
BG2, CT 2	62%	0%	18%	12%	0%	0%	8%	95%	5%	0.0%	$87,341
BG3, CT 2	69%	0%	9%	1%	0%	9%	12%	84%	16%	0.0%	$71,958
BG4, CT 2	87%	2%	9%	2%	0%	0%	0%	100%	0%	5.6%	$107,120
BG5, CT 2	66%	0%	17%	8%	0%	0%	9%	83%	17%	10.8%	$66,771
BG1, CT 3	57%	0%	20%	12%	3%	0%	8%	93%	7%	14.9%	$74,489
BG2, CT 3	63%	4%	14%	2%	6%	0%	11%	98%	2%	0.0%	$59,444
BG3, CT 3	56%	5%	4%	0%	9%	0%	26%	92%	8%	8.4%	$66,250
BG4, CT 3	82%	2%	5%	8%	0%	0%	2%	99%	1%	0.6%	$96,378
BG1, CT 4	43%	0%	30%	20%	0%	0%	7%	95%	5%	7.2%	$45,905
BG2, CT 4	51%	7%	20%	2%	3%	0%	18%	92%	8%	4.9%	$77,054
BG3, CT 4	30%	1%	14%	37%	0%	0%	18%	99%	1%	15.0%	$77,639
BG4, CT 4	79%	0%	11%	5%	0%	1%	4%	100%	0%	2.1%	$76,220
BG1, CT 5	80%	0%	15%	0%	0%	0%	5%	100%	0%	1.4%	$103,214
BG2, CT 5	79%	0%	7%	3%	0%	0%	10%	93%	7%	10.2%	$71,786
BG3, CT 5	65%	1%	16%	9%	0%	3%	6%	91%	9%	7.0%	$53,368
BG1, CT 6	88%	0%	4%	0%	2%	0%	6%	94%	6%	3.9%	$97,115
BG2, CT 6	65%	5%	11%	4%	1%	1%	13%	97%	3%	11.2%	$76,667
BG3, CT 6	68%	1%	17%	4%	0%	2%	8%	96%	4%	9.6%	$62,721
BG1, CT 1	39%	0%	54%	0%	1%	0%	5%	100%	0%	20.9%	$25,938
BG1, CT 2	89%	1%	7%	0%	0%	0%	3%	92%	8%	4.2%	$72,986
BG2, CT 2	83%	0%	5%	0%	0%	0%	13%	100%	0%	2.2%	$67,316
BG3, CT 2	91%	0%	5%	1%	0%	1%	3%	91%	9%	6.2%	$72,833
BG4, CT 2	78%	2%	12%	0%	1%	1%	6%	97%	3%	13.3%	$70,625

Block Group	Race (Percent)[a]							Ethnicity (Percent)[a]		Percent of Residents in Poverty[a]	Median Household Income
	White	Black or African American	American Indian or Alaska Native	Asian	Native Hawaiian or Other Pacific Islander	Some Other Race Alone	Multiple Races	Hispanic or Latino	Not Hispanic or Latino		
BG1, CT 3	95%	0%	0%	0%	0%	0%	5%	97%	3%	9.9%	$74,508
BG1, CT 4	94%	0%	1%	1%	0%	0%	4%	100%	0%	9.2%	$61,536
BG2, CT 4	94%	0%	2%	0%	0%	0%	4%	98%	2%	8.4%	$76,011
BG3, CT 4	93%	0%	2%	4%	0%	0%	1%	100%	0%	15.8%	$57,287
BG1, CT 5	88%	0%	0%	0%	0%	0%	11%	99%	1%	4.5%	$69,750
BG2, CT 5	65%	0%	6%	0%	0%	12%	16%	82%	18%	6.7%	$107,174
BG3, CT 5	86%	0%	4%	1%	0%	1%	8%	98%	2%	5.8%	$60,962
BG4, CT 5	81%	0%	10%	1%	0%	0%	7%	99%	1%	3.8%	$50,302
BG1, CT 6	71%	8%	7%	1%	0%	2%	11%	97%	3%	17.7%	$53,977
BG2, CT 6	72%	0%	12%	1%	0%	0%	15%	94%	6%	7.5%	$77,784
BG3, CT 6	67%	4%	15%	0%	0%	0%	14%	100%	0%	1.3%	$61,579
BG4, CT 6	93%	0%	2%	0%	0%	0%	5%	100%	0%	0.0%	$59,219
BG5, CT 6	88%	0%	8%	1%	0%	0%	3%	98%	2%	15.7%	$66,848
BG6, CT 6	84%	0%	11%	1%	0%	2%	2%	97%	3%	5.5%	$77,232
BG1, CT 7	90%	0%	3%	1%	0%	0%	6%	99%	1%	4.1%	$67,025
BG2, CT 7	74%	1%	21%	4%	0%	0%	1%	96%	4%	5.1%	$95,195
BG3, CT 7	86%	0%	5%	2%	0%	0%	7%	87%	13%	2.1%	$84,524
BG4, CT 7	93%	0%	3%	0%	0%	0%	4%	97%	3%	3.8%	$50,347
BG5, CT 7	88%	0%	6%	2%	0%	0%	4%	85%	15%	4.2%	$70,117
BG6, CT 7	83%	0%	12%	0%	0%	1%	3%	98%	2%	14.6%	$57,583
BG1, CT 8	90%	0%	6%	1%	0%	0%	3%	99%	1%	18.0%	$48,083
BG2, CT 8	95%	0%	4%	0%	0%	0%	1%	99%	1%	19.8%	$31,818
BG3, CT 8	89%	0%	7%	0%	0%	0%	4%	95%	5%	11.1%	$50,750
BG4, CT 8	92%	0%	2%	0%	0%	1%	5%	98%	2%	9.5%	$56,701
BG1, CT 9	91%	0%	4%	1%	2%	0%	3%	99%	1%	9.9%	$76,786
BG2, CT 9	93%	1%	1%	2%	0%	0%	2%	100%	0%	5.4%	$63,125
BG1, CT 10	92%	0%	4%	1%	0%	0%	3%	95%	5%	10.6%	$48,750
BG2, CT 10	85%	1%	8%	1%	0%	0%	4%	98%	2%	10.7%	$49,219
BG1, CT 11	100%	0%	0%	0%	0%	0%	0%	100%	0%	31.7%	$46,250
BG2, CT 11	95%	0%	2%	1%	0%	0%	3%	96%	4%	15.1%	$51,875
BG3, CT 11	91%	1%	4%	1%	0%	0%	2%	94%	6%	4.7%	$44,808

Block Group	Race (Percent)[a]							Ethnicity (Percent)[a]		Percent of Residents in Poverty[a]	Median Household Income
	White	Black or African American	American Indian or Alaska Native	Asian	Native Hawaiian or Other Pacific Islander	Some Other Race Alone	Multiple Races	Hispanic or Latino	Not Hispanic or Latino		
BG4, CT 11	91%	0%	3%	2%	0%	0%	4%	98%	2%	6.3%	$60,227
BG1, CT 12	43%	2%	49%	2%	1%	0%	4%	99%	1%	21.2%	$36,667
BG1, CT 13	78%	1%	14%	3%	0%	0%	4%	100%	0%	9.2%	$82,099
BG2, CT 13	67%	2%	17%	7%	0%	0%	6%	98%	2%	5.3%	$46,971
BG1, CT 1	92%	0%	3%	5%	0%	0%	0%	99%	1%	1.3%	$54,625
BG2, CT 1	88%	0%	5%	0%	0%	5%	2%	94%	6%	4.0%	$84,830
BG3, CT 1	68%	0%	21%	0%	0%	0%	10%	96%	4%	6.3%	$83,750
BG4, CT 1	89%	0%	3%	0%	0%	3%	5%	94%	6%	0.2%	$94,219
BG5, CT 1	83%	5%	11%	0%	0%	0%	0%	95%	5%	0.0%	$148,462
BG1, CT 2	63%	1%	13%	11%	0%	0%	11%	94%	6%	12.3%	$61,875
BG2, CT 2	63%	0%	17%	11%	0%	0%	9%	99%	1%	16.8%	$55,668
BG3, CT 2	57%	0%	21%	14%	0%	0%	8%	93%	7%	9.1%	$47,813
BG1, CT 3	51%	1%	16%	6%	0%	0%	27%	92%	8%	11.8%	$46,731
BG2, CT 3	64%	0%	16%	4%	0%	4%	13%	94%	6%	22.5%	$53,405
BG3, CT 3	62%	0%	15%	9%	0%	0%	14%	97%	3%	15.8%	$49,896
BG1, CT 4	51%	0%	35%	3%	0%	0%	11%	97%	3%	13.7%	$76,932
BG2, CT 4	87%	0%	5%	3%	0%	0%	6%	98%	2%	3.7%	$105,781
BG1, CT 1	10%	1%	83%	0%	0%	0%	5%	90%	10%	21.8%	$35,417
BG2, CT 1	38%	0%	56%	3%	1%	1%	2%	94%	6%	20.5%	$48,750
BG3, CT 1	72%	3%	11%	0%	0%	9%	4%	91%	9%	10.2%	$89,901
BG1, CT 2	80%	0%	13%	0%	0%	2%	6%	91%	9%	14.2%	$74,056
BG2, CT 2	60%	0%	27%	10%	0%	0%	4%	98%	2%	2.4%	$97,280
BG3, CT 2	43%	1%	11%	22%	9%	6%	8%	93%	7%	19.5%	$55,380
BG1, CT 3	32%	0%	6%	41%	0%	16%	6%	78%	22%	12.5%	$51,442
BG2, CT 3	30%	0%	4%	65%	0%	0%	1%	100%	0%	8.4%	$69,222
BG1, CT 4	57%	0%	4%	37%	0%	0%	2%	95%	5%	7.1%	$60,139
BG1, CT 5	87%	2%	0%	4%	0%	0%	6%	87%	13%	3.8%	$64,643
BG1, CT 1	21%	1%	73%	0%	0%	0%	5%	97%	3%	24.7%	$51,071
BG2, CT 1	27%	0%	65%	2%	0%	0%	6%	100%	0%	15.4%	$52,500
BG1, CT 1.01	98%	0%	0%	0%	1%	0%	1%	99%	1%	28.8%	$51,167
BG1, CT 1.02	95%	0%	0%	1%	0%	0%	4%	100%	0%	9.6%	$45,956

Block Group	Race (Percent)[a]							Ethnicity (Percent)[a]		Percent of Residents in Poverty[a]	Median Household Income
	White	Black or African American	American Indian or Alaska Native	Asian	Native Hawaiian or Other Pacific Islander	Some Other Race Alone	Multiple Races	Hispanic or Latino	Not Hispanic or Latino		
BG2, CT 1.02	93%	0%	4%	0%	0%	0%	3%	100%	0%	17.8%	$46,591
BG1, CT 2	68%	2%	17%	3%	1%	1%	8%	97%	3%	26.6%	$37,708
BG2, CT 2	93%	0%	2%	0%	0%	1%	4%	97%	3%	16.0%	$46,250
BG1, CT 3	91%	1%	4%	1%	0%	0%	3%	90%	10%	2.1%	$82,636
BG2, CT 3	89%	0%	2%	0%	0%	0%	8%	98%	2%	7.3%	$80,240
BG1, CT 4.01	83%	0%	5%	0%	0%	1%	10%	98%	2%	16.8%	$51,974
BG1, CT 4.02	91%	0%	5%	1%	1%	0%	3%	98%	2%	9.2%	$56,402
BG2, CT 4.02	96%	0%	1%	1%	0%	0%	2%	99%	1%	16.9%	$59,583
BG1, CT 5.01	63%	3%	9%	2%	0%	0%	23%	93%	7%	13.5%	$67,647
BG2, CT 5.01	86%	0%	8%	0%	2%	3%	1%	94%	6%	9.3%	$79,100
BG1, CT 5.02	87%	0%	3%	0%	0%	0%	9%	97%	3%	16.5%	$55,104
BG2, CT 5.02	82%	1%	9%	0%	0%	0%	8%	98%	2%	2.2%	$64,079
BG1, CT 6.01	82%	1%	8%	0%	0%	0%	9%	100%	0%	8.5%	$97,011
BG2, CT 6.01	84%	0%	4%	0%	0%	1%	12%	98%	2%	11.5%	$79,261
BG1, CT 6.03	77%	2%	6%	10%	0%	0%	6%	97%	3%	3.5%	$77,250
BG2, CT 6.03	91%	0%	4%	1%	0%	0%	4%	92%	8%	7.9%	$81,145
BG1, CT 6.04	90%	0%	2%	1%	0%	0%	6%	98%	2%	9.8%	$85,377
BG2, CT 6.04	84%	0%	13%	0%	0%	0%	3%	98%	2%	17.1%	$41,964
BG1, CT 7.01	94%	0%	6%	0%	0%	0%	0%	95%	5%	6.5%	$70,938
BG2, CT 7.01	88%	0%	4%	0%	0%	1%	7%	97%	3%	5.2%	$51,481
BG1, CT 7.03	85%	1%	4%	2%	0%	0%	8%	100%	0%	15.1%	$57,414
BG2, CT 7.03	78%	0%	16%	3%	1%	0%	2%	92%	8%	13.2%	$55,913
BG1, CT 7.05	86%	0%	1%	1%	1%	1%	11%	89%	11%	8.6%	$72,813
BG2, CT 7.05	90%	0%	3%	0%	0%	1%	6%	91%	9%	8.2%	$68,269
BG1, CT 7.06	88%	1%	1%	0%	0%	2%	7%	97%	3%	27.0%	$76,076
BG2, CT 7.06	86%	1%	4%	1%	0%	1%	7%	97%	3%	13.7%	$81,464
BG1, CT 8	86%	1%	7%	1%	0%	0%	5%	96%	4%	9.8%	$71,488
BG2, CT 8	84%	1%	8%	1%	1%	0%	6%	100%	0%	12.3%	$57,431
BG3, CT 8	74%	3%	9%	5%	0%	1%	9%	92%	8%	19.0%	$37,500
BG1, CT 9	86%	4%	5%	1%	0%	0%	4%	95%	5%	4.6%	$59,286
BG2, CT 9	72%	1%	10%	5%	0%	0%	12%	98%	2%	20.2%	$82,237

Block Group	Race (Percent)[a]							Ethnicity (Percent)[a]		Percent of Residents in Poverty[a]	Median Household Income
	White	Black or African American	American Indian or Alaska Native	Asian	Native Hawaiian or Other Pacific Islander	Some Other Race Alone	Multiple Races	Hispanic or Latino	Not Hispanic or Latino		
BG1, CT 10.01	84%	2%	5%	0%	0%	1%	8%	96%	4%	6.6%	$76,488
BG2, CT 10.01	77%	0%	6%	4%	0%	0%	13%	98%	2%	1.9%	$100,938
BG1, CT 10.03	73%	0%	5%	0%	0%	3%	19%	91%	9%	14.6%	$47,969
BG2, CT 10.03	87%	0%	7%	0%	0%	0%	6%	99%	1%	5.1%	$86,023
BG1, CT 10.04	86%	1%	1%	0%	0%	1%	10%	94%	6%	7.1%	$80,357
BG2, CT 10.04	76%	0%	8%	7%	0%	0%	9%	99%	1%	7.0%	$75,484
BG1, CT 11	91%	1%	3%	1%	0%	0%	5%	98%	2%	3.7%	$107,672
BG2, CT 11	84%	2%	3%	0%	0%	1%	9%	97%	3%	8.8%	$86,696
BG1, CT 12.01	78%	1%	6%	0%	0%	4%	10%	94%	6%	5.4%	$63,472
BG2, CT 12.01	86%	1%	6%	1%	0%	0%	6%	96%	4%	13.2%	$53,026
BG1, CT 12.02	81%	0%	5%	1%	3%	1%	10%	96%	4%	8.9%	$79,615
BG2, CT 12.02	82%	2%	4%	1%	0%	1%	11%	94%	6%	7.9%	$80,179
BG1, CT 13	89%	8%	0%	0%	0%	0%	2%	98%	2%	3.5%	$65,750
BG2, CT 13	88%	1%	5%	0%	0%	0%	6%	95%	5%	9.1%	$86,964
BG3, CT 13	90%	2%	1%	1%	0%	0%	5%	98%	2%	5.0%	$81,250
BG4, CT 13	89%	1%	3%	1%	0%	1%	5%	98%	2%	9.1%	$75,288
BG1, CT 1	1%	0%	97%	0%	0%	0%	2%	98%	2%	34.4%	$37,500
BG2, CT 1	7%	0%	84%	0%	3%	0%	6%	97%	3%	53.2%	$32,019
BG3, CT 1	3%	0%	92%	0%	0%	0%	5%	99%	1%	38.3%	$31,563
BG4, CT 1	11%	0%	77%	0%	0%	0%	12%	100%	0%	18.5%	$46,806
BG5, CT 1	2%	0%	94%	0%	1%	0%	3%	100%	0%	36.1%	$35,000
BG6, CT 1	4%	0%	90%	1%	0%	0%	5%	99%	1%	48.1%	$31,705
BG1, CT 2	49%	6%	27%	3%	0%	3%	12%	98%	2%	4.6%	$113,611
BG2, CT 2	43%	2%	51%	1%	0%	0%	4%	99%	1%	15.5%	$67,500
BG3, CT 2	29%	1%	44%	0%	0%	0%	26%	96%	4%	14.9%	$70,476
BG4, CT 2	32%	0%	49%	2%	0%	0%	17%	98%	2%	8.9%	$53,879
BG1, CT 1	18%	1%	55%	7%	4%	3%	12%	95%	5%	11.0%	$109,537
BG2, CT 1	20%	1%	59%	15%	1%	0%	4%	96%	4%	14.5%	$61,552
BG1, CT 2	8%	0%	82%	0%	0%	0%	9%	99%	1%	10.7%	$72,500
BG2, CT 2	4%	0%	92%	0%	0%	0%	5%	100%	0%	17.6%	$61,250
BG3, CT 2	11%	0%	84%	0%	0%	0%	5%	100%	0%	10.1%	$72,500

Block Group	Race (Percent)[a]							Ethnicity (Percent)[a]		Percent of Residents in Poverty[a]	Median Household Income
	White	Black or African American	American Indian or Alaska Native	Asian	Native Hawaiian or Other Pacific Islander	Some Other Race Alone	Multiple Races	Hispanic or Latino	Not Hispanic or Latino		
BG1, CT 3	87%	0%	6%	2%	0%	2%	3%	97%	3%	5.0%	ND
BG1, CT 1	14%	0%	83%	0%	0%	0%	3%	100%	0%	15.3%	$58,594
BG2, CT 1	4%	0%	92%	0%	0%	0%	4%	99%	1%	29.5%	$49,583
BG3, CT 1	4%	0%	95%	0%	0%	0%	1%	98%	2%	32.5%	$48,125
BG4, CT 1	0%	0%	97%	0%	0%	0%	3%	100%	0%	36.8%	$35,625
BG5, CT 1	3%	0%	97%	0%	0%	0%	0%	100%	0%	22.8%	$47,875
BG1, CT 2	15%	1%	72%	2%	0%	0%	9%	99%	1%	13.1%	$77,188
BG2, CT 2	15%	1%	66%	3%	0%	1%	14%	96%	4%	12.6%	$66,136
BG3, CT 2	47%	4%	36%	1%	0%	0%	12%	96%	4%	7.6%	$90,313
BG4, CT 2	18%	1%	74%	0%	0%	1%	5%	99%	1%	22.1%	$90,909
BG1, CT 2	78%	4%	7%	0%	1%	6%	4%	92%	8%	8.6%	$76,250
BG2, CT 2	79%	0%	4%	3%	0%	1%	13%	96%	4%	7.9%	$61,667
BG3, CT 2	81%	3%	11%	0%	0%	0%	5%	99%	1%	9.9%	$72,802
BG4, CT 2	60%	0%	24%	0%	0%	4%	12%	94%	6%	21.2%	$49,750
BG1, CT 1	94%	0%	2%	0%	0%	3%	2%	100%	0%	18.1%	$29,643
BG2, CT 1	87%	0%	5%	0%	0%	0%	8%	100%	0%	18.7%	$49,050
BG3, CT 1	32%	0%	56%	4%	0%	0%	7%	100%	0%	10.8%	$34,125
BG1, CT 2	51%	0%	36%	1%	0%	0%	12%	97%	3%	18.8%	$38,125
BG2, CT 2	68%	0%	20%	1%	1%	0%	10%	95%	5%	16.0%	$61,339
BG3, CT 2	81%	0%	11%	1%	0%	0%	7%	97%	3%	17.1%	$66,875
BG1, CT 3	100%	0%	0%	0%	0%	0%	0%	100%	0%	4.9%	$21,944
BG1, CT 9401	2%	0%	86%	0%	0%	0%	11%	95%	5%	11.5%	$51,719
BG2, CT 9401	9%	1%	84%	0%	0%	0%	6%	97%	3%	16.0%	$43,375
BG3, CT 9401	3%	0%	77%	0%	0%	0%	21%	98%	2%	1.6%	$65,625
BG1, CT 1	85%	11%	4%	0%	0%	0%	0%	100%	0%	0.0%	ND
BG2, CT 1	50%	0%	36%	2%	0%	0%	12%	100%	0%	20.7%	$65,855
BG3, CT 1	78%	0%	16%	1%	0%	0%	5%	98%	2%	8.2%	$62,303
BG4, CT 1	53%	0%	25%	4%	1%	1%	16%	96%	4%	19.1%	$66,821
BG5, CT 1	75%	3%	16%	0%	0%	0%	6%	99%	1%	2.8%	$92,868
BG1, CT 2	75%	0%	5%	13%	0%	2%	5%	96%	4%	9.4%	$74,798
BG2, CT 2	68%	0%	11%	14%	0%	1%	6%	97%	3%	4.8%	$61,607

Block Group	Race (Percent)[a]							Ethnicity (Percent)[a]		Percent of Residents in Poverty[a]	Median Household Income
	White	Black or African American	American Indian or Alaska Native	Asian	Native Hawaiian or Other Pacific Islander	Some Other Race Alone	Multiple Races	Hispanic or Latino	Not Hispanic or Latino		
BG3, CT 2	52%	1%	31%	4%	0%	2%	10%	93%	7%	5.4%	$65,536
BG4, CT 2	71%	0%	14%	2%	0%	0%	14%	86%	14%	20.2%	$61,528
BG5, CT 2	51%	2%	34%	0%	0%	3%	10%	93%	7%	10.7%	$44,167
BG6, CT 2	54%	10%	9%	1%	0%	7%	19%	58%	42%	16.9%	ND
BG1, CT 1	78%	0%	4%	14%	0%	0%	4%	99%	1%	5.5%	$71,667
BG1, CT 1	41%	0%	55%	0%	0%	0%	4%	100%	0%	22.6%	$36,591
BG2, CT 1	75%	0%	10%	2%	0%	0%	13%	100%	0%	14.9%	$47,946
BG1, CT 4	89%	0%	1%	8%	0%	0%	1%	92%	8%	8.2%	$59,231
BG2, CT 4	94%	0%	2%	0%	0%	0%	3%	93%	7%	9.1%	$81,875
BG3, CT 4	90%	0%	1%	1%	2%	2%	4%	96%	4%	19.2%	$51,000
BG4, CT 4	81%	12%	3%	1%	0%	1%	2%	95%	5%	0.0%	$112,625
BG1, CT 1	56%	0%	40%	0%	2%	0%	2%	98%	2%	24.0%	$30,188
BG2, CT 1	97%	0%	1%	0%	0%	0%	2%	99%	1%	0.0%	$50,486
BG3, CT 1	61%	0%	36%	0%	0%	0%	3%	98%	2%	11.5%	$62,917
BG4, CT 1	68%	4%	19%	0%	0%	0%	9%	100%	0%	15.0%	$62,583
BG1, CT 2	58%	0%	9%	19%	0%	1%	14%	99%	1%	0.0%	$104,609
BG2, CT 2	78%	0%	11%	8%	0%	0%	3%	99%	1%	1.5%	$91,923
BG1, CT 3	58%	0%	30%	6%	2%	0%	5%	98%	2%	22.8%	$41,875
BG2, CT 3	76%	1%	17%	1%	0%	0%	5%	100%	0%	6.3%	$115,662
BG3, CT 3	65%	0%	6%	0%	6%	6%	17%	85%	15%	16.1%	$73,636
BG4, CT 3	88%	0%	11%	0%	0%	0%	1%	89%	11%	7.2%	$126,328
BG5, CT 3	86%	0%	6%	3%	0%	5%	0%	87%	13%	5.8%	$77,098
BG1, CT 1	3%	0%	93%	0%	1%	0%	3%	100%	0%	31.0%	$39,345
BG2, CT 1	4%	0%	71%	0%	0%	0%	25%	100%	0%	25.9%	$39,063
BG3, CT 1	5%	0%	92%	0%	0%	0%	3%	100%	0%	22.2%	$43,846
BG4, CT 1	3%	1%	92%	1%	0%	0%	3%	100%	0%	39.5%	$35,625
BG1, CT 3	76%	0%	18%	1%	0%	0%	5%	95%	5%	12.2%	$46,488
BG2, CT 3	79%	0%	10%	2%	0%	0%	9%	100%	0%	5.3%	$45,313
BG3, CT 3	56%	0%	30%	1%	0%	0%	13%	99%	1%	12.1%	$56,875
BG4, CT 3	45%	0%	43%	3%	0%	0%	9%	97%	3%	8.5%	$33,704
BG1, CT 1	35%	6%	41%	1%	0%	1%	14%	98%	2%	5.9%	$72,500

Block Group	Race (Percent)[a]							Ethnicity (Percent)[a]		Percent of Residents in Poverty[a]	Median Household Income
	White	Black or African American	American Indian or Alaska Native	Asian	Native Hawaiian or Other Pacific Islander	Some Other Race Alone	Multiple Races	Hispanic or Latino	Not Hispanic or Latino		
BG1, CT 1	3%	0%	95%	0%	0%	0%	3%	100%	0%	40.8%	$23,958
BG2, CT 1	23%	0%	73%	0%	2%	0%	2%	98%	2%	24.2%	$31,818
BG1, CT 2	15%	1%	77%	0%	0%	1%	6%	93%	7%	25.7%	$31,500
BG2, CT 2	67%	0%	20%	0%	0%	0%	13%	99%	1%	17.3%	$54,250
BG1, CT 3	5%	0%	88%	0%	0%	0%	6%	100%	0%	29.8%	$26,667
BG2, CT 3	31%	0%	61%	3%	0%	1%	4%	99%	1%	11.5%	$60,313
BG3, CT 3	5%	0%	93%	0%	0%	0%	3%	100%	0%	29.7%	$26,667
BG1, CT 4	2%	0%	97%	0%	0%	0%	1%	100%	0%	28.6%	$25,694
BG2, CT 4	31%	0%	51%	2%	0%	0%	16%	98%	2%	13.7%	$63,088
Statewide	67%	3%	14%	5%	1%	1%	8%	6%	94%	9.9%	$70,760

Source: U.S. Census Bureau 2013

BG = Block Group; CT = Census Tract; ND = no data
[a] Totals may not add to 100 percent, due to rounding.

Table 2: Block Group Demographic Data, Hawaii

Block Group	Race (Percent)[a]							Ethnicity (Percent)[a]		Percent of Residents in Poverty[a]	Median Household Income
	White	Black or African American	American Indian or Alaska Native	Asian	Native Hawaiian or Other Pacific Islander	Some Other Race Alone	Multiple Races	Hispanic or Latino	Not Hispanic or Latino		
BG 1, CT 201	27%	2%	0%	20%	19%	5%	26%	84%	16%	34%	$30,398
BG 2, CT 201	66%	0%	0%	15%	3%	0%	17%	92%	8%	11%	$61,653
BG 3, CT 201	44%	0%	0%	41%	0%	0%	14%	96%	4%	9%	$47,604
BG 4, CT 201	26%	0%	0%	27%	8%	0%	38%	90%	10%	10%	$44,671
BG 1, CT 202.02	28%	5%	0%	12%	12%	20%	23%	97%	3%	13%	$36,303
BG 2, CT 202.02	40%	0%	0%	32%	5%	1%	23%	88%	12%	18%	$45,179
BG 1, CT 203	39%	0%	0%	29%	4%	2%	25%	87%	13%	15%	$71,111
BG 2, CT 203	29%	0%	0%	13%	22%	0%	36%	98%	2%	52%	$21,818
BG 3, CT 203	22%	2%	0%	23%	16%	0%	37%	84%	16%	36%	$26,216
BG 1, CT 204	10%	4%	0%	19%	29%	0%	38%	87%	13%	30%	$38,056
BG 2, CT 204	13%	1%	0%	23%	3%	0%	59%	71%	29%	33%	$19,189
BG 3, CT 204	20%	0%	0%	18%	6%	1%	55%	69%	31%	44%	$29,919
BG 4, CT 204	12%	0%	0%	42%	10%	0%	37%	100%	0%	27%	$35,385
BG 1, CT 205	25%	0%	0%	36%	17%	0%	23%	79%	21%	50%	$18,750
BG 2, CT 205	13%	0%	0%	43%	4%	0%	40%	97%	3%	11%	$50,111
BG 3, CT 205	23%	9%	0%	62%	4%	0%	3%	100%	0%	23%	$71,058
BG 4, CT 205	17%	0%	0%	34%	18%	0%	30%	97%	3%	12%	$37,759
BG 5, CT 205	21%	1%	1%	31%	10%	0%	36%	81%	19%	31%	$20,455
BG 1, CT 206	37%	8%	0%	18%	11%	2%	24%	79%	21%	15%	$44,886
BG 2, CT 206	5%	0%	0%	16%	29%	0%	49%	91%	9%	11%	$59,583
BG 3, CT 206	2%	0%	0%	2%	44%	0%	52%	98%	2%	14%	$48,077
BG 4, CT 206	8%	0%	0%	21%	25%	0%	45%	94%	6%	11%	$69,250
BG 1, CT 207.01	6%	0%	0%	48%	14%	1%	30%	90%	10%	5%	$48,816
BG 2, CT 207.01	13%	0%	0%	47%	9%	0%	32%	89%	11%	16%	$77,407
BG 3, CT 207.01	8%	0%	0%	62%	13%	0%	17%	97%	3%	1%	$82,798
BG 1, CT 207.02	22%	0%	0%	49%	5%	0%	24%	96%	4%	2%	$68,333
BG 2, CT 207.02	9%	2%	0%	56%	6%	2%	25%	94%	6%	2%	$76,714

Block Group	Race (Percent)[a]							Ethnicity (Percent)[a]		Percent of Residents in Poverty[a]	Median Household Income
	White	Black or African American	American Indian or Alaska Native	Asian	Native Hawaiian or Other Pacific Islander	Some Other Race Alone	Multiple Races	Hispanic or Latino	Not Hispanic or Latino		
BG 3, CT 207.02	8%	1%	1%	50%	5%	1%	35%	85%	15%	3%	$79,926
BG 1, CT 208.01	24%	0%	0%	28%	22%	0%	26%	96%	4%	5%	$64,477
BG 2, CT 208.01	13%	0%	0%	49%	5%	1%	33%	93%	7%	2%	$77,625
BG 1, CT 208.02	23%	0%	0%	51%	1%	3%	22%	89%	11%	17%	$56,058
BG 2, CT 208.02	13%	0%	0%	29%	10%	0%	47%	89%	11%	31%	$49,500
BG 3, CT 208.02	19%	0%	0%	52%	10%	0%	19%	100%	0%	12%	$54,167
BG 4, CT 208.02	30%	0%	0%	34%	9%	0%	27%	94%	6%	6%	$59,928
BG 1, CT 209	27%	0%	0%	31%	19%	0%	23%	93%	7%	6%	$59,226
BG 2, CT 209	11%	0%	6%	45%	6%	0%	32%	92%	8%	8%	$86,726
BG 3, CT 209	22%	1%	0%	23%	8%	1%	45%	82%	18%	14%	$59,762
BG 1, CT 210.03	25%	1%	0%	26%	36%	4%	8%	84%	16%	27%	$55,259
BG 2, CT 210.03	20%	0%	1%	27%	15%	4%	33%	90%	10%	14%	$51,964
BG 3, CT 210.03	33%	0%	1%	17%	14%	2%	32%	87%	13%	29%	$29,861
BG 1, CT 210.05	60%	2%	0%	4%	7%	10%	17%	78%	22%	42%	$22,422
BG 2, CT 210.05	4%	0%	0%	56%	28%	0%	12%	81%	19%	27%	$22,330
BG 3, CT 210.05	32%	5%	0%	24%	27%	0%	12%	84%	16%	30%	$36,970
BG 4, CT 210.05	54%	0%	0%	7%	18%	12%	9%	59%	41%	35%	$54,881
BG 1, CT 210.10	55%	0%	2%	9%	5%	0%	28%	82%	18%	39%	$25,761
BG 2, CT 210.10	34%	1%	0%	9%	30%	1%	25%	77%	23%	37%	$28,083
BG 3, CT 210.10	45%	7%	0%	16%	8%	4%	20%	87%	13%	32%	$28,684
BG 1, CT 210.11	60%	0%	0%	9%	8%	4%	19%	78%	22%	23%	$50,775
BG 2, CT 210.11	43%	0%	0%	23%	9%	2%	23%	84%	16%	27%	$37,336
BG 1, CT 210.13	8%	0%	1%	55%	20%	0%	17%	93%	7%	20%	$26,250
BG 2, CT 210.13	21%	0%	0%	37%	17%	0%	25%	90%	10%	31%	$37,692
BG 3, CT 210.13	16%	0%	0%	31%	23%	1%	28%	93%	7%	21%	$45,694
BG 1, CT 211.01	56%	0%	1%	10%	8%	9%	16%	81%	19%	33%	$30,294
BG 2, CT 211.01	80%	0%	0%	13%	4%	3%	0%	97%	3%	1%	$73,750
BG 1, CT 211.06	32%	0%	2%	26%	11%	0%	29%	89%	11%	27%	$26,918
BG 2, CT 211.06	23%	4%	1%	9%	12%	4%	48%	87%	13%	45%	$19,683
BG 3, CT 211.06	17%	1%	2%	29%	21%	4%	27%	79%	21%	27%	$33,188

Block Group	Race (Percent)[a]							Ethnicity (Percent)[a]		Percent of Residents in Poverty[a]	Median Household Income
	White	Black or African American	American Indian or Alaska Native	Asian	Native Hawaiian or Other Pacific Islander	Some Other Race Alone	Multiple Races	Hispanic or Latino	Not Hispanic or Latino		
BG 4, CT 211.06	32%	0%	0%	20%	22%	4%	22%	90%	10%	40%	$28,750
BG 1, CT 212.02	11%	0%	0%	37%	5%	3%	43%	87%	13%	14%	$42,566
BG 2, CT 212.02	44%	0%	0%	2%	12%	4%	37%	86%	14%	36%	$39,125
BG 3, CT 212.02	61%	0%	0%	12%	0%	0%	26%	99%	1%	24%	$33,224
BG 4, CT 212.02	8%	0%	1%	64%	4%	0%	23%	98%	2%	18%	$43,750
BG 1, CT 213	42%	0%	2%	11%	9%	0%	37%	96%	4%	27%	$40,221
BG 2, CT 213	35%	0%	0%	21%	5%	0%	38%	91%	9%	17%	$38,194
BG 3, CT 213	48%	0%	0%	14%	3%	3%	31%	94%	6%	7%	$66,356
BG 1, CT 214.02	19%	2%	0%	24%	17%	1%	36%	82%	18%	18%	$62,125
BG 2, CT 214.02	23%	0%	1%	40%	9%	1%	26%	94%	6%	7%	$41,500
BG 3, CT 214.02	17%	0%	0%	26%	7%	3%	48%	89%	11%	8%	$47,292
BG 1, CT 215.02	54%	2%	1%	9%	3%	0%	30%	95%	5%	9%	$66,990
BG 2, CT 215.02	31%	0%	1%	20%	4%	5%	40%	82%	18%	13%	$49,934
BG 1, CT 215.04	20%	0%	1%	14%	42%	5%	19%	89%	11%	22%	$37,500
BG 2, CT 215.04	21%	0%	0%	9%	25%	2%	42%	88%	12%	9%	$59,485
BG 1, CT 215.07	61%	0%	1%	9%	5%	0%	25%	86%	14%	13%	$69,201
BG 2, CT 215.07	47%	0%	0%	5%	2%	27%	19%	66%	34%	5%	$72,833
BG 3, CT 215.07	43%	1%	0%	8%	14%	0%	34%	93%	7%	17%	$57,149
BG 1, CT 215.09	46%	0%	0%	17%	12%	0%	25%	96%	4%	18%	$55,938
BG 2, CT 215.09	66%	0%	0%	2%	22%	0%	10%	92%	8%	29%	$63,750
BG 3, CT 215.09	36%	1%	0%	10%	12%	3%	38%	79%	21%	22%	$58,636
BG 1, CT 216.01	36%	0%	0%	34%	7%	0%	22%	89%	11%	14%	$76,964
BG 2, CT 216.01	24%	4%	0%	24%	6%	0%	42%	89%	11%	8%	$32,944
BG 3, CT 216.01	85%	0%	0%	7%	2%	0%	7%	97%	3%	0%	$68,864
BG 4, CT 216.01	61%	0%	1%	3%	19%	1%	15%	97%	3%	12%	$55,833
BG 5, CT 216.01	40%	0%	0%	18%	15%	9%	17%	85%	15%	20%	$60,282
BG 1, CT 216.04	79%	0%	0%	5%	0%	17%	0%	76%	24%	4%	$70,034
BG 2, CT 216.04	49%	1%	0%	17%	2%	12%	18%	85%	15%	8%	$62,239
BG 3, CT 216.04	33%	0%	0%	10%	8%	23%	26%	77%	23%	16%	$50,593
BG 4, CT 216.04	65%	0%	0%	12%	2%	0%	20%	98%	2%	8%	$95,833

Block Group	Race (Percent)[a]							Ethnicity (Percent)[a]		Percent of Residents in Poverty[a]	Median Household Income
	White	Black or African American	American Indian or Alaska Native	Asian	Native Hawaiian or Other Pacific Islander	Some Other Race Alone	Multiple Races	Hispanic or Latino	Not Hispanic or Latino		
BG 5, CT 216.04	28%	3%	0%	28%	2%	26%	12%	69%	31%	5%	$64,489
BG 1, CT 217.02	50%	0%	0%	13%	14%	1%	22%	82%	18%	18%	$39,097
BG 2, CT 217.02	42%	0%	0%	14%	1%	1%	42%	96%	4%	11%	$80,036
BG 3, CT 217.02	33%	0%	0%	8%	19%	1%	39%	92%	8%	7%	$50,759
BG 1, CT 217.04	81%	0%	0%	16%	2%	0%	2%	100%	0%	6%	$61,029
BG 2, CT 217.04	55%	1%	0%	15%	3%	1%	26%	90%	10%	3%	$80,759
BG 3, CT 217.04	49%	0%	0%	20%	4%	3%	24%	93%	7%	6%	$76,333
BG 4, CT 217.04	49%	0%	0%	8%	18%	2%	23%	95%	5%	11%	$66,955
BG 1, CT 218	12%	0%	0%	11%	12%	5%	59%	84%	16%	14%	$67,500
BG 2, CT 218	17%	0%	0%	14%	9%	0%	60%	90%	10%	31%	$52,619
BG 3, CT 218	19%	1%	0%	22%	10%	1%	48%	76%	24%	13%	$55,417
BG 4, CT 218	33%	0%	0%	23%	22%	2%	19%	92%	8%	10%	$59,286
BG 1, CT 219.02	35%	0%	0%	16%	16%	4%	29%	90%	10%	5%	$59,757
BG 2, CT 219.02	37%	0%	1%	31%	7%	0%	24%	97%	3%	33%	$27,333
BG 3, CT 219.02	19%	0%	1%	43%	6%	5%	27%	94%	6%	5%	$57,936
BG 1, CT 220	49%	0%	0%	14%	16%	1%	20%	95%	5%	10%	$55,610
BG 2, CT 220	20%	0%	0%	52%	2%	0%	25%	98%	2%	9%	$44,844
BG 1, CT 221.02	23%	0%	0%	44%	5%	0%	29%	86%	14%	16%	$62,788
BG 2, CT 221.02	24%	0%	0%	32%	14%	3%	26%	92%	8%	8%	$76,830
BG 0, CT 9900	No Population										
BG 0, CT 9901	No Population										
BG 0, CT 9903	No Population										
BG 0, CT 9904	No Population										
BG 0, CT 9905	No Population										
BG 0, CT 9906	No Population										
BG 0, CT 9907	No Population										
BG 0, CT 9908	No Population										
BG 0, CT 9909	No Population										
BG 0, CT 9910	No Population										
BG 0, CT 9911	No Population										

Block Group	Race (Percent)[a]							Ethnicity (Percent)[a]		Percent of Residents in Poverty[a]	Median Household Income
	White	Black or African American	American Indian or Alaska Native	Asian	Native Hawaiian or Other Pacific Islander	Some Other Race Alone	Multiple Races	Hispanic or Latino	Not Hispanic or Latino		
BG 0, CT 9912	No Population										
BG 0, CT 9913	No Population										
BG 0, CT 9914	No Population										
BG 0, CT 9915	No Population										
BG 0, CT 9916	No Population										
BG 0, CT 9917	No Population										
BG 1, CT 1.06	23%	0%	0%	54%	3%	0%	20%	94%	6%	4%	$80,357
BG 2, CT 1.06	37%	4%	0%	42%	3%	0%	13%	93%	7%	3%	$85,224
BG 3, CT 1.06	23%	0%	0%	60%	2%	0%	15%	93%	7%	1%	$127,353
BG 4, CT 1.06	36%	2%	2%	35%	13%	0%	12%	95%	5%	11%	$88,382
BG 1, CT 1.07	23%	0%	0%	53%	2%	0%	22%	98%	2%	1%	$110,250
BG 2, CT 1.07	31%	0%	0%	29%	6%	0%	34%	98%	2%	0%	$152,266
BG 3, CT 1.07	19%	0%	0%	56%	0%	0%	25%	99%	1%	1%	$142,250
BG 1, CT 1.08	42%	1%	0%	32%	1%	0%	25%	91%	9%	5%	$107,137
BG 2, CT 1.08	36%	0%	0%	27%	19%	0%	18%	99%	1%	2%	$115,948
BG 1, CT 1.10	28%	0%	0%	58%	4%	0%	10%	100%	0%	3%	$109,200
BG 2, CT 1.10	44%	2%	0%	36%	0%	0%	19%	99%	1%	9%	$127,237
BG 3, CT 1.10	25%	0%	0%	45%	0%	0%	29%	97%	3%	4%	$96,316
BG 1, CT 1.11	23%	0%	0%	51%	1%	1%	24%	95%	5%	1%	$125,179
BG 2, CT 1.11	9%	0%	0%	62%	4%	0%	24%	98%	2%	2%	$107,375
BG 3, CT 1.11	16%	0%	0%	66%	1%	0%	17%	98%	2%	3%	$160,417
BG 1, CT 1.12	7%	0%	0%	70%	7%	0%	15%	98%	2%	0%	$88,529
BG 2, CT 1.12	51%	0%	0%	35%	0%	1%	12%	94%	6%	9%	$109,607
BG 3, CT 1.12	13%	0%	0%	63%	2%	0%	23%	98%	2%	4%	$56,667
BG 1, CT 1.14	52%	0%	0%	35%	0%	0%	13%	96%	4%	4%	$113,696
BG 1, CT 2	15%	0%	0%	54%	0%	0%	31%	87%	13%	2%	$100,000
BG 2, CT 2	14%	0%	0%	59%	5%	0%	23%	100%	0%	4%	$90,333
BG 3, CT 2	11%	0%	0%	61%	5%	0%	23%	98%	2%	2%	$126,360
BG 4, CT 2	31%	0%	0%	48%	4%	0%	17%	97%	3%	6%	$128,125
BG 5, CT 2	26%	1%	0%	32%	5%	0%	35%	90%	10%	4%	$101,958

Block Group	Race (Percent)[a]							Ethnicity (Percent)[a]		Percent of Residents in Poverty[a]	Median Household Income
	White	Black or African American	American Indian or Alaska Native	Asian	Native Hawaiian or Other Pacific Islander	Some Other Race Alone	Multiple Races	Hispanic or Latino	Not Hispanic or Latino		
BG 1, CT 3.01	28%	1%	0%	50%	1%	0%	20%	94%	6%	0%	$95,387
BG 2, CT 3.01	16%	1%	2%	65%	1%	0%	14%	97%	3%	4%	$130,667
BG 1, CT 3.02	11%	0%	0%	51%	4%	4%	30%	95%	5%	2%	$119,444
BG 2, CT 3.02	23%	0%	0%	40%	0%	0%	36%	100%	0%	0%	$163,611
BG 3, CT 3.02	15%	0%	0%	77%	5%	0%	3%	100%	0%	9%	$82,438
BG 1, CT 4.01	26%	0%	0%	56%	0%	0%	17%	98%	2%	5%	$82,250
BG 1, CT 4.02	21%	0%	0%	64%	2%	2%	11%	93%	7%	0%	$174,125
BG 2, CT 4.02	24%	0%	0%	70%	0%	0%	5%	99%	1%	3%	$139,750
BG 1, CT 5	25%	2%	0%	71%	0%	0%	2%	98%	2%	2%	$115,156
BG 2, CT 5	26%	0%	0%	33%	3%	0%	38%	73%	27%	4%	$59,167
BG 3, CT 5	54%	0%	0%	33%	9%	0%	4%	100%	0%	0%	$130,909
BG 4, CT 5	19%	0%	0%	74%	0%	0%	7%	91%	9%	0%	$99,375
BG 5, CT 5	37%	0%	0%	39%	0%	0%	24%	97%	3%	7%	$127,500
BG 1, CT 6	No Population										
BG 2, CT 6	36%	0%	0%	50%	0%	0%	14%	100%	0%	2%	$114,231
BG 1, CT 7	6%	0%	0%	79%	2%	0%	13%	96%	4%	3%	$84,583
BG 2, CT 7	7%	0%	0%	55%	1%	1%	37%	91%	9%	13%	$60,536
BG 3, CT 7	7%	0%	0%	60%	0%	0%	33%	88%	12%	6%	$90,625
BG 1, CT 8	13%	0%	2%	65%	1%	0%	20%	96%	4%	8%	$61,758
BG 2, CT 8	18%	0%	0%	62%	3%	0%	17%	97%	3%	3%	$100,536
BG 3, CT 8	11%	1%	0%	62%	11%	0%	15%	98%	2%	2%	$124,063
BG 4, CT 8	3%	0%	0%	60%	4%	1%	34%	95%	5%	12%	$95,375
BG 1, CT 9.01	22%	0%	0%	60%	3%	0%	16%	100%	0%	1%	$99,583
BG 2, CT 9.01	19%	0%	0%	53%	0%	1%	27%	95%	5%	11%	$67,344
BG 1, CT 9.02	28%	1%	0%	51%	1%	1%	18%	93%	7%	4%	$106,477
BG 2, CT 9.02	34%	4%	0%	52%	4%	0%	5%	100%	0%	5%	$79,559
BG 1, CT 9.03	19%	1%	0%	57%	4%	1%	17%	94%	6%	1%	$69,022
BG 2, CT 9.03	19%	1%	0%	54%	4%	5%	17%	96%	4%	12%	$85,286
BG 1, CT 10	14%	0%	1%	50%	2%	1%	33%	87%	13%	8%	$59,333
BG 2, CT 10	29%	0%	2%	50%	10%	0%	10%	98%	2%	12%	$61,216

Block Group	Race (Percent)[a]							Ethnicity (Percent)[a]		Percent of Residents in Poverty[a]	Median Household Income
	White	Black or African American	American Indian or Alaska Native	Asian	Native Hawaiian or Other Pacific Islander	Some Other Race Alone	Multiple Races	Hispanic or Latino	Not Hispanic or Latino		
BG 1, CT 11	7%	0%	0%	37%	30%	0%	26%	87%	13%	28%	$49,018
BG 2, CT 11	8%	0%	0%	39%	33%	0%	20%	96%	4%	12%	$67,273
BG 1, CT 12.01	14%	0%	0%	62%	4%	0%	20%	89%	11%	7%	$50,375
BG 2, CT 12.01	10%	0%	0%	54%	4%	0%	31%	94%	6%	3%	$83,438
BG 1, CT 12.02	6%	0%	0%	69%	4%	0%	22%	87%	13%	1%	$88,611
BG 2, CT 12.02	12%	0%	0%	71%	7%	0%	10%	99%	1%	9%	$65,337
BG 1, CT 13	13%	0%	0%	63%	1%	0%	22%	99%	1%	9%	$55,323
BG 2, CT 13	17%	0%	0%	60%	1%	0%	21%	94%	6%	2%	$86,290
BG 3, CT 13	20%	5%	0%	69%	2%	0%	5%	88%	12%	23%	$39,837
BG 4, CT 13	15%	0%	0%	58%	2%	0%	25%	97%	3%	9%	$81,188
BG 1, CT 14	13%	0%	0%	62%	3%	0%	22%	99%	1%	1%	$72,434
BG 2, CT 14	11%	2%	0%	65%	4%	0%	19%	99%	1%	5%	$91,964
BG 1, CT 15	17%	0%	0%	56%	1%	0%	26%	95%	5%	6%	$81,944
BG 2, CT 15	21%	0%	0%	56%	5%	0%	17%	99%	1%	1%	$69,398
BG 3, CT 15	20%	0%	1%	53%	5%	1%	20%	95%	5%	8%	$84,779
BG 1, CT 16	27%	0%	0%	59%	0%	1%	12%	91%	9%	6%	$71,643
BG 2, CT 16	8%	0%	0%	64%	10%	0%	18%	95%	5%	9%	$66,250
BG 3, CT 16	23%	0%	0%	50%	0%	2%	24%	100%	0%	0%	$68,098
BG 1, CT 17	70%	0%	0%	13%	0%	0%	17%	95%	5%	15%	$64,048
BG 2, CT 17	51%	3%	0%	27%	0%	0%	18%	97%	3%	7%	$72,446
BG 1, CT 18.01	41%	1%	2%	43%	1%	0%	12%	98%	2%	35%	$25,855
BG 2, CT 18.01	45%	0%	0%	32%	10%	1%	12%	85%	15%	25%	$45,357
BG 1, CT 18.03	43%	12%	1%	34%	5%	0%	5%	95%	5%	8%	$46,503
BG 2, CT 18.03	29%	3%	0%	55%	0%	4%	10%	96%	4%	4%	$30,357
BG 3, CT 18.03	51%	0%	0%	38%	0%	0%	11%	92%	8%	15%	$50,750
BG 1, CT 18.04	54%	2%	0%	31%	1%	0%	11%	93%	7%	13%	$57,222
BG 1, CT 19.01	75%	3%	0%	19%	1%	0%	2%	98%	2%	15%	$53,438
BG 1, CT 19.03	39%	0%	0%	50%	0%	0%	10%	94%	6%	6%	$61,905
BG 2, CT 19.03	54%	0%	0%	32%	0%	0%	14%	87%	13%	18%	$27,431
BG 1, CT 19.04	53%	1%	0%	35%	2%	1%	8%	96%	4%	7%	$60,809

Block Group	Race (Percent)[a]							Ethnicity (Percent)[a]			
	White	Black or African American	American Indian or Alaska Native	Asian	Native Hawaiian or Other Pacific Islander	Some Other Race Alone	Multiple Races	Hispanic or Latino	Not Hispanic or Latino	Percent of Residents in Poverty[a]	Median Household Income
BG 2, CT 19.04	50%	2%	0%	35%	0%	0%	14%	95%	5%	6%	$48,750
BG 1, CT 20.03	51%	2%	0%	36%	2%	0%	8%	95%	5%	34%	$29,926
BG 2, CT 20.03	40%	3%	0%	46%	2%	0%	9%	92%	8%	34%	$41,548
BG 1, CT 20.04	51%	2%	0%	31%	7%	1%	9%	87%	13%	15%	$39,911
BG 1, CT 20.05	57%	6%	0%	31%	2%	0%	5%	97%	3%	37%	$21,824
BG 2, CT 20.05	39%	3%	0%	31%	3%	7%	17%	95%	5%	9%	$46,652
BG 1, CT 20.06	34%	2%	0%	40%	10%	5%	9%	91%	9%	25%	$39,328
BG 2, CT 20.06	56%	3%	0%	22%	0%	0%	20%	99%	1%	8%	$61,848
BG 1, CT 21	6%	0%	0%	46%	20%	1%	28%	91%	9%	13%	$54,256
BG 2, CT 21	26%	1%	0%	42%	9%	0%	22%	93%	7%	16%	$53,015
BG 1, CT 22.01	18%	0%	0%	64%	1%	1%	16%	92%	8%	17%	$48,368
BG 2, CT 22.01	10%	1%	0%	59%	21%	1%	9%	97%	3%	5%	$45,909
BG 1, CT 22.02	4%	0%	0%	80%	0%	0%	16%	100%	0%	16%	$37,452
BG 2, CT 22.02	32%	1%	0%	52%	5%	0%	10%	95%	5%	5%	$64,341
BG 1, CT 23	12%	0%	0%	50%	1%	0%	36%	87%	13%	10%	$51,190
BG 2, CT 23	13%	6%	0%	60%	2%	0%	20%	85%	15%	13%	$56,471
BG 3, CT 23	20%	0%	0%	48%	5%	0%	28%	79%	21%	33%	$44,833
BG 4, CT 23	13%	0%	0%	35%	33%	0%	19%	89%	11%	22%	$37,435
BG 5, CT 23	5%	0%	0%	68%	2%	0%	25%	93%	7%	20%	$40,815
BG 1, CT 24.01	8%	0%	0%	63%	14%	0%	15%	98%	2%	19%	$31,594
BG 2, CT 24.01	15%	1%	0%	48%	11%	1%	24%	93%	7%	4%	$46,146
BG 3, CT 24.01	1%	3%	0%	63%	2%	2%	29%	96%	4%	25%	$44,732
BG 1, CT 24.02	10%	0%	0%	72%	4%	1%	13%	98%	2%	14%	$45,058
BG 2, CT 24.02	19%	0%	0%	48%	13%	1%	19%	95%	5%	26%	$31,750
BG 1, CT 25	16%	3%	0%	53%	10%	1%	18%	95%	5%	19%	$26,934
BG 2, CT 25	16%	0%	0%	55%	4%	0%	25%	96%	4%	25%	$38,576
BG 1, CT 26	31%	0%	0%	36%	13%	0%	19%	89%	11%	27%	$32,340
BG 2, CT 26	13%	0%	1%	64%	6%	0%	17%	99%	1%	9%	$41,587
BG 3, CT 26	14%	0%	0%	69%	6%	1%	10%	96%	4%	8%	$73,400
BG 4, CT 26	13%	1%	0%	56%	9%	3%	18%	91%	9%	13%	$43,580

Block Group	Race (Percent)[a]							Ethnicity (Percent)[a]		Percent of Residents in Poverty[a]	Median Household Income
	White	Black or African American	American Indian or Alaska Native	Asian	Native Hawaiian or Other Pacific Islander	Some Other Race Alone	Multiple Races	Hispanic or Latino	Not Hispanic or Latino		
BG 1, CT 27.01	22%	9%	0%	35%	2%	11%	22%	86%	14%	18%	$86,167
BG 2, CT 27.01	33%	1%	0%	32%	9%	0%	25%	95%	5%	30%	$61,250
BG 3, CT 27.01	16%	0%	1%	53%	6%	1%	22%	96%	4%	12%	$51,875
BG 1, CT 27.02	28%	1%	0%	49%	7%	2%	12%	91%	9%	24%	$63,382
BG 2, CT 27.02	11%	3%	0%	66%	1%	0%	20%	96%	4%	23%	$51,375
BG 3, CT 27.02	18%	0%	0%	43%	10%	3%	26%	95%	5%	2%	$49,920
BG 1, CT 28	30%	0%	0%	64%	1%	0%	4%	99%	1%	2%	$92,788
BG 2, CT 28	30%	0%	0%	47%	5%	0%	17%	90%	10%	8%	$82,083
BG 1, CT 29	30%	0%	1%	53%	4%	0%	13%	95%	5%	5%	$96,728
BG 1, CT 30	46%	0%	0%	32%	1%	0%	20%	97%	3%	6%	$133,555
BG 2, CT 30	17%	0%	0%	63%	0%	3%	16%	86%	14%	13%	$117,768
BG 3, CT 30	12%	0%	0%	71%	6%	0%	12%	100%	0%	7%	$103,333
BG 4, CT 30	30%	0%	0%	55%	1%	0%	14%	90%	10%	9%	$80,455
BG 1, CT 31.01	10%	1%	0%	79%	1%	0%	9%	99%	1%	3%	$72,950
BG 2, CT 31.01	17%	1%	0%	54%	4%	0%	24%	96%	4%	3%	$112,875
BG 1, CT 31.02	27%	0%	0%	59%	1%	1%	13%	100%	0%	3%	$106,477
BG 2, CT 31.02	11%	0%	0%	65%	0%	0%	24%	93%	7%	6%	$128,864
BG 1, CT 32	46%	0%	0%	30%	0%	1%	22%	96%	4%	12%	$107,917
BG 1, CT 33	24%	0%	0%	44%	8%	0%	24%	98%	2%	7%	$128,500
BG 1, CT 34.03	25%	1%	0%	52%	6%	0%	17%	91%	9%	14%	$71,367
BG 2, CT 34.03	22%	0%	0%	44%	0%	1%	33%	91%	9%	18%	$50,906
BG 3, CT 34.03	16%	4%	0%	44%	25%	2%	9%	93%	7%	14%	$56,307
BG 4, CT 34.03	23%	1%	0%	45%	13%	1%	17%	91%	9%	5%	$51,591
BG 1, CT 34.04	21%	0%	0%	71%	1%	0%	7%	98%	2%	10%	$57,799
BG 2, CT 34.04	10%	3%	0%	53%	5%	1%	29%	86%	14%	6%	$61,250
BG 3, CT 34.04	20%	0%	0%	48%	4%	0%	28%	87%	13%	10%	$39,665
BG 1, CT 34.05	34%	0%	0%	41%	9%	0%	15%	93%	7%	28%	$41,829
BG 2, CT 34.05	35%	1%	0%	42%	0%	0%	23%	94%	6%	13%	$51,157
BG 1, CT 34.06	21%	0%	0%	38%	36%	0%	6%	98%	2%	36%	$42,813
BG 2, CT 34.06	17%	0%	0%	59%	5%	4%	14%	93%	7%	8%	$50,319

Block Group	Race (Percent)[a]							Ethnicity (Percent)[a]		Percent of Residents in Poverty[a]	Median Household Income
	White	Black or African American	American Indian or Alaska Native	Asian	Native Hawaiian or Other Pacific Islander	Some Other Race Alone	Multiple Races	Hispanic or Latino	Not Hispanic or Latino		
BG 3, CT 34.06	7%	2%	0%	67%	7%	4%	13%	87%	13%	22%	$45,194
BG 4, CT 34.06	15%	0%	0%	62%	4%	1%	18%	90%	10%	13%	$43,918
BG 1, CT 34.07	39%	0%	0%	50%	1%	0%	10%	97%	3%	9%	$67,500
BG 1, CT 35.01	21%	4%	0%	61%	1%	0%	13%	98%	2%	17%	$26,863
BG 2, CT 35.01	19%	1%	0%	50%	10%	0%	20%	96%	4%	9%	$67,350
BG 1, CT 35.02	8%	0%	0%	81%	0%	1%	9%	97%	3%	12%	$48,750
BG 2, CT 35.02	16%	0%	0%	50%	9%	0%	25%	98%	2%	18%	$42,725
BG 3, CT 35.02	9%	0%	0%	82%	2%	0%	7%	98%	2%	11%	$37,829
BG 1, CT 36.01	13%	4%	0%	66%	2%	0%	16%	97%	3%	13%	$26,825
BG 2, CT 36.01	22%	3%	0%	61%	1%	0%	14%	94%	6%	12%	$75,795
BG 1, CT 36.03	15%	0%	0%	58%	8%	0%	19%	97%	3%	13%	$52,305
BG 2, CT 36.03	7%	0%	0%	83%	3%	0%	7%	100%	0%	32%	$16,730
BG 1, CT 36.04	14%	2%	0%	67%	15%	0%	3%	97%	3%	14%	$52,167
BG 2, CT 36.04	18%	2%	0%	60%	6%	1%	13%	96%	4%	10%	$43,962
BG 1, CT 37	24%	0%	0%	13%	0%	0%	63%	44%	56%	5%	$97,808
BG 2, CT 37	44%	0%	1%	45%	1%	0%	9%	93%	7%	4%	$84,205
BG 3, CT 37	No Population										
BG 4, CT 37	8%	0%	0%	92%	0%	0%	0%	100%	0%	40%	$31,557
BG 5, CT 37	43%	1%	0%	38%	7%	0%	10%	95%	5%	13%	$49,225
BG 6, CT 37	3%	3%	0%	77%	1%	0%	16%	92%	8%	5%	$59,597
BG 7, CT 37	13%	0%	0%	81%	0%	0%	5%	96%	4%	7%	$76,139
BG 1, CT 38	21%	1%	0%	71%	3%	0%	4%	97%	3%	2%	$83,879
BG 2, CT 38	22%	0%	0%	65%	0%	0%	13%	100%	0%	5%	$112,292
BG 3, CT 38	27%	0%	0%	58%	1%	0%	13%	98%	2%	12%	$21,309
BG 1, CT 39	28%	13%	0%	39%	5%	0%	14%	98%	2%	20%	$25,323
BG 1, CT 40	25%	7%	0%	50%	8%	0%	10%	99%	1%	17%	$38,144
BG 2, CT 40	62%	9%	0%	25%	0%	0%	5%	99%	1%	12%	$84,643
BG 1, CT 41	12%	2%	0%	64%	14%	0%	8%	96%	4%	16%	$42,857
BG 2, CT 41	18%	11%	0%	34%	13%	2%	23%	93%	7%	8%	$46,380
BG 3, CT 41	12%	1%	0%	56%	2%	0%	29%	97%	3%	0%	$62,278

Block Group	Race (Percent)[a]							Ethnicity (Percent)[a]		Percent of Residents in Poverty[a]	Median Household Income
	White	Black or African American	American Indian or Alaska Native	Asian	Native Hawaiian or Other Pacific Islander	Some Other Race Alone	Multiple Races	Hispanic or Latino	Not Hispanic or Latino		
BG 1, CT 42	28%	0%	0%	55%	1%	1%	14%	97%	3%	5%	$62,574
BG 2, CT 42	29%	0%	0%	52%	5%	0%	13%	96%	4%	11%	$80,345
BG 1, CT 43	11%	2%	0%	41%	9%	3%	34%	98%	2%	8%	$54,861
BG 2, CT 43	25%	4%	1%	42%	4%	1%	24%	98%	2%	13%	$68,958
BG 3, CT 43	16%	0%	0%	39%	15%	0%	30%	92%	8%	39%	$19,506
BG 1, CT 44	5%	0%	0%	23%	41%	1%	30%	93%	7%	11%	$87,679
BG 2, CT 44	12%	0%	0%	56%	6%	0%	26%	94%	6%	5%	$72,250
BG 1, CT 45	14%	0%	0%	80%	4%	0%	2%	96%	4%	0%	$96,328
BG 2, CT 45	14%	0%	0%	71%	1%	0%	14%	95%	5%	1%	$103,365
BG 3, CT 45	31%	0%	0%	54%	2%	0%	12%	97%	3%	0%	$85,417
BG 4, CT 45	23%	0%	0%	45%	10%	2%	20%	97%	3%	5%	$60,640
BG 1, CT 46	17%	0%	0%	67%	0%	0%	16%	100%	0%	7%	$154,688
BG 2, CT 46	11%	0%	0%	68%	6%	0%	14%	94%	6%	2%	$91,728
BG 3, CT 46	6%	0%	0%	67%	0%	0%	27%	99%	1%	1%	$89,760
BG 1, CT 47	4%	0%	0%	86%	5%	0%	5%	100%	0%	6%	$65,833
BG 2, CT 47	17%	0%	1%	44%	3%	0%	35%	91%	9%	8%	$100,769
BG 3, CT 47	7%	0%	0%	82%	6%	0%	6%	100%	0%	5%	$91,719
BG 4, CT 47	11%	0%	2%	73%	1%	0%	14%	100%	0%	6%	$96,641
BG 1, CT 48	21%	0%	2%	40%	11%	2%	25%	90%	10%	37%	$75,893
BG 2, CT 48	2%	0%	0%	41%	34%	0%	23%	93%	7%	7%	$52,067
BG 3, CT 48	8%	2%	0%	56%	8%	0%	26%	93%	7%	12%	$69,483
BG 4, CT 48	5%	0%	0%	62%	10%	0%	23%	89%	11%	8%	$111,115
BG 1, CT 49	3%	0%	0%	74%	5%	1%	16%	92%	8%	12%	$62,569
BG 2, CT 49	4%	0%	0%	72%	11%	0%	14%	91%	9%	5%	$57,875
BG 3, CT 49	7%	2%	0%	65%	4%	0%	22%	96%	4%	4%	$55,833
BG 1, CT 50	10%	0%	0%	76%	0%	1%	13%	99%	1%	2%	$75,625
BG 2, CT 50	17%	2%	0%	63%	4%	0%	14%	95%	5%	17%	$49,783
BG 3, CT 50	5%	0%	0%	65%	12%	0%	19%	92%	8%	13%	$34,219
BG 4, CT 50	14%	2%	0%	57%	6%	0%	21%	100%	0%	6%	$69,500
BG 1, CT 51	0%	0%	0%	96%	0%	0%	4%	100%	0%	37%	$16,587

Block Group	Race (Percent)[a]							Ethnicity (Percent)[a]		Percent of Residents in Poverty[a]	Median Household Income
	White	Black or African American	American Indian or Alaska Native	Asian	Native Hawaiian or Other Pacific Islander	Some Other Race Alone	Multiple Races	Hispanic or Latino	Not Hispanic or Latino		
BG 2, CT 51	38%	0%	1%	51%	0%	0%	11%	97%	3%	3%	$74,044
BG 1, CT 52	14%	2%	0%	66%	3%	0%	14%	98%	2%	17%	$28,676
BG 2, CT 52	8%	0%	0%	84%	3%	0%	5%	97%	3%	28%	$21,447
BG 1, CT 53	7%	6%	0%	75%	2%	2%	8%	96%	4%	23%	$39,028
BG 2, CT 53	2%	3%	0%	88%	3%	0%	4%	91%	9%	32%	$25,125
BG 1, CT 54	0%	0%	0%	19%	60%	2%	19%	90%	10%	57%	$23,466
BG 1, CT 55	0%	0%	0%	82%	5%	4%	9%	96%	4%	3%	$101,136
BG 2, CT 55	2%	0%	0%	75%	7%	0%	16%	94%	6%	22%	$31,455
BG 1, CT 56	2%	0%	0%	69%	16%	0%	13%	89%	11%	3%	$78,958
BG 2, CT 56	1%	0%	0%	85%	7%	0%	7%	99%	1%	1%	$59,390
BG 3, CT 56	1%	0%	0%	89%	3%	0%	7%	100%	0%	31%	$21,082
BG 4, CT 56	10%	0%	0%	56%	7%	0%	27%	100%	0%	13%	$75,938
BG 1, CT 57	22%	2%	0%	60%	6%	1%	9%	96%	4%	37%	$61,250
BG 2, CT 57	9%	2%	0%	55%	12%	0%	21%	95%	5%	27%	$29,318
BG 1, CT 58	2%	0%	0%	51%	27%	0%	20%	92%	8%	55%	$19,734
BG 2, CT 58	2%	0%	0%	90%	1%	0%	7%	100%	0%	11%	$59,000
BG 1, CT 59	12%	5%	2%	34%	16%	0%	32%	86%	14%	15%	$49,821
BG 2, CT 59	1%	0%	0%	75%	19%	0%	6%	99%	1%	5%	$60,789
BG 1, CT 60	0%	3%	0%	39%	36%	0%	21%	99%	1%	2%	$68,403
BG 2, CT 60	6%	0%	0%	84%	5%	0%	4%	88%	12%	6%	$67,024
BG 3, CT 60	1%	2%	0%	85%	10%	0%	2%	100%	0%	3%	$125,217
BG 1, CT 61	0%	0%	0%	66%	18%	3%	12%	91%	9%	25%	$72,438
BG 2, CT 61	4%	0%	0%	84%	1%	0%	11%	98%	2%	2%	$107,813
BG 1, CT 62.01	5%	1%	0%	67%	10%	0%	18%	96%	4%	6%	$73,250
BG 2, CT 62.01	1%	0%	0%	53%	35%	1%	10%	95%	5%	22%	$49,808
BG 3, CT 62.01	0%	0%	0%	77%	14%	0%	9%	100%	0%	4%	$55,395
BG 4, CT 62.01	2%	0%	0%	40%	30%	0%	28%	97%	3%	38%	$30,208
BG 1, CT 62.02	3%	0%	7%	3%	73%	0%	14%	87%	13%	70%	$25,500
BG 1, CT 63.01	10%	0%	0%	72%	0%	0%	18%	99%	1%	6%	$67,875
BG 2, CT 63.01	1%	0%	0%	59%	26%	0%	13%	92%	8%	10%	$86,750

Block Group	Race (Percent)[a]							Ethnicity (Percent)[a]		Percent of Residents in Poverty[a]	Median Household Income
	White	Black or African American	American Indian or Alaska Native	Asian	Native Hawaiian or Other Pacific Islander	Some Other Race Alone	Multiple Races	Hispanic or Latino	Not Hispanic or Latino		
BG 3, CT 63.01	0%	1%	0%	84%	9%	0%	6%	100%	0%	2%	$67,031
BG 1, CT 63.02	2%	0%	0%	32%	47%	0%	20%	92%	8%	45%	$36,542
BG 1, CT 64.01	1%	0%	0%	87%	1%	1%	10%	95%	5%	4%	$92,472
BG 1, CT 64.02	8%	1%	0%	41%	20%	2%	28%	84%	16%	18%	$86,371
BG 2, CT 64.02	8%	1%	0%	67%	2%	1%	20%	94%	6%	7%	$89,000
BG 3, CT 64.02	4%	0%	0%	77%	2%	0%	17%	98%	2%	2%	$104,231
BG 1, CT 65	19%	1%	0%	61%	1%	0%	18%	87%	13%	4%	$93,646
BG 2, CT 65	5%	1%	0%	61%	14%	0%	20%	99%	1%	2%	$100,675
BG 1, CT 66	35%	17%	1%	34%	0%	2%	10%	96%	4%	0%	$110,000
BG 1, CT 67.01	6%	0%	0%	84%	0%	1%	9%	99%	1%	3%	$98,864
BG 2, CT 67.01	5%	0%	0%	70%	4%	0%	20%	98%	2%	2%	$93,614
BG 3, CT 67.01	23%	7%	0%	42%	6%	2%	20%	96%	4%	11%	$70,294
BG 1, CT 67.02	34%	5%	0%	31%	13%	0%	16%	92%	8%	6%	$65,224
BG 1, CT 68.02	7%	0%	0%	73%	7%	0%	13%	98%	2%	7%	$111,875
BG 2, CT 68.02	3%	10%	0%	65%	13%	0%	8%	99%	1%	9%	$82,734
BG 3, CT 68.02	6%	0%	0%	59%	15%	0%	20%	91%	9%	4%	$89,643
BG 1, CT 68.04	28%	35%	0%	20%	13%	0%	4%	100%	0%	20%	$91,591
BG 2, CT 68.04	44%	33%	0%	3%	7%	2%	12%	86%	14%	16%	$62,000
BG 3, CT 68.04	42%	6%	7%	9%	9%	0%	27%	65%	35%	3%	$76,250
BG 1, CT 68.05	0%	0%	0%	100%	0%	0%	0%	100%	0%	0%	$64,333
BG 2, CT 68.05	11%	4%	0%	70%	6%	0%	9%	98%	2%	7%	$75,653
BG 3, CT 68.05	15%	4%	0%	58%	7%	0%	16%	91%	9%	6%	$72,377
BG 1, CT 68.06	2%	0%	0%	85%	0%	0%	13%	99%	1%	3%	$90,729
BG 1, CT 68.08	11%	8%	0%	59%	8%	2%	13%	98%	2%	4%	$77,895
BG 2, CT 68.08	4%	3%	0%	58%	8%	1%	25%	94%	6%	14%	$43,859
BG 3, CT 68.08	10%	5%	0%	75%	4%	0%	7%	100%	0%	2%	$58,967
BG 1, CT 68.09	6%	0%	0%	45%	17%	1%	31%	82%	18%	31%	$53,839
BG 2, CT 68.09	7%	0%	0%	53%	18%	0%	21%	96%	4%	11%	$54,682
BG 1, CT 69	66%	6%	0%	4%	0%	3%	22%	83%	17%	7%	$69,939
BG 2, CT 69	62%	11%	0%	3%	7%	4%	13%	82%	18%	21%	$55,250

Block Group	Race (Percent)[a]							Ethnicity (Percent)[a]		Percent of Residents in Poverty[a]	Median Household Income
	White	Black or African American	American Indian or Alaska Native	Asian	Native Hawaiian or Other Pacific Islander	Some Other Race Alone	Multiple Races	Hispanic or Latino	Not Hispanic or Latino		
BG 1, CT 70	58%	10%	0%	10%	4%	3%	15%	83%	17%	6%	$71,053
BG 2, CT 70	59%	7%	0%	2%	0%	6%	26%	83%	17%	15%	$49,583
BG 3, CT 70	59%	14%	0%	8%	0%	9%	9%	81%	19%	4%	$49,583
BG 1, CT 71	69%	16%	0%	3%	2%	1%	10%	85%	15%	5%	$77,391
BG 1, CT 73.02	79%	3%	0%	7%	1%	1%	9%	86%	14%	7%	$74,716
BG 2, CT 73.02	76%	9%	1%	4%	3%	2%	6%	91%	9%	10%	$78,235
BG 1, CT 73.03	64%	20%	2%	1%	0%	6%	7%	84%	16%	0%	ND
BG 1, CT 74	74%	8%	0%	7%	0%	2%	8%	87%	13%	7%	$67,135
BG 1, CT 75.02	29%	5%	1%	20%	11%	1%	34%	80%	20%	4%	$67,000
BG 1, CT 75.03	4%	0%	0%	65%	4%	0%	26%	85%	15%	11%	$80,583
BG 2, CT 75.03	17%	2%	0%	57%	6%	0%	18%	98%	2%	2%	$93,375
BG 1, CT 75.04	5%	0%	0%	66%	8%	0%	21%	96%	4%	1%	$73,047
BG 2, CT 75.04	3%	0%	0%	23%	34%	0%	40%	89%	11%	38%	$26,979
BG 1, CT 75.05	16%	0%	0%	56%	3%	0%	25%	96%	4%	5%	$103,984
BG 2, CT 75.05	14%	0%	0%	57%	3%	1%	25%	90%	10%	7%	$104,702
BG 3, CT 75.05	20%	1%	0%	60%	1%	3%	15%	87%	13%	6%	$67,768
BG 1, CT 75.06	58%	11%	0%	3%	0%	0%	28%	80%	20%	0%	$70,972
BG 1, CT 77.01	2%	0%	0%	85%	0%	0%	13%	98%	2%	7%	$71,700
BG 2, CT 77.01	7%	0%	0%	71%	2%	0%	21%	91%	9%	11%	$72,250
BG 3, CT 77.01	73%	0%	0%	17%	0%	1%	8%	94%	6%	7%	$128,409
BG 1, CT 77.02	7%	0%	0%	39%	9%	0%	45%	85%	15%	17%	$43,500
BG 2, CT 77.02	20%	0%	0%	47%	15%	0%	18%	97%	3%	1%	$100,938
BG 3, CT 77.02	10%	0%	0%	57%	2%	0%	31%	99%	1%	3%	$88,450
BG 1, CT 78.04	8%	0%	1%	64%	2%	0%	25%	91%	9%	1%	$85,903
BG 1, CT 78.05	8%	0%	0%	51%	6%	4%	30%	89%	11%	4%	$75,000
BG 2, CT 78.05	10%	3%	0%	48%	4%	2%	34%	86%	14%	5%	$91,250
BG 1, CT 78.07	2%	0%	0%	67%	12%	0%	19%	100%	0%	0%	$85,375
BG 2, CT 78.07	25%	2%	0%	42%	0%	0%	30%	79%	21%	0%	$59,386
BG 3, CT 78.07	14%	3%	0%	43%	17%	0%	23%	93%	7%	23%	$55,513
BG 4, CT 78.07	26%	1%	0%	36%	2%	1%	33%	88%	12%	5%	$56,786

Block Group	Race (Percent)[a]							Ethnicity (Percent)[a]		Percent of Residents in Poverty[a]	Median Household Income
	White	Black or African American	American Indian or Alaska Native	Asian	Native Hawaiian or Other Pacific Islander	Some Other Race Alone	Multiple Races	Hispanic or Latino	Not Hispanic or Latino		
BG 5, CT 78.07	29%	0%	3%	20%	4%	1%	42%	57%	43%	7%	$62,029
BG 6, CT 78.07	12%	7%	0%	58%	2%	7%	14%	84%	16%	1%	$71,607
BG 1, CT 78.08	11%	2%	0%	72%	3%	2%	10%	89%	11%	6%	$64,219
BG 2, CT 78.08	10%	0%	0%	53%	3%	2%	32%	79%	21%	4%	$58,859
BG 1, CT 78.09	6%	0%	0%	79%	2%	0%	13%	99%	1%	2%	$117,284
BG 2, CT 78.09	9%	0%	0%	62%	7%	2%	20%	87%	13%	5%	$112,745
BG 1, CT 78.10	7%	0%	0%	74%	3%	0%	16%	95%	5%	3%	$109,405
BG 2, CT 78.10	6%	0%	0%	70%	1%	0%	23%	94%	6%	0%	$142,361
BG 3, CT 78.10	24%	1%	0%	58%	1%	1%	16%	99%	1%	1%	$124,145
BG 1, CT 78.11	8%	0%	0%	75%	3%	0%	14%	97%	3%	4%	$100,795
BG 2, CT 78.11	27%	2%	0%	36%	6%	0%	29%	91%	9%	4%	$89,423
BG 1, CT 80.01	5%	1%	0%	65%	4%	0%	23%	86%	14%	15%	$34,250
BG 2, CT 80.01	2%	0%	0%	35%	16%	0%	47%	68%	32%	21%	$55,341
BG 1, CT 80.02	7%	0%	0%	67%	2%	0%	25%	97%	3%	4%	$81,964
BG 2, CT 80.02	2%	1%	0%	73%	5%	0%	19%	96%	4%	13%	$79,074
BG 1, CT 80.03	34%	5%	0%	24%	8%	3%	27%	91%	9%	6%	$64,483
BG 2, CT 80.03	15%	1%	0%	28%	12%	0%	44%	86%	14%	12%	$49,451
BG 1, CT 80.05	14%	0%	0%	41%	5%	1%	38%	94%	6%	3%	$108,639
BG 2, CT 80.05	13%	0%	0%	54%	5%	1%	26%	78%	22%	4%	$84,911
BG 3, CT 80.05	10%	0%	0%	62%	0%	0%	28%	100%	0%	14%	$61,250
BG 1, CT 80.06	7%	1%	0%	54%	13%	0%	26%	89%	11%	1%	$87,569
BG 2, CT 80.06	3%	0%	1%	69%	1%	1%	25%	92%	8%	5%	$90,000
BG 1, CT 80.07	8%	0%	0%	74%	3%	0%	16%	97%	3%	5%	$110,699
BG 2, CT 80.07	4%	1%	0%	62%	1%	0%	32%	92%	8%	4%	$92,348
BG 1, CT 83.01	No Population										
BG 2, CT 83.01	22%	19%	2%	17%	6%	0%	32%	95%	5%	15%	$81,023
BG 3, CT 83.01	44%	5%	1%	7%	15%	1%	27%	83%	17%	9%	$74,154
BG 1, CT 83.02	5%	0%	0%	61%	4%	0%	30%	98%	2%	4%	$90,929
BG 2, CT 83.02	8%	0%	0%	61%	11%	0%	19%	96%	4%	15%	$112,868
BG 3, CT 83.02	15%	1%	0%	52%	3%	0%	29%	82%	18%	16%	$68,021

Block Group	Race (Percent)[a]							Ethnicity (Percent)[a]		Percent of Residents in Poverty[a]	Median Household Income
	White	Black or African American	American Indian or Alaska Native	Asian	Native Hawaiian or Other Pacific Islander	Some Other Race Alone	Multiple Races	Hispanic or Latino	Not Hispanic or Latino		
BG 1, CT 84.02	16%	0%	0%	48%	5%	1%	31%	92%	8%	20%	$43,611
BG 2, CT 84.02	7%	1%	0%	38%	21%	0%	32%	84%	16%	9%	$73,107
BG 3, CT 84.02	6%	1%	0%	62%	13%	1%	18%	93%	7%	24%	$91,111
BG 1, CT 84.05	26%	1%	0%	52%	2%	1%	19%	94%	6%	2%	$90,577
BG 1, CT 84.06	15%	11%	0%	39%	9%	1%	24%	91%	9%	4%	$99,429
BG 1, CT 84.07	26%	21%	0%	29%	6%	1%	18%	93%	7%	5%	$105,438
BG 1, CT 84.08	43%	7%	0%	22%	4%	1%	22%	92%	8%	3%	$102,347
BG 2, CT 84.08	46%	0%	0%	29%	0%	0%	25%	78%	22%	0%	$140,962
BG 1, CT 84.10	17%	5%	0%	34%	8%	2%	33%	94%	6%	3%	$105,508
BG 1, CT 84.11	11%	0%	0%	48%	22%	1%	19%	93%	7%	0%	$107,440
BG 2, CT 84.11	22%	1%	0%	42%	5%	0%	30%	86%	14%	7%	$72,188
BG 1, CT 84.12	23%	1%	0%	34%	12%	2%	29%	82%	18%	5%	$61,293
BG 2, CT 84.12	16%	1%	0%	51%	1%	2%	28%	93%	7%	1%	$75,479
BG 1, CT 85.02	41%	6%	0%	5%	12%	6%	30%	85%	15%	23%	$68,208
BG 1, CT 86.06	14%	4%	0%	55%	4%	0%	22%	96%	4%	1%	$109,229
BG 2, CT 86.06	16%	0%	0%	49%	7%	0%	29%	91%	9%	2%	$99,744
BG 3, CT 86.06	1%	0%	0%	15%	34%	0%	50%	97%	3%	0%	$98,750
BG 4, CT 86.06	8%	15%	0%	53%	1%	0%	22%	82%	18%	7%	$68,583
BG 1, CT 86.09	23%	2%	0%	32%	12%	2%	28%	86%	14%	5%	$115,813
BG 2, CT 86.09	65%	0%	0%	13%	3%	0%	19%	95%	5%	7%	$90,107
BG 1, CT 86.10	81%	2%	0%	10%	0%	0%	7%	96%	4%	4%	$128,167
BG 1, CT 86.11	28%	0%	0%	19%	29%	0%	24%	82%	18%	29%	$100,938
BG 1, CT 86.12	31%	9%	1%	28%	5%	1%	25%	84%	16%	3%	$92,621
BG 1, CT 86.13	11%	2%	0%	51%	9%	0%	27%	83%	17%	12%	$87,664
BG 1, CT 86.14	11%	0%	0%	33%	0%	0%	56%	84%	16%	0%	$99,911
BG 2, CT 86.14	0%	0%	0%	62%	7%	0%	31%	74%	26%	6%	$48,346
BG 3, CT 86.14	27%	2%	0%	47%	0%	0%	24%	97%	3%	2%	$149,432
BG 4, CT 86.14	35%	3%	0%	39%	2%	0%	22%	100%	0%	0%	$66,884
BG 5, CT 86.14	18%	1%	3%	11%	26%	0%	42%	78%	22%	3%	$72,054
BG 6, CT 86.14	10%	16%	0%	20%	18%	0%	36%	87%	13%	3%	$95,446

Block Group	Race (Percent)[a]							Ethnicity (Percent)[a]		Percent of Residents in Poverty[a]	Median Household Income
	White	Black or African American	American Indian or Alaska Native	Asian	Native Hawaiian or Other Pacific Islander	Some Other Race Alone	Multiple Races	Hispanic or Latino	Not Hispanic or Latino		
BG 7, CT 86.14	29%	0%	0%	24%	0%	0%	47%	73%	27%	2%	$152,267
BG 8, CT 86.14	No Population										
BG 9, CT 86.14	3%	0%	0%	43%	0%	1%	53%	95%	5%	13%	$82,071
BG 1, CT 86.17	1%	1%	0%	42%	17%	0%	38%	83%	17%	13%	$86,964
BG 2, CT 86.17	4%	1%	0%	44%	12%	0%	39%	80%	20%	9%	$79,900
BG 3, CT 86.17	15%	3%	0%	54%	4%	5%	19%	87%	13%	5%	$94,000
BG 4, CT 86.17	2%	0%	0%	59%	15%	1%	24%	91%	9%	5%	$83,167
BG 5, CT 86.17	8%	0%	0%	24%	54%	0%	13%	100%	0%	9%	$28,167
BG 1, CT 86.22	37%	0%	0%	26%	9%	0%	28%	90%	10%	1%	$105,469
BG 2, CT 86.22	19%	0%	0%	40%	7%	0%	34%	93%	7%	2%	$98,148
BG 3, CT 86.22	7%	0%	0%	28%	42%	0%	23%	90%	10%	6%	$106,905
BG 1, CT 87.01	2%	0%	0%	70%	0%	0%	27%	96%	4%	7%	$94,265
BG 2, CT 87.01	29%	0%	0%	26%	2%	4%	39%	74%	26%	0%	$78,860
BG 3, CT 87.01	4%	0%	0%	76%	0%	1%	20%	97%	3%	5%	$79,704
BG 4, CT 87.01	3%	2%	0%	84%	4%	0%	7%	98%	2%	7%	$80,764
BG 1, CT 87.02	3%	0%	0%	76%	4%	1%	17%	87%	13%	12%	$38,886
BG 2, CT 87.02	4%	0%	0%	68%	15%	4%	9%	92%	8%	10%	$42,083
BG 1, CT 87.03	16%	0%	0%	51%	2%	0%	30%	84%	16%	10%	$83,971
BG 2, CT 87.03	6%	0%	0%	7%	55%	3%	29%	80%	20%	44%	$22,589
BG 3, CT 87.03	3%	0%	0%	17%	48%	0%	31%	88%	12%	46%	$32,055
BG 4, CT 87.03	9%	0%	0%	33%	52%	2%	5%	95%	5%	35%	$41,420
BG 1, CT 88	1%	0%	0%	83%	0%	0%	16%	100%	0%	5%	$118,906
BG 2, CT 88	10%	1%	0%	79%	2%	1%	7%	97%	3%	14%	$56,970
BG 3, CT 88	13%	0%	0%	61%	12%	0%	13%	93%	7%	10%	$123,614
BG 4, CT 88	5%	0%	0%	89%	2%	1%	3%	99%	1%	12%	$104,539
BG 1, CT 89.06	31%	1%	1%	26%	2%	0%	40%	84%	16%	2%	$70,408
BG 2, CT 89.06	10%	0%	0%	48%	8%	0%	34%	97%	3%	0%	$109,662
BG 3, CT 89.06	16%	7%	0%	24%	6%	2%	45%	89%	11%	6%	$82,500
BG 1, CT 89.07	17%	4%	1%	28%	2%	1%	48%	91%	9%	21%	$100,694
BG 2, CT 89.07	18%	9%	0%	34%	5%	0%	33%	94%	6%	1%	$104,306

Block Group	Race (Percent)[a]							Ethnicity (Percent)[a]		Percent of Residents in Poverty[a]	Median Household Income
	White	Black or African American	American Indian or Alaska Native	Asian	Native Hawaiian or Other Pacific Islander	Some Other Race Alone	Multiple Races	Hispanic or Latino	Not Hispanic or Latino		
BG 3, CT 89.07	19%	0%	0%	22%	21%	0%	38%	95%	5%	0%	$49,297
BG 4, CT 89.07	27%	0%	0%	50%	2%	0%	22%	100%	0%	0%	$99,773
BG 1, CT 89.08	20%	0%	0%	52%	0%	0%	27%	86%	14%	2%	$115,278
BG 2, CT 89.08	24%	0%	0%	48%	4%	0%	23%	94%	6%	5%	$111,071
BG 3, CT 89.08	25%	2%	0%	49%	1%	2%	22%	88%	12%	1%	$99,609
BG 1, CT 89.09	15%	1%	0%	43%	4%	1%	36%	81%	19%	2%	$71,885
BG 2, CT 89.09	8%	1%	0%	53%	4%	0%	34%	85%	15%	0%	$95,288
BG 1, CT 89.12	5%	1%	0%	81%	3%	1%	9%	97%	3%	7%	$101,371
BG 1, CT 89.13	4%	0%	0%	64%	10%	0%	22%	87%	13%	12%	$69,632
BG 2, CT 89.13	2%	0%	0%	78%	6%	0%	14%	92%	8%	3%	$59,375
BG 1, CT 89.14	6%	3%	0%	51%	28%	0%	12%	88%	12%	14%	$71,905
BG 2, CT 89.14	2%	0%	0%	73%	9%	0%	16%	96%	4%	12%	$68,611
BG 1, CT 89.15	8%	1%	0%	41%	9%	0%	42%	91%	9%	16%	$77,716
BG 2, CT 89.15	27%	3%	1%	34%	10%	2%	22%	92%	8%	12%	$56,401
BG 1, CT 89.17	13%	1%	0%	52%	8%	0%	25%	95%	5%	0%	$111,645
BG 2, CT 89.17	14%	1%	0%	43%	7%	1%	35%	93%	7%	0%	$90,673
BG 1, CT 89.18	28%	9%	0%	29%	10%	4%	21%	87%	13%	7%	$77,368
BG 2, CT 89.18	13%	0%	0%	61%	3%	1%	22%	97%	3%	0%	$136,875
BG 3, CT 89.18	17%	0%	0%	43%	0%	0%	40%	99%	1%	0%	$87,326
BG 4, CT 89.18	12%	0%	0%	64%	2%	2%	21%	97%	3%	2%	$115,125
BG 1, CT 89.20	8%	0%	0%	51%	18%	2%	20%	80%	20%	4%	$81,361
BG 2, CT 89.20	7%	4%	0%	65%	4%	0%	21%	92%	8%	0%	$87,935
BG 3, CT 89.20	37%	2%	0%	38%	2%	0%	21%	86%	14%	1%	$54,556
BG 4, CT 89.20	31%	3%	0%	59%	1%	0%	6%	99%	1%	6%	$82,434
BG 1, CT 89.21	7%	1%	0%	47%	8%	1%	37%	80%	20%	5%	$87,500
BG 1, CT 89.22	15%	3%	1%	55%	3%	3%	20%	92%	8%	2%	$113,523
BG 2, CT 89.22	21%	7%	0%	61%	5%	0%	6%	97%	3%	0%	$89,286
BG 3, CT 89.22	13%	4%	0%	54%	1%	0%	28%	91%	9%	0%	$94,533
BG 4, CT 89.22	5%	2%	0%	56%	2%	1%	34%	96%	4%	1%	$92,500
BG 1, CT 89.23	12%	4%	0%	51%	4%	1%	27%	87%	13%	2%	$63,031

Block Group	Race (Percent)[a]							Ethnicity (Percent)[a]		Percent of Residents in Poverty[a]	Median Household Income
	White	Black or African American	American Indian or Alaska Native	Asian	Native Hawaiian or Other Pacific Islander	Some Other Race Alone	Multiple Races	Hispanic or Latino	Not Hispanic or Latino		
BG 2, CT 89.23	13%	0%	0%	55%	4%	9%	19%	90%	10%	4%	$69,583
BG 3, CT 89.23	11%	0%	0%	71%	0%	0%	17%	98%	2%	2%	$81,750
BG 1, CT 89.24	12%	2%	0%	59%	2%	0%	26%	96%	4%	1%	$116,731
BG 2, CT 89.24	19%	2%	0%	50%	13%	0%	17%	96%	4%	3%	$113,493
BG 3, CT 89.24	8%	0%	0%	67%	2%	0%	23%	91%	9%	7%	$109,375
BG 1, CT 89.25	27%	7%	1%	48%	1%	4%	13%	93%	7%	1%	$86,285
BG 2, CT 89.25	2%	0%	0%	53%	16%	0%	30%	83%	17%	12%	$107,852
BG 3, CT 89.25	6%	0%	0%	52%	29%	0%	14%	97%	3%	5%	$97,188
BG 1, CT 89.26	41%	5%	0%	36%	3%	0%	15%	97%	3%	2%	$88,677
BG 1, CT 89.27	13%	1%	0%	53%	5%	2%	27%	96%	4%	1%	$99,535
BG 1, CT 89.28	14%	2%	0%	59%	2%	1%	22%	87%	13%	0%	$112,295
BG 1, CT 89.29	21%	4%	0%	41%	9%	0%	24%	79%	21%	8%	$64,750
BG 2, CT 89.29	14%	0%	0%	45%	10%	1%	30%	96%	4%	0%	$98,179
BG 1, CT 89.30	18%	0%	0%	59%	0%	0%	23%	96%	4%	0%	$140,848
BG 1, CT 89.31	15%	2%	0%	49%	1%	0%	32%	94%	6%	0%	$125,536
BG 2, CT 89.31	5%	0%	4%	11%	28%	0%	53%	77%	23%	67%	ND
BG 1, CT 90	68%	9%	2%	5%	3%	1%	12%	84%	16%	12%	$53,606
BG 1, CT 91	4%	2%	1%	67%	4%	0%	21%	95%	5%	11%	$70,046
BG 2, CT 91	19%	1%	1%	53%	8%	1%	17%	92%	8%	2%	$80,250
BG 1, CT 92	9%	0%	0%	43%	5%	4%	39%	74%	26%	7%	$70,273
BG 2, CT 92	14%	0%	3%	42%	9%	1%	32%	93%	7%	8%	$62,448
BG 3, CT 92	7%	0%	0%	59%	21%	2%	10%	94%	6%	3%	$58,354
BG 1, CT 93	9%	7%	0%	60%	4%	2%	17%	96%	4%	8%	$75,901
BG 2, CT 93	8%	11%	0%	43%	1%	0%	37%	75%	25%	14%	$45,000
BG 3, CT 93	19%	0%	0%	39%	7%	0%	36%	79%	21%	13%	$109,821
BG 4, CT 93	13%	0%	0%	28%	19%	1%	39%	79%	21%	28%	$28,024
BG 1, CT 94	6%	0%	1%	34%	21%	0%	38%	90%	10%	35%	$34,905
BG 2, CT 94	18%	6%	1%	44%	9%	0%	23%	82%	18%	4%	$69,375
BG 3, CT 94	5%	0%	0%	74%	4%	1%	15%	99%	1%	17%	$49,844
BG 4, CT 94	32%	6%	1%	7%	26%	1%	26%	88%	12%	29%	$31,417

Block Group	Race (Percent)[a]							Ethnicity (Percent)[a]		Percent of Residents in Poverty[a]	Median Household Income
	White	Black or African American	American Indian or Alaska Native	Asian	Native Hawaiian or Other Pacific Islander	Some Other Race Alone	Multiple Races	Hispanic or Latino	Not Hispanic or Latino		
BG 1, CT 95.01	48%	35%	0%	1%	4%	3%	8%	75%	25%	18%	$41,862
BG 2, CT 95.01	61%	16%	0%	5%	5%	5%	7%	68%	32%	12%	$46,330
BG 1, CT 95.02	65%	17%	0%	2%	1%	11%	4%	80%	20%	25%	$36,818
BG 2, CT 95.02	59%	12%	0%	7%	0%	8%	14%	77%	23%	13%	$61,926
BG 1, CT 95.03	66%	14%	2%	5%	1%	3%	9%	87%	13%	9%	$62,250
BG 1, CT 95.04	67%	22%	0%	1%	2%	1%	6%	87%	13%	4%	$71,597
BG 1, CT 95.07	56%	19%	0%	2%	4%	4%	14%	75%	25%	20%	$40,096
BG 2, CT 95.07	63%	19%	3%	6%	1%	0%	8%	93%	7%	ND	ND
BG 1, CT 96.03	23%	1%	0%	12%	13%	0%	51%	97%	3%	0%	$86,042
BG 2, CT 96.03	20%	3%	0%	14%	24%	2%	37%	88%	12%	36%	$75,500
BG 3, CT 96.03	1%	0%	0%	13%	39%	0%	47%	83%	17%	17%	$44,184
BG 4, CT 96.03	9%	2%	0%	15%	31%	0%	43%	94%	6%	37%	$31,397
BG 5, CT 96.03	2%	0%	2%	7%	33%	0%	56%	70%	30%	14%	$44,175
BG 6, CT 96.03	9%	0%	0%	42%	31%	0%	18%	93%	7%	16%	$73,185
BG 1, CT 96.08	6%	2%	1%	17%	36%	1%	37%	89%	11%	23%	$68,182
BG 2, CT 96.08	9%	3%	0%	10%	43%	0%	35%	90%	10%	24%	$50,256
BG 1, CT 97.01	8%	1%	1%	6%	62%	1%	22%	85%	15%	43%	$43,438
BG 2, CT 97.01	9%	0%	0%	24%	40%	0%	28%	86%	14%	34%	$29,688
BG 3, CT 97.01	12%	1%	0%	9%	32%	0%	46%	81%	19%	33%	$33,469
BG 1, CT 97.03	9%	1%	0%	33%	19%	0%	37%	91%	9%	17%	$79,458
BG 2, CT 97.03	2%	0%	0%	7%	45%	1%	45%	88%	12%	7%	$85,855
BG 3, CT 97.03	6%	8%	0%	29%	6%	0%	51%	86%	14%	28%	$69,500
BG 1, CT 97.04	9%	1%	0%	23%	31%	2%	34%	87%	13%	17%	$68,698
BG 1, CT 98.01	31%	11%	1%	9%	20%	2%	27%	74%	26%	40%	$31,845
BG 2, CT 98.01	34%	0%	0%	13%	14%	0%	39%	99%	1%	35%	$91,172
BG 1, CT 98.02	11%	1%	1%	17%	23%	3%	44%	88%	12%	32%	$41,985
BG 2, CT 98.02	8%	1%	0%	13%	43%	0%	35%	85%	15%	32%	$42,450
BG 3, CT 98.02	9%	1%	2%	10%	31%	0%	47%	82%	18%	27%	$49,125
BG 1, CT 99.02	57%	2%	0%	10%	2%	0%	29%	76%	24%	7%	$78,750
BG 2, CT 99.02	33%	0%	1%	32%	2%	1%	32%	89%	11%	10%	$70,543

Block Group	Race (Percent)[a]							Ethnicity (Percent)[a]		Percent of Residents in Poverty[a]	Median Household Income
	White	Black or African American	American Indian or Alaska Native	Asian	Native Hawaiian or Other Pacific Islander	Some Other Race Alone	Multiple Races	Hispanic or Latino	Not Hispanic or Latino		
BG 3, CT 99.02	19%	0%	0%	32%	22%	0%	27%	83%	17%	7%	$74,907
BG 4, CT 99.02	30%	9%	0%	9%	14%	0%	39%	95%	5%	17%	$52,014
BG 1, CT 99.04	59%	5%	0%	11%	4%	0%	20%	89%	11%	7%	$70,815
BG 2, CT 99.04	No Population										
BG 3, CT 99.04	23%	0%	0%	49%	4%	0%	24%	91%	9%	6%	$60,724
BG 4, CT 99.04	22%	0%	0%	42%	6%	0%	30%	91%	9%	5%	$55,125
BG 5, CT 99.04	35%	1%	0%	37%	3%	1%	23%	88%	12%	8%	$81,719
BG 1, CT 100	59%	0%	0%	23%	3%	0%	14%	95%	5%	35%	$69,333
BG 2, CT 100	64%	10%	0%	2%	7%	2%	15%	80%	20%	10%	$47,972
BG 1, CT 101	41%	2%	1%	17%	18%	0%	21%	95%	5%	4%	$108,548
BG 2, CT 101	77%	0%	1%	5%	1%	0%	16%	96%	4%	10%	$75,227
BG 3, CT 101	28%	2%	1%	3%	24%	0%	42%	95%	5%	11%	$55,469
BG 4, CT 101	8%	0%	0%	38%	28%	1%	26%	84%	16%	8%	$54,375
BG 1, CT 102.01	31%	3%	0%	9%	21%	0%	36%	93%	7%	23%	$52,069
BG 2, CT 102.01	43%	0%	0%	9%	9%	0%	39%	87%	13%	3%	$77,614
BG 3, CT 102.01	31%	1%	0%	6%	18%	0%	44%	88%	12%	18%	$64,444
BG 1, CT 102.02	26%	1%	0%	15%	28%	0%	29%	96%	4%	15%	$76,250
BG 2, CT 102.02	16%	2%	0%	5%	45%	1%	31%	97%	3%	18%	$68,508
BG 3, CT 102.02	15%	0%	0%	8%	30%	0%	47%	91%	9%	22%	$46,042
BG 4, CT 102.02	31%	1%	0%	7%	35%	0%	25%	94%	6%	8%	$85,714
BG 1, CT 103.03	20%	2%	0%	29%	16%	0%	33%	98%	2%	10%	$83,750
BG 2, CT 103.03	18%	0%	0%	16%	38%	2%	26%	89%	11%	6%	$70,172
BG 3, CT 103.03	18%	0%	1%	25%	26%	0%	30%	90%	10%	7%	$61,528
BG 1, CT 103.05	23%	0%	0%	36%	14%	0%	27%	88%	12%	14%	$85,642
BG 2, CT 103.05	23%	0%	0%	32%	9%	3%	34%	96%	4%	16%	$119,938
BG 3, CT 103.05	12%	0%	0%	23%	2%	0%	63%	67%	33%	14%	$90,132
BG 1, CT 103.06	43%	2%	0%	30%	0%	9%	17%	91%	9%	5%	$154,036
BG 2, CT 103.06	24%	1%	2%	43%	4%	0%	26%	84%	16%	7%	$92,083
BG 3, CT 103.06	7%	0%	0%	49%	18%	0%	26%	98%	2%	0%	$129,049
BG 4, CT 103.06	26%	0%	0%	49%	2%	0%	23%	94%	6%	6%	$161,378

Block Group	Race (Percent)[a]							Ethnicity (Percent)[a]		Percent of Residents in Poverty[a]	Median Household Income
	White	Black or African American	American Indian or Alaska Native	Asian	Native Hawaiian or Other Pacific Islander	Some Other Race Alone	Multiple Races	Hispanic or Latino	Not Hispanic or Latino		
BG 5, CT 103.06	30%	2%	0%	34%	5%	0%	29%	96%	4%	5%	$83,284
BG 1, CT 103.08	13%	0%	1%	47%	5%	4%	31%	88%	12%	3%	$92,396
BG 2, CT 103.08	15%	0%	0%	64%	0%	0%	21%	98%	2%	6%	$91,500
BG 3, CT 103.08	20%	0%	0%	47%	4%	0%	29%	97%	3%	0%	$91,094
BG 1, CT 105.03	22%	7%	0%	25%	8%	1%	36%	79%	21%	17%	$51,667
BG 2, CT 105.03	8%	0%	0%	26%	21%	0%	45%	96%	4%	1%	$102,917
BG 1, CT 105.04	7%	0%	0%	33%	33%	2%	25%	91%	9%	12%	$63,971
BG 2, CT 105.04	24%	0%	1%	35%	7%	0%	33%	94%	6%	12%	$84,491
BG 3, CT 105.04	13%	0%	2%	44%	17%	1%	24%	94%	6%	7%	$76,346
BG 1, CT 105.05	28%	0%	0%	39%	7%	0%	25%	99%	1%	0%	$106,719
BG 2, CT 105.05	21%	0%	0%	45%	11%	1%	21%	93%	7%	0%	$100,313
BG 3, CT 105.05	38%	0%	0%	42%	1%	0%	18%	92%	8%	0%	$89,875
BG 1, CT 105.07	17%	1%	1%	25%	5%	9%	43%	83%	17%	10%	$79,411
BG 2, CT 105.07	12%	4%	0%	15%	22%	4%	43%	85%	15%	17%	$57,692
BG 1, CT 105.08	24%	1%	0%	41%	7%	0%	27%	95%	5%	2%	$120,000
BG 2, CT 105.08	52%	0%	0%	29%	2%	1%	17%	92%	8%	9%	$100,250
BG 1, CT 106.01	17%	1%	0%	32%	2%	0%	47%	88%	12%	6%	$84,485
BG 2, CT 106.01	10%	0%	0%	53%	7%	0%	30%	88%	12%	14%	$44,559
BG 3, CT 106.01	13%	0%	0%	77%	0%	1%	9%	99%	1%	5%	$96,250
BG 1, CT 106.02	13%	0%	0%	45%	3%	1%	38%	95%	5%	4%	$69,167
BG 2, CT 106.02	12%	1%	1%	41%	10%	0%	35%	88%	12%	9%	$90,655
BG 3, CT 106.02	15%	1%	0%	45%	3%	0%	36%	92%	8%	3%	$117,750
BG 1, CT 107.01	58%	3%	0%	22%	0%	0%	17%	99%	1%	7%	$89,279
BG 2, CT 107.01	29%	0%	0%	44%	3%	0%	23%	89%	11%	5%	$89,000
BG 1, CT 107.02	13%	2%	0%	39%	4%	1%	41%	87%	13%	5%	$86,738
BG 2, CT 107.02	28%	0%	0%	47%	2%	0%	22%	93%	7%	2%	$69,063
BG 1, CT 108.01	74%	8%	1%	2%	2%	6%	9%	84%	16%	ND	ND
BG 2, CT 108.01	70%	2%	1%	3%	0%	11%	13%	82%	18%	11%	$40,000
BG 1, CT 108.02	71%	8%	0%	5%	1%	4%	11%	81%	19%	15%	$47,139
BG 2, CT 108.02	70%	7%	1%	6%	0%	7%	8%	78%	22%	ND	ND

Block Group	Race (Percent)[a]							Ethnicity (Percent)[a]		Percent of Residents in Poverty[a]	Median Household Income
	White	Black or African American	American Indian or Alaska Native	Asian	Native Hawaiian or Other Pacific Islander	Some Other Race Alone	Multiple Races	Hispanic or Latino	Not Hispanic or Latino		
BG 3, CT 108.02	72%	14%	0%	3%	0%	6%	5%	85%	15%	0%	$77,939
BG 1, CT 109.01	67%	2%	0%	12%	3%	0%	16%	96%	4%	1%	$144,438
BG 2, CT 109.01	72%	1%	0%	10%	0%	0%	17%	95%	5%	3%	$106,136
BG 1, CT 109.03	39%	2%	1%	15%	5%	0%	38%	96%	4%	14%	$83,542
BG 2, CT 109.03	29%	1%	1%	13%	19%	3%	34%	91%	9%	19%	$69,950
BG 1, CT 109.04	46%	1%	0%	10%	1%	2%	40%	94%	6%	7%	$91,000
BG 2, CT 109.04	45%	2%	1%	14%	3%	0%	35%	93%	7%	7%	$70,982
BG 1, CT 109.05	42%	0%	0%	24%	4%	4%	26%	89%	11%	14%	$68,565
BG 1, CT 110	33%	1%	1%	28%	9%	0%	28%	88%	12%	2%	$119,917
BG 2, CT 110	38%	0%	0%	38%	4%	0%	20%	97%	3%	2%	$135,833
BG 3, CT 110	24%	12%	0%	5%	25%	0%	35%	81%	19%	ND	ND
BG 1, CT 111.03	21%	0%	0%	42%	4%	0%	33%	98%	2%	1%	$110,952
BG 2, CT 111.03	37%	0%	0%	32%	1%	5%	25%	94%	6%	3%	$117,679
BG 1, CT 111.04	44%	0%	0%	17%	5%	0%	34%	96%	4%	10%	$96,625
BG 2, CT 111.04	30%	0%	0%	36%	5%	0%	28%	96%	4%	10%	$96,713
BG 3, CT 111.04	35%	0%	0%	21%	13%	0%	32%	94%	6%	2%	$141,786
BG 1, CT 111.05	58%	0%	0%	8%	2%	0%	32%	97%	3%	6%	$84,107
BG 2, CT 111.05	64%	3%	0%	15%	2%	1%	15%	94%	6%	3%	$89,583
BG 3, CT 111.05	42%	9%	5%	11%	13%	0%	21%	92%	8%	10%	$74,113
BG 1, CT 111.06	21%	0%	0%	38%	18%	0%	22%	99%	1%	1%	$116,667
BG 2, CT 111.06	17%	1%	0%	36%	13%	0%	34%	89%	11%	2%	$119,063
BG 3, CT 111.06	49%	0%	0%	9%	16%	0%	26%	97%	3%	5%	$77,463
BG 4, CT 111.06	32%	1%	0%	37%	6%	0%	23%	95%	5%	2%	$98,750
BG 1, CT 112.01	76%	0%	7%	0%	0%	0%	18%	91%	9%	0%	$86,364
BG 2, CT 112.01	63%	0%	1%	14%	13%	0%	9%	96%	4%	4%	$107,188
BG 3, CT 112.01	70%	0%	0%	17%	4%	0%	8%	73%	27%	4%	$96,169
BG 4, CT 112.01	72%	0%	0%	16%	0%	1%	11%	97%	3%	0%	$101,719
BG 5, CT 112.01	63%	0%	0%	9%	0%	0%	28%	84%	16%	15%	$146,000
BG 1, CT 112.02	62%	0%	0%	15%	5%	0%	17%	97%	3%	8%	$99,129
BG 1, CT 113	37%	1%	0%	14%	29%	0%	19%	96%	4%	19%	$69,219

Block Group	Race (Percent)[a]							Ethnicity (Percent)[a]		Percent of Residents in Poverty[a]	Median Household Income
	White	Black or African American	American Indian or Alaska Native	Asian	Native Hawaiian or Other Pacific Islander	Some Other Race Alone	Multiple Races	Hispanic or Latino	Not Hispanic or Latino		
BG 2, CT 113	7%	1%	0%	13%	23%	0%	55%	96%	4%	17%	$74,882
BG 3, CT 113	20%	0%	0%	2%	15%	0%	62%	98%	2%	2%	$156,250
BG 4, CT 113	13%	0%	0%	26%	9%	0%	51%	83%	17%	23%	$47,917
BG 1, CT 114	0%	0%	0%	78%	19%	0%	4%	100%	0%	0%	$162,750
BG 2, CT 114	63%	10%	0%	6%	2%	2%	16%	87%	13%	15%	$57,750
BG 3, CT 114	61%	13%	0%	6%	2%	7%	12%	72%	28%	15%	$49,688
BG 1, CT 115	15%	47%	0%	25%	2%	0%	11%	87%	13%	0%	$112,108
BG 2, CT 115	14%	0%	3%	20%	28%	0%	36%	85%	15%	0%	$98,250
BG 3, CT 115	13%	5%	0%	25%	19%	0%	38%	86%	14%	5%	$79,427
BG 1, CT 9400.01	4%	0%	0%	4%	46%	0%	46%	92%	8%	9%	$64,044
BG 2, CT 9400.01	14%	0%	1%	6%	17%	0%	61%	87%	13%	9%	$73,482
BG 1, CT 9400.02	2%	1%	0%	7%	55%	0%	35%	84%	16%	4%	$81,389
BG 2, CT 9400.02	2%	1%	0%	2%	66%	1%	28%	91%	9%	4%	$57,813
BG 3, CT 9400.02	3%	0%	0%	2%	61%	0%	33%	91%	9%	9%	$80,750
BG 4, CT 9400.02	5%	0%	0%	6%	45%	0%	44%	78%	22%	36%	$36,554
BG 1, CT 9800	0%	0%	0%	0%	100%	0%	0%	100%	0%	33%	ND
BG 1, CT 9802	15%	5%	1%	17%	16%	5%	41%	84%	16%	ND	ND
BG 1, CT 9803	No Population										
BG 1, CT 9806	100%	0%	0%	0%	0%	0%	0%	100%	0%	0%	ND
BG 1, CT 9807	No Population										
BG 1, CT 9808	No Population										
BG 1, CT 9810	No Population										
BG 1, CT 9811	91%	9%	0%	0%	0%	0%	0%	79%	21%	0%	ND
BG 1, CT 9812	No Population										
BG 1, CT 9813	No Population										
BG 1, CT 9814	No Population										
BG 0, CT 9900.01	No Population										
BG 1, CT 319	46%	0%	0%	18%	21%	3%	11%	96%	4%	15%	$59,375
BG 0, CT 9900	No Population										
BG 1, CT 401.03	72%	1%	0%	9%	3%	0%	15%	96%	4%	10%	$68,281

Block Group	Race (Percent)[a]							Ethnicity (Percent)[a]		Percent of Residents in Poverty[a]	Median Household Income
	White	Black or African American	American Indian or Alaska Native	Asian	Native Hawaiian or Other Pacific Islander	Some Other Race Alone	Multiple Races	Hispanic or Latino	Not Hispanic or Latino		
BG 2, CT 401.03	45%	0%	1%	28%	5%	1%	19%	91%	9%	8%	$54,265
BG 3, CT 401.03	88%	0%	1%	3%	2%	0%	5%	88%	12%	10%	$56,667
BG 4, CT 401.03	74%	0%	0%	2%	8%	0%	16%	94%	6%	33%	$39,236
BG 1, CT 401.04	80%	0%	1%	4%	0%	0%	15%	88%	12%	11%	$43,819
BG 2, CT 401.04	70%	0%	0%	12%	13%	0%	5%	91%	9%	24%	$38,047
BG 1, CT 402.04	47%	0%	0%	21%	8%	0%	24%	99%	1%	11%	$60,054
BG 2, CT 402.04	45%	0%	0%	29%	6%	0%	20%	95%	5%	6%	$74,704
BG 1, CT 402.05	33%	0%	1%	30%	13%	2%	22%	93%	7%	10%	$53,006
BG 2, CT 402.05	41%	0%	1%	44%	6%	0%	9%	99%	1%	10%	$61,823
BG 3, CT 402.05	48%	0%	0%	36%	1%	0%	15%	86%	14%	9%	$63,542
BG 4, CT 402.05	29%	0%	0%	40%	5%	2%	24%	90%	10%	9%	$91,667
BG 1, CT 403	55%	0%	0%	14%	11%	0%	19%	80%	20%	27%	$29,432
BG 2, CT 403	56%	0%	0%	29%	6%	0%	9%	77%	23%	0%	$69,844
BG 3, CT 403	19%	3%	0%	45%	3%	1%	29%	86%	14%	16%	$73,725
BG 4, CT 403	41%	0%	0%	39%	4%	0%	16%	100%	0%	15%	$24,177
BG 5, CT 403	36%	0%	0%	19%	11%	0%	35%	100%	0%	11%	$56,367
BG 6, CT 403	14%	0%	0%	41%	7%	0%	38%	95%	5%	11%	$41,125
BG 1, CT 404	17%	0%	0%	53%	8%	2%	20%	88%	12%	6%	$73,333
BG 2, CT 404	41%	0%	0%	27%	3%	0%	29%	87%	13%	7%	$73,068
BG 3, CT 404	10%	0%	1%	61%	11%	2%	16%	94%	6%	6%	$63,833
BG 4, CT 404	18%	0%	0%	49%	16%	1%	16%	93%	7%	7%	$68,393
BG 5, CT 404	13%	6%	1%	53%	6%	0%	21%	82%	18%	21%	$48,750
BG 1, CT 405	33%	0%	0%	67%	0%	0%	0%	100%	0%	29%	$38,281
BG 2, CT 405	21%	1%	0%	59%	4%	0%	16%	98%	2%	28%	$49,400
BG 3, CT 405	34%	0%	0%	31%	12%	0%	22%	94%	6%	4%	$72,105
BG 4, CT 405	21%	1%	0%	51%	16%	0%	11%	92%	8%	5%	$62,143
BG 5, CT 405	31%	2%	1%	35%	16%	0%	16%	99%	1%	19%	$80,278
BG 1, CT 406.03	56%	0%	0%	15%	0%	0%	29%	96%	4%	10%	$62,313
BG 2, CT 406.03	84%	0%	2%	11%	1%	0%	1%	100%	0%	5%	$87,083
BG 3, CT 406.03	27%	1%	0%	50%	3%	0%	20%	90%	10%	4%	$61,469

Block Group	Race (Percent)[a]							Ethnicity (Percent)[a]		Percent of Residents in Poverty[a]	Median Household Income
	White	Black or African American	American Indian or Alaska Native	Asian	Native Hawaiian or Other Pacific Islander	Some Other Race Alone	Multiple Races	Hispanic or Latino	Not Hispanic or Latino		
BG 1, CT 406.04	52%	0%	0%	16%	0%	2%	30%	97%	3%	7%	$43,906
BG 2, CT 406.04	46%	0%	0%	11%	6%	2%	36%	83%	17%	17%	$52,167
BG 3, CT 406.04	41%	0%	0%	30%	5%	0%	24%	88%	12%	6%	$63,558
BG 1, CT 407	50%	0%	0%	19%	12%	1%	18%	84%	16%	14%	$76,544
BG 2, CT 407	28%	0%	0%	42%	0%	0%	30%	89%	11%	12%	$107,212
BG 3, CT 407	13%	0%	0%	50%	0%	0%	37%	79%	21%	26%	$48,100
BG 4, CT 407	48%	0%	0%	8%	7%	1%	36%	78%	22%	25%	$35,075
BG 5, CT 407	11%	0%	0%	55%	12%	1%	21%	86%	14%	14%	$70,673
BG 6, CT 407	52%	0%	0%	22%	3%	0%	23%	74%	26%	4%	$68,667
BG 1, CT 408	6%	0%	1%	69%	15%	0%	9%	98%	2%	11%	$76,917
BG 2, CT 408	23%	1%	0%	48%	12%	6%	10%	88%	12%	1%	$78,158
BG 3, CT 408	25%	0%	1%	45%	9%	0%	19%	77%	23%	5%	$49,139
BG 1, CT 409	40%	0%	0%	16%	38%	0%	6%	95%	5%	0%	$106,146
BG 2, CT 409	21%	0%	0%	59%	17%	0%	3%	99%	1%	10%	$60,096
BG 3, CT 409	17%	0%	0%	55%	25%	0%	3%	100%	0%	22%	$77,500
BG 4, CT 409	45%	0%	0%	24%	6%	0%	25%	87%	13%	7%	$66,296
BG 5, CT 409	25%	0%	0%	63%	5%	0%	7%	77%	23%	12%	$44,412
BG 6, CT 409	14%	0%	0%	34%	46%	0%	6%	95%	5%	9%	$54,907
BG 1, CT 412	No Population										
BG 2, CT 412	No Population										
BG 1, CT 9400	42%	0%	0%	22%	15%	0%	22%	89%	11%	11%	$54,722
BG 2, CT 9400	19%	0%	0%	9%	42%	0%	31%	92%	8%	15%	$49,635
BG 0, CT 9901	No Population										
BG 0, CT 9902	No Population										
BG 0, CT 9903	No Population										
BG 1, CT 301	54%	0%	0%	0%	10%	0%	37%	92%	8%	16%	$60,556
BG 2, CT 301	15%	0%	0%	3%	33%	0%	50%	95%	5%	5%	$62,656
BG 1, CT 302.01	73%	0%	0%	4%	1%	2%	20%	90%	10%	17%	$50,189
BG 2, CT 302.01	65%	0%	0%	0%	14%	0%	21%	93%	7%	4%	$58,611
BG 1, CT 302.02	57%	0%	0%	7%	0%	0%	36%	94%	6%	13%	$23,785

Block Group	Race (Percent)[a]							Ethnicity (Percent)[a]		Percent of Residents in Poverty[a]	Median Household Income
	White	Black or African American	American Indian or Alaska Native	Asian	Native Hawaiian or Other Pacific Islander	Some Other Race Alone	Multiple Races	Hispanic or Latino	Not Hispanic or Latino		
BG 2, CT 302.02	48%	0%	0%	10%	20%	1%	20%	85%	15%	2%	$51,786
BG 3, CT 302.02	60%	1%	0%	6%	6%	0%	27%	98%	2%	10%	$77,244
BG 4, CT 302.02	46%	0%	0%	8%	9%	4%	33%	88%	12%	3%	$79,534
BG 5, CT 302.02	41%	0%	0%	10%	2%	0%	47%	97%	3%	73%	$11,150
BG 1, CT 303.01	39%	0%	0%	8%	10%	0%	43%	88%	12%	11%	$57,955
BG 2, CT 303.01	60%	0%	0%	7%	4%	0%	29%	89%	11%	15%	$95,110
BG 3, CT 303.01	70%	0%	1%	14%	6%	1%	8%	94%	6%	8%	$56,738
BG 4, CT 303.01	56%	0%	0%	6%	10%	1%	28%	99%	1%	13%	$70,294
BG 1, CT 303.03	72%	1%	0%	9%	4%	1%	13%	97%	3%	7%	$58,681
BG 2, CT 303.03	91%	0%	0%	3%	0%	0%	6%	98%	2%	20%	$109,808
BG 3, CT 303.03	79%	0%	0%	1%	1%	0%	19%	99%	1%	3%	$84,464
BG 1, CT 304.02	39%	0%	0%	10%	10%	4%	37%	86%	14%	10%	$62,675
BG 2, CT 304.02	36%	0%	1%	36%	10%	0%	16%	96%	4%	3%	$82,731
BG 3, CT 304.02	36%	0%	0%	24%	0%	2%	38%	84%	16%	2%	$76,466
BG 4, CT 304.02	34%	0%	0%	27%	7%	0%	33%	95%	5%	5%	$85,352
BG 1, CT 304.03	64%	0%	0%	5%	6%	0%	24%	99%	1%	9%	$80,250
BG 2, CT 304.03	30%	0%	0%	29%	4%	0%	36%	88%	12%	3%	$58,478
BG 1, CT 304.04	22%	1%	0%	32%	13%	1%	31%	89%	11%	19%	$69,583
BG 2, CT 304.04	43%	0%	0%	11%	8%	0%	37%	96%	4%	29%	$64,706
BG 3, CT 304.04	36%	0%	0%	16%	5%	0%	42%	81%	19%	16%	$54,200
BG 1, CT 305.01	41%	0%	0%	26%	5%	1%	26%	94%	6%	7%	$68,462
BG 2, CT 305.01	60%	0%	0%	23%	1%	0%	16%	93%	7%	6%	$67,500
BG 1, CT 307.05	44%	0%	0%	37%	2%	0%	17%	95%	5%	4%	$97,250
BG 2, CT 307.05	15%	0%	0%	53%	1%	1%	30%	88%	12%	6%	$84,423
BG 1, CT 307.06	56%	2%	0%	14%	7%	0%	22%	85%	15%	29%	$47,150
BG 2, CT 307.06	100%	0%	0%	0%	0%	0%	0%	100%	0%	0%	ND
BG 1, CT 307.07	55%	1%	0%	26%	2%	1%	15%	87%	13%	6%	$65,391
BG 2, CT 307.07	84%	3%	0%	2%	8%	0%	4%	85%	15%	3%	$92,588
BG 3, CT 307.07	52%	0%	0%	9%	6%	3%	29%	81%	19%	9%	$64,988
BG 4, CT 307.07	60%	1%	0%	7%	1%	0%	31%	99%	1%	17%	$61,847

Block Group	Race (Percent)[a]							Ethnicity (Percent)[a]		Percent of Residents in Poverty[a]	Median Household Income
	White	Black or African American	American Indian or Alaska Native	Asian	Native Hawaiian or Other Pacific Islander	Some Other Race Alone	Multiple Races	Hispanic or Latino	Not Hispanic or Latino		
BG 1, CT 307.08	47%	0%	0%	10%	25%	1%	17%	91%	9%	10%	$49,091
BG 2, CT 307.08	66%	0%	0%	20%	3%	0%	12%	95%	5%	2%	$42,917
BG 1, CT 307.09	65%	0%	0%	5%	0%	1%	29%	99%	1%	15%	$52,600
BG 2, CT 307.09	64%	1%	0%	14%	0%	0%	21%	93%	7%	1%	$73,546
BG 3, CT 307.09	80%	2%	0%	8%	0%	1%	9%	73%	27%	23%	$57,656
BG 1, CT 307.10	60%	0%	0%	9%	21%	0%	10%	95%	5%	34%	$53,458
BG 2, CT 307.10	63%	0%	0%	0%	0%	0%	37%	81%	19%	36%	$39,656
BG 1, CT 308	22%	0%	1%	11%	23%	1%	42%	85%	15%	6%	$75,278
BG 2, CT 308	21%	0%	0%	44%	2%	0%	32%	90%	10%	3%	$96,204
BG 1, CT 309.01	9%	0%	0%	35%	36%	0%	20%	90%	10%	12%	$39,167
BG 2, CT 309.01	16%	0%	0%	15%	45%	0%	24%	74%	26%	25%	$33,750
BG 3, CT 309.01	19%	1%	0%	24%	7%	0%	49%	87%	13%	11%	$40,083
BG 1, CT 309.02	16%	1%	0%	30%	14%	3%	36%	81%	19%	16%	$68,214
BG 2, CT 309.02	28%	0%	0%	37%	11%	0%	24%	80%	20%	11%	$63,155
BG 1, CT 309.03	2%	0%	3%	26%	56%	0%	14%	100%	0%	6%	$79,904
BG 2, CT 309.03	12%	1%	0%	56%	7%	1%	23%	93%	7%	5%	$105,341
BG 3, CT 309.03	7%	0%	0%	29%	27%	0%	37%	95%	5%	8%	$87,750
BG 4, CT 309.03	6%	1%	0%	47%	1%	0%	44%	84%	16%	8%	$76,140
BG 1, CT 310	23%	2%	0%	37%	1%	2%	35%	90%	10%	3%	$87,279
BG 2, CT 310	22%	0%	0%	36%	0%	2%	40%	79%	21%	19%	$52,438
BG 3, CT 310	10%	0%	0%	29%	23%	1%	37%	84%	16%	14%	$51,492
BG 4, CT 310	34%	0%	0%	52%	0%	0%	14%	81%	19%	6%	$85,250
BG 1, CT 311.01	13%	0%	0%	5%	59%	1%	21%	83%	17%	14%	$48,750
BG 2, CT 311.01	8%	0%	3%	59%	1%	0%	28%	83%	17%	5%	$99,750
BG 3, CT 311.01	6%	0%	0%	60%	7%	5%	22%	90%	10%	15%	$62,188
BG 4, CT 311.01	16%	2%	2%	10%	31%	2%	37%	82%	18%	18%	$47,303
BG 1, CT 311.02	20%	0%	0%	32%	2%	0%	46%	95%	5%	4%	$46,389
BG 2, CT 311.02	15%	0%	0%	49%	11%	2%	24%	79%	21%	8%	$62,235
BG 3, CT 311.02	17%	0%	0%	48%	6%	1%	29%	87%	13%	8%	$29,491
BG 1, CT 311.03	8%	0%	0%	68%	4%	0%	20%	100%	0%	11%	$54,718

Block Group	Race (Percent)[a]							Ethnicity (Percent)[a]		Percent of Residents in Poverty[a]	Median Household Income
	White	Black or African American	American Indian or Alaska Native	Asian	Native Hawaiian or Other Pacific Islander	Some Other Race Alone	Multiple Races	Hispanic or Latino	Not Hispanic or Latino		
BG 2, CT 311.03	7%	0%	0%	42%	4%	0%	47%	100%	0%	18%	$62,277
BG 3, CT 311.03	12%	0%	0%	62%	2%	0%	24%	89%	11%	5%	$102,992
BG 4, CT 311.03	5%	0%	0%	83%	2%	0%	10%	99%	1%	2%	$92,321
BG 1, CT 314.02	14%	0%	0%	23%	7%	0%	56%	96%	4%	5%	$84,730
BG 2, CT 314.02	36%	1%	0%	31%	10%	0%	22%	97%	3%	5%	$70,036
BG 1, CT 314.04	73%	3%	0%	11%	0%	0%	13%	85%	15%	13%	$57,396
BG 2, CT 314.04	71%	0%	0%	19%	0%	0%	10%	94%	6%	10%	$71,949
BG 3, CT 314.04	37%	2%	0%	20%	3%	2%	34%	94%	6%	18%	$37,679
BG 1, CT 314.05	24%	0%	0%	28%	20%	0%	28%	88%	12%	24%	$51,806
BG 2, CT 314.05	1%	0%	0%	74%	3%	0%	22%	99%	1%	5%	$120,769
BG 3, CT 314.05	36%	0%	1%	42%	0%	0%	21%	82%	18%	9%	$53,000
BG 4, CT 314.05	13%	0%	0%	58%	3%	0%	27%	93%	7%	0%	$93,333
BG 1, CT 315.01	22%	0%	0%	32%	13%	4%	29%	96%	4%	4%	$76,648
BG 2, CT 315.01	68%	0%	0%	21%	0%	0%	11%	92%	8%	3%	$68,750
BG 1, CT 315.02	98%	0%	0%	2%	0%	0%	0%	100%	0%	0%	$52,391
BG 2, CT 315.02	62%	0%	0%	23%	1%	0%	13%	87%	13%	2%	$61,310
BG 3, CT 315.02	69%	0%	0%	16%	1%	1%	13%	89%	11%	1%	$74,688
BG 1, CT 315.03	88%	0%	0%	3%	1%	1%	7%	93%	7%	5%	$97,083
BG 2, CT 315.03	53%	3%	0%	11%	15%	0%	18%	71%	29%	9%	$33,750
BG 1, CT 316.01	8%	0%	0%	55%	13%	1%	23%	79%	21%	4%	$71,992
BG 2, CT 316.01	19%	0%	0%	51%	13%	0%	17%	88%	12%	21%	$37,163
BG 1, CT 317	23%	0%	0%	2%	41%	0%	35%	79%	21%	31%	$35,000
BG 2, CT 317	22%	0%	1%	11%	37%	0%	29%	91%	9%	22%	$52,819
BG 3, CT 317	29%	0%	1%	0%	47%	0%	23%	92%	8%	30%	$21,544
BG 4, CT 317	11%	0%	0%	31%	32%	2%	23%	95%	5%	20%	$50,425
BG 5, CT 317	21%	2%	0%	25%	19%	0%	34%	97%	3%	2%	$75,571
BG 1, CT 318.01	22%	0%	0%	4%	47%	0%	28%	94%	6%	25%	$42,546
BG 2, CT 318.01	6%	2%	0%	14%	44%	1%	32%	90%	10%	17%	$43,125
BG 1, CT 319	74%	0%	0%	9%	3%	6%	8%	91%	9%	16%	$71,786
BG 2, CT 319	8%	1%	0%	46%	14%	0%	30%	96%	4%	14%	$49,318

Block Group	Race (Percent)[a]							Ethnicity (Percent)[a]		Percent of Residents in Poverty[a]	Median Household Income
	White	Black or African American	American Indian or Alaska Native	Asian	Native Hawaiian or Other Pacific Islander	Some Other Race Alone	Multiple Races	Hispanic or Latino	Not Hispanic or Latino		
BG 3, CT 319	10%	0%	0%	55%	2%	0%	33%	89%	11%	21%	$98,056
BG 4, CT 319	6%	2%	1%	47%	7%	0%	38%	95%	5%	18%	$58,750
BG 1, CT 320	89%	0%	0%	4%	1%	3%	3%	95%	5%	10%	$63,438
BG 2, CT 320	79%	0%	0%	3%	2%	0%	16%	89%	11%	4%	$85,865
BG 1, CT 9800	No Population										
BG 0, CT 9900	No Population										
BG 0, CT 9902	No Population										
BG 0, CT 9912	No Population										
Statewide	25%	2%	0%	38%	10%	1%	24%	9%	91%	11%	$67,402

Source: U.S. Census Bureau 2013

BG = Block Group; CT = Census Tract; ND = no data
[a] Totals may not add to 100 percent due to rounding.

Table 3: Block Group Demographic Data, American Samoa, 2010

Block Group	Race and Ethnicity[a,b]								Percent of Residents in Poverty[a]	Median Household Income
	Asian	Black or African American	Native Hawaiian or Other Pacific Islander	Native Hawaiian or Other Pacific Islander--Samoan	White	Hispanic or Latino	Some Other Race Alone	Multiple Races		
BG 1, CT 9501	0%	0%	98%	98%	0%	0%	0%	1%	47.6%	$29,063
BG 2, CT 9501	1%	0%	97%	97%	0%	0%	0%	2%	61.0%	$22,813
BG 1, CT 9502	0%	0%	97%	97%	0%	0%	0%	3%	56.4%	$25,833
BG 2, CT 9502	5%	0%	92%	90%	0%	0%	0%	2%	62.5%	$21,667
BG 1, CT 9503	1%	0%	97%	96%	0%	0%	0%	2%	56.6%	$27,727
BG 2, CT 9503	1%	0%	97%	96%	0%	0%	0%	1%	52.5%	$24,375
BG 3, CT 9503	2%	0%	93%	92%	1%	0%	0%	3%	50.9%	$28,875
BG 1, CT 9505	9%	0%	86%	83%	1%	0%	0%	4%	57.0%	$25,875
BG 2, CT 9505	5%	0%	93%	92%	0%	0%	0%	2%	67.0%	$20,114
BG 3, CT 9505	6%	0%	92%	91%	0%	0%	0%	2%	66.8%	$17,639
BG 1, CT 9506	5%	0%	89%	88%	0%	1%	0%	5%	55.3%	$22,039
BG 2, CT 9506	3%	0%	94%	92%	0%	0%	0%	3%	54.1%	$22,969
BG 3, CT 9506	2%	0%	97%	97%	0%	0%	0%	1%	67.4%	$20,833
BG 1, CT 9507	3%	0%	89%	88%	2%	0%	0%	5%	52.4%	$33,438
BG 2, CT 9507	8%	0%	88%	86%	0%	0%	0%	4%	62.7%	$20,972
BG 3, CT 9507	6%	0%	86%	82%	1%	1%	0%	6%	46.2%	$26,818
BG 1, CT 9509	0%	0%	98%	98%	0%	0%	0%	1%	62.6%	$22,813
BG 2, CT 9509	10%	0%	85%	81%	1%	0%	0%	5%	58.3%	$22,019
BG 3, CT 9509	10%	0%	85%	82%	2%	0%	0%	3%	58.2%	$21,324
BG 4, CT 9509	6%	0%	91%	90%	1%	0%	0%	2%	41.5%	$31,667
BG 1, CT 9518	0%	0%	99%	99%	0%	0%	0%	1%	56.1%	$16,429
BG 2, CT 9518	1%	0%	97%	97%	1%	0%	0%	1%	68.7%	$18,269
BG 1, CT 9519	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
BG 1, CT 9520	6%	0%	94%	88%	0%	0%	0%	0%	11.8%	$27,500
BG 1, CT 9510	4%	0%	91%	81%	1%	0%	0%	3%	68.0%	$22,273
BG 2, CT 9510	12%	0%	87%	82%	0%	0%	0%	1%	63.4%	$21,500

Block Group	Race and Ethnicity[a,b]								Percent of Residents in Poverty[a]	Median Household Income
	Asian	Black or African American	Native Hawaiian or Other Pacific Islander	Native Hawaiian or Other Pacific Islander--Samoan	White	Hispanic or Latino	Some Other Race Alone	Multiple Races		
BG 1, CT 9511	3%	0%	95%	79%	1%	0%	0%	1%	58.6%	$22,833
BG 2, CT 9511	2%	0%	96%	82%	0%	0%	0%	2%	68.9%	$19,375
BG 3, CT 9511	1%	0%	95%	92%	0%	0%	0%	3%	68.2%	$20,481
BG 1, CT 9512.01	6%	0%	76%	67%	8%	0%	1%	8%	23.0%	$45,625
BG 2, CT 9512.01	3%	0%	95%	91%	0%	0%	0%	2%	64.0%	$20,000
BG 1, CT 9512.02	5%	0%	88%	82%	2%	0%	0%	4%	47.2%	$31,488
BG 2, CT 9512.02	6%	0%	90%	86%	2%	0%	0%	3%	49.6%	$31,528
BG 1, CT 9512.03	4%	0%	91%	86%	2%	0%	0%	3%	50.6%	$28,750
BG 2, CT 9512.03	3%	0%	90%	88%	3%	0%	0%	3%	50.5%	$31,346
BG 3, CT 9512.03	1%	0%	93%	87%	1%	0%	0%	5%	59.6%	$24,479
BG 1, CT 9513	2%	0%	96%	96%	0%	0%	1%	1%	53.6%	$23,594
BG 2, CT 9513	1%	0%	96%	95%	1%	0%	0%	2%	62.8%	$22,917
BG 1, CT 9515	1%	0%	98%	98%	0%	0%	0%	1%	64.8%	$22,426
BG 1, CT 9516	2%	0%	96%	95%	0%	0%	0%	2%	56.7%	$20,417
BG 2, CT 9516	0%	0%	97%	96%	0%	0%	0%	3%	64.8%	$25,114
BG 3, CT 9516	2%	0%	95%	94%	1%	0%	0%	2%	47.3%	$31,500
BG 4, CT 9516	3%	0%	92%	90%	1%	0%	0%	3%	51.7%	$26,484
Territory-wide	1%	0%	0%	93%	1%	5%	0%	3%	57.8%	$23,892

Source: U.S. Census Bureau 2010

BG = Block Group; CT = Census Tract; ND = no data
[a] Totals may not add to 100 percent, due to rounding.
[b] For American Samoa, the U.S. Census Bureau did not distinguish between race and ethnicity.

Table 4: Block Group Demographic Data, Guam, 2010

Block Group	Race and Ethnicity[a,b]								Percent of Residents in Poverty[a]	Median Household Income
	Asian	Black or African American	Native Hawaiian or Other Pacific Islander	Native Hawaiian or Other Pacific Islander--Chamorro	White	Hispanic or Latino	Some Other Race Alone	Multiple Races		
BG 1, CT 9501	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
BG 2, CT 9501	6%	18%	1%	1%	59%	11%	2%	5%	0.0%	$26,250
BG 3, CT 9501	13%	7%	7%	4%	56%	5%	1%	10%	7.3%	$63,333
BG 4, CT 9501	15%	10%	6%	5%	53%	8%	1%	7%	5.8%	$52,500
BG 5, CT 9501	14%	8%	6%	4%	51%	9%	0%	11%	11.5%	$44,063
BG 1, CT 9502	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
BG 2, CT 9502	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
BG 3, CT 9502	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
BG 4, CT 9502	10%	9%	11%	7%	49%	7%	0%	13%	11.7%	$40,417
BG 5, CT 9502	5%	3%	9%	9%	63%	6%	2%	13%	13.2%	$37,000
BG 1, CT 9503	0%	0%	50%	50%	50%	0%	0%	0%	100.0%	$11,250
BG 2, CT 9503	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
BG 3, CT 9503	0%	0%	60%	60%	0%	0%	0%	40%	100.0%	$23,750
BG 4, CT 9503	20%	24%	9%	9%	34%	1%	0%	12%	5.0%	$51,250
BG 5, CT 9503	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
BG 6, CT 9503	0%	56%	0%	0%	44%	0%	0%	0%	0.0%	$98,750
BG 7, CT 9503	25%	11%	5%	4%	40%	10%	2%	7%	13.7%	$51,250
BG 8, CT 9503	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
BG 9, CT 9503	0%	0%	78%	78%	0%	0%	22%	0%	50.0%	$41,250
BG 1, CT 9504.01	71%	0%	20%	13%	1%	0%	0%	7%	22.0%	$44,107
BG 2, CT 9504.01	76%	0%	17%	12%	1%	0%	0%	5%	17.9%	$46,458
BG 3, CT 9504.01	66%	1%	26%	14%	2%	0%	0%	6%	24.0%	$40,833
BG 4, CT 9504.01	57%	0%	33%	27%	2%	0%	0%	7%	24.3%	$45,000
BG 5, CT 9504.01	51%	0%	35%	18%	3%	0%	0%	10%	35.5%	$35,417
BG 6, CT 9504.01	46%	0%	45%	24%	1%	0%	0%	7%	30.0%	$37,404
BG 1, CT 9504.02	67%	0%	25%	14%	1%	0%	0%	7%	18.7%	$50,682
BG 2, CT 9504.02	44%	1%	41%	18%	3%	0%	0%	10%	29.8%	$51,094

Block Group	Race and Ethnicity[a,b]								Percent of Residents in Poverty[a]	Median Household Income
	Asian	Black or African American	Native Hawaiian or Other Pacific Islander	Native Hawaiian or Other Pacific Islander--Chamorro	White	Hispanic or Latino	Some Other Race Alone	Multiple Races		
BG 3, CT 9504.02	32%	1%	52%	37%	5%	1%	0%	9%	31.3%	$36,607
BG 1, CT 9505.01	19%	0%	67%	53%	3%	0%	0%	11%	34.0%	$38,214
BG 2, CT 9505.01	33%	0%	59%	14%	2%	0%	0%	5%	43.7%	$33,000
BG 1, CT 9505.02	55%	0%	38%	20%	1%	0%	1%	5%	29.6%	$41,094
BG 2, CT 9505.02	47%	0%	40%	23%	4%	1%	0%	9%	23.0%	$41,875
BG 3, CT 9505.02	51%	0%	37%	29%	1%	1%	0%	9%	23.8%	$49,375
BG 4, CT 9505.02	59%	0%	32%	21%	3%	0%	0%	6%	19.2%	$46,563
BG 5, CT 9505.02	35%	0%	53%	37%	4%	0%	0%	8%	27.9%	$41,161
BG 1, CT 9507.01	38%	5%	19%	13%	23%	3%	1%	12%	10.5%	$61,250
BG 2, CT 9507.01	51%	1%	29%	19%	6%	0%	1%	13%	23.2%	$57,500
BG 3, CT 9507.01	27%	0%	58%	49%	5%	0%	0%	10%	22.8%	$49,792
BG 4, CT 9507.01	50%	0%	38%	31%	2%	0%	0%	10%	27.7%	$38,750
BG 5, CT 9507.01	46%	1%	43%	31%	2%	0%	0%	8%	25.0%	$43,125
BG 6, CT 9507.01	52%	0%	34%	26%	4%	1%	0%	10%	22.4%	$45,179
BG 7, CT 9507.01	58%	0%	31%	21%	2%	0%	0%	8%	14.7%	$56,458
BG 1, CT 9507.02	25%	0%	65%	53%	2%	0%	0%	7%	35.4%	$29,821
BG 2, CT 9507.02	30%	0%	55%	36%	4%	1%	0%	10%	29.3%	$35,625
BG 3, CT 9507.02	50%	1%	35%	27%	5%	0%	0%	8%	21.1%	$51,563
BG 4, CT 9507.02	36%	0%	53%	31%	2%	0%	0%	8%	32.2%	$42,679
BG 5, CT 9507.02	42%	1%	43%	38%	1%	0%	0%	13%	18.2%	$54,375
BG 1, CT 9508.01	20%	0%	68%	56%	2%	0%	0%	10%	41.1%	$32,708
BG 2, CT 9508.01	40%	0%	52%	37%	1%	0%	0%	6%	24.5%	$47,083
BG 3, CT 9508.01	30%	0%	57%	44%	3%	1%	0%	9%	29.4%	$41,705
BG 4, CT 9508.01	25%	0%	67%	60%	2%	0%	0%	7%	36.8%	$35,938
BG 1, CT 9508.02	30%	0%	55%	37%	2%	1%	0%	12%	34.5%	$35,000
BG 2, CT 9508.02	44%	1%	42%	32%	2%	0%	0%	11%	17.1%	$54,375
BG 3, CT 9508.02	29%	0%	58%	25%	2%	0%	0%	11%	30.9%	$36,563
BG 4, CT 9508.02	22%	0%	65%	42%	4%	0%	0%	8%	49.6%	$30,625
BG 1, CT 9509	49%	1%	30%	17%	9%	1%	1%	10%	23.1%	$39,205

Block Group	Race and Ethnicity[a,b]								Percent of Residents in Poverty[a]	Median Household Income
	Asian	Black or African American	Native Hawaiian or Other Pacific Islander	Native Hawaiian or Other Pacific Islander--Chamorro	White	Hispanic or Latino	Some Other Race Alone	Multiple Races		
BG 2, CT 9509	59%	0%	30%	25%	2%	1%	0%	8%	16.5%	$48,889
BG 3, CT 9509	52%	0%	34%	28%	1%	0%	0%	12%	24.0%	$55,625
BG 4, CT 9509	61%	0%	27%	22%	2%	0%	0%	10%	14.0%	$62,679
BG 5, CT 9509	55%	0%	33%	23%	3%	0%	0%	7%	22.9%	$39,821
BG 6, CT 9509	69%	0%	22%	13%	1%	0%	0%	8%	19.5%	$52,750
BG 7, CT 9509	54%	0%	40%	31%	1%	0%	0%	6%	15.6%	$45,750
BG 1, CT 9510	57%	0%	32%	23%	1%	0%	0%	10%	11.8%	$47,250
BG 2, CT 9510	45%	0%	48%	37%	1%	0%	0%	6%	16.3%	$51,250
BG 3, CT 9510	41%	0%	47%	37%	1%	0%	0%	11%	21.8%	$50,000
BG 4, CT 9510	13%	0%	72%	71%	1%	0%	0%	13%	20.5%	$67,500
BG 5, CT 9510	36%	0%	50%	31%	1%	0%	0%	13%	25.9%	$37,031
BG 6, CT 9510	61%	0%	32%	26%	1%	0%	0%	6%	13.2%	$49,107
BG 7, CT 9510	39%	1%	51%	38%	1%	0%	0%	8%	37.6%	$29,167
BG 8, CT 9510	69%	0%	21%	11%	2%	0%	0%	8%	15.4%	$51,250
BG 1, CT 9511	57%	1%	26%	17%	5%	0%	1%	10%	19.0%	$47,143
BG 2, CT 9511	57%	1%	26%	18%	4%	1%	0%	11%	17.9%	$56,429
BG 3, CT 9511	39%	0%	55%	19%	1%	0%	0%	6%	31.6%	$36,944
BG 4, CT 9511	34%	0%	53%	35%	2%	0%	0%	10%	34.3%	$36,250
BG 5, CT 9511	50%	1%	37%	25%	2%	0%	0%	9%	26.2%	$39,464
BG 6, CT 9511	48%	1%	40%	25%	2%	1%	0%	8%	25.8%	$45,956
BG 1, CT 9516	13%	0%	83%	52%	0%	0%	0%	4%	30.0%	$53,750
BG 2, CT 9516	33%	7%	33%	33%	0%	0%	0%	27%	13.3%	$51,250
BG 3, CT 9516	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
BG 1, CT 9517	37%	1%	37%	31%	12%	2%	1%	10%	11.1%	$91,250
BG 2, CT 9517	45%	0%	39%	26%	5%	0%	0%	10%	27.5%	$54,167
BG 1, CT 9518	10%	0%	79%	56%	3%	1%	1%	7%	20.9%	$52,917
BG 1, CT 9519.01	43%	1%	42%	7%	3%	0%	0%	11%	45.3%	$30,568
BG 2, CT 9519.01	62%	0%	25%	13%	4%	1%	1%	6%	30.6%	$30,096
BG 3, CT 9519.01	65%	1%	17%	9%	10%	1%	0%	7%	19.4%	$40,313

Block Group	Race and Ethnicity[a,b]								Percent of Residents in Poverty[a]	Median Household Income
	Asian	Black or African American	Native Hawaiian or Other Pacific Islander	Native Hawaiian or Other Pacific Islander--Chamorro	White	Hispanic or Latino	Some Other Race Alone	Multiple Races		
BG 4, CT 9519.01	61%	1%	24%	14%	6%	1%	0%	8%	23.6%	$39,432
BG 1, CT 9519.02	58%	0%	34%	7%	3%	0%	0%	4%	32.6%	$31,000
BG 2, CT 9519.02	56%	0%	38%	4%	1%	0%	0%	4%	45.8%	$24,464
BG 3, CT 9519.02	53%	1%	19%	15%	16%	3%	1%	7%	17.5%	$46,111
BG 4, CT 9519.02	54%	2%	15%	12%	18%	1%	1%	9%	15.5%	$52,500
BG 5, CT 9519.02	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
BG 1, CT 9522	53%	0%	34%	21%	2%	0%	1%	10%	24.5%	$39,375
BG 2, CT 9522	50%	0%	30%	20%	6%	0%	1%	13%	23.7%	$37,500
BG 3, CT 9522	56%	1%	29%	17%	3%	1%	0%	9%	18.6%	$47,321
BG 4, CT 9522	55%	1%	31%	18%	3%	0%	0%	10%	20.9%	$42,500
BG 1, CT 9523	50%	1%	27%	17%	10%	1%	1%	10%	15.7%	$49,167
BG 2, CT 9523	44%	1%	27%	18%	12%	1%	2%	13%	12.5%	$62,045
BG 3, CT 9523	26%	0%	57%	22%	4%	0%	0%	12%	42.5%	$35,417
BG 1, CT 9524	42%	1%	38%	20%	5%	0%	1%	12%	32.5%	$31,518
BG 2, CT 9524	30%	1%	52%	16%	7%	1%	0%	8%	37.0%	$32,188
BG 1, CT 9527	18%	0%	68%	65%	3%	0%	0%	10%	21.2%	$61,500
BG 2, CT 9527	18%	0%	68%	60%	4%	0%	0%	10%	14.2%	$53,594
BG 3, CT 9527	14%	0%	70%	62%	5%	0%	1%	10%	18.0%	$62,857
BG 4, CT 9527	17%	0%	62%	52%	12%	0%	0%	8%	17.3%	$65,000
BG 5, CT 9527	35%	0%	50%	32%	6%	0%	0%	8%	28.6%	$45,000
BG 1, CT 9528	0%	0%	67%	67%	17%	0%	0%	17%	50.0%	$98,750
BG 2, CT 9528	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
BG 1, CT 9529	13%	4%	57%	43%	15%	2%	0%	10%	18.2%	$51,324
BG 2, CT 9529	12%	1%	75%	47%	3%	0%	0%	9%	35.4%	$35,288
BG 3, CT 9529	25%	0%	64%	22%	4%	0%	1%	6%	31.7%	$52,500
BG 4, CT 9529	17%	1%	68%	57%	5%	0%	0%	9%	19.7%	$56,406
BG 5, CT 9529	12%	0%	73%	54%	3%	0%	0%	12%	27.7%	$54,375
BG 6, CT 9529	29%	0%	59%	47%	2%	0%	0%	10%	21.5%	$56,071
BG 1, CT 9530	15%	1%	65%	40%	6%	0%	0%	12%	31.4%	$44,167

Block Group	Race and Ethnicity[a,b]								Percent of Residents in Poverty[a]	Median Household Income
	Asian	Black or African American	Native Hawaiian or Other Pacific Islander	Native Hawaiian or Other Pacific Islander--Chamorro	White	Hispanic or Latino	Some Other Race Alone	Multiple Races		
BG 2, CT 9530	16%	1%	65%	39%	8%	0%	0%	11%	20.2%	$60,750
BG 3, CT 9530	12%	1%	70%	60%	3%	1%	0%	13%	19.6%	$60,417
BG 4, CT 9530	20%	0%	63%	48%	4%	1%	1%	11%	29.5%	$40,147
BG 5, CT 9530	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
BG 1, CT 9531.01	14%	0%	65%	58%	9%	1%	0%	12%	11.2%	$65,893
BG 2, CT 9531.01	13%	1%	69%	61%	7%	0%	0%	10%	14.6%	$61,438
BG 3, CT 9531.01	21%	0%	64%	55%	4%	1%	0%	10%	23.1%	$51,625
BG 1, CT 9531.02	12%	1%	69%	63%	5%	1%	0%	11%	19.2%	$58,000
BG 2, CT 9531.02	15%	0%	64%	57%	9%	1%	0%	10%	21.5%	$45,682
BG 3, CT 9531.02	26%	0%	63%	46%	2%	0%	0%	8%	18.6%	$57,813
BG 1, CT 9532	15%	1%	66%	58%	6%	0%	0%	11%	16.1%	$58,125
BG 2, CT 9532	11%	0%	76%	69%	2%	0%	0%	10%	12.9%	$60,156
BG 3, CT 9532	14%	0%	72%	62%	5%	0%	0%	9%	27.4%	$43,750
BG 1, CT 9533	16%	0%	68%	60%	4%	0%	0%	11%	20.4%	$45,714
BG 2, CT 9533	40%	0%	44%	35%	2%	0%	0%	14%	17.6%	$45,000
BG 3, CT 9533	23%	0%	64%	54%	2%	1%	1%	9%	23.9%	$40,208
BG 4, CT 9533	20%	1%	61%	41%	6%	0%	0%	11%	33.6%	$34,015
BG 1, CT 9534	21%	1%	60%	42%	3%	0%	0%	15%	26.2%	$42,188
BG 2, CT 9534	19%	0%	62%	35%	5%	1%	0%	13%	35.3%	$33,393
BG 1, CT 9535	23%	9%	12%	12%	48%	6%	1%	1%	10.2%	$31,250
BG 1, CT 9536	11%	0%	77%	63%	2%	0%	0%	9%	25.9%	$56,667
BG 2, CT 9536	8%	1%	76%	57%	4%	0%	0%	10%	26.2%	$44,286
BG 3, CT 9536	12%	1%	72%	62%	6%	0%	0%	8%	14.2%	$57,500
BG 4, CT 9536	6%	0%	78%	74%	6%	1%	0%	8%	16.2%	$63,125
BG 5, CT 9536	11%	1%	63%	59%	9%	1%	0%	14%	10.4%	$48,125
BG 1, CT 9539	7%	0%	81%	68%	4%	0%	0%	8%	38.6%	$40,750
BG 2, CT 9539	7%	0%	79%	71%	4%	2%	0%	8%	15.5%	$57,417
BG 3, CT 9539	6%	0%	85%	73%	1%	1%	0%	6%	25.0%	$52,614
BG 4, CT 9539	8%	0%	75%	69%	9%	0%	0%	8%	20.1%	$57,917

Block Group	Race and Ethnicity[a,b]								Percent of Residents in Poverty[a]	Median Household Income
	Asian	Black or African American	Native Hawaiian or Other Pacific Islander	Native Hawaiian or Other Pacific Islander--Chamorro	White	Hispanic or Latino	Some Other Race Alone	Multiple Races		
BG 1, CT 9540	10%	1%	66%	60%	12%	1%	0%	10%	20.3%	$70,536
BG 2, CT 9540	15%	1%	59%	52%	12%	0%	1%	13%	10.1%	$81,250
BG 1, CT 9543	16%	3%	45%	42%	22%	1%	0%	14%	11.0%	$75,000
BG 2, CT 9543	6%	1%	75%	63%	7%	0%	0%	10%	24.2%	$50,500
BG 1, CT 9544	3%	5%	56%	46%	21%	6%	0%	10%	20.6%	$43,750
BG 2, CT 9544	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
BG 3, CT 9544	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
BG 4, CT 9544	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
BG 5, CT 9544	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
BG 6, CT 9544	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
BG 7, CT 9544	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
BG 1, CT 9545	8%	16%	1%	0%	59%	7%	1%	8%	16.0%	$38,750
BG 2, CT 9545	10%	8%	9%	5%	61%	6%	0%	6%	10.2%	$68,125
BG 3, CT 9545	6%	13%	9%	7%	54%	9%	1%	8%	12.3%	$44,643
BG 4, CT 9545	3%	7%	0%	0%	83%	2%	2%	4%	ND	ND
BG 5, CT 9545	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
BG 1, CT 9547	16%	1%	68%	63%	4%	0%	0%	11%	22.9%	$59,375
BG 2, CT 9547	22%	0%	69%	62%	1%	0%	0%	8%	20.0%	$50,000
BG 3, CT 9547	34%	1%	49%	45%	2%	1%	0%	13%	16.7%	$46,477
BG 1, CT 9548	15%	3%	69%	65%	5%	0%	0%	7%	38.0%	$35,000
BG 2, CT 9548	13%	0%	76%	53%	3%	0%	1%	7%	55.8%	$26,023
BG 3, CT 9548	40%	1%	43%	42%	3%	1%	0%	12%	14.3%	$52,656
BG 4, CT 9548	22%	1%	64%	62%	2%	0%	0%	10%	22.0%	$50,250
BG 1, CT 9551	8%	1%	61%	53%	17%	2%	0%	11%	14.1%	$67,500
BG 2, CT 9551	5%	1%	77%	75%	8%	0%	0%	10%	17.3%	$65,625
BG 3, CT 9551	7%	0%	81%	70%	6%	1%	0%	5%	29.4%	$53,438
BG 4, CT 9551	7%	0%	73%	70%	8%	1%	1%	11%	16.9%	$64,375
BG 1, CT 9552	2%	0%	84%	81%	8%	0%	0%	6%	13.8%	$60,000
BG 2, CT 9552	3%	0%	87%	81%	4%	0%	0%	5%	20.2%	$56,944

Block Group	Race and Ethnicity[a,b]								Percent of Residents in Poverty[a]	Median Household Income
	Asian	Black or African American	Native Hawaiian or Other Pacific Islander	Native Hawaiian or Other Pacific Islander--Chamorro	White	Hispanic or Latino	Some Other Race Alone	Multiple Races		
BG 3, CT 9552	5%	0%	84%	81%	3%	0%	0%	8%	17.1%	$52,308
BG 1, CT 9553	3%	0%	85%	81%	2%	0%	0%	10%	26.6%	$55,114
BG 2, CT 9553	5%	0%	78%	74%	4%	0%	0%	12%	22.1%	$58,000
BG 1, CT 9554	2%	1%	80%	75%	2%	0%	0%	15%	28.9%	$48,750
BG 1, CT 9556	26%	1%	60%	52%	4%	0%	0%	9%	17.3%	$68,333
BG 2, CT 9556	11%	0%	76%	65%	2%	0%	0%	11%	30.2%	$48,750
BG 1, CT 9557	19%	0%	68%	41%	3%	0%	0%	9%	34.1%	$41,161
BG 2, CT 9557	15%	0%	79%	74%	0%	0%	0%	5%	66.7%	$16,250
BG 3, CT 9557	47%	1%	35%	25%	6%	0%	0%	11%	17.8%	$53,611
BG 4, CT 9557	39%	1%	39%	27%	7%	1%	0%	13%	15.2%	$69,583
BG 5, CT 9557	59%	1%	30%	15%	3%	0%	0%	7%	17.6%	$50,938
BG 6, CT 9557	32%	0%	57%	51%	2%	0%	0%	9%	28.1%	$41,625
BG 7, CT 9557	57%	0%	21%	14%	7%	0%	0%	14%	7.1%	$103,750
BG 1, CT 9558	47%	1%	43%	27%	3%	0%	0%	7%	29.5%	$40,417
BG 2, CT 9558	50%	0%	41%	9%	2%	0%	0%	7%	35.6%	$50,000
BG 3, CT 9558	50%	1%	36%	29%	5%	0%	0%	7%	8.1%	$61,458
BG 4, CT 9558	39%	1%	39%	32%	10%	1%	1%	10%	8.0%	$65,000
BG 5, CT 9558	53%	2%	34%	16%	5%	0%	0%	7%	21.8%	$41,071
BG 6, CT 9558	33%	1%	53%	40%	2%	0%	1%	10%	18.7%	$51,563
BG 7, CT 9558	39%	1%	47%	33%	3%	0%	0%	11%	22.3%	$50,938
BG 8, CT 9558	57%	1%	31%	17%	3%	0%	0%	9%	20.4%	$50,000
BG 9, CT 9558	54%	2%	24%	22%	11%	0%	0%	8%	14.2%	$57,045
BG 1, CT 9559	38%	3%	27%	23%	20%	1%	1%	9%	16.7%	$61,250
BG 2, CT 9559	44%	1%	26%	20%	15%	2%	2%	10%	7.8%	$72,159
BG 3, CT 9559	39%	3%	30%	14%	19%	2%	1%	6%	14.9%	$54,196
BG 1, CT 9560	15%	1%	70%	53%	4%	0%	0%	10%	22.9%	$46,625
BG 2, CT 9560	14%	0%	71%	42%	3%	1%	0%	10%	46.6%	$33,000
BG 1, CT 9561	8%	0%	73%	67%	6%	1%	0%	12%	18.7%	$53,250
BG 2, CT 9561	10%	3%	18%	18%	50%	3%	0%	15%	6.6%	$76,250

Block Group	Race and Ethnicity[a,b]								Percent of Residents in Poverty[a]	Median Household Income
	Asian	Black or African American	Native Hawaiian or Other Pacific Islander	Native Hawaiian or Other Pacific Islander--Chamorro	White	Hispanic or Latino	Some Other Race Alone	Multiple Races		
BG 3, CT 9561	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
BG 4, CT 9561	10%	0%	61%	54%	13%	1%	1%	14%	19.7%	$59,107
BG 1, CT 9562	26%	1%	56%	54%	9%	1%	0%	8%	15.7%	$61,389
BG 2, CT 9562	25%	0%	58%	56%	8%	0%	1%	7%	13.1%	$64,063
BG 3, CT 9562	13%	5%	6%	5%	63%	0%	1%	12%	1.1%	$96,250
BG 4, CT 9562	33%	0%	50%	46%	3%	0%	0%	13%	17.9%	$56,250
BG 5, CT 9562	14%	0%	66%	63%	6%	0%	0%	13%	21.3%	$53,438
BG 6, CT 9562	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
BG 1, CT 9563	11%	0%	63%	33%	7%	0%	0%	19%	51.9%	$23,750
BG 2, CT 9563	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
BG 3, CT 9563	100%	0%	0%	0%	0%	0%	0%	0%	9.7%	$-
BG 4, CT 9563	34%	1%	50%	38%	4%	0%	1%	10%	12.7%	$56,094
BG 5, CT 9563	26%	0%	59%	28%	3%	1%	0%	11%	36.9%	$40,893
BG 1, CT 9801	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
BG 1, CT 9802	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
BG 1, CT 9803	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
BG 1, CT 9804	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
BG 0, CT 9900	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
BG 1, CT 9501	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
BG 2, CT 9501	6%	18%	1%	1%	59%	11%	2%	5%	0.0%	$26,250
BG 3, CT 9501	13%	7%	7%	4%	56%	5%	1%	10%	7.3%	$63,333
BG 4, CT 9501	15%	10%	6%	5%	53%	8%	1%	7%	5.8%	$52,500
BG 5, CT 9501	14%	8%	6%	4%	51%	9%	0%	11%	11.5%	$44,063
BG 1, CT 9502	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
BG 2, CT 9502	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
BG 3, CT 9502	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
BG 4, CT 9502	10%	9%	11%	7%	49%	7%	0%	13%	11.7%	$40,417
BG 5, CT 9502	5%	3%	9%	9%	63%	6%	2%	13%	13.2%	$37,000
BG 1, CT 9503	0%	0%	50%	50%	50%	0%	0%	0%	100.0%	$11,250

Block Group	Race and Ethnicity[a,b]								Percent of Residents in Poverty[a]	Median Household Income
	Asian	Black or African American	Native Hawaiian or Other Pacific Islander	Native Hawaiian or Other Pacific Islander--Chamorro	White	Hispanic or Latino	Some Other Race Alone	Multiple Races		
BG 2, CT 9503	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
BG 3, CT 9503	0%	0%	60%	60%	0%	0%	0%	40%	100.0%	$23,750
BG 4, CT 9503	20%	24%	9%	9%	34%	1%	0%	12%	5.0%	$51,250
BG 5, CT 9503	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
BG 6, CT 9503	0%	56%	0%	0%	44%	0%	0%	0%	0.0%	$98,750
BG 7, CT 9503	25%	11%	5%	4%	40%	10%	2%	7%	13.7%	$51,250
BG 8, CT 9503	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
BG 9, CT 9503	0%	0%	78%	78%	0%	0%	22%	0%	50.0%	$41,250
BG 1, CT 9504.01	71%	0%	20%	13%	1%	0%	0%	7%	22.0%	$44,107
BG 2, CT 9504.01	76%	0%	17%	12%	1%	0%	0%	5%	17.9%	$46,458
BG 3, CT 9504.01	66%	1%	26%	14%	2%	0%	0%	6%	24.0%	$40,833
BG 4, CT 9504.01	57%	0%	33%	27%	2%	0%	0%	7%	24.3%	$45,000
BG 5, CT 9504.01	51%	0%	35%	18%	3%	0%	0%	10%	35.5%	$35,417
BG 6, CT 9504.01	46%	0%	45%	24%	1%	0%	0%	7%	30.0%	$37,404
BG 1, CT 9504.02	67%	0%	25%	14%	1%	0%	0%	7%	18.7%	$50,682
BG 2, CT 9504.02	44%	1%	41%	18%	3%	0%	0%	10%	29.8%	$51,094
BG 3, CT 9504.02	32%	1%	52%	37%	5%	1%	0%	9%	31.3%	$36,607
BG 1, CT 9505.01	19%	0%	67%	53%	3%	0%	0%	11%	34.0%	$38,214
BG 2, CT 9505.01	33%	0%	59%	14%	2%	0%	0%	5%	43.7%	$33,000
BG 1, CT 9505.02	55%	0%	38%	20%	1%	0%	1%	5%	29.6%	$41,094
BG 2, CT 9505.02	47%	0%	40%	23%	4%	1%	0%	9%	23.0%	$41,875
BG 3, CT 9505.02	51%	0%	37%	29%	1%	1%	0%	9%	23.8%	$49,375
BG 4, CT 9505.02	59%	0%	32%	21%	3%	0%	0%	6%	19.2%	$46,563
BG 5, CT 9505.02	35%	0%	53%	37%	4%	0%	0%	8%	27.9%	$41,161
BG 1, CT 9507.01	38%	5%	19%	13%	23%	3%	1%	12%	10.5%	$61,250
BG 2, CT 9507.01	51%	1%	29%	19%	6%	0%	1%	13%	23.2%	$57,500
BG 3, CT 9507.01	27%	0%	58%	49%	5%	0%	0%	10%	22.8%	$49,792
BG 4, CT 9507.01	50%	0%	38%	31%	2%	0%	0%	10%	27.7%	$38,750
BG 5, CT 9507.01	46%	1%	43%	31%	2%	0%	0%	8%	25.0%	$43,125

Block Group	Race and Ethnicity[a,b]								Percent of Residents in Poverty[a]	Median Household Income
	Asian	Black or African American	Native Hawaiian or Other Pacific Islander	Native Hawaiian or Other Pacific Islander--Chamorro	White	Hispanic or Latino	Some Other Race Alone	Multiple Races		
BG 6, CT 9507.01	52%	0%	34%	26%	4%	1%	0%	10%	22.4%	$45,179
BG 7, CT 9507.01	58%	0%	31%	21%	2%	0%	0%	8%	14.7%	$56,458
BG 1, CT 9507.02	25%	0%	65%	53%	2%	0%	0%	7%	35.4%	$29,821
BG 2, CT 9507.02	30%	0%	55%	36%	4%	1%	0%	10%	29.3%	$35,625
BG 3, CT 9507.02	50%	1%	35%	27%	5%	0%	0%	8%	21.1%	$51,563
BG 4, CT 9507.02	36%	0%	53%	31%	2%	0%	0%	8%	32.2%	$42,679
BG 5, CT 9507.02	42%	1%	43%	38%	1%	0%	0%	13%	18.2%	$54,375
BG 1, CT 9508.01	20%	0%	68%	56%	2%	0%	0%	10%	41.1%	$32,708
BG 2, CT 9508.01	40%	0%	52%	37%	1%	0%	0%	6%	24.5%	$47,083
BG 3, CT 9508.01	30%	0%	57%	44%	3%	1%	0%	9%	29.4%	$41,705
BG 4, CT 9508.01	25%	0%	67%	60%	2%	0%	0%	7%	36.8%	$35,938
BG 1, CT 9508.02	30%	0%	55%	37%	2%	1%	0%	12%	34.5%	$35,000
BG 2, CT 9508.02	44%	1%	42%	32%	2%	0%	0%	11%	17.1%	$54,375
BG 3, CT 9508.02	29%	0%	58%	25%	2%	0%	0%	11%	30.9%	$36,563
BG 4, CT 9508.02	22%	0%	65%	42%	4%	0%	0%	8%	49.6%	$30,625
BG 1, CT 9509	49%	1%	30%	17%	9%	1%	1%	10%	23.1%	$39,205
BG 2, CT 9509	59%	0%	30%	25%	2%	1%	0%	8%	16.5%	$48,889
BG 3, CT 9509	52%	0%	34%	28%	1%	0%	0%	12%	24.0%	$55,625
BG 4, CT 9509	61%	0%	27%	22%	2%	0%	0%	10%	14.0%	$62,679
BG 5, CT 9509	55%	0%	33%	23%	3%	0%	0%	7%	22.9%	$39,821
BG 6, CT 9509	69%	0%	22%	13%	1%	0%	0%	8%	19.5%	$52,750
BG 7, CT 9509	54%	0%	40%	31%	1%	0%	0%	6%	15.6%	$45,750
BG 1, CT 9510	57%	0%	32%	23%	1%	0%	0%	10%	11.8%	$47,250
BG 2, CT 9510	45%	0%	48%	37%	1%	0%	0%	6%	16.3%	$51,250
BG 3, CT 9510	41%	0%	47%	37%	1%	0%	0%	11%	21.8%	$50,000
BG 4, CT 9510	13%	0%	72%	71%	1%	0%	0%	13%	20.5%	$67,500
BG 5, CT 9510	36%	0%	50%	31%	1%	0%	0%	13%	25.9%	$37,031
BG 6, CT 9510	61%	0%	32%	26%	1%	0%	0%	6%	13.2%	$49,107
BG 7, CT 9510	39%	1%	51%	38%	1%	0%	0%	8%	37.6%	$29,167

Block Group	Race and Ethnicity[a,b]								Percent of Residents in Poverty[a]	Median Household Income
	Asian	Black or African American	Native Hawaiian or Other Pacific Islander	Native Hawaiian or Other Pacific Islander--Chamorro	White	Hispanic or Latino	Some Other Race Alone	Multiple Races		
BG 8, CT 9510	69%	0%	21%	11%	2%	0%	0%	8%	15.4%	$51,250
BG 1, CT 9511	57%	1%	26%	17%	5%	0%	1%	10%	19.0%	$47,143
BG 2, CT 9511	57%	1%	26%	18%	4%	1%	0%	11%	17.9%	$56,429
BG 3, CT 9511	39%	0%	55%	19%	1%	0%	0%	6%	31.6%	$36,944
BG 4, CT 9511	34%	0%	53%	35%	2%	0%	0%	10%	34.3%	$36,250
BG 5, CT 9511	50%	1%	37%	25%	2%	0%	0%	9%	26.2%	$39,464
BG 6, CT 9511	48%	1%	40%	25%	2%	1%	0%	8%	25.8%	$45,956
BG 1, CT 9516	13%	0%	83%	52%	0%	0%	0%	4%	30.0%	$53,750
BG 2, CT 9516	33%	7%	33%	33%	0%	0%	0%	27%	13.3%	$51,250
BG 3, CT 9516	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
BG 1, CT 9517	37%	1%	37%	31%	12%	2%	1%	10%	11.1%	$91,250
BG 2, CT 9517	45%	0%	39%	26%	5%	0%	0%	10%	27.5%	$54,167
BG 1, CT 9518	10%	0%	79%	56%	3%	1%	1%	7%	20.9%	$52,917
BG 1, CT 9519.01	43%	1%	42%	7%	3%	0%	0%	11%	45.3%	$30,568
BG 2, CT 9519.01	62%	0%	25%	13%	4%	1%	1%	6%	30.6%	$30,096
BG 3, CT 9519.01	65%	1%	17%	9%	10%	1%	0%	7%	19.4%	$40,313
BG 4, CT 9519.01	61%	1%	24%	14%	6%	1%	0%	8%	23.6%	$39,432
BG 1, CT 9519.02	58%	0%	34%	7%	3%	0%	0%	4%	32.6%	$31,000
BG 2, CT 9519.02	56%	0%	38%	4%	1%	0%	0%	4%	45.8%	$24,464
BG 3, CT 9519.02	53%	1%	19%	15%	16%	3%	1%	7%	17.5%	$46,111
BG 4, CT 9519.02	54%	2%	15%	12%	18%	1%	1%	9%	15.5%	$52,500
BG 5, CT 9519.02	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
BG 1, CT 9522	53%	0%	34%	21%	2%	0%	1%	10%	24.5%	$39,375
BG 2, CT 9522	50%	0%	30%	20%	6%	0%	1%	13%	23.7%	$37,500
BG 3, CT 9522	56%	1%	29%	17%	3%	1%	0%	9%	18.6%	$47,321
BG 4, CT 9522	55%	1%	31%	18%	3%	0%	0%	10%	20.9%	$42,500
BG 1, CT 9523	50%	1%	27%	17%	10%	1%	1%	10%	15.7%	$49,167
BG 2, CT 9523	44%	1%	27%	18%	12%	1%	2%	13%	12.5%	$62,045
BG 3, CT 9523	26%	0%	57%	22%	4%	0%	0%	12%	42.5%	$35,417

Block Group	Race and Ethnicity[a,b]								Percent of Residents in Poverty[a]	Median Household Income
	Asian	Black or African American	Native Hawaiian or Other Pacific Islander	Native Hawaiian or Other Pacific Islander--Chamorro	White	Hispanic or Latino	Some Other Race Alone	Multiple Races		
BG 1, CT 9524	42%	1%	38%	20%	5%	0%	1%	12%	32.5%	$31,518
BG 2, CT 9524	30%	1%	52%	16%	7%	1%	0%	8%	37.0%	$32,188
BG 1, CT 9527	18%	0%	68%	65%	3%	0%	0%	10%	21.2%	$61,500
BG 2, CT 9527	18%	0%	68%	60%	4%	0%	0%	10%	14.2%	$53,594
BG 3, CT 9527	14%	0%	70%	62%	5%	0%	1%	10%	18.0%	$62,857
BG 4, CT 9527	17%	0%	62%	52%	12%	0%	0%	8%	17.3%	$65,000
BG 5, CT 9527	35%	0%	50%	32%	6%	0%	0%	8%	28.6%	$45,000
BG 1, CT 9528	0%	0%	67%	67%	17%	0%	0%	17%	50.0%	$98,750
BG 2, CT 9528	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
BG 1, CT 9529	13%	4%	57%	43%	15%	2%	0%	10%	18.2%	$51,324
BG 2, CT 9529	12%	1%	75%	47%	3%	0%	0%	9%	35.4%	$35,288
BG 3, CT 9529	25%	0%	64%	22%	4%	0%	1%	6%	31.7%	$52,500
BG 4, CT 9529	17%	1%	68%	57%	5%	0%	0%	9%	19.7%	$56,406
BG 5, CT 9529	12%	0%	73%	54%	3%	0%	0%	12%	27.7%	$54,375
BG 6, CT 9529	29%	0%	59%	47%	2%	0%	0%	10%	21.5%	$56,071
BG 1, CT 9530	15%	1%	65%	40%	6%	0%	0%	12%	31.4%	$44,167
BG 2, CT 9530	16%	1%	65%	39%	8%	0%	0%	11%	20.2%	$60,750
BG 3, CT 9530	12%	1%	70%	60%	3%	1%	0%	13%	19.6%	$60,417
BG 4, CT 9530	20%	0%	63%	48%	4%	1%	1%	11%	29.5%	$40,147
BG 5, CT 9530	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
BG 1, CT 9531.01	14%	0%	65%	58%	9%	1%	0%	12%	11.2%	$65,893
BG 2, CT 9531.01	13%	1%	69%	61%	7%	0%	0%	10%	14.6%	$61,438
BG 3, CT 9531.01	21%	0%	64%	55%	4%	1%	0%	10%	23.1%	$51,625
BG 1, CT 9531.02	12%	1%	69%	63%	5%	1%	0%	11%	19.2%	$58,000
BG 2, CT 9531.02	15%	0%	64%	57%	9%	1%	0%	10%	21.5%	$45,682
BG 3, CT 9531.02	26%	0%	63%	46%	2%	0%	0%	8%	18.6%	$57,813
BG 1, CT 9532	15%	1%	66%	58%	6%	0%	0%	11%	16.1%	$58,125
BG 2, CT 9532	11%	0%	76%	69%	2%	0%	0%	10%	12.9%	$60,156
BG 3, CT 9532	14%	0%	72%	62%	5%	0%	0%	9%	27.4%	$43,750

Block Group	Race and Ethnicity[a,b]								Percent of Residents in Poverty[a]	Median Household Income
	Asian	Black or African American	Native Hawaiian or Other Pacific Islander	Native Hawaiian or Other Pacific Islander--Chamorro	White	Hispanic or Latino	Some Other Race Alone	Multiple Races		
BG 1, CT 9533	16%	0%	68%	60%	4%	0%	0%	11%	20.4%	$45,714
BG 2, CT 9533	40%	0%	44%	35%	2%	0%	0%	14%	17.6%	$45,000
BG 3, CT 9533	23%	0%	64%	54%	2%	1%	1%	9%	23.9%	$40,208
BG 4, CT 9533	20%	1%	61%	41%	6%	0%	0%	11%	33.6%	$34,015
BG 1, CT 9534	21%	1%	60%	42%	3%	0%	0%	15%	26.2%	$42,188
BG 2, CT 9534	19%	0%	62%	35%	5%	1%	0%	13%	35.3%	$33,393
BG 1, CT 9535	23%	9%	12%	12%	48%	6%	1%	1%	10.2%	$31,250
BG 1, CT 9536	11%	0%	77%	63%	2%	0%	0%	9%	25.9%	$56,667
BG 2, CT 9536	8%	1%	76%	57%	4%	0%	0%	10%	26.2%	$44,286
BG 3, CT 9536	12%	1%	72%	62%	6%	0%	0%	8%	14.2%	$57,500
BG 4, CT 9536	6%	0%	78%	74%	6%	1%	0%	8%	16.2%	$63,125
BG 5, CT 9536	11%	1%	63%	59%	9%	1%	0%	14%	10.4%	$48,125
BG 1, CT 9539	7%	0%	81%	68%	4%	0%	0%	8%	38.6%	$40,750
BG 2, CT 9539	7%	0%	79%	71%	4%	2%	0%	8%	15.5%	$57,417
BG 3, CT 9539	6%	0%	85%	73%	1%	1%	0%	6%	25.0%	$52,614
BG 4, CT 9539	8%	0%	75%	69%	9%	0%	0%	8%	20.1%	$57,917
BG 1, CT 9540	10%	1%	66%	60%	12%	1%	0%	10%	20.3%	$70,536
BG 2, CT 9540	15%	1%	59%	52%	12%	0%	1%	13%	10.1%	$81,250
BG 1, CT 9543	16%	3%	45%	42%	22%	1%	0%	14%	11.0%	$75,000
BG 2, CT 9543	6%	1%	75%	63%	7%	0%	0%	10%	24.2%	$50,500
BG 1, CT 9544	3%	5%	56%	46%	21%	6%	0%	10%	20.6%	$43,750
BG 2, CT 9544	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
BG 3, CT 9544	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
BG 4, CT 9544	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
BG 5, CT 9544	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
BG 6, CT 9544	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
BG 7, CT 9544	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
BG 1, CT 9545	8%	16%	1%	0%	59%	7%	1%	8%	16.0%	$38,750
BG 2, CT 9545	10%	8%	9%	5%	61%	6%	0%	6%	10.2%	$68,125

Block Group	Race and Ethnicity[a,b]								Percent of Residents in Poverty[a]	Median Household Income
	Asian	Black or African American	Native Hawaiian or Other Pacific Islander	Native Hawaiian or Other Pacific Islander--Chamorro	White	Hispanic or Latino	Some Other Race Alone	Multiple Races		
BG 3, CT 9545	6%	13%	9%	7%	54%	9%	1%	8%	12.3%	$44,643
BG 4, CT 9545	3%	7%	0%	0%	83%	2%	2%	4%	ND	ND
BG 5, CT 9545	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
BG 1, CT 9547	16%	1%	68%	63%	4%	0%	0%	11%	22.9%	$59,375
BG 2, CT 9547	22%	0%	69%	62%	1%	0%	0%	8%	20.0%	$50,000
BG 3, CT 9547	34%	1%	49%	45%	2%	1%	0%	13%	16.7%	$46,477
BG 1, CT 9548	15%	3%	69%	65%	5%	0%	0%	7%	38.0%	$35,000
BG 2, CT 9548	13%	0%	76%	53%	3%	0%	1%	7%	55.8%	$26,023
BG 3, CT 9548	40%	1%	43%	42%	3%	1%	0%	12%	14.3%	$52,656
BG 4, CT 9548	22%	1%	64%	62%	2%	0%	0%	10%	22.0%	$50,250
BG 1, CT 9551	8%	1%	61%	53%	17%	2%	0%	11%	14.1%	$67,500
BG 2, CT 9551	5%	1%	77%	75%	8%	0%	0%	10%	17.3%	$65,625
BG 3, CT 9551	7%	0%	81%	70%	6%	1%	0%	5%	29.4%	$53,438
BG 4, CT 9551	7%	0%	73%	70%	8%	1%	1%	11%	16.9%	$64,375
BG 1, CT 9552	2%	0%	84%	81%	8%	0%	0%	6%	13.8%	$60,000
BG 2, CT 9552	3%	0%	87%	81%	4%	0%	0%	5%	20.2%	$56,944
BG 3, CT 9552	5%	0%	84%	81%	3%	0%	0%	8%	17.1%	$52,308
BG 1, CT 9553	3%	0%	85%	81%	2%	0%	0%	10%	26.6%	$55,114
BG 2, CT 9553	5%	0%	78%	74%	4%	0%	0%	12%	22.1%	$58,000
BG 1, CT 9554	2%	1%	80%	75%	2%	0%	0%	15%	28.9%	$48,750
BG 1, CT 9556	26%	1%	60%	52%	4%	0%	0%	9%	17.3%	$68,333
BG 2, CT 9556	11%	0%	76%	65%	2%	0%	0%	11%	30.2%	$48,750
BG 1, CT 9557	19%	0%	68%	41%	3%	0%	0%	9%	34.1%	$41,161
BG 2, CT 9557	15%	0%	79%	74%	0%	0%	0%	5%	66.7%	$16,250
BG 3, CT 9557	47%	1%	35%	25%	6%	0%	0%	11%	17.8%	$53,611
BG 4, CT 9557	39%	1%	39%	27%	7%	1%	0%	13%	15.2%	$69,583
BG 5, CT 9557	59%	1%	30%	15%	3%	0%	0%	7%	17.6%	$50,938
BG 6, CT 9557	32%	0%	57%	51%	2%	0%	0%	9%	28.1%	$41,625
BG 7, CT 9557	57%	0%	21%	14%	7%	0%	0%	14%	7.1%	$103,750

Block Group	Race and Ethnicity[a,b]								Percent of Residents in Poverty[a]	Median Household Income
	Asian	Black or African American	Native Hawaiian or Other Pacific Islander	Native Hawaiian or Other Pacific Islander--Chamorro	White	Hispanic or Latino	Some Other Race Alone	Multiple Races		
BG 1, CT 9558	47%	1%	43%	27%	3%	0%	0%	7%	29.5%	$40,417
BG 2, CT 9558	50%	0%	41%	9%	2%	0%	0%	7%	35.6%	$50,000
BG 3, CT 9558	50%	1%	36%	29%	5%	0%	0%	7%	8.1%	$61,458
BG 4, CT 9558	39%	1%	39%	32%	10%	1%	1%	10%	8.0%	$65,000
BG 5, CT 9558	53%	2%	34%	16%	5%	0%	0%	7%	21.8%	$41,071
BG 6, CT 9558	33%	1%	53%	40%	2%	0%	1%	10%	18.7%	$51,563
BG 7, CT 9558	39%	1%	47%	33%	3%	0%	0%	11%	22.3%	$50,938
BG 8, CT 9558	57%	1%	31%	17%	3%	0%	0%	9%	20.4%	$50,000
BG 9, CT 9558	54%	2%	24%	22%	11%	0%	0%	8%	14.2%	$57,045
BG 1, CT 9559	38%	3%	27%	23%	20%	1%	1%	9%	16.7%	$61,250
BG 2, CT 9559	44%	1%	26%	20%	15%	2%	2%	10%	7.8%	$72,159
BG 3, CT 9559	39%	3%	30%	14%	19%	2%	1%	6%	14.9%	$54,196
BG 1, CT 9560	15%	1%	70%	53%	4%	0%	0%	10%	22.9%	$46,625
BG 2, CT 9560	14%	0%	71%	42%	3%	1%	0%	10%	46.6%	$33,000
BG 1, CT 9561	8%	0%	73%	67%	6%	1%	0%	12%	18.7%	$53,250
BG 2, CT 9561	10%	3%	18%	18%	50%	3%	0%	15%	6.6%	$76,250
BG 3, CT 9561	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
BG 4, CT 9561	10%	0%	61%	54%	13%	1%	1%	14%	19.7%	$59,107
BG 1, CT 9562	26%	1%	56%	54%	9%	1%	0%	8%	15.7%	$61,389
BG 2, CT 9562	25%	0%	58%	56%	8%	0%	1%	7%	13.1%	$64,063
BG 3, CT 9562	13%	5%	6%	5%	63%	0%	1%	12%	1.1%	$96,250
BG 4, CT 9562	33%	0%	50%	46%	3%	0%	0%	13%	17.9%	$56,250
BG 5, CT 9562	14%	0%	66%	63%	6%	0%	0%	13%	21.3%	$53,438
BG 6, CT 9562	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
BG 1, CT 9563	11%	0%	63%	33%	7%	0%	0%	19%	51.9%	$23,750
BG 2, CT 9563	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
BG 3, CT 9563	100%	0%	0%	0%	0%	0%	0%	0%	9.7%	$-
BG 4, CT 9563	34%	1%	50%	38%	4%	0%	1%	10%	12.7%	$56,094
BG 5, CT 9563	26%	0%	59%	28%	3%	1%	0%	11%	36.9%	$40,893

Block Group	Race and Ethnicity[a,b]								Percent of Residents in Poverty[a]	Median Household Income
	Asian	Black or African American	Native Hawaiian or Other Pacific Islander	Native Hawaiian or Other Pacific Islander--Chamorro	White	Hispanic or Latino	Some Other Race Alone	Multiple Races		
BG 1, CT 9801	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
BG 1, CT 9802	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
BG 1, CT 9803	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
BG 1, CT 9804	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
BG 0, CT 9900	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Territory-wide	32%	1%	49%	37%	7%	1%	0%	9%	22.9%	$48,274

Source: U.S. Census Bureau 2010

BG = Block Group; CT = Census Tract; ND = no data
[a] Totals may not add to 100 percent, due to rounding.
[b] For Guam, the U.S. Census Bureau did not distinguish between race and ethnicity.

Table 5: Block Group Demographic Data, Northern Mariana Islands, 2010

Block Group	Race and Ethnicity[a,b]								Percent of Residents in Poverty[a]	Median Household Income
	Asian	Black or African American	Native Hawaiian or Other Pacific Islander	Native Hawaiian or Other Pacific Islander--Chamorro	White	Hispanic or Latino	Some Other Race Alone	Multiple Races		
BG 1 CT 9501	32%	0%	55%	52%	4%	0%	0%	9%	42%	$22,083
BG 2 CT 9501	31%	0%	59%	56%	1%	0%	0%	9%	44%	$25,962
BG 3 CT 9501	43%	0%	47%	45%	1%	0%	0%	9%	47%	$21,167
BG 1 CT 1	27%	0%	40%	30%	8%	1%	0%	24%	40%	$31,591
BG 2 CT 1	54%	0%	31%	27%	2%	0%	0%	13%	53%	$21,094
BG 1 CT 2	27%	0%	45%	21%	1%	0%	0%	28%	56%	$19,609
BG 2 CT 2	39%	0%	33%	22%	4%	0%	0%	23%	48%	$24,750
BG 1 CT 3	46%	0%	32%	20%	5%	0%	0%	17%	40%	$23,864
BG 2 CT 3	62%	0%	21%	16%	8%	0%	0%	8%	42%	$28,229
BG 1 CT 4	83%	0%	11%	6%	1%	0%	0%	5%	65%	$14,127
BG 2 CT 4	73%	0%	15%	9%	2%	0%	0%	11%	50%	$18,542
BG 1 CT 5	77%	0%	16%	8%	0%	0%	0%	6%	60%	$18,000
BG 2 CT 5	42%	0%	39%	18%	3%	0%	0%	16%	50%	$21,793
BG 1 CT 6	65%	0%	22%	14%	3%	0%	0%	10%	56%	$17,083
BG 2 CT 6	76%	0%	15%	8%	3%	0%	0%	5%	53%	$17,422
BG 3 CT 6	59%	0%	31%	22%	3%	0%	0%	8%	36%	$27,292
BG 1 CT 7	56%	0%	26%	5%	1%	0%	0%	17%	55%	$18,333
BG 2 CT 7	59%	0%	31%	16%	1%	0%	0%	8%	49%	$21,667
BG 3 CT 7	73%	0%	18%	5%	0%	0%	0%	8%	69%	$14,783
BG 1 CT 8	25%	0%	60%	8%	1%	0%	0%	14%	69%	$14,500
BG 2 CT 8	70%	0%	20%	15%	1%	0%	0%	8%	61%	$16,875
BG 1 CT 9	63%	0%	24%	16%	1%	0%	1%	11%	63%	$14,293
BG 2 CT 9	61%	0%	26%	12%	0%	0%	1%	12%	67%	$14,201
BG 3 CT 9	67%	0%	22%	15%	0%	0%	1%	10%	61%	$15,156
BG 1 CT 10	46%	0%	41%	25%	1%	0%	0%	12%	61%	$18,750
BG 2 CT 10	64%	0%	25%	20%	1%	0%	0%	10%	51%	$20,089
BG 1 CT 11	69%	0%	19%	16%	1%	0%	1%	10%	62%	$15,603
BG 1 CT 12	58%	0%	27%	16%	3%	0%	0%	12%	68%	$12,414

Block Group	Race and Ethnicity[a,b]								Percent of Residents in Poverty[a]	Median Household Income
	Asian	Black or African American	Native Hawaiian or Other Pacific Islander	Native Hawaiian or Other Pacific Islander--Chamorro	White	Hispanic or Latino	Some Other Race Alone	Multiple Races		
BG 2 CT 12	62%	0%	29%	21%	0%	0%	0%	8%	68%	$14,549
BG 1 CT 13	40%	0%	43%	21%	1%	0%	0%	16%	60%	$19,922
BG 2 CT 13	44%	0%	38%	18%	1%	0%	0%	17%	60%	$17,321
BG 3 CT 13	40%	0%	48%	34%	0%	0%	0%	11%	43%	$24,000
BG 1 CT 14	47%	0%	40%	26%	1%	0%	0%	11%	49%	$25,750
BG 2 CT 14	29%	0%	53%	36%	1%	0%	0%	17%	42%	$24,464
BG 3 CT 14	28%	0%	54%	34%	1%	0%	0%	17%	52%	$24,145
BG 1 CT 15	35%	1%	35%	31%	13%	0%	1%	15%	34%	$36,250
BG 2 CT 15	61%	0%	28%	24%	1%	0%	0%	10%	51%	$21,467
BG 3 CT 15	52%	0%	34%	32%	3%	0%	0%	10%	36%	$31,389
BG 4 CT 15	37%	0%	50%	36%	4%	0%	0%	9%	44%	$27,917
BG 5 CT 15	56%	0%	30%	23%	4%	0%	0%	10%	53%	$22,321
BG 1 CT 16	14%	0%	65%	43%	0%	0%	0%	21%	45%	$26,500
BG 2 CT 16	13%	0%	61%	42%	1%	0%	0%	25%	50%	$27,552
BG 1 CT 17	34%	0%	39%	29%	8%	0%	0%	19%	47%	$19,444
BG 2 CT 17	19%	0%	55%	45%	8%	1%	0%	18%	34%	$41,667
BG 3 CT 17	30%	1%	40%	35%	13%	0%	0%	16%	27%	$47,500
BG 4 CT 17	36%	1%	42%	25%	8%	0%	0%	14%	32%	$35,125
BG 1 CT 9502.01	64%	0%	24%	23%	1%	0%	1%	10%	55%	$22,750
BG 2 CT 9502.01	59%	0%	29%	28%	2%	0%	0%	9%	45%	$18,750
BG 3 CT 9502.01	54%	1%	32%	31%	3%	0%	0%	10%	41%	$22,857
BG 1 CT 9501.02	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
BG 1 CT 9502	22%	0%	64%	64%	1%	0%	0%	13%	40%	$28,250
BG 2 CT 9502	29%	0%	50%	48%	3%	1%	0%	17%	36%	$33,056
BG 3 CT 9502	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Commonwealth-wide	50%	0%	35%		2%	0%	0%	13%	52%	$19,958

Source: U.S. Census Bureau 2010

BG = Block Group; CT = Census Tract; ND = no data

[a] Totals may not add to 100 percent, due to rounding.

[b] For Commonwealth of North Mariana Islands, the U.S. Census Bureau did not distinguish between race and ethnicity.

Table 6: Block Group Demographic Data, Puerto Rico

Block Group	Race (Percent)[a]							Ethnicity (Percent)[a]		Percent of Residents in Poverty[a]	Median Household Income
	White	Black or African American	American Indian or Alaska Native	Asian	Native Hawaiian or Other Pacific Islander	Some Other Race Alone	Multiple Races	Not Hispanic or Latino	Hispanic or Latino		
BG 1, CT 9563	97%	0%	0%	0%	0%	2%	0%	2%	98%	64.0%	$9,288
BG 2, CT 9563	94%	1%	0%	0%	0%	5%	0%	1%	99%	60.7%	$11,406
BG 1, CT 9564	99%	0%	0%	0%	0%	1%	0%	1%	99%	65.1%	$10,083
BG 2, CT 9564	95%	0%	0%	0%	0%	5%	0%	1%	99%	60.5%	$11,750
BG 1, CT 9565	97%	2%	0%	0%	0%	2%	0%	0%	100%	62.1%	$8,071
BG 2, CT 9565	98%	0%	0%	0%	0%	2%	0%	1%	99%	62.4%	$13,000
BG 1, CT 9566	91%	1%	0%	0%	0%	6%	2%	0%	100%	56.8%	$13,030
BG 2, CT 9566	78%	2%	0%	0%	0%	16%	3%	0%	100%	64.6%	$9,428
BG 1, CT 9567	94%	4%	0%	0%	0%	1%	0%	0%	100%	56.8%	$14,375
BG 2, CT 9567	100%	0%	0%	0%	0%	0%	0%	0%	100%	47.8%	$11,786
BG 1, CT 9568	96%	0%	0%	0%	0%	4%	0%	0%	100%	53.9%	$17,614
BG 2, CT 9568	93%	0%	0%	0%	0%	6%	0%	0%	100%	61.8%	$11,693
BG 1, CT 4301	66%	12%	0%	0%	0%	3%	19%	3%	97%	47.8%	$18,882
BG 2, CT 4301	68%	3%	0%	0%	0%	1%	27%	6%	94%	51.7%	$18,278
BG 3, CT 4301	61%	10%	1%	0%	0%	0%	28%	0%	100%	29.4%	$26,719
BG 1, CT 4302	70%	2%	0%	0%	0%	0%	28%	0%	100%	64.1%	$16,597
BG 2, CT 4302	70%	7%	0%	0%	0%	5%	18%	0%	100%	35.9%	$15,625
BG 3, CT 4302	96%	3%	0%	0%	0%	1%	0%	0%	100%	9.6%	$34,261
BG 4, CT 4302	49%	0%	0%	0%	0%	0%	51%	5%	95%	66.4%	$13,050
BG 1, CT 4303	58%	0%	0%	0%	0%	0%	42%	5%	95%	45.0%	$15,972
BG 2, CT 4303	54%	5%	0%	0%	0%	3%	38%	11%	89%	74.2%	$5,833
BG 3, CT 4303	61%	4%	0%	0%	0%	4%	30%	2%	98%	71.4%	$6,313
BG 1, CT 4304.01	57%	2%	0%	0%	0%	5%	37%	6%	94%	77.0%	$11,279
BG 2, CT 4304.01	57%	1%	0%	0%	0%	5%	37%	11%	89%	48.4%	$15,516
BG 3, CT 4304.01	60%	9%	0%	0%	0%	4%	27%	7%	93%	63.3%	$15,703
BG 1, CT 4304.02	60%	4%	0%	0%	0%	0%	35%	4%	96%	66.0%	$12,386
BG 2, CT 4304.02	70%	4%	0%	0%	0%	7%	20%	1%	99%	68.7%	$12,572

Block Group	Race (Percent)[a]							Ethnicity (Percent)[a]		Percent of Residents in Poverty[a]	Median Household Income
	White	Black or African American	American Indian or Alaska Native	Asian	Native Hawaiian or Other Pacific Islander	Some Other Race Alone	Multiple Races	Not Hispanic or Latino	Hispanic or Latino		
BG 3, CT 4304.02	81%	8%	0%	0%	0%	0%	11%	8%	92%	63.5%	$16,098
BG 1, CT 4305.01	66%	2%	0%	0%	0%	3%	29%	9%	91%	74.0%	$14,894
BG 2, CT 4305.01	39%	2%	0%	0%	0%	3%	56%	15%	85%	63.1%	$14,226
BG 3, CT 4305.01	78%	2%	0%	0%	0%	0%	20%	5%	95%	22.8%	$30,474
BG 4, CT 4305.01	50%	3%	1%	0%	0%	4%	42%	16%	84%	35.0%	$19,770
BG 1, CT 4305.02	58%	4%	0%	0%	0%	7%	31%	10%	90%	52.0%	$20,962
BG 2, CT 4305.02	54%	4%	0%	3%	0%	7%	33%	6%	94%	50.4%	$14,074
BG 1, CT 4306.01	78%	0%	0%	0%	0%	0%	22%	1%	99%	58.6%	$14,131
BG 2, CT 4306.01	78%	3%	0%	0%	0%	2%	18%	6%	94%	50.4%	$16,838
BG 3, CT 4306.01	88%	0%	0%	0%	0%	7%	5%	3%	97%	66.0%	$14,406
BG 4, CT 4306.01	68%	0%	0%	0%	0%	4%	27%	16%	84%	80.9%	$9,028
BG 1, CT 4306.02	69%	1%	0%	0%	0%	0%	30%	4%	96%	73.5%	$10,000
BG 2, CT 4306.02	56%	2%	0%	1%	0%	5%	36%	14%	86%	21.6%	$33,875
BG 0, CT 9900	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
BG 1, CT 4001	92%	3%	0%	0%	0%	0%	4%	2%	98%	24.2%	$23,678
BG 2, CT 4001	48%	0%	0%	1%	0%	2%	49%	1%	99%	87.1%	$6,830
BG 3, CT 4001	76%	6%	0%	0%	0%	4%	13%	7%	93%	27.4%	$23,897
BG 4, CT 4001	70%	6%	0%	0%	0%	8%	16%	5%	95%	70.0%	$12,222
BG 5, CT 4001	69%	4%	0%	0%	0%	0%	27%	7%	93%	62.4%	$11,295
BG 1, CT 4003	86%	6%	0%	0%	0%	6%	2%	3%	97%	24.6%	$46,544
BG 2, CT 4003	87%	2%	0%	0%	0%	7%	4%	22%	78%	23.0%	$31,959
BG 1, CT 4004	80%	1%	0%	0%	0%	0%	18%	0%	100%	70.4%	$12,644
BG 2, CT 4004	89%	1%	0%	0%	0%	0%	10%	1%	99%	20.7%	$29,167
BG 3, CT 4004	91%	2%	0%	0%	0%	0%	7%	3%	97%	51.1%	$15,399
BG 1, CT 4005.01	86%	1%	0%	0%	0%	4%	8%	2%	98%	44.2%	$20,847
BG 2, CT 4005.01	87%	5%	0%	0%	0%	5%	3%	0%	100%	68.4%	$9,821
BG 1, CT 4005.02	87%	2%	0%	0%	0%	3%	7%	1%	99%	26.2%	$27,895
BG 2, CT 4005.02	72%	0%	0%	11%	0%	10%	7%	4%	96%	34.8%	$18,750
BG 3, CT 4005.02	73%	2%	0%	5%	0%	3%	16%	7%	93%	84.7%	$7,805

Block Group	Race (Percent)[a]							Ethnicity (Percent)[a]		Percent of Residents in Poverty[a]	Median Household Income
	White	Black or African American	American Indian or Alaska Native	Asian	Native Hawaiian or Other Pacific Islander	Some Other Race Alone	Multiple Races	Not Hispanic or Latino	Hispanic or Latino		
BG 1, CT 4006	82%	4%	1%	0%	0%	1%	12%	5%	95%	84.6%	$5,346
BG 2, CT 4006	92%	3%	0%	1%	0%	4%	0%	1%	99%	40.6%	$16,302
BG 3, CT 4006	82%	2%	0%	0%	0%	8%	8%	3%	97%	61.0%	$11,615
BG 1, CT 4007	90%	2%	0%	0%	0%	2%	7%	3%	97%	31.6%	$22,766
BG 2, CT 4007	95%	2%	0%	0%	0%	0%	3%	0%	100%	67.2%	$4,706
BG 3, CT 4007	81%	12%	0%	0%	0%	0%	6%	1%	99%	14.7%	$29,097
BG 1, CT 4008	84%	4%	0%	0%	0%	2%	9%	3%	97%	69.6%	$10,968
BG 2, CT 4008	64%	6%	0%	0%	0%	29%	0%	4%	96%	81.1%	$8,824
BG 1, CT 4009	85%	3%	0%	0%	0%	2%	10%	1%	99%	74.3%	$9,728
BG 2, CT 4009	41%	3%	0%	0%	0%	48%	7%	12%	88%	72.3%	$16,346
BG 1, CT 4010	79%	1%	0%	0%	0%	0%	20%	0%	100%	59.9%	$9,198
BG 2, CT 4010	88%	1%	0%	0%	0%	2%	9%	2%	98%	78.0%	$10,408
BG 1, CT 4011	77%	4%	0%	0%	0%	0%	19%	0%	100%	71.5%	$8,100
BG 1, CT 4012	71%	1%	0%	0%	0%	0%	27%	7%	93%	59.7%	$17,448
BG 2, CT 4012	55%	1%	0%	0%	0%	1%	43%	5%	95%	54.6%	$13,922
BG 1, CT 4013.01	63%	1%	0%	0%	0%	1%	36%	4%	96%	52.1%	$14,883
BG 2, CT 4013.01	78%	7%	1%	0%	0%	2%	12%	3%	97%	50.2%	$12,879
BG 3, CT 4013.01	67%	5%	0%	3%	0%	2%	23%	8%	92%	63.6%	$9,363
BG 1, CT 4013.02	79%	1%	0%	5%	0%	2%	14%	5%	95%	48.2%	$15,481
BG 2, CT 4013.02	58%	2%	0%	0%	0%	5%	35%	4%	96%	42.6%	$24,550
BG 3, CT 4013.02	55%	3%	0%	0%	0%	3%	39%	2%	98%	32.9%	$14,889
BG 4, CT 4013.02	74%	6%	0%	0%	0%	0%	20%	3%	97%	44.4%	$22,041
BG 1, CT 4014.01	79%	3%	0%	0%	0%	7%	12%	0%	100%	38.0%	$22,784
BG 2, CT 4014.01	65%	3%	0%	0%	0%	12%	21%	18%	82%	54.8%	$14,896
BG 3, CT 4014.01	80%	6%	0%	0%	0%	0%	14%	11%	89%	23.6%	$28,333
BG 1, CT 4014.02	45%	20%	0%	0%	0%	0%	35%	1%	99%	62.4%	$14,295
BG 2, CT 4014.02	75%	0%	0%	0%	0%	1%	24%	1%	99%	54.8%	$14,708
BG 3, CT 4014.02	69%	7%	0%	0%	0%	0%	24%	0%	100%	22.2%	$38,750
BG 4, CT 4014.02	87%	0%	0%	0%	0%	0%	13%	3%	97%	44.8%	$15,096

Block Group	Race (Percent)[a]							Ethnicity (Percent)[a]		Percent of Residents in Poverty[a]	Median Household Income
	White	Black or African American	American Indian or Alaska Native	Asian	Native Hawaiian or Other Pacific Islander	Some Other Race Alone	Multiple Races	Not Hispanic or Latino	Hispanic or Latino		
BG 0, CT 9900	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
BG 1, CT 2301	89%	0%	0%	0%	0%	3%	8%	0%	100%	48.5%	$17,958
BG 2, CT 2301	95%	1%	0%	0%	0%	0%	4%	0%	100%	64.3%	$9,365
BG 3, CT 2301	89%	9%	0%	0%	0%	0%	2%	7%	93%	29.7%	$21,094
BG 1, CT 2302	89%	1%	0%	0%	0%	1%	9%	2%	98%	40.0%	$19,229
BG 2, CT 2302	67%	10%	0%	0%	0%	2%	21%	2%	98%	68.5%	$13,958
BG 3, CT 2302	97%	0%	0%	0%	0%	2%	1%	0%	100%	45.4%	$13,887
BG 1, CT 2303	84%	6%	0%	0%	0%	1%	10%	0%	100%	68.8%	$7,500
BG 2, CT 2303	91%	2%	0%	0%	0%	2%	6%	0%	100%	38.6%	$15,385
BG 1, CT 2304	84%	3%	0%	0%	0%	4%	9%	0%	100%	72.7%	$8,115
BG 2, CT 2304	86%	9%	0%	0%	0%	0%	5%	0%	100%	62.3%	$15,670
BG 3, CT 2304	86%	2%	0%	0%	0%	0%	13%	0%	100%	55.3%	$12,692
BG 1, CT 2305.01	66%	7%	0%	0%	0%	4%	23%	1%	99%	46.4%	$15,801
BG 2, CT 2305.01	65%	4%	0%	0%	0%	2%	29%	0%	100%	59.7%	$15,662
BG 1, CT 2305.02	81%	3%	0%	0%	0%	0%	16%	0%	100%	53.9%	$22,661
BG 2, CT 2305.02	74%	1%	0%	0%	0%	0%	24%	1%	99%	38.6%	$21,765
BG 3, CT 2305.02	88%	8%	0%	0%	0%	0%	4%	1%	99%	78.7%	$8,319
BG 1, CT 2501	77%	13%	0%	0%	0%	6%	3%	0%	100%	38.7%	$19,128
BG 2, CT 2501	73%	12%	0%	0%	0%	15%	0%	1%	99%	38.2%	$14,334
BG 3, CT 2501	85%	8%	0%	0%	0%	6%	0%	0%	100%	31.6%	$18,977
BG 1, CT 2502	93%	1%	0%	0%	0%	5%	1%	0%	100%	47.1%	$16,944
BG 2, CT 2502	86%	5%	0%	0%	0%	8%	1%	0%	100%	38.3%	$26,004
BG 1, CT 2503	81%	13%	0%	0%	0%	6%	0%	1%	99%	61.3%	$14,050
BG 2, CT 2503	84%	10%	0%	0%	0%	6%	0%	0%	100%	53.2%	$14,784
BG 1, CT 2504	78%	7%	0%	0%	0%	15%	0%	0%	100%	72.7%	$8,566
BG 2, CT 2504	88%	4%	0%	0%	0%	7%	2%	0%	100%	51.0%	$14,063
BG 1, CT 2505	89%	2%	0%	0%	0%	7%	2%	0%	100%	32.8%	$21,397
BG 2, CT 2505	81%	7%	0%	0%	0%	10%	2%	0%	100%	42.4%	$19,572
BG 3, CT 2505	64%	17%	0%	0%	0%	20%	0%	0%	100%	80.6%	$11,013

Block Group	Race (Percent)[a]							Ethnicity (Percent)[a]		Percent of Residents in Poverty[a]	Median Household Income
	White	Black or African American	American Indian or Alaska Native	Asian	Native Hawaiian or Other Pacific Islander	Some Other Race Alone	Multiple Races	Not Hispanic or Latino	Hispanic or Latino		
BG 1, CT 2506	84%	6%	0%	0%	0%	11%	0%	1%	99%	64.8%	$10,225
BG 2, CT 2506	81%	2%	1%	2%	0%	13%	0%	1%	99%	46.0%	$15,372
BG 3, CT 2506	56%	10%	0%	0%	0%	34%	0%	1%	99%	56.5%	$13,931
BG 1, CT 8101	65%	7%	0%	0%	0%	24%	4%	0%	100%	76.6%	$12,050
BG 2, CT 8101	89%	0%	0%	0%	0%	9%	2%	0%	100%	60.2%	$21,667
BG 3, CT 8101	82%	7%	0%	0%	0%	6%	5%	0%	100%	53.6%	$14,315
BG 1, CT 8102	62%	4%	0%	0%	0%	25%	9%	1%	99%	35.3%	$28,750
BG 2, CT 8102	92%	0%	0%	0%	0%	6%	2%	0%	100%	60.3%	$15,241
BG 3, CT 8102	73%	7%	0%	0%	0%	20%	0%	0%	100%	55.8%	$12,365
BG 4, CT 8102	78%	5%	0%	0%	0%	16%	1%	1%	99%	52.1%	$15,985
BG 1, CT 8103	78%	2%	0%	0%	0%	14%	6%	0%	100%	26.2%	$22,688
BG 2, CT 8103	66%	11%	0%	0%	0%	14%	9%	0%	100%	80.5%	$9,167
BG 1, CT 8104	60%	7%	0%	0%	0%	25%	7%	0%	100%	49.3%	$15,417
BG 2, CT 8104	84%	6%	0%	0%	0%	10%	0%	0%	100%	58.8%	$14,226
BG 1, CT 8105	69%	0%	0%	3%	0%	28%	0%	0%	100%	56.0%	$9,899
BG 2, CT 8105	70%	0%	0%	0%	0%	15%	15%	0%	100%	46.3%	$17,330
BG 3, CT 8105	73%	2%	0%	0%	0%	25%	0%	2%	98%	46.4%	$22,833
BG 4, CT 8105	69%	0%	0%	0%	0%	22%	9%	1%	99%	31.7%	$22,256
BG 1, CT 8106	70%	3%	0%	0%	0%	18%	9%	2%	98%	53.1%	$15,799
BG 2, CT 8106	83%	0%	0%	0%	0%	8%	9%	1%	99%	46.4%	$16,064
BG 1, CT 8107	82%	7%	0%	0%	0%	11%	0%	0%	100%	24.0%	$23,750
BG 2, CT 8107	64%	0%	0%	0%	0%	25%	11%	0%	100%	56.3%	$12,736
BG 3, CT 8107	66%	4%	0%	0%	0%	21%	10%	2%	98%	58.2%	$15,278
BG 4, CT 8107	74%	3%	0%	0%	0%	15%	9%	3%	97%	58.6%	$14,808
BG 0, CT 9900	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
BG 1, CT 3001.01	96%	2%	0%	2%	0%	0%	1%	0%	100%	55.9%	$7,274
BG 2, CT 3001.01	86%	6%	0%	0%	0%	5%	3%	0%	100%	45.5%	$18,929
BG 3, CT 3001.01	73%	15%	0%	1%	0%	11%	0%	2%	98%	38.8%	$28,393
BG 1, CT 3001.02	97%	0%	0%	0%	0%	3%	0%	0%	100%	53.9%	$12,667

Block Group	Race (Percent)[a]							Ethnicity (Percent)[a]		Percent of Residents in Poverty[a]	Median Household Income
	White	Black or African American	American Indian or Alaska Native	Asian	Native Hawaiian or Other Pacific Islander	Some Other Race Alone	Multiple Races	Not Hispanic or Latino	Hispanic or Latino		
BG 2, CT 3001.02	92%	3%	0%	0%	0%	6%	0%	0%	100%	33.4%	$19,050
BG 3, CT 3001.02	94%	2%	0%	0%	0%	4%	0%	0%	100%	51.3%	$21,055
BG 4, CT 3001.02	95%	0%	0%	1%	0%	3%	0%	0%	100%	27.5%	$34,018
BG 1, CT 3002	80%	0%	4%	9%	0%	5%	1%	0%	100%	69.3%	$15,682
BG 2, CT 3002	59%	12%	0%	4%	0%	14%	11%	0%	100%	36.5%	$23,233
BG 3, CT 3002	76%	7%	0%	4%	0%	13%	1%	0%	100%	36.7%	$27,841
BG 1, CT 3003.01	87%	3%	0%	0%	0%	2%	8%	0%	100%	60.3%	$13,292
BG 2, CT 3003.01	87%	7%	0%	0%	0%	1%	5%	0%	100%	47.7%	$21,905
BG 3, CT 3003.01	90%	1%	0%	0%	0%	7%	3%	0%	100%	42.3%	$20,568
BG 1, CT 3003.02	92%	1%	0%	1%	0%	1%	4%	0%	100%	17.1%	$47,841
BG 2, CT 3003.02	86%	12%	0%	0%	0%	0%	2%	0%	100%	29.1%	$25,938
BG 3, CT 3003.02	83%	5%	0%	5%	0%	6%	1%	0%	100%	58.5%	$12,372
BG 1, CT 3004	63%	10%	0%	6%	0%	18%	3%	0%	100%	53.0%	$14,250
BG 2, CT 3004	57%	21%	0%	0%	0%	10%	12%	5%	95%	56.7%	$15,750
BG 3, CT 3004	67%	20%	0%	0%	0%	10%	3%	0%	100%	55.4%	$9,940
BG 1, CT 3005	66%	1%	0%	0%	0%	20%	12%	0%	100%	80.2%	$7,880
BG 2, CT 3005	80%	7%	0%	1%	0%	10%	2%	0%	100%	67.1%	$9,341
BG 1, CT 3007	84%	4%	1%	0%	0%	12%	0%	0%	100%	56.3%	$13,750
BG 2, CT 3007	75%	1%	0%	0%	0%	11%	13%	0%	100%	51.7%	$11,518
BG 1, CT 3008	87%	7%	0%	0%	0%	0%	6%	0%	100%	69.7%	$11,250
BG 2, CT 3008	85%	8%	0%	0%	0%	8%	0%	0%	100%	66.3%	$11,268
BG 3, CT 3008	78%	6%	0%	4%	0%	6%	6%	0%	100%	53.8%	$8,415
BG 4, CT 3008	84%	1%	0%	0%	0%	6%	9%	1%	99%	35.9%	$21,269
BG 1, CT 3010	89%	0%	3%	0%	0%	8%	0%	0%	100%	25.7%	$25,462
BG 2, CT 3010	89%	3%	0%	0%	0%	7%	1%	0%	100%	22.4%	$35,852
BG 3, CT 3010	92%	0%	1%	2%	0%	3%	2%	0%	100%	39.6%	$20,694
BG 4, CT 3010	84%	0%	0%	0%	0%	6%	10%	0%	100%	32.1%	$24,943
BG 1, CT 3011	86%	5%	0%	2%	0%	3%	4%	0%	100%	28.3%	$35,938
BG 2, CT 3011	76%	0%	0%	1%	0%	11%	12%	0%	100%	39.7%	$19,115

Block Group	Race (Percent)[a]							Ethnicity (Percent)[a]		Percent of Residents in Poverty[a]	Median Household Income
	White	Black or African American	American Indian or Alaska Native	Asian	Native Hawaiian or Other Pacific Islander	Some Other Race Alone	Multiple Races	Not Hispanic or Latino	Hispanic or Latino		
BG 3, CT 3011	88%	3%	0%	0%	0%	2%	8%	4%	96%	51.0%	$21,424
BG 4, CT 3011	79%	7%	0%	1%	0%	7%	5%	1%	99%	24.1%	$31,406
BG 5, CT 3011	81%	11%	0%	0%	0%	7%	0%	0%	100%	39.2%	$18,397
BG 1, CT 3012	89%	3%	0%	0%	0%	6%	2%	0%	100%	20.5%	$30,313
BG 2, CT 3012	87%	6%	0%	0%	0%	7%	0%	2%	98%	60.7%	$10,000
BG 3, CT 3012	86%	4%	0%	3%	0%	6%	1%	1%	99%	46.0%	$16,108
BG 1, CT 3013	86%	2%	0%	0%	0%	7%	5%	1%	99%	43.9%	$22,550
BG 2, CT 3013	84%	5%	0%	1%	0%	9%	1%	0%	100%	96.4%	ND
BG 3, CT 3013	82%	3%	0%	0%	0%	5%	9%	0%	100%	100.0%	ND
BG 1, CT 3014	70%	11%	0%	3%	0%	13%	3%	1%	99%	58.9%	$15,625
BG 1, CT 3015	70%	8%	2%	2%	0%	18%	1%	0%	100%	50.9%	$18,384
BG 2, CT 3015	79%	2%	0%	0%	0%	18%	1%	0%	100%	27.8%	$21,953
BG 3, CT 3015	86%	9%	0%	0%	0%	4%	1%	1%	99%	33.7%	$24,762
BG 1, CT 3016	76%	6%	1%	0%	0%	16%	1%	1%	99%	49.5%	$14,358
BG 2, CT 3016	72%	5%	0%	2%	0%	14%	8%	0%	100%	54.8%	$17,031
BG 3, CT 3016	85%	1%	0%	1%	0%	8%	5%	0%	100%	18.2%	$42,273
BG 4, CT 3016	67%	6%	0%	8%	0%	18%	0%	7%	93%	60.9%	$11,483
BG 1, CT 3017	81%	2%	1%	0%	0%	12%	4%	2%	98%	65.2%	$11,927
BG 2, CT 3017	84%	2%	0%	0%	0%	2%	12%	0%	100%	49.1%	$14,396
BG 3, CT 3017	98%	2%	0%	0%	0%	0%	0%	0%	100%	43.8%	$16,315
BG 4, CT 3017	97%	0%	0%	0%	0%	3%	0%	0%	100%	30.8%	$26,731
BG 1, CT 3018	97%	0%	0%	0%	0%	2%	1%	0%	100%	58.2%	$12,470
BG 2, CT 3018	95%	3%	0%	0%	0%	2%	0%	2%	98%	57.9%	$15,625
BG 1, CT 3019	99%	0%	0%	0%	0%	1%	0%	0%	100%	59.2%	$14,574
BG 2, CT 3019	95%	0%	2%	0%	0%	3%	0%	0%	100%	71.0%	$9,369
BG 3, CT 3019	84%	5%	0%	0%	0%	10%	1%	0%	100%	73.6%	$8,423
BG 4, CT 3019	98%	0%	0%	0%	0%	2%	0%	0%	100%	54.8%	$10,438
BG 1, CT 3020	91%	0%	0%	0%	0%	9%	0%	1%	99%	43.8%	$17,857
BG 2, CT 3020	85%	3%	0%	0%	0%	4%	7%	0%	100%	47.4%	$16,688

Block Group	Race (Percent)[a]							Ethnicity (Percent)[a]		Percent of Residents in Poverty[a]	Median Household Income
	White	Black or African American	American Indian or Alaska Native	Asian	Native Hawaiian or Other Pacific Islander	Some Other Race Alone	Multiple Races	Not Hispanic or Latino	Hispanic or Latino		
BG 3, CT 3020	94%	2%	0%	0%	0%	4%	0%	2%	98%	19.6%	$16,250
BG 1, CT 3021	99%	0%	0%	0%	0%	0%	0%	0%	100%	51.6%	$15,457
BG 2, CT 3021	95%	4%	1%	0%	0%	0%	0%	0%	100%	39.9%	$16,212
BG 3, CT 3021	97%	2%	0%	0%	0%	2%	0%	0%	100%	74.8%	$11,667
BG 4, CT 3021	96%	0%	0%	0%	0%	2%	2%	2%	98%	61.2%	$15,714
BG 1, CT 3022.01	92%	1%	0%	2%	0%	5%	0%	0%	100%	74.1%	$9,123
BG 2, CT 3022.01	90%	1%	0%	0%	0%	9%	0%	1%	99%	61.2%	$18,452
BG 1, CT 3022.02	85%	10%	0%	0%	0%	4%	2%	3%	97%	65.6%	$9,049
BG 2, CT 3022.02	97%	0%	1%	0%	0%	1%	1%	2%	98%	43.4%	$19,240
BG 3, CT 3022.02	95%	2%	0%	0%	0%	3%	0%	3%	97%	52.3%	$15,172
BG 1, CT 3023	82%	4%	0%	0%	0%	10%	3%	2%	98%	56.2%	$13,611
BG 2, CT 3023	91%	1%	0%	0%	0%	6%	2%	0%	100%	60.2%	$12,917
BG 0, CT 9929	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
BG 1, CT 2801.01	24%	28%	0%	0%	0%	4%	44%	0%	100%	69.3%	$13,133
BG 2, CT 2801.01	44%	32%	0%	0%	0%	0%	24%	0%	100%	68.2%	$10,119
BG 1, CT 2801.02	45%	31%	0%	0%	0%	6%	18%	0%	100%	43.1%	$23,011
BG 2, CT 2801.02	64%	15%	0%	0%	0%	8%	13%	0%	100%	45.1%	$17,324
BG 3, CT 2801.02	49%	13%	0%	0%	0%	16%	23%	0%	100%	73.0%	$13,517
BG 1, CT 2802.01	32%	20%	0%	0%	0%	11%	37%	0%	100%	28.1%	$26,087
BG 2, CT 2802.01	58%	18%	0%	0%	0%	8%	17%	0%	100%	50.5%	$16,639
BG 3, CT 2802.01	31%	41%	0%	0%	0%	13%	15%	0%	100%	30.9%	$22,734
BG 4, CT 2802.01	52%	33%	0%	0%	0%	1%	13%	0%	100%	80.2%	$7,778
BG 1, CT 2802.02	51%	12%	0%	0%	0%	12%	25%	5%	95%	56.9%	$12,764
BG 2, CT 2802.02	60%	29%	0%	0%	0%	0%	11%	0%	100%	33.0%	$21,464
BG 3, CT 2802.02	50%	33%	0%	0%	0%	9%	8%	1%	99%	63.9%	$14,712
BG 4, CT 2802.02	51%	22%	0%	0%	0%	14%	13%	0%	100%	40.3%	$30,041
BG 0, CT 9915	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
BG 1, CT 5901	87%	2%	0%	0%	0%	4%	6%	0%	100%	65.3%	$14,714
BG 2, CT 5901	99%	0%	0%	0%	0%	1%	0%	0%	100%	62.4%	$10,461

Block Group	Race (Percent)[a]							Ethnicity (Percent)[a]		Percent of Residents in Poverty[a]	Median Household Income
	White	Black or African American	American Indian or Alaska Native	Asian	Native Hawaiian or Other Pacific Islander	Some Other Race Alone	Multiple Races	Not Hispanic or Latino	Hispanic or Latino		
BG 3, CT 5901	100%	0%	0%	0%	0%	0%	0%	0%	100%	59.2%	$10,145
BG 4, CT 5901	98%	2%	0%	0%	0%	0%	0%	1%	99%	30.8%	$21,389
BG 1, CT 5902	87%	6%	2%	2%	0%	3%	0%	1%	99%	69.8%	$8,778
BG 2, CT 5902	88%	0%	0%	0%	0%	1%	11%	3%	97%	84.1%	$8,818
BG 3, CT 5902	100%	0%	0%	0%	0%	0%	0%	0%	100%	47.6%	$20,893
BG 4, CT 5902	96%	0%	0%	0%	0%	0%	4%	0%	100%	76.7%	$7,237
BG 1, CT 5903	99%	1%	0%	0%	0%	0%	0%	3%	97%	34.4%	$22,128
BG 2, CT 5903	99%	0%	0%	0%	0%	1%	0%	0%	100%	62.0%	$14,186
BG 3, CT 5903	94%	0%	0%	0%	0%	0%	6%	1%	99%	68.1%	$12,264
BG 4, CT 5903	97%	3%	0%	0%	0%	0%	0%	0%	100%	57.8%	$11,838
BG 1, CT 5904	95%	3%	0%	0%	0%	0%	3%	9%	91%	46.3%	$13,607
BG 2, CT 5904	98%	0%	0%	0%	0%	2%	0%	0%	100%	35.3%	$28,098
BG 3, CT 5904	97%	3%	0%	0%	0%	0%	0%	0%	100%	47.2%	$20,577
BG 4, CT 5904	93%	0%	0%	0%	0%	4%	3%	0%	100%	62.8%	$9,695
BG 0, CT 9900	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
BG 1, CT 9522.01	42%	4%	0%	0%	0%	1%	54%	1%	99%	50.1%	$18,798
BG 2, CT 9522.01	31%	3%	0%	0%	0%	0%	65%	0%	100%	57.3%	$16,735
BG 1, CT 9522.02	32%	0%	0%	0%	0%	5%	64%	2%	98%	71.9%	$14,556
BG 2, CT 9522.02	31%	6%	0%	0%	0%	0%	63%	0%	100%	64.4%	$12,960
BG 3, CT 9522.02	41%	6%	0%	0%	0%	0%	54%	0%	100%	57.4%	$16,676
BG 1, CT 9523.01	42%	0%	0%	0%	0%	0%	58%	0%	100%	43.4%	$19,083
BG 2, CT 9523.01	42%	2%	0%	0%	0%	3%	53%	0%	100%	62.8%	$9,716
BG 1, CT 9523.02	37%	2%	0%	0%	0%	0%	61%	0%	100%	78.5%	$13,016
BG 2, CT 9523.02	37%	0%	0%	0%	0%	5%	58%	0%	100%	50.6%	$18,292
BG 3, CT 9523.02	12%	1%	0%	0%	0%	2%	85%	3%	97%	67.3%	$11,131
BG 1, CT 9524	41%	0%	0%	0%	0%	3%	56%	0%	100%	80.8%	$6,865
BG 2, CT 9524	56%	8%	0%	0%	0%	0%	36%	0%	100%	61.9%	$8,138
BG 1, CT 9525	22%	0%	0%	0%	0%	0%	78%	0%	100%	37.7%	$20,197
BG 2, CT 9525	37%	11%	0%	0%	0%	0%	51%	0%	100%	63.9%	$13,365

Block Group	Race (Percent)[a]							Ethnicity (Percent)[a]		Percent of Residents in Poverty[a]	Median Household Income
	White	Black or African American	American Indian or Alaska Native	Asian	Native Hawaiian or Other Pacific Islander	Some Other Race Alone	Multiple Races	Not Hispanic or Latino	Hispanic or Latino		
BG 3, CT 9525	41%	1%	0%	0%	0%	4%	54%	0%	100%	55.1%	$11,402
BG 4, CT 9525	46%	5%	2%	0%	0%	0%	47%	0%	100%	47.7%	$18,625
BG 1, CT 301.01	39%	9%	2%	0%	0%	10%	40%	1%	99%	69.5%	$12,885
BG 2, CT 301.01	64%	9%	0%	0%	0%	9%	18%	0%	100%	8.7%	$58,250
BG 3, CT 301.01	54%	2%	0%	0%	0%	4%	41%	3%	97%	37.7%	$23,750
BG 4, CT 301.01	40%	60%	0%	0%	0%	0%	0%	60%	40%	0.0%	ND
BG 1, CT 301.03	47%	11%	6%	1%	0%	1%	35%	0%	100%	50.4%	$20,341
BG 2, CT 301.03	53%	12%	3%	0%	0%	0%	32%	0%	100%	57.3%	$12,880
BG 1, CT 301.04	81%	2%	0%	0%	0%	4%	14%	0%	100%	3.2%	$72,179
BG 2, CT 301.04	65%	4%	0%	0%	0%	1%	30%	3%	97%	20.6%	$46,012
BG 3, CT 301.04	69%	4%	0%	3%	0%	0%	24%	4%	96%	3.6%	$58,772
BG 1, CT 301.05	70%	4%	1%	0%	0%	2%	24%	0%	100%	23.8%	$26,354
BG 2, CT 301.05	56%	18%	0%	0%	0%	2%	23%	29%	71%	17.3%	$31,146
BG 1, CT 302	86%	5%	0%	0%	0%	0%	9%	3%	97%	52.0%	$15,156
BG 2, CT 302	73%	6%	11%	0%	0%	0%	9%	0%	100%	4.9%	$48,750
BG 3, CT 302	62%	7%	0%	0%	0%	2%	29%	0%	100%	23.6%	$32,656
BG 4, CT 302	81%	9%	1%	0%	0%	0%	9%	6%	94%	26.5%	$25,417
BG 1, CT 303	27%	0%	0%	0%	0%	4%	69%	0%	100%	4.7%	$39,537
BG 2, CT 303	22%	20%	0%	0%	0%	14%	44%	0%	100%	43.8%	$16,917
BG 3, CT 303	62%	5%	2%	0%	0%	2%	30%	0%	100%	75.6%	$7,555
BG 4, CT 303	69%	6%	0%	0%	0%	5%	20%	1%	99%	18.5%	$34,813
BG 1, CT 307	42%	16%	3%	0%	0%	4%	35%	0%	100%	60.3%	$14,940
BG 2, CT 307	51%	9%	1%	0%	0%	7%	32%	1%	99%	81.8%	$6,736
BG 1, CT 308	66%	5%	4%	1%	0%	9%	14%	0%	100%	29.0%	$22,443
BG 1, CT 309.01	67%	10%	0%	0%	0%	1%	23%	0%	100%	17.6%	$24,962
BG 2, CT 309.01	69%	4%	0%	0%	0%	3%	23%	0%	100%	26.9%	$21,875
BG 1, CT 309.02	75%	7%	0%	0%	0%	9%	9%	2%	98%	25.6%	$31,750
BG 2, CT 309.02	64%	4%	0%	0%	0%	14%	17%	0%	100%	31.6%	$24,196
BG 1, CT 309.03	70%	5%	0%	0%	0%	2%	22%	3%	97%	34.0%	$19,815

Block Group	Race (Percent)[a]							Ethnicity (Percent)[a]		Percent of Residents in Poverty[a]	Median Household Income
	White	Black or African American	American Indian or Alaska Native	Asian	Native Hawaiian or Other Pacific Islander	Some Other Race Alone	Multiple Races	Not Hispanic or Latino	Hispanic or Latino		
BG 2, CT 309.03	68%	3%	0%	2%	0%	0%	27%	2%	98%	20.9%	$39,414
BG 1, CT 309.04	70%	2%	0%	0%	0%	7%	20%	0%	100%	41.4%	$18,508
BG 2, CT 309.04	87%	7%	0%	0%	0%	4%	2%	1%	99%	48.6%	$23,438
BG 1, CT 310.04	73%	3%	0%	0%	0%	5%	20%	5%	95%	27.1%	$27,826
BG 2, CT 310.04	51%	9%	1%	0%	0%	1%	38%	1%	99%	16.4%	$36,210
BG 1, CT 310.05	52%	4%	3%	1%	0%	2%	39%	3%	97%	57.4%	$10,256
BG 2, CT 310.05	67%	6%	0%	0%	0%	4%	23%	2%	98%	25.5%	$26,964
BG 1, CT 310.11	58%	8%	1%	0%	0%	2%	30%	0%	100%	1.3%	$50,714
BG 2, CT 310.11	78%	2%	0%	0%	0%	7%	13%	2%	98%	3.0%	$31,658
BG 3, CT 310.11	75%	2%	0%	1%	0%	3%	19%	1%	99%	6.8%	$60,100
BG 4, CT 310.11	46%	13%	0%	0%	0%	1%	41%	0%	100%	25.0%	$33,500
BG 1, CT 310.13	38%	17%	0%	0%	0%	0%	45%	0%	100%	54.0%	$10,583
BG 2, CT 310.13	61%	8%	0%	0%	0%	8%	23%	4%	96%	34.8%	$31,213
BG 3, CT 310.13	41%	7%	0%	0%	0%	1%	52%	0%	100%	28.1%	$26,415
BG 4, CT 310.13	47%	9%	0%	0%	0%	6%	38%	2%	98%	19.4%	$36,845
BG 5, CT 310.13	46%	13%	0%	0%	0%	5%	36%	0%	100%	23.9%	$30,488
BG 1, CT 310.21	57%	8%	1%	0%	0%	2%	31%	1%	99%	45.2%	$21,200
BG 2, CT 310.21	82%	10%	0%	0%	0%	3%	5%	0%	100%	13.6%	$55,078
BG 3, CT 310.21	53%	11%	0%	0%	0%	11%	25%	0%	100%	35.5%	$28,382
BG 1, CT 310.23	74%	5%	0%	0%	0%	0%	21%	0%	100%	31.8%	$31,336
BG 2, CT 310.23	57%	4%	1%	0%	0%	7%	32%	0%	100%	31.0%	$33,413
BG 1, CT 310.31	61%	7%	1%	0%	0%	6%	25%	0%	100%	18.0%	$32,667
BG 2, CT 310.31	54%	10%	0%	10%	0%	10%	16%	10%	90%	18.2%	$28,676
BG 3, CT 310.31	27%	15%	0%	0%	0%	0%	58%	0%	100%	90.7%	$4,470
BG 4, CT 310.31	67%	0%	0%	1%	0%	0%	32%	0%	100%	18.8%	$53,409
BG 1, CT 310.32	49%	15%	2%	0%	0%	3%	31%	4%	96%	20.4%	$56,667
BG 1, CT 310.33	46%	3%	0%	0%	0%	0%	51%	3%	97%	25.1%	$34,469
BG 2, CT 310.33	49%	3%	0%	0%	0%	13%	35%	0%	100%	30.3%	$42,885
BG 3, CT 310.33	73%	4%	0%	0%	0%	0%	23%	0%	100%	50.9%	$21,500

Block Group	Race (Percent)[a]							Ethnicity (Percent)[a]		Percent of Residents in Poverty[a]	Median Household Income
	White	Black or African American	American Indian or Alaska Native	Asian	Native Hawaiian or Other Pacific Islander	Some Other Race Alone	Multiple Races	Not Hispanic or Latino	Hispanic or Latino		
BG 4, CT 310.33	60%	13%	0%	0%	0%	0%	28%	3%	97%	26.5%	$31,292
BG 1, CT 311.01	59%	6%	0%	0%	0%	12%	23%	3%	97%	29.8%	$27,969
BG 2, CT 311.01	63%	23%	0%	0%	0%	0%	14%	0%	100%	8.5%	$55,921
BG 1, CT 311.13	68%	13%	0%	2%	0%	2%	14%	1%	99%	48.4%	$19,246
BG 2, CT 311.13	71%	7%	0%	1%	0%	13%	7%	3%	97%	20.9%	$34,034
BG 3, CT 311.13	71%	8%	0%	0%	0%	16%	6%	2%	98%	49.5%	$23,047
BG 1, CT 311.14	68%	5%	0%	0%	0%	16%	11%	0%	100%	95.5%	$7,209
BG 2, CT 311.14	67%	12%	3%	0%	0%	6%	12%	0%	100%	47.3%	$19,683
BG 3, CT 311.14	68%	15%	0%	0%	0%	13%	3%	0%	100%	33.8%	$24,028
BG 1, CT 311.21	66%	18%	11%	0%	0%	6%	0%	0%	100%	38.1%	$30,645
BG 2, CT 311.21	65%	16%	0%	0%	0%	16%	3%	1%	99%	28.8%	$35,179
BG 3, CT 311.21	59%	1%	2%	0%	0%	7%	31%	0%	100%	78.6%	$10,840
BG 1, CT 311.22	66%	11%	0%	0%	0%	17%	5%	0%	100%	31.8%	$26,289
BG 2, CT 311.22	69%	5%	0%	0%	0%	10%	16%	0%	100%	24.0%	$22,475
BG 1, CT 311.23	61%	9%	2%	0%	0%	9%	19%	1%	99%	36.0%	$19,738
BG 2, CT 311.23	64%	7%	0%	0%	0%	25%	4%	0%	100%	41.2%	$16,630
BG 1, CT 311.24	40%	3%	0%	0%	0%	3%	54%	0%	100%	56.6%	$14,353
BG 1, CT 311.25	55%	5%	0%	1%	0%	1%	38%	1%	99%	22.2%	$34,528
BG 2, CT 311.25	62%	1%	0%	0%	0%	4%	33%	2%	98%	53.3%	$14,861
BG 1, CT 312.01	63%	2%	0%	0%	0%	5%	30%	6%	94%	48.8%	$18,086
BG 2, CT 312.01	50%	13%	5%	0%	0%	8%	25%	0%	100%	49.0%	$22,112
BG 3, CT 312.01	29%	5%	3%	0%	0%	5%	58%	0%	100%	93.7%	$2,546
BG 1, CT 312.02	72%	14%	0%	0%	0%	1%	13%	0%	100%	47.1%	$20,893
BG 2, CT 312.02	53%	2%	0%	0%	0%	2%	43%	0%	100%	21.8%	$31,701
BG 3, CT 312.02	47%	3%	0%	0%	0%	0%	50%	2%	98%	42.2%	$18,920
BG 1, CT 312.03	72%	11%	0%	0%	0%	5%	11%	0%	100%	16.6%	$31,786
BG 2, CT 312.03	69%	8%	0%	0%	0%	11%	13%	1%	99%	29.9%	$27,083
BG 1, CT 313.01	56%	14%	0%	0%	0%	12%	17%	0%	100%	28.0%	$22,017
BG 2, CT 313.01	67%	4%	0%	0%	0%	19%	9%	0%	100%	18.1%	$34,395

Block Group	Race (Percent)[a]							Ethnicity (Percent)[a]		Percent of Residents in Poverty[a]	Median Household Income
	White	Black or African American	American Indian or Alaska Native	Asian	Native Hawaiian or Other Pacific Islander	Some Other Race Alone	Multiple Races	Not Hispanic or Latino	Hispanic or Latino		
BG 3, CT 313.01	56%	11%	0%	0%	0%	19%	15%	0%	100%	39.6%	$21,100
BG 1, CT 313.04	46%	1%	0%	0%	0%	10%	43%	0%	100%	33.7%	$23,214
BG 1, CT 313.05	77%	3%	0%	0%	0%	2%	18%	0%	100%	24.4%	$32,500
BG 2, CT 313.05	63%	13%	0%	0%	0%	6%	18%	0%	100%	35.4%	$25,644
BG 3, CT 313.05	56%	5%	0%	0%	0%	15%	23%	0%	100%	41.4%	$19,904
BG 4, CT 313.05	49%	3%	2%	0%	0%	17%	28%	0%	100%	43.6%	$24,018
BG 1, CT 313.06	55%	8%	0%	5%	0%	9%	23%	5%	95%	13.8%	$38,618
BG 2, CT 313.06	49%	10%	0%	0%	0%	7%	35%	0%	100%	42.7%	$22,045
BG 1, CT 313.07	66%	9%	1%	0%	0%	4%	20%	2%	98%	22.7%	$32,889
BG 2, CT 313.07	59%	2%	2%	0%	0%	13%	23%	0%	100%	22.2%	$39,083
BG 1, CT 314.01	65%	3%	0%	0%	0%	0%	32%	2%	98%	39.9%	$20,197
BG 2, CT 314.01	57%	18%	0%	0%	0%	12%	14%	3%	97%	41.8%	$20,144
BG 3, CT 314.01	62%	12%	0%	0%	0%	4%	22%	0%	100%	22.7%	$24,654
BG 1, CT 314.02	65%	5%	0%	0%	0%	9%	21%	5%	95%	34.0%	$22,819
BG 2, CT 314.02	55%	31%	0%	0%	0%	9%	5%	0%	100%	56.6%	$16,453
BG 3, CT 314.02	33%	19%	0%	0%	0%	3%	45%	0%	100%	65.7%	$11,111
BG 1, CT 314.03	81%	10%	0%	0%	0%	7%	3%	0%	100%	25.4%	$28,750
BG 2, CT 314.03	79%	5%	0%	0%	0%	10%	7%	1%	99%	64.0%	$21,055
BG 3, CT 314.03	68%	10%	0%	0%	0%	22%	0%	0%	100%	32.5%	$25,139
BG 1, CT 315.01	61%	8%	0%	0%	0%	1%	30%	2%	98%	25.4%	$24,688
BG 2, CT 315.01	56%	13%	4%	0%	0%	5%	22%	0%	100%	34.6%	$22,344
BG 1, CT 315.02	67%	7%	2%	0%	0%	0%	23%	0%	100%	44.3%	$18,813
BG 2, CT 315.02	59%	10%	2%	0%	0%	6%	23%	0%	100%	41.9%	$17,339
BG 1, CT 315.03	58%	11%	0%	0%	0%	7%	24%	2%	98%	55.3%	$13,953
BG 2, CT 315.03	71%	6%	2%	0%	0%	0%	21%	1%	99%	43.5%	$21,622
BG 1, CT 316.11	62%	16%	0%	0%	0%	19%	4%	0%	100%	29.3%	$26,406
BG 2, CT 316.11	71%	4%	4%	0%	0%	8%	13%	0%	100%	36.2%	$21,611
BG 3, CT 316.11	72%	12%	0%	2%	0%	5%	10%	2%	98%	45.5%	$19,300
BG 1, CT 316.12	66%	5%	0%	0%	0%	15%	15%	0%	100%	31.6%	$18,056

Block Group	Race (Percent)[a]							Ethnicity (Percent)[a]		Percent of Residents in Poverty[a]	Median Household Income
	White	Black or African American	American Indian or Alaska Native	Asian	Native Hawaiian or Other Pacific Islander	Some Other Race Alone	Multiple Races	Not Hispanic or Latino	Hispanic or Latino		
BG 2, CT 316.12	74%	17%	0%	2%	0%	4%	3%	0%	100%	38.4%	$25,938
BG 3, CT 316.12	59%	17%	3%	0%	0%	13%	8%	0%	100%	92.7%	$6,071
BG 4, CT 316.12	54%	13%	0%	0%	0%	30%	3%	0%	100%	43.8%	$15,956
BG 1, CT 316.21	61%	9%	0%	0%	0%	5%	26%	1%	99%	26.6%	$30,742
BG 1, CT 316.22	56%	15%	1%	0%	0%	6%	22%	1%	99%	54.3%	$15,250
BG 2, CT 316.22	74%	5%	0%	0%	0%	2%	19%	0%	100%	15.3%	$35,156
BG 3, CT 316.22	56%	9%	0%	0%	0%	17%	19%	0%	100%	33.8%	$20,978
BG 1, CT 316.31	71%	7%	0%	0%	0%	9%	13%	2%	98%	27.7%	$33,942
BG 2, CT 316.31	57%	3%	2%	0%	0%	3%	35%	5%	95%	32.5%	$28,500
BG 1, CT 316.32	51%	8%	4%	0%	0%	6%	31%	0%	100%	48.4%	$18,403
BG 2, CT 316.32	69%	6%	1%	0%	0%	18%	6%	1%	99%	37.1%	$21,000
BG 3, CT 316.32	75%	9%	1%	0%	0%	15%	0%	0%	100%	38.9%	$17,198
BG 1, CT 316.41	63%	12%	0%	0%	0%	10%	16%	0%	100%	35.4%	$22,701
BG 2, CT 316.41	63%	11%	0%	0%	0%	4%	22%	0%	100%	29.4%	$24,928
BG 1, CT 316.51	56%	11%	1%	0%	0%	21%	12%	2%	98%	50.8%	$15,662
BG 2, CT 316.51	71%	6%	0%	0%	0%	20%	2%	1%	99%	41.4%	$19,900
BG 1, CT 317.01	87%	3%	0%	0%	0%	8%	2%	0%	100%	14.3%	$35,926
BG 2, CT 317.01	60%	10%	0%	0%	0%	18%	12%	0%	100%	64.2%	$13,250
BG 3, CT 317.01	67%	12%	4%	0%	0%	7%	10%	0%	100%	19.6%	$33,958
BG 1, CT 317.02	69%	6%	0%	0%	0%	20%	5%	0%	100%	35.4%	$23,967
BG 2, CT 317.02	75%	1%	0%	0%	0%	23%	0%	0%	100%	44.4%	$17,083
BG 3, CT 317.02	83%	8%	0%	0%	0%	7%	1%	0%	100%	54.9%	$21,679
BG 4, CT 317.02	67%	7%	0%	0%	0%	12%	13%	0%	100%	43.0%	$16,420
BG 1, CT 317.03	74%	8%	1%	3%	0%	10%	5%	1%	99%	32.9%	$22,576
BG 2, CT 317.03	59%	8%	0%	1%	0%	27%	5%	0%	100%	21.5%	$22,066
BG 1, CT 317.04	78%	13%	0%	0%	0%	2%	7%	0%	100%	44.9%	$25,000
BG 2, CT 317.04	57%	8%	0%	1%	0%	10%	24%	0%	100%	27.9%	$25,608
BG 3, CT 317.04	72%	22%	0%	0%	0%	2%	4%	0%	100%	21.8%	$28,676
BG 4, CT 317.04	84%	3%	0%	0%	0%	3%	9%	1%	99%	35.5%	$20,208

Block Group	Race (Percent)[a]							Ethnicity (Percent)[a]		Percent of Residents in Poverty[a]	Median Household Income
	White	Black or African American	American Indian or Alaska Native	Asian	Native Hawaiian or Other Pacific Islander	Some Other Race Alone	Multiple Races	Not Hispanic or Latino	Hispanic or Latino		
BG 1, CT 318	66%	4%	0%	0%	0%	23%	7%	0%	100%	19.4%	$39,583
BG 2, CT 318	73%	22%	0%	0%	0%	0%	5%	0%	100%	0.0%	$59,688
BG 3, CT 318	39%	2%	0%	0%	0%	45%	13%	0%	100%	53.1%	$12,670
BG 4, CT 318	52%	11%	0%	0%	0%	2%	36%	0%	100%	67.0%	$15,250
BG 1, CT 319	70%	1%	0%	0%	0%	19%	11%	1%	99%	33.7%	$23,221
BG 2, CT 319	69%	2%	0%	0%	0%	17%	12%	0%	100%	33.3%	$24,087
BG 3, CT 319	62%	4%	0%	0%	0%	25%	9%	0%	100%	32.4%	$19,500
BG 4, CT 319	57%	0%	1%	0%	0%	28%	14%	0%	100%	53.6%	$20,325
BG 1, CT 320	52%	3%	0%	0%	0%	3%	42%	0%	100%	55.4%	$14,353
BG 2, CT 320	62%	1%	4%	0%	0%	4%	29%	0%	100%	59.4%	$20,896
BG 1, CT 321	40%	1%	1%	0%	0%	1%	57%	0%	100%	57.0%	$16,866
BG 2, CT 321	26%	2%	4%	0%	0%	13%	55%	0%	100%	39.6%	$22,143
BG 1, CT 322	50%	4%	0%	0%	0%	25%	21%	0%	100%	69.5%	$14,261
BG 2, CT 322	64%	12%	2%	0%	0%	3%	18%	0%	100%	50.6%	$18,125
BG 1, CT 323.01	67%	6%	1%	0%	0%	11%	15%	0%	100%	17.0%	$38,203
BG 2, CT 323.01	57%	3%	0%	1%	0%	15%	24%	0%	100%	10.3%	$46,410
BG 1, CT 323.02	61%	4%	0%	0%	0%	25%	10%	0%	100%	37.9%	$23,452
BG 2, CT 323.02	60%	7%	5%	0%	0%	8%	21%	0%	100%	51.2%	$23,586
BG 1, CT 8301.01	94%	3%	0%	0%	0%	0%	3%	1%	99%	48.0%	$17,342
BG 2, CT 8301.01	98%	0%	0%	0%	0%	0%	2%	0%	100%	55.3%	$13,073
BG 3, CT 8301.01	98%	1%	0%	0%	0%	1%	0%	0%	100%	47.0%	$12,986
BG 1, CT 8301.02	93%	7%	0%	0%	0%	0%	0%	0%	100%	43.5%	$14,555
BG 2, CT 8301.02	92%	5%	0%	0%	0%	3%	0%	0%	100%	47.2%	$18,421
BG 3, CT 8301.02	90%	8%	0%	1%	0%	0%	1%	0%	100%	44.0%	$17,386
BG 1, CT 8302	88%	10%	0%	0%	0%	2%	0%	0%	100%	43.2%	$17,356
BG 2, CT 8302	98%	2%	0%	0%	0%	0%	0%	1%	99%	16.6%	$37,983
BG 3, CT 8302	92%	6%	0%	0%	0%	2%	0%	0%	100%	51.9%	$16,563
BG 1, CT 8303	100%	0%	0%	0%	0%	0%	0%	1%	99%	17.4%	$38,566
BG 2, CT 8303	90%	2%	0%	0%	0%	0%	8%	0%	100%	31.2%	$25,114

Block Group	Race (Percent)[a]							Ethnicity (Percent)[a]		Percent of Residents in Poverty[a]	Median Household Income
	White	Black or African American	American Indian or Alaska Native	Asian	Native Hawaiian or Other Pacific Islander	Some Other Race Alone	Multiple Races	Not Hispanic or Latino	Hispanic or Latino		
BG 3, CT 8303	82%	11%	0%	0%	0%	0%	7%	0%	100%	22.3%	$17,768
BG 4, CT 8303	99%	0%	0%	0%	0%	1%	0%	1%	99%	34.7%	$23,606
BG 1, CT 8304	100%	0%	0%	0%	0%	0%	0%	0%	100%	42.7%	$22,083
BG 2, CT 8304	91%	9%	0%	0%	0%	0%	0%	0%	100%	48.6%	$17,008
BG 3, CT 8304	98%	2%	0%	0%	0%	0%	0%	0%	100%	94.1%	$6,699
BG 4, CT 8304	100%	0%	0%	0%	0%	0%	0%	1%	99%	67.6%	$10,182
BG 1, CT 8305.02	99%	0%	0%	0%	0%	1%	0%	0%	100%	48.0%	$20,484
BG 2, CT 8305.02	100%	0%	0%	0%	0%	0%	0%	4%	96%	28.3%	$32,955
BG 3, CT 8305.02	96%	0%	0%	0%	0%	1%	3%	0%	100%	69.2%	$9,818
BG 4, CT 8305.02	100%	0%	0%	0%	0%	0%	0%	1%	99%	64.1%	$15,909
BG 1, CT 8305.03	99%	1%	0%	0%	0%	0%	0%	0%	100%	53.3%	$19,898
BG 2, CT 8305.03	99%	1%	0%	0%	0%	0%	0%	0%	100%	48.7%	$18,947
BG 1, CT 8305.04	96%	4%	0%	0%	0%	0%	0%	0%	100%	52.8%	$14,049
BG 2, CT 8305.04	98%	1%	1%	0%	0%	0%	0%	0%	100%	61.7%	$15,211
BG 1, CT 8306.03	100%	0%	0%	0%	0%	0%	0%	0%	100%	63.6%	$12,220
BG 2, CT 8306.03	95%	4%	0%	0%	0%	1%	1%	0%	100%	76.2%	$7,852
BG 3, CT 8306.03	100%	0%	0%	0%	0%	0%	0%	5%	95%	36.6%	$21,214
BG 1, CT 8306.04	100%	0%	0%	0%	0%	0%	0%	0%	100%	41.0%	$18,576
BG 2, CT 8306.04	100%	0%	0%	0%	0%	0%	0%	0%	100%	65.2%	$19,049
BG 3, CT 8306.04	84%	0%	0%	0%	0%	12%	3%	0%	100%	58.0%	$13,262
BG 4, CT 8306.04	79%	0%	0%	0%	0%	21%	0%	0%	100%	54.2%	$14,773
BG 1, CT 9800	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
BG 0, CT 9900	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
BG 1, CT 2001	61%	3%	0%	5%	0%	18%	13%	1%	99%	41.7%	$20,317
BG 2, CT 2001	83%	0%	0%	0%	0%	3%	14%	2%	98%	24.5%	$46,853
BG 3, CT 2001	84%	3%	0%	0%	0%	0%	12%	0%	100%	56.1%	$15,221
BG 4, CT 2001	74%	9%	0%	3%	0%	8%	7%	0%	100%	18.3%	$62,566
BG 5, CT 2001	69%	11%	0%	0%	0%	4%	16%	7%	93%	55.6%	$22,939
BG 1, CT 2002	52%	3%	0%	1%	0%	18%	25%	0%	100%	41.6%	$20,664

Block Group	Race (Percent)[a]							Ethnicity (Percent)[a]		Percent of Residents in Poverty[a]	Median Household Income
	White	Black or African American	American Indian or Alaska Native	Asian	Native Hawaiian or Other Pacific Islander	Some Other Race Alone	Multiple Races	Not Hispanic or Latino	Hispanic or Latino		
BG 2, CT 2002	53%	3%	0%	1%	0%	17%	26%	2%	98%	51.9%	$17,041
BG 3, CT 2002	67%	0%	0%	0%	0%	4%	30%	0%	100%	33.6%	$18,576
BG 4, CT 2002	77%	2%	0%	0%	0%	0%	20%	4%	96%	15.9%	$23,594
BG 1, CT 2003.02	76%	4%	0%	0%	0%	12%	8%	0%	100%	7.6%	$56,591
BG 2, CT 2003.02	78%	7%	0%	0%	0%	8%	6%	2%	98%	14.8%	$35,300
BG 3, CT 2003.02	86%	2%	0%	0%	0%	10%	2%	0%	100%	11.1%	$51,321
BG 4, CT 2003.02	37%	3%	4%	1%	0%	22%	33%	0%	100%	58.1%	$14,898
BG 5, CT 2003.02	82%	2%	0%	0%	0%	6%	10%	0%	100%	10.7%	$66,971
BG 6, CT 2003.02	68%	0%	0%	0%	0%	22%	10%	0%	100%	11.2%	$76,818
BG 1, CT 2003.03	68%	9%	0%	0%	0%	17%	6%	0%	100%	28.0%	$22,647
BG 2, CT 2003.03	82%	9%	0%	0%	0%	5%	5%	1%	99%	3.9%	$80,593
BG 3, CT 2003.03	60%	7%	0%	0%	0%	14%	19%	0%	100%	5.4%	$89,688
BG 4, CT 2003.03	32%	4%	0%	0%	0%	40%	24%	5%	95%	3.0%	$54,375
BG 5, CT 2003.03	82%	2%	0%	0%	0%	13%	3%	1%	99%	38.1%	$30,964
BG 6, CT 2003.03	56%	7%	0%	0%	0%	17%	20%	1%	99%	46.6%	$20,774
BG 1, CT 2003.04	73%	12%	0%	0%	0%	11%	4%	0%	100%	6.7%	$84,844
BG 2, CT 2003.04	80%	8%	4%	0%	0%	0%	8%	4%	96%	65.6%	$14,750
BG 3, CT 2003.04	63%	2%	0%	0%	0%	5%	30%	0%	100%	69.2%	$11,992
BG 4, CT 2003.04	85%	5%	0%	0%	0%	1%	9%	3%	97%	17.2%	$38,197
BG 5, CT 2003.04	43%	6%	0%	0%	0%	21%	30%	0%	100%	15.6%	$36,250
BG 1, CT 2004	72%	12%	0%	0%	0%	14%	2%	0%	100%	23.9%	$23,482
BG 2, CT 2004	71%	10%	0%	0%	0%	7%	12%	0%	100%	28.0%	$24,070
BG 1, CT 2005	80%	5%	0%	0%	0%	0%	15%	0%	100%	7.7%	$33,229
BG 2, CT 2005	63%	23%	0%	0%	0%	2%	13%	0%	100%	17.2%	$30,721
BG 3, CT 2005	69%	20%	0%	0%	0%	5%	7%	0%	100%	16.9%	$25,250
BG 4, CT 2005	67%	14%	0%	0%	0%	2%	16%	0%	100%	42.4%	$18,232
BG 5, CT 2005	66%	3%	3%	0%	0%	6%	22%	7%	93%	82.7%	$12,857
BG 6, CT 2005	76%	7%	0%	0%	0%	0%	16%	0%	100%	10.9%	$28,147
BG 7, CT 2005	79%	1%	0%	0%	0%	7%	13%	2%	98%	48.4%	$28,750

Block Group	Race (Percent)[a]							Ethnicity (Percent)[a]		Percent of Residents in Poverty[a]	Median Household Income
	White	Black or African American	American Indian or Alaska Native	Asian	Native Hawaiian or Other Pacific Islander	Some Other Race Alone	Multiple Races	Not Hispanic or Latino	Hispanic or Latino		
BG 1, CT 2006	80%	8%	0%	0%	0%	7%	5%	0%	100%	90.6%	$5,685
BG 2, CT 2006	68%	10%	0%	0%	0%	18%	5%	0%	100%	23.8%	$23,672
BG 3, CT 2006	63%	20%	2%	0%	0%	3%	11%	0%	100%	21.6%	$29,958
BG 4, CT 2006	69%	2%	0%	0%	0%	16%	14%	0%	100%	36.4%	$30,321
BG 1, CT 2007	89%	5%	0%	0%	0%	1%	5%	0%	100%	35.4%	$27,708
BG 2, CT 2007	82%	8%	0%	0%	0%	5%	5%	2%	98%	21.4%	$19,226
BG 3, CT 2007	86%	6%	0%	0%	0%	4%	4%	3%	97%	26.8%	$24,158
BG 1, CT 2008	74%	15%	0%	0%	0%	5%	6%	0%	100%	29.1%	$26,792
BG 2, CT 2008	89%	5%	0%	0%	0%	2%	3%	0%	100%	20.4%	$18,750
BG 3, CT 2008	76%	14%	0%	1%	0%	6%	3%	0%	100%	30.4%	$24,135
BG 1, CT 2009	59%	20%	0%	0%	0%	7%	13%	0%	100%	76.5%	$11,190
BG 2, CT 2009	75%	18%	1%	0%	0%	5%	1%	2%	98%	79.1%	$4,805
BG 1, CT 2010	78%	6%	0%	1%	0%	13%	2%	1%	99%	73.1%	$10,981
BG 2, CT 2010	68%	21%	0%	0%	0%	6%	5%	1%	99%	55.1%	$13,083
BG 1, CT 2012	74%	10%	0%	0%	0%	10%	6%	0%	100%	64.7%	$9,559
BG 2, CT 2012	84%	5%	0%	0%	0%	2%	9%	1%	99%	48.3%	$18,574
BG 3, CT 2012	82%	4%	0%	0%	0%	0%	14%	0%	100%	37.8%	$13,500
BG 1, CT 2013	82%	1%	0%	1%	0%	10%	7%	0%	100%	30.3%	$31,094
BG 2, CT 2013	95%	2%	0%	0%	0%	1%	2%	0%	100%	32.6%	$33,345
BG 1, CT 2014	77%	13%	0%	0%	0%	9%	0%	1%	99%	55.1%	$14,022
BG 2, CT 2014	75%	9%	0%	3%	0%	6%	7%	0%	100%	49.4%	$18,023
BG 1, CT 2015	80%	11%	0%	0%	0%	0%	8%	0%	100%	42.9%	$24,625
BG 2, CT 2015	81%	2%	0%	0%	0%	12%	5%	0%	100%	64.2%	$23,633
BG 3, CT 2015	88%	6%	0%	0%	0%	1%	5%	0%	100%	56.6%	$16,343
BG 4, CT 2015	79%	8%	0%	0%	0%	12%	0%	0%	100%	46.9%	$20,605
BG 1, CT 2016	87%	4%	0%	0%	0%	1%	8%	0%	100%	97.0%	ND
BG 2, CT 2016	92%	4%	0%	0%	0%	4%	0%	0%	100%	25.2%	$37,656
BG 3, CT 2016	57%	16%	0%	3%	0%	12%	11%	0%	100%	78.1%	$10,163
BG 1, CT 2017	74%	17%	1%	0%	0%	3%	4%	0%	100%	38.3%	$16,423

Block Group	Race (Percent)[a]							Ethnicity (Percent)[a]		Percent of Residents in Poverty[a]	Median Household Income
	White	Black or African American	American Indian or Alaska Native	Asian	Native Hawaiian or Other Pacific Islander	Some Other Race Alone	Multiple Races	Not Hispanic or Latino	Hispanic or Latino		
BG 2, CT 2017	75%	11%	0%	0%	0%	5%	9%	0%	100%	85.7%	$6,683
BG 3, CT 2017	87%	9%	0%	0%	0%	1%	3%	0%	100%	52.9%	$16,833
BG 1, CT 2018	90%	10%	0%	0%	0%	0%	0%	0%	100%	38.0%	$23,026
BG 2, CT 2018	77%	5%	6%	0%	0%	4%	7%	3%	97%	74.7%	$10,368
BG 3, CT 2018	86%	1%	0%	2%	0%	10%	1%	4%	96%	37.1%	$13,438
BG 1, CT 2019	79%	13%	0%	0%	0%	2%	6%	0%	100%	40.6%	$19,750
BG 2, CT 2019	77%	5%	0%	0%	0%	14%	4%	0%	100%	89.5%	ND
BG 1, CT 2020	78%	5%	0%	0%	0%	10%	7%	1%	99%	40.5%	$22,339
BG 2, CT 2020	89%	7%	0%	0%	0%	0%	5%	0%	100%	71.4%	$11,354
BG 3, CT 2020	90%	3%	0%	0%	0%	0%	7%	0%	100%	48.8%	$21,875
BG 1, CT 2021	82%	5%	0%	0%	0%	6%	7%	1%	99%	58.1%	$9,886
BG 2, CT 2021	89%	7%	0%	0%	0%	1%	2%	0%	100%	24.1%	$30,469
BG 3, CT 2021	86%	12%	0%	0%	0%	2%	0%	0%	100%	14.0%	$43,438
BG 1, CT 2022	81%	11%	0%	0%	0%	8%	1%	1%	99%	45.9%	$17,739
BG 1, CT 2023	93%	3%	0%	0%	0%	0%	4%	1%	99%	26.2%	$25,000
BG 2, CT 2023	82%	9%	0%	0%	0%	6%	3%	2%	98%	33.7%	$19,700
BG 1, CT 2024.02	84%	4%	0%	0%	0%	12%	0%	2%	98%	19.7%	$29,916
BG 2, CT 2024.02	90%	4%	0%	0%	0%	3%	4%	0%	100%	45.1%	$32,548
BG 3, CT 2024.02	91%	0%	0%	0%	0%	3%	6%	8%	92%	17.2%	$45,125
BG 4, CT 2024.02	87%	6%	0%	0%	0%	6%	1%	10%	90%	8.5%	$42,821
BG 5, CT 2024.02	90%	4%	0%	0%	0%	1%	4%	0%	100%	52.3%	$14,331
BG 1, CT 2024.03	94%	0%	0%	0%	0%	6%	0%	0%	100%	47.7%	$18,462
BG 2, CT 2024.03	90%	0%	0%	0%	0%	7%	3%	0%	100%	45.3%	$16,853
BG 3, CT 2024.03	100%	0%	0%	0%	0%	0%	0%	0%	100%	78.9%	$11,583
BG 4, CT 2024.03	65%	8%	0%	0%	0%	19%	8%	3%	97%	10.5%	$24,375
BG 1, CT 2024.04	86%	3%	0%	0%	0%	10%	1%	0%	100%	31.2%	$32,172
BG 2, CT 2024.04	76%	5%	0%	1%	0%	4%	13%	0%	100%	17.4%	$27,950
BG 3, CT 2024.04	72%	11%	0%	0%	0%	11%	5%	0%	100%	48.3%	$17,391
BG 1, CT 2025	97%	0%	0%	0%	0%	2%	1%	0%	100%	24.1%	$30,536

Block Group	Race (Percent)[a]							Ethnicity (Percent)[a]		Percent of Residents in Poverty[a]	Median Household Income
	White	Black or African American	American Indian or Alaska Native	Asian	Native Hawaiian or Other Pacific Islander	Some Other Race Alone	Multiple Races	Not Hispanic or Latino	Hispanic or Latino		
BG 2, CT 2025	89%	0%	0%	1%	0%	9%	2%	2%	98%	40.6%	$23,085
BG 3, CT 2025	87%	10%	0%	0%	0%	0%	3%	0%	100%	42.7%	$21,500
BG 1, CT 2026.01	85%	6%	0%	0%	0%	6%	3%	0%	100%	36.8%	$23,363
BG 2, CT 2026.01	88%	2%	0%	1%	0%	0%	9%	1%	99%	11.8%	$28,693
BG 3, CT 2026.01	80%	12%	0%	0%	0%	6%	2%	2%	98%	37.0%	$27,564
BG 4, CT 2026.01	86%	12%	0%	0%	0%	1%	0%	3%	97%	49.0%	$26,563
BG 1, CT 2026.02	100%	0%	0%	0%	0%	0%	0%	19%	81%	18.8%	$34,650
BG 2, CT 2026.02	78%	13%	0%	0%	0%	5%	4%	0%	100%	64.7%	$17,466
BG 3, CT 2026.02	71%	0%	0%	0%	0%	29%	0%	0%	100%	10.5%	$56,380
BG 4, CT 2026.02	83%	15%	0%	0%	0%	0%	2%	0%	100%	22.7%	$24,000
BG 5, CT 2026.02	86%	9%	0%	0%	0%	4%	1%	0%	100%	9.8%	$55,888
BG 6, CT 2026.02	77%	18%	0%	0%	0%	6%	0%	0%	100%	49.1%	$18,710
BG 1, CT 2027.01	53%	10%	0%	0%	0%	31%	6%	0%	100%	41.6%	$25,264
BG 2, CT 2027.01	58%	4%	0%	0%	0%	38%	0%	3%	97%	50.5%	$19,375
BG 3, CT 2027.01	82%	11%	0%	0%	0%	7%	0%	0%	100%	37.5%	$19,297
BG 1, CT 2027.02	69%	4%	0%	1%	0%	25%	2%	0%	100%	38.6%	$19,470
BG 2, CT 2027.02	57%	5%	0%	0%	0%	38%	0%	1%	99%	19.6%	$36,974
BG 3, CT 2027.02	65%	5%	0%	0%	0%	30%	0%	0%	100%	23.9%	$26,005
BG 1, CT 2028	63%	8%	0%	0%	0%	28%	1%	0%	100%	53.7%	$15,500
BG 2, CT 2028	46%	5%	2%	0%	0%	46%	1%	0%	100%	20.9%	$24,883
BG 3, CT 2028	69%	15%	0%	0%	0%	16%	0%	0%	100%	57.3%	$21,190
BG 4, CT 2028	85%	2%	0%	0%	0%	13%	0%	0%	100%	49.8%	$13,561
BG 5, CT 2028	48%	16%	3%	0%	0%	32%	0%	0%	100%	49.7%	$9,738
BG 1, CT 3201	97%	0%	0%	0%	0%	3%	0%	0%	100%	63.1%	$11,350
BG 2, CT 3201	97%	1%	1%	0%	0%	1%	0%	3%	97%	58.4%	$14,621
BG 1, CT 3202	98%	2%	0%	0%	0%	0%	0%	1%	99%	43.4%	$18,466
BG 2, CT 3202	91%	1%	0%	2%	0%	5%	2%	2%	98%	44.5%	$19,854
BG 3, CT 3202	93%	0%	0%	0%	0%	7%	0%	0%	100%	49.8%	$16,552
BG 1, CT 3203	91%	2%	0%	0%	0%	0%	7%	0%	100%	28.0%	$24,782

Block Group	Race (Percent)[a]							Ethnicity (Percent)[a]		Percent of Residents in Poverty[a]	Median Household Income
	White	Black or African American	American Indian or Alaska Native	Asian	Native Hawaiian or Other Pacific Islander	Some Other Race Alone	Multiple Races	Not Hispanic or Latino	Hispanic or Latino		
BG 2, CT 3203	93%	0%	0%	0%	0%	3%	4%	0%	100%	61.6%	$11,389
BG 3, CT 3203	94%	0%	0%	0%	0%	5%	1%	0%	100%	53.1%	$18,796
BG 4, CT 3203	86%	0%	0%	0%	0%	10%	3%	0%	100%	18.7%	$29,241
BG 1, CT 3204.01	89%	0%	0%	0%	0%	6%	6%	0%	100%	32.1%	$24,340
BG 2, CT 3204.01	95%	3%	0%	0%	0%	2%	0%	0%	100%	22.9%	$31,250
BG 1, CT 3204.02	95%	3%	0%	0%	0%	0%	2%	1%	99%	45.3%	$24,006
BG 2, CT 3204.02	95%	0%	0%	0%	0%	4%	1%	0%	100%	51.2%	$16,641
BG 1, CT 3205	98%	1%	0%	0%	0%	1%	0%	0%	100%	47.1%	$19,483
BG 2, CT 3205	92%	6%	0%	0%	0%	1%	0%	1%	99%	46.4%	$17,008
BG 3, CT 3205	86%	10%	0%	0%	0%	3%	1%	0%	100%	60.3%	$12,959
BG 1, CT 3206	77%	1%	0%	0%	0%	22%	0%	0%	100%	56.9%	$20,731
BG 2, CT 3206	98%	1%	0%	0%	0%	0%	1%	0%	100%	39.9%	$22,694
BG 3, CT 3206	93%	0%	0%	0%	0%	2%	5%	5%	95%	48.9%	$13,500
BG 0, CT 9900	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
BG 1, CT 1001.01	36%	29%	0%	1%	0%	34%	0%	0%	100%	46.1%	$21,083
BG 2, CT 1001.01	27%	25%	0%	0%	0%	47%	1%	1%	99%	52.9%	$13,958
BG 1, CT 1001.03	47%	20%	0%	0%	0%	32%	0%	0%	100%	40.1%	$11,538
BG 2, CT 1001.03	30%	21%	0%	0%	0%	49%	0%	0%	100%	46.7%	$28,114
BG 3, CT 1001.03	39%	17%	0%	0%	0%	43%	0%	0%	100%	71.3%	$22,642
BG 4, CT 1001.03	46%	18%	0%	7%	0%	29%	0%	0%	100%	74.6%	$13,405
BG 1, CT 1001.04	28%	10%	0%	0%	0%	61%	0%	0%	100%	80.0%	$12,157
BG 2, CT 1001.04	57%	9%	0%	0%	0%	34%	0%	0%	100%	73.7%	$9,338
BG 1, CT 1002	69%	15%	0%	0%	0%	15%	1%	0%	100%	33.3%	$30,224
BG 2, CT 1002	45%	19%	0%	2%	0%	32%	1%	0%	100%	53.1%	$13,207
BG 3, CT 1002	49%	22%	1%	0%	0%	28%	1%	0%	100%	78.1%	$8,790
BG 1, CT 1004	38%	9%	0%	0%	0%	53%	0%	0%	100%	24.9%	$26,087
BG 2, CT 1004	44%	24%	0%	2%	0%	27%	3%	1%	99%	37.9%	$30,286
BG 3, CT 1004	45%	10%	0%	1%	0%	44%	0%	0%	100%	56.2%	$22,188
BG 4, CT 1004	52%	7%	0%	0%	0%	40%	1%	0%	100%	67.6%	$14,028

Block Group	Race (Percent)[a]							Ethnicity (Percent)[a]		Percent of Residents in Poverty[a]	Median Household Income
	White	Black or African American	American Indian or Alaska Native	Asian	Native Hawaiian or Other Pacific Islander	Some Other Race Alone	Multiple Races	Not Hispanic or Latino	Hispanic or Latino		
BG 1, CT 1005.02	51%	19%	0%	0%	0%	29%	1%	0%	100%	30.6%	$37,619
BG 2, CT 1005.02	68%	16%	0%	0%	0%	16%	0%	2%	98%	30.3%	$21,202
BG 3, CT 1005.02	46%	23%	0%	3%	0%	28%	0%	0%	100%	13.7%	$26,721
BG 1, CT 1005.03	64%	8%	0%	1%	0%	25%	1%	0%	100%	18.9%	$52,092
BG 1, CT 1005.04	67%	17%	0%	0%	0%	16%	0%	0%	100%	7.8%	$44,301
BG 2, CT 1005.04	69%	7%	0%	0%	0%	23%	0%	0%	100%	5.4%	$49,250
BG 1, CT 1006.01	55%	3%	0%	0%	0%	42%	0%	0%	100%	69.4%	$16,979
BG 2, CT 1006.01	39%	37%	0%	2%	0%	22%	0%	0%	100%	23.1%	$34,844
BG 3, CT 1006.01	55%	4%	1%	0%	0%	39%	0%	0%	100%	32.4%	$23,935
BG 1, CT 1006.02	40%	22%	0%	1%	0%	36%	0%	0%	100%	41.3%	$16,949
BG 2, CT 1006.02	45%	13%	0%	0%	0%	42%	0%	0%	100%	56.0%	$11,784
BG 1, CT 1007	56%	5%	0%	0%	0%	39%	0%	0%	100%	22.4%	$18,015
BG 2, CT 1007	43%	4%	0%	0%	0%	53%	0%	0%	100%	37.0%	$25,870
BG 3, CT 1007	63%	10%	0%	0%	0%	24%	3%	0%	100%	55.7%	$10,223
BG 4, CT 1007	78%	0%	0%	0%	0%	22%	0%	0%	100%	37.3%	$14,063
BG 1, CT 1008	70%	3%	0%	0%	0%	27%	0%	0%	100%	47.4%	$14,091
BG 1, CT 501.03	84%	0%	0%	11%	0%	0%	4%	4%	96%	29.3%	$34,044
BG 2, CT 501.03	91%	3%	0%	0%	0%	6%	0%	10%	90%	38.2%	$21,571
BG 3, CT 501.03	92%	8%	0%	0%	0%	0%	0%	6%	94%	9.8%	$63,396
BG 4, CT 501.03	87%	9%	0%	0%	0%	2%	2%	5%	95%	8.1%	$41,556
BG 1, CT 501.05	73%	21%	0%	0%	0%	0%	6%	0%	100%	23.8%	$29,770
BG 2, CT 501.05	70%	24%	2%	1%	0%	1%	1%	2%	98%	31.6%	$26,156
BG 1, CT 501.06	60%	4%	0%	7%	0%	6%	23%	21%	79%	23.1%	$26,806
BG 2, CT 501.06	88%	3%	0%	4%	0%	3%	2%	19%	81%	11.7%	$52,857
BG 1, CT 501.07	86%	9%	5%	0%	0%	0%	0%	8%	92%	2.5%	$80,461
BG 2, CT 501.07	87%	7%	0%	3%	0%	0%	3%	6%	94%	4.3%	$46,080
BG 3, CT 501.07	89%	3%	0%	6%	0%	0%	2%	12%	88%	10.6%	$44,638
BG 1, CT 501.10	56%	19%	5%	0%	0%	8%	13%	4%	96%	19.4%	$27,122
BG 2, CT 501.10	73%	9%	0%	2%	0%	16%	0%	2%	98%	31.6%	$28,229

Block Group	Race (Percent)[a]							Ethnicity (Percent)[a]		Percent of Residents in Poverty[a]	Median Household Income
	White	Black or African American	American Indian or Alaska Native	Asian	Native Hawaiian or Other Pacific Islander	Some Other Race Alone	Multiple Races	Not Hispanic or Latino	Hispanic or Latino		
BG 3, CT 501.10	72%	12%	0%	1%	0%	4%	11%	1%	99%	20.7%	$30,350
BG 1, CT 501.11	92%	4%	2%	0%	0%	2%	0%	7%	93%	23.0%	$25,769
BG 2, CT 501.11	79%	9%	0%	0%	0%	3%	9%	6%	94%	2.1%	$83,409
BG 1, CT 502.11	71%	8%	1%	0%	0%	7%	13%	2%	98%	17.9%	$43,519
BG 2, CT 502.11	59%	24%	0%	2%	0%	11%	4%	0%	100%	27.1%	$30,268
BG 3, CT 502.11	56%	33%	0%	0%	0%	10%	1%	0%	100%	12.4%	$29,632
BG 1, CT 502.12	75%	20%	0%	0%	0%	4%	0%	1%	99%	23.4%	$24,087
BG 2, CT 502.12	75%	4%	0%	0%	0%	5%	15%	2%	98%	16.9%	$41,607
BG 3, CT 502.12	79%	9%	0%	0%	0%	13%	0%	0%	100%	12.9%	$36,118
BG 4, CT 502.12	62%	11%	7%	1%	0%	8%	12%	0%	100%	31.4%	$27,188
BG 5, CT 502.12	48%	20%	0%	0%	0%	32%	0%	0%	100%	83.4%	ND
BG 1, CT 502.21	93%	5%	0%	0%	0%	2%	0%	2%	98%	2.3%	$44,155
BG 2, CT 502.21	75%	13%	0%	0%	0%	3%	9%	4%	96%	12.1%	$46,161
BG 3, CT 502.21	67%	16%	0%	0%	0%	0%	17%	1%	99%	21.5%	$24,375
BG 4, CT 502.21	64%	23%	1%	0%	0%	9%	3%	0%	100%	42.1%	$19,914
BG 5, CT 502.21	72%	28%	0%	0%	0%	0%	0%	0%	100%	34.1%	$21,742
BG 1, CT 502.22	8%	63%	0%	0%	0%	24%	5%	0%	100%	58.7%	$17,161
BG 2, CT 502.22	66%	15%	6%	0%	0%	10%	3%	3%	97%	31.8%	$28,321
BG 3, CT 502.22	46%	27%	0%	3%	0%	17%	7%	0%	100%	93.6%	$6,042
BG 1, CT 502.31	73%	13%	3%	6%	0%	3%	2%	4%	96%	28.3%	$27,972
BG 2, CT 502.31	48%	24%	6%	11%	0%	6%	5%	3%	97%	32.9%	$27,558
BG 3, CT 502.31	24%	40%	13%	1%	0%	14%	7%	0%	100%	37.3%	$18,085
BG 1, CT 502.32	66%	8%	8%	0%	0%	12%	6%	0%	100%	23.2%	$29,839
BG 2, CT 502.32	46%	18%	0%	0%	0%	34%	2%	0%	100%	12.2%	$35,280
BG 3, CT 502.32	56%	19%	3%	0%	0%	12%	11%	1%	99%	21.2%	$29,241
BG 1, CT 502.41	60%	25%	9%	0%	0%	2%	5%	1%	99%	19.1%	$27,356
BG 2, CT 502.41	64%	29%	1%	0%	0%	3%	2%	2%	98%	18.8%	$43,924
BG 3, CT 502.41	64%	12%	3%	1%	0%	2%	17%	1%	99%	24.2%	$28,631
BG 4, CT 502.41	55%	18%	2%	2%	0%	0%	23%	2%	98%	15.7%	$35,556

Block Group	Race (Percent)[a]							Ethnicity (Percent)[a]		Percent of Residents in Poverty[a]	Median Household Income
	White	Black or African American	American Indian or Alaska Native	Asian	Native Hawaiian or Other Pacific Islander	Some Other Race Alone	Multiple Races	Not Hispanic or Latino	Hispanic or Latino		
BG 5, CT 502.41	72%	27%	0%	0%	0%	1%	0%	0%	100%	26.7%	$32,188
BG 1, CT 502.42	63%	15%	1%	1%	0%	16%	4%	2%	98%	30.1%	$25,850
BG 2, CT 502.42	55%	27%	0%	1%	0%	18%	0%	2%	98%	27.5%	$28,289
BG 1, CT 503.02	67%	23%	2%	0%	0%	3%	5%	0%	100%	12.7%	$33,529
BG 2, CT 503.02	68%	24%	0%	1%	0%	7%	1%	2%	98%	20.6%	$22,131
BG 3, CT 503.02	52%	42%	1%	0%	0%	2%	3%	0%	100%	39.4%	$23,081
BG 1, CT 503.11	66%	11%	0%	0%	0%	21%	3%	2%	98%	40.0%	$22,386
BG 2, CT 503.11	87%	3%	0%	0%	0%	8%	2%	0%	100%	34.2%	$24,145
BG 1, CT 503.21	64%	15%	0%	2%	0%	9%	9%	0%	100%	37.9%	$21,367
BG 2, CT 503.21	57%	23%	9%	3%	0%	1%	6%	3%	97%	38.1%	$30,357
BG 3, CT 503.21	55%	27%	0%	0%	0%	10%	8%	0%	100%	7.3%	$34,113
BG 4, CT 503.21	56%	29%	0%	9%	0%	4%	2%	1%	99%	30.7%	$30,375
BG 1, CT 503.31	57%	17%	3%	2%	0%	15%	6%	1%	99%	26.1%	$31,042
BG 2, CT 503.31	76%	4%	0%	0%	0%	8%	12%	2%	98%	30.5%	$24,601
BG 1, CT 503.41	64%	25%	0%	2%	0%	3%	6%	2%	98%	25.0%	$29,259
BG 2, CT 503.41	66%	27%	0%	0%	0%	0%	7%	4%	96%	13.7%	$20,761
BG 3, CT 503.41	48%	32%	0%	0%	0%	13%	8%	11%	89%	19.9%	$27,500
BG 4, CT 503.41	34%	49%	2%	1%	0%	12%	2%	0%	100%	73.7%	$6,822
BG 1, CT 504.01	59%	17%	0%	4%	0%	3%	17%	1%	99%	23.4%	$33,582
BG 2, CT 504.01	77%	15%	0%	0%	0%	2%	7%	1%	99%	13.9%	$42,340
BG 1, CT 504.02	53%	19%	9%	3%	0%	16%	1%	4%	96%	14.6%	$44,211
BG 2, CT 504.02	69%	29%	0%	0%	0%	3%	0%	0%	100%	19.2%	$19,890
BG 3, CT 504.02	62%	25%	1%	1%	0%	2%	10%	0%	100%	43.5%	$17,043
BG 4, CT 504.02	60%	5%	2%	0%	0%	22%	11%	3%	97%	62.0%	$13,297
BG 1, CT 505.01	71%	13%	6%	0%	0%	5%	5%	0%	100%	18.1%	$26,360
BG 2, CT 505.01	74%	17%	3%	0%	0%	1%	5%	0%	100%	13.4%	$34,228
BG 3, CT 505.01	77%	10%	8%	0%	0%	1%	4%	6%	94%	12.8%	$33,047
BG 1, CT 505.03	74%	15%	0%	0%	0%	1%	10%	0%	100%	24.9%	$27,177
BG 2, CT 505.03	55%	26%	8%	1%	0%	6%	4%	0%	100%	28.7%	$30,504

Block Group	Race (Percent)[a]							Ethnicity (Percent)[a]		Percent of Residents in Poverty[a]	Median Household Income
	White	Black or African American	American Indian or Alaska Native	Asian	Native Hawaiian or Other Pacific Islander	Some Other Race Alone	Multiple Races	Not Hispanic or Latino	Hispanic or Latino		
BG 3, CT 505.03	68%	30%	0%	0%	0%	2%	0%	0%	100%	34.9%	$21,579
BG 1, CT 505.04	79%	12%	0%	0%	0%	2%	6%	0%	100%	38.4%	$26,027
BG 2, CT 505.04	64%	30%	1%	0%	0%	1%	5%	2%	98%	18.1%	$43,068
BG 3, CT 505.04	67%	26%	0%	1%	0%	5%	1%	0%	100%	43.7%	$25,952
BG 1, CT 506	74%	9%	0%	6%	0%	11%	0%	6%	94%	9.5%	$36,319
BG 2, CT 506	60%	36%	0%	0%	0%	1%	4%	0%	100%	48.0%	$12,171
BG 3, CT 506	58%	29%	6%	0%	0%	2%	5%	0%	100%	22.7%	$19,792
BG 4, CT 506	79%	6%	0%	0%	0%	15%	0%	0%	100%	63.9%	$13,438
BG 5, CT 506	49%	34%	0%	0%	0%	14%	3%	0%	100%	50.8%	$25,750
BG 6, CT 506	54%	40%	0%	0%	0%	0%	6%	0%	100%	77.9%	$6,791
BG 1, CT 507	50%	28%	1%	0%	0%	20%	2%	0%	100%	26.8%	$23,227
BG 2, CT 507	36%	15%	0%	2%	0%	46%	0%	2%	98%	69.8%	$11,250
BG 1, CT 508.03	48%	31%	0%	0%	0%	19%	2%	0%	100%	40.7%	$22,619
BG 2, CT 508.03	63%	16%	0%	0%	0%	19%	1%	0%	100%	24.6%	$30,637
BG 1, CT 508.11	58%	22%	2%	0%	0%	14%	4%	1%	99%	17.0%	$41,982
BG 2, CT 508.11	62%	18%	0%	2%	0%	13%	5%	1%	99%	16.8%	$32,422
BG 3, CT 508.11	77%	15%	0%	0%	0%	8%	0%	0%	100%	38.4%	$24,196
BG 1, CT 508.12	63%	18%	0%	0%	0%	12%	8%	0%	100%	39.6%	$29,896
BG 2, CT 508.12	67%	21%	2%	0%	0%	8%	3%	0%	100%	29.4%	$31,076
BG 1, CT 508.21	68%	20%	4%	0%	0%	3%	4%	1%	99%	29.8%	$30,366
BG 2, CT 508.21	46%	16%	0%	0%	0%	38%	0%	0%	100%	24.6%	$36,658
BG 3, CT 508.21	60%	23%	0%	3%	0%	9%	5%	4%	96%	25.7%	$24,263
BG 1, CT 508.22	46%	34%	0%	0%	0%	6%	14%	0%	100%	21.0%	$21,857
BG 2, CT 508.22	61%	16%	2%	0%	0%	12%	9%	1%	99%	17.6%	$36,786
BG 3, CT 508.22	48%	32%	0%	1%	0%	16%	3%	1%	99%	47.3%	$25,833
BG 1, CT 508.31	53%	18%	0%	0%	0%	22%	7%	0%	100%	32.3%	$24,213
BG 2, CT 508.31	56%	18%	0%	0%	0%	22%	4%	0%	100%	29.7%	$25,139
BG 3, CT 508.31	64%	26%	0%	0%	0%	10%	0%	0%	100%	34.4%	$26,940
BG 1, CT 508.41	45%	27%	0%	0%	0%	28%	0%	0%	100%	42.6%	$21,250

Block Group	Race (Percent)[a]							Ethnicity (Percent)[a]		Percent of Residents in Poverty[a]	Median Household Income
	White	Black or African American	American Indian or Alaska Native	Asian	Native Hawaiian or Other Pacific Islander	Some Other Race Alone	Multiple Races	Not Hispanic or Latino	Hispanic or Latino		
BG 2, CT 508.41	44%	29%	1%	0%	0%	25%	1%	0%	100%	54.1%	$19,851
BG 1, CT 509.01	54%	18%	0%	0%	0%	24%	4%	0%	100%	26.0%	$32,539
BG 2, CT 509.01	58%	14%	0%	0%	0%	22%	5%	2%	98%	24.1%	$45,792
BG 3, CT 509.01	29%	30%	7%	0%	0%	22%	12%	0%	100%	46.0%	$18,750
BG 1, CT 509.02	39%	26%	0%	0%	0%	27%	8%	0%	100%	26.6%	$33,618
BG 2, CT 509.02	54%	28%	0%	0%	0%	19%	0%	0%	100%	48.1%	$15,449
BG 3, CT 509.02	58%	9%	0%	0%	0%	33%	0%	2%	98%	32.7%	$24,970
BG 4, CT 509.02	64%	14%	4%	0%	0%	19%	0%	0%	100%	0.0%	$44,939
BG 5, CT 509.02	56%	21%	0%	0%	0%	15%	8%	0%	100%	16.9%	$49,511
BG 1, CT 510.01	79%	16%	0%	0%	0%	5%	0%	0%	100%	46.3%	$17,188
BG 2, CT 510.01	72%	7%	4%	0%	0%	11%	5%	2%	98%	25.9%	$26,304
BG 3, CT 510.01	53%	6%	2%	0%	0%	36%	4%	0%	100%	47.2%	$18,254
BG 1, CT 510.02	51%	21%	0%	0%	0%	18%	9%	0%	100%	51.3%	$16,368
BG 2, CT 510.02	58%	19%	0%	0%	0%	24%	0%	4%	96%	41.0%	$12,361
BG 3, CT 510.02	73%	0%	0%	0%	0%	27%	0%	3%	97%	24.8%	$36,047
BG 1, CT 511.02	51%	11%	0%	0%	0%	38%	0%	1%	99%	52.0%	$17,333
BG 2, CT 511.02	38%	24%	1%	1%	0%	34%	2%	0%	100%	47.6%	$14,426
BG 1, CT 511.03	51%	19%	2%	0%	0%	19%	8%	2%	98%	23.8%	$30,781
BG 2, CT 511.03	67%	7%	1%	4%	0%	17%	5%	0%	100%	6.8%	$49,432
BG 3, CT 511.03	46%	18%	0%	0%	0%	34%	2%	0%	100%	28.2%	$33,929
BG 1, CT 511.04	56%	28%	3%	0%	0%	11%	1%	3%	97%	39.5%	$33,542
BG 2, CT 511.04	69%	12%	0%	0%	0%	11%	8%	1%	99%	6.8%	$58,375
BG 3, CT 511.04	58%	18%	0%	0%	0%	24%	0%	0%	100%	12.7%	$27,350
BG 1, CT 9800.03	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
BG 0, CT 9900	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
BG 1, CT 202	76%	7%	0%	2%	0%	10%	4%	2%	98%	37.6%	$21,111
BG 2, CT 202	48%	16%	0%	0%	0%	34%	2%	0%	100%	60.4%	$15,036
BG 3, CT 202	53%	14%	2%	0%	0%	25%	6%	0%	100%	78.2%	$9,265
BG 4, CT 202	68%	12%	0%	0%	0%	16%	4%	2%	98%	71.5%	$11,033

Block Group	Race (Percent)[a]							Ethnicity (Percent)[a]		Percent of Residents in Poverty[a]	Median Household Income
	White	Black or African American	American Indian or Alaska Native	Asian	Native Hawaiian or Other Pacific Islander	Some Other Race Alone	Multiple Races	Not Hispanic or Latino	Hispanic or Latino		
BG 1, CT 203.02	64%	4%	1%	0%	0%	25%	6%	0%	100%	65.5%	$15,229
BG 1, CT 204.03	69%	3%	0%	0%	0%	27%	2%	0%	100%	40.6%	$18,824
BG 2, CT 204.03	57%	27%	2%	0%	0%	10%	5%	0%	100%	38.8%	$21,154
BG 3, CT 204.03	76%	10%	0%	0%	0%	10%	4%	0%	100%	31.9%	$28,650
BG 4, CT 204.03	58%	19%	0%	0%	0%	22%	1%	0%	100%	51.5%	$16,129
BG 1, CT 204.22	68%	6%	2%	0%	0%	22%	2%	0%	100%	59.8%	$14,900
BG 1, CT 204.23	77%	2%	0%	0%	0%	20%	1%	0%	100%	31.5%	$24,745
BG 2, CT 204.23	74%	10%	0%	0%	0%	12%	4%	0%	100%	29.0%	$26,866
BG 3, CT 204.23	82%	0%	2%	0%	0%	1%	15%	0%	100%	11.0%	$55,563
BG 1, CT 204.25	50%	10%	0%	0%	0%	35%	5%	1%	99%	80.2%	$6,583
BG 2, CT 204.25	75%	13%	0%	0%	0%	8%	5%	0%	100%	36.9%	$22,303
BG 1, CT 204.26	63%	10%	0%	0%	0%	22%	6%	1%	99%	92.9%	ND
BG 1, CT 204.27	44%	12%	0%	0%	0%	34%	10%	3%	97%	70.1%	$12,978
BG 1, CT 205	86%	1%	0%	0%	0%	7%	6%	1%	99%	10.7%	$67,619
BG 2, CT 205	91%	1%	0%	0%	0%	7%	1%	1%	99%	5.0%	$62,500
BG 3, CT 205	78%	7%	0%	0%	0%	9%	5%	3%	97%	31.3%	$40,000
BG 1, CT 9800.01	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
BG 1, CT 9800.02	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
BG 1, CT 9800.03	90%	0%	0%	0%	0%	10%	0%	0%	100%	94.8%	$8,563
BG 1, CT 9800.04	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
BG 1, CT 9800.05	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
BG 1, CT 9800.06	15%	0%	0%	0%	0%	85%	0%	0%	100%	52.1%	ND
BG 1, CT 9800.07	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
BG 1, CT 9800.08	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
BG 0, CT 9902.01	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
BG 1, CT 2601	71%	6%	0%	1%	0%	13%	9%	3%	97%	45.3%	$23,125
BG 2, CT 2601	70%	2%	0%	0%	0%	28%	0%	0%	100%	18.2%	$33,529
BG 3, CT 2601	64%	1%	0%	0%	0%	33%	2%	0%	100%	54.6%	$15,017
BG 4, CT 2601	74%	3%	0%	0%	0%	23%	0%	0%	100%	48.6%	$20,286

Block Group	Race (Percent)[a]							Ethnicity (Percent)[a]		Percent of Residents in Poverty[a]	Median Household Income
	White	Black or African American	American Indian or Alaska Native	Asian	Native Hawaiian or Other Pacific Islander	Some Other Race Alone	Multiple Races	Not Hispanic or Latino	Hispanic or Latino		
BG 1, CT 2602.01	82%	5%	0%	0%	0%	12%	1%	0%	100%	23.8%	$30,625
BG 2, CT 2602.01	87%	0%	0%	0%	0%	10%	3%	1%	99%	16.8%	$34,583
BG 1, CT 2602.02	69%	3%	0%	0%	0%	26%	2%	2%	98%	16.8%	$50,167
BG 2, CT 2602.02	79%	7%	0%	0%	0%	11%	3%	0%	100%	46.5%	$11,920
BG 1, CT 2603	68%	2%	1%	0%	0%	28%	1%	0%	100%	49.6%	$16,985
BG 2, CT 2603	79%	3%	0%	0%	0%	16%	2%	0%	100%	36.6%	$20,759
BG 3, CT 2603	75%	1%	0%	5%	0%	18%	2%	0%	100%	54.9%	$13,360
BG 1, CT 2604	65%	3%	0%	2%	0%	30%	0%	0%	100%	58.1%	$15,042
BG 2, CT 2604	66%	1%	0%	0%	0%	33%	0%	0%	100%	51.2%	$17,407
BG 3, CT 2604	79%	2%	0%	0%	0%	19%	0%	0%	100%	39.4%	$17,912
BG 1, CT 2605	79%	2%	0%	0%	0%	19%	0%	0%	100%	30.5%	$19,907
BG 2, CT 2605	69%	2%	0%	0%	0%	26%	3%	0%	100%	36.4%	$27,321
BG 3, CT 2605	54%	13%	0%	0%	0%	17%	16%	0%	100%	91.4%	$6,833
BG 4, CT 2605	64%	0%	0%	0%	0%	26%	10%	2%	98%	49.8%	$17,375
BG 1, CT 2606	64%	6%	0%	2%	0%	28%	0%	0%	100%	75.9%	$4,840
BG 2, CT 2606	81%	3%	0%	0%	0%	16%	0%	0%	100%	61.6%	$11,538
BG 3, CT 2606	85%	10%	0%	0%	0%	5%	0%	0%	100%	54.0%	$20,089
BG 1, CT 2607	69%	17%	0%	0%	0%	14%	0%	0%	100%	50.5%	$13,988
BG 2, CT 2607	71%	5%	0%	0%	0%	24%	0%	1%	99%	67.4%	$9,147
BG 3, CT 2607	78%	4%	0%	0%	0%	18%	0%	0%	100%	51.3%	$18,288
BG 1, CT 2608	78%	8%	0%	2%	0%	11%	2%	3%	97%	49.2%	$21,958
BG 2, CT 2608	77%	7%	0%	0%	0%	16%	0%	0%	100%	31.3%	$20,833
BG 3, CT 2608	75%	5%	0%	0%	0%	19%	1%	1%	99%	37.5%	$27,700
BG 1, CT 2609.01	76%	0%	0%	4%	0%	19%	1%	0%	100%	28.8%	$20,605
BG 2, CT 2609.01	83%	4%	0%	1%	0%	12%	0%	3%	97%	9.4%	$44,811
BG 1, CT 2609.02	79%	3%	0%	0%	0%	17%	0%	0%	100%	45.5%	$18,021
BG 2, CT 2609.02	70%	1%	0%	0%	0%	28%	0%	1%	99%	46.2%	$28,176
BG 1, CT 1601	50%	42%	0%	0%	0%	8%	0%	33%	67%	ND	ND
BG 2, CT 1601	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

Block Group	Race (Percent)[a]							Ethnicity (Percent)[a]		Percent of Residents in Poverty[a]	Median Household Income
	White	Black or African American	American Indian or Alaska Native	Asian	Native Hawaiian or Other Pacific Islander	Some Other Race Alone	Multiple Races	Not Hispanic or Latino	Hispanic or Latino		
BG 1, CT 1602.01	72%	7%	0%	0%	0%	19%	2%	0%	100%	29.2%	$27,007
BG 2, CT 1602.01	50%	4%	0%	0%	0%	42%	5%	0%	100%	40.9%	$19,239
BG 1, CT 1602.02	55%	4%	0%	5%	0%	26%	10%	0%	100%	51.3%	$16,123
BG 2, CT 1602.02	88%	0%	0%	0%	0%	12%	0%	3%	97%	43.9%	$23,261
BG 3, CT 1602.02	56%	2%	0%	0%	0%	25%	17%	0%	100%	51.8%	$14,943
BG 1, CT 1603	59%	12%	0%	0%	0%	26%	3%	0%	100%	36.6%	$22,784
BG 2, CT 1603	53%	5%	0%	5%	0%	37%	1%	1%	99%	52.4%	$12,798
BG 3, CT 1603	72%	6%	0%	0%	0%	19%	4%	1%	99%	44.7%	$19,787
BG 0, CT 9900	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
BG 1, CT 9556	99%	0%	0%	0%	0%	1%	0%	0%	100%	66.0%	$15,000
BG 2, CT 9556	100%	0%	0%	0%	0%	0%	0%	0%	100%	49.5%	$15,798
BG 3, CT 9556	94%	1%	0%	0%	0%	3%	2%	0%	100%	60.4%	$18,444
BG 1, CT 9557	99%	0%	0%	0%	0%	0%	1%	0%	100%	50.3%	$14,957
BG 2, CT 9557	90%	0%	0%	0%	0%	4%	6%	0%	100%	66.2%	$12,598
BG 3, CT 9557	100%	0%	0%	0%	0%	0%	0%	0%	100%	91.1%	ND
BG 1, CT 9558	99%	1%	0%	0%	0%	0%	0%	1%	99%	58.1%	$12,917
BG 2, CT 9558	98%	2%	0%	0%	0%	0%	0%	0%	100%	49.3%	$14,858
BG 3, CT 9558	90%	3%	0%	0%	0%	6%	0%	1%	99%	48.3%	$15,125
BG 1, CT 9559	94%	2%	0%	0%	0%	2%	2%	0%	100%	63.7%	$12,127
BG 2, CT 9559	99%	0%	0%	0%	0%	1%	0%	0%	100%	75.9%	$9,661
BG 3, CT 9559	100%	0%	0%	0%	0%	0%	0%	1%	99%	86.2%	$15,875
BG 1, CT 2401.01	74%	2%	0%	1%	0%	24%	0%	0%	100%	33.9%	$40,491
BG 2, CT 2401.01	100%	0%	0%	0%	0%	0%	0%	0%	100%	0.0%	ND
BG 3, CT 2401.01	73%	2%	0%	0%	0%	24%	0%	1%	99%	23.2%	$57,770
BG 1, CT 2401.02	68%	0%	0%	0%	0%	32%	0%	0%	100%	33.1%	$18,496
BG 2, CT 2401.02	79%	1%	0%	4%	0%	12%	3%	0%	100%	37.2%	$28,083
BG 3, CT 2401.02	79%	0%	0%	0%	0%	21%	0%	1%	99%	35.1%	$24,750
BG 1, CT 2402.01	65%	2%	0%	0%	0%	26%	6%	0%	100%	40.5%	$22,778
BG 2, CT 2402.01	62%	1%	1%	0%	0%	31%	4%	1%	99%	31.9%	$26,538

Block Group	Race (Percent)[a]							Ethnicity (Percent)[a]		Percent of Residents in Poverty[a]	Median Household Income
	White	Black or African American	American Indian or Alaska Native	Asian	Native Hawaiian or Other Pacific Islander	Some Other Race Alone	Multiple Races	Not Hispanic or Latino	Hispanic or Latino		
BG 1, CT 2402.02	78%	4%	1%	0%	0%	16%	1%	0%	100%	46.3%	$16,918
BG 2, CT 2402.02	70%	5%	0%	0%	0%	19%	6%	0%	100%	45.5%	$25,608
BG 1, CT 2403	69%	1%	0%	0%	0%	30%	0%	0%	100%	27.2%	$29,450
BG 2, CT 2403	92%	8%	0%	0%	0%	0%	0%	2%	98%	36.3%	$22,714
BG 1, CT 2404.01	67%	1%	0%	0%	0%	27%	4%	0%	100%	39.8%	$22,361
BG 2, CT 2404.01	69%	6%	0%	0%	0%	21%	3%	0%	100%	39.8%	$21,743
BG 3, CT 2404.01	67%	13%	0%	0%	0%	18%	1%	1%	99%	17.3%	$31,111
BG 1, CT 2404.02	71%	2%	0%	2%	0%	25%	0%	0%	100%	48.4%	$25,056
BG 2, CT 2404.02	74%	5%	0%	0%	0%	22%	0%	0%	100%	32.6%	$26,667
BG 1, CT 2405	88%	3%	0%	0%	0%	8%	0%	0%	100%	48.2%	$22,298
BG 2, CT 2405	78%	2%	0%	0%	0%	17%	2%	0%	100%	48.2%	$17,850
BG 3, CT 2405	79%	1%	0%	0%	0%	20%	0%	0%	100%	52.3%	$11,250
BG 1, CT 2406.01	67%	6%	0%	0%	0%	24%	4%	0%	100%	42.0%	$23,962
BG 2, CT 2406.01	69%	4%	0%	2%	0%	21%	3%	0%	100%	55.9%	$18,500
BG 1, CT 2406.02	71%	1%	0%	0%	0%	24%	4%	1%	99%	31.0%	$27,049
BG 2, CT 2406.02	74%	5%	0%	2%	0%	17%	2%	1%	99%	45.0%	$20,970
BG 1, CT 9539	85%	0%	0%	0%	0%	15%	0%	0%	100%	44.2%	$16,148
BG 2, CT 9539	66%	8%	0%	0%	0%	24%	2%	0%	100%	58.0%	$19,083
BG 1, CT 9540	74%	3%	0%	0%	0%	22%	1%	0%	100%	52.2%	$17,909
BG 2, CT 9540	65%	10%	0%	0%	0%	24%	1%	0%	100%	70.9%	$10,933
BG 1, CT 9541	58%	14%	0%	0%	0%	26%	2%	0%	100%	83.5%	$11,438
BG 2, CT 9541	62%	8%	0%	0%	0%	26%	3%	0%	100%	64.1%	$15,875
BG 1, CT 9542	68%	3%	0%	0%	0%	28%	1%	0%	100%	61.2%	$9,262
BG 2, CT 9542	73%	8%	0%	0%	0%	19%	0%	1%	99%	26.2%	$31,592
BG 3, CT 9542	50%	29%	0%	0%	0%	21%	0%	0%	100%	46.9%	$19,038
BG 4, CT 9542	59%	8%	0%	0%	0%	32%	1%	0%	100%	60.7%	$14,635
BG 1, CT 9543	67%	9%	0%	0%	0%	24%	0%	0%	100%	66.2%	$11,080
BG 2, CT 9543	79%	12%	0%	0%	0%	10%	0%	0%	100%	65.0%	$12,740
BG 1, CT 9544	77%	6%	0%	0%	0%	12%	5%	0%	100%	43.8%	$17,540

Block Group	Race (Percent)[a]							Ethnicity (Percent)[a]		Percent of Residents in Poverty[a]	Median Household Income
	White	Black or African American	American Indian or Alaska Native	Asian	Native Hawaiian or Other Pacific Islander	Some Other Race Alone	Multiple Races	Not Hispanic or Latino	Hispanic or Latino		
BG 2, CT 9544	75%	0%	0%	0%	0%	17%	8%	0%	100%	59.5%	$12,847
BG 1, CT 9545	61%	1%	0%	0%	0%	38%	0%	1%	99%	58.6%	$16,250
BG 2, CT 9545	78%	1%	0%	0%	0%	21%	0%	0%	100%	31.7%	$18,125
BG 3, CT 9545	53%	0%	0%	0%	0%	47%	0%	0%	100%	65.6%	$12,955
BG 4, CT 9545	72%	9%	0%	0%	0%	14%	5%	1%	99%	62.8%	$18,664
BG 5, CT 9545	50%	17%	0%	0%	0%	33%	0%	0%	100%	64.3%	$11,957
BG 1, CT 9546	59%	6%	0%	0%	0%	32%	3%	0%	100%	47.0%	$19,185
BG 2, CT 9546	59%	7%	0%	0%	0%	31%	3%	0%	100%	43.1%	$19,223
BG 1, CT 9547	73%	5%	0%	0%	0%	22%	0%	1%	99%	27.5%	$30,772
BG 2, CT 9547	65%	6%	0%	0%	0%	28%	1%	0%	100%	60.6%	$10,134
BG 1, CT 9517	68%	4%	0%	0%	0%	11%	17%	1%	99%	68.7%	$11,184
BG 2, CT 9517	73%	4%	0%	0%	0%	0%	23%	0%	100%	59.2%	$13,772
BG 3, CT 9517	75%	5%	0%	0%	0%	1%	19%	0%	100%	50.2%	$17,702
BG 1, CT 9518	54%	0%	0%	0%	0%	1%	46%	0%	100%	54.7%	$12,125
BG 2, CT 9518	56%	2%	0%	0%	0%	3%	40%	0%	100%	45.9%	$14,750
BG 3, CT 9518	47%	0%	0%	0%	0%	8%	45%	0%	100%	67.9%	$9,362
BG 1, CT 9519	52%	0%	0%	0%	0%	1%	47%	1%	99%	93.8%	$2,870
BG 2, CT 9519	81%	3%	0%	0%	0%	0%	17%	1%	99%	58.2%	$13,693
BG 1, CT 9520	61%	2%	0%	0%	0%	2%	35%	0%	100%	62.0%	$16,117
BG 2, CT 9520	57%	2%	0%	0%	0%	8%	34%	0%	100%	57.5%	$10,469
BG 1, CT 9521	63%	8%	0%	0%	0%	2%	27%	0%	100%	24.4%	$21,250
BG 2, CT 9521	56%	5%	0%	0%	0%	3%	36%	0%	100%	70.1%	$15,639
BG 3, CT 9521	52%	1%	0%	0%	0%	3%	44%	0%	100%	60.6%	$10,702
BG 1, CT 5301	43%	2%	0%	0%	0%	0%	55%	0%	100%	45.7%	$18,274
BG 2, CT 5301	37%	6%	0%	0%	0%	0%	58%	0%	100%	56.1%	$15,403
BG 1, CT 5302	46%	1%	0%	0%	0%	5%	48%	0%	100%	52.5%	$15,441
BG 2, CT 5302	36%	0%	0%	0%	0%	0%	64%	0%	100%	46.7%	$24,969
BG 3, CT 5302	51%	4%	0%	0%	0%	0%	44%	0%	100%	56.7%	$22,933
BG 1, CT 5303	50%	0%	0%	0%	0%	5%	45%	0%	100%	61.2%	$14,313

Block Group	Race (Percent)[a]							Ethnicity (Percent)[a]		Percent of Residents in Poverty[a]	Median Household Income
	White	Black or African American	American Indian or Alaska Native	Asian	Native Hawaiian or Other Pacific Islander	Some Other Race Alone	Multiple Races	Not Hispanic or Latino	Hispanic or Latino		
BG 2, CT 5303	35%	0%	0%	0%	0%	4%	60%	0%	100%	69.0%	$6,011
BG 3, CT 5303	45%	1%	0%	0%	0%	0%	55%	0%	100%	54.8%	$16,826
BG 1, CT 5304	38%	2%	0%	0%	0%	0%	60%	0%	100%	66.7%	$9,250
BG 2, CT 5304	26%	0%	0%	0%	0%	14%	60%	0%	100%	43.8%	$24,833
BG 3, CT 5304	46%	0%	0%	0%	0%	7%	46%	0%	100%	12.1%	$29,402
BG 4, CT 5304	29%	0%	0%	0%	0%	0%	71%	0%	100%	69.6%	$11,875
BG 1, CT 5305	33%	0%	0%	0%	0%	0%	67%	2%	98%	60.9%	$16,417
BG 2, CT 5305	51%	0%	0%	0%	0%	2%	47%	0%	100%	40.1%	$23,029
BG 3, CT 5305	50%	2%	0%	0%	0%	0%	47%	0%	100%	39.4%	$23,894
BG 4, CT 5305	42%	0%	0%	0%	0%	4%	55%	3%	97%	63.0%	$11,733
BG 1, CT 5306	57%	0%	0%	0%	0%	4%	39%	0%	100%	72.1%	$12,206
BG 2, CT 5306	44%	0%	0%	0%	0%	0%	56%	0%	100%	55.8%	$13,125
BG 3, CT 5306	15%	0%	0%	0%	0%	0%	85%	0%	100%	53.4%	$15,604
BG 4, CT 5306	44%	0%	0%	0%	0%	0%	56%	2%	98%	62.7%	$15,102
BG 1, CT 9505	56%	3%	0%	0%	0%	29%	12%	3%	97%	49.4%	$18,611
BG 2, CT 9505	61%	9%	0%	0%	0%	27%	2%	10%	90%	59.1%	$14,318
BG 0, CT 9905.01	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
BG 1, CT 5401	93%	3%	0%	0%	0%	0%	3%	0%	100%	35.3%	$19,231
BG 2, CT 5401	61%	19%	0%	0%	0%	0%	19%	0%	100%	46.6%	$17,778
BG 1, CT 5402	78%	15%	0%	0%	0%	3%	5%	3%	97%	18.5%	$48,026
BG 2, CT 5402	94%	3%	0%	0%	0%	0%	3%	12%	88%	14.3%	$46,324
BG 3, CT 5402	55%	17%	0%	0%	0%	3%	25%	0%	100%	42.0%	$12,404
BG 4, CT 5402	92%	5%	0%	0%	0%	2%	1%	14%	86%	17.6%	$52,375
BG 1, CT 5403	70%	20%	0%	0%	0%	1%	9%	0%	100%	32.4%	$22,107
BG 2, CT 5403	67%	13%	0%	0%	0%	3%	18%	0%	100%	57.1%	$13,601
BG 1, CT 5404	76%	6%	0%	1%	0%	8%	8%	7%	93%	3.9%	$65,638
BG 2, CT 5404	70%	16%	0%	0%	0%	3%	11%	1%	99%	40.7%	$26,031
BG 3, CT 5404	81%	11%	0%	0%	0%	0%	8%	1%	99%	15.1%	$50,893
BG 1, CT 5405	68%	15%	0%	0%	0%	4%	13%	4%	96%	41.7%	$20,431

Block Group	Race (Percent)[a]							Ethnicity (Percent)[a]		Percent of Residents in Poverty[a]	Median Household Income
	White	Black or African American	American Indian or Alaska Native	Asian	Native Hawaiian or Other Pacific Islander	Some Other Race Alone	Multiple Races	Not Hispanic or Latino	Hispanic or Latino		
BG 2, CT 5405	84%	11%	0%	0%	0%	0%	4%	1%	99%	40.2%	$27,730
BG 3, CT 5405	55%	27%	0%	0%	0%	0%	18%	3%	97%	33.2%	$31,179
BG 1, CT 5406	59%	25%	0%	0%	0%	2%	15%	1%	99%	67.6%	$14,534
BG 2, CT 5406	69%	22%	0%	0%	0%	1%	8%	2%	98%	34.1%	$30,541
BG 1, CT 5407	72%	21%	0%	0%	0%	0%	7%	1%	99%	63.0%	$13,611
BG 2, CT 5407	78%	7%	0%	0%	0%	2%	12%	1%	99%	26.7%	$37,287
BG 3, CT 5407	74%	13%	0%	0%	0%	0%	12%	1%	99%	54.8%	$15,441
BG 0, CT 9900.21	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
BG 1, CT 1501.02	61%	10%	0%	0%	0%	25%	3%	0%	100%	43.3%	$22,353
BG 2, CT 1501.02	70%	7%	0%	0%	0%	22%	1%	0%	100%	24.8%	$25,076
BG 1, CT 1501.04	61%	7%	0%	5%	0%	26%	0%	5%	95%	40.0%	$23,867
BG 2, CT 1501.04	64%	14%	0%	0%	0%	14%	8%	1%	99%	25.3%	$27,176
BG 3, CT 1501.04	69%	7%	0%	0%	0%	24%	0%	0%	100%	43.0%	$25,038
BG 4, CT 1501.04	87%	0%	0%	0%	0%	13%	0%	0%	100%	32.8%	$16,250
BG 1, CT 1502	72%	10%	0%	0%	0%	18%	0%	1%	99%	20.3%	$31,299
BG 2, CT 1502	62%	14%	2%	0%	0%	19%	3%	0%	100%	52.2%	$15,268
BG 3, CT 1502	71%	6%	0%	1%	0%	20%	2%	1%	99%	24.1%	$30,765
BG 4, CT 1502	83%	2%	0%	0%	0%	14%	0%	0%	100%	49.7%	$15,591
BG 1, CT 1503.01	54%	8%	1%	1%	0%	34%	1%	0%	100%	42.9%	$16,648
BG 2, CT 1503.01	50%	13%	0%	3%	0%	34%	0%	0%	100%	61.4%	$17,403
BG 3, CT 1503.01	48%	9%	0%	3%	0%	40%	0%	0%	100%	97.4%	$3,798
BG 1, CT 1503.02	51%	8%	0%	0%	0%	40%	1%	0%	100%	33.4%	$23,417
BG 2, CT 1503.02	69%	7%	0%	0%	0%	18%	7%	1%	99%	51.9%	$15,035
BG 1, CT 1504	46%	12%	0%	0%	0%	36%	6%	1%	99%	65.4%	$18,672
BG 2, CT 1504	57%	11%	0%	0%	0%	20%	11%	0%	100%	80.1%	$11,875
BG 3, CT 1504	65%	11%	0%	0%	0%	24%	0%	5%	95%	7.9%	$43,365
BG 4, CT 1504	69%	7%	0%	0%	0%	24%	0%	0%	100%	17.7%	$22,955
BG 5, CT 1504	71%	8%	0%	0%	0%	21%	0%	0%	100%	29.3%	$16,625
BG 1, CT 1505	62%	10%	0%	0%	0%	27%	2%	0%	100%	52.2%	$15,929

Block Group	Race (Percent)[a]							Ethnicity (Percent)[a]		Percent of Residents in Poverty[a]	Median Household Income
	White	Black or African American	American Indian or Alaska Native	Asian	Native Hawaiian or Other Pacific Islander	Some Other Race Alone	Multiple Races	Not Hispanic or Latino	Hispanic or Latino		
BG 2, CT 1505	42%	11%	0%	0%	0%	43%	5%	0%	100%	69.3%	$16,818
BG 3, CT 1505	51%	9%	0%	0%	0%	34%	6%	0%	100%	52.1%	$12,556
BG 4, CT 1505	48%	9%	0%	0%	0%	41%	2%	0%	100%	53.2%	$14,131
BG 1, CT 1506.01	53%	9%	0%	1%	0%	31%	6%	0%	100%	42.6%	$21,635
BG 1, CT 1506.02	58%	7%	0%	0%	0%	32%	3%	2%	98%	30.5%	$31,744
BG 2, CT 1506.02	54%	10%	0%	0%	0%	35%	1%	0%	100%	33.3%	$30,464
BG 0, CT 9901.03	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
BG 1, CT 5801	100%	0%	0%	0%	0%	0%	0%	0%	100%	54.7%	$14,619
BG 2, CT 5801	97%	1%	0%	0%	0%	3%	0%	1%	99%	36.4%	$21,071
BG 3, CT 5801	100%	0%	0%	0%	0%	0%	0%	0%	100%	69.9%	$11,046
BG 1, CT 5802	100%	0%	0%	0%	0%	0%	0%	0%	100%	54.3%	$15,587
BG 2, CT 5802	100%	0%	0%	0%	0%	0%	0%	0%	100%	76.8%	$14,181
BG 3, CT 5802	98%	0%	0%	1%	0%	1%	0%	0%	100%	52.3%	$20,861
BG 4, CT 5802	100%	0%	0%	0%	0%	0%	0%	0%	100%	46.7%	$24,205
BG 1, CT 9609	95%	3%	1%	0%	0%	0%	1%	0%	100%	52.1%	$13,860
BG 2, CT 9609	96%	4%	0%	0%	0%	0%	0%	1%	99%	59.4%	$11,731
BG 3, CT 9609	92%	0%	0%	0%	0%	7%	0%	0%	100%	71.2%	$11,000
BG 1, CT 9610	82%	3%	0%	0%	0%	12%	4%	1%	99%	74.9%	$12,285
BG 2, CT 9610	89%	2%	0%	0%	0%	9%	0%	6%	94%	44.3%	$15,870
BG 1, CT 9611	94%	1%	0%	0%	0%	1%	4%	0%	100%	73.1%	$15,806
BG 2, CT 9611	87%	5%	0%	0%	0%	7%	1%	1%	99%	76.4%	$11,615
BG 1, CT 9612	77%	15%	0%	0%	0%	7%	1%	0%	100%	67.0%	$13,088
BG 2, CT 9612	90%	1%	0%	0%	0%	4%	5%	0%	100%	63.9%	$12,422
BG 1, CT 9613	85%	2%	0%	0%	0%	5%	8%	1%	99%	95.6%	$4,643
BG 2, CT 9613	95%	2%	0%	0%	0%	1%	2%	3%	97%	35.6%	$23,672
BG 1, CT 9614	93%	3%	0%	0%	0%	3%	0%	0%	100%	38.7%	$24,125
BG 2, CT 9614	90%	5%	0%	0%	0%	1%	4%	0%	100%	47.8%	$14,292
BG 1, CT 9615	92%	7%	0%	0%	0%	0%	1%	2%	98%	53.2%	$13,438
BG 2, CT 9615	100%	0%	0%	0%	0%	0%	0%	0%	100%	57.8%	$13,750

Block Group	Race (Percent)[a]							Ethnicity (Percent)[a]		Percent of Residents in Poverty[a]	Median Household Income
	White	Black or African American	American Indian or Alaska Native	Asian	Native Hawaiian or Other Pacific Islander	Some Other Race Alone	Multiple Races	Not Hispanic or Latino	Hispanic or Latino		
BG 3, CT 9615	97%	3%	1%	0%	0%	0%	0%	2%	98%	82.6%	$8,849
BG 0, CT 9900	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
BG 1, CT 2701	76%	4%	0%	0%	0%	17%	4%	0%	100%	56.6%	$16,759
BG 2, CT 2701	75%	10%	4%	0%	0%	2%	9%	1%	99%	61.2%	$13,963
BG 3, CT 2701	80%	7%	0%	0%	0%	10%	3%	1%	99%	46.1%	$15,250
BG 4, CT 2701	67%	8%	1%	0%	0%	14%	9%	1%	99%	30.9%	$19,779
BG 1, CT 2702.01	54%	7%	0%	0%	0%	26%	13%	0%	100%	58.9%	$13,457
BG 2, CT 2702.01	42%	16%	0%	0%	0%	22%	21%	9%	91%	79.8%	$8,828
BG 3, CT 2702.01	60%	8%	0%	0%	0%	18%	15%	0%	100%	41.6%	$24,096
BG 1, CT 2702.02	52%	11%	0%	0%	0%	32%	6%	0%	100%	63.7%	$10,299
BG 2, CT 2702.02	74%	15%	0%	0%	0%	1%	10%	1%	99%	62.6%	$17,500
BG 1, CT 2703	65%	7%	0%	0%	0%	12%	16%	0%	100%	53.7%	$29,565
BG 2, CT 2703	86%	14%	0%	0%	0%	0%	0%	0%	100%	27.7%	$23,750
BG 3, CT 2703	47%	34%	0%	0%	0%	12%	7%	0%	100%	62.2%	$12,344
BG 4, CT 2703	67%	12%	0%	0%	0%	5%	16%	0%	100%	32.8%	$31,441
BG 1, CT 2704	96%	1%	0%	0%	0%	3%	0%	0%	100%	60.8%	$6,836
BG 2, CT 2704	69%	16%	0%	0%	0%	7%	8%	0%	100%	36.9%	$18,583
BG 3, CT 2704	72%	17%	0%	0%	0%	6%	5%	0%	100%	88.2%	$5,000
BG 1, CT 2705	78%	14%	1%	0%	0%	4%	3%	0%	100%	42.0%	$27,192
BG 2, CT 2705	56%	35%	0%	0%	0%	9%	0%	0%	100%	12.3%	$20,417
BG 3, CT 2705	49%	21%	8%	0%	0%	16%	5%	0%	100%	70.8%	$10,956
BG 4, CT 2705	66%	20%	0%	0%	0%	10%	3%	0%	100%	31.5%	$17,431
BG 5, CT 2705	84%	3%	0%	0%	0%	6%	7%	0%	100%	19.3%	$36,616
BG 1, CT 2706	80%	7%	1%	0%	0%	4%	8%	0%	100%	61.0%	$12,854
BG 2, CT 2706	59%	11%	0%	0%	0%	8%	22%	0%	100%	66.0%	$14,219
BG 3, CT 2706	61%	19%	0%	0%	0%	4%	16%	0%	100%	46.6%	$26,563
BG 4, CT 2706	57%	19%	0%	0%	0%	8%	16%	0%	100%	82.1%	$8,630
BG 1, CT 2707	61%	10%	0%	0%	0%	19%	11%	0%	100%	42.9%	$21,042
BG 2, CT 2707	54%	19%	0%	0%	0%	12%	15%	0%	100%	65.4%	$9,519

Block Group	Race (Percent)[a]							Ethnicity (Percent)[a]		Percent of Residents in Poverty[a]	Median Household Income
	White	Black or African American	American Indian or Alaska Native	Asian	Native Hawaiian or Other Pacific Islander	Some Other Race Alone	Multiple Races	Not Hispanic or Latino	Hispanic or Latino		
BG 3, CT 2707	53%	24%	0%	0%	0%	17%	5%	0%	100%	58.9%	$15,075
BG 1, CT 2708	74%	8%	0%	0%	0%	10%	7%	0%	100%	48.2%	$21,684
BG 2, CT 2708	64%	8%	0%	0%	0%	21%	6%	0%	100%	56.9%	$13,942
BG 3, CT 2708	87%	0%	0%	0%	0%	13%	0%	0%	100%	74.0%	$5,625
BG 4, CT 2708	74%	16%	0%	0%	0%	6%	4%	0%	100%	17.3%	$23,678
BG 0, CT 9926	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
BG 1, CT 7401.01	94%	0%	0%	0%	0%	4%	2%	2%	98%	64.5%	$10,341
BG 2, CT 7401.01	93%	1%	0%	0%	0%	4%	2%	1%	99%	54.1%	$14,010
BG 1, CT 7401.02	96%	0%	0%	0%	0%	4%	0%	3%	97%	53.0%	$16,193
BG 2, CT 7401.02	94%	0%	0%	0%	0%	4%	2%	0%	100%	47.7%	$17,222
BG 3, CT 7401.02	94%	2%	0%	0%	0%	2%	3%	2%	98%	53.5%	$11,932
BG 1, CT 7402	86%	4%	0%	0%	0%	8%	2%	0%	100%	40.3%	$24,286
BG 2, CT 7402	90%	5%	2%	0%	0%	0%	3%	1%	99%	54.2%	$14,241
BG 3, CT 7402	90%	3%	0%	0%	0%	5%	2%	0%	100%	60.4%	$13,901
BG 1, CT 7403	92%	4%	0%	0%	0%	4%	0%	0%	100%	25.9%	$21,027
BG 2, CT 7403	86%	6%	0%	0%	0%	9%	0%	0%	100%	30.7%	$23,654
BG 3, CT 7403	82%	4%	0%	0%	0%	9%	5%	0%	100%	60.0%	$7,950
BG 4, CT 7403	97%	2%	0%	0%	0%	1%	0%	0%	100%	67.3%	$12,188
BG 1, CT 7404	93%	5%	0%	0%	0%	1%	0%	0%	100%	54.6%	$14,448
BG 2, CT 7404	97%	1%	0%	0%	0%	1%	1%	0%	100%	57.7%	$15,421
BG 3, CT 7404	87%	5%	0%	0%	0%	8%	0%	0%	100%	66.5%	$11,589
BG 0, CT 9900.01	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
BG 1, CT 401.01	57%	5%	0%	0%	0%	30%	7%	0%	100%	56.3%	$17,225
BG 2, CT 401.01	70%	7%	0%	0%	0%	18%	5%	0%	100%	45.4%	$18,203
BG 1, CT 401.02	62%	23%	3%	0%	0%	6%	6%	2%	98%	71.5%	$12,865
BG 2, CT 401.02	36%	23%	2%	0%	0%	11%	28%	3%	97%	35.0%	$18,125
BG 3, CT 401.02	54%	23%	0%	0%	0%	8%	15%	0%	100%	21.6%	$31,932
BG 1, CT 401.03	54%	13%	0%	0%	0%	28%	6%	0%	100%	51.0%	$15,823
BG 2, CT 401.03	65%	7%	0%	0%	0%	21%	6%	0%	100%	80.5%	$9,139

Block Group	Race (Percent)[a]							Ethnicity (Percent)[a]		Percent of Residents in Poverty[a]	Median Household Income
	White	Black or African American	American Indian or Alaska Native	Asian	Native Hawaiian or Other Pacific Islander	Some Other Race Alone	Multiple Races	Not Hispanic or Latino	Hispanic or Latino		
BG 1, CT 402	85%	3%	0%	0%	0%	8%	4%	1%	99%	13.6%	$65,714
BG 2, CT 402	95%	3%	1%	1%	0%	0%	0%	1%	99%	5.7%	$47,371
BG 3, CT 402	61%	8%	0%	0%	0%	24%	7%	2%	98%	41.2%	$31,583
BG 4, CT 402	90%	2%	0%	0%	0%	1%	7%	3%	97%	10.9%	$53,750
BG 1, CT 403.01	93%	3%	0%	0%	0%	4%	0%	2%	98%	9.9%	$42,159
BG 1, CT 403.02	84%	0%	0%	0%	0%	13%	2%	9%	91%	15.2%	$40,750
BG 2, CT 403.02	93%	2%	0%	0%	0%	4%	1%	0%	100%	13.8%	$38,750
BG 1, CT 403.03	92%	6%	0%	0%	0%	0%	2%	0%	100%	7.4%	$46,806
BG 2, CT 403.03	82%	4%	2%	0%	0%	6%	6%	1%	99%	7.8%	$44,482
BG 1, CT 403.04	83%	7%	0%	0%	0%	10%	0%	2%	98%	20.0%	$50,500
BG 2, CT 403.04	90%	3%	0%	2%	0%	4%	1%	4%	96%	0.0%	$99,706
BG 3, CT 403.04	94%	0%	0%	0%	0%	6%	0%	0%	100%	10.0%	$101,000
BG 4, CT 403.04	96%	1%	0%	0%	0%	3%	0%	1%	99%	4.0%	$50,927
BG 1, CT 404.03	90%	4%	0%	0%	0%	4%	2%	1%	99%	11.5%	$77,535
BG 2, CT 404.03	82%	2%	0%	0%	0%	16%	0%	0%	100%	12.4%	$44,808
BG 3, CT 404.03	61%	14%	1%	0%	0%	24%	1%	0%	100%	37.3%	$34,878
BG 1, CT 404.11	98%	0%	0%	0%	0%	2%	0%	4%	96%	0.8%	$76,563
BG 2, CT 404.11	77%	3%	0%	0%	0%	14%	6%	1%	99%	46.8%	$24,338
BG 3, CT 404.11	77%	7%	0%	0%	0%	12%	4%	0%	100%	19.0%	$61,250
BG 1, CT 404.12	92%	4%	0%	0%	0%	3%	1%	2%	98%	7.5%	$72,813
BG 2, CT 404.12	93%	6%	0%	0%	0%	1%	0%	3%	97%	11.7%	$44,853
BG 1, CT 404.21	79%	7%	1%	0%	0%	11%	3%	4%	96%	35.6%	$38,385
BG 2, CT 404.21	54%	21%	0%	0%	0%	12%	14%	1%	99%	8.5%	$32,443
BG 3, CT 404.21	85%	4%	0%	0%	0%	2%	8%	0%	100%	27.5%	$34,767
BG 4, CT 404.21	96%	0%	0%	0%	0%	4%	0%	7%	93%	2.2%	$104,333
BG 5, CT 404.21	72%	0%	0%	0%	0%	16%	12%	0%	100%	4.8%	$50,653
BG 1, CT 404.22	84%	4%	0%	0%	0%	10%	3%	4%	96%	20.8%	$44,706
BG 2, CT 404.22	94%	2%	0%	0%	0%	4%	0%	1%	99%	20.3%	$25,660
BG 3, CT 404.22	42%	26%	0%	0%	0%	21%	10%	1%	99%	46.6%	$15,913

Block Group	Race (Percent)[a]							Ethnicity (Percent)[a]		Percent of Residents in Poverty[a]	Median Household Income
	White	Black or African American	American Indian or Alaska Native	Asian	Native Hawaiian or Other Pacific Islander	Some Other Race Alone	Multiple Races	Not Hispanic or Latino	Hispanic or Latino		
BG 1, CT 404.32	71%	8%	0%	0%	0%	6%	16%	1%	99%	15.7%	$36,548
BG 2, CT 404.32	99%	1%	0%	0%	0%	0%	0%	1%	99%	39.8%	$29,038
BG 3, CT 404.32	83%	3%	3%	0%	0%	9%	2%	3%	97%	22.0%	$35,708
BG 1, CT 404.42	78%	2%	0%	3%	0%	9%	7%	3%	97%	12.7%	$47,097
BG 2, CT 404.42	68%	3%	5%	0%	0%	18%	7%	0%	100%	22.9%	$24,722
BG 3, CT 404.42	85%	0%	0%	0%	0%	14%	1%	1%	99%	15.0%	$53,269
BG 1, CT 405	68%	5%	5%	0%	0%	22%	0%	0%	100%	69.7%	$6,595
BG 2, CT 405	77%	9%	0%	0%	0%	10%	4%	1%	99%	21.3%	$50,518
BG 3, CT 405	89%	1%	0%	0%	0%	10%	0%	0%	100%	12.6%	$65,486
BG 1, CT 406.01	78%	3%	0%	0%	0%	16%	4%	0%	100%	52.7%	$18,906
BG 2, CT 406.01	58%	5%	2%	0%	0%	35%	0%	0%	100%	35.5%	$21,250
BG 3, CT 406.01	78%	4%	0%	0%	0%	14%	4%	0%	100%	10.7%	$41,800
BG 1, CT 406.02	86%	2%	3%	0%	0%	9%	0%	1%	99%	3.8%	$79,318
BG 2, CT 406.02	94%	0%	0%	0%	0%	4%	2%	7%	93%	3.0%	$87,083
BG 3, CT 406.02	76%	7%	0%	0%	0%	3%	15%	6%	94%	4.8%	$114,500
BG 4, CT 406.02	78%	6%	0%	0%	0%	5%	11%	0%	100%	27.5%	$22,125
BG 5, CT 406.02	38%	32%	0%	0%	0%	30%	0%	0%	100%	41.7%	$21,042
BG 6, CT 406.02	78%	2%	0%	0%	0%	19%	0%	0%	100%	12.7%	$56,875
BG 1, CT 407	79%	3%	0%	0%	0%	16%	2%	0%	100%	41.9%	$23,828
BG 2, CT 407	70%	10%	0%	0%	0%	14%	7%	0%	100%	30.3%	$27,153
BG 3, CT 407	64%	0%	0%	0%	0%	31%	4%	0%	100%	43.8%	$17,537
BG 1, CT 408	65%	3%	0%	0%	0%	18%	13%	2%	98%	46.3%	$18,036
BG 2, CT 408	81%	5%	0%	0%	0%	13%	1%	0%	100%	52.1%	$18,822
BG 1, CT 409	87%	4%	0%	0%	0%	9%	0%	0%	100%	25.4%	$25,564
BG 2, CT 409	62%	1%	0%	0%	0%	26%	11%	2%	98%	45.6%	$18,770
BG 3, CT 409	70%	0%	0%	0%	0%	24%	6%	0%	100%	54.1%	$16,638
BG 1, CT 410	44%	11%	0%	0%	0%	34%	11%	0%	100%	27.8%	$24,813
BG 2, CT 410	64%	0%	1%	0%	0%	32%	3%	1%	99%	46.0%	$21,194
BG 1, CT 411	88%	1%	0%	0%	0%	6%	5%	0%	100%	27.8%	$26,274

Block Group	Race (Percent)[a]							Ethnicity (Percent)[a]		Percent of Residents in Poverty[a]	Median Household Income
	White	Black or African American	American Indian or Alaska Native	Asian	Native Hawaiian or Other Pacific Islander	Some Other Race Alone	Multiple Races	Not Hispanic or Latino	Hispanic or Latino		
BG 2, CT 411	73%	0%	0%	0%	0%	20%	7%	2%	98%	38.8%	$22,188
BG 1, CT 2101	71%	5%	0%	0%	0%	5%	19%	0%	100%	44.1%	$24,079
BG 2, CT 2101	67%	5%	0%	2%	0%	12%	14%	0%	100%	51.7%	$16,737
BG 1, CT 2102.01	66%	4%	0%	0%	0%	16%	15%	0%	100%	39.8%	$34,844
BG 2, CT 2102.01	61%	2%	0%	0%	0%	17%	20%	0%	100%	65.3%	$12,762
BG 1, CT 2102.02	38%	12%	0%	0%	0%	11%	38%	0%	100%	39.5%	$21,107
BG 2, CT 2102.02	100%	0%	0%	0%	0%	0%	0%	0%	100%	100.0%	ND
BG 3, CT 2102.02	64%	13%	0%	0%	0%	11%	13%	1%	99%	46.6%	$24,610
BG 4, CT 2102.02	46%	11%	0%	0%	0%	9%	34%	0%	100%	33.8%	$27,500
BG 1, CT 2103	75%	1%	0%	0%	0%	23%	0%	0%	100%	60.5%	$12,813
BG 2, CT 2103	46%	9%	0%	0%	0%	11%	34%	3%	97%	60.7%	$17,105
BG 3, CT 2103	48%	22%	0%	0%	0%	7%	23%	0%	100%	76.6%	$10,858
BG 1, CT 2104	62%	11%	1%	0%	0%	7%	19%	0%	100%	51.1%	$15,375
BG 2, CT 2104	50%	14%	0%	0%	0%	15%	21%	0%	100%	52.6%	$20,423
BG 3, CT 2104	47%	6%	0%	0%	0%	19%	29%	1%	99%	32.4%	$29,773
BG 1, CT 2105.02	76%	1%	0%	1%	0%	4%	17%	2%	98%	10.7%	$52,589
BG 2, CT 2105.02	57%	7%	0%	1%	0%	16%	19%	0%	100%	15.2%	$64,142
BG 3, CT 2105.02	93%	5%	0%	0%	0%	2%	0%	1%	99%	10.9%	$55,350
BG 1, CT 2105.03	67%	9%	1%	0%	0%	8%	15%	0%	100%	16.9%	$35,898
BG 1, CT 2105.04	62%	5%	0%	0%	0%	17%	15%	3%	97%	33.4%	$35,227
BG 2, CT 2105.04	74%	5%	0%	0%	0%	9%	12%	2%	98%	46.1%	$13,036
BG 3, CT 2105.04	56%	14%	0%	0%	0%	16%	14%	0%	100%	38.3%	$25,556
BG 4, CT 2105.04	21%	66%	0%	0%	0%	0%	12%	0%	100%	49.3%	$30,242
BG 1, CT 3101	94%	1%	0%	0%	0%	0%	6%	0%	100%	25.8%	$26,429
BG 2, CT 3101	95%	3%	0%	0%	0%	2%	0%	0%	100%	40.4%	$21,481
BG 3, CT 3101	88%	1%	0%	0%	0%	4%	6%	1%	99%	44.1%	$20,556
BG 4, CT 3101	92%	2%	0%	0%	0%	0%	6%	0%	100%	47.6%	$21,782
BG 1, CT 3102	88%	3%	0%	7%	0%	0%	2%	7%	93%	63.4%	$9,091
BG 2, CT 3102	93%	0%	0%	0%	0%	7%	0%	0%	100%	51.9%	$14,226

Block Group	Race (Percent)[a]							Ethnicity (Percent)[a]		Percent of Residents in Poverty[a]	Median Household Income
	White	Black or African American	American Indian or Alaska Native	Asian	Native Hawaiian or Other Pacific Islander	Some Other Race Alone	Multiple Races	Not Hispanic or Latino	Hispanic or Latino		
BG 3, CT 3102	92%	0%	0%	0%	0%	7%	1%	1%	99%	41.0%	$19,273
BG 1, CT 3103	99%	0%	0%	0%	0%	1%	0%	1%	99%	26.3%	$32,250
BG 2, CT 3103	82%	4%	0%	0%	0%	0%	14%	1%	99%	38.9%	$18,949
BG 3, CT 3103	85%	3%	0%	0%	0%	4%	8%	2%	98%	38.1%	$22,083
BG 4, CT 3103	99%	1%	0%	0%	0%	0%	0%	2%	98%	54.6%	$14,885
BG 1, CT 3104	88%	0%	0%	0%	0%	4%	8%	0%	100%	42.4%	$23,041
BG 2, CT 3104	90%	1%	0%	0%	0%	1%	8%	0%	100%	51.1%	$16,972
BG 3, CT 3104	97%	3%	0%	0%	0%	0%	1%	1%	99%	51.3%	$17,939
BG 4, CT 3104	99%	0%	0%	1%	0%	0%	0%	2%	98%	43.4%	$19,991
BG 1, CT 3105	100%	0%	0%	0%	0%	0%	0%	2%	98%	50.7%	$21,828
BG 2, CT 3105	100%	0%	0%	0%	0%	0%	0%	1%	99%	39.2%	$20,765
BG 3, CT 3105	97%	1%	0%	0%	0%	0%	2%	0%	100%	39.4%	$18,731
BG 4, CT 3105	95%	1%	0%	0%	0%	3%	1%	0%	100%	42.3%	$15,875
BG 1, CT 3106	96%	1%	0%	0%	0%	3%	0%	0%	100%	45.8%	$19,265
BG 2, CT 3106	95%	0%	0%	0%	0%	5%	0%	0%	100%	61.0%	$14,398
BG 3, CT 3106	100%	0%	0%	0%	0%	0%	0%	0%	100%	71.2%	$12,963
BG 4, CT 3106	100%	0%	0%	0%	0%	0%	0%	0%	100%	67.8%	$13,833
BG 0, CT 9900.16	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
BG 1, CT 8201	33%	6%	0%	0%	0%	10%	51%	1%	99%	26.2%	$23,448
BG 2, CT 8201	69%	1%	0%	0%	0%	5%	26%	3%	97%	34.2%	$21,959
BG 3, CT 8201	43%	0%	0%	0%	0%	14%	44%	0%	100%	33.9%	$21,217
BG 4, CT 8201	37%	0%	0%	0%	0%	22%	41%	2%	98%	45.3%	$15,581
BG 5, CT 8201	35%	0%	0%	0%	0%	26%	39%	2%	98%	46.8%	$13,314
BG 1, CT 8203	67%	2%	0%	4%	0%	14%	14%	0%	100%	29.4%	$22,165
BG 2, CT 8203	52%	4%	0%	0%	0%	20%	24%	3%	97%	24.7%	$30,497
BG 1, CT 8204	71%	3%	0%	0%	0%	16%	10%	1%	99%	51.5%	$14,127
BG 2, CT 8204	70%	2%	0%	0%	0%	10%	19%	0%	100%	51.4%	$11,716
BG 1, CT 8205	59%	3%	0%	0%	0%	9%	29%	0%	100%	22.4%	$23,061
BG 2, CT 8205	65%	13%	0%	2%	0%	5%	15%	1%	99%	24.8%	$22,750

Block Group	Race (Percent)[a]							Ethnicity (Percent)[a]		Percent of Residents in Poverty[a]	Median Household Income
	White	Black or African American	American Indian or Alaska Native	Asian	Native Hawaiian or Other Pacific Islander	Some Other Race Alone	Multiple Races	Not Hispanic or Latino	Hispanic or Latino		
BG 1, CT 1801	21%	7%	0%	0%	0%	65%	7%	0%	100%	57.8%	$13,650
BG 2, CT 1801	59%	11%	0%	0%	0%	27%	2%	1%	99%	57.4%	$17,604
BG 3, CT 1801	61%	20%	0%	0%	0%	7%	12%	1%	99%	37.4%	$19,813
BG 4, CT 1801	59%	11%	3%	0%	0%	24%	3%	1%	99%	34.4%	$21,392
BG 1, CT 1802.01	74%	3%	0%	0%	0%	22%	1%	0%	100%	13.2%	$22,355
BG 2, CT 1802.01	61%	3%	0%	0%	0%	30%	7%	2%	98%	52.6%	$19,083
BG 1, CT 1802.02	72%	3%	0%	0%	0%	19%	7%	1%	99%	47.8%	$23,200
BG 2, CT 1802.02	56%	17%	0%	0%	0%	20%	8%	0%	100%	44.8%	$18,377
BG 3, CT 1802.02	46%	6%	0%	0%	0%	37%	11%	9%	91%	41.2%	$15,967
BG 1, CT 1803.01	61%	1%	0%	0%	0%	22%	17%	0%	100%	38.4%	$19,520
BG 2, CT 1803.01	22%	8%	0%	0%	0%	13%	57%	0%	100%	37.0%	$25,096
BG 1, CT 1803.02	59%	7%	0%	0%	0%	17%	18%	0%	100%	54.0%	$15,848
BG 2, CT 1803.02	66%	2%	0%	0%	0%	20%	12%	1%	99%	47.3%	$16,827
BG 1, CT 1804	53%	7%	0%	0%	0%	24%	16%	0%	100%	50.3%	$24,460
BG 2, CT 1804	61%	15%	2%	1%	0%	18%	4%	0%	100%	43.3%	$18,182
BG 3, CT 1804	70%	3%	0%	0%	0%	26%	1%	0%	100%	57.2%	$17,572
BG 1, CT 1805	76%	6%	0%	0%	0%	18%	0%	0%	100%	36.7%	$18,466
BG 2, CT 1805	68%	2%	0%	0%	0%	30%	0%	2%	98%	9.8%	$44,400
BG 3, CT 1805	61%	5%	0%	0%	0%	34%	0%	1%	99%	28.5%	$32,772
BG 1, CT 1806	48%	6%	0%	1%	0%	33%	11%	1%	99%	74.2%	$22,972
BG 2, CT 1806	65%	18%	0%	2%	0%	10%	5%	0%	100%	55.1%	$7,316
BG 3, CT 1806	40%	1%	0%	0%	0%	46%	13%	0%	100%	49.3%	$17,701
BG 4, CT 1806	65%	7%	0%	0%	0%	15%	14%	1%	99%	49.7%	$17,632
BG 5, CT 1806	76%	8%	0%	0%	0%	14%	2%	0%	100%	64.3%	$11,818
BG 1, CT 1807	55%	15%	0%	0%	0%	26%	4%	0%	100%	52.2%	$16,364
BG 2, CT 1807	75%	8%	0%	1%	0%	15%	1%	1%	99%	27.8%	$21,226
BG 3, CT 1807	64%	1%	0%	4%	0%	28%	2%	1%	99%	56.4%	$16,013
BG 4, CT 1807	75%	5%	0%	0%	0%	16%	4%	0%	100%	55.2%	$30,795
BG 1, CT 1808	72%	6%	2%	1%	0%	18%	1%	3%	97%	29.9%	$26,528

Block Group	Race (Percent)[a]							Ethnicity (Percent)[a]		Percent of Residents in Poverty[a]	Median Household Income
	White	Black or African American	American Indian or Alaska Native	Asian	Native Hawaiian or Other Pacific Islander	Some Other Race Alone	Multiple Races	Not Hispanic or Latino	Hispanic or Latino		
BG 2, CT 1808	68%	5%	0%	2%	0%	16%	10%	2%	98%	30.6%	$25,625
BG 3, CT 1808	55%	2%	0%	2%	0%	39%	2%	1%	99%	60.9%	$18,017
BG 1, CT 1809.01	73%	2%	0%	0%	0%	23%	3%	1%	99%	39.6%	$16,638
BG 2, CT 1809.01	29%	11%	1%	5%	0%	48%	6%	0%	100%	63.4%	$15,803
BG 1, CT 1809.02	72%	1%	1%	0%	0%	17%	10%	4%	96%	25.2%	$60,476
BG 2, CT 1809.02	52%	0%	0%	0%	0%	31%	17%	11%	89%	20.4%	$84,135
BG 3, CT 1809.02	70%	3%	0%	1%	0%	20%	5%	1%	99%	26.0%	$46,591
BG 0, CT 9918	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
BG 1, CT 4101	65%	3%	1%	0%	0%	28%	4%	2%	98%	56.7%	$14,896
BG 2, CT 4101	67%	1%	2%	0%	0%	29%	1%	2%	98%	42.8%	$15,524
BG 3, CT 4101	63%	2%	0%	0%	0%	23%	11%	1%	99%	42.0%	$22,863
BG 1, CT 4102	64%	10%	1%	0%	0%	21%	4%	1%	99%	73.8%	$10,265
BG 2, CT 4102	63%	8%	0%	0%	0%	24%	5%	1%	99%	50.5%	$13,777
BG 1, CT 4103	90%	3%	0%	0%	0%	3%	4%	0%	100%	44.7%	$19,375
BG 2, CT 4103	82%	4%	0%	1%	0%	7%	6%	1%	99%	30.7%	$22,174
BG 3, CT 4103	60%	5%	0%	0%	0%	26%	8%	0%	100%	75.8%	$10,259
BG 1, CT 4104.01	85%	2%	2%	0%	0%	11%	0%	1%	99%	58.6%	$13,482
BG 2, CT 4104.01	55%	7%	0%	0%	0%	38%	0%	0%	100%	58.2%	$16,004
BG 1, CT 4104.02	69%	3%	0%	0%	0%	25%	2%	0%	100%	35.8%	$18,882
BG 2, CT 4104.02	67%	15%	0%	0%	0%	16%	1%	2%	98%	66.4%	$9,375
BG 3, CT 4104.02	65%	6%	2%	0%	0%	23%	4%	0%	100%	59.8%	$17,500
BG 4, CT 4104.02	71%	6%	2%	0%	0%	18%	4%	2%	98%	55.0%	$13,603
BG 1, CT 4105	61%	8%	0%	0%	0%	25%	6%	2%	98%	58.0%	$10,616
BG 2, CT 4105	78%	1%	0%	0%	0%	17%	4%	3%	97%	52.4%	$14,036
BG 3, CT 4105	73%	4%	0%	0%	0%	21%	1%	1%	99%	32.8%	$24,095
BG 1, CT 4106	66%	4%	0%	0%	0%	16%	14%	0%	100%	64.5%	$17,558
BG 2, CT 4106	61%	2%	0%	0%	0%	37%	0%	0%	100%	72.1%	$9,773
BG 3, CT 4106	55%	5%	0%	0%	0%	27%	13%	0%	100%	69.0%	$14,792
BG 4, CT 4106	70%	3%	0%	0%	0%	25%	2%	0%	100%	69.6%	$12,035

Block Group	Race (Percent)[a]							Ethnicity (Percent)[a]		Percent of Residents in Poverty[a]	Median Household Income
	White	Black or African American	American Indian or Alaska Native	Asian	Native Hawaiian or Other Pacific Islander	Some Other Race Alone	Multiple Races	Not Hispanic or Latino	Hispanic or Latino		
BG 1, CT 4107.01	68%	2%	1%	0%	0%	29%	0%	0%	100%	53.9%	$14,814
BG 2, CT 4107.01	55%	13%	5%	0%	0%	23%	4%	1%	99%	56.6%	$13,980
BG 1, CT 4107.02	51%	3%	0%	0%	0%	38%	8%	0%	100%	42.6%	$21,165
BG 2, CT 4107.02	66%	7%	0%	0%	0%	23%	4%	2%	98%	71.7%	$8,655
BG 3, CT 4107.02	58%	10%	0%	0%	0%	29%	2%	0%	100%	65.6%	$11,607
BG 0, CT 9900	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
BG 1, CT 9560	70%	3%	0%	0%	0%	7%	20%	0%	100%	56.4%	$14,306
BG 2, CT 9560	82%	5%	1%	0%	0%	1%	11%	0%	100%	51.1%	$31,429
BG 3, CT 9560	89%	0%	0%	0%	0%	4%	7%	0%	100%	44.1%	$19,063
BG 1, CT 9561	77%	4%	0%	0%	0%	2%	17%	0%	100%	57.1%	$13,056
BG 2, CT 9561	87%	7%	0%	0%	0%	4%	3%	1%	99%	58.7%	$16,339
BG 1, CT 9562	86%	0%	0%	0%	0%	3%	11%	0%	100%	62.6%	$18,906
BG 2, CT 9562	85%	4%	0%	0%	0%	3%	9%	0%	100%	55.9%	$19,826
BG 3, CT 9562	83%	6%	0%	0%	0%	1%	9%	0%	100%	58.3%	$14,682
BG 4, CT 9562	80%	0%	5%	1%	0%	7%	7%	0%	100%	32.0%	$22,534
BG 1, CT 7101.02	59%	3%	0%	0%	0%	4%	35%	1%	99%	75.6%	$14,416
BG 2, CT 7101.02	53%	1%	0%	0%	0%	9%	38%	0%	100%	71.9%	$15,017
BG 3, CT 7101.02	68%	12%	0%	0%	0%	6%	14%	1%	99%	44.8%	$23,281
BG 1, CT 7102	68%	10%	0%	0%	0%	5%	17%	0%	100%	76.1%	$10,682
BG 2, CT 7102	62%	7%	0%	0%	0%	3%	29%	1%	99%	38.5%	$22,450
BG 3, CT 7102	44%	7%	0%	2%	0%	8%	40%	0%	100%	60.8%	$13,480
BG 1, CT 7103.01	74%	10%	0%	0%	0%	2%	13%	3%	97%	40.0%	$21,324
BG 2, CT 7103.01	75%	3%	0%	0%	0%	0%	22%	0%	100%	25.7%	$30,859
BG 1, CT 7103.02	64%	8%	0%	0%	0%	3%	26%	0%	100%	52.8%	$24,286
BG 2, CT 7103.02	61%	13%	0%	2%	0%	10%	14%	2%	98%	40.5%	$22,500
BG 3, CT 7103.02	74%	3%	0%	0%	0%	0%	23%	0%	100%	29.4%	$31,379
BG 1, CT 7104	68%	4%	0%	0%	0%	8%	21%	0%	100%	62.8%	$14,085
BG 2, CT 7104	71%	9%	0%	0%	0%	1%	19%	0%	100%	74.7%	$4,438
BG 1, CT 7105	67%	15%	0%	0%	0%	9%	9%	0%	100%	47.6%	$16,447

Block Group	Race (Percent)[a]							Ethnicity (Percent)[a]		Percent of Residents in Poverty[a]	Median Household Income
	White	Black or African American	American Indian or Alaska Native	Asian	Native Hawaiian or Other Pacific Islander	Some Other Race Alone	Multiple Races	Not Hispanic or Latino	Hispanic or Latino		
BG 2, CT 7105	46%	22%	0%	0%	0%	4%	28%	0%	100%	55.4%	$13,750
BG 1, CT 7106	71%	7%	0%	0%	0%	2%	20%	0%	100%	28.7%	$17,390
BG 2, CT 7106	72%	9%	0%	0%	0%	3%	16%	0%	100%	52.7%	$15,000
BG 1, CT 7107	67%	3%	0%	0%	0%	2%	27%	0%	100%	51.8%	$15,223
BG 2, CT 7107	78%	4%	0%	0%	0%	0%	18%	0%	100%	56.0%	$16,591
BG 1, CT 7108	66%	7%	0%	0%	0%	0%	27%	0%	100%	51.1%	$18,646
BG 2, CT 7108	63%	3%	0%	0%	0%	4%	30%	1%	99%	33.2%	$24,074
BG 3, CT 7108	78%	0%	0%	1%	0%	1%	19%	1%	99%	47.8%	$18,824
BG 4, CT 7108	58%	18%	0%	1%	0%	3%	19%	0%	100%	75.6%	$14,659
BG 1, CT 7109.01	60%	5%	0%	0%	0%	5%	31%	0%	100%	48.7%	$18,881
BG 2, CT 7109.01	49%	15%	0%	0%	0%	3%	33%	0%	100%	45.9%	$23,079
BG 3, CT 7109.01	66%	6%	0%	0%	0%	0%	28%	0%	100%	59.5%	$13,390
BG 1, CT 7109.02	56%	15%	0%	0%	0%	5%	24%	0%	100%	67.8%	$14,067
BG 2, CT 7109.02	68%	9%	0%	3%	0%	6%	15%	0%	100%	57.9%	$18,585
BG 3, CT 7109.02	16%	15%	0%	0%	0%	21%	49%	0%	100%	57.9%	$17,153
BG 1, CT 7110.02	48%	12%	0%	0%	0%	0%	40%	1%	99%	50.5%	$17,380
BG 2, CT 7110.02	46%	15%	0%	1%	0%	13%	26%	3%	97%	61.9%	$13,445
BG 3, CT 7110.02	31%	6%	0%	0%	0%	11%	52%	0%	100%	67.7%	$11,595
BG 4, CT 7110.02	52%	23%	6%	0%	0%	1%	19%	1%	99%	52.9%	$16,029
BG 0, CT 9900.01	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
BG 1, CT 5001	87%	0%	0%	0%	0%	12%	1%	0%	100%	22.5%	$28,828
BG 2, CT 5001	79%	4%	0%	0%	0%	17%	0%	0%	100%	58.1%	$15,451
BG 3, CT 5001	81%	4%	0%	0%	0%	15%	0%	0%	100%	49.0%	$20,308
BG 4, CT 5001	85%	0%	0%	0%	0%	14%	1%	0%	100%	71.6%	$15,563
BG 5, CT 5001	83%	1%	0%	0%	0%	16%	0%	0%	100%	73.9%	$11,607
BG 1, CT 5002	76%	14%	0%	0%	0%	8%	1%	0%	100%	48.7%	$15,833
BG 2, CT 5002	76%	7%	0%	0%	0%	14%	4%	3%	97%	38.1%	$18,224
BG 3, CT 5002	87%	8%	0%	0%	0%	3%	2%	1%	99%	32.3%	$35,000
BG 4, CT 5002	82%	4%	0%	0%	0%	12%	2%	0%	100%	40.1%	$15,375

Block Group	Race (Percent)[a]							Ethnicity (Percent)[a]		Percent of Residents in Poverty[a]	Median Household Income
	White	Black or African American	American Indian or Alaska Native	Asian	Native Hawaiian or Other Pacific Islander	Some Other Race Alone	Multiple Races	Not Hispanic or Latino	Hispanic or Latino		
BG 5, CT 5002	77%	0%	1%	0%	0%	22%	0%	0%	100%	44.3%	$13,056
BG 1, CT 5003.01	82%	1%	0%	0%	0%	12%	5%	2%	98%	39.8%	$19,811
BG 2, CT 5003.01	82%	9%	0%	0%	0%	5%	3%	2%	98%	39.8%	$35,402
BG 3, CT 5003.01	88%	6%	0%	0%	0%	6%	0%	0%	100%	34.6%	$21,250
BG 1, CT 5003.02	83%	1%	0%	0%	0%	12%	4%	1%	99%	54.9%	$14,844
BG 2, CT 5003.02	96%	2%	0%	0%	2%	0%	0%	2%	98%	48.2%	$14,526
BG 3, CT 5003.02	82%	3%	0%	0%	0%	12%	3%	0%	100%	54.1%	$14,339
BG 1, CT 5004.01	83%	3%	0%	0%	0%	15%	0%	1%	99%	69.0%	$11,641
BG 2, CT 5004.01	87%	5%	0%	0%	0%	5%	3%	1%	99%	35.4%	$32,083
BG 3, CT 5004.01	82%	5%	0%	0%	0%	14%	0%	0%	100%	69.2%	$11,618
BG 1, CT 5004.02	82%	0%	0%	0%	0%	16%	2%	0%	100%	32.9%	$21,522
BG 2, CT 5004.02	93%	3%	0%	0%	0%	4%	0%	0%	100%	70.3%	$13,811
BG 3, CT 5004.02	83%	2%	0%	0%	0%	15%	0%	0%	100%	42.3%	$20,458
BG 1, CT 8501.01	96%	4%	0%	0%	0%	1%	0%	0%	100%	64.8%	$15,313
BG 2, CT 8501.01	100%	0%	0%	0%	0%	0%	0%	0%	100%	63.3%	$13,452
BG 1, CT 8501.02	97%	3%	0%	0%	0%	1%	0%	0%	100%	71.3%	$13,188
BG 2, CT 8501.02	98%	2%	0%	0%	0%	0%	0%	0%	100%	35.4%	$19,543
BG 3, CT 8501.02	94%	3%	0%	0%	0%	2%	0%	0%	100%	93.0%	$4,457
BG 4, CT 8501.02	98%	1%	0%	0%	0%	1%	0%	0%	100%	58.0%	$15,000
BG 1, CT 8502	99%	0%	0%	0%	0%	1%	0%	0%	100%	49.2%	$14,120
BG 2, CT 8502	94%	4%	2%	0%	0%	0%	1%	1%	99%	72.5%	$7,196
BG 3, CT 8502	94%	1%	0%	0%	0%	3%	3%	0%	100%	40.3%	$22,957
BG 1, CT 8503	89%	11%	0%	0%	0%	0%	0%	0%	100%	59.7%	$12,102
BG 2, CT 8503	89%	4%	0%	0%	0%	2%	5%	0%	100%	68.0%	$13,125
BG 3, CT 8503	98%	0%	0%	0%	0%	0%	2%	0%	100%	64.7%	$11,908
BG 4, CT 8503	98%	0%	0%	0%	0%	2%	0%	6%	94%	75.4%	$12,675
BG 1, CT 8504	95%	0%	0%	0%	0%	0%	5%	0%	100%	60.1%	$15,821
BG 2, CT 8504	87%	5%	0%	0%	0%	1%	7%	0%	100%	65.2%	$14,700
BG 3, CT 8504	100%	0%	0%	0%	0%	0%	0%	0%	100%	63.6%	$10,000

Block Group	Race (Percent)[a]							Ethnicity (Percent)[a]		Percent of Residents in Poverty[a]	Median Household Income
	White	Black or African American	American Indian or Alaska Native	Asian	Native Hawaiian or Other Pacific Islander	Some Other Race Alone	Multiple Races	Not Hispanic or Latino	Hispanic or Latino		
BG 4, CT 8504	93%	0%	0%	0%	0%	3%	4%	0%	100%	78.5%	$14,000
BG 0, CT 9911	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
BG 1, CT 9577	94%	1%	0%	0%	0%	4%	1%	0%	100%	61.1%	$13,026
BG 2, CT 9577	94%	2%	0%	0%	0%	2%	1%	0%	100%	72.2%	$7,264
BG 3, CT 9577	94%	0%	0%	0%	0%	6%	0%	1%	99%	48.5%	$15,451
BG 1, CT 9578	92%	2%	0%	1%	0%	1%	4%	1%	99%	72.3%	$14,444
BG 2, CT 9578	100%	0%	0%	0%	0%	0%	0%	0%	100%	72.5%	$8,729
BG 3, CT 9578	95%	0%	0%	0%	0%	5%	0%	0%	100%	58.1%	$15,250
BG 1, CT 9579	96%	1%	0%	0%	0%	3%	0%	0%	100%	58.7%	$14,618
BG 2, CT 9579	98%	0%	0%	0%	0%	2%	0%	1%	99%	55.1%	$9,845
BG 1, CT 9580	97%	0%	0%	0%	0%	2%	1%	1%	99%	76.2%	$11,941
BG 2, CT 9580	95%	0%	0%	0%	0%	5%	0%	0%	100%	53.7%	$16,201
BG 1, CT 9581	96%	1%	0%	0%	0%	0%	3%	0%	100%	61.3%	$9,191
BG 2, CT 9581	96%	0%	0%	0%	0%	1%	3%	1%	99%	50.8%	$12,566
BG 1, CT 9582	92%	4%	0%	0%	0%	4%	0%	0%	100%	60.2%	$13,808
BG 2, CT 9582	99%	0%	0%	0%	0%	1%	0%	0%	100%	60.4%	$11,204
BG 1, CT 9583	97%	1%	0%	0%	0%	3%	0%	1%	99%	62.1%	$7,621
BG 2, CT 9583	93%	0%	0%	0%	0%	7%	0%	0%	100%	92.5%	$6,042
BG 1, CT 9584	95%	3%	0%	0%	0%	0%	2%	1%	99%	62.3%	$9,706
BG 2, CT 9584	91%	0%	0%	0%	0%	9%	0%	3%	97%	43.1%	$12,769
BG 1, CT 9597	97%	1%	0%	0%	0%	2%	0%	2%	98%	65.0%	$13,278
BG 2, CT 9597	98%	1%	0%	0%	0%	2%	0%	0%	100%	66.7%	$15,038
BG 1, CT 9598	99%	0%	0%	0%	0%	1%	1%	0%	100%	45.7%	$17,895
BG 2, CT 9598	97%	0%	0%	0%	0%	3%	0%	0%	100%	59.1%	$12,368
BG 1, CT 9599	95%	4%	0%	0%	0%	0%	1%	2%	98%	54.7%	$16,596
BG 2, CT 9599	99%	0%	0%	0%	0%	0%	1%	0%	100%	59.8%	$21,442
BG 3, CT 9599	95%	2%	1%	0%	0%	2%	0%	0%	100%	53.6%	$17,985
BG 1, CT 1901.01	53%	11%	0%	0%	0%	2%	34%	0%	100%	70.3%	$15,379
BG 2, CT 1901.01	65%	2%	0%	5%	0%	0%	27%	1%	99%	68.6%	$9,578

Block Group	Race (Percent)[a]							Ethnicity (Percent)[a]		Percent of Residents in Poverty[a]	Median Household Income
	White	Black or African American	American Indian or Alaska Native	Asian	Native Hawaiian or Other Pacific Islander	Some Other Race Alone	Multiple Races	Not Hispanic or Latino	Hispanic or Latino		
BG 3, CT 1901.01	66%	3%	4%	0%	0%	6%	21%	0%	100%	44.6%	$20,119
BG 1, CT 1901.02	75%	2%	0%	0%	0%	3%	20%	0%	100%	39.5%	$18,629
BG 2, CT 1901.02	62%	2%	0%	0%	0%	15%	21%	1%	99%	32.5%	$25,903
BG 3, CT 1901.02	76%	3%	0%	0%	0%	1%	20%	0%	100%	19.3%	$28,355
BG 4, CT 1901.02	72%	2%	0%	0%	0%	3%	23%	1%	99%	44.6%	$23,829
BG 1, CT 1902.01	65%	4%	0%	0%	0%	6%	25%	0%	100%	60.8%	$14,917
BG 2, CT 1902.01	67%	5%	0%	0%	0%	3%	25%	0%	100%	63.5%	$15,640
BG 3, CT 1902.01	73%	3%	0%	0%	0%	5%	19%	1%	99%	45.9%	$17,727
BG 1, CT 1902.02	69%	20%	0%	0%	0%	11%	0%	0%	100%	85.5%	$5,583
BG 2, CT 1902.02	75%	9%	0%	0%	0%	1%	16%	0%	100%	43.7%	$18,250
BG 1, CT 1903.01	51%	4%	0%	0%	0%	11%	34%	0%	100%	38.2%	$18,626
BG 2, CT 1903.01	62%	8%	0%	0%	0%	2%	28%	1%	99%	59.0%	$21,224
BG 3, CT 1903.01	58%	3%	0%	0%	0%	7%	31%	0%	100%	56.5%	$15,833
BG 1, CT 1903.02	76%	3%	0%	0%	0%	5%	16%	0%	100%	53.4%	$18,167
BG 2, CT 1903.02	68%	5%	0%	0%	0%	6%	21%	0%	100%	49.2%	$19,141
BG 1, CT 1101.01	15%	40%	0%	0%	0%	44%	0%	0%	100%	47.4%	$16,060
BG 2, CT 1101.01	6%	48%	0%	0%	0%	42%	3%	0%	100%	73.8%	$10,337
BG 1, CT 1101.02	11%	45%	0%	0%	0%	42%	2%	0%	100%	57.4%	$18,611
BG 2, CT 1101.02	16%	41%	0%	0%	0%	43%	0%	0%	100%	44.5%	$16,281
BG 1, CT 1102	12%	32%	0%	0%	0%	55%	0%	0%	100%	58.1%	$16,250
BG 2, CT 1102	16%	28%	0%	4%	0%	52%	0%	0%	100%	66.5%	$12,443
BG 1, CT 1103.01	7%	42%	2%	0%	0%	49%	0%	0%	100%	53.5%	$12,368
BG 2, CT 1103.01	33%	12%	0%	0%	0%	51%	4%	0%	100%	58.1%	$21,801
BG 1, CT 1103.02	14%	42%	0%	1%	0%	42%	1%	0%	100%	36.0%	$19,127
BG 2, CT 1103.02	19%	42%	0%	0%	0%	39%	0%	0%	100%	32.0%	$19,107
BG 3, CT 1103.02	6%	29%	0%	1%	0%	64%	0%	0%	100%	40.4%	$20,776
BG 1, CT 1103.03	56%	19%	0%	0%	0%	22%	2%	0%	100%	28.7%	$25,897
BG 2, CT 1103.03	67%	16%	0%	0%	0%	17%	0%	0%	100%	23.2%	$34,727
BG 1, CT 1103.04	55%	21%	0%	0%	0%	24%	0%	0%	100%	21.0%	$41,304

Block Group	Race (Percent)[a]							Ethnicity (Percent)[a]		Percent of Residents in Poverty[a]	Median Household Income
	White	Black or African American	American Indian or Alaska Native	Asian	Native Hawaiian or Other Pacific Islander	Some Other Race Alone	Multiple Races	Not Hispanic or Latino	Hispanic or Latino		
BG 2, CT 1103.04	57%	33%	0%	0%	0%	9%	1%	0%	100%	20.5%	$22,311
BG 3, CT 1103.04	46%	25%	0%	1%	0%	26%	2%	0%	100%	29.0%	$33,868
BG 1, CT 1104	23%	26%	0%	0%	0%	50%	2%	0%	100%	82.6%	$9,495
BG 2, CT 1104	17%	71%	0%	0%	0%	13%	0%	0%	100%	47.3%	$16,250
BG 1, CT 1105	11%	61%	0%	0%	0%	24%	4%	0%	100%	63.1%	$12,674
BG 2, CT 1105	29%	28%	0%	0%	0%	33%	9%	0%	100%	50.8%	$22,813
BG 1, CT 1106	6%	67%	0%	0%	0%	17%	9%	0%	100%	49.1%	$20,536
BG 2, CT 1106	17%	59%	0%	0%	0%	24%	0%	0%	100%	42.9%	$15,652
BG 0, CT 9900	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
BG 1, CT 1401.01	62%	17%	0%	2%	0%	16%	4%	0%	100%	26.6%	$29,076
BG 2, CT 1401.01	48%	8%	0%	1%	0%	39%	4%	2%	98%	32.2%	$23,015
BG 1, CT 1401.02	67%	1%	0%	1%	0%	30%	1%	0%	100%	41.0%	$16,346
BG 2, CT 1401.02	64%	6%	0%	1%	0%	28%	1%	0%	100%	58.1%	$14,067
BG 3, CT 1401.02	50%	7%	0%	1%	0%	41%	1%	1%	99%	38.2%	$17,243
BG 1, CT 1402.01	58%	17%	0%	0%	0%	23%	2%	8%	92%	66.9%	$12,083
BG 2, CT 1402.01	55%	11%	0%	1%	0%	32%	0%	6%	94%	72.5%	$8,125
BG 1, CT 1402.02	50%	13%	0%	0%	0%	32%	5%	4%	96%	45.9%	$19,250
BG 2, CT 1402.02	64%	9%	0%	2%	0%	23%	2%	0%	100%	31.1%	$29,656
BG 3, CT 1402.02	58%	10%	2%	0%	0%	25%	5%	1%	99%	38.3%	$25,477
BG 1, CT 1403	50%	5%	0%	3%	0%	38%	4%	4%	96%	58.2%	$13,431
BG 2, CT 1403	42%	21%	0%	0%	0%	30%	7%	0%	100%	64.6%	$15,208
BG 3, CT 1403	45%	9%	0%	0%	0%	44%	2%	4%	96%	25.9%	$31,696
BG 4, CT 1403	46%	2%	0%	0%	0%	47%	5%	0%	100%	43.2%	$17,321
BG 0, CT 9900.01	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
BG 1, CT 5701	92%	0%	0%	0%	0%	8%	0%	3%	97%	24.4%	$23,036
BG 2, CT 5701	82%	5%	0%	0%	0%	11%	2%	0%	100%	55.6%	$18,427
BG 3, CT 5701	75%	3%	0%	0%	0%	22%	0%	2%	98%	56.5%	$8,594
BG 4, CT 5701	87%	7%	0%	0%	0%	5%	0%	0%	100%	40.4%	$18,945
BG 1, CT 5702.01	90%	2%	0%	0%	0%	8%	1%	1%	99%	43.3%	$17,218

Block Group	Race (Percent)[a]							Ethnicity (Percent)[a]		Percent of Residents in Poverty[a]	Median Household Income
	White	Black or African American	American Indian or Alaska Native	Asian	Native Hawaiian or Other Pacific Islander	Some Other Race Alone	Multiple Races	Not Hispanic or Latino	Hispanic or Latino		
BG 2, CT 5702.01	90%	1%	0%	0%	0%	9%	0%	0%	100%	33.5%	$27,106
BG 1, CT 5702.02	85%	7%	0%	0%	0%	7%	0%	1%	99%	40.1%	$18,373
BG 2, CT 5702.02	78%	5%	0%	0%	0%	17%	0%	1%	99%	33.4%	$24,450
BG 1, CT 5703	85%	0%	0%	0%	0%	8%	7%	0%	100%	77.5%	$5,833
BG 2, CT 5703	91%	7%	0%	0%	0%	2%	0%	0%	100%	63.5%	$15,023
BG 3, CT 5703	78%	3%	0%	0%	0%	14%	4%	0%	100%	61.9%	$9,420
BG 4, CT 5703	93%	1%	0%	1%	0%	3%	3%	0%	100%	58.7%	$10,560
BG 1, CT 5704	88%	7%	0%	0%	0%	4%	2%	1%	99%	43.4%	$15,804
BG 2, CT 5704	83%	9%	0%	0%	0%	4%	4%	0%	100%	65.0%	$11,761
BG 3, CT 5704	77%	3%	0%	0%	0%	20%	0%	0%	100%	63.1%	$10,909
BG 1, CT 5705	89%	0%	0%	0%	0%	3%	9%	4%	96%	31.8%	$29,539
BG 2, CT 5705	82%	5%	0%	0%	0%	10%	2%	5%	95%	36.0%	$24,710
BG 3, CT 5705	84%	7%	0%	0%	0%	9%	0%	0%	100%	43.3%	$22,297
BG 1, CT 5706	88%	1%	0%	0%	0%	11%	0%	2%	98%	74.7%	$8,563
BG 2, CT 5706	91%	3%	0%	0%	0%	5%	1%	1%	99%	39.9%	$20,955
BG 1, CT 5707	95%	1%	0%	0%	0%	3%	0%	1%	99%	59.8%	$12,277
BG 2, CT 5707	91%	0%	0%	0%	0%	9%	0%	0%	100%	63.9%	$13,433
BG 3, CT 5707	86%	5%	0%	0%	0%	3%	6%	0%	100%	47.6%	$18,720
BG 1, CT 5708	87%	2%	0%	0%	0%	7%	4%	1%	99%	47.2%	$19,250
BG 2, CT 5708	85%	9%	0%	0%	0%	6%	0%	2%	98%	25.6%	$25,595
BG 3, CT 5708	91%	3%	0%	0%	0%	6%	0%	2%	98%	55.5%	$18,098
BG 4, CT 5708	87%	6%	0%	0%	0%	6%	0%	2%	98%	34.2%	$22,313
BG 0, CT 9900.25	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
BG 1, CT 9601	88%	1%	0%	0%	0%	6%	6%	1%	99%	80.1%	$10,183
BG 2, CT 9601	97%	2%	0%	0%	0%	1%	0%	0%	100%	63.2%	$9,657
BG 3, CT 9601	100%	0%	0%	0%	0%	0%	0%	0%	100%	36.5%	$19,714
BG 1, CT 9602	96%	1%	0%	0%	0%	3%	0%	0%	100%	57.2%	$15,893
BG 2, CT 9602	93%	4%	0%	0%	0%	3%	0%	0%	100%	41.7%	$18,917
BG 1, CT 9514	71%	14%	0%	0%	0%	4%	11%	0%	100%	65.2%	$18,056

Block Group	Race (Percent)[a]							Ethnicity (Percent)[a]		Percent of Residents in Poverty[a]	Median Household Income
	White	Black or African American	American Indian or Alaska Native	Asian	Native Hawaiian or Other Pacific Islander	Some Other Race Alone	Multiple Races	Not Hispanic or Latino	Hispanic or Latino		
BG 2, CT 9514	35%	12%	0%	0%	0%	8%	45%	0%	100%	52.2%	$13,145
BG 3, CT 9514	25%	22%	0%	0%	0%	4%	49%	0%	100%	46.3%	$22,773
BG 4, CT 9514	43%	17%	0%	0%	0%	0%	40%	0%	100%	31.0%	$24,300
BG 5, CT 9514	45%	25%	2%	0%	0%	5%	24%	0%	100%	46.1%	$28,553
BG 6, CT 9514	55%	22%	0%	0%	0%	7%	16%	0%	100%	70.8%	$18,043
BG 1, CT 9515	26%	40%	0%	0%	0%	5%	29%	0%	100%	74.7%	$14,327
BG 2, CT 9515	38%	30%	0%	0%	0%	9%	23%	0%	100%	64.0%	$14,435
BG 1, CT 9516	60%	20%	1%	0%	0%	6%	12%	2%	98%	42.3%	$20,481
BG 2, CT 9516	50%	27%	0%	0%	0%	9%	15%	0%	100%	44.9%	$15,750
BG 0, CT 9900	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
BG 1, CT 801	34%	3%	0%	0%	0%	26%	37%	0%	100%	68.3%	$9,625
BG 2, CT 801	26%	12%	0%	0%	0%	57%	5%	0%	100%	91.3%	$4,083
BG 1, CT 802	36%	4%	0%	0%	0%	29%	31%	2%	98%	74.2%	ND
BG 2, CT 802	30%	2%	0%	0%	0%	36%	31%	0%	100%	74.1%	$5,086
BG 1, CT 803	24%	5%	0%	0%	0%	40%	30%	0%	100%	96.9%	$2,917
BG 2, CT 803	50%	2%	0%	0%	0%	30%	18%	0%	100%	29.6%	$18,466
BG 3, CT 803	43%	10%	0%	0%	0%	25%	22%	0%	100%	58.7%	$11,964
BG 1, CT 804	30%	5%	0%	0%	0%	22%	43%	0%	100%	64.4%	$8,259
BG 1, CT 805	33%	6%	0%	0%	0%	52%	9%	2%	98%	75.4%	$12,675
BG 2, CT 805	38%	12%	0%	0%	0%	24%	26%	0%	100%	38.4%	$23,750
BG 1, CT 806	32%	0%	0%	0%	0%	60%	8%	0%	100%	58.9%	$11,216
BG 2, CT 806	18%	1%	0%	0%	0%	58%	23%	2%	98%	88.6%	ND
BG 1, CT 808	66%	2%	0%	0%	0%	10%	21%	1%	99%	48.1%	$13,903
BG 2, CT 808	69%	9%	0%	0%	0%	14%	7%	3%	97%	21.3%	$42,813
BG 3, CT 808	27%	15%	0%	0%	0%	14%	44%	0%	100%	51.1%	$15,000
BG 1, CT 809	41%	13%	0%	0%	0%	35%	11%	1%	99%	65.3%	$12,009
BG 2, CT 809	36%	0%	0%	0%	0%	36%	28%	0%	100%	68.2%	$11,923
BG 1, CT 810	43%	0%	0%	0%	0%	38%	19%	0%	100%	67.2%	$9,212
BG 2, CT 810	26%	3%	0%	0%	0%	32%	38%	0%	100%	76.0%	$10,318

Block Group	Race (Percent)[a]							Ethnicity (Percent)[a]		Percent of Residents in Poverty[a]	Median Household Income
	White	Black or African American	American Indian or Alaska Native	Asian	Native Hawaiian or Other Pacific Islander	Some Other Race Alone	Multiple Races	Not Hispanic or Latino	Hispanic or Latino		
BG 1, CT 811	61%	2%	0%	0%	0%	13%	23%	0%	100%	49.1%	$7,109
BG 2, CT 811	36%	8%	0%	0%	0%	31%	25%	0%	100%	64.7%	$13,468
BG 1, CT 812	28%	0%	0%	0%	0%	50%	22%	0%	100%	75.0%	$9,946
BG 2, CT 812	24%	10%	0%	0%	0%	42%	25%	0%	100%	84.2%	$2,743
BG 3, CT 812	21%	3%	0%	0%	0%	35%	41%	0%	100%	95.6%	ND
BG 4, CT 812	25%	4%	0%	0%	0%	63%	7%	0%	100%	100.0%	$2,831
BG 5, CT 812	36%	1%	0%	0%	0%	50%	13%	1%	99%	100.0%	$3,218
BG 1, CT 813	59%	1%	0%	0%	0%	22%	18%	0%	100%	54.7%	$14,063
BG 2, CT 813	64%	2%	0%	0%	0%	9%	24%	2%	98%	26.4%	$24,875
BG 1, CT 815.01	38%	2%	0%	0%	0%	33%	27%	0%	100%	44.3%	$18,750
BG 2, CT 815.01	47%	0%	0%	1%	0%	29%	22%	3%	97%	20.8%	$19,509
BG 3, CT 815.01	17%	1%	0%	0%	0%	62%	21%	0%	100%	80.8%	$4,368
BG 1, CT 815.12	79%	9%	0%	0%	0%	0%	12%	6%	94%	51.5%	$9,592
BG 2, CT 815.12	96%	4%	0%	0%	0%	0%	0%	5%	95%	84.6%	$15,257
BG 3, CT 815.12	69%	15%	0%	0%	0%	16%	0%	1%	99%	56.1%	$13,333
BG 4, CT 815.12	79%	5%	0%	0%	0%	9%	6%	3%	97%	52.9%	$11,884
BG 1, CT 815.22	32%	2%	0%	0%	0%	28%	38%	2%	98%	19.7%	$40,703
BG 2, CT 815.22	34%	3%	0%	2%	0%	43%	18%	2%	98%	24.3%	$46,328
BG 1, CT 816.01	13%	0%	0%	0%	0%	33%	54%	0%	100%	49.2%	$16,938
BG 2, CT 816.01	57%	0%	0%	1%	0%	2%	40%	6%	94%	7.7%	$49,261
BG 3, CT 816.01	45%	1%	0%	0%	0%	28%	26%	1%	99%	27.7%	$28,964
BG 1, CT 816.02	18%	4%	0%	0%	0%	32%	46%	1%	99%	45.7%	$18,067
BG 2, CT 816.02	28%	2%	0%	0%	0%	31%	39%	2%	98%	42.1%	$19,958
BG 3, CT 816.02	44%	0%	0%	0%	0%	36%	20%	3%	97%	27.2%	$23,750
BG 1, CT 817	40%	1%	0%	0%	0%	28%	32%	0%	100%	51.3%	$15,201
BG 2, CT 817	25%	0%	0%	0%	0%	28%	47%	0%	100%	45.1%	$14,031
BG 3, CT 817	28%	14%	0%	0%	0%	28%	30%	2%	98%	52.4%	$12,319
BG 1, CT 818	68%	1%	0%	1%	0%	25%	6%	3%	97%	4.3%	$32,639
BG 2, CT 818	93%	1%	0%	0%	0%	0%	6%	3%	97%	35.1%	$16,689

Block Group	Race (Percent)[a]							Ethnicity (Percent)[a]		Percent of Residents in Poverty[a]	Median Household Income
	White	Black or African American	American Indian or Alaska Native	Asian	Native Hawaiian or Other Pacific Islander	Some Other Race Alone	Multiple Races	Not Hispanic or Latino	Hispanic or Latino		
BG 3, CT 818	74%	3%	0%	0%	0%	21%	3%	2%	98%	47.0%	$15,972
BG 1, CT 819	85%	1%	0%	0%	0%	7%	7%	1%	99%	39.1%	$15,028
BG 2, CT 819	97%	0%	0%	0%	0%	3%	0%	1%	99%	28.1%	$21,900
BG 3, CT 819	74%	4%	0%	0%	0%	9%	14%	2%	98%	52.7%	$15,327
BG 4, CT 819	92%	2%	0%	0%	0%	6%	0%	2%	98%	45.7%	$16,359
BG 1, CT 820.01	74%	6%	0%	0%	0%	6%	14%	1%	99%	42.9%	$21,765
BG 2, CT 820.01	86%	7%	0%	0%	0%	0%	7%	0%	100%	67.9%	$14,792
BG 3, CT 820.01	85%	0%	0%	0%	0%	10%	6%	0%	100%	49.1%	$22,182
BG 4, CT 820.01	89%	11%	0%	0%	0%	0%	0%	0%	100%	37.7%	$23,167
BG 1, CT 820.12	93%	2%	0%	0%	0%	5%	0%	1%	99%	46.4%	$18,971
BG 2, CT 820.12	79%	6%	0%	0%	0%	4%	12%	0%	100%	31.7%	$25,307
BG 3, CT 820.12	82%	1%	0%	0%	0%	12%	5%	0%	100%	20.8%	$24,375
BG 1, CT 820.22	95%	2%	0%	1%	0%	1%	0%	4%	96%	30.8%	$25,048
BG 2, CT 820.22	94%	0%	0%	0%	0%	5%	1%	0%	100%	46.1%	$18,846
BG 1, CT 821.02	64%	11%	0%	0%	0%	16%	8%	4%	96%	77.9%	$6,539
BG 2, CT 821.02	79%	2%	0%	0%	0%	19%	1%	2%	98%	33.4%	$35,417
BG 3, CT 821.02	81%	5%	0%	0%	0%	1%	12%	1%	99%	25.6%	$19,890
BG 1, CT 821.03	87%	5%	0%	0%	0%	4%	4%	2%	98%	75.7%	$9,429
BG 2, CT 821.03	79%	7%	1%	0%	0%	10%	4%	1%	99%	28.5%	$23,807
BG 1, CT 821.04	90%	2%	3%	0%	0%	4%	2%	2%	98%	58.3%	$13,679
BG 2, CT 821.04	86%	1%	0%	0%	0%	7%	6%	1%	99%	57.7%	$17,361
BG 0, CT 9900	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
BG 1, CT 4201	59%	8%	0%	0%	0%	14%	19%	2%	98%	59.2%	$13,028
BG 2, CT 4201	93%	2%	0%	0%	1%	3%	1%	1%	99%	45.4%	$16,823
BG 3, CT 4201	82%	5%	0%	0%	0%	6%	7%	3%	97%	52.9%	$13,250
BG 1, CT 4202	88%	2%	0%	0%	0%	1%	9%	3%	97%	52.3%	$22,500
BG 2, CT 4202	94%	0%	0%	0%	0%	6%	0%	0%	100%	64.2%	$13,036
BG 3, CT 4202	89%	1%	0%	0%	0%	9%	2%	0%	100%	38.6%	$16,852
BG 4, CT 4202	88%	0%	0%	0%	0%	9%	3%	0%	100%	62.9%	$11,786

Block Group	Race (Percent)[a]							Ethnicity (Percent)[a]		Percent of Residents in Poverty[a]	Median Household Income
	White	Black or African American	American Indian or Alaska Native	Asian	Native Hawaiian or Other Pacific Islander	Some Other Race Alone	Multiple Races	Not Hispanic or Latino	Hispanic or Latino		
BG 1, CT 4203.01	78%	4%	0%	0%	0%	16%	2%	0%	100%	62.4%	$17,500
BG 2, CT 4203.01	87%	1%	0%	0%	0%	8%	4%	1%	99%	59.9%	$10,960
BG 1, CT 4203.02	90%	0%	0%	0%	0%	8%	2%	2%	98%	54.3%	$13,721
BG 2, CT 4203.02	70%	0%	0%	0%	0%	20%	9%	0%	100%	49.4%	$21,361
BG 3, CT 4203.02	94%	1%	0%	0%	0%	6%	0%	1%	99%	52.3%	$17,745
BG 1, CT 4204.01	87%	2%	0%	0%	0%	4%	7%	0%	100%	54.9%	$13,839
BG 2, CT 4204.01	98%	0%	0%	0%	0%	2%	0%	0%	100%	65.3%	$12,120
BG 1, CT 4204.02	85%	0%	0%	0%	0%	7%	7%	1%	99%	54.0%	$12,819
BG 2, CT 4204.02	72%	4%	0%	0%	0%	18%	7%	0%	100%	56.7%	$13,553
BG 1, CT 4205	83%	0%	0%	0%	0%	11%	6%	0%	100%	29.4%	$18,089
BG 2, CT 4205	93%	0%	0%	0%	0%	1%	6%	1%	99%	41.1%	$11,518
BG 3, CT 4205	81%	1%	0%	0%	0%	9%	10%	0%	100%	48.7%	$15,441
BG 1, CT 9552.01	80%	1%	0%	0%	0%	0%	19%	0%	100%	61.9%	$13,409
BG 2, CT 9552.01	91%	7%	0%	0%	0%	2%	1%	0%	100%	66.2%	$10,988
BG 1, CT 9552.02	82%	3%	0%	0%	0%	2%	13%	0%	100%	41.2%	$22,795
BG 2, CT 9552.02	94%	0%	0%	0%	0%	0%	6%	0%	100%	52.0%	$20,101
BG 3, CT 9552.02	86%	0%	0%	0%	0%	0%	14%	0%	100%	60.3%	$9,579
BG 1, CT 9553	82%	2%	0%	0%	0%	0%	16%	0%	100%	54.1%	$16,020
BG 2, CT 9553	77%	10%	0%	0%	0%	4%	9%	0%	100%	57.7%	$13,399
BG 3, CT 9553	80%	1%	0%	0%	0%	5%	14%	1%	99%	70.2%	$11,744
BG 1, CT 9554.01	84%	0%	0%	0%	0%	0%	16%	0%	100%	45.2%	$24,737
BG 2, CT 9554.01	87%	1%	0%	0%	0%	0%	12%	0%	100%	62.6%	$13,913
BG 3, CT 9554.01	76%	0%	0%	0%	0%	4%	20%	0%	100%	41.5%	$15,625
BG 1, CT 9554.02	82%	0%	0%	0%	0%	4%	14%	0%	100%	51.9%	$12,929
BG 2, CT 9554.02	85%	3%	0%	0%	0%	0%	12%	0%	100%	56.9%	$16,823
BG 1, CT 9555	89%	2%	0%	0%	0%	0%	9%	0%	100%	67.8%	$10,313
BG 2, CT 9555	72%	3%	0%	0%	0%	2%	23%	0%	100%	62.9%	$13,958
BG 1, CT 1701	71%	0%	0%	1%	0%	26%	2%	1%	99%	58.3%	$12,731
BG 2, CT 1701	73%	12%	0%	10%	0%	5%	0%	2%	98%	46.5%	$13,913

Block Group	Race (Percent)[a]							Ethnicity (Percent)[a]		Percent of Residents in Poverty[a]	Median Household Income
	White	Black or African American	American Indian or Alaska Native	Asian	Native Hawaiian or Other Pacific Islander	Some Other Race Alone	Multiple Races	Not Hispanic or Latino	Hispanic or Latino		
BG 3, CT 1701	50%	0%	0%	0%	0%	50%	0%	2%	98%	47.0%	$17,140
BG 4, CT 1701	74%	6%	0%	0%	0%	16%	4%	2%	98%	55.5%	$18,827
BG 1, CT 1702	81%	1%	0%	0%	0%	18%	0%	0%	100%	66.3%	$18,780
BG 2, CT 1702	84%	1%	0%	0%	0%	15%	0%	3%	97%	55.8%	$16,548
BG 3, CT 1702	87%	0%	0%	0%	0%	10%	2%	2%	98%	53.6%	$12,195
BG 4, CT 1702	60%	1%	0%	0%	0%	37%	2%	0%	100%	38.3%	$18,715
BG 1, CT 1703	71%	9%	0%	0%	0%	13%	6%	0%	100%	58.6%	$16,833
BG 2, CT 1703	59%	5%	0%	4%	0%	31%	1%	0%	100%	50.6%	$13,846
BG 3, CT 1703	60%	3%	0%	0%	0%	31%	5%	0%	100%	73.3%	$10,139
BG 4, CT 1703	59%	1%	0%	0%	0%	39%	2%	0%	100%	34.7%	$27,991
BG 1, CT 1704	76%	6%	0%	3%	0%	14%	1%	0%	100%	70.3%	$4,189
BG 2, CT 1704	47%	8%	0%	4%	0%	39%	2%	0%	100%	75.7%	$10,743
BG 3, CT 1704	74%	4%	0%	0%	0%	18%	4%	1%	99%	36.3%	$26,297
BG 0, CT 9900.13	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
BG 1, CT 5201	34%	1%	0%	0%	0%	3%	62%	0%	100%	22.6%	$26,771
BG 2, CT 5201	52%	9%	0%	0%	0%	7%	32%	0%	100%	31.8%	$22,188
BG 3, CT 5201	44%	4%	0%	0%	0%	1%	51%	0%	100%	57.5%	$17,564
BG 1, CT 5202	44%	1%	0%	0%	0%	5%	50%	0%	100%	52.5%	$15,369
BG 2, CT 5202	42%	1%	0%	0%	0%	3%	55%	0%	100%	60.0%	$15,151
BG 3, CT 5202	43%	2%	0%	0%	0%	1%	54%	2%	98%	72.7%	$12,688
BG 1, CT 5203	33%	7%	0%	0%	0%	2%	58%	0%	100%	66.1%	$12,721
BG 2, CT 5203	22%	0%	0%	0%	0%	8%	70%	1%	99%	70.1%	$6,310
BG 1, CT 5204	32%	4%	0%	0%	0%	3%	61%	0%	100%	59.6%	$17,104
BG 2, CT 5204	33%	2%	0%	0%	0%	1%	63%	0%	100%	57.2%	$15,316
BG 3, CT 5204	35%	0%	0%	0%	0%	0%	65%	1%	99%	54.4%	$15,456
BG 1, CT 5205	61%	0%	0%	0%	0%	2%	38%	0%	100%	33.8%	$19,464
BG 2, CT 5205	36%	1%	0%	0%	0%	5%	59%	2%	98%	38.9%	$26,283
BG 3, CT 5205	32%	2%	0%	0%	0%	7%	59%	0%	100%	50.8%	$16,250
BG 4, CT 5205	40%	11%	0%	0%	0%	9%	40%	0%	100%	51.6%	$23,160

Block Group	Race (Percent)[a]							Ethnicity (Percent)[a]		Percent of Residents in Poverty[a]	Median Household Income
	White	Black or African American	American Indian or Alaska Native	Asian	Native Hawaiian or Other Pacific Islander	Some Other Race Alone	Multiple Races	Not Hispanic or Latino	Hispanic or Latino		
BG 1, CT 9548.01	75%	3%	0%	0%	0%	8%	15%	0%	100%	60.9%	$13,722
BG 2, CT 9548.01	84%	4%	0%	0%	0%	2%	10%	0%	100%	52.3%	$17,298
BG 3, CT 9548.01	82%	5%	0%	0%	0%	1%	11%	2%	98%	57.2%	$14,038
BG 1, CT 9548.02	69%	0%	0%	0%	0%	0%	31%	0%	100%	61.4%	$15,043
BG 2, CT 9548.02	79%	2%	0%	0%	0%	3%	16%	0%	100%	61.0%	$15,393
BG 1, CT 9549.01	85%	1%	0%	0%	0%	2%	12%	0%	100%	68.0%	$12,337
BG 2, CT 9549.01	85%	1%	0%	0%	0%	0%	15%	0%	100%	76.6%	$12,451
BG 3, CT 9549.01	69%	2%	0%	0%	0%	2%	27%	0%	100%	71.8%	$7,366
BG 1, CT 9549.02	74%	1%	0%	0%	0%	4%	21%	0%	100%	58.5%	$15,476
BG 2, CT 9549.02	79%	7%	0%	0%	0%	0%	14%	0%	100%	74.9%	$15,125
BG 1, CT 9550.01	73%	1%	0%	0%	0%	1%	26%	0%	100%	58.6%	$11,458
BG 2, CT 9550.01	86%	0%	0%	0%	0%	0%	14%	2%	98%	51.9%	$10,000
BG 3, CT 9550.01	88%	4%	0%	0%	0%	2%	6%	0%	100%	58.2%	$16,311
BG 4, CT 9550.01	73%	5%	0%	0%	0%	7%	16%	0%	100%	60.3%	$17,083
BG 1, CT 9550.02	81%	1%	0%	0%	0%	3%	14%	2%	98%	67.6%	$20,040
BG 2, CT 9550.02	64%	7%	0%	0%	0%	8%	21%	0%	100%	56.9%	$15,227
BG 1, CT 9551	65%	8%	0%	0%	0%	8%	19%	0%	100%	57.6%	$14,724
BG 2, CT 9551	79%	3%	0%	0%	0%	6%	12%	1%	99%	45.2%	$14,405
BG 1, CT 2901	63%	9%	0%	0%	0%	18%	11%	0%	100%	59.8%	$10,707
BG 2, CT 2901	71%	14%	0%	0%	0%	2%	13%	0%	100%	57.9%	$14,688
BG 3, CT 2901	41%	30%	0%	0%	0%	9%	19%	0%	100%	54.6%	$18,816
BG 1, CT 2902	76%	9%	0%	0%	0%	0%	15%	0%	100%	75.0%	$9,856
BG 2, CT 2902	66%	8%	0%	0%	0%	15%	12%	0%	100%	61.4%	$12,108
BG 3, CT 2902	55%	14%	0%	0%	0%	23%	7%	0%	100%	46.4%	$17,315
BG 4, CT 2902	55%	19%	5%	0%	0%	10%	12%	0%	100%	60.6%	$12,737
BG 1, CT 2903	60%	9%	2%	0%	0%	9%	20%	0%	100%	53.3%	$15,500
BG 2, CT 2903	54%	18%	1%	0%	0%	12%	15%	0%	100%	57.4%	$15,195
BG 3, CT 2903	75%	0%	0%	0%	0%	0%	25%	0%	100%	68.2%	$11,442
BG 1, CT 2904	54%	19%	0%	0%	0%	3%	23%	2%	98%	34.9%	$14,565

Block Group	Race (Percent)[a]							Ethnicity (Percent)[a]		Percent of Residents in Poverty[a]	Median Household Income
	White	Black or African American	American Indian or Alaska Native	Asian	Native Hawaiian or Other Pacific Islander	Some Other Race Alone	Multiple Races	Not Hispanic or Latino	Hispanic or Latino		
BG 2, CT 2904	53%	8%	1%	0%	0%	9%	28%	1%	99%	46.8%	$16,804
BG 3, CT 2904	52%	4%	0%	0%	0%	17%	28%	0%	100%	60.1%	$12,100
BG 0, CT 9900	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
BG 1, CT 7301	91%	0%	0%	0%	0%	8%	0%	0%	100%	51.6%	$14,298
BG 2, CT 7301	88%	0%	0%	0%	0%	9%	2%	1%	99%	64.6%	$12,258
BG 3, CT 7301	94%	0%	0%	0%	0%	4%	1%	4%	96%	66.2%	$14,335
BG 4, CT 7301	90%	0%	0%	0%	0%	0%	10%	0%	100%	61.2%	$13,625
BG 1, CT 7302	92%	0%	0%	0%	0%	6%	1%	1%	99%	50.0%	$23,390
BG 1, CT 7303	84%	2%	0%	0%	0%	10%	4%	3%	97%	73.2%	$14,489
BG 2, CT 7303	88%	6%	0%	0%	0%	5%	1%	0%	100%	69.8%	$11,710
BG 3, CT 7303	93%	2%	0%	0%	0%	5%	0%	0%	100%	59.6%	$13,036
BG 4, CT 7303	90%	5%	0%	0%	0%	5%	0%	1%	99%	60.9%	$19,125
BG 1, CT 7304	83%	5%	3%	0%	0%	9%	1%	3%	97%	60.2%	$9,437
BG 1, CT 7307	93%	6%	0%	0%	0%	1%	0%	0%	100%	52.9%	$16,602
BG 2, CT 7307	83%	8%	0%	0%	0%	9%	0%	0%	100%	66.7%	$16,127
BG 3, CT 7307	82%	7%	0%	0%	0%	10%	1%	1%	99%	60.9%	$12,500
BG 1, CT 7308	91%	2%	0%	0%	0%	7%	0%	0%	100%	49.8%	$14,911
BG 0, CT 9900	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
BG 1, CT 701	88%	4%	0%	0%	0%	8%	0%	1%	99%	20.0%	$33,036
BG 2, CT 701	87%	2%	0%	0%	0%	9%	2%	0%	100%	67.7%	$7,375
BG 3, CT 701	81%	1%	1%	0%	0%	12%	5%	0%	100%	60.0%	$13,990
BG 4, CT 701	92%	2%	0%	0%	0%	6%	0%	3%	97%	20.2%	$38,307
BG 1, CT 702.01	54%	4%	0%	0%	0%	13%	29%	2%	98%	51.5%	$18,357
BG 2, CT 702.01	81%	0%	0%	0%	0%	6%	14%	0%	100%	66.7%	$18,950
BG 1, CT 702.02	65%	15%	0%	0%	0%	1%	19%	1%	99%	75.6%	$10,439
BG 2, CT 702.02	66%	0%	0%	0%	0%	0%	34%	8%	92%	25.5%	$43,889
BG 3, CT 702.02	69%	2%	0%	0%	0%	0%	29%	0%	100%	78.3%	$16,548
BG 1, CT 703	61%	10%	0%	0%	0%	9%	20%	0%	100%	60.2%	$9,500
BG 2, CT 703	60%	6%	1%	0%	0%	13%	20%	0%	100%	63.0%	$10,845

Block Group	Race (Percent)[a]							Ethnicity (Percent)[a]		Percent of Residents in Poverty[a]	Median Household Income
	White	Black or African American	American Indian or Alaska Native	Asian	Native Hawaiian or Other Pacific Islander	Some Other Race Alone	Multiple Races	Not Hispanic or Latino	Hispanic or Latino		
BG 3, CT 703	69%	13%	0%	1%	0%	0%	17%	0%	100%	50.8%	$13,523
BG 1, CT 704	67%	8%	0%	1%	0%	5%	18%	0%	100%	86.6%	$2,813
BG 2, CT 704	62%	12%	0%	0%	0%	10%	16%	1%	99%	93.3%	ND
BG 1, CT 705.02	71%	3%	0%	0%	0%	7%	19%	0%	100%	59.3%	$15,625
BG 2, CT 705.02	78%	1%	0%	0%	0%	6%	14%	0%	100%	34.9%	$14,688
BG 3, CT 705.02	82%	1%	0%	0%	0%	6%	11%	1%	99%	23.7%	$18,868
BG 1, CT 705.03	92%	0%	0%	3%	0%	0%	5%	4%	96%	22.0%	$51,765
BG 2, CT 705.03	78%	2%	0%	0%	0%	3%	17%	0%	100%	48.3%	$22,583
BG 3, CT 705.03	89%	1%	0%	0%	0%	2%	9%	2%	98%	14.7%	$39,242
BG 1, CT 705.13	65%	7%	0%	0%	0%	4%	24%	0%	100%	71.9%	$5,363
BG 2, CT 705.13	65%	3%	0%	0%	0%	6%	26%	0%	100%	55.5%	$15,595
BG 1, CT 705.14	67%	10%	0%	0%	0%	3%	21%	0%	100%	28.3%	$30,133
BG 2, CT 705.14	49%	11%	0%	0%	0%	3%	37%	2%	98%	65.2%	$11,528
BG 1, CT 705.22	62%	8%	0%	0%	0%	8%	22%	1%	99%	80.6%	$5,313
BG 2, CT 705.22	86%	1%	0%	0%	0%	4%	9%	1%	99%	11.2%	$35,833
BG 3, CT 705.22	76%	6%	0%	0%	0%	6%	11%	0%	100%	38.7%	$17,940
BG 1, CT 708	32%	20%	0%	0%	0%	8%	40%	3%	97%	90.9%	$4,702
BG 2, CT 708	78%	2%	0%	0%	0%	2%	18%	0%	100%	73.6%	$9,160
BG 1, CT 709	66%	10%	0%	1%	0%	8%	15%	0%	100%	75.4%	$9,819
BG 2, CT 709	64%	13%	0%	0%	0%	9%	14%	0%	100%	95.3%	$6,286
BG 3, CT 709	67%	2%	0%	0%	0%	2%	29%	0%	100%	73.4%	$11,191
BG 1, CT 710	91%	3%	0%	0%	0%	7%	0%	0%	100%	66.6%	$11,534
BG 2, CT 710	75%	6%	0%	0%	0%	11%	8%	0%	100%	69.5%	$11,125
BG 1, CT 712	59%	4%	0%	0%	0%	2%	35%	0%	100%	45.5%	$10,069
BG 2, CT 712	49%	23%	0%	0%	0%	5%	22%	1%	99%	58.5%	$12,645
BG 3, CT 712	77%	4%	0%	2%	0%	0%	17%	0%	100%	61.3%	$11,208
BG 1, CT 713	50%	11%	7%	0%	0%	19%	13%	0%	100%	100.0%	ND
BG 2, CT 713	64%	15%	0%	0%	0%	12%	9%	0%	100%	61.1%	$13,265
BG 3, CT 713	54%	10%	0%	0%	0%	6%	29%	0%	100%	88.8%	ND

Block Group	Race (Percent)[a]							Ethnicity (Percent)[a]		Percent of Residents in Poverty[a]	Median Household Income
	White	Black or African American	American Indian or Alaska Native	Asian	Native Hawaiian or Other Pacific Islander	Some Other Race Alone	Multiple Races	Not Hispanic or Latino	Hispanic or Latino		
BG 4, CT 713	71%	0%	0%	0%	0%	16%	13%	0%	100%	92.2%	ND
BG 1, CT 714.01	49%	1%	0%	0%	0%	9%	41%	1%	99%	59.0%	$19,333
BG 2, CT 714.01	89%	1%	1%	0%	0%	4%	6%	1%	99%	37.8%	$24,858
BG 1, CT 714.02	89%	7%	0%	0%	0%	1%	2%	0%	100%	35.7%	$22,917
BG 2, CT 714.02	90%	0%	0%	0%	0%	6%	4%	0%	100%	51.6%	$13,063
BG 3, CT 714.02	85%	1%	0%	0%	0%	9%	5%	0%	100%	33.1%	$41,094
BG 1, CT 715	87%	9%	0%	0%	0%	0%	4%	0%	100%	30.6%	$27,298
BG 2, CT 715	80%	0%	2%	0%	0%	5%	14%	0%	100%	65.6%	$11,334
BG 3, CT 715	73%	3%	0%	0%	0%	12%	12%	1%	99%	57.6%	$12,019
BG 4, CT 715	81%	0%	0%	0%	0%	1%	18%	0%	100%	57.3%	$13,750
BG 1, CT 716.01	83%	0%	0%	0%	0%	0%	17%	3%	97%	25.5%	$36,700
BG 2, CT 716.01	72%	13%	0%	1%	0%	4%	10%	1%	99%	45.6%	$22,500
BG 3, CT 716.01	57%	27%	0%	0%	0%	7%	9%	0%	100%	43.4%	$20,293
BG 1, CT 716.02	61%	14%	0%	0%	0%	5%	20%	6%	94%	94.8%	ND
BG 2, CT 716.02	55%	16%	0%	0%	0%	11%	17%	0%	100%	94.6%	$6,172
BG 3, CT 716.02	60%	3%	0%	0%	0%	6%	31%	0%	100%	75.3%	$18,162
BG 4, CT 716.02	43%	10%	0%	0%	0%	9%	38%	0%	100%	77.5%	$10,734
BG 1, CT 717	65%	5%	0%	7%	0%	2%	21%	9%	91%	43.2%	$18,000
BG 2, CT 717	60%	8%	0%	0%	0%	7%	24%	0%	100%	45.4%	$14,750
BG 1, CT 718	80%	0%	0%	0%	0%	10%	10%	0%	100%	76.9%	$12,361
BG 2, CT 718	71%	12%	0%	0%	0%	0%	17%	3%	97%	57.7%	$6,533
BG 3, CT 718	69%	0%	0%	0%	0%	24%	7%	0%	100%	74.1%	$12,583
BG 1, CT 719	36%	19%	0%	0%	0%	10%	35%	0%	100%	100.0%	ND
BG 2, CT 719	51%	4%	0%	0%	0%	6%	38%	1%	99%	98.4%	$4,500
BG 3, CT 719	61%	10%	0%	0%	0%	16%	14%	0%	100%	60.2%	$12,333
BG 4, CT 719	46%	9%	0%	0%	0%	4%	42%	0%	100%	79.6%	$11,029
BG 5, CT 719	77%	0%	0%	0%	0%	9%	13%	0%	100%	52.7%	$16,976
BG 6, CT 719	46%	0%	0%	0%	0%	14%	39%	0%	100%	49.7%	$8,922
BG 1, CT 720	76%	7%	0%	0%	0%	4%	13%	0%	100%	36.6%	$22,261

Block Group	Race (Percent)[a]							Ethnicity (Percent)[a]		Percent of Residents in Poverty[a]	Median Household Income
	White	Black or African American	American Indian or Alaska Native	Asian	Native Hawaiian or Other Pacific Islander	Some Other Race Alone	Multiple Races	Not Hispanic or Latino	Hispanic or Latino		
BG 1, CT 721.01	83%	6%	0%	0%	0%	7%	5%	0%	100%	84.6%	$9,118
BG 2, CT 721.01	57%	7%	0%	0%	0%	5%	31%	0%	100%	60.6%	$10,526
BG 1, CT 721.02	67%	11%	0%	0%	0%	4%	18%	0%	100%	24.6%	$28,424
BG 2, CT 721.02	72%	1%	0%	0%	0%	6%	21%	0%	100%	47.5%	$29,250
BG 3, CT 721.02	79%	2%	0%	0%	0%	1%	19%	0%	100%	32.9%	$24,728
BG 4, CT 721.02	68%	0%	0%	0%	0%	5%	27%	0%	100%	24.3%	$27,159
BG 1, CT 722.01	53%	8%	0%	1%	0%	3%	35%	1%	99%	29.1%	$27,898
BG 2, CT 722.01	52%	13%	0%	0%	0%	6%	29%	0%	100%	58.1%	$16,614
BG 3, CT 722.01	63%	11%	0%	0%	0%	4%	23%	1%	99%	92.9%	ND
BG 1, CT 722.02	84%	5%	2%	0%	0%	0%	9%	0%	100%	38.4%	$21,389
BG 2, CT 722.02	93%	1%	0%	0%	0%	2%	4%	0%	100%	36.3%	$18,814
BG 3, CT 722.02	63%	5%	0%	0%	0%	8%	24%	0%	100%	32.8%	$30,294
BG 4, CT 722.02	66%	14%	0%	0%	0%	0%	20%	0%	100%	11.3%	$55,469
BG 5, CT 722.02	69%	5%	0%	0%	0%	7%	19%	0%	100%	23.6%	$26,011
BG 6, CT 722.02	65%	2%	0%	0%	0%	3%	30%	3%	97%	10.3%	$76,970
BG 1, CT 723	39%	12%	0%	0%	0%	12%	37%	0%	100%	73.9%	$10,179
BG 2, CT 723	45%	23%	0%	0%	0%	15%	18%	0%	100%	73.5%	$10,938
BG 1, CT 724	83%	1%	0%	0%	0%	0%	16%	0%	100%	2.6%	$98,482
BG 2, CT 724	65%	0%	0%	0%	0%	0%	35%	0%	100%	22.0%	$46,204
BG 3, CT 724	86%	3%	0%	0%	0%	0%	12%	0%	100%	39.1%	$18,068
BG 4, CT 724	65%	6%	0%	0%	0%	9%	20%	0%	100%	48.5%	$14,357
BG 5, CT 724	62%	16%	0%	0%	0%	10%	12%	2%	98%	46.9%	$26,791
BG 1, CT 725	63%	2%	0%	0%	0%	15%	20%	1%	99%	52.2%	$17,348
BG 2, CT 725	49%	6%	0%	0%	0%	15%	30%	0%	100%	43.5%	$18,175
BG 3, CT 725	78%	6%	0%	0%	0%	3%	13%	0%	100%	10.3%	$41,389
BG 1, CT 726	83%	0%	2%	0%	0%	4%	11%	0%	100%	58.9%	$12,857
BG 2, CT 726	81%	4%	0%	0%	0%	2%	13%	0%	100%	83.8%	$12,844
BG 3, CT 726	68%	3%	0%	0%	0%	8%	21%	0%	100%	71.0%	$11,765
BG 4, CT 726	82%	7%	0%	0%	0%	12%	0%	0%	100%	68.7%	$14,917

Block Group	Race (Percent)[a]							Ethnicity (Percent)[a]		Percent of Residents in Poverty[a]	Median Household Income
	White	Black or African American	American Indian or Alaska Native	Asian	Native Hawaiian or Other Pacific Islander	Some Other Race Alone	Multiple Races	Not Hispanic or Latino	Hispanic or Latino		
BG 1, CT 727.01	82%	7%	0%	0%	0%	1%	10%	0%	100%	33.8%	$22,724
BG 2, CT 727.01	80%	5%	0%	0%	0%	4%	11%	2%	98%	46.3%	$25,781
BG 1, CT 727.03	92%	2%	0%	0%	0%	3%	2%	2%	98%	63.7%	$11,914
BG 2, CT 727.03	87%	2%	0%	0%	0%	10%	1%	0%	100%	45.9%	$19,500
BG 3, CT 727.03	74%	4%	0%	0%	0%	13%	8%	4%	96%	50.9%	$15,000
BG 4, CT 727.03	96%	3%	0%	0%	0%	0%	1%	2%	98%	22.9%	$63,681
BG 5, CT 727.03	96%	1%	0%	0%	0%	0%	2%	1%	99%	5.1%	$75,156
BG 1, CT 727.04	87%	4%	0%	0%	0%	9%	0%	0%	100%	74.1%	$7,545
BG 2, CT 727.04	78%	4%	0%	0%	0%	11%	6%	0%	100%	69.2%	$5,101
BG 1, CT 729	98%	0%	0%	0%	0%	2%	0%	0%	100%	36.1%	$23,456
BG 2, CT 729	90%	3%	0%	0%	0%	5%	2%	0%	100%	51.7%	$14,531
BG 3, CT 729	76%	8%	0%	0%	0%	15%	0%	0%	100%	34.2%	$21,607
BG 4, CT 729	85%	4%	0%	0%	0%	7%	3%	2%	98%	13.0%	$40,893
BG 1, CT 730.01	85%	3%	0%	0%	0%	12%	0%	0%	100%	54.6%	$13,942
BG 2, CT 730.01	96%	2%	0%	0%	0%	2%	0%	0%	100%	52.4%	$13,565
BG 3, CT 730.01	74%	3%	0%	0%	0%	12%	11%	0%	100%	40.9%	$12,011
BG 1, CT 730.02	92%	3%	0%	0%	0%	2%	3%	3%	97%	61.9%	$11,864
BG 2, CT 730.02	85%	1%	0%	0%	0%	13%	0%	0%	100%	68.5%	$14,949
BG 3, CT 730.02	86%	0%	0%	0%	0%	10%	3%	2%	98%	62.0%	$14,524
BG 1, CT 730.03	96%	2%	0%	0%	0%	2%	0%	3%	97%	56.3%	$18,650
BG 1, CT 730.04	84%	0%	0%	0%	0%	14%	2%	0%	100%	71.9%	$13,906
BG 2, CT 730.04	89%	0%	0%	0%	0%	11%	0%	0%	100%	35.5%	$23,913
BG 3, CT 730.04	78%	2%	0%	0%	0%	16%	3%	2%	98%	34.2%	$30,703
BG 4, CT 730.04	92%	0%	0%	0%	0%	7%	2%	0%	100%	53.7%	$22,426
BG 1, CT 730.05	94%	4%	0%	0%	0%	2%	0%	0%	100%	36.3%	$27,383
BG 2, CT 730.05	80%	6%	2%	0%	0%	10%	1%	0%	100%	13.7%	$33,839
BG 3, CT 730.05	87%	1%	0%	0%	0%	11%	1%	0%	100%	22.6%	$22,434
BG 1, CT 730.06	76%	3%	0%	0%	0%	13%	7%	0%	100%	65.5%	$14,130
BG 2, CT 730.06	89%	0%	0%	0%	0%	9%	1%	0%	100%	52.0%	$16,914

Block Group	Race (Percent)[a]							Ethnicity (Percent)[a]		Percent of Residents in Poverty[a]	Median Household Income
	White	Black or African American	American Indian or Alaska Native	Asian	Native Hawaiian or Other Pacific Islander	Some Other Race Alone	Multiple Races	Not Hispanic or Latino	Hispanic or Latino		
BG 1, CT 730.08	60%	16%	0%	0%	0%	8%	16%	2%	98%	0.0%	ND
BG 1, CT 730.09	74%	6%	0%	0%	0%	15%	5%	1%	99%	70.5%	$8,536
BG 2, CT 730.09	60%	0%	0%	0%	0%	24%	16%	0%	100%	76.4%	$11,906
BG 3, CT 730.09	85%	1%	0%	0%	0%	8%	6%	0%	100%	83.6%	$10,188
BG 1, CT 730.10	93%	3%	0%	0%	0%	4%	0%	0%	100%	40.8%	$20,372
BG 2, CT 730.10	86%	2%	0%	0%	0%	9%	2%	0%	100%	35.7%	$30,630
BG 0, CT 9930	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
BG 1, CT 3301	71%	0%	0%	2%	0%	21%	6%	0%	100%	29.0%	$22,844
BG 2, CT 3301	77%	7%	0%	0%	0%	16%	1%	0%	100%	49.6%	$14,464
BG 3, CT 3301	78%	3%	0%	0%	0%	17%	2%	1%	99%	53.9%	$16,298
BG 4, CT 3301	72%	0%	0%	0%	0%	27%	1%	0%	100%	82.2%	$11,823
BG 1, CT 3302	74%	11%	0%	0%	0%	14%	0%	1%	99%	51.7%	$18,355
BG 2, CT 3302	80%	0%	0%	0%	0%	20%	0%	0%	100%	80.2%	$9,149
BG 3, CT 3302	82%	5%	0%	0%	0%	11%	2%	0%	100%	61.3%	$13,730
BG 1, CT 3303	73%	3%	0%	0%	0%	23%	1%	0%	100%	54.7%	$17,473
BG 2, CT 3303	67%	3%	0%	0%	0%	23%	8%	2%	98%	47.0%	$17,372
BG 3, CT 3303	78%	6%	1%	0%	0%	15%	0%	0%	100%	70.5%	$11,641
BG 1, CT 3304	70%	4%	2%	0%	0%	24%	1%	1%	99%	41.7%	$23,293
BG 2, CT 3304	66%	1%	0%	0%	0%	31%	2%	0%	100%	62.6%	$12,450
BG 3, CT 3304	73%	6%	2%	0%	0%	18%	1%	1%	99%	70.3%	$12,837
BG 0, CT 9900	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
BG 1, CT 9594	59%	2%	0%	2%	0%	0%	36%	13%	87%	30.5%	$19,519
BG 2, CT 9594	70%	0%	0%	0%	0%	4%	26%	8%	92%	56.9%	$15,823
BG 3, CT 9594	77%	4%	0%	0%	0%	0%	20%	11%	89%	46.6%	$13,080
BG 4, CT 9594	65%	7%	0%	0%	0%	1%	27%	9%	91%	49.3%	$20,801
BG 1, CT 9595	63%	2%	0%	0%	0%	4%	31%	8%	92%	49.8%	$17,521
BG 2, CT 9595	62%	9%	0%	0%	0%	0%	29%	13%	87%	63.7%	$15,657
BG 1, CT 9596	74%	0%	0%	0%	0%	0%	26%	3%	97%	52.6%	$15,854
BG 2, CT 9596	55%	4%	1%	0%	0%	2%	39%	6%	94%	50.5%	$18,150

Block Group	Race (Percent)[a]							Ethnicity (Percent)[a]		Percent of Residents in Poverty[a]	Median Household Income
	White	Black or African American	American Indian or Alaska Native	Asian	Native Hawaiian or Other Pacific Islander	Some Other Race Alone	Multiple Races	Not Hispanic or Latino	Hispanic or Latino		
BG 3, CT 9596	51%	4%	0%	0%	0%	2%	43%	7%	93%	53.7%	$15,136
BG 4, CT 9596	55%	8%	0%	0%	0%	0%	37%	2%	98%	72.5%	$10,577
BG 0, CT 9904	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
BG 1, CT 1301.01	49%	5%	0%	0%	0%	40%	6%	0%	100%	46.7%	$19,417
BG 2, CT 1301.01	58%	24%	0%	0%	0%	15%	3%	2%	98%	58.1%	$19,282
BG 3, CT 1301.01	83%	12%	0%	0%	0%	2%	3%	3%	97%	13.6%	$26,848
BG 4, CT 1301.01	57%	8%	0%	0%	0%	29%	7%	0%	100%	53.9%	$23,922
BG 5, CT 1301.01	46%	14%	0%	0%	0%	39%	1%	0%	100%	60.3%	$8,933
BG 1, CT 1301.02	65%	7%	0%	2%	0%	19%	7%	0%	100%	13.6%	$41,449
BG 2, CT 1301.02	55%	24%	0%	0%	0%	21%	0%	3%	97%	20.6%	$36,268
BG 3, CT 1301.02	81%	4%	0%	0%	0%	15%	0%	4%	96%	20.2%	$43,663
BG 1, CT 1302	51%	16%	2%	0%	0%	25%	6%	0%	100%	44.4%	$16,860
BG 2, CT 1302	54%	21%	0%	0%	0%	25%	0%	0%	100%	49.0%	$12,237
BG 3, CT 1302	56%	4%	0%	0%	0%	32%	8%	0%	100%	70.9%	$11,624
BG 1, CT 1303	55%	22%	1%	0%	0%	22%	1%	0%	100%	37.6%	$20,333
BG 2, CT 1303	79%	9%	0%	0%	0%	11%	1%	0%	100%	42.8%	$22,829
BG 3, CT 1303	69%	13%	0%	0%	0%	18%	0%	0%	100%	29.3%	$25,597
BG 1, CT 1304.01	35%	13%	0%	0%	0%	50%	3%	0%	100%	43.7%	$14,921
BG 2, CT 1304.01	52%	14%	0%	1%	0%	31%	1%	0%	100%	13.2%	$39,803
BG 1, CT 1304.02	35%	23%	0%	0%	0%	39%	3%	0%	100%	66.1%	$18,715
BG 2, CT 1304.02	49%	22%	0%	0%	0%	25%	4%	0%	100%	54.0%	$12,188
BG 3, CT 1304.02	46%	24%	0%	0%	0%	22%	8%	0%	100%	45.4%	$21,875
BG 1, CT 1305	32%	22%	0%	0%	0%	46%	0%	0%	100%	59.4%	$19,028
BG 2, CT 1305	49%	10%	0%	0%	0%	41%	0%	0%	100%	28.5%	$24,506
BG 3, CT 1305	58%	16%	0%	0%	0%	23%	3%	1%	99%	36.5%	$25,556
BG 4, CT 1305	47%	16%	0%	0%	0%	37%	0%	0%	100%	33.9%	$26,023
BG 1, CT 1306.01	38%	16%	0%	0%	0%	40%	6%	1%	99%	59.6%	$16,735
BG 2, CT 1306.01	59%	6%	0%	0%	0%	33%	1%	1%	99%	26.0%	$23,814
BG 1, CT 1306.02	58%	8%	0%	0%	0%	26%	9%	2%	98%	36.5%	$26,296

Block Group	Race (Percent)[a]							Ethnicity (Percent)[a]		Percent of Residents in Poverty[a]	Median Household Income
	White	Black or African American	American Indian or Alaska Native	Asian	Native Hawaiian or Other Pacific Islander	Some Other Race Alone	Multiple Races	Not Hispanic or Latino	Hispanic or Latino		
BG 2, CT 1306.02	48%	7%	0%	1%	0%	44%	0%	0%	100%	45.0%	$31,848
BG 1, CT 1307.01	64%	8%	0%	2%	0%	24%	2%	0%	100%	38.7%	$21,915
BG 2, CT 1307.01	60%	1%	0%	0%	0%	38%	2%	0%	100%	42.1%	$24,063
BG 3, CT 1307.01	47%	12%	1%	0%	0%	39%	2%	0%	100%	41.2%	$31,489
BG 1, CT 1307.02	43%	16%	0%	0%	0%	36%	5%	0%	100%	37.2%	$26,471
BG 2, CT 1307.02	51%	12%	0%	0%	0%	30%	7%	0%	100%	53.1%	$17,077
BG 3, CT 1307.02	44%	16%	0%	0%	0%	39%	1%	0%	100%	42.5%	$17,976
BG 0, CT 9927	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
BG 1, CT 9603	95%	0%	0%	0%	0%	0%	5%	0%	100%	60.8%	$14,821
BG 2, CT 9603	95%	1%	0%	0%	0%	4%	0%	4%	96%	59.8%	$19,269
BG 3, CT 9603	89%	7%	0%	0%	0%	3%	2%	0%	100%	58.2%	$14,958
BG 4, CT 9603	100%	0%	0%	0%	0%	0%	0%	0%	100%	7.9%	$28,500
BG 1, CT 9604	86%	7%	0%	0%	0%	6%	2%	2%	98%	60.4%	$10,221
BG 2, CT 9604	92%	1%	0%	0%	0%	6%	1%	2%	98%	25.2%	$29,015
BG 3, CT 9604	99%	0%	0%	0%	0%	0%	1%	6%	94%	34.5%	$25,726
BG 1, CT 9605	95%	1%	0%	0%	0%	3%	1%	4%	96%	52.9%	$10,640
BG 2, CT 9605	97%	0%	0%	0%	0%	3%	0%	2%	98%	64.6%	$11,205
BG 1, CT 9606	95%	3%	0%	0%	0%	1%	1%	0%	100%	50.4%	$15,795
BG 2, CT 9606	96%	0%	1%	0%	0%	1%	3%	0%	100%	37.4%	$23,750
BG 1, CT 9607	89%	4%	4%	0%	0%	0%	3%	1%	99%	63.6%	$12,093
BG 2, CT 9607	91%	5%	0%	0%	0%	0%	3%	3%	97%	44.2%	$17,039
BG 3, CT 9607	87%	5%	0%	0%	0%	4%	3%	0%	100%	54.0%	$16,691
BG 1, CT 9608	87%	1%	0%	0%	0%	10%	2%	0%	100%	60.4%	$13,173
BG 2, CT 9608	91%	0%	0%	0%	0%	0%	9%	0%	100%	51.5%	$12,700
BG 3, CT 9608	95%	4%	0%	0%	0%	1%	0%	1%	99%	56.3%	$18,000
BG 1, CT 9526	76%	1%	0%	0%	0%	16%	7%	1%	99%	68.4%	$10,393
BG 2, CT 9526	70%	3%	0%	0%	0%	21%	7%	1%	99%	69.4%	$13,986
BG 3, CT 9526	67%	0%	0%	0%	0%	12%	21%	0%	100%	52.4%	$12,813
BG 1, CT 9527	50%	4%	0%	0%	0%	24%	22%	0%	100%	54.8%	$12,336

Block Group	Race (Percent)[a]							Ethnicity (Percent)[a]		Percent of Residents in Poverty[a]	Median Household Income
	White	Black or African American	American Indian or Alaska Native	Asian	Native Hawaiian or Other Pacific Islander	Some Other Race Alone	Multiple Races	Not Hispanic or Latino	Hispanic or Latino		
BG 2, CT 9527	38%	11%	0%	0%	0%	40%	11%	0%	100%	56.9%	$9,432
BG 3, CT 9527	52%	10%	0%	0%	0%	20%	17%	0%	100%	84.9%	$6,398
BG 1, CT 9528	67%	3%	0%	0%	0%	20%	10%	2%	98%	52.4%	$22,986
BG 2, CT 9528	51%	4%	0%	0%	0%	38%	7%	0%	100%	76.4%	$10,806
BG 3, CT 9528	55%	13%	0%	0%	0%	20%	12%	0%	100%	75.1%	$9,118
BG 4, CT 9528	41%	7%	0%	0%	0%	34%	18%	0%	100%	35.2%	$31,829
BG 5, CT 9528	49%	2%	0%	0%	0%	40%	10%	0%	100%	49.7%	$18,902
BG 1, CT 9529	53%	3%	0%	0%	0%	32%	12%	0%	100%	48.9%	$17,288
BG 2, CT 9529	57%	7%	0%	0%	0%	16%	19%	0%	100%	40.6%	$27,418
BG 3, CT 9529	59%	0%	0%	0%	0%	19%	22%	0%	100%	52.2%	$14,183
BG 4, CT 9529	62%	7%	0%	0%	0%	20%	11%	0%	100%	83.3%	$6,523
BG 1, CT 9530	41%	3%	0%	0%	0%	43%	13%	0%	100%	81.2%	$10,486
BG 2, CT 9530	60%	14%	0%	0%	0%	12%	14%	0%	100%	51.8%	$14,500
BG 1, CT 9531	63%	4%	0%	0%	0%	28%	4%	0%	100%	63.9%	$11,080
BG 2, CT 9531	56%	5%	0%	0%	0%	26%	12%	2%	98%	57.8%	$18,477
BG 1, CT 9532	50%	9%	0%	0%	0%	24%	17%	2%	98%	61.2%	$15,589
BG 2, CT 9532	56%	13%	0%	0%	0%	22%	8%	1%	99%	51.7%	$18,939
BG 3, CT 9532	53%	5%	0%	0%	0%	22%	20%	0%	100%	62.3%	$9,385
BG 0, CT 9928	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
BG 1, CT 8401	97%	0%	0%	0%	0%	3%	0%	0%	100%	51.8%	$11,857
BG 2, CT 8401	100%	0%	0%	0%	0%	0%	0%	0%	100%	75.7%	$10,613
BG 3, CT 8401	97%	1%	0%	0%	0%	2%	0%	5%	95%	54.1%	$13,387
BG 1, CT 8402	96%	0%	0%	0%	0%	0%	4%	0%	100%	61.7%	$12,355
BG 2, CT 8402	100%	0%	0%	0%	0%	0%	0%	0%	100%	49.0%	$12,000
BG 3, CT 8402	98%	0%	0%	0%	0%	2%	0%	0%	100%	46.4%	$15,598
BG 4, CT 8402	100%	0%	0%	0%	0%	0%	0%	0%	100%	40.6%	$25,580
BG 1, CT 8403	85%	13%	0%	0%	0%	1%	1%	0%	100%	53.7%	$15,508
BG 2, CT 8403	93%	7%	0%	0%	0%	0%	0%	0%	100%	47.2%	$19,009
BG 3, CT 8403	99%	1%	0%	0%	0%	1%	0%	0%	100%	34.1%	$18,700

Block Group	Race (Percent)[a]							Ethnicity (Percent)[a]		Percent of Residents in Poverty[a]	Median Household Income
	White	Black or African American	American Indian or Alaska Native	Asian	Native Hawaiian or Other Pacific Islander	Some Other Race Alone	Multiple Races	Not Hispanic or Latino	Hispanic or Latino		
BG 1, CT 8404	93%	5%	0%	0%	0%	1%	1%	0%	100%	29.1%	$30,203
BG 2, CT 8404	91%	7%	0%	0%	0%	0%	3%	0%	100%	92.5%	ND
BG 3, CT 8404	92%	3%	0%	0%	0%	4%	2%	1%	99%	36.2%	$17,407
BG 1, CT 8405	97%	3%	0%	0%	0%	0%	1%	1%	99%	55.2%	$10,436
BG 2, CT 8405	92%	4%	0%	0%	0%	2%	3%	0%	100%	43.7%	$17,891
BG 3, CT 8405	97%	1%	0%	0%	0%	0%	2%	0%	100%	24.8%	$31,250
BG 1, CT 8406	87%	6%	0%	0%	0%	5%	1%	1%	99%	35.9%	$21,917
BG 2, CT 8406	99%	1%	0%	0%	0%	0%	0%	0%	100%	56.8%	$10,479
BG 3, CT 8406	95%	1%	2%	0%	0%	0%	2%	0%	100%	51.9%	$15,878
BG 1, CT 8407	89%	0%	0%	0%	0%	3%	9%	0%	100%	51.0%	$19,405
BG 2, CT 8407	92%	0%	0%	0%	0%	3%	5%	0%	100%	23.7%	$21,741
BG 3, CT 8407	94%	3%	0%	0%	0%	2%	2%	1%	99%	48.8%	$13,583
BG 4, CT 8407	99%	0%	0%	0%	0%	1%	0%	0%	100%	42.9%	$15,375
BG 1, CT 4	61%	27%	0%	0%	0%	4%	8%	0%	100%	63.0%	$3,375
BG 2, CT 4	63%	16%	0%	0%	0%	5%	17%	5%	95%	47.7%	$16,375
BG 1, CT 5.06	75%	0%	1%	3%	0%	15%	6%	18%	82%	45.3%	$15,833
BG 2, CT 5.06	82%	5%	1%	0%	0%	8%	5%	8%	92%	19.6%	$27,461
BG 1, CT 6	73%	17%	0%	0%	0%	7%	4%	2%	98%	69.0%	$5,784
BG 2, CT 6	78%	4%	0%	0%	0%	10%	7%	4%	96%	19.0%	$63,333
BG 3, CT 6	30%	38%	0%	0%	0%	0%	32%	0%	100%	80.5%	$7,333
BG 1, CT 7	73%	18%	0%	1%	0%	6%	3%	0%	100%	66.7%	$9,211
BG 2, CT 7	66%	16%	0%	0%	0%	8%	9%	2%	98%	41.8%	$26,528
BG 1, CT 9	83%	5%	0%	0%	0%	9%	3%	11%	89%	27.3%	$31,424
BG 2, CT 9	90%	2%	0%	3%	0%	0%	5%	11%	89%	4.8%	$80,370
BG 3, CT 9	77%	15%	0%	2%	0%	3%	3%	2%	98%	29.8%	$38,750
BG 4, CT 9	99%	0%	0%	0%	0%	1%	0%	18%	82%	8.2%	$67,500
BG 1, CT 10	89%	11%	0%	0%	0%	0%	0%	37%	63%	6.2%	$50,517
BG 2, CT 10	93%	5%	0%	0%	0%	0%	2%	12%	88%	13.3%	$49,844
BG 3, CT 10	100%	0%	0%	0%	0%	0%	0%	0%	100%	2.8%	$74,191

Block Group	Race (Percent)[a]							Ethnicity (Percent)[a]		Percent of Residents in Poverty[a]	Median Household Income
	White	Black or African American	American Indian or Alaska Native	Asian	Native Hawaiian or Other Pacific Islander	Some Other Race Alone	Multiple Races	Not Hispanic or Latino	Hispanic or Latino		
BG 4, CT 10	81%	11%	1%	0%	0%	0%	7%	4%	96%	21.6%	$34,286
BG 5, CT 10	98%	0%	0%	0%	0%	0%	2%	3%	97%	20.8%	$47,333
BG 6, CT 10	95%	0%	0%	0%	0%	0%	5%	7%	93%	16.0%	$68,073
BG 1, CT 11	80%	4%	1%	0%	0%	1%	14%	15%	85%	9.2%	$48,512
BG 2, CT 11	90%	0%	0%	0%	0%	8%	2%	8%	92%	24.4%	$33,839
BG 1, CT 12	81%	3%	0%	0%	0%	1%	15%	8%	92%	17.2%	$36,184
BG 2, CT 12	90%	6%	0%	0%	0%	2%	2%	7%	93%	11.7%	$55,417
BG 1, CT 13.01	46%	38%	1%	0%	0%	4%	11%	0%	100%	79.2%	$4,960
BG 1, CT 13.02	45%	36%	0%	0%	0%	7%	12%	2%	98%	81.7%	$2,901
BG 2, CT 13.02	56%	32%	0%	0%	0%	8%	4%	2%	98%	96.1%	$2,534
BG 3, CT 13.02	44%	42%	0%	0%	0%	4%	10%	0%	100%	90.2%	ND
BG 1, CT 14	27%	45%	0%	0%	0%	8%	21%	1%	99%	44.9%	$15,865
BG 2, CT 14	53%	30%	0%	0%	0%	2%	15%	1%	99%	49.7%	$13,348
BG 1, CT 15	52%	23%	0%	0%	0%	4%	20%	6%	94%	45.3%	$19,961
BG 2, CT 15	81%	13%	0%	0%	0%	3%	3%	2%	98%	32.1%	$21,977
BG 1, CT 16	78%	0%	0%	0%	0%	4%	18%	0%	100%	17.9%	$39,375
BG 2, CT 16	73%	18%	1%	0%	0%	2%	6%	0%	100%	9.3%	$43,438
BG 3, CT 16	77%	7%	0%	0%	0%	3%	14%	0%	100%	36.9%	$22,321
BG 1, CT 18	44%	20%	0%	0%	0%	13%	23%	2%	98%	47.6%	$27,056
BG 2, CT 18	89%	6%	0%	0%	0%	1%	4%	3%	97%	16.5%	$30,855
BG 1, CT 19	85%	3%	0%	0%	0%	0%	12%	5%	95%	9.7%	$65,170
BG 2, CT 19	88%	0%	0%	1%	0%	0%	11%	1%	99%	29.6%	$32,991
BG 3, CT 19	82%	7%	0%	0%	0%	5%	6%	6%	94%	5.8%	$47,083
BG 4, CT 19	80%	11%	0%	0%	0%	2%	6%	3%	97%	13.0%	$44,028
BG 5, CT 19	94%	0%	0%	0%	0%	0%	6%	0%	100%	20.9%	$29,167
BG 1, CT 20.02	36%	19%	1%	0%	0%	1%	43%	0%	100%	39.6%	$16,064
BG 2, CT 20.02	78%	5%	0%	0%	0%	3%	14%	0%	100%	37.9%	$22,557
BG 1, CT 21	51%	23%	3%	0%	0%	5%	18%	7%	93%	50.6%	$15,688
BG 2, CT 21	47%	28%	11%	0%	0%	2%	11%	0%	100%	43.9%	$24,511

Block Group	Race (Percent)[a]							Ethnicity (Percent)[a]		Percent of Residents in Poverty[a]	Median Household Income
	White	Black or African American	American Indian or Alaska Native	Asian	Native Hawaiian or Other Pacific Islander	Some Other Race Alone	Multiple Races	Not Hispanic or Latino	Hispanic or Latino		
BG 1, CT 22	48%	27%	0%	1%	0%	0%	24%	4%	96%	55.5%	$17,386
BG 2, CT 22	40%	30%	0%	0%	0%	10%	20%	0%	100%	50.4%	$14,635
BG 1, CT 23	48%	33%	0%	0%	0%	4%	15%	0%	100%	25.0%	$23,750
BG 2, CT 23	28%	25%	1%	0%	0%	9%	37%	0%	100%	63.3%	$15,550
BG 3, CT 23	29%	32%	2%	0%	0%	11%	25%	4%	96%	41.8%	$17,361
BG 1, CT 24	77%	11%	0%	0%	0%	2%	10%	4%	96%	46.8%	$16,500
BG 2, CT 24	53%	11%	2%	1%	0%	12%	20%	7%	93%	46.7%	$16,765
BG 1, CT 25	49%	40%	0%	0%	0%	0%	12%	3%	97%	41.7%	$19,352
BG 2, CT 25	59%	23%	4%	0%	0%	4%	10%	1%	99%	38.0%	$19,762
BG 3, CT 25	30%	56%	0%	0%	0%	14%	0%	0%	100%	67.3%	$6,705
BG 1, CT 26	31%	47%	0%	0%	0%	0%	22%	0%	100%	42.6%	$18,750
BG 2, CT 26	29%	34%	0%	4%	0%	9%	24%	0%	100%	68.5%	$12,446
BG 3, CT 26	51%	22%	0%	0%	0%	0%	28%	0%	100%	48.7%	$16,250
BG 4, CT 26	44%	21%	0%	0%	0%	0%	34%	0%	100%	40.0%	$14,250
BG 1, CT 28	66%	18%	0%	0%	0%	0%	16%	0%	100%	72.5%	$13,221
BG 2, CT 28	37%	38%	0%	0%	0%	9%	16%	1%	99%	32.4%	$14,426
BG 3, CT 28	31%	37%	0%	0%	0%	9%	23%	0%	100%	65.8%	$13,369
BG 1, CT 29	48%	39%	0%	0%	0%	2%	11%	0%	100%	51.2%	$11,484
BG 2, CT 29	53%	21%	0%	0%	0%	3%	23%	1%	99%	45.3%	$17,667
BG 1, CT 30	50%	17%	0%	0%	0%	12%	21%	0%	100%	51.0%	$17,750
BG 2, CT 30	29%	42%	2%	0%	0%	9%	18%	1%	99%	58.3%	$16,409
BG 1, CT 31	46%	37%	0%	0%	0%	2%	15%	0%	100%	67.9%	$16,563
BG 2, CT 31	27%	51%	0%	0%	0%	2%	20%	3%	97%	51.4%	$19,399
BG 3, CT 31	59%	33%	0%	0%	0%	6%	1%	6%	94%	42.9%	$15,368
BG 1, CT 32	33%	38%	0%	0%	0%	0%	29%	7%	93%	53.3%	$14,403
BG 2, CT 32	43%	49%	0%	0%	0%	0%	9%	1%	99%	59.4%	$12,396
BG 1, CT 33	49%	25%	1%	5%	0%	11%	9%	4%	96%	23.7%	$19,821
BG 2, CT 33	43%	22%	4%	0%	0%	0%	31%	0%	100%	48.2%	$12,218
BG 1, CT 34	65%	22%	0%	0%	0%	13%	0%	2%	98%	52.2%	$11,731

Block Group	Race (Percent)[a]							Ethnicity (Percent)[a]		Percent of Residents in Poverty[a]	Median Household Income
	White	Black or African American	American Indian or Alaska Native	Asian	Native Hawaiian or Other Pacific Islander	Some Other Race Alone	Multiple Races	Not Hispanic or Latino	Hispanic or Latino		
BG 2, CT 34	75%	19%	0%	0%	0%	3%	3%	0%	100%	84.5%	$2,810
BG 1, CT 35.01	64%	31%	0%	0%	0%	3%	2%	0%	100%	73.5%	$13,393
BG 2, CT 35.01	63%	18%	0%	0%	0%	15%	4%	2%	98%	96.4%	ND
BG 3, CT 35.01	46%	22%	0%	0%	0%	27%	5%	2%	98%	84.7%	$5,761
BG 4, CT 35.01	60%	20%	0%	0%	0%	15%	5%	0%	100%	42.2%	$8,839
BG 1, CT 35.02	53%	20%	0%	0%	0%	13%	14%	0%	100%	50.8%	$15,734
BG 2, CT 35.02	59%	30%	0%	0%	0%	5%	5%	4%	96%	55.3%	$14,397
BG 1, CT 36	51%	31%	2%	0%	0%	6%	10%	0%	100%	69.2%	$9,737
BG 2, CT 36	68%	17%	3%	1%	0%	7%	5%	0%	100%	41.3%	$13,892
BG 1, CT 37	34%	33%	0%	0%	0%	3%	30%	0%	100%	63.8%	$14,242
BG 2, CT 37	15%	63%	0%	0%	0%	0%	22%	0%	100%	83.5%	$7,096
BG 3, CT 37	50%	26%	0%	0%	0%	10%	14%	0%	100%	61.3%	$15,430
BG 4, CT 37	42%	29%	3%	0%	0%	5%	22%	0%	100%	59.3%	$16,563
BG 5, CT 37	52%	36%	0%	0%	0%	3%	9%	1%	99%	65.6%	$12,281
BG 1, CT 38	31%	38%	9%	0%	0%	3%	19%	1%	99%	38.6%	$19,167
BG 2, CT 38	29%	36%	10%	2%	0%	8%	15%	6%	94%	59.9%	$11,913
BG 1, CT 39.02	62%	19%	0%	0%	0%	5%	14%	1%	99%	52.0%	$15,484
BG 2, CT 39.02	58%	31%	0%	1%	0%	3%	6%	1%	99%	47.6%	$21,629
BG 3, CT 39.02	68%	16%	0%	0%	0%	7%	9%	1%	99%	67.7%	$14,949
BG 1, CT 42	56%	20%	0%	0%	0%	10%	15%	11%	89%	2.8%	$25,268
BG 2, CT 42	36%	52%	0%	0%	0%	2%	10%	0%	100%	64.1%	$15,739
BG 3, CT 42	63%	24%	0%	0%	0%	5%	8%	3%	97%	45.3%	$21,875
BG 1, CT 43.06	65%	4%	0%	0%	0%	2%	28%	0%	100%	95.4%	$4,596
BG 2, CT 43.06	62%	15%	0%	0%	0%	3%	21%	1%	99%	85.2%	$5,543
BG 3, CT 43.06	49%	8%	0%	0%	0%	2%	40%	0%	100%	100.0%	ND
BG 1, CT 44	48%	25%	5%	0%	0%	4%	18%	3%	97%	39.0%	$14,528
BG 2, CT 44	86%	14%	0%	0%	0%	0%	0%	0%	100%	85.7%	ND
BG 3, CT 44	57%	20%	1%	0%	0%	1%	21%	0%	100%	67.0%	$16,200
BG 1, CT 45	38%	19%	6%	0%	0%	17%	20%	1%	99%	66.5%	$14,479

Block Group	Race (Percent)[a]							Ethnicity (Percent)[a]		Percent of Residents in Poverty[a]	Median Household Income
	White	Black or African American	American Indian or Alaska Native	Asian	Native Hawaiian or Other Pacific Islander	Some Other Race Alone	Multiple Races	Not Hispanic or Latino	Hispanic or Latino		
BG 2, CT 45	53%	15%	3%	0%	0%	0%	29%	0%	100%	59.6%	$7,875
BG 3, CT 45	61%	24%	0%	2%	0%	3%	10%	0%	100%	41.3%	$23,173
BG 1, CT 46	67%	20%	0%	0%	0%	0%	13%	1%	99%	53.2%	$15,956
BG 2, CT 46	72%	9%	3%	0%	0%	0%	16%	0%	100%	65.1%	$14,293
BG 3, CT 46	68%	8%	0%	0%	0%	2%	22%	1%	99%	26.5%	$12,115
BG 4, CT 46	68%	12%	4%	0%	0%	0%	15%	2%	98%	29.3%	$22,417
BG 5, CT 46	64%	6%	0%	0%	0%	24%	6%	0%	100%	54.6%	$18,015
BG 1, CT 47	49%	19%	0%	1%	0%	32%	0%	0%	100%	66.4%	$15,847
BG 2, CT 47	69%	12%	1%	5%	0%	7%	6%	3%	97%	29.2%	$21,417
BG 3, CT 47	59%	19%	0%	0%	0%	13%	9%	0%	100%	33.4%	$16,786
BG 4, CT 47	80%	7%	0%	0%	0%	13%	0%	2%	98%	54.2%	$20,208
BG 5, CT 47	87%	1%	0%	0%	0%	12%	0%	2%	98%	64.5%	$18,730
BG 1, CT 48	47%	17%	1%	1%	0%	34%	1%	1%	99%	91.0%	ND
BG 2, CT 48	53%	24%	0%	0%	0%	20%	2%	0%	100%	90.5%	ND
BG 1, CT 49	57%	29%	0%	0%	0%	8%	7%	3%	97%	61.1%	$12,279
BG 2, CT 49	40%	43%	0%	0%	0%	5%	11%	1%	99%	75.7%	$8,939
BG 3, CT 49	56%	40%	1%	0%	0%	3%	0%	0%	100%	96.6%	ND
BG 4, CT 49	32%	44%	0%	7%	0%	12%	5%	0%	100%	82.9%	$2,895
BG 1, CT 50	54%	11%	0%	0%	0%	27%	8%	0%	100%	77.8%	$5,000
BG 2, CT 50	55%	18%	0%	2%	0%	17%	8%	1%	99%	28.1%	$28,581
BG 3, CT 50	58%	21%	0%	0%	0%	15%	6%	3%	97%	37.8%	$13,529
BG 4, CT 50	40%	31%	0%	5%	0%	17%	7%	4%	96%	90.9%	ND
BG 5, CT 50	61%	22%	1%	1%	0%	10%	5%	1%	99%	32.8%	$24,565
BG 1, CT 51.01	60%	9%	0%	5%	0%	10%	16%	1%	99%	23.0%	$26,000
BG 2, CT 51.01	58%	25%	0%	0%	0%	16%	1%	0%	100%	35.7%	$18,636
BG 3, CT 51.01	66%	12%	0%	6%	0%	16%	0%	0%	100%	51.1%	$10,156
BG 1, CT 51.02	51%	15%	0%	2%	0%	27%	5%	1%	99%	57.0%	$14,529
BG 2, CT 51.02	68%	12%	0%	4%	0%	10%	5%	5%	95%	55.7%	$15,500
BG 1, CT 51.03	53%	6%	1%	4%	0%	35%	1%	0%	100%	99.4%	$3,093

Block Group	Race (Percent)[a]							Ethnicity (Percent)[a]		Percent of Residents in Poverty[a]	Median Household Income
	White	Black or African American	American Indian or Alaska Native	Asian	Native Hawaiian or Other Pacific Islander	Some Other Race Alone	Multiple Races	Not Hispanic or Latino	Hispanic or Latino		
BG 2, CT 51.03	52%	21%	0%	0%	0%	16%	11%	2%	98%	82.0%	$5,661
BG 3, CT 51.03	51%	32%	0%	0%	0%	17%	0%	8%	92%	47.1%	$10,000
BG 4, CT 51.03	68%	25%	0%	2%	0%	5%	0%	0%	100%	45.0%	$18,534
BG 1, CT 52.01	65%	24%	0%	5%	0%	5%	1%	1%	99%	25.7%	$22,465
BG 2, CT 52.01	58%	14%	0%	0%	0%	25%	3%	3%	97%	27.8%	$26,554
BG 3, CT 52.01	62%	28%	0%	0%	0%	8%	2%	3%	97%	33.8%	$25,000
BG 1, CT 52.02	52%	28%	0%	0%	0%	11%	8%	1%	99%	64.3%	$17,107
BG 2, CT 52.02	74%	26%	0%	0%	0%	0%	0%	2%	98%	22.8%	$32,188
BG 3, CT 52.02	79%	10%	0%	0%	0%	2%	9%	4%	96%	29.3%	$24,081
BG 1, CT 52.04	62%	16%	0%	11%	0%	10%	2%	0%	100%	54.3%	$19,527
BG 2, CT 52.04	74%	14%	0%	0%	0%	4%	8%	0%	100%	7.3%	$33,466
BG 1, CT 52.14	47%	23%	1%	5%	0%	13%	12%	0%	100%	60.1%	$8,750
BG 2, CT 52.14	62%	14%	1%	2%	0%	17%	5%	1%	99%	24.9%	$23,455
BG 3, CT 52.14	65%	11%	0%	2%	0%	18%	4%	3%	97%	43.3%	$25,375
BG 1, CT 52.15	46%	22%	0%	3%	0%	23%	7%	3%	97%	65.6%	$15,290
BG 2, CT 52.15	62%	29%	0%	0%	0%	8%	0%	3%	97%	26.5%	$26,359
BG 1, CT 53	65%	20%	0%	3%	0%	11%	2%	0%	100%	39.2%	$22,639
BG 2, CT 53	52%	27%	3%	1%	0%	11%	6%	4%	96%	38.7%	$25,921
BG 3, CT 53	41%	31%	1%	6%	0%	21%	0%	10%	90%	49.6%	$18,264
BG 1, CT 54.01	76%	6%	0%	0%	0%	16%	2%	2%	98%	26.7%	$41,339
BG 2, CT 54.01	81%	6%	0%	5%	0%	7%	1%	2%	98%	21.3%	$36,019
BG 3, CT 54.01	68%	15%	0%	0%	0%	2%	15%	0%	100%	27.0%	$44,957
BG 4, CT 54.01	66%	12%	0%	0%	0%	5%	17%	1%	99%	41.1%	$24,679
BG 1, CT 54.02	49%	18%	0%	4%	0%	26%	3%	1%	99%	86.9%	$2,896
BG 1, CT 54.03	69%	4%	0%	4%	0%	14%	9%	3%	97%	12.1%	$50,227
BG 2, CT 54.03	78%	7%	0%	0%	0%	9%	5%	1%	99%	36.8%	$40,250
BG 3, CT 54.03	51%	26%	3%	2%	0%	14%	3%	1%	99%	81.0%	$4,523
BG 1, CT 55	52%	23%	0%	6%	0%	17%	2%	2%	98%	31.1%	$16,961
BG 2, CT 55	40%	17%	0%	10%	0%	21%	12%	3%	97%	36.4%	$17,946

Block Group	Race (Percent)[a]							Ethnicity (Percent)[a]		Percent of Residents in Poverty[a]	Median Household Income
	White	Black or African American	American Indian or Alaska Native	Asian	Native Hawaiian or Other Pacific Islander	Some Other Race Alone	Multiple Races	Not Hispanic or Latino	Hispanic or Latino		
BG 3, CT 55	61%	17%	1%	4%	0%	8%	10%	0%	100%	27.7%	$27,637
BG 4, CT 55	55%	5%	0%	5%	0%	23%	12%	5%	95%	58.5%	$8,317
BG 1, CT 56.01	52%	21%	0%	6%	0%	15%	5%	2%	98%	29.9%	$26,522
BG 2, CT 56.01	80%	17%	0%	0%	0%	2%	1%	3%	97%	12.7%	$31,698
BG 1, CT 56.02	41%	38%	0%	2%	0%	7%	11%	5%	95%	74.7%	$4,940
BG 2, CT 56.02	89%	2%	0%	0%	0%	7%	2%	0%	100%	28.4%	$26,350
BG 3, CT 56.02	43%	41%	0%	5%	0%	8%	3%	1%	99%	58.2%	$13,958
BG 4, CT 56.02	73%	5%	0%	9%	0%	6%	7%	4%	96%	32.6%	$24,219
BG 1, CT 58	70%	11%	0%	5%	0%	12%	2%	8%	92%	29.0%	$23,517
BG 2, CT 58	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
BG 3, CT 58	63%	13%	0%	1%	0%	8%	15%	6%	94%	5.5%	$75,147
BG 1, CT 59	75%	10%	0%	0%	0%	8%	6%	0%	100%	56.8%	$15,900
BG 2, CT 59	73%	4%	1%	4%	0%	18%	0%	0%	100%	35.2%	$17,656
BG 1, CT 60	49%	11%	0%	0%	0%	34%	6%	2%	98%	75.2%	$12,311
BG 2, CT 60	50%	18%	0%	0%	0%	22%	10%	1%	99%	60.0%	$10,707
BG 1, CT 61.01	53%	13%	2%	0%	0%	13%	19%	2%	98%	68.2%	$14,328
BG 2, CT 61.01	63%	13%	3%	0%	0%	12%	8%	0%	100%	57.7%	$15,625
BG 3, CT 61.01	66%	15%	0%	0%	0%	2%	17%	1%	99%	73.8%	$4,266
BG 1, CT 61.02	73%	10%	0%	0%	0%	8%	8%	0%	100%	27.0%	$16,696
BG 2, CT 61.02	57%	12%	0%	0%	0%	19%	12%	0%	100%	45.9%	$16,648
BG 1, CT 62	72%	16%	0%	0%	0%	4%	7%	1%	99%	46.0%	$15,761
BG 2, CT 62	73%	17%	1%	0%	0%	5%	4%	3%	97%	51.5%	$20,852
BG 3, CT 62	67%	14%	0%	0%	0%	14%	5%	0%	100%	58.9%	$7,052
BG 1, CT 63	73%	4%	0%	0%	0%	17%	6%	0%	100%	27.3%	$45,294
BG 2, CT 63	64%	12%	9%	3%	0%	1%	10%	3%	97%	11.4%	$42,500
BG 3, CT 63	100%	0%	0%	0%	0%	0%	0%	4%	96%	34.0%	$33,911
BG 4, CT 63	90%	9%	0%	0%	0%	0%	1%	5%	95%	26.5%	$33,000
BG 5, CT 63	83%	9%	3%	3%	0%	0%	1%	3%	97%	74.2%	$9,442
BG 6, CT 63	84%	8%	0%	0%	0%	5%	3%	0%	100%	30.8%	$26,116

Block Group	Race (Percent)[a]							Ethnicity (Percent)[a]		Percent of Residents in Poverty[a]	Median Household Income
	White	Black or African American	American Indian or Alaska Native	Asian	Native Hawaiian or Other Pacific Islander	Some Other Race Alone	Multiple Races	Not Hispanic or Latino	Hispanic or Latino		
BG 1, CT 65	82%	0%	0%	0%	0%	0%	18%	2%	98%	30.1%	$21,563
BG 2, CT 65	88%	5%	0%	3%	0%	4%	0%	7%	93%	15.0%	$43,542
BG 3, CT 65	91%	3%	0%	0%	0%	2%	4%	5%	95%	12.5%	$37,344
BG 1, CT 66	80%	7%	0%	0%	0%	8%	5%	2%	98%	51.7%	$14,223
BG 2, CT 66	53%	9%	0%	2%	0%	19%	17%	6%	94%	63.2%	$15,938
BG 1, CT 67	85%	9%	2%	0%	0%	1%	4%	2%	98%	19.6%	$48,194
BG 2, CT 67	68%	9%	0%	0%	0%	21%	2%	0%	100%	16.4%	$45,938
BG 3, CT 67	73%	4%	0%	0%	0%	7%	15%	0%	100%	41.3%	$21,328
BG 4, CT 67	98%	0%	0%	0%	0%	2%	0%	0%	100%	24.9%	$27,091
BG 1, CT 68	86%	6%	0%	0%	0%	4%	5%	1%	99%	26.0%	$24,896
BG 1, CT 69	47%	34%	0%	0%	0%	5%	14%	1%	99%	49.3%	$16,250
BG 2, CT 69	68%	32%	0%	0%	0%	0%	0%	0%	100%	4.8%	$25,711
BG 3, CT 69	70%	11%	3%	1%	0%	7%	7%	0%	100%	41.7%	$23,333
BG 4, CT 69	47%	38%	0%	0%	0%	8%	7%	1%	99%	45.9%	$14,525
BG 1, CT 70.04	79%	12%	0%	0%	0%	1%	7%	0%	100%	18.4%	$14,697
BG 2, CT 70.04	80%	16%	0%	1%	0%	0%	3%	0%	100%	37.1%	$17,171
BG 3, CT 70.04	66%	18%	4%	0%	0%	6%	7%	2%	98%	38.5%	$21,705
BG 1, CT 71	60%	26%	0%	0%	0%	5%	9%	1%	99%	21.0%	$25,833
BG 2, CT 71	51%	42%	0%	0%	0%	1%	6%	2%	98%	29.8%	$29,509
BG 1, CT 73	62%	19%	0%	0%	0%	13%	7%	1%	99%	23.4%	$27,569
BG 2, CT 73	89%	2%	0%	0%	0%	0%	9%	2%	98%	11.4%	$31,940
BG 3, CT 73	66%	8%	0%	0%	0%	12%	15%	2%	98%	28.8%	$26,000
BG 4, CT 73	90%	6%	0%	0%	0%	0%	4%	0%	100%	13.4%	$30,962
BG 1, CT 74	65%	20%	0%	0%	0%	2%	13%	4%	96%	39.2%	$26,500
BG 2, CT 74	54%	38%	1%	0%	0%	0%	8%	2%	98%	33.4%	$15,917
BG 3, CT 74	64%	16%	4%	0%	0%	2%	15%	1%	99%	46.7%	$18,824
BG 1, CT 75	48%	34%	2%	0%	0%	3%	13%	0%	100%	40.9%	$20,357
BG 2, CT 75	51%	27%	14%	0%	0%	6%	3%	0%	100%	70.1%	$17,460
BG 1, CT 76	66%	21%	7%	0%	0%	4%	2%	3%	97%	48.4%	$18,796

Block Group	Race (Percent)[a]							Ethnicity (Percent)[a]		Percent of Residents in Poverty[a]	Median Household Income
	White	Black or African American	American Indian or Alaska Native	Asian	Native Hawaiian or Other Pacific Islander	Some Other Race Alone	Multiple Races	Not Hispanic or Latino	Hispanic or Latino		
BG 2, CT 76	50%	50%	0%	0%	0%	0%	0%	0%	100%	47.2%	$16,993
BG 3, CT 76	43%	53%	0%	0%	0%	3%	0%	0%	100%	46.7%	$11,250
BG 4, CT 76	66%	27%	0%	0%	0%	5%	2%	0%	100%	58.2%	$12,917
BG 1, CT 77	43%	41%	0%	0%	0%	15%	2%	0%	100%	51.6%	$9,956
BG 2, CT 77	41%	48%	0%	10%	0%	1%	0%	0%	100%	53.7%	$16,313
BG 3, CT 77	57%	29%	0%	0%	0%	4%	10%	0%	100%	66.7%	$14,302
BG 4, CT 77	63%	36%	0%	0%	0%	1%	0%	0%	100%	21.6%	$24,844
BG 1, CT 78	51%	46%	0%	0%	0%	2%	1%	0%	100%	31.1%	$19,402
BG 2, CT 78	66%	31%	0%	0%	0%	0%	3%	0%	100%	38.7%	$26,176
BG 3, CT 78	38%	62%	0%	0%	0%	0%	0%	0%	100%	38.2%	$19,167
BG 4, CT 78	87%	7%	0%	0%	0%	6%	0%	2%	98%	46.7%	$20,203
BG 5, CT 78	59%	33%	2%	1%	0%	0%	5%	0%	100%	93.4%	$5,000
BG 1, CT 79	86%	13%	0%	0%	0%	1%	0%	5%	95%	16.5%	$37,938
BG 2, CT 79	77%	11%	0%	0%	0%	7%	5%	3%	97%	20.4%	$46,705
BG 3, CT 79	95%	4%	0%	0%	0%	0%	1%	4%	96%	20.0%	$36,360
BG 1, CT 80.01	69%	24%	0%	0%	0%	3%	4%	0%	100%	31.1%	$31,105
BG 2, CT 80.01	72%	21%	1%	0%	0%	1%	5%	5%	95%	26.8%	$24,180
BG 3, CT 80.01	47%	45%	0%	0%	0%	3%	5%	2%	98%	83.5%	ND
BG 1, CT 80.02	53%	39%	0%	0%	0%	8%	0%	0%	100%	62.8%	$14,129
BG 2, CT 80.02	55%	36%	0%	0%	0%	1%	8%	2%	98%	57.6%	$14,297
BG 3, CT 80.02	68%	27%	0%	0%	0%	3%	2%	1%	99%	60.9%	$18,361
BG 1, CT 81	82%	4%	0%	0%	0%	5%	8%	11%	89%	21.7%	$25,859
BG 2, CT 81	89%	8%	0%	0%	0%	2%	1%	0%	100%	11.4%	$43,633
BG 1, CT 82.01	81%	19%	0%	0%	0%	0%	0%	8%	92%	68.8%	$4,018
BG 2, CT 82.01	60%	34%	0%	0%	0%	6%	0%	0%	100%	92.3%	$2,549
BG 3, CT 82.01	50%	41%	0%	0%	0%	3%	7%	0%	100%	87.7%	$3,621
BG 1, CT 82.02	78%	8%	0%	0%	0%	3%	11%	1%	99%	14.5%	$48,295
BG 2, CT 82.02	47%	33%	0%	0%	0%	4%	16%	3%	98%	44.3%	$22,697
BG 3, CT 82.02	60%	37%	0%	0%	0%	2%	1%	0%	100%	84.3%	$2,734

Block Group	Race (Percent)[a]							Ethnicity (Percent)[a]		Percent of Residents in Poverty[a]	Median Household Income
	White	Black or African American	American Indian or Alaska Native	Asian	Native Hawaiian or Other Pacific Islander	Some Other Race Alone	Multiple Races	Not Hispanic or Latino	Hispanic or Latino		
BG 1, CT 83	52%	41%	0%	0%	0%	5%	3%	0%	100%	61.8%	$17,333
BG 2, CT 83	65%	12%	0%	0%	0%	21%	2%	0%	100%	38.3%	$25,240
BG 3, CT 83	44%	42%	0%	0%	0%	8%	5%	0%	100%	40.0%	$29,007
BG 4, CT 83	47%	33%	0%	0%	0%	17%	3%	0%	100%	53.6%	$17,578
BG 1, CT 84	65%	31%	0%	0%	0%	1%	3%	3%	97%	45.2%	$22,260
BG 2, CT 84	55%	19%	0%	3%	0%	15%	9%	3%	97%	40.3%	$19,688
BG 3, CT 84	71%	22%	0%	0%	0%	6%	0%	2%	98%	9.1%	$33,900
BG 4, CT 84	76%	14%	0%	0%	0%	0%	10%	0%	100%	19.1%	$22,321
BG 1, CT 85	70%	25%	1%	0%	0%	2%	2%	1%	99%	43.9%	$14,674
BG 2, CT 85	72%	24%	3%	0%	0%	2%	0%	0%	100%	30.9%	$19,939
BG 3, CT 85	76%	19%	0%	0%	0%	5%	1%	0%	100%	22.6%	$18,643
BG 4, CT 85	75%	19%	0%	0%	0%	3%	3%	0%	100%	46.8%	$16,014
BG 5, CT 85	89%	7%	0%	0%	0%	1%	3%	3%	97%	6.0%	$48,333
BG 1, CT 86.01	93%	0%	0%	0%	0%	0%	7%	0%	100%	10.4%	$48,843
BG 2, CT 86.01	92%	7%	0%	0%	0%	0%	0%	6%	94%	10.3%	$46,985
BG 3, CT 86.01	81%	19%	0%	0%	0%	0%	0%	0%	100%	15.1%	$33,750
BG 1, CT 86.02	91%	5%	0%	0%	0%	4%	0%	9%	91%	25.9%	$35,395
BG 2, CT 86.02	87%	6%	0%	0%	0%	6%	2%	2%	98%	14.4%	$33,477
BG 3, CT 86.02	87%	4%	0%	0%	0%	3%	6%	3%	97%	37.6%	$26,367
BG 4, CT 86.02	90%	2%	0%	0%	0%	8%	0%	4%	96%	26.2%	$22,059
BG 5, CT 86.02	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
BG 1, CT 86.03	93%	6%	0%	0%	0%	0%	1%	0%	100%	10.9%	$38,125
BG 2, CT 86.03	86%	9%	0%	0%	0%	3%	2%	1%	99%	23.4%	$34,394
BG 1, CT 87	47%	21%	0%	8%	0%	9%	14%	6%	94%	65.1%	$12,462
BG 2, CT 87	66%	15%	0%	4%	0%	15%	1%	5%	95%	57.4%	$11,168
BG 3, CT 87	57%	14%	2%	16%	0%	8%	3%	5%	95%	49.6%	$19,022
BG 1, CT 89	38%	23%	0%	10%	0%	12%	17%	2%	98%	57.0%	$14,963
BG 2, CT 89	41%	15%	0%	7%	0%	25%	11%	2%	98%	72.4%	$11,563
BG 3, CT 89	25%	34%	1%	9%	0%	22%	9%	2%	98%	52.4%	$11,866

Block Group	Race (Percent)[a]							Ethnicity (Percent)[a]		Percent of Residents in Poverty[a]	Median Household Income
	White	Black or African American	American Indian or Alaska Native	Asian	Native Hawaiian or Other Pacific Islander	Some Other Race Alone	Multiple Races	Not Hispanic or Latino	Hispanic or Latino		
BG 1, CT 90	53%	9%	0%	6%	0%	29%	3%	1%	99%	53.6%	$13,448
BG 2, CT 90	41%	41%	0%	4%	0%	8%	5%	0%	100%	71.5%	$12,467
BG 3, CT 90	48%	26%	0%	4%	0%	20%	2%	0%	100%	58.8%	$14,883
BG 1, CT 91.11	50%	23%	0%	1%	0%	9%	18%	5%	95%	27.7%	$27,417
BG 2, CT 91.11	71%	13%	2%	2%	0%	3%	10%	3%	97%	30.4%	$25,241
BG 1, CT 91.12	42%	40%	0%	0%	0%	18%	0%	0%	100%	57.5%	$17,411
BG 2, CT 91.12	69%	7%	0%	8%	0%	6%	11%	5%	95%	18.5%	$37,989
BG 3, CT 91.12	69%	13%	0%	6%	0%	4%	8%	3%	97%	45.3%	$26,580
BG 4, CT 91.12	70%	13%	3%	3%	0%	4%	7%	8%	92%	32.7%	$26,154
BG 1, CT 91.21	80%	5%	1%	0%	0%	14%	0%	4%	96%	46.2%	$17,969
BG 2, CT 91.21	81%	11%	0%	0%	0%	4%	4%	4%	96%	35.5%	$29,186
BG 3, CT 91.21	75%	6%	1%	4%	0%	6%	8%	4%	96%	16.9%	$40,331
BG 1, CT 91.22	51%	15%	0%	0%	0%	26%	9%	11%	89%	57.9%	$18,482
BG 2, CT 91.22	55%	13%	0%	2%	0%	16%	14%	2%	98%	34.4%	$32,625
BG 3, CT 91.22	71%	15%	0%	0%	0%	5%	9%	3%	97%	30.3%	$38,608
BG 4, CT 91.22	69%	7%	0%	4%	0%	13%	7%	5%	95%	17.0%	$37,330
BG 1, CT 91.23	75%	9%	0%	5%	0%	9%	2%	3%	97%	19.6%	$38,917
BG 2, CT 91.23	65%	10%	0%	6%	0%	5%	15%	0%	100%	16.3%	$45,156
BG 1, CT 93	32%	29%	0%	9%	0%	20%	10%	1%	99%	46.0%	$22,803
BG 2, CT 93	54%	14%	0%	3%	0%	18%	10%	2%	98%	42.1%	$18,362
BG 3, CT 93	50%	4%	0%	9%	0%	35%	2%	4%	96%	58.2%	$13,045
BG 1, CT 94	47%	23%	0%	2%	0%	14%	13%	0%	100%	44.0%	$14,965
BG 2, CT 94	66%	11%	0%	1%	0%	9%	13%	1%	99%	27.5%	$24,583
BG 1, CT 96.01	89%	1%	1%	0%	0%	4%	6%	6%	94%	17.7%	$47,750
BG 2, CT 96.01	88%	7%	0%	0%	0%	3%	2%	2%	98%	17.5%	$34,318
BG 1, CT 96.02	66%	11%	0%	0%	0%	6%	17%	1%	99%	33.6%	$41,591
BG 2, CT 96.02	85%	6%	0%	0%	0%	5%	3%	0%	100%	13.3%	$40,588
BG 1, CT 96.03	84%	8%	0%	0%	0%	1%	8%	0%	100%	17.6%	$41,111
BG 2, CT 96.03	84%	3%	0%	0%	0%	2%	12%	0%	100%	12.6%	$73,269

Block Group	Race (Percent)[a]							Ethnicity (Percent)[a]		Percent of Residents in Poverty[a]	Median Household Income
	White	Black or African American	American Indian or Alaska Native	Asian	Native Hawaiian or Other Pacific Islander	Some Other Race Alone	Multiple Races	Not Hispanic or Latino	Hispanic or Latino		
BG 3, CT 96.03	71%	6%	11%	0%	0%	1%	12%	3%	97%	34.1%	$17,381
BG 1, CT 96.14	86%	2%	0%	0%	0%	0%	12%	3%	97%	13.5%	$61,705
BG 2, CT 96.14	91%	2%	0%	0%	0%	2%	4%	4%	96%	5.0%	$58,083
BG 1, CT 96.24	61%	7%	0%	0%	0%	0%	31%	2%	98%	60.3%	$15,556
BG 2, CT 96.24	69%	2%	0%	0%	0%	0%	29%	2%	98%	24.6%	$33,393
BG 3, CT 96.24	72%	3%	0%	0%	0%	1%	25%	1%	99%	20.9%	$37,400
BG 1, CT 98	79%	12%	0%	0%	0%	7%	2%	0%	100%	8.4%	$44,125
BG 2, CT 98	92%	4%	0%	1%	0%	0%	3%	2%	98%	3.4%	$97,756
BG 3, CT 98	96%	0%	0%	0%	0%	3%	1%	7%	93%	3.1%	$210,804
BG 4, CT 98	89%	0%	0%	0%	0%	11%	0%	0%	100%	0.0%	$122,000
BG 5, CT 98	84%	9%	0%	0%	0%	5%	2%	1%	99%	27.1%	$31,372
BG 1, CT 99.01	97%	1%	0%	0%	0%	0%	2%	1%	99%	2.8%	$65,909
BG 2, CT 99.01	69%	12%	0%	0%	0%	0%	19%	3%	97%	40.5%	$36,607
BG 3, CT 99.01	73%	13%	0%	0%	0%	3%	12%	0%	100%	4.1%	$63,083
BG 1, CT 99.02	63%	14%	0%	0%	0%	1%	22%	1%	99%	45.6%	$24,143
BG 2, CT 99.02	62%	9%	0%	0%	0%	4%	26%	0%	100%	44.6%	$24,792
BG 3, CT 99.02	76%	3%	0%	0%	0%	3%	18%	1%	99%	23.2%	$35,568
BG 1, CT 99.03	84%	0%	0%	0%	0%	4%	12%	4%	96%	11.2%	$88,906
BG 2, CT 99.03	67%	12%	0%	0%	0%	0%	21%	4%	96%	7.1%	$50,469
BG 3, CT 99.03	77%	6%	0%	2%	0%	0%	15%	3%	97%	13.1%	$56,719
BG 4, CT 99.03	75%	7%	0%	0%	0%	3%	15%	1%	99%	18.6%	$52,574
BG 1, CT 99.04	87%	2%	0%	0%	0%	1%	11%	0%	100%	14.4%	$35,344
BG 2, CT 99.04	92%	3%	0%	1%	0%	0%	4%	0%	100%	4.6%	$55,577
BG 1, CT 100.01	77%	6%	0%	0%	0%	5%	13%	1%	99%	7.7%	$50,313
BG 2, CT 100.01	70%	6%	0%	0%	0%	2%	22%	0%	100%	13.7%	$52,350
BG 3, CT 100.01	64%	7%	0%	0%	0%	5%	24%	1%	99%	20.9%	$57,404
BG 4, CT 100.01	82%	1%	0%	0%	0%	0%	17%	3%	97%	8.6%	$49,512
BG 1, CT 100.02	92%	1%	0%	0%	0%	5%	2%	1%	99%	4.5%	$138,203
BG 2, CT 100.02	82%	2%	0%	0%	0%	2%	15%	0%	100%	4.7%	$61,453

Block Group	Race (Percent)[a]							Ethnicity (Percent)[a]		Percent of Residents in Poverty[a]	Median Household Income
	White	Black or African American	American Indian or Alaska Native	Asian	Native Hawaiian or Other Pacific Islander	Some Other Race Alone	Multiple Races	Not Hispanic or Latino	Hispanic or Latino		
BG 1, CT 100.12	72%	2%	0%	0%	0%	4%	22%	0%	100%	14.4%	$43,560
BG 2, CT 100.12	48%	27%	0%	0%	0%	0%	25%	0%	100%	48.2%	$40,250
BG 3, CT 100.12	77%	8%	0%	0%	0%	0%	15%	0%	100%	5.1%	$44,250
BG 4, CT 100.12	62%	2%	0%	0%	0%	5%	31%	0%	100%	37.4%	$29,925
BG 1, CT 100.22	61%	11%	0%	0%	0%	0%	28%	0%	100%	23.1%	$36,406
BG 2, CT 100.22	76%	5%	0%	0%	0%	0%	18%	1%	99%	21.0%	$53,209
BG 1, CT 100.32	54%	10%	0%	0%	0%	1%	34%	0%	100%	59.4%	$16,875
BG 2, CT 100.32	58%	8%	0%	0%	0%	1%	33%	0%	100%	34.9%	$35,114
BG 3, CT 100.32	60%	2%	0%	2%	0%	0%	36%	2%	98%	37.5%	$31,487
BG 4, CT 100.32	25%	69%	0%	0%	0%	0%	6%	0%	100%	10.8%	$35,329
BG 1, CT 100.42	60%	5%	0%	0%	0%	3%	32%	1%	99%	26.6%	$42,721
BG 2, CT 100.42	64%	3%	0%	0%	0%	9%	24%	1%	99%	17.0%	$39,702
BG 3, CT 100.42	55%	8%	0%	0%	0%	5%	32%	0%	100%	27.9%	$29,229
BG 4, CT 100.42	54%	5%	0%	0%	0%	1%	40%	0%	100%	24.7%	$23,851
BG 1, CT 101	79%	6%	0%	0%	0%	2%	13%	0%	100%	13.8%	$95,750
BG 2, CT 101	62%	7%	0%	0%	0%	0%	32%	1%	99%	35.2%	$25,205
BG 3, CT 101	49%	10%	2%	0%	0%	1%	38%	0%	100%	36.7%	$23,412
BG 1, CT 102	70%	14%	0%	0%	0%	2%	15%	0%	100%	21.6%	$47,831
BG 2, CT 102	40%	23%	0%	0%	0%	2%	34%	2%	98%	34.5%	$19,000
BG 3, CT 102	54%	10%	0%	0%	0%	3%	32%	0%	100%	47.5%	$19,083
BG 1, CT 105	65%	11%	1%	0%	0%	8%	15%	3%	97%	47.7%	$12,008
BG 2, CT 105	73%	5%	0%	0%	0%	0%	23%	0%	100%	12.0%	$49,386
BG 3, CT 105	91%	0%	0%	0%	0%	0%	9%	3%	97%	21.7%	$44,449
BG 1, CT 9800	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
BG 1, CT 9801.01	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
BG 1, CT 9801.02	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
BG 1, CT 9801.03	69%	0%	0%	0%	0%	14%	17%	0%	100%	93.6%	ND
BG 1, CT 9801.04	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
BG 1, CT 9801.05	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

Block Group	Race (Percent)[a]							Ethnicity (Percent)[a]		Percent of Residents in Poverty[a]	Median Household Income
	White	Black or African American	American Indian or Alaska Native	Asian	Native Hawaiian or Other Pacific Islander	Some Other Race Alone	Multiple Races	Not Hispanic or Latino	Hispanic or Latino		
BG 1, CT 9801.07	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
BG 1, CT 9801.08	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
BG 1, CT 9802	100%	0%	0%	0%	0%	0%	0%	0%	100%	100.0%	ND
BG 1, CT 9803	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
BG 0, CT 9900	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
BG 1, CT 2201	68%	10%	0%	0%	0%	1%	21%	1%	99%	33.7%	$29,390
BG 2, CT 2201	70%	11%	0%	0%	0%	0%	19%	0%	100%	27.9%	$25,461
BG 3, CT 2201	67%	11%	0%	0%	0%	2%	20%	0%	100%	38.0%	$17,931
BG 1, CT 2202	81%	4%	0%	0%	0%	4%	12%	1%	99%	80.0%	$8,420
BG 2, CT 2202	75%	5%	0%	0%	0%	3%	17%	0%	100%	63.1%	$13,918
BG 1, CT 2203	90%	0%	0%	8%	0%	0%	2%	9%	91%	53.7%	$16,773
BG 2, CT 2203	86%	2%	0%	0%	0%	0%	13%	0%	100%	62.0%	$12,019
BG 1, CT 2204.01	81%	1%	0%	0%	0%	1%	17%	0%	100%	23.7%	$27,456
BG 2, CT 2204.01	69%	15%	0%	0%	0%	3%	13%	0%	100%	36.8%	$20,029
BG 1, CT 2204.02	74%	5%	0%	0%	0%	1%	20%	0%	100%	47.3%	$18,135
BG 2, CT 2204.02	91%	4%	0%	0%	0%	2%	4%	1%	99%	52.1%	$20,337
BG 3, CT 2204.02	88%	8%	0%	0%	0%	1%	3%	1%	99%	24.3%	$34,779
BG 1, CT 2205.01	83%	3%	0%	0%	0%	5%	9%	3%	97%	53.1%	$14,185
BG 2, CT 2205.01	83%	4%	0%	0%	0%	0%	13%	0%	100%	48.3%	$17,813
BG 1, CT 2205.02	75%	1%	0%	0%	0%	4%	20%	0%	100%	38.2%	$23,587
BG 2, CT 2205.02	79%	1%	0%	0%	0%	1%	19%	0%	100%	47.2%	$18,300
BG 1, CT 2206	79%	2%	0%	0%	0%	1%	18%	0%	100%	55.5%	$14,033
BG 2, CT 2206	81%	0%	0%	0%	0%	0%	19%	2%	98%	57.9%	$15,307
BG 1, CT 2207	83%	7%	0%	0%	0%	0%	10%	0%	100%	60.9%	$15,192
BG 2, CT 2207	72%	12%	0%	0%	0%	3%	13%	2%	98%	58.1%	$14,970
BG 3, CT 2207	85%	0%	0%	0%	0%	0%	14%	0%	100%	64.6%	$13,734
BG 1, CT 92	97%	1%	0%	0%	0%	2%	0%	1%	99%	69.2%	$7,313
BG 2, CT 92	87%	2%	0%	0%	0%	11%	0%	2%	98%	74.8%	$7,542
BG 1, CT 9585	91%	3%	0%	0%	0%	6%	0%	2%	98%	58.0%	$13,348

Block Group	Race (Percent)[a]							Ethnicity (Percent)[a]		Percent of Residents in Poverty[a]	Median Household Income
	White	Black or African American	American Indian or Alaska Native	Asian	Native Hawaiian or Other Pacific Islander	Some Other Race Alone	Multiple Races	Not Hispanic or Latino	Hispanic or Latino		
BG 2, CT 9585	95%	0%	0%	0%	0%	2%	3%	0%	100%	68.5%	$13,160
BG 3, CT 9585	88%	1%	0%	0%	0%	6%	5%	1%	99%	67.7%	$12,750
BG 1, CT 9587	86%	10%	0%	0%	0%	4%	0%	0%	100%	48.9%	$19,688
BG 2, CT 9587	91%	0%	0%	0%	0%	8%	0%	1%	99%	53.1%	$16,632
BG 3, CT 9587	89%	0%	0%	0%	0%	11%	0%	1%	99%	18.3%	$21,159
BG 1, CT 9588	88%	3%	0%	0%	0%	10%	0%	3%	97%	30.5%	$21,192
BG 2, CT 9588	95%	1%	0%	0%	0%	3%	0%	0%	100%	44.9%	$16,353
BG 3, CT 9588	95%	0%	0%	0%	0%	5%	0%	0%	100%	48.9%	$17,054
BG 1, CT 9589	96%	2%	0%	0%	0%	2%	0%	0%	100%	85.1%	$4,476
BG 2, CT 9589	94%	3%	0%	0%	0%	3%	0%	0%	100%	30.1%	$17,392
BG 1, CT 9590	88%	2%	0%	0%	0%	6%	4%	0%	100%	46.9%	$11,552
BG 2, CT 9590	97%	0%	0%	1%	0%	1%	1%	0%	100%	60.5%	$15,417
BG 3, CT 9590	95%	2%	0%	0%	0%	3%	0%	1%	99%	28.0%	$20,966
BG 1, CT 9592	100%	0%	0%	0%	0%	0%	0%	0%	100%	59.6%	$12,898
BG 2, CT 9592	93%	1%	0%	0%	0%	6%	0%	4%	96%	58.1%	$10,069
BG 3, CT 9592	89%	0%	0%	0%	0%	10%	1%	0%	100%	67.2%	$15,663
BG 1, CT 9593	93%	0%	0%	0%	0%	5%	1%	4%	96%	50.4%	$15,700
BG 2, CT 9593	87%	2%	0%	0%	0%	11%	0%	0%	100%	62.0%	$15,673
BG 3, CT 9593	95%	0%	0%	0%	0%	5%	0%	0%	100%	76.9%	$10,302
BG 1, CT 9595	97%	0%	0%	0%	0%	2%	2%	0%	100%	52.8%	$14,821
BG 2, CT 9595	92%	5%	0%	0%	0%	2%	1%	0%	100%	51.7%	$17,738
BG 3, CT 9595	91%	3%	0%	0%	0%	6%	0%	2%	98%	69.5%	$11,181
BG 1, CT 9533	61%	7%	0%	0%	0%	27%	5%	1%	99%	28.1%	$33,424
BG 2, CT 9533	49%	14%	0%	0%	0%	34%	3%	0%	100%	73.1%	$11,714
BG 1, CT 9535	48%	2%	0%	0%	0%	48%	2%	0%	100%	48.0%	$23,000
BG 2, CT 9535	60%	3%	0%	0%	0%	22%	15%	0%	100%	67.9%	$11,486
BG 3, CT 9535	41%	20%	0%	0%	0%	36%	4%	0%	100%	68.0%	$11,277
BG 1, CT 9536	52%	2%	0%	0%	0%	40%	6%	0%	100%	31.9%	$33,500
BG 2, CT 9536	72%	8%	0%	0%	0%	15%	5%	0%	100%	38.1%	$23,800

Block Group	Race (Percent)[a]							Ethnicity (Percent)[a]		Percent of Residents in Poverty[a]	Median Household Income
	White	Black or African American	American Indian or Alaska Native	Asian	Native Hawaiian or Other Pacific Islander	Some Other Race Alone	Multiple Races	Not Hispanic or Latino	Hispanic or Latino		
BG 3, CT 9536	49%	16%	0%	0%	0%	33%	2%	0%	100%	53.3%	$13,534
BG 1, CT 9537	41%	16%	0%	0%	0%	25%	17%	0%	100%	79.2%	$13,393
BG 2, CT 9537	67%	7%	0%	0%	0%	21%	6%	0%	100%	39.9%	$18,750
BG 3, CT 9537	75%	8%	0%	0%	0%	11%	6%	0%	100%	31.8%	$20,313
BG 1, CT 9538	62%	5%	0%	0%	0%	31%	2%	0%	100%	63.0%	$6,300
BG 2, CT 9538	73%	4%	0%	0%	0%	20%	3%	0%	100%	58.1%	$15,025
BG 3, CT 9538	50%	3%	0%	0%	0%	37%	9%	0%	100%	75.3%	$11,625
BG 4, CT 9538	71%	4%	0%	0%	0%	23%	1%	0%	100%	36.2%	$20,458
BG 0, CT 9900	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
BG 1, CT 5101.01	58%	6%	1%	0%	0%	3%	32%	0%	100%	8.5%	$53,378
BG 2, CT 5101.01	68%	2%	0%	0%	0%	14%	17%	1%	99%	12.6%	$34,788
BG 3, CT 5101.01	59%	6%	0%	0%	0%	5%	31%	0%	100%	23.8%	$54,375
BG 4, CT 5101.01	56%	11%	0%	0%	0%	0%	33%	0%	100%	18.7%	$53,622
BG 1, CT 5101.02	65%	8%	0%	0%	0%	6%	21%	1%	99%	62.7%	$15,614
BG 2, CT 5101.02	52%	28%	0%	0%	0%	4%	16%	1%	99%	42.3%	$18,875
BG 1, CT 5102	17%	13%	0%	0%	0%	9%	61%	0%	100%	35.7%	$19,410
BG 2, CT 5102	57%	4%	0%	0%	0%	15%	23%	0%	100%	58.8%	$14,774
BG 3, CT 5102	42%	24%	0%	0%	0%	6%	29%	2%	98%	58.1%	$13,278
BG 4, CT 5102	75%	4%	0%	0%	0%	4%	18%	1%	99%	14.1%	$63,250
BG 1, CT 5103	47%	17%	0%	0%	0%	5%	31%	0%	100%	54.0%	$17,552
BG 2, CT 5103	47%	15%	0%	0%	0%	2%	35%	0%	100%	39.8%	$19,281
BG 1, CT 5104	54%	5%	0%	0%	0%	1%	41%	0%	100%	47.5%	$17,788
BG 2, CT 5104	64%	1%	2%	0%	0%	0%	33%	2%	98%	58.6%	$12,083
BG 3, CT 5104	56%	5%	1%	0%	0%	4%	35%	0%	100%	78.9%	$12,455
BG 1, CT 5105.02	68%	8%	0%	1%	0%	3%	21%	0%	100%	38.3%	$25,303
BG 2, CT 5105.02	67%	8%	0%	0%	0%	13%	13%	0%	100%	51.0%	$24,219
BG 3, CT 5105.02	78%	4%	0%	0%	0%	1%	17%	0%	100%	26.7%	$27,121
BG 1, CT 5105.03	80%	1%	0%	0%	0%	8%	11%	0%	100%	34.9%	$38,281
BG 2, CT 5105.03	63%	9%	0%	0%	0%	12%	16%	0%	100%	34.9%	$35,295

Block Group	Race (Percent)[a]							Ethnicity (Percent)[a]		Percent of Residents in Poverty[a]	Median Household Income
	White	Black or African American	American Indian or Alaska Native	Asian	Native Hawaiian or Other Pacific Islander	Some Other Race Alone	Multiple Races	Not Hispanic or Latino	Hispanic or Latino		
BG 3, CT 5105.03	58%	11%	0%	0%	0%	4%	28%	0%	100%	31.3%	$53,639
BG 4, CT 5105.03	45%	4%	0%	0%	0%	31%	20%	0%	100%	31.4%	$30,357
BG 1, CT 5105.04	57%	5%	0%	0%	0%	15%	22%	2%	98%	30.4%	$35,058
BG 2, CT 5105.04	51%	11%	0%	0%	0%	14%	24%	0%	100%	14.8%	$39,696
BG 1, CT 5105.05	82%	4%	0%	0%	0%	7%	6%	1%	99%	4.0%	$56,793
BG 2, CT 5105.05	62%	14%	0%	0%	0%	6%	17%	0%	100%	30.6%	$34,674
BG 1, CT 5106.01	47%	2%	0%	0%	0%	6%	45%	0%	100%	25.5%	$37,054
BG 1, CT 5106.02	65%	6%	0%	0%	0%	3%	25%	0%	100%	53.1%	$24,950
BG 2, CT 5106.02	38%	0%	0%	0%	0%	34%	28%	0%	100%	30.0%	$28,897
BG 3, CT 5106.02	49%	6%	0%	0%	0%	4%	42%	0%	100%	36.3%	$26,153
BG 1, CT 5107.01	52%	6%	0%	0%	0%	4%	37%	0%	100%	32.9%	$33,415
BG 2, CT 5107.01	51%	5%	0%	0%	0%	15%	28%	0%	100%	16.4%	$27,173
BG 1, CT 5107.02	44%	10%	0%	0%	0%	8%	38%	0%	100%	73.1%	$11,207
BG 2, CT 5107.02	53%	5%	0%	0%	0%	10%	31%	0%	100%	47.0%	$21,122
BG 1, CT 1202	49%	7%	0%	0%	0%	2%	42%	0%	100%	28.9%	$24,074
BG 2, CT 1202	43%	11%	0%	0%	0%	2%	45%	2%	98%	45.8%	$23,575
BG 3, CT 1202	74%	4%	0%	0%	0%	3%	19%	0%	100%	17.2%	$33,500
BG 1, CT 1203	60%	20%	0%	1%	0%	0%	19%	0%	100%	29.6%	$25,982
BG 2, CT 1203	55%	7%	0%	0%	0%	5%	33%	1%	99%	30.3%	$32,647
BG 1, CT 1204	49%	6%	0%	0%	0%	5%	41%	3%	97%	27.3%	$33,594
BG 2, CT 1204	61%	9%	0%	0%	0%	2%	29%	2%	98%	39.4%	$21,103
BG 1, CT 1205	51%	13%	0%	0%	0%	5%	30%	4%	96%	27.4%	$28,455
BG 1, CT 1206	63%	11%	0%	0%	0%	3%	23%	0%	100%	11.8%	$24,952
BG 2, CT 1206	55%	15%	0%	0%	0%	0%	29%	0%	100%	23.0%	$33,676
BG 3, CT 1206	64%	13%	0%	0%	0%	7%	16%	0%	100%	28.1%	$33,155
BG 1, CT 1207	50%	9%	0%	0%	0%	2%	40%	3%	97%	22.3%	$27,619
BG 1, CT 1208	39%	22%	0%	0%	0%	7%	32%	1%	99%	27.9%	$30,993
BG 2, CT 1208	63%	6%	0%	0%	0%	0%	31%	5%	95%	33.9%	$25,337
BG 3, CT 1208	51%	8%	0%	3%	0%	2%	35%	4%	96%	22.3%	$26,991

Block Group	Race (Percent)[a]							Ethnicity (Percent)[a]		Percent of Residents in Poverty[a]	Median Household Income
	White	Black or African American	American Indian or Alaska Native	Asian	Native Hawaiian or Other Pacific Islander	Some Other Race Alone	Multiple Races	Not Hispanic or Latino	Hispanic or Latino		
BG 1, CT 1209	51%	10%	0%	0%	0%	3%	36%	0%	100%	11.7%	$44,844
BG 2, CT 1209	45%	13%	2%	1%	0%	5%	34%	3%	97%	23.2%	$45,185
BG 3, CT 1209	57%	7%	1%	0%	0%	0%	36%	0%	100%	44.2%	$23,611
BG 1, CT 1210.01	60%	14%	0%	0%	0%	2%	24%	1%	99%	24.9%	$32,930
BG 2, CT 1210.01	44%	11%	0%	0%	0%	3%	42%	1%	99%	27.0%	$48,175
BG 1, CT 1210.02	50%	17%	0%	0%	0%	4%	29%	0%	100%	17.7%	$36,644
BG 2, CT 1210.02	50%	12%	0%	0%	0%	16%	23%	0%	100%	26.1%	$33,726
BG 3, CT 1210.02	43%	13%	0%	0%	0%	0%	44%	0%	100%	24.3%	$38,571
BG 1, CT 1211	18%	10%	0%	0%	0%	3%	70%	1%	99%	45.5%	$18,464
BG 2, CT 1211	27%	18%	0%	0%	0%	7%	48%	1%	99%	39.9%	$25,549
BG 3, CT 1211	28%	21%	0%	0%	0%	6%	46%	0%	100%	30.6%	$17,739
BG 1, CT 1212	19%	3%	0%	0%	0%	1%	77%	0%	100%	60.2%	$16,914
BG 2, CT 1212	28%	7%	0%	0%	0%	5%	59%	5%	95%	53.3%	$13,403
BG 3, CT 1212	19%	7%	0%	0%	0%	5%	69%	0%	100%	50.1%	$19,375
BG 1, CT 1213	22%	8%	0%	0%	0%	3%	67%	0%	100%	33.9%	$23,773
BG 1, CT 1214	41%	6%	0%	0%	0%	5%	48%	1%	99%	12.9%	$54,421
BG 2, CT 1214	62%	14%	1%	0%	0%	3%	20%	2%	98%	15.1%	$33,750
BG 3, CT 1214	73%	0%	0%	0%	0%	0%	27%	3%	97%	7.5%	$75,972
BG 1, CT 1217.01	42%	8%	0%	0%	0%	0%	50%	0%	100%	36.9%	$33,274
BG 1, CT 1217.02	32%	18%	0%	0%	0%	0%	50%	0%	100%	58.5%	$16,250
BG 2, CT 1217.02	36%	5%	0%	0%	0%	0%	59%	0%	100%	73.5%	$10,903
BG 3, CT 1217.02	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
BG 4, CT 1217.02	27%	12%	2%	0%	0%	0%	59%	1%	99%	46.3%	$20,156
BG 1, CT 1218.01	61%	10%	0%	0%	0%	1%	28%	0%	100%	69.6%	$13,611
BG 2, CT 1218.01	50%	17%	0%	0%	0%	0%	34%	0%	100%	32.9%	$19,857
BG 3, CT 1218.01	55%	7%	0%	0%	0%	3%	36%	0%	100%	52.2%	$18,514
BG 4, CT 1218.01	74%	2%	1%	0%	0%	1%	22%	1%	99%	70.0%	$15,310
BG 1, CT 1218.02	72%	8%	0%	0%	0%	0%	21%	1%	99%	51.0%	$19,196
BG 2, CT 1218.02	75%	12%	0%	1%	0%	2%	11%	0%	100%	47.0%	$17,905

Block Group	Race (Percent)[a]							Ethnicity (Percent)[a]		Percent of Residents in Poverty[a]	Median Household Income
	White	Black or African American	American Indian or Alaska Native	Asian	Native Hawaiian or Other Pacific Islander	Some Other Race Alone	Multiple Races	Not Hispanic or Latino	Hispanic or Latino		
BG 3, CT 1218.02	72%	6%	0%	0%	0%	0%	22%	1%	99%	15.6%	$35,500
BG 1, CT 1219	74%	9%	1%	0%	0%	0%	17%	3%	97%	30.6%	$25,057
BG 2, CT 1219	68%	16%	0%	0%	0%	2%	14%	0%	100%	28.0%	$32,788
BG 1, CT 1220.01	58%	13%	0%	0%	0%	5%	25%	2%	98%	43.3%	$16,360
BG 2, CT 1220.01	69%	4%	0%	0%	0%	0%	27%	0%	100%	50.8%	$18,500
BG 3, CT 1220.01	59%	6%	0%	0%	0%	3%	32%	0%	100%	32.3%	$31,346
BG 1, CT 1220.02	78%	7%	2%	0%	0%	0%	13%	0%	100%	20.6%	$33,229
BG 2, CT 1220.02	62%	3%	0%	0%	0%	0%	35%	0%	100%	23.5%	$45,132
BG 1, CT 1221	60%	8%	0%	0%	0%	1%	30%	0%	100%	64.0%	$13,273
BG 2, CT 1221	46%	22%	0%	0%	0%	0%	32%	0%	100%	69.8%	$17,426
BG 1, CT 1222.01	51%	4%	11%	0%	0%	0%	33%	0%	100%	51.2%	$18,500
BG 2, CT 1222.01	70%	7%	0%	0%	0%	1%	22%	0%	100%	67.7%	$13,828
BG 3, CT 1222.01	71%	5%	0%	0%	0%	3%	21%	0%	100%	67.1%	$14,434
BG 1, CT 1222.02	56%	13%	1%	0%	0%	1%	30%	0%	100%	51.3%	$18,218
BG 1, CT 1224	47%	24%	0%	0%	0%	3%	26%	1%	99%	59.5%	$16,368
BG 0, CT 9900	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
BG 1, CT 601.02	75%	8%	0%	0%	0%	0%	18%	0%	100%	5.3%	$61,094
BG 2, CT 601.02	57%	8%	1%	0%	0%	1%	33%	0%	100%	16.4%	$29,643
BG 3, CT 601.02	90%	1%	0%	0%	0%	7%	2%	0%	100%	18.1%	$33,750
BG 4, CT 601.02	52%	38%	0%	0%	0%	3%	7%	4%	96%	84.2%	$3,143
BG 1, CT 601.03	54%	12%	0%	0%	0%	4%	30%	0%	100%	51.6%	$16,236
BG 2, CT 601.03	57%	7%	0%	0%	0%	9%	28%	0%	100%	14.1%	$31,020
BG 1, CT 601.04	55%	10%	0%	0%	0%	1%	34%	0%	100%	21.7%	$35,543
BG 2, CT 601.04	65%	6%	0%	0%	0%	1%	27%	0%	100%	25.8%	$27,220
BG 1, CT 602.11	70%	16%	0%	0%	0%	4%	10%	0%	100%	27.1%	$29,219
BG 2, CT 602.11	73%	7%	0%	0%	0%	5%	14%	0%	100%	54.2%	$14,702
BG 3, CT 602.11	68%	13%	0%	0%	0%	0%	19%	0%	100%	18.7%	$24,716
BG 4, CT 602.11	51%	3%	0%	0%	0%	1%	45%	1%	99%	47.9%	$24,881
BG 1, CT 602.12	31%	14%	0%	0%	0%	1%	54%	0%	100%	88.4%	$5,440

Block Group	Race (Percent)[a]							Ethnicity (Percent)[a]		Percent of Residents in Poverty[a]	Median Household Income
	White	Black or African American	American Indian or Alaska Native	Asian	Native Hawaiian or Other Pacific Islander	Some Other Race Alone	Multiple Races	Not Hispanic or Latino	Hispanic or Latino		
BG 2, CT 602.12	66%	4%	0%	0%	0%	15%	14%	0%	100%	15.7%	$38,229
BG 3, CT 602.12	72%	10%	3%	0%	0%	1%	14%	7%	93%	8.0%	$45,694
BG 4, CT 602.12	78%	4%	0%	0%	0%	0%	18%	1%	99%	7.1%	$45,769
BG 1, CT 602.13	73%	8%	0%	0%	0%	0%	19%	0%	100%	11.1%	$43,176
BG 2, CT 602.13	72%	7%	0%	0%	0%	1%	20%	2%	98%	9.7%	$53,697
BG 3, CT 602.13	72%	4%	0%	1%	0%	3%	21%	1%	99%	10.9%	$67,578
BG 1, CT 602.22	60%	7%	0%	0%	0%	3%	29%	1%	99%	33.4%	$36,632
BG 2, CT 602.22	54%	13%	0%	0%	0%	2%	32%	0%	100%	22.7%	$26,984
BG 3, CT 602.22	57%	17%	0%	1%	0%	1%	24%	3%	97%	22.5%	$31,964
BG 1, CT 602.23	43%	15%	0%	0%	0%	0%	43%	0%	100%	50.4%	$13,789
BG 2, CT 602.23	57%	12%	0%	0%	0%	2%	29%	0%	100%	31.8%	$26,536
BG 3, CT 602.23	66%	7%	0%	0%	0%	3%	25%	1%	99%	23.1%	$27,361
BG 1, CT 603.01	65%	2%	0%	0%	0%	7%	27%	0%	100%	15.9%	$45,841
BG 2, CT 603.01	54%	5%	0%	0%	0%	2%	38%	0%	100%	26.6%	$32,214
BG 1, CT 603.02	51%	3%	0%	0%	0%	2%	44%	0%	100%	15.7%	$46,394
BG 2, CT 603.02	71%	3%	0%	0%	0%	2%	25%	1%	99%	19.7%	$35,227
BG 3, CT 603.02	60%	11%	0%	0%	0%	1%	28%	0%	100%	34.8%	$21,339
BG 4, CT 603.02	60%	2%	0%	0%	0%	3%	35%	0%	100%	26.7%	$32,593
BG 1, CT 604.01	61%	6%	0%	0%	0%	2%	30%	0%	100%	24.8%	$23,750
BG 2, CT 604.01	73%	0%	0%	0%	0%	0%	27%	0%	100%	50.3%	$15,580
BG 1, CT 604.03	82%	3%	0%	0%	0%	0%	14%	2%	98%	7.8%	$67,097
BG 2, CT 604.03	59%	10%	0%	0%	0%	3%	28%	0%	100%	32.8%	$33,710
BG 1, CT 604.04	85%	1%	0%	1%	0%	3%	9%	0%	100%	2.6%	$95,481
BG 2, CT 604.04	74%	5%	0%	0%	0%	3%	18%	1%	99%	31.2%	$30,417
BG 3, CT 604.04	65%	6%	0%	0%	0%	1%	28%	3%	97%	12.1%	$65,641
BG 1, CT 605.01	57%	11%	0%	0%	0%	3%	29%	0%	100%	41.8%	$24,402
BG 2, CT 605.01	47%	10%	0%	0%	0%	3%	39%	0%	100%	58.3%	$16,439
BG 1, CT 605.02	55%	3%	0%	0%	0%	1%	40%	0%	100%	45.8%	$21,705
BG 2, CT 605.02	50%	8%	0%	0%	0%	2%	40%	0%	100%	49.7%	$17,059

Block Group	Race (Percent)[a]							Ethnicity (Percent)[a]		Percent of Residents in Poverty[a]	Median Household Income
	White	Black or African American	American Indian or Alaska Native	Asian	Native Hawaiian or Other Pacific Islander	Some Other Race Alone	Multiple Races	Not Hispanic or Latino	Hispanic or Latino		
BG 1, CT 9569	74%	11%	0%	0%	0%	10%	5%	1%	99%	57.3%	$14,458
BG 2, CT 9569	97%	2%	0%	0%	0%	1%	0%	1%	99%	63.7%	$15,227
BG 3, CT 9569	87%	0%	0%	0%	0%	13%	0%	2%	98%	66.3%	$11,578
BG 1, CT 9570	93%	0%	0%	3%	0%	4%	0%	0%	100%	47.2%	$21,915
BG 2, CT 9570	80%	5%	0%	0%	0%	12%	3%	0%	100%	60.7%	$15,450
BG 3, CT 9570	79%	10%	0%	1%	0%	9%	2%	0%	100%	63.0%	$16,731
BG 1, CT 9571	91%	3%	0%	0%	0%	3%	3%	0%	100%	39.3%	$14,125
BG 2, CT 9571	86%	4%	0%	1%	0%	7%	2%	0%	100%	58.5%	$14,539
BG 3, CT 9571	94%	1%	0%	0%	0%	2%	3%	1%	99%	56.0%	$13,594
BG 1, CT 9572	77%	1%	0%	1%	0%	18%	3%	3%	97%	44.6%	$16,604
BG 2, CT 9572	95%	3%	0%	0%	0%	2%	0%	1%	99%	61.8%	$17,702
BG 3, CT 9572	94%	1%	2%	0%	0%	3%	0%	1%	99%	54.5%	$15,444
BG 1, CT 9573	85%	2%	0%	0%	0%	11%	1%	1%	99%	43.7%	$17,500
BG 2, CT 9573	89%	3%	0%	1%	0%	6%	0%	0%	100%	42.4%	$17,450
BG 3, CT 9573	96%	1%	0%	0%	0%	1%	2%	0%	100%	44.1%	$19,758
BG 1, CT 9574	97%	0%	0%	2%	0%	0%	1%	0%	100%	81.9%	$6,851
BG 2, CT 9574	86%	6%	0%	1%	0%	0%	8%	1%	99%	39.9%	$16,339
BG 1, CT 9575	93%	1%	0%	0%	0%	6%	0%	0%	100%	53.5%	$11,378
BG 2, CT 9575	83%	8%	0%	0%	0%	6%	3%	2%	98%	78.5%	$6,687
BG 3, CT 9575	89%	2%	0%	0%	0%	9%	0%	0%	100%	72.8%	$8,375
BG 1, CT 9576	91%	1%	0%	0%	0%	7%	1%	1%	99%	64.5%	$14,865
BG 2, CT 9576	84%	0%	0%	0%	0%	7%	9%	0%	100%	24.6%	$26,200
BG 3, CT 9576	90%	0%	0%	0%	0%	10%	0%	0%	100%	51.1%	$14,828
BG 1, CT 5501	78%	19%	0%	0%	0%	2%	0%	1%	99%	43.0%	$22,386
BG 2, CT 5501	81%	2%	0%	0%	0%	2%	14%	0%	100%	43.7%	$18,300
BG 3, CT 5501	89%	5%	0%	0%	0%	2%	4%	2%	98%	36.4%	$34,116
BG 4, CT 5501	77%	6%	0%	0%	0%	15%	1%	5%	95%	66.0%	$10,242
BG 1, CT 5502	82%	10%	1%	0%	0%	0%	7%	1%	99%	58.5%	$14,842
BG 2, CT 5502	88%	0%	0%	0%	0%	6%	7%	4%	96%	59.6%	$11,985

Block Group	Race (Percent)[a]							Ethnicity (Percent)[a]		Percent of Residents in Poverty[a]	Median Household Income
	White	Black or African American	American Indian or Alaska Native	Asian	Native Hawaiian or Other Pacific Islander	Some Other Race Alone	Multiple Races	Not Hispanic or Latino	Hispanic or Latino		
BG 3, CT 5502	89%	6%	0%	0%	0%	1%	4%	1%	99%	70.1%	$12,432
BG 1, CT 5503	91%	5%	0%	0%	0%	0%	4%	4%	96%	44.7%	$13,664
BG 2, CT 5503	86%	4%	0%	0%	0%	5%	5%	2%	98%	59.8%	$15,924
BG 3, CT 5503	90%	2%	0%	0%	0%	5%	4%	1%	99%	40.5%	$21,219
BG 1, CT 5504	75%	8%	0%	0%	0%	4%	12%	4%	96%	77.8%	$11,500
BG 2, CT 5504	83%	6%	0%	0%	0%	5%	5%	1%	99%	50.8%	$10,667
BG 3, CT 5504	91%	8%	0%	0%	0%	0%	1%	7%	93%	54.9%	$17,574
BG 1, CT 5505	50%	27%	0%	0%	0%	5%	17%	0%	100%	46.6%	$22,639
BG 2, CT 5505	79%	11%	0%	0%	0%	0%	10%	0%	100%	33.5%	$25,164
BG 3, CT 5505	49%	4%	1%	1%	0%	9%	36%	0%	100%	41.3%	$17,944
BG 4, CT 5505	81%	17%	0%	0%	0%	0%	2%	0%	100%	41.8%	$22,011
BG 1, CT 5506.01	87%	6%	0%	0%	0%	0%	8%	0%	100%	48.9%	$16,563
BG 2, CT 5506.01	77%	6%	0%	0%	0%	3%	14%	1%	99%	53.4%	$15,731
BG 3, CT 5506.01	87%	3%	0%	0%	0%	4%	6%	1%	99%	54.1%	$17,327
BG 1, CT 5506.02	69%	21%	0%	0%	0%	3%	7%	1%	99%	44.2%	$23,953
BG 2, CT 5506.02	77%	11%	0%	0%	0%	0%	12%	0%	100%	55.0%	$16,760
BG 0, CT 9900	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
BG 1, CT 5601	97%	3%	0%	0%	0%	0%	0%	2%	98%	50.1%	$12,946
BG 2, CT 5601	89%	10%	0%	0%	0%	1%	0%	2%	98%	53.6%	$13,397
BG 3, CT 5601	99%	1%	0%	0%	0%	0%	0%	0%	100%	64.1%	$13,949
BG 1, CT 5602.01	91%	1%	0%	0%	0%	7%	1%	3%	97%	47.2%	$20,795
BG 2, CT 5602.01	95%	2%	0%	0%	0%	2%	2%	1%	99%	26.6%	$30,771
BG 1, CT 5602.04	97%	1%	0%	0%	0%	0%	2%	3%	97%	49.5%	$12,857
BG 2, CT 5602.04	97%	0%	0%	0%	0%	3%	0%	0%	100%	61.8%	$12,000
BG 3, CT 5602.04	97%	2%	0%	1%	0%	0%	0%	3%	97%	53.7%	$16,192
BG 1, CT 5603	93%	2%	0%	0%	0%	5%	0%	6%	94%	53.5%	$17,375
BG 2, CT 5603	91%	4%	0%	0%	0%	5%	0%	3%	97%	62.9%	$13,938
BG 3, CT 5603	94%	3%	0%	2%	0%	1%	0%	2%	98%	56.7%	$19,620
BG 1, CT 5604.01	95%	0%	0%	0%	0%	3%	1%	3%	97%	30.9%	$39,063

Block Group	Race (Percent)[a]							Ethnicity (Percent)[a]		Percent of Residents in Poverty[a]	Median Household Income
	White	Black or African American	American Indian or Alaska Native	Asian	Native Hawaiian or Other Pacific Islander	Some Other Race Alone	Multiple Races	Not Hispanic or Latino	Hispanic or Latino		
BG 2, CT 5604.01	100%	0%	0%	0%	0%	0%	0%	0%	100%	74.5%	$10,964
BG 1, CT 5604.02	81%	10%	1%	0%	0%	0%	8%	2%	98%	34.6%	$17,857
BG 2, CT 5604.02	97%	1%	0%	0%	0%	0%	2%	0%	100%	60.0%	$17,827
BG 3, CT 5604.02	89%	6%	0%	0%	0%	5%	0%	2%	98%	7.7%	$48,839
BG 1, CT 5605	99%	1%	1%	0%	0%	0%	0%	6%	94%	31.6%	$21,477
BG 2, CT 5605	91%	6%	0%	0%	0%	3%	0%	3%	97%	41.3%	$15,750
BG 3, CT 5605	96%	2%	0%	0%	0%	1%	0%	0%	100%	47.9%	$10,673
BG 1, CT 5606	99%	0%	0%	0%	0%	1%	0%	5%	95%	42.1%	$17,813
BG 2, CT 5606	93%	2%	0%	0%	0%	1%	5%	0%	100%	62.8%	$9,857
BG 3, CT 5606	91%	5%	0%	0%	0%	3%	0%	6%	94%	63.6%	$14,298
BG 1, CT 5607.01	86%	1%	0%	0%	0%	12%	1%	6%	94%	59.2%	$15,720
BG 2, CT 5607.01	90%	2%	0%	0%	0%	5%	3%	4%	96%	56.7%	$17,321
BG 3, CT 5607.01	85%	2%	6%	0%	0%	4%	3%	1%	99%	36.6%	$25,313
BG 4, CT 5607.01	94%	3%	0%	0%	0%	0%	3%	0%	100%	27.6%	$18,250
BG 1, CT 5607.02	91%	4%	2%	0%	0%	2%	1%	1%	99%	48.3%	$17,651
BG 2, CT 5607.02	84%	8%	0%	0%	0%	2%	6%	0%	100%	45.7%	$20,877
BG 3, CT 5607.02	97%	3%	0%	0%	0%	0%	0%	3%	97%	47.2%	$16,193
BG 1, CT 5608.01	93%	3%	0%	0%	0%	4%	0%	4%	96%	62.3%	$13,542
BG 2, CT 5608.01	97%	0%	0%	0%	0%	3%	0%	0%	100%	52.3%	$11,083
BG 1, CT 5608.02	96%	4%	0%	0%	0%	0%	0%	1%	99%	72.3%	$12,232
BG 2, CT 5608.02	98%	2%	0%	0%	0%	0%	0%	2%	98%	58.4%	$13,192
BG 3, CT 5608.02	92%	6%	0%	0%	0%	3%	0%	2%	98%	65.1%	$13,667
BG 1, CT 5609	96%	2%	0%	0%	0%	1%	1%	6%	94%	62.4%	$9,506
BG 2, CT 5609	89%	7%	0%	0%	0%	4%	0%	3%	97%	65.9%	$11,838
BG 3, CT 5609	86%	4%	0%	0%	0%	9%	1%	0%	100%	46.3%	$15,776
BG 0, CT 9900											ND
BG 1, CT 9505	55%	11%	0%	0%	0%	33%	1%	2%	98%	47.1%	$14,901
BG 2, CT 9505	50%	13%	0%	1%	0%	25%	11%	4%	96%	48.2%	$16,657
BG 3, CT 9505	53%	12%	0%	0%	0%	23%	12%	1%	99%	28.5%	$19,350

Block Group	Race (Percent)[a]							Ethnicity (Percent)[a]		Percent of Residents in Poverty[a]	Median Household Income
	White	Black or African American	American Indian or Alaska Native	Asian	Native Hawaiian or Other Pacific Islander	Some Other Race Alone	Multiple Races	Not Hispanic or Latino	Hispanic or Latino		
BG 1, CT 9506	19%	6%	6%	0%	0%	61%	8%	0%	100%	51.3%	$15,300
BG 2, CT 9506	51%	20%	0%	0%	0%	21%	8%	9%	91%	56.1%	$19,018
BG 3, CT 9506	46%	9%	0%	0%	0%	44%	0%	6%	94%	44.6%	$20,361
BG 0, CT 9900	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
BG 1, CT 7201	79%	7%	0%	1%	0%	9%	5%	0%	100%	59.3%	$17,614
BG 2, CT 7201	81%	0%	0%	0%	0%	6%	13%	0%	100%	47.2%	$19,023
BG 3, CT 7201	44%	7%	0%	0%	0%	31%	17%	0%	100%	74.4%	$9,404
BG 4, CT 7201	78%	3%	0%	0%	0%	8%	11%	0%	100%	61.2%	$12,368
BG 1, CT 7203	70%	3%	1%	0%	0%	15%	11%	0%	100%	69.5%	$14,418
BG 2, CT 7203	55%	0%	0%	0%	0%	15%	30%	2%	98%	69.6%	$11,181
BG 3, CT 7203	62%	0%	0%	0%	0%	13%	25%	0%	100%	29.9%	$15,825
BG 4, CT 7203	74%	2%	0%	0%	0%	14%	9%	0%	100%	35.4%	$22,472
BG 1, CT 7204	60%	4%	0%	0%	0%	8%	27%	0%	100%	54.2%	$17,095
BG 2, CT 7204	78%	3%	0%	0%	0%	10%	9%	0%	100%	70.9%	$14,526
BG 1, CT 7205.02	79%	2%	2%	0%	0%	4%	14%	0%	100%	59.0%	$11,743
BG 2, CT 7205.02	68%	13%	0%	0%	0%	2%	17%	0%	100%	46.5%	$22,045
BG 3, CT 7205.02	66%	1%	2%	0%	0%	11%	19%	0%	100%	49.9%	$21,611
BG 1, CT 7205.03	67%	1%	0%	0%	0%	16%	16%	1%	99%	64.9%	$13,514
BG 2, CT 7205.03	66%	4%	0%	0%	0%	6%	24%	1%	99%	49.6%	$29,811
BG 1, CT 7205.04	70%	2%	0%	0%	0%	13%	14%	4%	96%	37.3%	$17,399
BG 2, CT 7205.04	61%	0%	0%	0%	0%	19%	21%	0%	100%	45.6%	$24,453
BG 1, CT 9506	51%	5%	0%	0%	0%	17%	27%	0%	100%	84.0%	$11,131
BG 2, CT 9506	66%	6%	0%	0%	0%	17%	11%	0%	100%	46.6%	$23,088
BG 3, CT 9506	65%	12%	0%	0%	0%	5%	18%	1%	99%	35.9%	$24,750
BG 4, CT 9506	53%	18%	0%	0%	0%	15%	14%	0%	100%	58.6%	$13,162
BG 1, CT 9507	67%	7%	0%	0%	0%	14%	11%	0%	100%	35.0%	$17,214
BG 2, CT 9507	68%	10%	0%	0%	0%	6%	16%	0%	100%	54.4%	$20,750
BG 3, CT 9507	79%	5%	0%	0%	0%	5%	12%	0%	100%	52.8%	$14,864
BG 1, CT 9508	71%	13%	0%	0%	0%	15%	1%	0%	100%	61.8%	$13,900

Block Group	Race (Percent)[a]							Ethnicity (Percent)[a]		Percent of Residents in Poverty[a]	Median Household Income
	White	Black or African American	American Indian or Alaska Native	Asian	Native Hawaiian or Other Pacific Islander	Some Other Race Alone	Multiple Races	Not Hispanic or Latino	Hispanic or Latino		
BG 2, CT 9508	61%	9%	0%	0%	0%	7%	23%	0%	100%	44.9%	$18,512
BG 3, CT 9508	60%	13%	0%	0%	0%	12%	15%	0%	100%	46.3%	$15,357
BG 1, CT 9509	65%	11%	0%	0%	0%	11%	13%	3%	97%	47.3%	$16,150
BG 2, CT 9509	72%	2%	0%	0%	0%	11%	14%	0%	100%	51.2%	$19,125
BG 3, CT 9509	66%	7%	0%	0%	0%	6%	21%	0%	100%	58.8%	$15,606
BG 1, CT 9510	79%	14%	0%	0%	0%	5%	1%	1%	99%	41.0%	$16,974
BG 2, CT 9510	67%	11%	0%	0%	0%	14%	8%	0%	100%	43.2%	$19,402
BG 1, CT 9511	71%	8%	1%	0%	0%	13%	7%	0%	100%	56.3%	$20,036
BG 2, CT 9511	59%	13%	0%	0%	0%	6%	22%	1%	99%	70.9%	$8,639
BG 1, CT 9512	61%	12%	0%	0%	0%	8%	19%	0%	100%	57.3%	$18,036
BG 2, CT 9512	67%	4%	0%	0%	0%	12%	17%	1%	99%	67.9%	$13,527
BG 3, CT 9512	55%	10%	0%	0%	0%	18%	17%	0%	100%	46.7%	$15,064
BG 1, CT 9513	55%	6%	2%	0%	0%	19%	18%	0%	100%	38.6%	$26,548
BG 2, CT 9513	67%	12%	1%	0%	0%	1%	19%	0%	100%	63.2%	$14,868
BG 3, CT 9513	77%	10%	0%	1%	0%	3%	9%	1%	99%	49.6%	$19,779
BG 0, CT 9900	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
BG 1, CT 7501.01	97%	0%	0%	0%	0%	3%	0%	0%	100%	60.6%	$10,461
BG 2, CT 7501.01	89%	4%	0%	0%	0%	6%	1%	0%	100%	84.1%	$8,654
BG 1, CT 7501.02	93%	1%	0%	0%	0%	5%	1%	1%	99%	50.3%	$14,717
BG 2, CT 7501.02	96%	3%	0%	1%	0%	0%	0%	0%	100%	82.4%	$7,214
BG 1, CT 7502.01	96%	1%	0%	1%	0%	2%	1%	0%	100%	64.4%	$11,324
BG 2, CT 7502.01	87%	1%	7%	0%	0%	2%	4%	1%	99%	46.9%	$23,198
BG 1, CT 7502.02	88%	2%	0%	0%	0%	3%	7%	0%	100%	71.4%	$11,759
BG 2, CT 7502.02	92%	1%	0%	0%	0%	1%	6%	0%	100%	64.6%	$11,339
BG 3, CT 7502.02	94%	1%	0%	0%	0%	2%	2%	2%	98%	66.9%	$9,194
BG 1, CT 7503	93%	3%	0%	0%	0%	4%	1%	3%	97%	47.2%	$19,743
BG 2, CT 7503	93%	1%	0%	0%	0%	2%	4%	2%	98%	37.6%	$17,708
BG 1, CT 7504	86%	8%	0%	0%	0%	3%	3%	0%	100%	81.4%	$7,841
BG 2, CT 7504	85%	1%	0%	0%	0%	7%	7%	0%	100%	64.5%	$10,750

Block Group	Race (Percent)[a]							Ethnicity (Percent)[a]		Percent of Residents in Poverty[a]	Median Household Income
	White	Black or African American	American Indian or Alaska Native	Asian	Native Hawaiian or Other Pacific Islander	Some Other Race Alone	Multiple Races	Not Hispanic or Latino	Hispanic or Latino		
BG 3, CT 7504	88%	3%	0%	0%	0%	2%	8%	0%	100%	70.0%	$14,038
BG 4, CT 7504	91%	0%	4%	0%	0%	0%	5%	0%	100%	51.5%	$22,750
BG 5, CT 7504	94%	4%	0%	0%	0%	2%	0%	2%	98%	48.5%	$23,125
BG 1, CT 7505.01	92%	2%	0%	0%	0%	1%	4%	2%	98%	57.2%	$18,913
BG 2, CT 7505.01	94%	5%	0%	0%	0%	0%	1%	0%	100%	27.3%	$22,256
BG 3, CT 7505.01	93%	0%	0%	0%	0%	6%	1%	1%	99%	57.8%	$16,076
BG 1, CT 7505.02	96%	0%	0%	0%	0%	0%	3%	1%	99%	81.4%	ND
BG 2, CT 7505.02	89%	0%	0%	1%	0%	5%	5%	1%	99%	28.1%	$22,250
BG 1, CT 7505.03	75%	3%	0%	0%	0%	6%	15%	1%	99%	62.7%	$13,587
BG 2, CT 7505.03	94%	4%	0%	0%	0%	1%	2%	0%	100%	42.3%	$22,500
BG 1, CT 7506.01	89%	2%	0%	0%	0%	2%	7%	5%	95%	64.8%	$15,131
BG 2, CT 7506.01	93%	7%	0%	0%	0%	0%	0%	1%	99%	41.3%	$27,031
BG 3, CT 7506.01	95%	2%	0%	0%	0%	0%	3%	2%	98%	4.2%	$44,563
BG 1, CT 7506.02	92%	6%	0%	0%	0%	0%	2%	2%	98%	60.5%	$9,279
BG 2, CT 7506.02	81%	1%	0%	0%	0%	11%	6%	0%	100%	86.6%	$9,722
Commonwealth-wide	70%	8%	0%	0%	0%	10%	12%	1%	99%	45.1%	$19,624

Source: U.S. Census Bureau 2013

BG = Block Group; CT = Census Tract; ND = no data
[a] Totals may not add to 100 percent, due to rounding.

Table 7: Block Group Demographic Data, U.S. Virgin Islands, 2010

Block Group	Race (Percent)[a]							Ethnicity (Percent)[a]		Percent of Residents in Poverty[a]	Median Household Income
	White	Black or African American	American Indian or Alaska Native	Asian	Native Hawaiian or Other Pacific Islander	Some Other Race Alone	Multiple Races	Hispanic or Latino	Not Hispanic or Latino		
BG 1, CT 9701	39%	50%	0%	1%	0%	8%	1%	21%	79%	12.8%	$51,250
BG 2, CT 9701	68%	24%	0%	1%	0%	4%	2%	11%	89%	12.0%	$63,750
BG 1, CT 9702	8%	78%	0%	1%	0%	9%	3%	40%	60%	39.8%	$21,600
BG 2, CT 9702	20%	71%	1%	1%	0%	6%	1%	26%	74%	34.1%	$29,554
BG 1, CT 9703	8%	75%	1%	1%	0%	7%	8%	35%	65%	50.7%	$20,424
BG 2, CT 9703	18%	66%	1%	2%	0%	9%	4%	30%	70%	22.3%	$33,269
BG 3, CT 9703	19%	70%	0%	3%	0%	7%	2%	23%	77%	17.4%	$50,069
BG 1, CT 9704	16%	69%	0%	2%	0%	9%	4%	30%	70%	19.8%	$46,964
BG 2, CT 9704	18%	69%	0%	3%	0%	7%	4%	17%	83%	13.4%	$50,956
BG 3, CT 9704	10%	76%	0%	1%	0%	10%	3%	26%	74%	13.0%	$51,776
BG 4, CT 9704	29%	62%	1%	1%	0%	5%	3%	17%	83%	13.5%	$54,750
BG 1, CT 9705	8%	80%	1%	1%	0%	8%	2%	31%	69%	23.3%	$41,250
BG 2, CT 9705	21%	64%	0%	6%	0%	5%	3%	24%	76%	14.9%	$50,156
BG 3, CT 9705	15%	74%	1%	0%	0%	8%	2%	21%	79%	17.1%	$48,214
BG 1, CT 9706	35%	51%	0%	4%	0%	7%	3%	19%	81%	12.6%	$57,500
BG 2, CT 9706	4%	88%	0%	1%	0%	4%	3%	13%	87%	15.5%	$45,313
BG 3, CT 9706	6%	90%	0%	0%	0%	2%	2%	11%	89%	13.4%	$38,125
BG 4, CT 9706	32%	56%	1%	1%	0%	6%	3%	17%	83%	11.9%	$53,333
BG 5, CT 9706	14%	78%	1%	1%	0%	5%	1%	14%	86%	10.2%	$60,179
BG 1, CT 9707	47%	48%	0%	0%	0%	3%	1%	9%	91%	14.4%	$46,250
BG 2, CT 9707	5%	81%	1%	0%	0%	10%	2%	24%	76%	19.4%	$36,875
BG 3, CT 9707	5%	82%	0%	0%	0%	12%	1%	28%	72%	24.1%	$35,481
BG 1, CT 9708	8%	72%	0%	1%	0%	17%	1%	33%	67%	26.3%	$33,182
BG 2, CT 9708	6%	71%	1%	1%	0%	18%	4%	42%	58%	39.3%	$25,566
BG 1, CT 9709	7%	84%	0%	0%	0%	7%	1%	17%	83%	48.5%	$18,802
BG 1, CT 9710	54%	33%	1%	2%	0%	7%	4%	15%	85%	11.5%	$55,000

Block Group	Race (Percent)[a]							Ethnicity (Percent)[a]		Percent of Residents in Poverty[a]	Median Household Income
	White	Black or African American	American Indian or Alaska Native	Asian	Native Hawaiian or Other Pacific Islander	Some Other Race Alone	Multiple Races	Hispanic or Latino	Not Hispanic or Latino		
BG 2, CT 9710	8%	85%	0%	1%	0%	4%	1%	15%	85%	28.7%	$32,833
BG 1, CT 9711	8%	80%	0%	0%	0%	9%	2%	25%	75%	32.7%	$32,917
BG 2, CT 9711	10%	80%	0%	0%	0%	7%	3%	22%	78%	35.2%	$27,368
BG 3, CT 9711	10%	80%	1%	0%	0%	8%	2%	28%	72%	51.5%	$20,076
BG 4, CT 9711	13%	75%	0%	1%	0%	6%	4%	18%	82%	22.7%	$40,250
BG 1, CT 9712	11%	85%	0%	1%	0%	3%	1%	15%	85%	17.8%	$39,141
BG 2, CT 9712	13%	78%	1%	0%	0%	7%	2%	21%	79%	28.4%	$36,071
BG 3, CT 9712	8%	77%	1%	2%	0%	6%	6%	24%	76%	24.6%	$37,216
BG 4, CT 9712	6%	81%	0%	1%	0%	10%	2%	29%	71%	25.8%	$31,319
BG 1, CT 9713	17%	71%	0%	0%	0%	9%	2%	26%	74%	16.1%	$45,313
BG 2, CT 9713	5%	87%	1%	1%	0%	5%	2%	25%	75%	40.4%	$21,048
BG 3, CT 9713	7%	84%	0%	1%	0%	6%	2%	29%	71%	21.3%	$31,250
BG 1, CT 9714	3%	87%	0%	0%	0%	8%	2%	20%	80%	26.4%	$33,214
BG 1, CT 9715	29%	58%	0%	1%	0%	8%	4%	25%	75%	12.6%	$65,625
BG 2, CT 9715	13%	75%	1%	0%	0%	7%	4%	26%	74%	24.2%	$29,712
BG 3, CT 9715	9%	84%	1%	1%	0%	4%	2%	17%	83%	20.7%	$41,938
BG 0, CT 9900	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
BG 1, CT 9501	69%	27%	0%	1%	0%	1%	3%	3%	97%	13.2%	$41,250
BG 2, CT 9501	49%	47%	0%	1%	0%	1%	2%	5%	95%	18.5%	$37,361
BG 3, CT 9501	34%	62%	1%	1%	0%	1%	1%	6%	94%	13.3%	$41,136
BG 1, CT 9502	34%	63%	1%	1%	0%	1%	1%	8%	92%	12.2%	$42,438
BG 2, CT 9502	28%	65%	0%	0%	0%	6%	1%	14%	86%	10.5%	$47,321
BG 3, CT 9502	27%	67%	1%	1%	0%	3%	1%	24%	76%	20.0%	$37,375
BG 4, CT 9502	46%	48%	1%	1%	0%	2%	2%	5%	95%	16.1%	$38,281
BG 0, CT 9900	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
BG 1, CT 9601	21%	76%	0%	1%	0%	1%	1%	6%	94%	15.0%	$43,603
BG 2, CT 9601	6%	93%	0%	0%	0%	0%	1%	9%	91%	18.4%	$33,214
BG 3, CT 9601	14%	83%	0%	0%	0%	1%	1%	8%	92%	21.3%	$33,125
BG 1, CT 9602	3%	94%	0%	0%	0%	2%	1%	8%	92%	19.8%	$38,295

Block Group	Race (Percent)[a]							Ethnicity (Percent)[a]		Percent of Residents in Poverty[a]	Median Household Income
	White	Black or African American	American Indian or Alaska Native	Asian	Native Hawaiian or Other Pacific Islander	Some Other Race Alone	Multiple Races	Hispanic or Latino	Not Hispanic or Latino		
BG 2, CT 9602	5%	93%	0%	0%	0%	1%	0%	6%	94%	13.9%	$38,188
BG 3, CT 9602	6%	92%	0%	0%	0%	0%	1%	10%	90%	22.9%	$38,654
BG 1, CT 9603	2%	97%	0%	0%	0%	0%	0%	3%	97%	25.3%	$31,987
BG 2, CT 9603	4%	93%	0%	0%	0%	2%	1%	8%	92%	11.0%	$46,518
BG 3, CT 9603	3%	95%	0%	1%	0%	1%	1%	8%	92%	13.4%	$41,188
BG 1, CT 9604	39%	55%	1%	2%	0%	2%	1%	9%	91%	12.7%	$52,981
BG 2, CT 9604	37%	55%	0%	4%	0%	3%	2%	13%	87%	13.3%	$48,958
BG 3, CT 9604	23%	71%	0%	3%	0%	1%	2%	5%	95%	7.5%	$57,250
BG 4, CT 9604	27%	61%	1%	6%	0%	2%	3%	9%	91%	8.4%	$55,750
BG 1, CT 9605	10%	86%	0%	1%	0%	1%	2%	8%	92%	10.4%	$54,853
BG 2, CT 9605	16%	79%	0%	2%	0%	1%	1%	6%	94%	6.3%	$60,417
BG 3, CT 9605	63%	28%	1%	3%	0%	2%	3%	6%	94%	10.7%	$52,583
BG 4, CT 9605	40%	54%	0%	2%	0%	1%	3%	7%	93%	9.3%	$61,083
BG 5, CT 9605	58%	36%	1%	2%	0%	2%	3%	5%	95%	13.0%	$51,838
BG 1, CT 9606	17%	78%	1%	2%	0%	1%	1%	10%	90%	15.0%	$44,167
BG 2, CT 9606	15%	72%	1%	8%	0%	2%	1%	8%	92%	10.3%	$41,750
BG 3, CT 9606	7%	88%	0%	1%	0%	2%	1%	22%	78%	26.0%	$26,118
BG 1, CT 9607	3%	94%	1%	0%	0%	1%	0%	11%	89%	19.1%	$36,103
BG 2, CT 9607	12%	86%	0%	0%	0%	1%	1%	7%	93%	17.6%	$36,938
BG 3, CT 9607	45%	50%	0%	2%	0%	2%	2%	6%	94%	12.6%	$49,327
BG 1, CT 9608	16%	79%	0%	1%	0%	2%	1%	11%	89%	20.6%	$37,214
BG 2, CT 9608	11%	80%	1%	5%	0%	1%	3%	25%	75%	21.8%	$35,144
BG 1, CT 9609	31%	57%	1%	8%	0%	2%	2%	7%	93%	9.5%	$59,167
BG 2, CT 9609	4%	94%	0%	0%	0%	1%	1%	13%	87%	31.6%	$26,905
BG 1, CT 9610	8%	88%	0%	0%	0%	1%	2%	16%	84%	17.9%	$38,906
BG 2, CT 9610	5%	92%	1%	0%	0%	2%	1%	29%	71%	32.4%	$27,011
BG 3, CT 9610	6%	91%	0%	0%	0%	0%	1%	14%	86%	25.2%	$31,200
BG 4, CT 9610	28%	56%	0%	8%	0%	3%	5%	19%	81%	23.5%	$29,868
BG 5, CT 9610	2%	97%	0%	0%	0%	1%	1%	22%	78%	36.6%	$23,482

Block Group	Race (Percent)[a]							Ethnicity (Percent)[a]		Percent of Residents in Poverty[a]	Median Household Income
	White	Black or African American	American Indian or Alaska Native	Asian	Native Hawaiian or Other Pacific Islander	Some Other Race Alone	Multiple Races	Hispanic or Latino	Not Hispanic or Latino		
BG 1, CT 9611	5%	91%	0%	2%	0%	1%	1%	10%	90%	28.7%	$28,892
BG 2, CT 9611	7%	88%	1%	2%	0%	1%	1%	16%	84%	26.8%	$27,305
BG 1, CT 9612	4%	93%	0%	0%	0%	1%	1%	11%	89%	30.6%	$26,895
BG 2, CT 9612	8%	86%	0%	1%	0%	1%	2%	20%	80%	28.9%	$27,361
BG 0, CT 9900	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Territory-wide	16%	76%	0%	1%	0%	4%	2%	17%	83%	22.5%	$37,254

Source: U.S. Census Bureau 2010

BG = Block Group; CT = Census Tract; ND = no data
[a] Totals may not add to 100%, due to rounding.

REFERENCES

U.S. Census Bureau. 2010. *Decennial Census.* Accessed June 23, 2015. Retrieved from: http://factfinder.census.gov/faces/nav/jsf/pages/searchresults.xhtml

_____. 2013. 2009-2013 American Community Survey 5-year Estimates. Accessed June 18, 2015. Retrieved from: http://factfinder.census.gov/faces/nav/jsf/pages/searchresults.xhtml

APPENDIX F

Climate Change Sources and Models

-Page Intentionally Left Blank-

Introduction

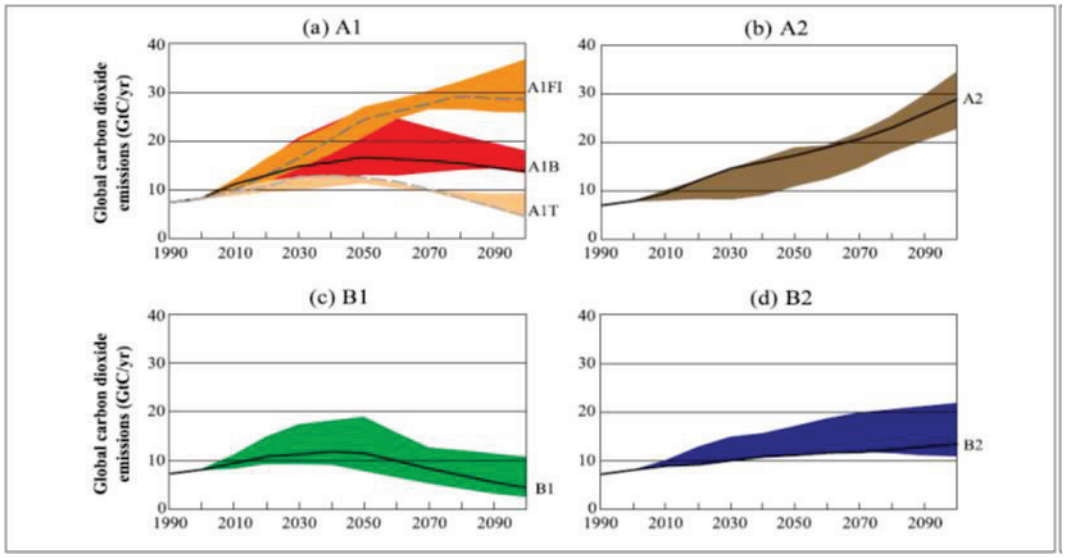
The following sections provide additional background information related to climate change sources and models to supplement what is provided in the climate change sections of the Final Programmatic Environmental Impact Statement.

Fifth Assessment Report, International Panel on Climate Change

The Intergovernmental Panel on Climate Change (IPCC) released its Fifth Assessment Report in 2014. The report analyzes and evaluates global climate change projections and trends and provides regional climate trends and sector-specific climate risks. This assessment introduced new emission scenarios referred to as Representative Concentration Pathways (RCPs) used to evaluate future climate trends. The RCPs are "identified by approximate radiative forcing (cumulative measure of human emissions of greenhouse gases from all sources) in year 2100 relative to year 1750" (*IPCC 2013*). There are four RCPs: one mitigation scenario (RCP2.6), two stabilization scenarios (RCP4.5 and RCP6.0), and one high emission scenario (RCP8.0) (*IPCC 2013*).

Third National Climate Assessment, United Stated Global Change Research Program

The United States Global Change Research Program (USGCRP) released the third National Climate Assessment in May 2014. The USGCRP is comprised of 13 federal departments and agencies participating in the USGCRP. Downscaled global circulation models were used to create regional models for eight regions covering the contiguous U.S., Alaska, Hawaii, and the Pacific Islands. These agencies conduct research and develop capabilities to support the national response to global change. The National Climate Assessment (NCA) uses RCP scenarios to evaluate climate effects on a national scale. However, regional climate effects presented in the NCA use emission scenarios from the Special Report on Emission Scenarios (SRES) which was first published in 2000 by the IPCC. These emission scenarios were used in the Third and Fourth Assessment Reports by IPCC. The SRES scenarios are based on population and economic growth and cultural responses, as well as technology development (*IPCC 2000*). The four scenarios for future conditions are defined as: high emission cases A1 and A2, and low emission cases B1 and B2. These scenarios are illustrated in Figure 1.



Source: IPCC 2000

Note: The graph illustrates the four families in the SRES. The A1 scenario is characterized by rapid economic growth, global population peaking by 2050 and declines after, introduction to new and more efficient technology, and three alternatives with predominant use of fossil fuel (A1F1), moderate use of fossil fuels (A1B), and predominant use of renewable energy (A1T). The A2 Scenario represents a heterogeneous world with continuously increasing global population and regional economic growth that is slower than other scenarios. The B1 scenario is characterized by global population peaking in 2050 and declines after, and economic structure with a service and information economy including reductions in material intensity and introduction to clean and resource efficient technology. The B2 scenario has an increasing population that is lower than the A2 and intermediate economic development (*IPCC 2000*). The ranges represent the long-term uncertainties associate with the literature available at the time of preparation of the report.

Figure 1: Greenhouse Gas Emissions for SRES Storylines

Regional Climate Trends and Scenarios for the U.S. National Climate Assessment: Part 7, Climate of Alaska, and Part 8, Climate of the Pacific Islands, National Oceanic and Atmospheric Administration.

National Oceanic and Atmospheric Administration created regional climate trends and scenarios reports for each of the eight regions in the NCA, and one for the contiguous U.S. The eight regions in the NCA are Northeast, Southeast and the Caribbean, Midwest, Great Plains, Northwest, Southwest, Alaska, and Hawaii/Pacific Islands.

Climate change trends presented in this Final Programmatic Environmental Impact Statement were sourced from *Regional Climate Trends and Scenarios for the U.S. National Climate Assessment Part 7, Climate of Alaska* (*Stewart et al. 2013*), and *Part 8, Climate of the Pacific Islands* (*Keener et al. 2013*). The analysis used 15 coupled atmosphere–ocean general circulation models from the World Climate Research Program's Coupled Model Intercomparison Project phase 3 (CMIP3) multi-model data set. These models have a grid resolution of approximately 100 to 200 miles (*Stewart et al. 2013*). Additionally downscaled CMIP3 models for temperature, precipitation, and growing season lengths at a 2-kilometer resolution for Alaska were used to simulate season temperature, precipitation and sea level pressure (*Stewart et al. 2013*). Three types of analysis were presented for input into the NCA, which include the following types:

- Multi model mean maps: models are regraded to a common grid with resolution of approximately190 miles latitude and 60 to110 miles longitude. Grid points are calculated as the mean of all variable means grid points. Multi mean analysis of future spatial patterns may provide the most robust estimate of future climate change;
- Spatially averaged products: grid points are averaged and represented as a single value; and
- Probability density function: This is used to compare and illustrate the differences between models by calculating spatially averaged values for each model simulation. The output is the frequency distribution of the averaged values (*Stewart et al. 2013*).

References

IPCC (Intergovernmental Panel on Climate Change). 2000. *Ch. 5: Emissions Scenarios*. In IPCC Special Report on Emissions Scenarios. Geneva, Switzerland: IPCC. Accessed: July 23, 2015. Retrieved from: http://www.ipcc.ch/ipccreports/sres/emission/index.php?idp=0

_____. 2013. *Climate Change 2013: The Physical Science Basis*. Contribution of Working Group I to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change. Accessed: July 28, 2015. Retrieved from: https://www.ipcc.ch/report/ar5/wg1/

Keener, V.W., K. Hamilton, S.K. Izuka, K.E. Kunkel, L.E. Stevens, and L. Sun. 2013. *Regional Climate Trends and Scenarios for the U.S. National Climate Assessment: Part 8. Climate of the Pacific Islands*. U.S. NOAA Technical Report NESDIS 142-8. National Oceanic and Atmospheric Administration, National Environmental Satellite, Data, and Information Service, Washington, D.C. Accessed: July 28, 2015. Retrieved from: http://docs.lib.noaa.gov/noaa_documents/NESDIS/TR_NESDIS/TR_NESDIS_142-8.pdf (updated November 2016)

Stewart, Brook C., Kenneth E. Kunkel, Laura E. Stevens, Liqiang Sun, and John E. Walsh. 2013. *Regional Climate Trends and Scenarios for the U.S. National Climate Assessment: Part 7. Climate of Alaska*. U.S. NOAA Technical Report NESDIS 142-7. National Oceanic and Atmospheric Administration, National Environmental Satellite, Data, and Information Service, Washington, D.C. Accessed: July 23, 2015. Retrieved from: https://data.globalchange.gov/file/91488eed-45ac-4f9e-a7e5-0494ff205719 (updated November 2016)

-Page Intentionally Left Blank-

APPENDIX G

Hawaii Register of Historic Places

-Page Intentionally Left Blank-

Table 1: Hawaii Register of Historic Places

Property Name	Island	Address/Property Area	Tax Map Key
'Imiola Church	Hawaii	NA	6-5-004:004
(Kapoho Quad) King's Highway	Hawaii	NA	1-3-007:026
(Keaau Ranch Quad) Burials	Hawaii	NA	2-1-013:001
(Keahole Quad) Habitation Cluster	Hawaii	NA	7-3-043:003
(Keahole Quad) Habitation Site	Hawaii	NA	7-4-008:003
(Keahole Quad) House and Burials	Hawaii	NA	7-5-005:007
(Keahole Quad) Shelter and Pen	Hawaii	NA	7-3-043:003
(Keawanui Quad) Habitation and Burials	Hawaii	NA	5-8-001:012
(Keawanui Quad) Habitation Complex	Hawaii	NA	5-7-001:021
(Keawanui Quad) Possible Heiau	Hawaii	NA	5-8-001:013
(Keawanui Quad) Vault Complex	Hawaii	NA	5-7-001:021
(Manuka Quad) Habitation Complex	Hawaii	NA	9-1-001:007
(Manuka Quad) Heiau and Trail	Hawaii	NA	9-1-001:003
(Manuka Quad) Koa	Hawaii	NA	9-1-001:003
(Manuka Quad) Kuleana Complex	Hawaii	NA	9-1-001:003
(Manuka Quad) Lava Tube Complex	Hawaii	NA	9-1-001:003
(Manuka Quad) Platform and Mounds	Hawaii	NA	9-1-001:003
(Manuka Quad) Platform and Shelters	Hawaii	NA	9-1-001:003
(Manuka Quad) Shrine and Heiau	Hawaii	NA	9-1-01:003, :007
(Milolii Quad) Burial Cave	Hawaii	NA	8-9-003:001
1790 Footprints	Hawaii	NA	9-9-001:001, :002
A.J. Williamson Residence	Hawaii	NA	2-6-006:011
Ahole Holua Complex	Hawaii	NA	8-9-006:003
Ahu-a-'Umi Heiau	Hawaii	NA	7-8-001:003
Ainahou Ranch House	Hawaii	NA	9-9-001:006
Ainapo Trail (Menzies Trail)	Hawaii	NA	9-9-001:003
Ala Loa (Puna District)	Hawaii	NA	1-2-009:003 (portion)
Ala Loa Foot Trail (Southernmost Kohala & Northernmost Kona Districts)	Hawaii	NA	6-8-001:032, :035 (portions); 6-8-022:032 (portion): 6-9-001:015 (portion); 6-9-007: (portion); 7-1-003:022 (portion)
Anna Ranch (a.k.a Lindsey Ranch and Waiauia Ranch)	Hawaii	65-1480 Kawaihae Rd., Kamuela	6-5-006 & 003
Asa and Lucy Thurston House Site (a.k.a. "Laniakea")	Hawaii	Between Alahou and Lamaokaola Streets, Kailua	7-5-004:035
Bobcat Trail Habitation Cave	Hawaii	NA	7-1-004:006

Property Name	Island	Address/Property Area	Tax Map Key
Boundary Change	Hawaii	NA	6-8-001:022, 015, 017 (portion)
Chee Ying Society Clubhouse (Delisted: 6/30/2007)	Hawaii	NA	4-5-009:009
Christ Church Episcopal	Hawaii	NA	8-1-005:008
Crater Rim Drive	Hawaii	NA	9-3
Daifukuji Soto Zen Mission	Hawaii	NA	8-2-010:020
District Courthouse and Police Station	Hawaii	NA	2-3-006:004
East Hamakua Protestant Church	Hawaii	NA	4-4-006:001
Elias Bond District	Hawaii	Kapaau	5-3-005:004, :005, :017, :019, :020, :026, :027
Francis Ii Brown Beach Residence	Hawaii	NA	7-1-003:003, :012, :013
Greenwell Store	Hawaii	NA	8-1-004:050
H. Tanimoto Residence (Honomu Theater)	Hawaii	NA	2-8-014:015-Residence (3) 2-8-014:107-Theater
Hakalau Plantation Manager's House	Hawaii	29-2301 Old Mamalahoa Highway	2-9-002:039
HALAULANI PLACE Multiple Property: Edward H. and Claire L. Moses Residence	Hawaii	105 Halaulani Place	2-6-006:017 and :025
HALAULANI PLACE Multiple Property: Herbert Austin Truslow Residence a.k.a. Ellen G. Lyman Residence	Hawaii	52 Halaulani Place	2-6-006:007
HALAULANI PLACE Multiple Property: James and Catherine Parker Residence	Hawaii	72 Halaulani Place	2-6-006:027
HALAULANI PLACE Multiple Property: Levi and Nettie Lyman Residence	Hawaii	40 Halaulani Place	2-6-006:008
HALAULANI PLACE Multiple Property: Patrick and Ethel McGuinness Residence	Hawaii	30 Halaulani Place	2-6-006:018
HALAULANI PLACE Multiple Property: W. H. Hill Residence a.k.a. Vernon D. and Alice L. Shutte Residence	Hawaii	91 Halaulani Place	2-6-006:016
HALAULANI PLACE Multiple Property: Walter Irving and Jean Henderson Residence	Hawaii	82 Halaulani Place	2-6-006:004
Hale Halawai o Holualoa	Hawaii	NA	7-6-016:013
Haleokane Heiau	Hawaii	NA	7-4-008:003
Hamakua Steel Bridges	Hawaii	Mamalahoa Hwy	3-2; 3-3
Hashimoto House	Hawaii	NA	5-5-015:038
Hawi Plantation Manager's Residence	Hawaii	NA	5-5-015:041
Heiau in Kukuipahu	Hawaii	NA	5-6-001:075
Heichi and Hawai Kawabata Family Home	Hawaii	64-810 Mamalahoa Hwy., Kamuela	6-4-001:145
Hilina Pali Road	Hawaii	NA	9-3
Hilo Masonic Lodge	Hawaii	NA	2-3-005:007

Property Name	Island	Address/Property Area	Tax Map Key
HISTORIC AND ARCHITECTURE RESOURCES OF HONOKAA TOWN MP Ferreira Building	Hawaii	45-3625 Mamane Street	4-5-007:007
Hoku Loa Church	Hawaii	69-160 Puako Beach Drive	6-9-002:009
Holualoa 4 Archaeological District	Hawaii	NA	7-7-004
Holualoa Telephone Exchange Building	Hawaii	76-5973 Mamalahoa Highway	7-6-005:036
Honokaa Plantation Manager's Residence	Hawaii	NA	4-8-006:013
Honokohau Settlement/Kaloko-Honokohau National Historic Park (U.S. Government has acquired TMK 7-3-09:02 & 7-4-08:25 for park) (District w/ multiple sites)	Hawaii	NA	7-3-009:002; 7-4-008:003, :010, :025
Hulihee Palace (Additional Documentation Accepted to Change Level of Significance)	Hawaii	NA	7-5-007:020
James M. Hind Residence	Hawaii	NA	5-5-015:035
Ka'elemakule-Magoon House Complex at Mahai'ula Bay	Hawaii	72-3630 Queen Ka'ahumanu Highway	7-2-005:003
Kahaluu Historic District (District w/multiple sites)	Hawaii	NA	7-8-010:002, :004, :035
Kahikolu Church	Hawaii	NA	8-2-007:006
Kaiakekua Complex	Hawaii	NA	9-1-001:003
Kalaoa Permanent House Site 10,205	Hawaii	NA	7-3-043:042 (portion)
Kalapana Painted Church	Hawaii	NA	1-2-006:081 (portion)
Kamakahonu (Residence of King Kamehameha I)	Hawaii	NA	7-5-006:024, :032
Kamehameha Hall	Hawaii	NA	2-1-021:043
Kamehameha III Birthplace (Kauikeaouli Stone)	Hawaii	NA	7-8-012:017
Kapalaoa Archaeological District	Hawaii	NA	9-3-001:002 (portion)
Kaulanamaluna Upland Complex	Hawaii	NA	8-9-006:002
Kealakekua Bay Historical District (District w/multiple sites)	Hawaii	NA	8-2 , 8-3
Keauhou Holua Slide	Hawaii	NA	7-8-010:030
Keauohana Ahupua'a Archaeological District (District with multiple sites)	Hawaii	NA	1-2-009:003 (portion)
Keawaiki Complex	Hawaii	NA	9-1-001:003
Keolonahihi Complex/Kamoa Point Complex (District w/multiple sites)	Hawaii	NA	7-7-004:012, :028, :031, :051, :052
Kiholo-Puako Trail (Also in Quad 10)	Hawaii	NA	6, 7
Ki'i Petroglyphs	Hawaii	NA	9-5-006:001
Kilauea Crater	Hawaii	NA	9-9-001:001
Kilauea Lodge	Hawaii	NA	1-9-004:005 and :055
Kipuka Malua Complex	Hawaii	NA	9-1-001:003, :006

Property Name	Island	Address/Property Area	Tax Map Key
Kohala District Courthouse	Hawaii	NA	5-4-005:001
Kohala Pilgrim Church (Delisted: 6/30/2007)	Hawaii	NA	5-5-015:025
Kuamo'o Burials	Hawaii	NA	7-8-010:066
Lanihau Papamu	Hawaii	NA	7-5-005:007
Lapakahi Complex (District w/ multiple sites)	Hawaii	NA	5-7
Ludloff Residence	Hawaii	1432 Wailuku Dr.	2-3-028:022
MacKenzie Petroglyphs	Hawaii	NA	1-3-007:026; 1-3-008:001
Mahana Archaeological District	Hawaii	NA	9-3-001:002 (portion)
Makeanehu Complex	Hawaii	NA	5-8-001:012
Manuka Bay Holua Slide	Hawaii	NA	9-1-001:003
Manuka Bay Petroglyphs	Hawaii	NA	9-1-001:003
Masao Kubo Residence	Hawaii	1411 Wailuku Dr.	2-3-028:044
Matayoshi Hospital	Hawaii	59 and 41 Hoku St., Hilo	2-2-019:040 & :041
Mauna Kea Adze Quarry	Hawaii	NA	4-4-015:001, :009, :010
Mauna Loa Road	Hawaii	NA	9-3
Mauna Loa Trail	Hawaii	NA	9
Michael Victor Houses	Hawaii	NA	2-3-014:002
Moku'aikaua Church	Hawaii	NA	7-5-007:018
Mo'okini Heiau	Hawaii	NA	5-5-005:020
Mountain View Theater	Hawaii	NA	1-8-020:001
Nanbu Hotel/Holy's Bakery	Hawaii	Akoni Pule Hwy., Kapaau	5-4-005:022
North Honomalino Complex	Hawaii	NA	8-9-003:001
Okoe Bay Complex	Hawaii	NA	8-9-003:001
Old Laupahoehoe Jodo Mission	Hawaii	46-1006 Laupahoehoe Point Road	3-6-002:034
Old Lindsey House	Hawaii	NA	6-5-003:042
Old Volcano House No. 42	Hawaii	NA	9-9-001:023
Old Waimea Elementary School Building/ Isaacs Art Center	Hawaii	NA	6-5-007:003
Opihikao Evangelical Church Residence	Hawaii	NA	1-3-004:018
Paauhau Plantation House	Hawaii	NA	4-4-006:022
Palace Theatre	Hawaii	NA	2-3-007:021
Pua'a 2 Agricultural Fields Archaeological District	Hawaii	NA	7-5-014:023 (portion)
Puakea Ranch	Hawaii	56-2864 Akoni Pule Highway	5-6-001:082
Puako Petroglyph Archaeological District	Hawaii	NA	6-9-001:015
Puako Petroglyph Boundary Change	Hawaii	NA	6-9-001:015
PUBLIC SCHOOLS ON THE ISLAND OF HAWAI`I Chiefess Kapiolani Elementary School	Hawaii	NA	2-2-020:001

Property Name	Island	Address/Property Area	Tax Map Key
PUBLIC SCHOOLS ON THE ISLAND OF HAWAI`I Hilo High School	Hawaii	NA	2-3-014:001 (portion)
PUBLIC SCHOOLS ON THE ISLAND OF HAWAI`I Honokaa High & Elementary School	Hawaii	NA	4-5-003:020 (portion)
PUBLIC SCHOOLS ON THE ISLAND OF HAWAI`I Ka`u High & Pahala Elementary School	Hawaii	NA	9-6-005:008
PUBLIC SCHOOLS ON THE ISLAND OF HAWAI`I Kalanianaole Elementary & Intermediate School	Hawaii	NA	2-7-022:002 and :003
PUBLIC SCHOOLS ON THE ISLAND OF HAWAI`I Laupahoehoe High and Elementary School	Hawaii	NA	3-5-004:026 and :050; 3-5-005:001
PUBLIC SCHOOLS ON THE ISLAND OF HAWAI`I Naalehu School	Hawaii	NA	9-5-009:006, :015
PUBLIC SCHOOLS ON THE ISLAND OF HAWAII Hilo Union Elementary School	Hawaii	NA	2-3-016:037 (portion)
PUBLIC SCHOOLS ON THE ISLAND OF HAWAII Old Riverside School (Hilo District Office)	Hawaii	NA	2-3-015:001
Puna-Ka'u Historic District, Hawaii Volcanoes National Park (District w/multiple sites)	Hawaii	NA	9
Pu'uhonua o Honaunau National Historical Park (District with multiple sites)	Hawaii	NA	8-4-011:007
Pu'ukohola Heiau National Historic Park (District with multiple sites)	Hawaii	NA	6-2-002:009, :010, :016
Rev. D. B. Lyman House	Hawaii	NA	2-3-016:024
S. Hata Building	Hawaii	318 Kamehameha Avenue, Hilo	2-3-008:016
Samuel and Asako Haraguchi Residence	Hawaii	90 Koula St.	2-5-024:025 and :026
South Manuka Bay Complex	Hawaii	NA	9-1-001:003
South Point Complex	Hawaii	NA	9-3-001:001, :003, :007, :011
St. Benedict’s Catholic Church	Hawaii	NA	8-4-006:006
Thomas Guard House (a.k.a. Wylie House and Leonard House)	Hawaii	240 Kaiulani St., Hilo	2-3-015:020
Tomikawa Store	Hawaii	76-5902 Mamalahoa Hwy., Holualoa	7-6-008:020
Tong Wo Society Building	Hawaii	NA	5-3-008:020
Uchida Coffee Farm	Hawaii	NA	8-2-015:013 (portion)
Union Mill Managers Residence	Hawaii	NA	5-4-010:058, :059
United Community Church	Hawaii	NA	2-2-020:002
United States Post Office and Office Building	Hawaii	NA	2-3-005:003

Property Name	Island	Address/Property Area	Tax Map Key
Volcano Block	Hawaii	NA	2-3-003:009
W. H. Shipman House	Hawaii	NA	2-3-015:004 and :005
Waiakea Mission Station or Haili Church	Hawaii	NA	2-3-012:009
Walter Irving Henderson House:	Hawaii	75-5944 Alii Drive	(3) 7-5-019:018
Wawalo'i Habitation	Hawaii	NA	7-3-043:003
Whitney Seismograph Vault No. 29	Hawaii	NA	9-9-001:023
Wilkes Campsite	Hawaii	NA	9-9-001:003
Yamamoto Store	Hawaii	NA	2-9-003:018
Various	Kahoolawe	NA	20-97-101 thru 20-97-676
Opaeka'a Road Bridge	Kauai	NA	4-2-002:022
A. S. Wilcox Beach House	Kauai	NA	5-5-001:002 (portion), 018, 019, 020, 021
Ahuloulu Heiau Complex (Puukapele)	Kauai	NA	1-2-001:003
Allan Sanborn Beach House	Kauai	5174 Weke Rd., Hanalei	5-5-002:049
Anahola Dune Burials	Kauai	NA	4-8-007;001
Bishop National Bank of Hawaii (First Hawaiian Bank, Waimea Branch)	Kauai	NA	1-6-006:033
Burial Caves	Kauai	NA	1-9-001:020
Camp Slogett, Kokee	Kauai	NA	1-4-004:033
Charles Gay House	Kauai	NA	1-6-001:029
Civilian Conservation Corps Camp, Koke'e	Kauai	NA	1-4-001:013 (portion)
Cook Landing Site	Kauai	NA	1-6-006:001
Douglas Baldwin Beach House	Kauai	NA	5-5-002:007
Grove Farm	Kauai	NA	3-6-001:002
Grove Farm Boundary Increase	Kauai	NA	3-6-001:010
Grove Farm Company Locomotives	Kauai	NA	3-3-002:015
Gulick-Rowell House	Kauai	NA	1-2-006:034
Haena Archaeological Complex	Kauai	NA	Multiple
Hanalei Elementary School	Kauai	NA	5-5-009:008
Hanalei Pier	Kauai	Kuhio Hwy.	5-5-001:008
Hanapepe Complex 50	Kauai	NA	1-8-008:001,084
Hanapepe Salt Pans	Kauai	NA	1-8-008:043
HANAPEPE TOWN LOTS Multiple Property: Hanapepe Lot No. 11B	Kauai	NA	1-9-005:053
HANAPEPE TOWN LOTS Multiple Property: Hanapepe Lot No.18	Kauai	NA	1-9-004:008
HANAPEPE TOWN LOTS Multiple Property: Hanapepe Lot No.49	Kauai	NA	1-9-011:008

Property Name	Island	Address/Property Area	Tax Map Key
HANAPEPE TOWN LOTS Multiple Property: Obatake's, Lot No.21A	Kauai	NA	1-9-005:041
Haraguchi Rice Mill	Kauai	NA	5-4-003:007
Hauola Heiau	Kauai	NA	1-2-002:023
Hooneenuu Heiau	Kauai	NA	1-2-002:023
Kaipu Camp	Kauai	NA	3-6-001:017
Kamo'omaika'i Pond/Pu'u Poa Marsh	Kauai	NA	5-4-004:001
Kapaia Swinging (Pedestrian) Bridge	Kauai	NA	3-7-001
Kauai Belt Road	Kauai	NA	Multiple
Kauai Museum (Albert Spencer Wilcox Building)	Kauai	NA	3-6-005:005
KAUAI PUBLIC SCHOOLS Multiple Property: Anahola School Buildings	Kauai	NA	4-8-005:001
KAUAI PUBLIC SCHOOLS Multiple Property: Kalaheo School Campus	Kauai	NA	2-3-002:005
KAUAI PUBLIC SCHOOLS Multiple Property: Kapa'a School	Kauai	NA	4-6-014:031
KAUAI PUBLIC SCHOOLS Multiple Property: Waimea Elementary and Jr. High (Homemaking Bldg.)	Kauai	NA	1-6-010:004
Kawamura Residence and Utility Shed	Kauai	NA	4-5-008:016
Kihe Heiau Complex	Kauai	NA	4-9-009:001
Kikiaola (Kiki-a-ola, Menehune Ditch)	Kauai	NA	1-5-001:002 and1-6-001:028, :045
KILAUEA PLANTATION STONE BUILDINGS Thematic Group: Head Bookkeeper's House	Kauai	NA	5-2-009:004
KILAUEA PLANTATION STONE BUILDINGS Thematic Group: Head Luna's House	Kauai	NA	5-2-009:003
KILAUEA PLANTATION STONE BUILDINGS Thematic Group: Kong Lung Store	Kauai	NA	5-2-08:29
KILAUEA PLANTATION STONE BUILDINGS Thematic Group: Plantation Manager's House	Kauai	NA	5-2-013:001
Kilauea Point Lighthouse	Kauai	NA	5-2-004:017
Kilauea School	Kauai	NA	5-2-009:006
Kilohana (Gaylord P. Wilcox House)	Kauai	NA	3-4-005:001 (portion)
Koloa Lava Tubes 3075	Kauai	NA	2-6-004:038
Kukui Heiau	Kauai	NA	4-3-002:001, portion of :010
Lawa'i Lava Tubes 3071	Kauai	NA	2-6-003:003
Lawa'i Lava Tubes 3072	Kauai	NA	2-6-003:003
Lewaula Heiau	Kauai	NA	1-5-001:001

Property Name	Island	Address/Property Area	Tax Map Key
Lihue Civic Center Historic District	Kauai	NA	3-6-005: 001,002,003
Lihue Hongwanji Mission	Kauai	NA	5-5-009:013
Lihue Post Office	Kauai	NA	3-6-005:010
Mahamoku (a.k.a. Mabel Wilcox Hanalei Beach House)	Kauai	5344 Weke Rd., Hanalei 96814	5-5-003:010
Masuda Building	Kauai	NA	1-6-007:030
Menehune Fishpond (Alekoko Fishpond)	Kauai	NA	3-2-001:001
Na Pali Coast Archaeological District	Kauai	NA	5-9-001:001, 002, 022
Na Pali Coast Archaeological District	Kauai	NA	1-4-001:007, 014, 020
Old Sugar Mill of Koloa	Kauai	NA	2-8-006:001
Puuopae Bridge	Kauai	NA	4-4-002
Russian Fort Elizabeth	Kauai	NA	1-7-005:003
Say Dock House	Kauai	Kuhio Hwy.	5-5-009:007
Seto Building	Kauai	NA	4-5-011:031
Taro Terraces	Kauai	NA	1-5-001:002
Wahiawa Petroglyphs	Kauai	NA	2-2-001:007
Wailua Complex of Heiaus	Kauai	NA	3-9-06:01; 4-1-02:03; 4-2-13:17
Waimea Educational Center	Kauai	NA	1-6-007:042
Waimea Valley Complex	Kauai	NA	1-5-001:002,017
Wainiha Taro Terraces 152	Kauai	NA	5-8-003:003
Wai'oli Mission District	Kauai	NA	5-5-006:008,019
Weuweu-Kawai-iki Fishpond (Coco Palms)	Kauai	Corner of Kuamoo Road and Kuhio Highway	4-1-003:007
Yamase Building	Kauai	NA	1-6-007:032
'Alae Petroglyphs	Maui	NA	2-2-013:010
Alena Habitation Site	Maui	NA	1-9-001:003
Asa Baldwin Residence	Maui	149 Cane Place, Paia	3-8-002:004
Bank of Hawaii - Haiku Branch	Maui	NA	2-7-020:008
Cave of Seven Coffins	Maui	NA	2-1-002:001
CHINESE SOCIETY HALLS Thematic Group: Chee Kung Tong (Site removed 8/29/98)	Maui	NA	3-4-013:040
CHINESE SOCIETY HALLS Thematic Group: Ket Hing Society	Maui	NA	2-2-003:036
CHINESE SOCIETY HALLS Thematic Group: Wo Hing Society Hall	Maui	NA	4-5-001:045
Crater Historic District Haleakala National Park	Maui	NA	1, 2
Frank Baldwin/ H.F. Rice Residence	Maui	NA	2-4-008:010
Fred C. Baldwin Memorial Home	Maui	1813 Baldwin Avenue	2-5-004:007

Property Name	Island	Address/Property Area	Tax Map Key
Gomes Residence	Maui	NA	2-4-018:063
Haiku Fruit and Packing Company Manager's Residence	Maui	1061 Kokomo Road	2-7-021:007
Ha'iku Mill	Maui	NA	2-7-003:006
Hale Ho'ike'ike (Old Bailey House)	Maui	NA	3-4-014:083
Hale Pa'i	Maui	NA	4-6-018:005
Haleki'i-Pihana Heiau	Maui	NA	3-4-030:004
Hale-o-Lono Heiau	Maui	NA	1-4-010:003
Hamoa Complex	Maui	NA	1-4-007:002; 1-4-010:003
Hana Belt Road	Maui	NA	1, 2, 3
Hana District Police Station and Courthouse	Maui	NA	1-4-013:036
Hana Hongwanji Temple	Maui	NA	1-4-003:003
Hana Store	Maui	NA	1-4-013:001
Hanamau'uloa Complex	Maui	NA	1-9-001:003
Hardy House	Maui	NA	2-4-018:009
Holy Ghost Catholic Church	Maui	NA	2-3-037:002
Honokalani Village (Ka'eleku, Honokalani & Wakiu Ahupua'a) (Wai'anapanapa)	Maui	NA	1-3-003:026; 1-3-005:002, :009; 1-3-006:007, :009
Honokowai Petroglyphs	Maui	NA	4-4-002:003
Iao Theater	Maui	NA	3-4-012:022
Ka'ahumanu Church	Maui	NA	3-4-014:002
Kahikinui House	Maui	NA	1-9-001:003
Kaiapuni Ko'a	Maui	NA	1-4-005:028
Kaimupe'elua Heiau	Maui	NA	2-2-002:014
Kalepolepo Fishpond	Maui	NA	3-9-001: submerged
Kaluakakalioa Cave	Maui	NA	1-9-001:003
Kaluanui Heiau Complex	Maui	NA	1-4-007:002
Kama'ole House Site	Maui	NA	3-9-004:001
Kauhihale Complex	Maui	NA	2-9-012:002
Ka'umi'umiua Heiau	Maui	NA	2-2-002:014
Kealiakapu Complex-Kaunolu Village	Maui	NA	4-9-002:001
Keone'oio Archaeological District/La Perouse Archaeological District	Maui	NA	2-1-004:006, :035, :073, :075, :110, :111, :114
Kilolani Congregational Church	Maui	NA	3-9-001:012
Kipahulu Historic District	Maui	NA	00-04-2010
Kipapa Archaeological District	Maui	NA	1-9-001:003
Kula Sanitorium	Maui	100 Keokea Pl., Kula	2-2-004:034
Lahaina Historic District 60 Sites (Approximate)	Maui	NA	00-04-2100

Property Name	Island	Address/Property Area	Tax Map Key
Lo'alo'a Heiau	Maui	NA	1-7-002:012, :014
Luala'ilua Cave	Maui	NA	1-9-001:003
Luala'ilua Heiau	Maui	NA	1-9-001:003
Luala'ilua Terrace Complex	Maui	NA	1-9-001:003
Lucy Kaiewe Searle Residence	Maui	239 Front St., Lahaina	4-6-003:002
Maalaea General Store	Maui	232 Maalaea Harbor Road	3-6-008:002
Makawao Union Church	Maui	NA	2-5-004:011
Maui Jinsha Mission	Maui	NA	3-4-029:032
MAUI PUBLIC SCHOOLS Multiple Property: Henry Perrine Baldwin High School	Maui	NA	3-8-007:004
MAUI PUBLIC SCHOOLS Multiple Property: Keanae School	Maui	NA	1-1-008:020
MAUI PUBLIC SCHOOLS Multiple Property: Paia School	Maui	NA	2-5-005:004
MAUI PUBLIC SCHOOLS Multiple Property: Puunene School	Maui	NA	3-8-006:008
MAUI PUBLIC SCHOOLS Multiple Property: Wailuku School	Maui	NA	3-4-007:001
MAUI PUBLIC SCHOOLS Multiple Property: Kaupo School	Maui	NA	1-7-002:015
Moku'ula	Maui	NA	4-6-007:001, :002, :035, :036
Molohai Heiau	Maui	NA	2-2-002:014
Naniloa Drive Overpass Bridge	Maui	NA	00-04-2067
Paia Mantokuji Soto Mission	Maui	253-C Hana Highway	2-6-008:013
Papakea Heiau	Maui	NA	2-2-004:036
Papakea Petroglyphs	Maui	NA	1-9-001:003
Pi'ilanihale Heiau	Maui	NA	1-3-002:004, :039
Pioneer Mill Company Office	Maui	380 Lahainaluna Rd., Lahaina	4-6-026:057
Wahene Platform	Maui	NA	2-1-002:001
Waiale Bridge	Maui	NA	3-4-010:037
Waihe'e Church	Maui	NA	3-2-07:23
Waikapu Stone Church	Maui	NA	3-5-012:036
Wailuku Civic Center Historic District	Maui	NA	3-4-007:008, 3-4-008:042, 3-4-014:001
Wananalua Congregational Church	Maui	NA	1-4-004:019
William K. Kaluakini Residence	Maui	450 Front Street, Lahaina	4-6-006:005
'Ili'ili'opae Heiau	Molokai	NA	5-7-005:002

Property Name	Island	Address/Property Area	Tax Map Key
MOLOKA'I FISHPONDS Multiple Property Ualapu'e Fishpond (also part of Hokukano-'Ualapu'e NHL Complex)	Molokai	NA	5-6-001:001
'Ualapu'e Fishpond	Molokai	NA	5-6-001:001
Ahahui Kalaniana'ole (Kalaniana'ole Hall)	Molokai	NA	5-2-009:018 (portion)
Ahina Heiau	Molokai	NA	6-1-001:002
Ali'i Pond	Molokai	NA	5-4-006:025
Anahaki Gulch Complex	Molokai	NA	5-2-005:019
Ananaluawahine Cave	Molokai	NA	6-1-001:002
Archaeological Sites, Hawaiian Home Lands	Molokai	NA	5-4-0030:03
California Packing Corporation's Plantation Manager's Residence	Molokai	Southeast Corner of Kalae Highway and Farrington Avenue, Molokai	5-2-012:006
Fishing Shrine	Molokai	NA	5-1-002:030
Fishing Shrine at Kamaka'ipo Pt.	Molokai	NA	5-1-002:030
Fishing shrine at Keawa Ka Lani	Molokai	NA	5-1-002:030
Former site of fishing shrine	Molokai	NA	5-1-002:002
Habitation Area	Molokai	NA	5-1-002:030
Habitation Area at Kaheu Gulch	Molokai	NA	5-1-002:030
Habitation Area at Kamaka'ipo Gulch	Molokai	NA	5-1-002:030
Habitation Area at Kamaka'ipo Lowlands	Molokai	NA	5-1-002:030
Habitation Area Near Kamaka'ipo Gulch	Molokai	NA	5-1-002:030
Habitation Site	Molokai	NA	5-1-002:030
Habitation Site	Molokai	NA	5-1-008 Easements 166 and 167
Heiau at Kapukikani	Molokai	NA	5-1-002:030
Hokukano-'Ualapu'e Complex (discontiguous properties)	Molokai	NA	Multiple
Honouliwai Fishtrap	Molokai	NA	5-8-002:068
Kahili Koa	Molokai	NA	6-1-001:002
Kahokukano Heiau	Molokai	NA	5-6-006:013
Kalauonakukui Heiau	Molokai	NA	5-6-006:015
Kalaupapa Leprosy Settlement	Molokai	NA	6-1-001:001
Kalua'aha Church	Molokai	NA	5-7-011:064
Kaluakapi'ioho Heiau	Molokai	NA	5-6-006:013
Kalualohe Complex	Molokai	NA	5-2-010:001
Kape'elua Complex	Molokai	NA	5-2-023:007
Kaupikiawa Cave	Molokai	NA	6-1-001:002

Property Name	Island	Address/Property Area	Tax Map Key
KAWELA SITES Kamehameha V Wall, T-20 and T-42-4	Molokai	NA	5-4-003:001
KAWELA SITES Mound Site, Burial Site	Molokai	NA	5-4-003:001
KAWELA SITES Puuhonua	Molokai	NA	5-4-003:028
KAWELA SITES T-10	Molokai	NA	5-4-014:062
KAWELA SITES T-108	Molokai	NA	5-4-003:028
KAWELA SITES T-111-116 and T-182	Molokai	NA	5-4-003:001
KAWELA SITES T-12	Molokai	NA	5-4-014:071, :072
KAWELA SITES T-124	Molokai	NA	5-4-003:001
KAWELA SITES T-125-126 and T-181	Molokai	NA	5-4-003:028
KAWELA SITES T-13	Molokai	NA	5-4-014:064, :065
KAWELA SITES T-134	Molokai	NA	5-4-003:028
KAWELA SITES T-135-136	Molokai	NA	5-4-003:001
KAWELA SITES T-144	Molokai	NA	5-4-003:028
KAWELA SITES T-145	Molokai	NA	5-4-003:028
KAWELA SITES T-155-158	Molokai	NA	5-4-003:001
KAWELA SITES T-165-166	Molokai	NA	5-4-003:028; 5-4-016:001, :002
KAWELA SITES T-167	Molokai	NA	5-4-003:028
KAWELA SITES T-171	Molokai	NA	5-4-003:028
KAWELA SITES T-180	Molokai	NA	5-4-003:001
KAWELA SITES T-19	Molokai	NA	5-4-014:082
KAWELA SITES T-22-4, T-90 A&B	Molokai	NA	5-4-003:001
KAWELA SITES T-28	Molokai	NA	5-4-003:001
KAWELA SITES T-5, T-122, T-178	Molokai	NA	5-4-003:028
KAWELA SITES T-57	Molokai	NA	5-4-003:028
KAWELA SITES T-6 Complex	Molokai	NA	5-4-003:028
KAWELA SITES T-70B	Molokai	NA	5-4-003:028
KAWELA SITES T-75	Molokai	NA	5-4-016:024
KAWELA SITES T-76	Molokai	NA	5-4-016:023, :024
KAWELA SITES T-78	Molokai	NA	5-4-003:028
KAWELA SITES T-79	Molokai	NA	5-4-0160:03
KAWELA SITES T-81, 100, 101, 105, 142	Molokai	NA	5-4-001:050
KAWELA SITES T-88	Molokai	NA	5-4-003:001
KAWELA SITES T-92	Molokai	NA	5-4-003:001
Keawakalae Ko'a	Molokai	NA	5-1-002:030
Keawanui Fishpond	Molokai	NA	5-6-006:008
Kilohana School	Molokai	NA	5-6-002:008
Kipapa Fishpond	Molokai	NA	5-5-001:008

Property Name	Island	Address/Property Area	Tax Map Key
Koloko'eli Fishpond	Molokai	NA	5-4-002:014
Kukui Heiau	Molokai	NA	5-6-004:016, :057
Luahine Maika (Bowling) Run	Molokai	NA	5-2-010:001
MOLOKA'I FISHPONDS Multiple Property Fishpond	Molokai	NA	5-6-009: submerged
MOLOKA'I FISHPONDS Multiple Property Fishpond	Molokai	NA	5-7-001: submerged
MOLOKA'I FISHPONDS Multiple Property Fishpond	Molokai	NA	5-7-003: submerged
MOLOKA'I FISHPONDS Multiple Property Fishpond	Molokai	NA	5-7-011: submerged
MOLOKA'I FISHPONDS Multiple Property Fishpond	Molokai	NA	7-7-007: submerged
MOLOKA'I FISHPONDS Multiple Property Halemahana Fishpond	Molokai	NA	5-6-003:035
MOLOKA'I FISHPONDS Multiple Property Ipukaiole Fishpond	Molokai	NA	5-7-004: submerged
MOLOKA'I FISHPONDS Multiple Property Kahinapohaku Fishpond	Molokai	NA	5-8-001:002
MOLOKA'I FISHPONDS Multiple Property Kainalu Fishpond	Molokai	NA	5-7-004: submerged
MOLOKA'I FISHPONDS Multiple Property Kalua'aha Fishpond	Molokai	NA	5-7-010, -011: submerged
MOLOKA'I FISHPONDS Multiple Property Mahilika Fishpond	Molokai	NA	5-7-010:031
MOLOKA'I FISHPONDS Multiple Property Mikiawa Fishpond	Molokai	NA	5-6-006:009
MOLOKA'I FISHPONDS Multiple Property Panahana Fishpond	Molokai	NA	5-7-007:022
MOLOKA'I FISHPONDS Multiple Property Weheleauulu Fishpond	Molokai	NA	5-6-009: submerged
Moloka'i Public Library	Molokai	NA	5-3-005:012
Nanahoa Complex	Molokai	NA	5-2-013:006
Nihoa Complex	Molokai	NA	5-2-013:009
Pahiomu Fishpond	Molokai	NA	5-5-001:010
Pakui Heiau	Molokai	NA	5-6-006:013
Pu'u 'Olelo Heiau	Molokai	NA	5-6-006:013
R. W. Meyer Sugar	Molokai	NA	5-2-016:045

Property Name	Island	Address/Property Area	Tax Map Key
S.W. Molokai Archaeological District (Discontiguous sites)	Molokai	NA	Multiple
Sandalwood Pit	Molokai	NA	5-4-003:025
St. Joseph Catholic Church	Molokai	NA	5-6-008:005
U.S. Coast Guard Molokai Light	Molokai	NA	6-1-001:003
Waiakea Fishpond (Molokai Fishponds Multiple Property, also see Quads 04,05)	Molokai	NA	5-2-011:020
2 Aalapapa Pl. (a.k.a. “Hilltop House”, “Puuhonua” or “Bird Lady’s House”)	Oahu	2 Alapapa Pl., Lanikai	4-3-008:087
2022 University Ave.	Oahu	2022 University Av.	2-8-022:037
3029 Oahu Avenue	Oahu	3029 Oahu Av.	2-9-032:053
3033 Oahu Avenue	Oahu	3033 Oahu Av.	2-9-032:019
3162 Huelani Dr. (a.k.a. “Hale Huelani”)	Oahu	3162 Huelani Dr.	2-9-034:014
931 14th Avenue, Kaimuki	Oahu	931 14th Avenue, Kaimuki	3-2-047:014
A.T. Cooke and P.E. Spalding Residence	Oahu	2447 Makiki Heights Dr.	2-5-008:002
Ada Gartley Residence	Oahu	2208 Kamehameha Av., Manoa	2-9-002:014
Adolph Egholm Residence #1	Oahu	3022 Kalakaua Av., Diamond Head	3-1-033:020
Ala Wai Canal	Oahu	NA	2-6-Various
Albert and Alice Berg Residence	Oahu	2386 Oahu Av., Manoa	2-9-005:023
Albert E. Coxhead Residence	Oahu	1932 Awapuhi Av., Manoa	2-9-016:013
Albert R. “Sunny” Cunha House	Oahu	1305 Center St., Kaimuki	3-3-007:012
Alex G. and Jessie T. Horn Residence	Oahu	2320 Sonoma St., Manoa	2-9-008:051
Alexander & Baldwin Building	Oahu	129 Merchant St.	2-1-013:001
Alfa Hatch Residence	Oahu	3255 Huelani Dr., Manoa	2-9-034:006
Alfred Hocking Beach House a.k.a. Hale Pohaku	Oahu	41-849 Laumilo Street, Waimanalo	4-1-004:042
Alfred Hocking House (a.k.a. Rose Chang Lee House)	Oahu	1302 Nehoa St., Makiki	2-4-027:065
Alfred Sturgis Residence	Oahu	118 Poloke Place, Tantalus	2-5-015:007
Alice Jones/Abraham Lewis Residence	Oahu	2211 Kamehameha Av., Manoa	2-9-001:025
Alice K. Rodenhurst Residence	Oahu	928 14th Av., Kaimuki	3-2-047:036
Ali'iolani Hale	Oahu	NA	2-1-025:003
Allan R. Johnson Residence	Oahu	2442 Sonoma St., Manoa	2-9-008:058
Aloha Tower	Oahu	NA	2-1-001:013
Alvin Melim Residence	Oahu	3038 Oahu Avenue	2-9-032:030
Andrade Beach Retreat	Oahu	908 Mokulua Dr., Lanikai	4-3-007:043
Anna Rice Cooke/Alice and Philip Spalding Residence	Oahu	2411 Makiki Heights Dr.	2-5-008:001

Property Name	Island	Address/Property Area	Tax Map Key
Antonio Victorino Soares and Arcenia Fernandes Soares Residence	Oahu	1407 Koko Head Av., Kaimuki	3-3-008:030
ART DECO PARKS Thematic: Ala Wai Park Clubhouse	Oahu	NA	2-7-036:005
ART DECO PARKS Thematic: Haleiwa Beach Park	Oahu	Waialua	6-2-001:002
ART DECO PARKS Thematic: Kawananakoa Playground	Oahu	Nuuanu	2-2-009:011 (portion), 2-2-009:012
ART DECO PARKS Thematic: Mother Waldron Playground	Oahu	Kakaako	2-1-051:005
ART-DECO PARKS Thematic: Ala Moana Beach Park	Oahu	1201 Ala Moana Blvd.	2-3-037:001
Arthur and Beatrice Greenwell House	Oahu	1919 Ualakaa St.	2-5-001:005
Arthur Coyne House	Oahu	2386 East Manoa Road	2-9-010:034
ARTILLERY DISTRICT OF HONOLULU: Battery Hasebrouck	Oahu	NA	9-9-001:013
ARTILLERY DISTRICT OF HONOLULU: Battery Hawkins	Oahu	NA	9-9-001:013
ARTILLERY DISTRICT OF HONOLULU: Battery Hawkins Annex	Oahu	NA	9-9-001:013
ARTILLERY DISTRICT OF HONOLULU: Battery Jackson	Oahu	NA	9-9-001:013
ARTILLERY DISTRICT OF HONOLULU: Battery Randolph	Oahu	NA	2-6-005:001
ARTILLERY DISTRICT OF HONOLULU: Battery Selfridge	Oahu	NA	9-9-001:013
August and Emilia Rego Cottage A	Oahu	1058A Green Street, Punchbowl	2-4-017:031-0002
August C. Spoehler Residence (a.k.a. Robertson Arnott Residence)	Oahu	2726 Ferdinand Av., Manoa	2-9-016:025
Austin Jones Residence	Oahu	2230 Kamehameha Av., Manoa	2-9-002:013
Beach Midden Site	Oahu	NA	9-1-074:036
Bellows Field Archaeological Area	Oahu	NA	4-1-015:001,015
Bishop Bank	Oahu	63 Merchant St.	2-1-002:019
Bishop Museum Complex	Oahu	1525 Bernice St., Kalihi	1-6-024:001 (portion)
Board of Agriculture and Forestry Building	Oahu	1428 South King St., lower Makiki	2-4-005:018
Burial Cave, Ka'a'awa	Oahu	Kaaawa	5-1-005:001
Burial Platform	Oahu	NA	5-7-002:003
C. Brewer Building	Oahu	827 Fort St. Mall	2-1-013:003

Property Name	Island	Address/Property Area	Tax Map Key
C. L. Crutchfield Residence	Oahu	4823 Matsonia Dr., Welhelmina Rise	3-3-026:009
C. W. Dickey House	Oahu	3030 Kalakaua Av., Diamond Head	3-1-033:018
C.W. Case Deering Residence	Oahu	4191 Round Top Dr.	2-5-016:030
Carl and Francis Bayer Residence	Oahu	5329 Kalanianaole Hwy., Aina Hina	3-6-003:012
Castle Memorial Hall	Oahu	NA	2-8-016:001
Catherine H. Richards/William and Emma Goodale Residence	Oahu	247 Dowsett Av., Nuuanu	2-2-045:004 & 005
Catherine MacIntosh Brown Residence	Oahu	2115 Brown Way	2-9-011:009
Central Intermediate School	Oahu	1302 Queen Emma St., Downtown	2-1-009:001
Central Union Church	Oahu	1660 South Beretania St.	2-8-011:002
Charles and Edith Cooke Residence	Oahu	2869 Manoa Road	2-9-019:004
Charles and Mae Boettcher Residence	Oahu	248 North Kalaheo, Kailua	4-3-016:004
Charles Martin House	Oahu	3528 Campbell Av., Kapahulu	3-1-015:053
Charles Montague Cooke, Jr. Residence Boundary Revision, Add	Oahu	NA	2-9-019:043
Charles Montague Cooke, Jr., Residence	Oahu	2859 Manoa Rd.	2-9-019:035
Charlotte Erickson Meyer/William C. Furer Residence	Oahu	1909 Aleo Place, Manoa	2-9-008:036
CHINATOWN HISTORIC DISTRICT	Oahu	NA	1-7-002,003,004
Church of the Crossroads	Oahu	1212 University Av., Moiliili	2-8-006:017
CINCPAC FLT Headquarters, Commander in Chief, Pacific Fleet, Pearl Harbor, Makalapa Crater	Oahu	NA	9-9-002:004 (portion)
Clarence Cooke Guest Beach House	Oahu	1548 Mokulua Drive, Lanikai	4-3-003:091
Clarence Cooke Residence	Oahu	3860 Old Pali Rd., Nuuanu	1-9-005:004
Clarence H. Dyer Residence (a.k.a Doak and Majorie Cox Residence)	Oahu	1929 Kakela Dr., Manoa	2-8-019:029
Clinton Briggs Ripley Homestead	Oahu	52-54-56-58 Robinson Ln., Nuuanu	1-8-003:002, 003,004,005
COLLEGE HILLS TRACT Thematic: Antonio Perry Residence	Oahu	2111 Brown Way, Manoa	2-9-011:015
COLLEGE HILLS TRACT Thematic: Arthur L. Andrews Residence	Oahu	2346 Liloa Rise, Manoa	2-9-006:011
COLLEGE HILLS TRACT Thematic: Carrie A. Thompson House	Oahu	2139 McKinley St., Manoa	2-8-020:011
COLLEGE HILLS TRACT Thematic: Charles and Emma Hottel/Ebert and Sybil Botts Residence	Oahu	2056 Lanihuli Dr., Manoa	2-9-001:041

Property Name	Island	Address/Property Area	Tax Map Key
COLLEGE HILLS TRACT Thematic: Charles and Vena Reed Residence	Oahu	2225 Kamehameha Av., Manoa	2-9-001:010
COLLEGE HILLS TRACT Thematic: Charles H. Hitchcock House	Oahu	2376 Oahu Av., Manoa	2-9-005:024
COLLEGE HILLS TRACT Thematic: Frank C. Atherton House	Oahu	2234 Kamehameha Av., Manoa	2-9-002:012
COLLEGE HILLS TRACT Thematic: Freddie Steere Residence	Oahu	2330 Beckwith St., Manoa	2-9-007:006
COLLEGE HILLS TRACT Thematic: George and Emily Winant Residence	Oahu	2361 East Manoa Rd., Manoa	2-9-007:021
COLLEGE HILLS TRACT Thematic: Glazier Residence	Oahu	2121 Lanihuli Dr., Manoa	2-8-020:014
COLLEGE HILLS TRACT Thematic: Henry and Henrietta Bredhoff House	Oahu	2542 Malama Pl., Manoa	2-9-012:024
COLLEGE HILLS TRACT Thematic: Ida Macdonald Residence	Oahu	2243 Mohala Way, Manoa	2-9-006:023
COLLEGE HILLS TRACT Thematic: J.D. and Laura Marques Residence	Oahu	2141 Mohala Way /2312 Liloa Rise, Manoa	2-9-006:014
COLLEGE HILLS TRACT Thematic: Jane Pell Residence	Oahu	2311 Liloa Rise, Manoa	2-9-005:035
COLLEGE HILLS TRACT Thematic: Leo and Marguerite Miller Residence	Oahu	2318 Beckwith St., Manoa	2-9-007:008
COLLEGE HILLS TRACT Thematic: Mark Potter Residence	Oahu	2208 Hyde St., Manoa	2-8-022:020
COLLEGE HILLS TRACT Thematic: Mary Abel Residence	Oahu	2107 Lanihuli Dr., Manoa	2-8-020:012
COLLEGE HILLS TRACT Thematic: Ray Morris Residence	Oahu	2207 Mohala Way, Manoa	2-9-006:020
COLLEGE HILLS TRACT Thematic: Walter and Emma Snyder Residence	Oahu	2418 Oahu Av., Manoa	2-9-011:010
COLLEGE HILLS TRACT Thematic: Mildred Yoder Residence	Oahu	2239 Mohala Way, Manoa	2-9-006:022
Cornelia W. Good Residence	Oahu	2334 Ferdinand Av., Manoa	2-9-008:021(1)
Cyrus and Amy Loo Residence	Oahu	2727 Kolonahe Place, Tantalus	2-5-023:044
D. Worthington / H. Hewitt Residence	Oahu	158 and 164 Poloke Pl.	2-2-015:004
David and Martha Thrum House	Oahu	2119 Kaola Way	2-8-020:040
Dillingham Transportation Building	Oahu	733 Bishop St.	2-1-014:003
Donald Hayselden Residence	Oahu	2344 Sonoma St., Manoa	2-9-008:046

Property Name	Island	Address/Property Area	Tax Map Key
Dr. A. Clifford Braly House	Oahu	2608 Ferdinand Avenue, Manoa	2-9-009:016
Dr. Archibald Sinclair Residence	Oahu	2725 Terrace Dr./2726 Hillside Av., Manoa	2-9-015:023
Dr. Edward Lau Residence	Oahu	17 Kepola Place, Nuuanu	2-2-005:026
Dr. Gardner and Esther Black Residence	Oahu	4817 Aukai Avenue	3-5-007:026
Dr. Henry Bicknell Residence	Oahu	2336 Liloa Rise, Manoa	2-9-006:012
Dr. Vasco E. M. and Olga Marion Osorio Investment Property	Oahu	3136 Huelani Drive, Manoa	2-9-033:017
Earl and Lillian McGhee Residence	Oahu	2627 East Manoa Rd.	2-9-014:037
East-West Center Complex	Oahu	NA	2-8-023:005
Ed Sheehan Residence	Oahu	239 Kulamanu Place	3-1-040:061
Edgar & Lucy Henriques House	Oahu	20 Old Pali Pl., Nuuanu	1-9-009:016
Edric Cook Residence	Oahu	NA	4-3-025:035
Edward B. Loomis Residence	Oahu	2442 Sonoma St., Manoa	2-9-008:039
Edward J. Greaney / Zodac Brown Residence	Oahu	3115 Noela Drive, Diamond Head	3-1-027:007001
Edwin and Emma Stone Residence	Oahu	2505 E Manoa Rd	2-9-011:022
Edwin and Maude Benner Residence	Oahu	2533 Malama Place, Manoa	2-9-012:004
Edwin H. Bryan Residence	Oahu	2721 Ferdinand Av., Manoa	2-9-016:015
Elizabeth W. Leong Residence	Oahu	2721 Kolonahe Pl. Lower Tantalus	2-5-023:045
Elma Schadt House (a.k.a. “The Coral House”)	Oahu	49-705 Kamehameha Hwy.	4-9-008:012
Emerald Building	Oahu	1146-48-50 Bishop St., Downtown	2-1-010:041
ENGLISH TUDOR / FRENCH NORMAN COTTAGES Thematic: 3023 Kalakaua Avenue	Oahu	NA	3-1-033:051
ENGLISH TUDOR / FRENCH NORMAN COTTAGES Thematic: 2311 Ferdinand Avenue	Oahu	NA	2-9-008:016
ENGLISH TUDOR / FRENCH NORMAN COTTAGES Thematic: 2826 Coconut Avenue	Oahu	NA	3-1-033:046
ENGLISH TUDOR / FRENCH NORMAN COTTAGES Thematic: 2830 Coconut Avenue	Oahu	NA	3-1-033:045
ENGLISH TUDOR / FRENCH NORMAN COTTAGES Thematic: 2958 Pali Highway	Oahu	NA	1-8-011:007
ENGLISH TUDOR / FRENCH NORMAN COTTAGES Thematic: 3023A Kalakaua Avenue	Oahu	NA	3-1-033:013
ENGLISH TUDOR / FRENCH NORMAN COTTAGES Thematic: 3023B Kalakaua Avenue	Oahu	NA	3-1-033:008
ENGLISH TUDOR / FRENCH NORMAN COTTAGES Thematic: 3027 Kalakaua Avenue	Oahu	NA	3-1-033:050

Property Name	Island	Address/Property Area	Tax Map Key
ENGLISH TUDOR / FRENCH NORMAN COTTAGES Thematic: 3029 Felix Street	Oahu	NA	3-3-053:025
ENGLISH TUDOR / FRENCH NORMAN COTTAGES Thematic: 3033 Kalakaua Avenue	Oahu	NA	3-1-033:014
ENGLISH TUDOR / FRENCH NORMAN COTTAGES Thematic: 3033B Kalakaua Avenue	Oahu	NA	3-1-033:007
ENGLISH TUDOR / FRENCH NORMAN COTTAGES Thematic: 3050 Kiele Avenue	Oahu	NA	3-1-033:028
ENGLISH TUDOR / FRENCH NORMAN COTTAGES Thematic: 3581 Woodlawn Drive	Oahu	NA	2-9-048:007
ENGLISH TUDOR / FRENCH NORMAN COTTAGES Thematic: 4109 Black Point Road	Oahu	NA	3-5-001:026
ENGLISH TUDOR / FRENCH NORMAN COTTAGES Thematic: 4354 Kahala Avenue	Oahu	NA	3-5-013:008
ENGLISH TUDOR / FRENCH NORMAN COTTAGES Thematic: 4584 Kahala Avenue	Oahu	NA	3-5-004:012
ENGLISH TUDOR / FRENCH NORMAN COTTAGES Thematic: 4850 Kahala Avenue	Oahu	NA	3-5-007:001
Ephraim V. and Rose Sayers Residence	Oahu	2211 Mohala Way, Manoa	2-9-006:021
Eric Fennel Residence	Oahu	2310 Ferdinand Av., Manoa	2-9-008:023
Ernest R. Cameron House, American Association of University Women Residence	Oahu	1802 Keeaumoku St.	2-4-025-002
Ernest Shelton Van Tassel House (Nutridge)	Oahu	3280 Round Top Dr., Tantalus	2-5-019:004
Ewa Villages	Oahu	NA	9-1-017:078, :101, 102, :126; 9-1-095, :096, :097
Eyman-Judson Residence	Oahu	3114 Paty Dr., Manoa	2-9-039:001
Falls of Clyde	Oahu	NA	2-1-001:060
Farrington High School	Oahu	NA	1-6-021:005 (portion)
Filipino Federation of America/Equi Frili Brium Church	Oahu	1534 Kalaeepaa Drive, Kalihi	1-4-021:052
FIRE STATIONS OF OAHU Thematic Group	Oahu	NA	2-1-009:026/3-2-036:007 (portion)/ 1-3-005:022 (portion)/2-4-029:029 (portion)/2-1-031:018/1-5-005:014/6-6-013:003 (portion)
FIRE STATIONS OF OAHU Thematic Group: Kaimuki Fire Station	Oahu	NA	3-2-036:007 (portion)
FIRE STATIONS OF OAHU Thematic Group: Kalihi Fire Station	Oahu	NA	1-3-005:022 (portion)

Property Name	Island	Address/Property Area	Tax Map Key
FIRE STATIONS OF OAHU Thematic Group: Makiki Fire Station	Oahu	NA	2-4-029:029 (portion)
FIRE STATIONS OF OAHU Thematic Group: Old Kakaako Fire Station	Oahu	NA	2-1-031:018
FIRE STATIONS OF OAHU Thematic Group: Palama Fire Station	Oahu	NA	1-5-005:014
FIRE STATIONS OF OAHU Thematic Group: Waialua Fire Station	Oahu	NA	6-6-013:003 (portion)
FIRE STATIONS OF OAHU Thematic Group: Kakaako Fire Station	Oahu	NA	2-1-031:018
Flora Lidgate Residence	Oahu	2494 East Manoa Rd.	2-9-010:001
Fort Kamehameha Housing	Oahu	NA	9-9-001:013,014
Fort Ruger Historical District	Oahu	NA	3-1-042:009,020
Fort Ruger Market	Oahu	3585 Alohea Avenue	3-1-010:159
Fort Shafter, Palm Circle, 100 Area	Oahu	NA	1-1-008:005
Forty Niner Restaurant	Oahu	98-110 Honomanu Street, Aiea	9-8-019:042
Foster Botanic Garden	Oahu	Vineyard	1-7-007:001,002, 1-7-008:001,002
Francis and Janetta Peterson Residence	Oahu	3034 Manoa Rd.	2-9-032:012
Frank and Juliette Lee Residence	Oahu	914 12th Av., Kaimuki	3-2-019:029
Frank and Kathryn Plum Residence (a.k.a. Rosof Residence)	Oahu	3044 Kalakaua Av., Diamond Head	3-1-033:017
Frank and Mary Bechert Residence	Oahu	2872 Manoa Road	2-9-017:004
Frank Souza House	Oahu	1839 Lusitana Street	2-2-007:078
Fred Harrison Rental Property	Oahu	3050 Kalakaua Avenue	3-1-033:054
Frederick G. Krauss Residence	Oahu	2437 Parker Pl., Manoa	2-9-012:029, 070
Friend Building	Oahu	NA	2-1-002:032
Friendship Garden	Oahu	44-226 Kokokahi Place	4-4-031:076
George D. Oakley Residence	Oahu	2110 Kakela Pl., Manoa	2-8-019:046
George Fred Wright Residence	Oahu	3137 Oahu Av., Manoa	2-9-032:027 (portion)
George Miller House (a.k.a. known as Carlson House)	Oahu	747 Ocean View Dr., Kaimuki	3-2-055:030
George P. Castle Mountain Residence	Oahu	2998 Pacific Heights Rd.	2-2-031:017
George Robert Ewart Residence	Oahu	2350 and 2370 Nuuanu Av.	1-8-005:031,032
George Yanagihara Residence	Oahu	941-A 8th Av., Kaimuki	3-2-017:010
Georges de S. Canavarro House	Oahu	2731 Rooke Av., Nuuanu	1-8-026:005
Gerald A. Dolan Residence	Oahu	44-431 Kaneohe Bay Dr.	4-4-006:009,015
Gobindrum Watumull House	Oahu	3015 Kiele Avenue, Diamond Head	3-1-033:025
Grace Cooke Residence	Oahu	2365 Oahu Av., Manoa	2-9-005:056
H. Alexander Walker Residence	Oahu	2616 Pali Highway	1-8-008:001

Property Name	Island	Address/Property Area	Tax Map Key
H. Allen Cook Residence	Oahu	1915 Komaia Dr., Manoa	2-9-017:018
Hale Hani Court	Oahu	1526, 1526A, 1526B, 1534, 1534A Wilhelmina Rise	3-3-032:019
Hanawao Heiau	Oahu	NA	5-2-002:001
Harold and Estella Everett Residence	Oahu	3209 Oahu Avenue	2-9-035:035
Harold Eichelberger Family Beach House	Oahu	1556 Mokulua Drive, Lanikai	4-3-003:067
Harold L. Castle Beach Residence	Oahu	55 Kailuana Place, Kailua	4-3-022:014-0001
Harold T. Kay Residence	Oahu	1612 Alewa Dr., Alewa Heights	1-8-029:001
Haumalu (a.k.a. Martha and Frank Gerbode Residence)	Oahu	3065 Diamond Head Rd. and 2831 Coconut Av.	3-1-036:009
Hawaii Shingon Mission	Oahu	915 Sheridan St.	2-3-018:004
Hawaii State Library	Oahu	NA	2-1-025:001
Hawaiian Canoe Malia	Oahu	2015 Kapiolani Blvd.	2-7-036:005
Hawaiian Electric Company	Oahu	NA	2-1-016:001
Hawaiian Electric Company	Oahu	45-3625 Mamane Street	2-1-016:001
Hawaiian Electric Company	Oahu	NA	2-1-016:001
Hawaiian Trail and Mountain Club	Oahu	41-023 Puuone St., Waimanalo	4-1-005:090
He'eia Fishpond	Oahu	NA	4-6-005:001
Heinrich Kreye Residence	Oahu	2714 Aolani Pl., Manoa	2-9-014:004
Helene Morgan Residence	Oahu	3040 Diamond Head Road	3-1-034:026
Henry and Florence Davis Residence	Oahu	2765 Pacific Heights Road	2-2-023:025
Henry Ho Court	Oahu	1252, 1252A, 1256, 1256A Ekaha Avenue, Honolulu, HI 96816	3-3-002:024
Herbert Austin Residence	Oahu	3060 Oahu Av., Manoa	2-9-032:028
Hermann and Johanna Rohrig Residence	Oahu	2146 Kamehameha Avenue, Manoa	2-9-006:015
Hibiscus Place	Oahu	2954 and 2956 Hibiscus Pl., Diamond Head	3-1-034:047
Hickam Air Force Base	Oahu	NA	9-9 Various
Ho Fow and Mary Chong Residence	Oahu	1420 Lunililo Street	2-4-022:021
Honolulu Academy of Arts	Oahu	NA	2-4-014:021
Honolulu Hale	Oahu	NA	2-1-033:007
Honolulu Hale Annex	Oahu	NA	2-1-033:010
Honolulu Hale/Grounds	Oahu	NA	2-1-033:007
Honolulu Plantation Manager's Residence	Oahu	98-563 Kaimu Loop, Aiea	9-8-030:050
Honolulu Star-Bulletin Building	Oahu	121/125 Merchant Street	2-1-013:008
Honouliuli Bridge	Oahu	Farrington Highway and Honouliuli Stream	None

Property Name	Island	Address/Property Area	Tax Map Key
Honouliuli Internment Camp	Oahu	Honouliuli Gulch, Vicinity of Waipahu	9-2-001:001
Houvener Residence	Oahu	1975 Judd Hillside Road	2-5-004:016
Howard and Betty Liljestrand Residence	Oahu	3300 Tantalus Dr.	2-5-011:008
Hugh G. Peterson, Jr. Residence	Oahu	2345 Makiki Heights Dr.	2-5-008:004
Huilua Fishpond	Oahu	NA	5-2-005:021
Hung Lum Chun Residence	Oahu	1321 Alewa Drive	1-8-032:001
Iolani Barracks	Oahu	NA	2-1-025:002
Iolani Barracks	Oahu	NA	2-1-025:002
Iolani Palace Bandstand	Oahu	NA	2-1-025:002
Iolani Palace/Grounds (includes Old Archives Building and Old Mausoleum)	Oahu	NA	2-1-025:002
Irvine Paris Residence	Oahu	2475 Makiki Heights Dr.	2-5-009:015
Irwin Memorial Park	Oahu	NA	2-1-013:007
J. Lindsay and Margaret Grimshaw Residence	Oahu	2747 Puuhonua St.	2-9-016:034
J. P. Mendonca Residence	Oahu	1942 Judd Hillside Rd., Manoa	2-5-004:009
James A. Lyle Residence (a.k.a. Kenneth and Mae Seto Residence)	Oahu	2371 Oahu Av., Manoa	2-9-005:019
James and Asta Hughes Residence	Oahu	2722 Sonoma St., Manoa	2-9-016:026
James and Virginia Machado Residences (a.k.a. Machado Homestead and "The Fair Ladies")	Oahu	1775 Lusitana,/207 Concordia/209 Concordia, Punchbowl	2-2-007:037-0001, -0002, -0003
James Cockburn Residence	Oahu	2440 Ferdinand Av., Manoa	2-9-008:029
James David Mulvehill Residence	Oahu	3148 Alika Drive, Nuuanu Dowsett	2-2-045:028
James Haynes Residence	Oahu	3026 Kalakaua Avenue	2-5-014:011
James L. Coke Residence	Oahu	3649 Nuuanu Pali Dr., Nuuanu	2-2-051:010
James Mann Residence	Oahu	125 Kalaiopua Place	2-5-014:011
James R. and Louise Judd Residence	Oahu	2490 Makiki Heights Drive	2-4-035:002
Jean Charlot Residence	Oahu	4956 Kahala Av.	3-5-008:029
Jean Vaughan Gilbert Residence	Oahu	2366 Lipoa Rise, Manoa	2-9-006:009
John & Kate Kelly Residence	Oahu	4117 Black Point Rd., Kahala	3-1-041:010
John A. Davis Residence	Oahu	2119 Armstrong/2251 Mohala Way, Manoa	2-9-006:024
John and Alice Hind Residence	Oahu	2561 Manoa Road	2-9-010:033
John and Eleanor Freitas Residence	Oahu	1947 Judd Hillside, Manoa	2-5-004:007
John and Jane Millen Residence	Oahu	3797 Diamond Head Circle, Kapahulu	3-1-020:019
John and Julia Stone Residence	Oahu	2746 Kahawai Street	2-9-014:063
John and Ruth Steffee Residence	Oahu	1955 Makiki St	2-5-001:043

Property Name	Island	Address/Property Area	Tax Map Key
John Francis Gray Stokes Residence (a.k.a. Young Residence)	Oahu	2618 Ferdinand Av., Manoa	2-9-009:015
John Guild Residence	Oahu	2001 Vancouver Dr., lower Manoa	2-8-016:028
John T. Waterhouse Residence/Borthwick Residence	Oahu	420 Wyllie St., Nuuanu	1-8-006:007
Johnny Noble Residence	Oahu	2625 Doris Pl., Manoa	2-9-014:043
Jones, Isabella Residence	Oahu	71 Dowsett Av.	2-2-044:024
Joseph and Jean Skorpen Residence	Oahu	3968 Lurline Dr., Wilhelmina Rise	3-3-027:008
Joseph E. and Luiza Gouveia Residence	Oahu	2134 Metcalf Street	2-8-017:042
Joseph Pratt Residence	Oahu	2911 Pacific Heights Rd.	2-2-030:033
Joseph W. Podmore Building (Bon Bon Cafe)	Oahu	202 and 206 Merchant St., Downtown	2-1-016:004
Juliet Montague Guard Residence (a.k.a. “Armstrong Manor”)	Oahu	2426 Armstrong St., Manoa	2-9-012:014
Ka'ena Complex	Oahu	NA	6-9-002:006,009; 8-1-001:006,016
Kahalu'u Fishpond (Kahouna Fishpond)	Oahu	NA	4-7-011:001
Kahalu'u Taro Loi	Oahu	NA	4-7-051:004
Kahuku Habitation Area	Oahu	Kahuku	5-6-003:010
Kahuku Plantation Supervisor’s House	Oahu	NA	5-6-010:158
Kaimuki Reservoir, Kaimuki Scout Bowl	Oahu	East corner of Crater Road, Kaimuki	3-2-035:012 (portion)
Kaka'ako Pumping Station	Oahu	653 Ala Moana Blvd., Kakaako	2-1-015:043,044
Kalou Fishpond	Oahu	NA	5-8-001:015,055
Kamaunu Residence	Oahu	89-425 Pohakunui Av.	8-9-006:039
Kamehameha Statue	Oahu	NA	2-1-025:003
Kamehameha Statue	Oahu	NA	2-1-025:003
Kamehameha V Post Office	Oahu	44 Merchant St.	2-1-002:012
Kaneohe Naval Air Station	Oahu	NA	4-4-008:001; 4-4-Various
Kane'ohe Ranch Building	Oahu	NA	4-5-035:003
Kaniakapupu (aka Kamehameha III Summer Palace)	Oahu	NA	2-2-054:001
Kapapa Island Complex	Oahu	NA	4-4-008:004
Kapiolani Park	Oahu	NA	3-1-030:001, 002, 003, 004; 3-1-031:003, 004, 005, 006, 007; 3-1-043:All except 004, 005, 011, 012
Kapuaiwa Building	Oahu	NA	2-1-025:003
Kaumakapili Church	Oahu	766 N. King St.	1-7-031:049
Kawa'ewa'e Heiau	Oahu	NA	4-5-033:001
Kawaiahao Church and Grounds (includes Lunalilo’s Tomb and Adobe Schoolhouse)	Oahu	957 Punchbowl St.	2-1-032:017

Property Name	Island	Address/Property Area	Tax Map Key
Kawailoa Ryusenji Temple (Temple Demolished, Foundation Steps and Prayer Tree Remain)	Oahu	NA	6-1-005:001
KAWAILOA TRAINING SCHOOL FOR GIRLS (Industrial School): Hookipa Cottage	Oahu	NA	4-2-006:002
KAWAILOA TRAINING SCHOOL FOR GIRLS (Industrial School): Maluhia Cottage	Oahu	NA	4-2-006:002
KAWAILOA TRAINING SCHOOL FOR GIRLS (Industrial School): Gymnasium	Oahu	NA	4-2-006:002
KAWAILOA TRAINING SCHOOL FOR GIRLS (Industrial School): Hilltop Cottage	Oahu	NA	4-2-006:002
KAWAILOA TRAINING SCHOOL FOR GIRLS (Industrial School): Manoa Cottage	Oahu	NA	4-2-006:002
Kea'au Talus Sites	Oahu	NA	8-3-001:012
Keaiwa Heiau	Oahu	NA	9-9-011:001,002, 003,004,005,006
Kealii O Ka Malu Church	Oahu	NA	6-6-008:017
Kenneth and Frances Day Residence (a.k.a. Richard Gosling Residence and Joseph Ferraro Residence)	Oahu	2703 Terrace Dr., Manoa	2-9-015:039
Kin and Lau Shee Lum Residence	Oahu	840 15th Avenue, Kaimuki	3-2-051:025
Kipapa School Building B	Oahu	NA	9-5-021:002 (portion)
Koa (Rabbit Island)	Oahu	NA	4-1-014:009
KUALOA AHUPUAA HISTORIC DISTRICT	Oahu	NA	4-9-004:001, 4-9-005:001, portion of 4-9-006:001
Kukaniloko Birthing Place Boundary Revision	Oahu	NA	7-1-001:004
Kukuipilau Heiau	Oahu	NA	4-2-006:002
Kupopolo Heiau	Oahu	NA	6-1-005:016
Kyoto Gardens of Honolulu Memorial Park	Oahu	22 Craigside Pl., Nuuanu	2-2-020:001
La Pietra	Oahu	2933 Poni Moi Rd.	3-1-029:038
Lanikai Monument	Oahu	NA	4-3-009:001
Leleahina Heiau	Oahu	NA	4-6-014:005
Lemon Wond Holt Residence	Oahu	3704 Anuhea St., Wilhelmina Rise	3-3-016:066
Leong and Mildred (Chang) Young Residence	Oahu	847 Paahana Street	3-2-020:050
Leong-Yap Residence	Oahu	934 8th Av., Kaimuki	3-2-017:044
Leroy Bush Residence	Oahu	3107 Oahu Av., Manoa	2-9-032:024
Lihiwai (George R. Carter House)	Oahu	51 Kepola Pl., Nuuanu	2-2-050: 012,036,042,043
Lihiwai Boundary Increase	Oahu	NA	2-2-050:057
Linekona School	Oahu	1111 Victoria St.	2-4-002:020
Louis and Marjorie Booth Stephens Residence	Oahu	3239 Pali Hwy., Nuuanu	2-2-045:040

Property Name	Island	Address/Property Area	Tax Map Key
Louis Butler Residence (a.k.a. Alice Hoogs Residence and Elisabeth Gladding Residence)	Oahu	2027 Lanihuli	2-8-019:013
Lyndon Roberts Residence	Oahu	4382 Kahala Av.	3-5-013:004
Mabel Smyth Memorial Building	Oahu	510 Punchbowl St., Downtown	2-1-035:001
Makani'olu Shelter	Oahu	NA	3-8-004:001
Makiki Christian Church	Oahu	829 Pensacola St., lower Makiki	2-3-011:002
Malcolm and Janet MacIntyre Residence	Oahu	2375 University Av., Manoa	2-9-003:002
Manoa Chinese Cemetery	Oahu	NA	2-9-043:001
Marconi Wireless Telegraph Station	Oahu	58-1095 Kamehameha Hwy., Kahuku	5-6-003:032
Mark Robinson Beach House	Oahu	33 Pilipu Pl., Kailua	4-3-018:045
Marshall and Ruth Goodsill Residence	Oahu	4258 Puu Panini Pl., Diamond Head	3-2-061:007
Martha K. Dowsett Residence	Oahu	3320 Kaohinani Dr.	2-2-050:004
Mary Lyman Residence	Oahu	1108 Kaumailuna Pl., Alewa Heights	1-8-033:066
May and George Jennings Residence	Oahu	1176 Alewa Dr., Alewa Heights	1-8-033:007
May/Spalding Residence	Oahu	2231 Mohala Way	2-9-006:008
McKinley High School	Oahu	NA	2-3-009:001 (portion)
Melchers Building	Oahu	51 Merchant St.	2-1-020:020
MERCHANT STREET DISTRICT Judd Building	Oahu	843 Fort St. Mall	2-1-013:004
Mervin and Marian Williams Residence	Oahu	1519 Oneele Pl., Makiki	2-5-001:021
Mildred M. Yodor House	Oahu	1619 Makiki St. and 1614 Anapuni St.	2-4-023:008, 069
Miles and Kathy Anderson Residence	Oahu	1320 Aalapapa St., Lanikai	4-3-004:064
Milton I Residence	Oahu	4339 Papu Circle	3-1-044:051
Minnie Churchill Residence	Oahu	2424 East Manoa Road	2-9-010:009
Mission Houses	Oahu	NA	2-1-032:002
Mission Memorial Building (Honolulu Hale Annex)	Oahu	NA	2-1-033:007
Moana Hotel	Oahu	2365 Kalakaua Av.	2-6-001:012
Moanalua Community Church	Oahu	NA	1-1-010:034
Moiliili Japanese Cemetery	Oahu	2642 Kapiolani Boulevard	2-7-018:024
Mokapu Burial Area	Oahu	Mokapu	4-4-008:001
Moli'i Fishpond	Oahu	NA	4-9-003:001,002, 012,013,014,015,016,018
Mrs. Helen Bruns House	Oahu	2621 Anuenue Street	2-9-014:070
Mrs. Josephine Ketchum Residence	Oahu	3004 Kiele, Diamond Head	3-1-033:035
Nioiula Heiau	Oahu	NA	8-8-001:001
Nu'uanu Petroglyph Complex	Oahu	NA	2-2-021:007, 2-2-020:014

Property Name	Island	Address/Property Area	Tax Map Key
Oahu Railway & Land Company Right-of-Way (National)	Oahu	ROW	8-9 & 9-1
Oahu Railway and Land Company Right-of-Way and Base Yard (State)	Oahu	ROW and 91-1001 Renton Road	8-9, 9-1, and 9-1-69:001
Okiokiolepe Pond	Oahu	NA	9-1-001:001
Old Police Station (Walter Murray Gibson Building.)	Oahu	842 Bethel St.	2-1-002:057
Old U.S. Post Office, Custom House and Court House (Federal Building)	Oahu	335 Merchant St.	2-1-025:004
Opana Radar Site	Oahu	NA	5-7-002:002
OR&L Office & Document Storage Building and Station	Oahu	333 N. King St., Iwilei	1-5-007:002
Otto and Laura Bierbach Residence	Oahu	2346 Oahu Av., Manoa	2-9-005:027
Our Lady of Peace Cathedral	Oahu	NA	2-1-001:014
Owen and Ellen Williams Residence	Oahu	3206 Ahinahina Pl., Palolo	3-3-045:029
Pahonu Turtle Pond	Oahu	NA	4-1-002:007
Pahukini Heiau	Oahu	NA	4-2-015:003
Paul and Catherine Withington Residence	Oahu	3150 Huelani Place	2-9-033:005-0004
Paul and Eleanor Burgher Residence	Oahu	3304 Kaohinani Drive, Nuuanu	2-2-050:005
Paul and Martha Wysard Residence	Oahu	2541 Malama Place	2-9-012:003
Paul Merle Scott Residence	Oahu	3104 Oahu Av., Manoa	2-9-032:040
Pearl Harbor Naval Base	Oahu	NA	9-1, 9-4, 9-6, 9-7, 9-8, 9-9
Percy Pond Residence (a.k.a. William Clark Residence and Duncan Dempster Residence)	Oahu	2026 McKinley, Manoa	2-8-019:019
Pohaku ka Luahine	Oahu	NA	1-1-013:001
Pohaku Lanai	Oahu	NA	6-6-007:007
Pohakunui Heiau	Oahu	NA	4-1-027:022
Pueo Heiau	Oahu	Waimanalo	4-1-008:005
Punahou School Campus	Oahu	NA	2-8-018:001
Punchbowl Crater and National Memorial Cemetery of the Pacific	Oahu	2177 Puowaina Dr.	2-2-005:001, 002
Pu'u o Mahuka Heiau	Oahu	NA	5-9-005:068
Queen Emma Square	Oahu	NA	2-1-018:004
Queen Emma's Summer Home (Hanaiakamalama)	Oahu	2913 Pali Hwy.	2-2-034:027
R. N. Linn Residence	Oahu	2013 Kakela Dr., Manoa	2-8-019:036
Railway Rolling Stock	Oahu	NA	9-1-069:001
Residence at 1519 Oliver Street	Oahu	1519 Oliver St., Moiliili	2-8-013:082
Richard J. Boyen Beach Cottage	Oahu	123 Kaiolena Drive, Lanikai	4-3-006:032
Richard M. Botley Residence	Oahu	3040 Hibiscus Pl., Diamond Head	3-1-034:012

Property Name	Island	Address/Property Area	Tax Map Key
Richardson Theater	Oahu	NA	1-1-008:005
Riley Allen Residence	Oahu	3275 Pacific Heights Rd.	2-2-029:014
Robert L. and Geraldine Mullen Residence	Oahu	4604 Aukai Avenue	3-5-031:014
Robert L. Lukens Residence	Oahu	3524 Woodlawn Dr., Manoa	2-2-047:012
Robert M. Purvis Residence	Oahu	3346 Kaohinani Dr., Nuuanu	2-2-050:002
Robert McCorriston Beach House	Oahu	1056 Mokolua Dr., Kailua	4-3-006:058
Ronald and Miriam Deissaroth Residence	Oahu	671 Old Mokapu Road	4-4-025:004
Roosevelt High School	Oahu	NA	2-4-032:002
Royal Brewery	Oahu	545 Queen Street	2-1-031:021
Royal Mausoleum	Oahu	NA	2-2-021:012
Royal Saloon	Oahu	2 Merchant St.	2-1-002:035
S.W. Lee and Mavis W. Awana Residence	Oahu	377 Diamond Head Circle	3-1-020:021
Sacred Heart Church	Oahu	1701 Wilder Av., Makiki	2-8-012:068
Saint Peter's Church	Oahu	1317 Queen Emma St., Downtown	2-1-018:002
Sam and Mary Cooke Residence	Oahu	2829 Manoa Road	2-9-019:025
Samuel and Laura Walker Residence	Oahu	3030 Puiwa Ln., Nuuanu	2-2-044:026
SCHOFIELD BARRACKS HISTORICAL DISTICT	Oahu	NA	7-7, Various
Schofield Barracks Stockade	Oahu	NA	7-7, Various
Shields/Moore Residence	Oahu	NA	2-9-014:031
Sidney and Grace Carr Residence	Oahu	2727 Manoa Road	2-9-015:057
Small Heiau	Oahu	NA	4-9-004, 4-9-005
Springer Residence	Oahu	2128 Armstrong Street	2-9-011:017
St. Andrews Cathedral	Oahu	NA	2-1-018:002
St. Andrews Cathedral (includes Tenney Hall)	Oahu	NA	2-1-018:002
Stangenwald Building	Oahu	119 Merchant St.	2-1-013:005
Stanley Ball Residence	Oahu	2387 Beckwith St., Manoa	2-9-006:029
State Capitol/Grounds	Oahu	NA	2-1-024:001 and :008
State Capitol/Grounds	Oahu	NA	2-1-024:001 and :008
State Capitol/Grounds	Oahu	NA	2-1-024:All
State Tax Office	Oahu	NA	2-1-026:022
Stuart and Elisabeth Thompkins Residence	Oahu	2339 Pikake Pl., Nuuanu	1-8-005:014
T. R. Foster Building	Oahu	902 Nuuanu Av.	1-7-002:035
Tahitienne Cooperative Apartments (Whole Building)	Oahu	2999 Kalakaua Avenue	3-1-032:001
Tantalus Drive-Round Top Road	Oahu	Begin 1.5 Mile Marker on Tantalus Dr. and end at 8.0 Mile Marker on Round Top Dr.	2-4 & 2-5 various
TANTALUS RESIDENCES Thematic: James A. Wilder Residence	Oahu	3935 Round Top Dr.	2-5-017:011

Property Name	Island	Address/Property Area	Tax Map Key
TANTALUS RESIDENCES Thematic: Vincent and Eleanor Fullard-Leo Residence	Oahu	4069 Round Top Dr.	2-5-016:024
Tennent Art Foundation Gallery	Oahu	203 Prospect. Punchbowl	2-2-003:075&076
Territorial Office Building	Oahu	NA	2-1-025:003
The Hawai'i Theatre	Oahu	1130 Bethel St.	2-1-003:014
Theodore and Rose Vierra Residence	Oahu	2326 Sonoma St., Manoa	2-9-008:049
Thomas Alexander Burningham Residence	Oahu	2849 Pali Hwy., Nuuanu	2-2-034:040,041
Thomas Petrie Residence	Oahu	1916 Manoa Road	2-5-001:002
Thomas Square	Oahu	NA	2-4-001:001
Thomas Victor King Residence	Oahu	155 Dowsett Av., Nuuanu	2-2-046:056
Tom/Yee Court	Oahu	3405, 3409A and 3409B Wela St; 3554 Trousseau Street	3-1-010:045
Trentino or Kahuku Plantation Manager's Beach Cottage	Oahu	NA	5-7-003:041
Tsoong Nyee Society Cook House	Oahu	NA	9-4-010:004 (portion)
U.S. Coast Guard Diamond Head Lighthouse	Oahu	NA	3-1-042:003
U.S. Coast Guard Makapuu Point Light	Oahu	NA	3-9-011:001
U.S. Immigration Office	Oahu	595 Ala Moana Blvd.	2-1-015:018, 019
U.S.S. Bowfin	Oahu	NA	9-9-003:031
U.S.S. Missouri Battleship	Oahu	NA	9-9-003
UH Manoa Bachman Hall	Oahu	2444 Dole St.	2-8-023:003
UH Manoa Hemenway Hall	Oahu	2034 Campus Rd.	2-8-023:003
UH Manoa Music Complex	Oahu	2411 Dole St.	2-8-029:001
UH Manoa Sinclair Library	Oahu	2425 Campus Rd.	2-8-023:003
Ukanipo Heiau	Oahu	NA	8-1-001:019
Ulu Po Heiau	Oahu	NA	4-2-013:031
Uluhaimalama (a.k.a. The Royal Flower Garden of Queen Liliuokalani	Oahu	352 Auwaiolimu St., Pauoa Valley	2-2-014:005 through 006
UNIVERSITY OF HAWAII Thematic: Andrews Amphitheater	Oahu	NA	2-8-023:003
UNIVERSITY OF HAWAII Thematic: Crawford Hall	Oahu	NA	2-8-023:003
UNIVERSITY OF HAWAII Thematic: Dean Hall	Oahu	NA	2-8-023:003
UNIVERSITY OF HAWAII Thematic: Founders Gate	Oahu	NA	2-8-023:003
UNIVERSITY OF HAWAII Thematic: Gartley Hall	Oahu	NA	2-8-023:003
UNIVERSITY OF HAWAII Thematic: George Hall	Oahu	NA	2-8-023:003
UNIVERSITY OF HAWAII Thematic: Hawaii Hall	Oahu	NA	2-8-023:003

Property Name	Island	Address/Property Area	Tax Map Key
UNIVERSITY OF HAWAII Thematic: Varney Circle	Oahu	NA	2-8-023:003
UNIVERSITY OF HAWAII Thematic: Wist Hall	Oahu	NA	2-8-016:001
Virgil Biggs Residence	Oahu	3334-A Kaimuki Av.	3-2-016:005
W. W. Goodale Moir Residence	Oahu	3311 Kahawalu Dr., Nuuanu	2-2-049:025
Waialua Agricultural Company Engine Number 6	Oahu	NA	9-1-069:001
Waialua Courthouse	Oahu	NA	6-6-009:023
Waialua School (Hale'iwa Elementary School)	Oahu	NA	6-6-013:012 (portion)
Wai'anae District	Oahu	NA	8-5-002: 019,022,024,025
Wai'anae Plantation Manager's House	Oahu	NA	8-5-003:011
Waiawa Bridge	Oahu	Kamehameha Highway Westbound and Waiawa Stream	None
Waikane Store	Oahu	48-377 Kamehameha Hwy.	4-8-003:001 (portion)
Waikane Taro Flats	Oahu	Waikane	4-8-006:001; 4-8-014:004,006
Waikele Stream Bridge and Highway Overpass	Oahu	Farrington Highway and Waikele Stream	None
Waimanalo Taro Terraces	Oahu	NA	4-1-010:001
Waioli Tea Room	Oahu	3016 Oahu Av., Manoa	2-9-031:001
Wakamiya Inari Shrine	Oahu	94-695 Waipahu St.	9-4-010:004
War Memorial Natatorium	Oahu	NA	3-1-031:003
Washington Place	Oahu	NA	2-1-018:001
Washington Place/Grounds	Oahu	NA	2-1-018:001
Waterhouse Warehouse Bldg.	Oahu	16 Merchant St.	2-1-002:034
Watson and Louise Ballentyne Residence	Oahu	2838 Oahu Avenue	2-9-019:011
Wet Taro System	Oahu	NA	8-5-006:001
Wheeler Field Wheeler AFB	Oahu	NA	7-7, Various
Willard and Mary Jane Wax Residence	Oahu	2453 Manoa Rd.	2-9-010:021
William and Edna Montgomery Residence	Oahu	3014 Kiele Avenue, Diamond Head	3-1-033:034
William Getz Residence	Oahu	2756 Pacific Heights Road	2-2-030:011
William H. Hoogs Residence	Oahu	2329 Sonoma St., Manoa	2-9-008:024
William L. & Mary T. Hopper Residence	Oahu	2069 California Av.	7-5-027:010
William Ninde Chaffee House	Oahu	2311 Armstrong St., Manoa	2-9-005:002
William Schieber Residence	Oahu	2056 Mohala Way, Manoa	2-9-007:009
Yee/Kobayashi Store	Oahu	849 Queen St., Kakaako	2-1-049:008
YMCA	Oahu	NA	2-1-017:001, :002
Yokohama Specie Bank	Oahu	908 Bethel St.	2-1-002:033
Yukihide and Aki Kohatsu Residence (a.k.a. "Taira Residence")	Oahu	1651 Young St., Pawaa	2-8-001:029
YWCA	Oahu	NA	2-1-017:009

Property Name	Island	Address/Property Area	Tax Map Key
2927 Hibiscus Place Residence	Oahu	2927 Hibiscus Place	(1) 3-1-034:007
Charles J. and Louisa Henderson Residence	Oahu	3965 Noela Place	(1) 3-1-029:034
Franklin Dexter House	Oahu	1916 Manoa Road	(1) 3-2-022:023
George R. Ward House	Oahu	2438 Ferdinand Avenue	(1) 2-9-008:030
Granville Abbott Jr. Residence	Oahu	4774 Aukai Avenue	(1) 3-5-034:014
Henry and Eva Frandsen Residence	Oahu	1921 Makiki Street	(1) 2-5-001:013
James T and Helene Farr Residence	Oahu	2356 Makanani Drive	(1) 1-6-018:048
JB Guard House	Oahu	305 A Portlock Ave	(1) 3-9-003:004
John Walker Beach House	Oahu	876 Mokulua Drive	(1) 4-3-008:093
Kalama Beach Clubhouse	Oahu	280 N Kalaheo Avenue	(1) 4-3-016:006
Malama Manor	Oahu	2501 Malama Place	(1) 2-9-012:008

Source: State of Hawaii State Historic Preservation. 2016. Hawai'i Register of Historic Places. September 15. Accessed: December 2016. Retrieved from: https://dlnr.hawaii.gov/shpd/files/2016/09/Historic-Sites-State-National-Register-Nomination-Sites-9-15-2016.xlsx

NA = not applicable; not assessed

APPENDIX H

Radio Frequency Emissions Comments Received — All Regions

-Page Intentionally Left Blank-

Albert M. Manville, II, Ph.D., C.W.B.

-Page Intentionally Left Blank-

Re: **National Telecommunications Information Administration's (NTIA) First Responder Network (FirstNet) Draft Programmatic Environmental Impact Statement (DPEIS) for the Western United States**

Comments to be submitted in their entirety for the Administrative Record.

Submitted by Albert M. Manville, II, Ph.D., C.W.B.
Principal, *Wildlife and Habitat Conservation Solutions, LLC*[1];
Adjunct Professor, Krieger School of Arts and Sciences, Advanced Academic Programs, Johns Hopkins University, Washington DC campus; and
former U.S. Fish and Wildlife Service agency lead on avian-structural impacts — including from collision and radiation impacts to migratory birds from communication towers

September 29, 2016 [FirstNet DPEIS W.U.S. Comments-AMM.docx]

Introduction

I am pleased to provide comments regarding FirstNet's DPEIS for the Western United States. Please consider my comments regarding this DPEIS for the Western United States as representative of national and continental needs and concerns regarding both wildlife and the impacts from communication towers and their radiation. My comments and recommendations are focused on new wireless communication towers which FirstNet will contract to be built and make operational.

Overview of my Assessment

1. Below I provide more details not discussed in Chapter 2 about migratory birds, their status and importance.
2. I recommend — based on DPEIS Chapter 9, Best Management Practices (BMPs) — even stronger selection criteria for new towers, purposely avoiding — as practical and feasible — tower siting and operation in heavily human developed areas and wildlife concentration areas, especially for migratory birds.
3. I make a strong evidentiary case— in reviewing DPEIS Chapter 2 — based on the most recent peer-reviewed scientific literature and professional contacts, that the effects on non-thermal radiation must be included in FirstNet's National Environmental Policy Act (NEPA) review, based on a 2014 agreement with the Department of Interior. Furthermore, I argue that, "*the potential effects of major concern are rare…"* (p. 2-12) is an inaccurate conclusion based on the preponderance of recent new evidence and cumulative database effects.
4. I will show that independent studies from radiation effects should be supported by FirstNet to develop consistent, standardized, agreed-upon radiation metrics, based on peer-reviewed monitoring and testing research protocols. While arguably we have, *"no consistent measures of exposure…"* (p. 2-12), FirstNet has an opportunity to lead in establishing them.
5. I will show that independent scientific research supported by FirstNet could help develop and set exposure guidelines for radio frequency radiation (RFR) effects on wildlife, especially migratory birds, as well as on humans. I assert that the statement, "[we have] *no scientifically agreed upon biological mechanism of harm…"* (p. 2-12) is an incorrect one based on the current scientific evidence, and further that the communications industry continues to spend enormous amounts of money fighting current biological conclusions and recommendations.

---

[1] whcsllc006@verizon.net

Qualifications

My expertise in wildlife, including migratory birds, and impacts from radiation is extensive. I earned a B.S. in zoology from Allegheny College, an M.S. in natural resources and wildlife management from the University of Wisconsin, Stevens Point, and a Ph.D. from Michigan State University in wildlife ecology and management. More recently, I was designated as a "Certified Wildlife Biologist" (C.W.B.) by The Wildlife Society. During my military service, I was trained by the U.S. Navy in the use of electronic gear, then trained and certified by the Departments of State and Defense as a Mandarin Chinese linguist prior to working for the National Security Agency during my Navy tour of duty. I worked as a Federal wildlife biologist for 17 years, retiring in June 2014 from my position as a Senior Wildlife Biologist with the Division of Migratory Bird Management, U.S. Fish and Wildlife Service (FWS or Service), Headquarters Office, Arlington, VA. I was the Service's national lead on issues related to anthropogenic causes of bird injury and mortality, including from communication towers. In that capacity, I chaired the Communication Tower Working Group (looking at both avian-tower collisions and avian-radiation impacts), working closely with the Federal Communications Commission (FCC), Federal Aviation Administration, other Federal agencies, all the large tower and cell phone trade associations, several cell phone and tower companies, scientists, academicians, and consultants. I was the FWS project officer for the cutting edge tower lighting study at Michigan State Police communication towers (Gehring et al. 2009, Gehring et al. 2011), served as the project officer for a U.S. Coast Guard tall communication tower study, developed a cell tower research monitoring protocol for the U.S. Forest Service (Manville 2002), crafted a peer-reviewed cell tower radiation monitoring protocol, and represented FWS as lead reviewer on many communication tower projects from cell towers to tall, digital television towers. I have published more than 175 professional and popular papers, chapters (including my current chapter in *Problematic Wildlife: a Cross-Disciplinary Approach*; Springer Publishing, 2016), and book reviews. I was considered my agency's lead, go-to person on communication tower impacts to migratory birds and continue to work in consulting and teaching capacities on these issues.

Previous Agreement

On February 4, 2014, the Director of the Office of Environmental Policy and Compliance (OEPC), Department of Interior (DOI), sent a letter to the U.S. Commerce Department's NTIA suggesting regulatory compliance by its FirstNet, a newly created federal entity, implementing development of emergency broadcast systems nationwide (USDOI 2014). Included in those recommendations were inadequacies which FirstNet had acknowledged and was then proceeding to address. These included inadequacies for conserving migratory birds in Enclosure A of the OEPC letter which I authored while working for the Division of Migratory Bird Management, USFWS. In it, I provided recommendations for addressing bird injury, crippling loss, and death from communication tower collisions; and research needs for beginning to address impacts from non-ionizing electromagnetic radiation emitted from such towers.

The take-home message was clear. We had a federal agency (FirstNet) willing to recognize and begin addressing the impacts of radiation on migratory birds — a significant and important step forward. On February 27, 2014, I began communicating with FirstNet's Director of Environmental Compliance regarding their PEIS, including beginning to address impacts from low-level, non-thermal non-ionizing radiation that FirstNet stated they then did not intend to categorically exclude. We met with FirstNet's Director of Environmental Compliance and her staff on March 20, 2014, and proceeded to help FirstNet further develop their DPEIS.

FCC standards dealing with tower radiation are flawed and continue to be based solely on thermal heating, now more than 30 years out of date. FCC, to date, has been unwilling to update their radiation regulatory standards while, to their credit, they are updating tower lighting, height and guy-wire standards. Significantly lower radiation output does not equate to reduced risk (e.g., Panagopoulos and Margaritis (2008).

I hope FirstNet officials will evaluate their current position based on the recommendations that follow.

Background

Recapping, the electromagnetic radiation standards used by the FCC continue to be based on thermal heating, a criterion now more than 30 years out of date and inapplicable today — except when one is very close to a base station antenna where thermal radiation is at issue. For example, for health and safety reasons, the FCC requires that power to cell and other communication towers must be turned off during maintenance by tower workers.

The current electromagnetic radiation issues are primarily due to the lower levels of radiation output from microwave-powered communication devices such as cellular telephones and their cell towers, emergency broadcast antennas, Wi-Fi, so called "smart meters," and other sources of point-to-point communications; levels typically lower than from microwave ovens. The FCC's radiation standards are currently being legally challenged at cell towers in the U.S. Migratory birds are impacted by these tower structures and their broadcasting/receiving radiation, including by very low levels of non-thermal radiation.

Why Are Migratory Birds Important?

Migratory birds — i.e., those that migrate across U.S., Canadian and/or Mexican borders, of which 1,027 species are currently protected in the United States (50 C.F.R. 10.13 list), are a public trust resource, meaning they belong to everyone. Most birds in the western United States are migratory as they are elsewhere in the U.S. Almost all North American continental birds are protected by the Migratory Bird Treaty Act (MBTA). The Act implements and regulates bilateral protocols with Canada, Mexico, Japan and Russia. It is a strict liability statute; proof of criminal intent in the injury or killing of birds is not required by enforcement authorities for cases to be made.

The statute and its regulations protect migratory birds, their parts, eggs, feathers and nests from un-permitted possession and "take" (i.e., un-permitted injury, crippling loss, or killing). Migratory bird nests are protected during the breeding season while eagle nests are protected year-round. Efforts are currently underway by FWS to develop a permit where un-permitted and "unintentional take" could be allowed under MBTA; that process began in 2001. A Federal permit is required to possess a migratory bird and its parts, but the MBTA currently provides no provision for the accidental or incidental "take" (causing injury, crippling loss, or death — including from tower collisions and from radiation) of a protected migratory bird, even when otherwise normal, legal business practices or personal activities are involved, such as the construction and operation of the FirstNet emergency broadcast system. The U.S. Congress noted the "take" of even one protected migratory bird to be a violation of the Statute, with fines and criminal penalties that can be extensive. Under the purview of the MBTA and Executive Order 13186 (the Migratory Bird EO), agencies such as FirstNet need to make every effort to "avoid and minimize take" of migratory birds. You already reference in Chapter 9 of this DPEIS the FWS 2013 voluntary communication tower guidelines which I updated, authored and provided to FCC (Manville 2013b), in addition to other BMPs such as the Avian Power Line Interaction Committee guidelines (APLIC 2006, 2012), both which I co-authored.

Bald and Golden Eagles are also protected by the Bald and Golden Eagle Protection Act (BGEPA), another strict liability statute. "Take" under BGEPA is more expansive than under MBTA, and includes pursuit, shooting, poisoning, capturing, killing, trapping, collecting, molesting and disturbing both species (50 C.F.R. 22.3). It is important to note that eagles do not simply need to be killed or injured to be in violation of the Eagle Act. "Disturbance take" could result in reduced survivorship of adults, juveniles and chicks, affecting their population viability, including from the construction and operation of FirstNet towers. These "takes" are potential criminal offenses.

Status of Migratory Birds:

Migratory birds are in trouble, including impacts from individual structures and the cumulative communication tower network continent-wide. There are growing numbers of Birds of Conservation Concern (BCCs; USFWS 2008) — species in decline but not yet ready for federal listing as threatened or endangered under the Endangered Species Act (ESA), although some are under listing review. Currently there are 273 species (out of 1,027 protected birds) and subspecies on the national BCC, Service Regional BCC and Bird Conservation Region BCC lists, providing an early warning of likely peril unless the population trends are reversed.

Additionally, there are 93 endangered and threatened bird species on the ESA List of Threatened and Endangered Species. Collectively, BCC and ESA-listed birds represent at least 366 bird species (36%) in decline — some seriously — with numbers of both listed and BCC species growing (Manville 2013a). The FWS is also tasked to maintain stable or increasing breeding populations of Bald and Golden Eagles under implementing regulations of BGEPA and compliance with NEPA — including for broadcast towers.

Bird Collisions:

Migratory birds have been documented killed in single night, mass mortality collision events (up to 10,000 in single night, single tower collision events) with communication towers, guy-support wires, and tower lights in the U. S. since 1948 — Aronoff 1949, summarized in Manville 2007 — including at unguyed, unlit, < 200-ft above-ground-level (AGL) cell towers.

During nighttime migrations, birds can be overwhelmed by inclement weather events, forcing bird fallout, significant reductions in flight heights, and resultant attraction to lighted structures and confusion (Manville 2014, 2016a) — such as security lighting that may be placed at power sheds, attracting birds, causing them to collide with the towers. Currently an estimated 6.8 million birds/yr are killed in the U.S. and Canada (Longcore et al. 2012). The vast majority of these bird deaths are in the U.S. In another review, at least 13 species of BCCs were estimated to suffer annual mortality of 1-9% of their estimated total population based solely on communication tower collisions in the U.S. or Canada (Longcore et al. 2013). These include estimated annual mortality of > 2% for the Yellow Rail, Swainson's Warbler, Pied-bill Grebe, Bay-breasted Warbler, Golden-winged Warbler, Worm-eating Warbler, Prairie Warbler, and Ovenbird.

Up to 350 species of birds have been documented killed at communication towers (Manville 2014, 2016a). Each time one of these birds is killed at an individual communication tower such as that planned by FirstNet, these "takings" add to the overall impacts to bird populations not unlike the phenomenon of the "death by a thousand cuts." That, of course, is a important purpose of your DPEIS — investigate cumulative effects.

Radiation:

While there is a massive and growing global database — studies being published weekly — on effects of tower and other non-ionizing radiation on wildlife, laboratory animals and humans, and it is important to

note that the impacts from both thermal and non-thermal radiation have already been well documented (e.g., www.saferemr.com). In fact, most scientists consider non-thermal effects as well established even though all of the implications are not yet fully understood. Thermal effects are generally pretty clear. It is also important to note that tests on laboratory animals referenced in a radiation memo I provided to FCC in early 2016, and updated for release to the public on July 14, 2016 (excerpted herein; Manville 2016b; http://bit.ly/savewildlifeRFR), such as those on chicken embryos, mice and rats are used as surrogates to predict harm to humans, protected migratory birds and other wildlife. For practical, ethical and legal reasons, wild migratory birds would not otherwise be subjected to laboratory studies on impacts from radiation. Furthermore, scientists generally do not want to perform harmful experiments on either humans or protected wildlife such as migratory birds. Studies on the negative effects of non-thermal radiation to wild birds in Europe, briefly summarized below, are clearly relevant as predictors of what will, is likely, or is happening to wild birds in North America. These issues therefore need to be examined in detail by FirstNet, not categorically excluded as currently done in FCC's flawed approach.

In the June 2016 *Scientific American Blog* (Portier and Leonard 2016), in response to the question, *"do cell phones cause cancer?"* The authors response was clear: *"probably, but it's complicated. The degree of risk almost certainly depends on the length and strength of exposure — but we still don't know how significant the actual danger is."* These same issues pertain to impacts to wildlife from both thermal and non-thermal effects emitted from cell and broadcast communication towers and FM antennas. I submit that the radiation effects on wildlife need to be addressed by the FCC, the Environmental Protection Agency (EPA), FirstNet, the FWS and other governmental entities.

While radiation studies have been ongoing for decades, not until recently have the effects of low-level, non-thermal electromagnetic radiation on domestic and wild birds been made public. Laboratory studies by T. Litovitz (2000 pers. comm.) and DiCarlo et al. (2002) from the standard 915 MHz cell phone frequency on domestic chicken embryos showed that radiation from extremely low levels (0.0001 the level emitted by the average digital cell phone) caused heart attacks and deaths in some embryos; controls were unaffected (DiCarlo et al. 2002). You already referenced these studies in your DPEIS. However, the effects of microwave (and other) radiation from communication towers on nesting and roosting wild birds are yet unstudied in the U.S. In Europe, impacts have been well documented. Balmori (2005) found strong negative correlations between levels of tower-emitted microwave radiation and bird breeding, nesting, and roosting in the vicinity of electromagnetic fields in Spain. He documented nest and site abandonment, plumage deterioration, locomotion problems, and death in House Sparrows, White Storks, Rock Doves, Magpies, Collared Doves, and other species. While these species had historically been documented to roost and nest in these areas, Balmori (2005) did not observe these symptoms prior to construction of the cellular phone towers.

In a troubling discovery, Balmori (2005) documented "far-field," low level radiation exposures affecting migratory birds out to 300 meters (nearly 1,000 ft) distance from cell towers in Europe. Twelve nests (40% of his study sample) were located within 200 m (nearly 660 ft) of the antennas and never successfully raised any chicks, while only 1 (3.3%), located further than 300 m, never had chicks. Strange behaviors were observed at White Stork nesting sites within 100 m (328 ft) of one or several cell tower antennas. Those birds that the main beam impacted directly (i.e., electric field intensity/EFI > 2 V/m) included young that died from unknown causes. Within 100 m, paired adults frequently fought over nest construction sticks and failed to advance the construction of the nests with sticks falling to the ground while nests were being constructed. Balmori (2005) reported that some nests were never completed and the Storks remained passively in front of cellsite antennas. The electric field intensity was higher on nests within 200 m (2.36 ± 0.82 V/m) than on nests further than 300 m (0.53 ± 0.82 V/m). However, the EMF levels, including for nests < 100 m from the antennas, were not intense enough to be classified as thermally active. Power densities need to be at least 10 mW/cm2 to produce tissue heating of even 0.5 C (Bern-

hardt 1992). The radio frequencies used in Europe and here in the U.S. are similar to the 700 MHz frequency band FirstNet is planning to utilize.

Balmori and Hallberg (2007) and Everaert and Bauwens (2007) found similar strong negative correlations among male House Sparrows. In another review, Balmori (2009) reported health effects to birds which were continuously irradiated. They suffered long-term effects including reduced territorial defense posturing, deterioration of bird health, problems with reproduction, and reduction of useful territories due to habitat deterioration.

Beason and Semm (2002) demonstrated that microwave radiation used in cell phones produces non-thermal responses in several types of neurons of the nervous system of Zebra Finches. The brain neurons of anesthetized birds were tested with a 900 MHz carrier, modulated at 217 Hz. Stimulation resulted in changes in the amount of neural activity by more than half of the brain cells with most (76%) of the responding cells increasing their rates of firing by an average 3.5-fold as opposed to controls — a clearly definitive study showing non-thermal effects. The other responding cells exhibited a decrease in their rates of spontaneous activity suggesting potential effects to humans using hand-held cell phones affecting sleep (Borbely et al. 1999). The Beason and Semm (2002) theoretical model could also help explain why birds may be attracted to cell towers, an important theoretical premise that they previously hypothesized in regard to Bobolinks (Semm and Beason 1990).

Radiation effects can be characterized as *"near-field"* (near the source of radiation), *"far-field"* (some distance from the source) or *"intermediate."* The growing evidence is clear; there are low-level, non-thermal effects (Manville 2016b: p.4; http://bit/ly/savewildlifeRFR). In a meta-review of studies through 2008, and based on laboratory research they conducted, Panagopoulos and Margaritas (2008) determined maximum radiation distances for both cell phones and for communication towers, based on the Global System for Mobile Telecommunications (GSM) and the Digital Cellular System (DCS). This maximum radiation distance corresponds to an intensity around 10 mW/cm2 for both types of radiation in regards to the RF components — i.e., Bernhardt's (1992) threshold for thermal heating effects. In the Panagopoulos and Margaritas (2008) study, a "near-field" thermal effect which they called an *"intensity window"* appeared at a distance of 20-30 cm for the cell phone antenna, corresponding to a distance of 20-30 meters (66 to 98 feet) from the base antenna. This could be considered a classic nonlinear effect and would also apply to far field exposures where effects from an "intensity window" are greater than expected. Since cell phone base station antennas are frequently located within residential areas where houses and workplaces are often situated at distances 20-30 m from such antennas, not to mention birds nesting and roosting close to these antennas (e.g., Balmori 2005), humans, migratory birds and other wildlife may be exposed up to 24 hours per day. As a recommended mitigation measure, FirstNet should avoid siting any new broadcast antennas in close proximity to human development and in areas prone to heavy migratory bird use — where there are practical and reasonable alternatives. The FWS's 2013 guidelines (Manville 2013b), referenced within the DPEIS, provide some recommendations of where to locate antennas.

Complicating the issue is the fact that there currently are no standards for wildlife exposure, including by the licensing and regulatory rules and procedures of the FCC. Other than the letter to and "agreement" between DOI and FirstNet, neither DOI nor the FWS have any policy or quasi policy that currently addresses radiation effects on migratory birds — with the exception of the 2013 (Manville 2013: p.2) guideline number 5. recommending at least a 1-mile disturbance-free buffer between new cell towers and nesting Bald Eagles and Ferruginous Hawks. Arguably, "effects" need to be determined by the EPA, which has no funding for this, and regulated as part of a NEPA site review process, including both thermal and non-thermal effects.

There is an increasing body of published laboratory research that finds DNA damage at low intensity exposures — well below levels of thermal heating — which may be comparable to far field exposures from cell and broadcast antennas, including those being constructed or to be used by FirstNet. This body of

work would apply to all species, including migratory birds, since DNA is DNA, whether single-strand or double helix. The first study to find such effects was conducted by H. Lai and N.P. Singh in 1995 (Lai and Singh 1995). Their work has since been replicated (e.g., Lai and Singh 1996, as well as in hundreds of other more recent published studies), performed in at least 14 laboratories worldwide. The take-home message is clear: low level transmission of EMF from cell and other broadcast towers and other sources probably causes DNA damage. The laboratory research findings strongly infer this relationship. Since DNA is the primary building block and genetic "map" for the very growth, production, replication and survival of all living organisms, deleterious effects can be critical.

The entire thermal model and all FCC categorical exclusions for all of the electronic devices we see today, rests on the incorrect assumption that low-level, non-ionizing non-thermal radiation cannot cause DNA breaks because it is *"so low-power"* (B. Levitt and H. Lai, Comments Filed Jointly to FCC, ET Docket No. 13-84, 2013). The evidence strongly supports the opposite conclusion: low power produces negative effects. These issues need to be adequately addressed by the appropriate authorities including the FCC, EPA, FWS, and FirstNet. Currently they are not.

Based on their research and meta-analyses, Panagopoulos and Margaritas (2008) concluded that large decreases in reproductive capacity were being caused by GSM and DCS radiation fields. This included extensive DNA fragmentation on reproductive cells of experimental animals induced by these fields, exerting an intense biological action able to kill cells, damage DNA, and dramatically decrease the reproductive capacity of living organisms, including populations of wild birds and insects. They cautioned, however, that the physical parameters of these radiations, including intensity, carrier frequency, pulse repetition frequency, distance from the antenna, and similar factors provided inconsistency and lack of standardization making it difficult to correlate specific thermal and non-thermal effects to specific types of radiation. Their take-away message, however, was clear: bio-effects to migratory birds, other wildlife, insects, laboratory animals and humans continue to be documented from thermal and non-thermal exposures, as well as effects from intermediate exposures between the near-field and far-field levels. All migratory birds are potentially at risk, whether they be Bald Eagles, Golden Eagles, Birds of Conservation Concern (USFWS 2008), Federally and/or State-listed bird species, other birds in peril regionally or population-wide, or birds whose populations are stable. FirstNet must therefore address these issues in the DPEIS and your subsequent implementing instructions. Ignoring non-thermal effects based on flawed FCC standards would not be acceptable.

Cucurachi et al. (2013) reported on 113 studies from original peer-reviewed publications and relevant existing reviews. A limited number of ecological studies was identified, the majority of which were conducted in a laboratory setting on bird embryos or eggs, small rodents and plants. In 65% of the studies, ecological effects of RF-EMF (50% of the animal studies and about 75% of the plant studies) were found both at high as well as at low dosages. Lack of standardization and limited sampling made generalizing results from the organism to the ecosystem level very difficult. Cucurachi et al. (2013) concluded, however, that due to the number of variables, no clear dose–effect relationship could be found especially for non-thermal effects. However, effects from some of the studies reviewed were well documented, and certainly can serve as predictors for effects to wild, protected migratory birds and other wildlife in North America.

Engels et al. (2014) investigated *"electromagnetic noise"* emitted everywhere humans use electronic devices including from cell phones and their towers. While prior to their study on European Robins, no *"noise effect"* had been widely accepted as scientifically proven, the authors in this double-blind experiment were able to show that migratory birds are unable to use their magnetic compass in the presence of urban electromagnetic noise. The magnetic compass is integral to bird movement and migration. The findings clearly demonstrated a non-thermal effect on European Robins and clearly serves as a predictor for effects to other migratory birds including those in North America.

Levitt and Lai (2010) reported numerous biological effects from cell tower radiation documented at very low intensities comparable to what the population experiences within 60- 150 m (197- 492 ft) distance from a cell tower, including effects that occurred in studies of cell cultures and animals after exposures to low-intensity RFR. These reported effects were genetic, growth, and reproductive in nature; they documented increases in permeability of the blood–brain barrier; showed behavioral responses; illustrated molecular, cellular, and metabolic changes; and provided evidence of increases in cancer risk — all applicable to migratory birds, other wildlife and to far field exposures in general. They cited published, peer-reviewed examples of effects that included:

Dutta et al. (1989) who reported an increase in calcium efflux in human neuroblastoma cells after exposure to RFR at 0.005 W/kg. Calcium is an important component in normal cellular functions.

Fesenko et al. (1999) who reported a change in immunological functions in mice after exposure to RFR at a power density of 0.001 mW/cm2. These results can serve as predictors for impacts to wild animals.

Magras and Xenos (1997) who reported a decrease in reproductive function in mice exposed to RFR at power densities of 0.000168— 0.001053 mW/cm2. The results also serve as predictors for reproductive impacts to wildlife.

Forgacs et al. (2006) who reported an increase in serum testosterone levels in rats exposed to GSM-like RFR at specific absorption rates (SAR) of 0.018— 0.025 W/kg. The results also serve as predictors for reproductive impacts to wildlife.

Persson et al. (1997) who reported an increase in the permeability of the blood–brain barrier in mice exposed to RFR at 0.0004– 0.008 W/kg. The blood–brain barrier is a physiological mechanism that protects the brain from toxic substances, bacteria, and viruses. These findings have clear applicability to wildlife including migratory birds.

Phillips et al. (1998) who reported DNA damage in cells exposed to RFR at the SAR of 0.0024– 0.024 W/kg. DNA is integral to the very function and survival of all living organisms, including migratory birds.

Kesari and Behari (2009) also reported an increase in DNA strand breaks in brain cells of rats after exposure to RFR at the SAR of 0.0008 W/kg. The results also serve as predictors for impacts to DNA in wildlife. And,

Belyayev et al. (2009) who reported changes in DNA repair mechanisms after RFR exposure at a SAR of 0.0037 W/kg. DNA is integral to the maintenance and repair of cells and cellular function in all animals. All sources from above were cited in Levitt and Lai (2010).

In a 2-year study conducted by the National Toxicology Program (NTP) of the National Institutes of Health (May 2016), NTP (Wyde 2016) reported partial findings from their $25 million study on cancer risk to laboratory rodents from cellphone radiation. The report summarizes a long-term exposure study to cell phone radiation, with statistically significant evidence of DNA damage from non-thermal exposure to cellphone radiation to laboratory mice and rats. Controlled studies on laboratory rats showed that cellphone radiation caused 2 types of tumors, glioma and schwannoma, the results which *"could have broad implications for public health."* The report has been characterized as a *"game-changer"* as it proves that non-ionizing, radiofrequency radiation can cause cancer without heating tissue. The researchers controlled the temperature of the test animals to prevent heating effects so the cancers were caused by a non-thermal mechanism. The report on the mice component of the study will be released at a later date. Not

surprisingly, much of the media coverage contained considerable bias or "media spin" intended to create doubt about the study's important findings regarding cancer risk from exposure to cellphone radiation (Moskowitz 2016). The implications are troubling for migratory birds and other wildlife.

Summary Recommendations

Levitt and Lai (2010) concluded that the obvious mechanism of effects from RFR are thermal (i.e., tissue heating) — which is what FCC bases its current radiation standards on, even if they are more than 30 years out of date and rejected both by the Department of Interior and Department of Commerce (USDOI 2014, Manville 2016a) as incomplete. However, for decades, there have been questions about non-thermal (i.e., not dependent on a change in temperature) effects, whether they exist, and what specifically causes the effects to surface. The sources cited above should help dispel that doubt or at the very least show that non-thermal effects do indeed occur, have been well documented, and can have significant deleterious effects on migratory birds and other wildlife.

Practically, as Levitt and Lai (2010) concluded, we do not actually need to know whether RFR effects are thermal or non-thermal to set exposure guidelines. Most of the biological-effects studies of RFR that have been conducted since the 1980s were under non-thermal conditions, including the most recent NTP (2016) studies. In studies using isolated cells, the ambient temperature during exposure was generally well controlled. In most animal studies, the RFR intensity used usually did not cause a significant increase in body temperature in the test animals. Most scientists consider non-thermal effects as well established, even though the implications are not fully understood.

Scientifically, Levitt and Lai (2010) concluded that there are three rationales for the existence of non-thermal effects:

1. Effects can occur at low intensities when a significant increase in temperature is not likely.

2. Heating does not produce the same effects as RFR exposure.

3. RFR with different modulations and characteristics produce different effects even though they may produce the same pattern of SAR distribution and tissue heating.

There is virtually no non-thermal research to indicate what is safe for either humans or wildlife, including migratory birds which are highly sensitive to perturbations in ways humans are not (see previous citations). Unfortunately, there also is very little far-field, distance-to-safety research for wildlife — most especially for migratory birds — as this has not been studied with that focus in mind. What little EMF/RF field research on wildlife that has been conducted, its focus has been on behavior, mortality and reproductive outcomes (e.g., B. Levitt and H. Lai, Comments Filed Jointly to FCC, ET Docket No. 13-84, 2013; Balmori 2005, 2009; Balmori and Hallberg 2007; Everaert and Bauwens 2007; Engels et al. 2014; Wasserman et al. 1984; and Semm and Beason 1990).

In summary, we need to better understand, tease out, and refine how to address these growing and poorly understood radiation impacts to migratory birds, bees, bats, and myriad other wildlife. Currently, other than to proceed using the precautionary approach and keep emissions as low as reasonably achievable, we are at loggerheads in advancing meaningful guidelines, policies and regulations that address non-thermal effects. The good news: there appears to be an awakening at least within a significant segment the scientific community to the realization that these issues must be addressed — for the health of humans, wildlife and our environment — and hopefully FirstNet will continue on the course of assessing how to minimize the impacts of radiation on wildlife and humans as had been agreed to in 2014.

Suggested Next Steps for FirstNet

The following suggestions would help significantly advance the need to address effects/impacts from non-thermal radiation on migratory birds and other wildlife, and help in further reducing collision impacts and habitat fragmentation:

- We desperately need to conduct field research on thermal and non-thermal radiation impacts to wild migratory birds and other wildlife here in North America, similar to studies conducted in Europe. Specifically, the research focus should center on causality for *"near-field," "far-field"* and *"intermediate"* effects, ideally based on some standard, agree-upon radiation metrics. FirstNet and leading independent radiation experts (ideally none affiliated with the communication industry) should work together to develop radiation metrics. The metrics need to be consistent with standards for intensity, carrier frequency, pulse repetition frequency, distance from the antenna, and similar factors. The research must be based on peer-reviewed monitoring and testing protocols (e.g., upgrades to the Manville 2002 peer-reviewed research protocol submitted to the U.S. Forest Service for studies on cell towers in Arizona, and key methodologies used in studies previously referenced in the Manville [2016b] memo, among others). The research needs to be conducted by credible, independent third party research entities with no vested interest in the outcomes, and the results need to be published in refereed scientific journals, made available to the public and the affected federal agencies.

- Studies need to be designed to better tease out and understand causality of thermal and non-thermal impacts from radiation on migratory birds. Results need to be carefully compared with findings from Europe and elsewhere on wild birds, and efforts need to be made to begin developing exposure guidelines for migratory birds and other wildlife based on dose-effect and other nonlinear relationships. We do not actually need to know whether RFR effects are thermal or non-thermal to develop and set exposure guidelines (Levitt and Lai 2013).

- To minimize deleterious radiation exposures, these guidelines should include use of avoidance measures such as those developed by the electric utility industry for bird collision and electrocution avoidance (APLIC 2006, 2012). In the case of Bald Eagles, the communication tower guidelines refined and updated by FWS (Manville 2013b) — and submitted to the FCC and industry — recommend one-mile disturbance free buffers during active nesting of Ferruginous Hawks and Bald Eagles, and 0.5-mile buffers around other active raptor nests, based on nest studies conducted by the Wyoming Ecological Services Field Office in that State; Guideline number 5. Impacts must address collision mortality, crippling loss, and injury; mortality, injury, population viability and survivorship based on impacts from radiation; as well as disturbance and habitat fragmentation. The updated 2013 Service Guidelines were intended to be inclusive.

- Agencies tasked with the protection, management, and research on migratory birds and other wildlife (e.g., FWS, U.S. Geological Survey, National Park Service, U.S. Forest Service, Bureau of Land Management, and USDA Wildlife Services, among others) need to develop radiation policies that avoid or minimize impacts to migratory birds and other trust wildlife species. This means supporting — and where applicable — conducting research, and developing policies that help minimize radiation impacts. FirstNet can work with these agencies in support of these efforts.

- As Levitt and Lai (2010) concluded, we do not actually need to know whether RFR effects are thermal or non-thermal to set exposure guidelines. Most scientists consider non-thermal effects as well established, even though the implications are not fully understood.

- Given the rapidly growing database of peer-reviewed, published scientific studies (e.g., http://www.saferemr.com, School of Public Health, University of California, Berkeley), it is time these issues be addressed both by FCC and NTIA.

- Without question, these are challenging and daunting issues. FirstNet can begin by taking "small bites out of this 800 pound gorilla" first by developing a siting review process for new towers based on bird- and human-friendly habitats — using the precautionary approach as the direction forward — much like what FWS did following release of its 2000 guidance through a site review process. Proper site location will help to minimize collision and radiation impacts, especially given the scientific information we have available (many sources referenced within these comments). Meanwhile, FirstNet needs to proceed as agreed to in 2014 with helping support independent field radiation research, including in the DPEIS review process, implementing instructions, and through funding and agency support. It is important for FirstNet to begin focusing on new tower siting and location — given the enormity of this endeavor. Implementing the BMPs recommended in this DPEIS and suggestions provided in these comments would be a good start.

Thank you for the opportunity to comment on this complicated but incredibly important issue. Hopefully reasoned minds will prevail, impacts of non-thermal radiation will be included as part of this review, and BMPs will result in a significant reduction of impacts to migratory birds, other wildlife and humans.

Respectfully submitted

Albert M. Manville, II, Ph.D., C.W.B.

LITERATURE CITED

Aronoff, A. 1949. The September migration tragedy. Linnaean News-Letter 3(1):2.

Avian Power Line Interaction Committee (APLIC). 2006. Suggested practices for avian protection on power lines: the state of the art in 2006. Edison Electric Institute, APLIC, and the California Energy Commission. Washington, DC, and Sacramento, CA. 207 pp.

Avian Power Line Interaction Committee (APLIC). 2012. Reducing avian collisions with power lines: the state of the art in 2012. Edison Electric Institute and APLIC, Washington, DC. 159 pp.

Balmori, A. 2005. Possible effects of electromagnetic fields from phone masts on a population of White Stork (*Ciconia ciconia*). Electromagnetic Biology and Medicine 24:109-119.

Balmori, A. 2009. Electromagnetic pollution from phone masts. Effects on wildlife pathophysiology. Electromagnetic Fields (EMF) Special Issue, 16 (2-3): 191-199.

Balmori, A., and O. Hallberg. 2007. The urban decline of the House Sparrow (*Passer domestics*): a possible link with electromagnetic radiation. Electromagnetic Biology and Medicine 26:141-151.

Beason, R.C., and P. Semm. 2002. Responses of neurons to amplitude modulated microwave stimulus. Neuroscience Letters 333 (2002):175-178. Carter, E. 2013. Birding in the United States: demographic and economic analyses. U.S. Fish and Wildlife Service Report 2011-1, 16 pp. Arlington, VA

Bernhardt, J.H. 1992. Non-ionizing radiation safety: radiofrequency radiation, electric and magnetic fields. Phys. Med. Biol. 37 (1992): 80–84.

Borbely, A.A., R. Huber, T. Graf, B. Fuchs, E. Gallmann, and P. Achermann. 1999. Pulsed high-frequency electromagnetic field affects human sleep and sleep electroencephalogram. Neurosci. Lett. 275 (1999): 207–210.

Cleveland, R.F., Jr. 2001. Human exposure to radiofrequency electromagnetic fields: FCC guidelines; global standards; evaluating compliance; Federal and local jurisdiction. Pages 116-128 *In* B.B. Levitt (ed.). Cell Towers: Wireless Convenience" or Environmental Hazard? Proceedings Cell Tower Forum, New Century Publishing.

Cucurachi, S., W.L.M. Tamis, M.G. Vijver, J.W.G.M. Peinjenburg, J.F.B. Bolte, and G.R. de Snoo. 2013. A review of ecological effects of radio frequency electromagnetic fields (RF-EMF). Environment International 51 (January 2013): 116-140. DiCarlo, A., N. White, F. Guo, P. Garrett, and T. Litovitz. 2002. Chronic electromagnetic field exposure decreases HSP70 levels and lowers cytoprotection. Journal Cellular Biochemistry 84: 447-454.

DiCarlo, A., N. White, F. Guo, P. Garrett, and T. Litovitz. 2002. Chronic electromagnetic field exposure decreases HSP70 levels and lowers cytoprotection. Journal Cellular Biochemistry 84: 447-454.

Engels, S., N-L. Schneider, N. Lefeldt, C.M. Hein, M. Zapka, A. Michalik, D. Elbers, A. Kittel, P.J. Hore, and H. Mouritsen. 2014. Anthropogenic electromagnetic noise disrupts magnetic compass orientation in a migratory bird. Nature 509 (May 15, 2014). doi:10.1038/nature13290.

Everaert, J. 2016. Electromagnetic radiation (EMR) in our environment. **www.livingplanet.be**

Everaert, J., and D. Bauwens. 2007. A possible effect of electromagnetic radiation from mobile phone base stations not he number of breeding House Sparrows (*Passer demesticus*). Electromagnetic Biology and Medicine 26:63-72.

Gehring, J., P. Kerlinger, and A.M. Manville, II. 2009. Communication towers, lights and birds: successful methods of reducing the frequency of avian collisions. Ecological Applications 19(2): 505-514.

Gehring, J., P. Kerlinger, and A.M. Manville, II. 2011. The role of tower height and guy wires on avian collisions with communication towers. Journal of Wildlife Management 75(4): 848-855.

Grigor'ev, I. 2003. Biological effects of mobile phone electromagnetic field on chick embryo (risk assessment using the mortality rate). Radiats Biol Radioecol 43(5):541-3.

ICNIRP. 1998. Guidelines for limiting exposure to time-varying electric, magnetic and electromagnetic fields (up to 300GHz). Health Phys. 74: 494-522.

Lai, H., and N.P. Singh. 1995. Acute low-intensity microwave exposure increases DNA single-strand breaks in rat brain cells. Bioelectromagnetics 16 (1995): 207–210.

Lai, H., and N.P. Singh. 1996. Single and double-strand DNA breaks in rat brain cells after acute exposure to radiofrequency electromagnetic radiation. Int. J. Radiat. Biol. 69 (1996): 513–521.

Levitt, B.B. 1995. Electromagnetic Fields: A Consumer's Guide to the Issues and How to Protect Ourselves. Harcourt Brace. ISBN 0-15-628100-7

Levitt, B.B., and H. Lai. 2010. Biological effects from exposure to electromagnetic radiation emitted by cell tower base stations and other antenna arrays. Environ. Rev. 18 (2010): 369–395. doi:10.1139/A10-018.

Levitt, B.B., and H. Lai. 2013. Comments Filed Jointly to the Federal Communications Commission, ET Docket No. 13-84, 2013.

Longcore, T., C. Rich, P. Mineau, B. MacDonald, D.G. Bert, L.M. Sullivan, E. Mutrie, S.A. Gauthreaux, Jr., M.L. Avery, R.C. Crawford, A.M. Manville, II, E.R. Travis, and D. Drake. 2012. An estimate of avian mortality at communication towers in the United States and Canada. PLoSONE 7(4) 17 pp, Open Access.

Longcore, T., C. Rich, P. Mineau, B. MacDonald, D.G. Bert, L.M. Sullivan, E. Mutrie, S.A. Gauthreaux, Jr., M.L. Avery, R.C. Crawford, A.M. Manville, II, E.R. Travis, and D. Drake. 2013. Avian mortality at communication towers in the United States and Canada: which species, how many, and where? Biological Conservation 158: 410-419.

Manville, A.M. II. 2001. Avian mortality at communication towers: steps to alleviate a growing problem. Pp. 75-86, 227-228. *In:* B.B. Levitt (ed.). Proceedings of the "Cell Towers Forum" State of the Science/State of the Law, December 2, 2000, Litchfield, CT. ISBN 1-884820-62-X.

Manville, A.M., II. 2002. Protocol for monitoring the impacts of cellular telecommunication towers on migratory birds within the Coconino, Prescott, and Kaibab National Forests, Arizona. Peer-reviewed research monitoring protocol requested by and prepared for the U.S. Forest Service. Division of Migratory Bird Management, USFWS, 9 pp. March 2002.

Manville, A.M., II. 2007. Comments of the U.S. Fish and Wildlife Service submitted electronically to the FCC on 47 CFR Parts 1 and 17, WT Docket No. 03-187, FCC 06-164, Notice of Proposed Rulemaking, "Effects of Communication Towers on Migratory Birds." February 2, 2007. 32 pp.

Manville, A.M. II. 2009. Towers, turbines, power lines and buildings – steps being taken by the U.S. Fish and Wildlife Service to avoid or minimize take of migratory birds at these structures. Pp 262-272 *In* T.D. Rich, C. Arizmendi, D.W. Demarest, and C. Thompson (eds.). Tundra to Tropics: Connecting Birds, Habitats and People. Proceedings 4th International Partners in Flight Conference, McAllen, Texas.

Manville, A.M., II. 2013a. Anthropogenic-related bird mortality focusing on steps to address human-caused problems. Invited White Paper for the Anthropogenic Panel, 5th International Partners in Flight Conference, August 27, 2013, Snowbird, Utah. Division of Migratory Bird Management, USFWS, peer-reviewed white paper. 16 pp.

Manville, A.M., II. 2013b. U.S. Fish and Wildlife Service (USFWS) revised guidelines for communication tower design, siting, construction, operation, retrofitting, and decommissioning — Suggestions based on previous USFWS recommendations to FCC regarding WT Docket No. 03-187, FCC 06-164, Notice of Proposed Rulemaking, "Effects of Communication Towers on Migratory Birds," Docket No. 08-61, FCC's Antenna Structure Registration Program, and Service 2012 Wind Energy Guidelines. Division of Migratory Bird Management, Arlington, VA. 5 pp.

Manville, A.M., II. 2014. Status of U.S. Fish and Wildlife Service developments with communication towers with a focus on migratory birds: updates to Service staff involved with tower issues — a webinar. Talking Points and Literature Citations, Available to the Public. March 7, 13 pp.

Manville, A.M. II. 2015. Recommendations for additional research and funding to assess impacts of non-ionizing radiation to birds and other wildlife. Memorandum to Dr. J. McGlade, Science Advisor to United Nations Environment Program, Key Research Needs Affecting Wildlife Suggesting UNEP's Immediate Attention. March 5, 2 pp.

Manville, A.M., II. 2016a. Impacts to birds and bats due to collisions and electrocutions from some tall structures in the United States: wires, towers, turbines and solar arrays — state of the art in addressing the problems. Chap 20, pp 415-442, *In* F.M. Angelici (editor), Problematic Wildlife: a Cross-Disciplinary Approach, Springer International Publishing, Switzerland. DOI 10.1007/978-3-319-22246-2_20

Manville, A.M., II. 2016b. A briefing memo: what we know, can infer, and don't yet know about impacts from thermal and non-thermal non-ionizing radiation to birds and other wildlife — for public release. Peer-reviewed briefing memo, July 14, 2016, 12 pp.

Moskowitz, J.M. 2016. National Toxicology Program finds cell phone radiation causes cancer. Electromagnetic Radiation Safety. J. Moskowitz, Dir., Center for Family and Community Health, School of Public Health, Univ. CA— Berkeley. www.saferemr.com/2016/05/national-toxicology-program-finds-cell.html

Panagopoulos, D.J., and L.H. Margaritis. 2008. Mobile telephony radiation effects on living organisms. Chapter 3, pp. 107-149, *In* A.C. Harper and R.V. Buress (eds.), Mobile Telephones, Nova Science Publishers, Inc. ISBN: 978-1-60456-436-5.

Portier, C.J., and W.L. Leonard. 2016. Scientific American Blog. June 13.

Semm, P. and R.C. Beason. 1990. Responses to small magnetic variations by the trigeminal system of the bobolink, Brain Res. Bull. 25: 735–740.

Tanner, J.A. 1966. Effects of microwave radiation on birds. Nature 210, May 7, Letters to Nature, doi: 10.1038/210636a0

Tanner, J.A., C. Romero-Sierra, and S.J. Davie. 1967. Non-thermal effects of microwave radiant on birds. Nature 216. Nature 216, 1139 (Dec 16, 1967) doi:10.1038/2161139a0

United States Department of Interior. 2014. ER 14/0001-14/0004. Letter to Mr. Eli Veenendaal, Natl. Telecommunications and Information Administration, US Dept. Commerce. Signed by W.R. Taylor, Director Office of Environmental Policy and Compliance, Office of Secretary, DOI. February 7, 8 pp, in the public arena.

U.S. Fish and Wildlife Service. 2008. Birds of Conservation Concern 2008. United States Department of Interior, Fish and Wildlife Service, Division of Migratory Bird Management, Arlington, VA. 85 pp. (http://www.fws.gov/migratorybirds/>).

Wasserman, F.E., C. Dowd, B.A. Schlinger, D. Byman, S.P. Battista, and T.H. Kunz. 1984. The effects of microwave radiation on avian dominance behavior. Bioelectronmagnetics 5(3): 331-339.

Wyde, M. 2016. National Toxicology Program finds cell phone radiation causes cancer. Summary Presentation at BioEM 2016 Meeting, Ghent, Belgium, by M. Wyde, Dir. NTP Studies of Cell Phone Radiation, NIEHS, June 8.

Xenos, T.D, and I.N. Magras. 2003. Low power density RF radiation effects on experimental animal embryos and foetuses *In*: P. Stavroulakis (Ed.), Biological Effects of Electromagnetic Fields, Springer, 579-602.

-Page Intentionally Left Blank-

U.S. Department of the Interior

-Page Intentionally Left Blank-

United States Department of the Interior

OFFICE OF THE SECRETARY
Washington, D.C. 20240

OCT 1 1 2016

Ms. Amanda Pereira, NEPA Coordinator
FirstNet
12201 Sunrise Valley Drive, M/S 243
Reston, VA 20192

Re: Comments on Draft Programmatic Environmental Impact Statement for the Central Region of the Nationwide Public Safety Broadband Network and Notice of Public Meetings, U.S. Department of Commerce, National Telecommunications and Information Administration, First Responder Network "FirstNet" Authority

Dear Ms. Pereira:

The Department of the Interior (Department) has reviewed the Draft Programmatic Environmental Impact Statement (DPEIS) for the Central Region of the Nationwide Public Safety Broadband Network (NPSBN), i.e., the Proposed Action.

The Proposed Action may impact listed species and migratory birds. Because the DPEIS does not include specific locations or impacts, it is not possible to assess those impacts at this time. The Department recommends that FirstNet consult with the U.S. Fish and Wildlife Service (USFWS) when planning specific clearing and construction projects. The Department offers the following comments from the USFWS Field Offices in Wyoming and Minnesota.

The Proposed Action includes the potential construction of new wireless communication towers and/or modification of existing towers. The placement and operation of towers can affect migratory birds directly through injury, crippling loss, and death from collisions with towers and their supporting guy-wire infrastructure, as well as indirectly through habitat destruction or degradation due to vegetation clearing and tower construction. Additionally, communication towers might have an impact on migratory birds due to non-ionizing electromagnetic radiation emitted by the tower. Please review the February 7, 2014, letter from the Department to Mr. Eli Veenendaal (National Telecommunications and Information Administration) for additional information regarding electromagnetic radiation impacts for the Proposed Action (Enclosure 1).

The DPEIS notes that "If proposed project sites are unable to avoid sensitive areas, best management practices (BMPs) and mitigation measures as defined through consultation with the appropriate resource agency, would be implemented." (Page 29, Executive Summary). The Department supports the DPEIS's BMPs to minimize potential impacts to migratory birds, including:

- *Engage in early consultation with appropriate agencies and stakeholders as necessary, including but not limited to USFWS, NMFS(National Marine Fisheries Service), and other relevant Federal or state agencies;*

- *Follow standards and guidelines outlined by the Avian Power Line Interaction Committee and USFWS (APLIC, 2012) (APLIC and USFWS, 2005) for any aboveground lines or cables (e.g., use of diverters);*
- *Implement seasonal and spatial buffer zones around sensitive areas for deployment and maintenance activities, where possible, as recommended by USFWS and state wildlife and natural resources agencies;*
- *Implement the National Bald Eagle Management Guidelines (USFWS, 2007);*
- *Avoid construction/deployment in areas with sensitive vegetation, unique habitat, or designated natural resources, if practical;*
- *Avoid Important Bird Areas (IBAs) and other known important bird habitats to the maximum extent practicable;*
- *Follow guidelines outlined by USFWS for Communication Tower Design, Siting, Construction, Operation, Retrofitting, and Decommissioning (USFWS, 2013);*
- *Avoid activities within migratory bird flyways and in the immediate vicinity of bat roosts to the extent practicable.*

The Department emphasizes that USFWS Interim Guidelines for Communication Tower Design, Siting, Construction, Operation, Retrofitting, and Decommissioning (USFWS 2013, https://www.fws.gov/migratorybirds/pdf/management/usfwscommunicationtowerguidance.pdf) recommend unguyed and unlit towers when practicable to reduce bird collisions, injuries, and mortalities. Recent Department of Transportation (DOT) Federal Aviation Administration (FAA) modifications to obstruction marking and lighting requirements include new configurations that feature flashing lights and which are likely to result in a significant decrease in bird fatalities. (see FAA Advisory Circular, December 4, 2015, http://www.faa.gov/documentLibrary/media/Advisory_Circular/AC_70_7460-1L_.pdf).

With regards to the BMP to "avoid activities within migratory bird flyways" to the extent practicable, the USFWS believes that migrants concentrate along coastlines of major waterbodies such as the oceans and Great Lakes (Bowden et al. 2015), Rathbun et al. 2016, Diehl et al. 2003, Ewert et al. 2011, Peterson et al. 2015, Buler and Dawson 2012, France et al. 2012). The Department would prefer that communication towers be constructed (in order of USFWS preference):

1. More than three miles from any ocean or Great Lake shoreline.
2. If towers are closer than three miles to the shoreline, there should be: site-specific studies and self-standing (un-guyed) towers that are short enough to not require lighting.
3. If towers are closer than three miles to the shoreline and sufficiently tall to require lighting, there should be: site-specific studies; self-standing (un-guyed) towers with lighting that does not include steady-burning lights.

Major north/south river corridors are also major migration corridors and stopover sites. Setback distances from these rivers will depend, to some extent, upon habitat conditions and topography. However, these areas should be avoided to the greatest extent possible. FirstNet should generally follow both the USFWS (2013) Guidelines and those stated above for shorelines.

Under Executive Order (E.O.) 13186, the USFWS is encouraged to "restore and enhance the habitat of migratory birds, as practicable" and "prevent or abate the pollution or detrimental

alteration of the environment for the benefit of migratory birds, as practicable". The USFWS therefore considers impacts to habitat for migratory birds when providing comments and recommendations under the National Environmental Policy Act (NEPA) environmental review process. The USFWS supports the following DPEIS's BMPs to minimize vegetation and habitat disturbance and loss:

- *Follow all applicable Federal, state, and local requirements for vegetation removal, disturbance, and restoration;*
- *Avoid construction/deployment in areas with sensitive vegetation, unique habitat, or designated natural resources, if practicable;*
- *Consolidate facilities as much as possible (collocation and use of existing ROWs) to reduce vegetation loss;*
- *Control the spread of invasive plants and animals by inspecting and cleaning equipment and vehicles before moving from one deployment site to another;*
- *Minimize land clearing and vegetation disturbance by using existing roads and unvegetated areas, when feasible, during deployment activities; and*
- *Minimize or avoid removal of forest vegetation whenever possible.*

In accordance with the goals of E.O. 13186 and the Endangered Species Act (ESA), the USFWS recommends that impacts to migratory birds and listed species be mitigated to the greatest extent practicable. The Department uses the NEPA definition of mitigation (https://ceq.doe.gov/nepa/regs/ceq/1508.htm#1508.20) which includes avoidance and minimization of impacts, restoring the affected environment, reducing impacts over time, and compensating for impacts by replacing or providing substitute resources or environments.

Additionally, the USFWS recommends conducting vegetation removal and tree clearing outside the breeding period for migratory birds. The USFWS Field Offices can provide state-specific date ranges when clearing should be avoided.

The DPEIS contained only minimal information regarding the location and habitat types expected to be affected within the project area even though vegetation clearing is likely in the development of the network. The USFWS therefore cannot thoroughly review the expected impacts to species listed under ESA (listed species) at this time. Without additional information, it is impossible to accurately assess the project's potential effects.

The Department disagrees with the statements made in Table ES5-7 of the Executive Summary, and any supporting statements in the DPEIS, that for the broad categories shown the project, "May affect, not likely to adversely affect". Until specific potential sites and activities are identified, USFWS believes that these conclusions are premature.

The Department recommends that FirstNet consult with USFWS field offices when planning specific clearing and construction projects. The USFWS also recommends visiting the USFWS's Midwest Region's Endangered Species Act Section 7 Technical Assistance website (https://www.fws.gov/midwest/endangered/section7/s7) regarding impacts in Minnesota, Iowa, Missouri, Wisconsin, Illinois, Indiana, Michigan, and Ohio. Guidance is available at this website to assist you in fulfilling the requirements for consultation under section 7 of the Endangered Species Act, including a step-by-step explanation of the section 7 process, species distribution

lists, species life history information and examples of typical letters. For impacts in Montana, North Dakota, South Dakota, Wyoming, Nebraska, Utah, Colorado, and Kansas, use the USFWS's Mountain-Prairie Region Ecological USFWSs website (https://www.fws.gov/mountain-prairie/es/index.php). If, after reviewing the technical assistance websites, it is determined that additional information from a biologist is necessary to assist in the consultation process, please contact the appropriate USFWS field office for the state affected.

The Cheyenne, WY Field Office and Bloomington, IN Field Office of the USFWS have included more detailed comments regarding the DPEIS and impacts of the Proposed Action on listed species and migratory birds in their states (Enclosure 2).

The Department appreciates the opportunity to participate in the environmental review of the Proposed Action. For issues regarding Minnesota, Iowa, Missouri, Wisconsin, Illinois, Indiana, Michigan, and Ohio, Service Field Office contact information can be found at: https://www.fws.gov/midwest/es/fld_off.html. For issues regarding Montana, North Dakota, South Dakota, Wyoming, Nebraska, Utah, Colorado, and Kansas, USFWS Field Office contact information can be found by selecting the "Field Offices" tab at https://www.fws.gov/mountain-prairie/es/index.php.

Sincerely,

Michaela Noble

Michaela E. Noble, Director
Office of Environmental Policy
and Compliance

Enclosure 1: Letter from Willie Taylor (Director, OEPC) to Eli Veenendaal (National Telecommunications and Information Administration, U.S. Department of Commerce)

Enclosure 2: Table containing Specific comments from Cheyenne, WY Field Office and Specific comments from Bloomington, IN Field Office

Literature Cited

Bowden, T. S., E. C. Olson, N. A. Rathbun, D. C. Nolfi, R. L. Horton, D. J. Larson, and J. C. Gosse. 2015. Great Lakes Avian Radar Technical Report Huron and Oceana Counties, Michigan Fall 2011. U.S. Department of Interior, Fish and Wildlife Service, Biological Biological Technical Publication FWS/BTP-2015

Buler, J. J., and D. K. Dawson. 2012. Radar analysis of fall bird migration stopover sites in the Northeast U.S. Final Report. Cooperative Agreement USGS and University of Delaware.

Diehl, R. H., R. P. Larkin, and J. E. Black. 2003. Radar observations of bird migration over the Great Lakes. Auk 120:278-290.

Ewert, D. N., M. J. Hamas, R. J. Smith, M. E. Dallman, and S. W. Jorgensen. 2011. Distribution of migratory landbirds along the northern Lake Huron shoreline. Wilson Journal of Ornithology 123:536-547.

France, K. E., M. Burger, T. G. Howard, M. D. Schlesinger, K. A. Perkins, M. MacNeil, D. Klein, and D. N. Ewert. 2012. Final report for Lake Ontario Migratory Bird Stopover Project. Prepared by The Nature Conservancy for the New York State Department of Environmental Conservation, in fulfillment of a grant from the New York Great Lakes Protection Fund (C303907).

Peterson, A. C., Niemi, G. J. and Johnson, D. H. 2015, Patterns in diurnal airspace use by migratory landbirds along an ecological barrier. Ecological Applications, 25: 673–684. doi:10.1890/14-0277.1

Rathbun N. A., T. S. Bowden, R. L. Horton, D. C. Nolfi, E. C. Olson, D. J. Larson, and J. C. Gosse. 2016. Great Lakes Avian Radar Technical Report; Niagara, Genesee, Wayne, and Jefferson Counties, New York; Spring 2013. U.S. Department of Interior, Fish and Wildlife Service, Biological Technical Publication FWS/BTP-3012-2016

United States Department of the Interior

OFFICE OF THE SECRETARY
WASHINGTON, D.C. 20240

FEB - 7 2014

TAKE PRIDE IN AMERICA

In Reply Refer To: (ER 14/0001) (ER 14/0004).

Mr. Eli Veenendaal
National Telecommunications and Information
Administration
U.S. Department of Commerce
1401 Constitution Avenue, N.W.
Washington, D.C. 20230

Dear Mr. Veenendaal:

The Department of the Interior (Department) has reviewed the above referenced proposal and submits the following comments and attachment for consideration. Because the First Responder Network Authority (FirstNet) is a newly created entity, we commend the U.S. Department of Commerce for its timely proposals for NEPA implementing procedures.

The Department believes that some of the proposed procedures are not consistent with Executive Order 13186 Responsibilities of Federal Agencies to Protect Migratory Birds, which specifically requires federal agencies to develop and use principles, standards, and practices that will lessen the amount of unintentional take reasonably attributed to agency actions. The Department, through the Fish and Wildlife Service (FWS), finds that the proposals lack provisions necessary to conserve migratory bird resources, including eagles. The proposals also do not reflect current information regarding the effects of communication towers to birds. Our comments are intended to further clarify specific issues and address provisions in the proposals.

The Department recommends revisions to the proposed procedures to better reflect the impacts to resources under our jurisdiction from communication towers. The placement and operation of communication towers, including un-guyed, unlit, monopole or lattice-designed structures, impact protected migratory birds in two significant ways. The first is by injury, crippling loss, and death from collisions with towers and their supporting guy-wire infrastructure, where present. The second significant issue associated with communication towers involves impacts from non-ionizing electromagnetic radiation emitted by them (See Attachment).

In addition to the 147 Birds of Conservation Concern (BCC) species, the FWS has listed an additional 92 species as endangered or threatened under the Endangered Species Act. Together with the bald and golden eagle, this represents 241 species of birds whose populations are in trouble or otherwise merit special protection, according to the varying criteria of these lists. The Department suggests that FirstNet consider preparing a programmatic environmental impact statement (see attachment) to determine and address cumulative impacts from authorizing FirstNet projects on those 241 species for which the incremental impact of tower mortality, when

added to other past, present, and reasonably foreseeable future actions, is most likely significant, given their overall imperiled status. Notwithstanding the proposed implementing procedures, a programmatic NEPA document might be the most effective and efficient method for establishing best management practices for individual projects, reducing the burden to individual applicants, and addressing cumulative impacts.

Categorical Exclusions
The Department has identified 13 of the proposed categorical exclusions (A-6, A-7, A-8, A-9, A-10, A-11, A-12, A-13, A-14 A-15, A-16, A-17, and A-19) as having the potential to significantly affect wildlife and the biological environment. Given this potential, we want to underscore the importance of our comments on FirstNet's procedural guidance under Environmental Review and Consultation Requirements for NEPA Reviews and its list of extraordinary circumstances in Appendix D.

Environmental Review and Consultation Requirements for NEPA Reviews
To ensure there are no potentially significant impacts on birds from projects that may otherwise be categorically excluded, the Department recommends including the Migratory Bird Treaty Act and the Bald and Golden Eagle Protection Act to the list of requirements in this section.

Extraordinary Circumstances
To avoid potentially significant impacts on birds from projects that may otherwise be categorically excluded, the Department recommends including species covered under the Migratory Bird Treaty Act and the Bald and Golden Eagle Protection Act to the list of environmentally sensitive resources. Additionally, adding important resources to migratory birds such as sites in the Western Hemisphere Shorebird Reserve Network and Audubon Important Bird Areas to the paragraph on areas having special designation or recognition would help ensure their consideration when contemplating use of a categorical exclusion.

Developing the Purpose and Need
The Department recommends inclusion of language that would ensure consideration of all other authorities to which NEPA is supplemental as opposed to simply the FirstNet mission. As currently written, the procedures are limited to ensuring the purpose and need considers the FirstNet mission. If strictly applied, this approach would severely limit the range of reasonable alternatives, and likely preclude consideration of more environmentally benign locations or construction practices.

Environmental Review Process, Apply NEPA Early in the Process, Where Action is by Non-Federal Entity
The Department recommends that FirstNet be required to coordinate with federal agencies having jurisdiction by law or special expertise on construction and lighting of its network of towers.

Thank you for the opportunity to comment on the draft document. If you have any questions concerning the comments, please contact Diana Whittington, NEPA Migratory Bird lead, at (703) 358-2010. If you have any questions regarding Departmental NEPA procedures, contact Lisa Treichel, Office of Environmental Policy and Compliance at (202) 208-7116.

Sincerely,

Willie R. Taylor
Director, Office of Environmental Policy
and Compliance

Enclosure

Literature Cited

Longcore, T., C. Rich, P. Mineau, B. MacDonald, D.G. Bert, L.M. Sullivan, E. Mutrie, S.A. Gauthreaux, Jr., M.L. Avery, R.C. Crawford, A.M. Manville, II, E.R. Travis, and D. Drake. 2013. Avian mortality at communication towers in the United States and Canada: which species, how many, and where? Biological Conservation 158: 410-419.

U.S. Fish and Wildlife Service. 2008. Birds of Conservation Concern, 2008. United States Department of Interior, Fish and Wildlife Service, Division of Migratory Bird Management, Arlington, VA. 85 pages. *http://www.fws.gov/migratorybirds*.

Enclosure A

Background

The placement and operation of communication towers, including un-guyed, unlit, monopole or lattice-designed structures, impact protected migratory birds in two significant ways.

The first is by injury, crippling loss, and death from collisions with towers and their supporting guy-wire infrastructure, where present. Mass mortality events tend to occur during periods of peak spring and fall songbird bird migration when inclement weather events coincide with migration, and frequently where lights (either on the towers and/or on adjacent outbuildings) are also present. This situation has been well documented in the U.S. since 1948 in the published literature (Aronoff 1949, see Manville 2007a for a critique). The tallest communication towers tend to be the most problematic (Gehring *et al.* 2011). However, mid-range (~400-ft) towers as proposed by the First Responder Network Authority (FirstNet, a newly created entity under the Department of Commerce) can also significantly impact protected migratory birds, as can un-guyed and unlit lattice and monopole towers (Gehring *et al.* 2009, Manville 2007a, 2009, 2013a). Mass mortalities (more than several hundred birds per night) at unguyed, unlit monopole and lattice towers were documented in fall 2005 and 2011 in the Northeast and North Central U.S. (*e.g.*, Manville 2007a). It has been argued that communication towers including "short" towers do not impact migratory birds, including at the population level (*e.g.*, Arnold and Zink 2011), but recent findings have contradicted that assertion (Manville 2007a, 2013a, Longcore *et al.* 2012, 2013).

The second significant issue associated with communication towers involves impacts from non-ionizing electromagnetic radiation emitted by these structures. Radiation studies at cellular communication towers were begun circa 2000 in Europe and continue today on wild nesting birds. Study results have documented nest and site abandonment, plumage deterioration, locomotion problems, reduced survivorship, and death (*e.g.*, Balmori 2005, Balmori and Hallberg 2007, and Everaert and Bauwens 2007). Nesting migratory birds and their offspring have apparently been affected by the radiation from cellular phone towers in the 900 and 1800 MHz frequency ranges – 915 MHz is the standard cellular phone frequency used in the United States. However, the electromagnetic radiation standards used by the Federal Communications Commission (FCC) continue to be based on thermal heating, a criterion now nearly 30 years out of date and inapplicable today. This is primarily due to the lower levels of radiation output from microwave-powered communication devices such as cellular telephones and other sources of point-to-point communications; levels typically lower than from microwave ovens. The problem, however, appears to focus on very low levels of non-ionizing electromagnetic radiation. For example, in laboratory studies, T. Litovitz (personal communication) and DiCarlo *et al.* (2002) raised concerns about impacts of low-level, non-thermal electromagnetic radiation from the standard 915 MHz cell phone frequency on domestic chicken embryos – with some lethal results (Manville 2009, 2013a). Radiation at extremely low levels (0.0001 the level emitted by the average digital cellular telephone) caused heart attacks and the deaths of some chicken embryos subjected to hypoxic conditions in the laboratory while controls subjected to hypoxia were unaffected (DiCarlo *et al.* 2002). To date, no independent, third-party field studies have been conducted in North America on impacts of tower electromagnetic radiation on migratory birds. With the European field and U.S. laboratory evidence already available,

independent, third-party peer-reviewed studies need to be conducted in the U.S. to begin examing the effects from radiation on migratory birds and other trust species.

Discussion

Collision Deaths and Categorical Exclusions

Attempts to estimate bird-collision mortality at communication towers in the U.S. resulted in figures of 4-5 million bird deaths per year (Manville 2005, 2009). A meta-review of the published literature now suggests, based on statistically determined parameters, that mortality may be 6.8 million birds per year in Canada and the U.S.; the vast majority in the United States (Longcore *et al.* 2012). Up to 350 species of birds have been killed at communication towers (Manville 2007a, 2009). The Service's Division of Migratory Bird Management has updated its voluntary, 2000 communication tower guidelines to reflect some of the more recent research findings (Manville 2013b). However, the level of estimated mortality alone suggests at a minimum that FirstNet prepare an environmental assessment to estimate and assess the cumulative effects of tower mortality to protected migratory birds.

A second meta-review of the published mortality data from scientific studies conducted in the U.S. and Canada (Longcore *et al.* 2013) strongly correlates population effects to at least 13 species of Birds of Conservation Concern (BCC, USFWS 2008). These are mortalities to BCC species based solely on documented collisions with communication towers in the U.S. and Canada, ranging from estimated annual levels of mortality of 1 to 9% of their estimated total population. Among these where mortality at communication towers was estimated at over 2% annually are the Yellow Rail, Swainson's Warbler, Pied-billed Grebe, Bay-breasted Warbler, Golden-winged Warbler, Prairie Warbler, and Ovenbird. Longcore *et al.* (2013) emphasized that avian mortality associated with anthropogenic sources is almost always reported in the aggregate, *i.e.*, "number of birds killed," which cannot detect species-level effects necessary to make effective and meaningful conservation assessments, including determining cumulative effects. These new findings strongly suggest the need for at least an environmental assessment by FirstNet, or more likely, an environmental impact statement.

Radiation Impacts and Categorical Exclusions

There is a growing level of anecdotal evidence linking effects of non-thermal, non-ionizing electromagnetic radiation from communication towers on nesting and roosting wild birds and other wildlife in the U.S. Independent, third-party studies have yet to be conducted in the U.S. or Canada, although a peer-reviewed research protocol developed for the U.S. Forest Service by the Service's Division of Migratory Bird Management is available to study both collision and radiation impacts (Manville 2002).

As previously mentioned, Balmori (2005) found strong negative correlations between levels of tower-emitted microwave radiation and bird breeding, nesting, and roosting in the vicinity of electromagnetic fields in Spain. He documented nest and site abandonment, plumage deterioration, locomotion problems, reduced survivorship, and death in House Sparrows, White Storks, Rock Doves, Magpies, Collared Doves, and other species. Though these species had historically been documented to roost and nest in these areas, Balmori (2005) did not observe these symptoms prior to construction and operation of the cellular phone towers. Balmori and Hallberg (2007) and Everaert and Bauwens (2007) found similar strong negative correlations

among male House Sparrows. Under laboratory conditions, DiCarlo *et al.* (2002) raised troubling concerns about impacts of low-level, non-thermal electromagnetic radiation from the standard 915 MHz cell phone frequency on domestic chicken embryos – with some lethal results (Manville 2009). Given the findings of the studies mentioned above, field studies should be conducted in North America to validate potential impacts of communication tower radiation – both direct and indirect – to migratory birds and other trust wildlife species.

Literature Cited

Arnold, T. W., and R.M. Zink. 2011. Collision mortality has no discernable effect on population trends of North American birds. Plos ONE 6:e24708.

Aronoff, A. 1949. The September migration tragedy. Linnaean News-Letter 3(1):2.

Balmori, A. 2005. Possible effects of electromagnetic fields from phone masts on a population of White Stork (*Ciconia ciconia*). Electromagnetic Biology and Medicine 24:109-119.

Balmori, A., and O. Hallberg. 2007. The urban decline of the House Sparrow (*Passer domesticus*): a possible link with electromagnetic radiation. Electromagnetic Biology and Medicine 26:141-151.

DiCarlo, A., N. White, F. Guo, P. Garrett, and T. Litovitz. 2002. Chronic electromagnetic field exposure decreases HSP70 levels and lowers cytoprotection. Journal Cellular Biochemistry 84: 447-454.

Everaert, J., and D. Bauwens. 2007. A possible effect of electromagnetic radiation from mobile phone base stations on the number of breeding House Sparrows (*Passer domesticus*). Electromagnetic Biology and Medicine 26:63-72.

Gehring, J., P. Kerlinger, and A.M. Manville, II. 2009. Communication towers, lights, and birds: successful methods of reducing the frequency of avian collisions. Ecological Applications 19:505-514.

Gehring, J., P. Kerlinger, and A.M. Manville, II. 2011. The role of tower height and guy wires on avian collisions with communication towers. Journal of Wildlife Management 75: 848-855.

Longcore, T., C. Rich, P. Mineau, B. MacDonald, D.G. Bert, L.M. Sullivan, E. Mutrie, S.A. Gauthreaux, Jr., M.L. Avery, R.C. Crawford, A.M. Manville, II, E.R. Travis, and D. Drake. 2012. An estimate of avian mortality at communication towers in the United States and Canada. PLoSONE 7(4) 17 pp, Open Access.

Longcore, T., C. Rich, P. Mineau, B. MacDonald, D.G. Bert, L.M. Sullivan, E. Mutrie, S.A. Gauthreaux, Jr., M.L. Avery, R.C. Crawford, A.M. Manville, II, E.R. Travis, and D. Drake. 2013. Avian mortality at communication towers in the United States and Canada: which species, how many, and where? Biological Conservation 158: 410-419.

Manville, A.M., II. 2002. Protocol for monitoring the impacts of cellular telecommunication towers on migratory birds within the Coconino, Prescott, and Kaibab National Forests, Arizona. Peer-reviewed research monitoring protocol requested by and prepared for the U.S. Forest Service. Division of Migratory Bird Management, USFWS. 9 pp, March 2002.

Manville, A.M., II. 2005. Bird strikes and electrocutions at power lines, communication towers, and wind turbines: state of the art and state of the science – next steps toward mitigation. Pages 1051-1064 *In* C.J. Ralph and T.D. Rich (eds), Bird Conservation Implementation in the Americas: Proceedings 3rd International Partners in Flight Conference, U.S.D.A. Forest Service Gen. Technical Report PSW-GTR-191, Albany, CA.

Manville, A.M., II. 2007a. Comments of the U.S. Fish and Wildlife Service submitted electronically to the FCC on 47 CFR Parts 1 and 17, WT Docket No. 03-187, FCC 06-164, Notice of Proposed Rulemaking, "Effects of Communication Towers on Migratory Birds." February 2, 2007. 32 pp.

Manville, A.M., II. 2007b. U.S. Fish and Wildlife concerns over potential radiation impacts from cellular communication towers on migratory birds and other wildlife – research opportunities. Invited Presentation to "Congressional Staff Briefing on the Environmental and Human Health Effects of Radiofrequency (RF) Radiation," House Capitol 5, Washington, DC. 16 page PowerPoint presentation. May 10, 2007.

Manville, A.M. II. 2009. Towers, turbines, power lines and buildings – steps being taken by the U.S. Fish and Wildlife Service to avoid or minimize take of migratory birds at these structures. Pages 262-272 *in* T.D. Rich, C. Arizmendi, D.W. Demarest, and C. Thompson (eds.). Tundra to Tropics: Connecting Birds, Habitats and People. Proceedings 4th International Partners in Flight Conference, McAllen, Texas.

Manville, A.M., II. 2011. Estimates of annual human-caused mortality to North American birds (with literature citations). Division of Migratory Bird Management, USFWS, for public distribution. 12 pages.

Manville, A.M., II. 2013a. Anthropogenic-related bird mortality focusing on steps to address human-caused problems. A White Paper for the Anthropogenic Panel, 5th International Partners in Flight Conference, Snowbird, Utah. August 27, 2013. 16 page peer-reviewed White Paper.

Manville, A.M., II. 2013b. U.S. Fish and Wildlife Service (USFWS) revised guidelines for communication tower design, siting, construction, operation, retrofitting, and decommissioning -- Suggestions based on previous USFWS recommendations to FCC regarding WT Docket No. 03-187, FCC 06-164, Notice of Proposed Rulemaking, "Effects of Communication Towers on Migratory Birds," Docket No. 08-61, FCC's Antenna Structure Registration Program, and Service 2012 Wind Energy Guidelines. Division of Migratory Bird Management, Arlington, VA. 5 pages.

U.S. Fish and Wildlife Service. 2008. Birds of Conservation Concern, 2008. United States Department of Interior, Fish and Wildlife Service, Division of Migratory Bird Management, Arlington, VA. 85 pages. *http://www.fws.gov/migratorybirds*.

Enclosure 2:USFWS Wyoming Ecological Services Field Office Comment Tracking Table PDEIS for the Nationwide Public Safety Broadband Network			
Page Number	**Section Number**	**Line Number or Table Number**	**Comment or Text Revision**
31	Executive Summary	Table ES5-6	In addition to the BMPs and mitigation measures listed here, particularly the "Install anti-perching or nesting devices on existing or new structures" measure, we recommend that structures containing the fewest perching options be used in areas where raptor and raven predation of sensitive resources is a concern. Where raptor electrocution is a concern, use of structures and components compatible with the guidance in the Avian Power Line Interaction Committee's (APLIC) 2006 "Suggested Practices for Avian Protection on Power Lines: The State of the Art in 2006" electrocution manual should be implemented. Where collision is a hazard, we recommend the APLIC's 2012 Reducing Avian Collisions with Power Lines: The State of the Art in 2012" manual be implemented.
18-61	18.1.4.2	Table 18.1.4-1: Relevant Wyoming Water laws and Regulations	It is important to consider the sensitive nature of water use in Wyoming. Two of our largest basins (Platte River and Colorado River) have recovery programs initiated to ensure depletions of the water do not cause jeopardy of federally listed plants and animals that occur downstream. Platte River: On June 16, 2006, the USFWS issued a programmatic biological opinion (PBO) for the Platte River Recovery Implementation Program (PRRIP) and water-related activities[1] affecting flow volume and timing in the central and lower reaches of the Platte River in Nebraska. The action area for the PBO included the Platte River basin upstream of the confluence with the Loup River in Nebraska and the mainstem of the Platte River downstream of the Loup River confluence. Federally listed species affected by depletions in Wyoming of the Platte River are the whooping crane and its critical habitat, the interior least tern, the northern Great Plains population of the piping plover, the pallid sturgeon, and the western prairie fringed orchid. For more information on the PRRIP, visit our website at https://www.fws.gov/platteriver/index.php. Colorado River: A Recovery Implementation Program for Endangered Fish Species in the Upper Colorado River Basin (Recovery Program) was initiated on January 22, 1988. The Recovery Program was intended to be the reasonable and prudent alternative to avoid jeopardy to the endangered fish by depletions from the Upper Colorado River. In order to further define and clarify the process in the Recovery Program, a section 7 agreement was implemented on October 15, 1993, by the Recovery Program participants. Federally listed species affected by depletions in Wyoming of the Colorado River are the humpback chub and its critical habitat, bonytail and its critical habitat, Colorado pikeminnow and its critical habitat, and razorback sucker and its critical habitat. For more information on the Recovery Program, visit the http://www.coloradoriverrecovery.org/ website. The effects of the Project on the federally listed species in both the Platte River and the Colorado River should be analyzed in the NEPA document and the section 7 consultation for this Project.

[1] The term "water-related activities" means activities and aspects of activities that (1) occur in the Platte River basin upstream of the confluence of the Loup River with the Platte River; and (2) may affect Platte River flow quantity or timing, including, but not limited to, water diversion, storage and use activities, and land use activities. Changes in

Enclosure 2:USFWS Wyoming Ecological Services Field Office Comment Tracking Table PDEIS for the Nationwide Public Safety Broadband Network			
Page Number	**Section Number**	**Line Number or Table Number**	**Comment or Text Revision**
18-77	18.1.6.2	Table 18.1.6-1: Relevant Wyoming Biological Resources Laws and Regulations	The table here contains only three relevant statutes, laws, or regulations. These may be specific only to Wyoming, but a reader only interested in Wyoming will question where the national statutes, laws, and regulations are listed. Recommend pointing to a specific table where national or multi-state statutes, laws, and regulations are listed. Also recommend including Title 11, Chapter 5, Section 102.a.xi for the Wyoming Weed and Pest Control Act of 1973; BLM Special Status Species Management Policy 6840; USFS Manual 2670; Wyoming Statutes 23-3-102, 23-3-103, 23-1-101, 23-1-103, 23-1-302, and 23-3-108; and State of Wyoming Executive Order 2015-4.
18-87	18.1.6.4	Reptiles and Amphibians	The Wyoming toad (*Bufo [Anaxyrus] baxteri*) is a federally endangered amphibian that occurs only in the Laramie Basin in Wyoming. Recommend mentioning here or referencing a description of the species in 18.1.6.6
18-88	18.1.6.4	Invasive wildlife species	The text states that, "Species such as gypsy moth, Asian longhorn beetle, and emerald ash borer are of particular concern in Wyoming..." It is not made clear whether these species occur in Wyoming or whether the concern arises from the need to prevent these species from entering the state to "cause irreversible damage to native forests."
18-93	18.1.6.6	Table 18.1.6-3 and Black-footed ferret section	The black-footed ferret does not have Endangered status in Wyoming. On October 30, 2015, the USFWS designated the nonessential experimental area in the State of Wyoming in accordance with section 10(j) of the ESA (80 FR 66821). This acknowledges that the likelihood of identifying wild ferrets in Wyoming, outside of those resulting from reintroductions, is distinctly minimal and that it is unlikely that black-footed ferrets in Wyoming have persisted through drastic reductions of prairie dog complexes even with recent expansions of prairie dog complexes. We encourage project proponents to protect all prairie dog towns or complexes for their value to the prairie ecosystem and the many species that rely on them.
18-93 to 18-95	18.1.6.6	Table 18.1.6-3 and Grizzly bear section	The grizzly bear in the Greater Yellowstone Ecosystem Distinct Population Segment (GYEDPS) is threatened, but is currently under review and proposed for delisting. Outside of the GYEDPS, the grizzly bear will remain threatened.

temperature and sediment transport will be considered impacts of a "water related activity" to the extent that such changes are caused by activities affecting flow quantity or timing. Impacts of "water related activities" do not include those components of land use activities or discharges of pollutants that do not affect flow quantity or timing.

Enclosure 2:USFWS Wyoming Ecological Services Field Office Comment Tracking Table PDEIS for the Nationwide Public Safety Broadband Network			
Page Number	**Section Number**	**Line Number or Table Number**	**Comment or Text Revision**
18-95	18.1.6.6	Northern long-eared bat section	The northern long-eared bat was not listed as endangered in 2013 as the text here states. Instead, it was proposed as endangered with an open comment period. The species was listed in 2015 as threatened with an interim 4(d) rule, which was finalized in January 2016. The 4(d) rule provides flexibility to landowners, land managers, government agencies and others as they conduct activities in areas that may affect the northern long-eared bat. In areas of the northern long-eared bat's range that have not yet been affected by white-nose syndrome (WNS), defined as outside the WNS zone in the final 4(d) rule, such as in Wyoming, incidental take (unintentional harm to bats incidental to otherwise lawful activities) is not prohibited. Even though the final 4(d) rule excepts incidental take, federal agencies still have an obligation to consult on may affect determinations. This obligation may be covered if the federal agency complies with measures outlined in the framework for the USFWS's January 5, 2016, programmatic biological opinion on the final 4(d) rule. In addition, purposeful take, other than for human safety or removal of bats from dwellings, is prohibited. In addition to the three counties in northeastern Wyoming, the northern long-eared bat has been confirmed in the Laramie Peak region of the Medicine Bow National Forest in northeastern Albany County, though the individuals recorded here may not represent a breeding population.
18-99	18.1.6.6	Colorado butterfly plant section	The text states that the Colorado butterfly plant is a perennial flowering plant and that it is approximately 2 feet tall. These are generally true, though the better description of the species is that it is perennial but semelparous (vegetative for one to three years; then bolts, flowers, sets seed, and dies in one year), and that individuals can reach over four feet tall, depending on competition with surrounding vegetation.
18-100	18.1.6.6	Ute ladies'-tresses orchid	The text states that the ULT occurs in 22 counties across the entirety of the state. This is a misinterpretation of the area of influence map found on the species' website (labeled here as USFWS 2015r). We actually have far fewer known occurrences than the map would suggest, but the state has not been extensively surveyed and so we modeled suitable habitat and provided a buffer of those suitable habitats. The area of influence is the area in which the species may occur and projects within which may affect the species.
18-242	18.2.4.2	Table 18.2.4-1: Impact significance rating criteria for water resources	The potential effects from water usage in the Platte River and Colorado River basins should be analyzed here. Water use may include construction (such as concrete batch plants), dust abatement (such as on constructed or utilized access roads), and water use of constructed facilities.
18-280 to 18-287	18.2.6.4	Birds	The USFWS recommends that the suggested practices by the Avian Power Line Interaction Committee be followed to minimize impacts to migratory birds through collision and electrocution (see www.aplic.org for the 2006 electrocution and 2012 collision manuals) for all overhead lines.

Enclosure 2:USFWS Wyoming Ecological Services Field Office Comment Tracking Table PDEIS for the Nationwide Public Safety Broadband Network			
Page Number	**Section Number**	**Line Number or Table Number**	**Comment or Text Revision**
18-290	18.2.6.4	New Wireless Communication Towers	Communication towers are currently estimated to kill between four and five million birds per year. A great deal of the mortality is a result of collisions with supporting guy wires. Additionally, the type of safety lighting on these towers appears to influence their attractiveness to birds. In order to minimize the potential for impacts to migratory birds, the USFWS urges consideration of the following siting and construction recommendations. 1. If possible, new communications equipment should be co-located on an existing tower or similar structure (*e.g.* billboard, water tower, or building mount). Depending on tower load factors, from 6 to 10 providers may co-locate on an existing tower. 2. Where co-location is not feasible and a new tower must be constructed, all efforts should be taken to construct towers no more than 199 feet above ground level (AGL), that do not require guy wires (*e.g.* use a lattice, monopole structure, etc.). Such towers should be unlighted if Federal Aviation Administration (FAA) regulations permit. 3. If constructing multiple towers, providers should consider the cumulative effects of all of those towers to endangered, threatened, proposed, and candidate species and migratory birds as well as the effects of each individual tower. 4. If at all possible, new towers should be sited within existing antenna farms. Avoid siting towers near (within 3 to 5 miles of) wetlands, other known bird concentration areas (*e.g.*, state or Federal refuges, staging areas, rookeries), in known migratory or daily movement flyways, or in habitat of threatened or endangered species. Towers should not be sited in areas with a high incidence of fog, mist, or low ceilings. 5. If taller (greater than 199 feet AGL) towers requiring lights for aviation safety must be constructed, the minimum amount of pilot warning and obstruction avoidance lighting required by the FAA should be used. Unless required by the FAA, only white strobe lights should be used at night, preferably with the minimum number, minimum intensity, and minimum number of flashes per minute (longest duration between flashes) allowable by the FAA. Current research indicates that solid or pulsating (beacon) red lights attract night-migrating birds at a much higher rate than white strobe lights. 6. Towers designed using guy wires for support that are proposed to be located in known raptor or waterbird concentration areas or daily movement routes, or in major diurnal migratory bird movement routes or stopover sites, should have daytime visual markers (*e.g.*, bird diverter devices) on the wires to prevent collisions by these diurnal moving species. For guidance on markers, the Avian Power Line Interaction Committee has published guidance (*Reducing Avian Collisions with Power Lines: The State of the Art in 2012* and *Suggested Practices for Raptor Protection on Power Lines: The State of the Art in 2006*). Copies can be obtained at http://www.aplic.org/.

Enclosure 2:USFWS Wyoming Ecological Services Field Office Comment Tracking Table PDEIS for the Nationwide Public Safety Broadband Network			
Page Number	**Section Number**	**Line Number or Table Number**	**Comment or Text Revision**
18-290	18.2.6.4	New Wireless Communication Towers	(continued from previous page) 7. Towers and attendant facilities should be sited, designed, and constructed to avoid or minimize habitat loss within and adjacent to the tower footprint. Road access and fencing should be minimized to reduce or prevent habitat fragmentation and disturbance, and to reduce above-ground obstacles to birds in flight. 8. If significant numbers of breeding, feeding, or roosting birds are known to occur within the tower construction area, relocation to an alternate site is recommended. If this is not possible, seasonal restrictions on construction may be advisable in order to avoid disturbance during periods of high bird activity. 9. New towers should be designed structurally and electrically to accommodate the applicant/licensee's antennas and comparable antennas for at least two additional users (minimum of 3 users for each tower structure), unless this design would require the addition of lights or guy wires to an otherwise unlighted and/or non-guyed tower. 10. Security lighting for on-ground facilities and equipment should be down-shielded to keep light within the boundaries of the site. 11. USFWS personnel and/or researchers from the Communication Tower Working Group or its designees should be allowed access to the site to evaluate bird use, conduct dead-bird searches, and to conduct various research. 12. Towers no longer in use or determined to be obsolete should be removed within 12 months of cessation of use. Although these measures will provide significant protection for migratory birds, implementation of these measures alone will not remove any liability should violations of the MBTA or the Eagle Act occur. The U.S. Fish and Wildlife Service Division of Law Enforcement and the U.S. Department of Justice have used enforcement and prosecutorial discretion in the past regarding individuals or companies who have made good faith efforts to avoid the take of migratory birds. We acknowledge that you intend to avoid construction during sensitive time periods and within specific spatial buffers for listed species. We recommend that nesting migratory birds also be avoided during the nesting season within species-specific buffers. As a part of the Project, we recommend monitoring of avian use of Project facilities as well as reporting avian mortality events.
18-293 to 18-294	18.2.6.5	Indirect Injury/Mortality to Fisheries and Aquatic Habitats	Water quantity is a significant concern in the arid west, particularly for the Platte River Basin and the Colorado River Basin. See comment above on page 18-61, section 18.1.4.2, Table 18.1.4-1: Relevant Wyoming Water laws and Regulations regarding impacts to the Platte and Colorado River Basins.

Enclosure 2:USFWS Wyoming Ecological Services Field Office Comment Tracking Table PDEIS for the Nationwide Public Safety Broadband Network			
Page Number	**Section Number**	**Line Number or Table Number**	**Comment or Text Revision**
18-301 to 18-302	18.2.6.6	Table 18.2.6-2: Impact Significance Rating Criteria for T&E Species	The breakdown presented here regarding what level of effects will lead to no effect, may affect and not likely to adversely affect, and may affect and likely to adversely affect provides a good basis for the consultation on listed species under section 7 of the ESA.
18-304	18.2.6.6	T&E Plants	The Fremont County rockcress is a federal Candidate species, similar to the Whitebark pine. It should be considered here as well, since it is mentioned on page 18-98 in section 18.1.6.6.
18-305	18.2.6.6	Reproductive effects to T&E Plants	The reproductive success of federally listed plants may be impacted by the Project, particularly through use of insecticides or pesticides as well as dust generated from construction and use of access roads.
19-7 to 19-10	19.4.1	Water Resources BMPs	A spill prevention, control, and countermeasure plan (SPCCP) should be developed for the Project. This would also apply to 19.5.1 (Wetlands), 19.6.3.1 (Fisheries and Aquatic Habitats), 19.6.4.1 (T&E Species), and 19.15.1 (Human Health and Safety).
19-22	19.6.4.1	T&E Species BMPs	Recommend adding a measure about control of fugitive dust generated by the Project's use of unpaved roads and construction. Dust can settle on plants and block their ability to photosynthesize, and can disrupt pollination success.
19-22	19.6.4.1	T&E Species BMPs	Recommend adding a measure on controlling speed limits on access roads, particularly within areas where a federally listed animal may be struck by construction and/or maintenance vehicles.

Enclosure 2: USFS Bloomington Field Office Comment Tracking Table PDEIS for the Nationwide Public Safety Broadband Network –Indiana Portion of Proposed project			
5-98	5.1.6.6	T&E Species	Indiana has 25 federally listed species, four of which have designated critical habitat, and one candidate species. Critical habitat has been designated in Indiana for the following species: the Indiana bat (*Myotis sodalis*), the piping plover (*Charadrius melodus*), the rabbitsfoot (*Quadrula cylindrica cylindrica*), and the Short's bladderpod (*Physaria globosa*). The Eastern massasauga (*Sistrurus catenatus*) is a candidate species found in Indiana that has been proposed as threatened
5-99 and 5-100	5.1.6.6	T&E Species	The gray bat (*Myotis grisescens*) is found in six counties in Indiana, not five as listed in Table 5.1.6-3 and in the gray bat narrative. The six counties are Clark, Crawford, Floyd, Harrison, Perry, and Spencer. The table should also be updated to indicate that critical habitat has been designated for the Indiana bat in Indiana, as is correctly defined in the Indiana bat narrative. The northern long-eared bat was proposed as endangered in 2013 (78 FR 61046-61080, October 2, 2013). The northern long-eared bat was listed as threatened with a 4(d) rule on April 2, 2015 (80FR 17948-18033).
5-102	5.1.6.6	T&E Species	There are two endangered and one threatened bird species in Indiana. The piping plover is federally endangered with critical habitat designated in Porter County, Indiana
5-104	5.1.6.6	T&E Species	The clubshell (*Pleurobema clava*) is found in the Tippecanoe River and Fish Creek in northern Indiana. The fanshell (*Cyrogenia stegaria*) is found in the Wabash, Tippecanoe and East Fork White Rivers in Indiana. The Tippecanoe River in Carroll, Pulaski, Tippecanoe and White Counties has been designated as critical habitat for the rabbitsfoot.

5-311	5.1.6.6	Loss or Degradation of Designated Critical Habitat	A discussion of the designated critical habitat for the Indiana bat and piping plover should be included in the Terrestrial Mammals and Birds sections, respectively (p.5-311).
5-312 to 5-317	5.1.6.6	Alternative	Bloomington Field Office does not agree with the effects determinations for the Preferred Alternative. Any activity that may impact threatened and endangered species and their critical habitat, even if those effects are temporary, infrequent and not conducted in vital or critical locations would not meet a no effect determination. Likewise, any activity that could result in direct injury/mortality, reproductive effects, behavioral changes, and loss/degradation of designated critical habitat for threatened and endangered species would be likely to adversely affect those species.
	19.6.2.2	Project-Type Specific BMPs and Mitigation Measures (p. 16)	Additional information is requested as to what type of bat exclusions would be installed for wired projects, and if these exclusions would be effective for birds also.

-Page Intentionally Left Blank-

Naveen Albert

-Page Intentionally Left Blank-

From: InterLinked CEO
Sent: Friday, December 16, 2016 6:48:49 AM
To: Genevieve Walker
Subject: Comment on FirstNet Draft Environmental Impact Statements

Wired technologies are far more reliable, far more secure, and much faster than wireless technologies. In addition, the electromagnetic radiation emitted by wireless technologies, such as cell phones, cordless phones, smart meters, cell towers, and Wi-Fi, has been declared a Class 2B carcinogen by the World Health Organization. Numerous peer reviewed studies have also found biological health impacts down to very low exposure levels, far below our FCC guidelines which are largely ineffective,

I kindly request that Congress eliminate the provision of wireless broadband from the FirstNet mission
At the very least, delay implementation of the wireless First Responder component until a system is designed that minimizes RF emissions from antennas and communicators

There are numerous cancer studies with findings regarding first respondents,

Please also see this NTP study: http://ehtrust.org/science/facts-national-toxicology-program-cellphone-rat-cancer-study/
Thus, communicators should be able to contact each other directly, not require an outside antenna (certain types of buildings might make communication to an outside antenna impossible anyway), but also be able to utilize it if needed and available. Radiofrequency emissions should not occur continuously, only as needed.
Here are just a few more studies:

The Central Region document is available at the following site:
https://www.regulations.gov/document?D=FIRSTNET-2016-0003-0001

The East Region
https://www.regulations.gov/document?D=FIRSTNET-2016-0002-0001

The South region is available for review and comment at the following link:
https://www.regulations.gov/document?D=FIRSTNET-2016-0005-0001

West Region
https://www.regulations.gov/document?D=FIRSTNET-2016-0004-0001 or
https://www.regulations.gov/docketBrowser?rpp=25&so=DESC&sb=commentDueDate&po=0&D=FIRSTNET-2016-0004

"*The Influence of Being Physically Near to a Cell Phone Transmission Mast on the Incidence of Cancer*"
(http://emrstop.org/index.php?option=com_docman&task=doc_details&gid=4&Itemid=18)
"*Changes of Clinically Important Neurotransmitters under the Influence of Modulated RF Fields- A Long-term Study under Real-life Conditions*"
(http://www.radiationresearch.org/images/RRT_articles/Buchner%20Eger%20Rimbach%20Study%202011%20ENG%20FINAL%20Revised%2029%20July %202011.pdf)
"*How does long term exposure to base stations and mobile phones affect human hormone profiles?*," Eskander et al.
(http://www.sciencedirect.com/science/article/pii/S0009912011027330
)

FirstNet wireless technology is supposed to be LTE 4G - much higher RF levels are emitted by 4G technologies than necessary,

Remember, in a disaster, wireless technologies fail. Please make sure we keep safe, affordable, reliable corded landline telephone service, and abandon initiatives to do otherwise

Do not stand behind FCC regulations. FCC regulations do not protect from "any potential effects," as this letter from Mr. Norbert Hankin from the Center for Science and Risk Assessment, Radiation Protection Division, EPA, regarding the limitations and purpose of the FCC exposure standards notes (http://www.emrpolicy.org/litigation/case_law/docs/noi_epa_response.pdf) This very credible evidence is unmentioned and ignored. Furthermore FCC regulations are poorly enforced. (An issue which is completely ignored in the PEIS.) Rampant violations are documented by the Wall Street Journal and EMR Policy Institute. A detailed investigation by the EMR Policy Institute showed almost no enforcement of existing FCC RF limits and rampant violations (http://www.marketwire.com/press-release/-1770139.htm). A Wall Street Journal investigation (http://online.wsj.com/articles/cellphone-boom-spurs-antenna-safety-worries-1412293055) reports similar findings with one in ten towers out of compliance and experts concerned that out of compliance towers could be transmitting in the thermal range by around the end of 2015.

A fully elucidated mechanism should not be required to take action to protect public health when detrimental effects are found. Serious biological effects are acknowledged and then ignored on page 2-20.

The two mechanisms that are extremely plausible and well-supported in the literature are completely ignored:
Oxidation -

1. Yakymenko, I., Tsybulin, O., Sidorik, E., et al. (2015). Oxidative mechanisms of biological activity of low-intensity radiofrequency radiation. Electromagn Biol Med. Jul;7:1-16. http://www.ncbi.nlm.nih.gov/pubmed/26151230#

Ca 2+ channels

1. Pall, M. (2014). Microwave electromagnetic fields act by activating voltage-gated calcium channels: why the current international safety standards do not predict biological hazard Recent Res Devel Mol Cell Biol 7.
2. Pall, M. L. (2015). Microwave frequency electromagnetic fields (EMFs) produce widespread neuropsychiatric effects including depression. J Chem Neuroanat DOI: 10.1016/j.jchemneu.2015.08.001. http://dx.doi.org/10.1016/j.jchemneu.2015.08.001
3. Pall, M.L. (2016)
4. Electromagnetic Fields Act Similarly in Plants as in Animals: Probably Activation of Calcium Channels via Their Voltage Sensor Current Chemical Biology, 2016, Vol. 10, No. 1.

The PEIS uses outdated documents to excuse inaction.

Contrary to their assertion, FCC limits do not protect against adverse effects, even the DOI noted "**the electromagnetic radiation standards used by the Federal Communications Commission (FCC) continue to be based on thermal heating, a criterion now nearly 30 years out of date and inapplicable today**" (http://www.ntia.doc.gov/files/ntia/us_doi_comments.pdf)

The opening of the FCC docket to re-evaluate limits is acknowledged, but then ignored. The logical step of delaying implementation of the wireless component until that is completed is not even mentioned.

The National Toxicology Program findings are not even mentioned.

Their exposure calculations are based on only one antenna and work out to 477uW/m2, which is over the level shown to cause biological effects (http://emfsafetynetwork.org/wp-content/uploads/2013/08/Biological-Effects-From-RF-Radiation-and-Implications-for-Smart-Meters-June-5-2013-2.pdf see graph at end). Most towers or building antenna sites have more than one antenna radiating in any given direction, plus signals come from other nearby sites, and the ground infrastructure such as cellphones, tablets etc. So levels at ground level are likely to be far higher than that and levels in apartments or homes which get a direct hit from neighboring buildings could be far higher depending on distance.

Several IARC panelists have made public statements that the evidence now shows that radiofrequency radiation should be classified as either a class 2A or class 1 human carcinogen. The recent (ignored) National Toxicology Program findings support this. This should cause the wireless portion to be stopped and FirstNet should explain why to Congress, but no mention is made and therefore no such action is recommended.

They refuse to take action to protect birds in spite of lab and epidemiological evidence that support each other in finding hard because it requires "interpretation and extrapolation."(2-20) Doesn't it always?

They hardly touch on tree damage and totally ignore the following tree and plant studies:

- Radiofrequency radiation injures trees around mobile phone base stations: https://www.researchgate.net/publication/306435017_Radiofrequency_radiation_injures_trees_around_mobile_phone_base_stations
- Adverse Influence of Radio Frequency Background on Trembling Aspen Seedlings: Preliminary Observations https://www.hindawi.com/journals/ijfr/2010/836278/
- Review: Weak radiofrequency radiation exposure from mobile phone radiation on plants: http://www.ncbi.nlm.nih.gov/pubmed/27650031?dopt=Abstract
- Tree damage in the vicinity of mobile phone base stations: http://kompetenzinitiative.net/KIT/wp-content/uploads/2016/06/Tree-damages-in-the-vicinity-of-mobile-phone-base-stations.pdf
- The trees make it easy to recognize the effects of RF-EMF. Examples of tree damage: http://kompetenzinitiative.net/KIT/wp-content/uploads/2016/09/Trees-in-Bamberg-and-Hallstadt-Documentation-2006-2016.pdf
- Pall, M.L. (2016) Electromagnetic Fields Act Similarly in Plants as in Animals: Probably Activation of Calcium Channels via Their Voltage Sensor Current Chemical Biology, 2016, Vol. 10, No. 1. -**IMPORTANT MECHANISTIC DISCUSSION**

On 2-20 the PEIS acknowledges "*A number of other studies generally touch upon the nature of RF exposure and the disruption of biological processes that are fundamental to plant and animal growth and health, including but not limited to behavior, DNA damage, immune deficiencies, reproductive system effects, hormone dysregulation, degraded cognition and sleep, and desynchronization of neural activity (BioInitiative Working Group, 2012) (Balmori, A., 2005),*" **but then no protective action is being taken because** "*The common practice for NEPA documents related to cellular towers is to cite FCC standards and point to the fact that they would be built and operated according to allowable FCC RF emission limits. Some NEPA documents that have more directly addressed the RF emissions potential largely point to the existing literature and suggest that although there is evidence that RF emissions could potentially affect some species, the evidence is insufficient to support a finding of adverse impacts on these species due to RF emissions (Ballistic Missile Defense Organization, 2000) (FCC, 2012).*"

This approach was not allowable by the courts in other situations. Especially since the inadequacy of the FCC RF limits is now acknowledged by both the DOI and the EPA. In addition, numerous studies have added to the knowledge about the hazard that RF poses to human health since both 2000 and 2012, including the NTP study which has found that RF is carcinogenic and breaks DNA.

Please consider the best interests of us and the environment before making a potentially poor choice. DO THE RIGHT THING (hint: it's not hard!)
Naveen Albert

Naveen Albert
CEO, InterLinked Project - www.interlinked.x10host.com
Director, Wireless Action - Your Health, Safety, and Privacy are at stake!
Member, Save Landlines & Stop Smart Meters Coalitions - www.savelandlines.org ; www.stopsmartmeters.org

Cell phones, cordless phones, and Wi-Fi have been linked to cancer and other negative health effects. Learn more, sign petitions, and take the survey at https://wirelessaction.wordpress.com/

"Getting rid of your landline is like getting rid of your refrigerator and using a cooler"

"Getting rid of your landline is like disconnecting from the water utility because they sell bottled water at the store"

This message was sent safely and securely over an Ethernet cable.

Michelle Illiatovitch

-Page Intentionally Left Blank-

From: Michelle Illiatovitch
Sent: Thursday, December 15, 2016 4:12:27 PM
To: Genevieve Walker
Subject: Pending bill regarding RF emissions

Dear Ms. Walker,
I am a 70 year old woman who's health has been compromised by the increasing amount of RF due to wireless implements. M world has become smaller as it is impossible to do many things I would have done such as going to the library, shopping in stores or having a coffee with a friend at a coffee shop to name a few. Not earth shattering you might say, but my world has diminished nonetheless. I also watched the health of my daughter, who is a young woman,26 years, deteriorate dramatically when living in a building with cell phone towers on top. I have read scientific reports about fire fighters contracting brain cancer due to the cell phone towers on their firehall. The studies are numerous and even if for some strange reason you do not find it conclusive, it should be enough to at least give pause,
be cautious and err on the side of safety.

I urge you to consider the science and support better regulations regarding cell use and first responders.

Sincerely,
MIchelle Illiatovitch

-Page Intentionally Left Blank-

Catherine Kleiber

-Page Intentionally Left Blank-

From: Kleiber
Sent: Friday, December 16, 2016 2:26:09 AM
To: Genevieve Walker
Subject: Re: FirstNet PEIS

Dear Ms. Walker,

Thank you for your patience. Please find my comments and supporting documentation attached. Please let me know if you are unable to obtain copies of other references I mention.

Thank you again,

Catherine Kleiber

From: Kleiber
Sent: Saturday, January 28, 2017 4:55 PM
To: Genevieve Walker
Subject: Re: FirstNet PEIS

Dear Ms. Walker,

I did not become aware of the paper*, When theory and observation collide: Can non-ionizing radiation cause cancer?*, until after I sent my comment on the FirstNet PEIS to you. I am sending it now so that you can include the information in the PEIS. It provides further support for my contention that "FirstNet must inform Congress of the health and environmental hazard posed by the RF radiation emission required for wireless broadband and request Congress to eliminate provision of wireless broadband internet from FirstNet's mission." and also my further points that "FirstNet must inform Congress of the health and environmental hazard posed by the RF radiation emission required for wireless broadband and request Congress to eliminate provision of wireless broadband internet from FirstNet's mission." and "FirstNet should request that the NTP quickly undertake and complete toxicology studies comparing the different communication technologies, including, but not necessarily limited to, 3G, 4G, and 5G LTE technologies so that FirstNet can utilize the least toxic least biologically active technology for its first responder's interoperable communication system."

The guideline authored by the **European Academy for Environmental Medicine (***EUROPAEM)*, which I also did not have yet at the time I sent you my comment, provides further support for the above mentioned points. *EUROPAEM EMF Guideline 2016 for the prevention, diagnosis and treatment of EMF-related health problems and illnesses* (https://www.degruyter.com/view/j/reveh.ahead-of-print/reveh-2016-0011/reveh-2016-0011.xml?format=INT) states "*Studies, empirical observations, and patient reports clearly indicate interactions between EMF exposure and health problems.*" They are clear that in treating individuals experiencing health problems related to EMF exposure, including from radiation emitted by wireless technology, that the preferred treatment is to eliminate exposure - "*The primary method of treatment should mainly focus on the prevention or reduction of EMF exposure, that is, reducing or eliminating all sources of high EMF exposure at home and at the workplace.*" The authors reiterate and support the statement by Hedendahl, Carlberg, and Hardell that "*It is time to consider ELF EMF and RF EMF as environmental pollutants that need to be controlled*". They also make it clear that sources of EMF, including radiation from wireless technology, should be minimized in society so that previously injured individuals can fully participate.

Neither the population nor first responders should be exposed involuntarily to radiation from wireless technology since studies have found it to be carcinogenic and biologically harmful.

Thank you for adding this letter and these studies to the commentary on the First Net PEIS.

Sincerely,
Catherine Kleiber

Public Comment - NIDILRR

Catherine Kleiber

Public Listening Session Comment November 18, 2016

My name is Catherine Kleiber. I have radiofrequency sickness, an environmentally-induced functional impairment caused by exposure to radiofrequencies, from either wireless technology or "dirty" electricity. I am addressing you today to highlight the need to again make public places and buildings accessible for people with radiofrequency sickness.

I experience many symptoms, including cardiac arrhythmias, cognitive difficulties, memory problems, headaches, and fatigue when I am around radiation from wireless technology. The presence of wireless internet and wireless devices in public places now prevents me from using the public library or the judicial system, participating in public meetings, going to restaurants, going shopping, and using public transportation. All are things that I used to be able to do without experiencing functional impairment prior to the proliferation of wireless devices. Most importantly, I can no longer safely access medical care due to the ubiquitous presence of wireless technology in hospitals and clinics. I am not alone. Over 300 comments from U.S. citizens pleading with the FCC to establish biologically-based safety limits for radiofrequency radiation to replace the existing outdated thermally-based radiofrequency limits were submitted in their docket to re-evaluate the RF limits.

It is extremely important that people with radiofrequency sickness be able to access hospitals, medical facilities, and government buildings. WiFi and other wireless technology poses a significant, potentially life-threatening, access barrier for people with radiofrequency sickness. Access to medical care is generally considered a human right, a right now being denied those with radiofrequency sickness. Access to public facilities by people with radiofrequency sickness is protected under the 2008 ADA Amendments which specifically protects individuals with environmentally-induced functional impairments. Radiofrequency sickness is a functional impairment induced by radiofrequency exposure, which can cause serious, even life-threatening functional impairment.

A replicated double-blind placebo-controlled study documented that cardiac arrhythmias occur in some people in response to exposure to radiation from cordless phones. This is obviously a potentially life-threatening functional impairment. My children experience cardiac arrhythmia in response to radiation from wireless technology, as do I.

My husband, a type 1 diabetic, finds that his blood sugar elevates markedly in response to radiation from wireless technology. If he tries to compensate by taking additional insulin, as he normally would, his blood sugar plunges dangerously low upon leaving the affected area. He recently had a new and very scary reaction. While at a federal office for an essential appointment, he was forced into close proximity to two functional smart phones and a WiFiing computer. He went into the office feeling fine with a normal blood sugar and came out with a very high blood sugar, a very elevated body temperature of 101 degrees Farenheit, and feeling awful. It took two days for his blood sugar and body temperature to return to normal and about a week to feel well. RF has been shown to cause calcium ion efflux.

Inappropriate calcium efflux is known to cause a condition called malignant hyperthermia which can be fatal and is usually caused by certain anesthetics. Fortunately for him, the reaction stopped accelerating when he came home to our shielded house and then crawled into our shielded bed. It could easily be a fatal reaction for someone who did not realize what was happening.

The presence of wireless radiation at levels which cause functional impairment is making it harder for us to earn our living. We had to quit bringing our pasture-raised meat products to the local farmers markets two years ago since my husband could no longer be at the market without experiencing serious neurological effects suggestive of early ALS that disappeared when he stopped attending market. I have not been able to function well enough cognitively at the market to vend for several years. Being unable to sell at the market has decreased our ability to earn our living.

Obviously, if we cannot tolerate the RF environment outside in the city, working in an office or store in the city with their multiplicity of WiFi routers and high volumes of individual cellphones would not be possible.

Disability claims related to symptoms or syndromes which have been connected to functional impairment by RF (RF Sickness) are rising. People with multiple sclerosis, fibromyalgia, chronic fatigue syndrome, asthma, and diabetes have improved when their RF exposure from wireless technology and "dirty" electricity is minimized. Eliminating RF from public places will improve accessibility and decrease disability.

It is time that national accessibility standards address the very serious access barrier posed by radiofrequency pollution.

Background

Our Experience: Wireless Technology is an Access Barrier

Radiofrequency radiation, such as the radiation given off by wireless devices and their base stations (antennas) can cause an environmentally-induced functional impairment called Radiofrequency sickness (see Dodge http://www.magdahavas.com/wordpress/wp-content/uploads/2010/08/Dodge_1969.pdf).

I have radiofrequency sickness which was originally misdiagnosed as chronic fatigue syndrome. However, once I found out I was being exposed to large amounts of radiofrequencies from electrical pollution, including "dirty" power on my wires and plumbing, and reduced that exposure as much as I was able, I began to recover almost immediately.

Here is a brief summary of symptoms I experienced as a result of the functional impairment caused by radiofrequency exposure from electrical pollution: heart palpitations, very pain sensitive, constant nerve pain, sluggish reactions, poor depth perception, muscle weakness, lactic acid buildup with little exertion, unrefreshing sleep, often wakeful in the night, fatigue, night sweats, poor circulation to my extremities, reflux, difficulty concentrating, difficulty thinking, inability to make decisions, low-grade fever and chills, headaches, and a dry sore throat.

After we reduced our exposure as much as possible, I was well at home for years and able to participate in family gatherings, go to the doctors, and generally participate in society because I could always plug

in filters to minimize the electrical pollution. We had children. When my youngest was about three, our utility began installing transmitting electrical meters in the area. Shortly after that we all began experiencing serious functional impairment, even at home, from the radiofrequency pollution the transmitting electrical meters put on the electrical wiring along with the power line communications frequencies.

Utilities providing basic service (electricity, gas, and water) should not be allowed to use transmitting utility meters. There are many examples of utility companies bullying customers with threats of disconnected service to force them to take transmitting utility meters, including my family. There are many examples of people being disabled by the radiation from transmitting utility meters and even forced from the neighborhood by the radiation from neighbors' utility meters, even when they have been able to have an analog meter on their own home (see FCC docket below for some of them). We still had analog meters and yet, the radiation coming off of our end-of-the-line transformer from all the meters and cell towers caused cardiac arrhythmias in our two young children and for my husband and me.

We slept in a tent well away from the building site while we tried to deal with the utility and PSC. Our younger son's heart rate got so slow one night when we were forced by broken tent poles to sleep at home that he lost bladder control, wetting only his underwear because the volume of urine was so small. When I went to him in response to his call, he was agitated and upset, but his heart rate was very slow and the beats were weak and irregular. This continued for a couple of hours. We did not sleep in the house again after that until the utility company removed the secondary power line from their transformer to our house. It was obvious the situation was too dangerous to be allowed to continue. So, we did the only thing we could do and told the utilities to remove our service and we went off-grid since they refused to even properly investigate the situation, never mind do anything.

After going completely off-grid, we had three heavenly weeks. We slept well, felt well, and had lots of energy. Our pets' health improved. Most importantly, our sons' cardiac rhythms had almost completely normalized.

Unfortunately, the toxic exposure we received has left our whole family extremely sensitized to radiofrequency radiation so when, in early January 2012, 4G cellphone service was installed in our area we began to experience impairment quickly. Within a week, our sons' cardiac rhythms were again highly irregular. Our younger son was again waking us in the night crying and feeling unwell with a highly irregular cardiac rhythm. We have shielded in various ways and keep pulling them back from the brink.

The drastic measures we have taken (e.g. going off-grid, shielding) to reduce their exposure have momentarily stabilized them at about early stage 2 radiofrequency sickness. (See Dodge) We are very concerned that any increase in the radiofrequency radiation levels could again push them over the edge toward stage 3 radiofrequency sickness. They should not be involuntarily exposed to a pollutant that has such profound detrimental effects on them.

We are literally trapped on our farm and in our home as outdoor radiofrequency radiation levels have climbed rapidly over the few years. We have had to restrict the amount of time our outdoors-loving sons can be outside. They are now only able to be out a half an hour at a time a few times a week. If they are out more than that with any regularity their cardiac arrhythmias become severe enough that they become symptomatic. We have difficulty going anywhere due to all the radiation from towers and the WiFi and cellphones present indoors are even worse, often causing symptomatic arrhythmias almost immediately.

Because of the serious effects exposure to radiofrequencies has on my health, we have never owned a cellphone, cordless phones, wireless router, baby monitors, or subscribed to wireless internet.

Our children both experience health problems when exposed to radiofrequencies. They feel sick, become hyperactive, less able to think logically and control their behavior. They also sleep poorly in bad radiofrequency environments. The recent increase in radiofrequency radiation exposure from the transmitting electrical meters and wireless technology has given them chronic cardiac arrhythmias which improve when we can reduce their exposure. We have done this several times only to have ambient levels increase and cause the arrhythmia to return.

We are homeschooling them so they will not be exposed to the dangerous radiofrequency environment in our local public school. The school has both WiFi and high electrical pollution levels. We are unable to bring them to the zoo, museums, most parks, indeed almost anywhere, because of the ubiquitous presence of radiation from wireless technology.

Our social isolation by wireless technology is a total violation of our civil rights. Wireless technology needs to be eliminated from public buildings and public places.

Elimination of Wireless from Public Buildings and Public Places is a Reasonable Accommodation

In consideration of wireless technology's exclusionary effect and the very real threat it poses to public health (see www.bioinitiative.org and http://www.iarc.fr/en/media-centre/pr/2011/pdfs/pr208_E.pdf) and the environment (http://www.moef.nic.in/downloads/public-information/final_mobile_towers_report.pdf), it is reasonable to eliminate radiation from wireless devices from the public arena. Internet access should be provided using publicly available wired connections. In addition, radiofrequency radiation detectors can remind people to turn off wireless devices as they enter public buildings.

My family's on-going nightmare of societal exclusion and serious functional impairment, caused by the presence of biologically active levels of radiofrequencies on the electrical grid and radiofrequency radiation transmitted into the environment through use of wireless technology, is illustrative of why it is essential to establish biologically-based radiofrequency radiation safety limits. The Environmental Protection Agency should be given the authority to do so since the FCC lacks the expertise. In the meantime, eliminating radiation from wireless technology from public places would allow people with radiofrequency sickness to participate in society.

I have maintained the website www.electricalpollution.com since 2002, shortly after I discovered that the radiofrequencies present on building wiring and flowing across the ground from non-linear time varying loads were making me, and others, sick. Research on the health effects of electrical pollution is available on the website on the Research Page. More technical information is available on the Technical Page. Electrical pollution is a very potent form of exposure to radiofrequencies. Exposure to all forms of radiofrequencies, including electrical pollution, must be included in standards regulating exposure of the general public to protect the public health during continuous exposure.

I have read widely on the research into the health effects of exposure to radiofrequencies. There is a growing body of evidence that the increased exposure to radiofrequencies from radiowave and

microwave transmitters and from electrical pollution are behind the public health crisis that has dramatically increased utilization of our medical system for chronic conditions. The article by Halberg and Johansson in *Pathophysiology*[1] supports this contention. The comprehensive review by Dr. Cherry, which documents health effects and explores mechanisms, besides thermal mechanisms, through which microwave and radiowave radiation can impact health, also supports the contention that exposure to microwave and radiowave radiation is a public health threat which is probably contributing to significant public illness. A review of the Soviet literature on radiofrequency sickness by Christopher Dodge[3] of the Naval Observatory discusses radiofrequency sickness in detail. The symptoms attributed to chronic exposure to radiofrequency radiation mirror the deterioration of health being seen in the U.S. in recent years, probably due to the dramatic increase in exposure to radiofrequencies from electrical pollution and wireless technology. Papers by Dr. Milham[4], Dr. Havas[5,6,7] and Dr. Wertheimer[8] also show that exposure to electrical pollution constitutes a public health threat, as does a report by Char Sbraggia regarding health improvements experienced by teachers and students when the electrical pollution in their school was cleaned up (http://www.electricalpollution.com/images/MelMinNurse.jpeg). These are just a few of the papers I have read. However, **they provide a picture which should illustrate how reasonable it is to institute the accommodations necessary to enable people with radiofrequency sickness to participate in community life, utilize public services, and enter public buildings.**

1. Ö. Hallberg, O. Johansson, Apparent decreases in Swedish public health indicators after1997—Are they due to improved diagnostics or to environmental factors? Pathophysiology(2009)
2. Cherry, N. 2000 Criticism of the Health Assessment in the ICNIRP Guidelines for Radiofrequency and Microwave Radiation (100 kHz- 300 GHz)
3. Dodge C. Clinical and Hygienic Aspects of Exposure to Electromagnetic Fields. Biological Effects and Health Implications of Microwave Radiation, Symposium Proceedings, Richmond, Virginia, September 17-19, 1969.
4. Milham S, Morgan L. 2008 A New Electromagnetic Exposure Metric: High Frequency Voltage Transients Associated With Increased Cancer Incidence in Teachers in a California School. American Journal of Industrial Medicine.
5. Havas M, Olstad A. 2008. Power quality affects teacher wellbeing and student behavior in three Minnesota Schools, Science of the Total Environment, July.
6. Havas M. 2006. Electromagnetic hypersensitivity: biological effects of dirty electricity with emphasis on diabetes and multiple sclerosis. Electromagnetic Biology Medicine 25(4):259-68.
7. Havas M. 2008. Dirty Electricity Elevates Blood Sugar Among Electrically Sensitive Diabetics and May Explain Brittle Diabetes. Electromagnetic Biology and Medicine, 27:135-146.
8. Wertheimer N, Savitz DA, Leeper E. 1995 Childhood Cancer in Relation to Indicators of Magnetic Fields from Ground Current Sources Bioelectromagnetics 16: 86-96.

Accommodations for people with radiofrequency sickness are really common sense and societally beneficial because radiofrequency radiation poses a serious threat to the public health.

"Public safety standards are 1,000 – 10,000 or more times higher than levels now commonly reported in mobile phone base station studies to cause bioeffects."(http://www.bioinitiative.org/conclusions/)

Accommodations necessary for people with radiofrequency sickness

Provision of Basic Services:
Utilites - water, gas, electric
People with radiofrequency sickness are being forced to choose between forced to experience serious environmentally-induced functional impairment in order to access utility services. NIDILRR needs to

put the PSC/PUCs on notice that it is their job to force utility companies to comply with the 2008 ADA Amendments which require accommodation of people with environmentally-induced functional impairment. At this time, many utilities and PSC/PUCs are flatly refusing to provide any accommodation, never mind the important accommodation of metering utility service with an analog mechanical meter which used to be standard operating procedure until recently. Many utilities are pretending these meters are no longer available. They are.

Telephone

Telephone companies must be required to provide RF interference-free copperwire telephone service to people with RF sickness. Most people with RF sickness cannot use cellphones. Cable phones and fiber optic phones can come with electronics that emit biologically significant RFI (RF interference - which can be Incidental or Unintentional, but is still biologically active) and are intolerable to some people with RF sickness. Phone companies need to provide RF filters and DSL filters to people with RF sickness without a hassle. Experience has shown that RF cross-contamination between lines (DSL to non-DSL lines) and between lines and electrical grid RF can be biologically significant so all lines should be equipped with filters. (From a public health perspective, it would be best if these were provided to all customers as a matter of course. All people experience biological effects from RF exposure, but many are either still compensating well enough they are not symptomatic or they simply do not make the connection between exposure and symptoms.)

Transportation

Most people with RF sickness are unable to use public transportation due to the presence of wireless radiation. Therefore, it is of paramount importance that people with RF sickness have access to stripped-down low RF automobiles. These would be the safest automobiles for everyone, but they are essential for those with RF sickness to retain independent mobility. For more details, please read my attached comment related to cars which was submitted into the TECHNOLOGICAL ADVISORY COUNCIL (TAC) NOISE FLOOR TECHNICAL INQUIRY (ET Docket No. 16-191).

Regulatory

The FCC Noise Rules urgently need to be updated to prevent new electrical devices, lighting, etc. from being sold and used in the public arena that block access by people with radiofrequency sickness. The existing FCC Noise Rules are solely designed to prevent technological interference. They need to be revised to prevent new electrical devices from being access barriers or from causing a public health threat. For more details, please read my attached comment about the need to update the noise limits which was submitted into the TECHNOLOGICAL ADVISORY COUNCIL (TAC) NOISE FLOOR TECHNICAL INQUIRY (ET Docket No. 16-191).

Below is a list of accommodations necessary to allow people with radiofrequency sickness to once again participate fully in public and community life. It is divided into two categories - one for transmitted radiofrequency radiation and one for radiofrequency exposure from “dirty” electricity.

Transmitted radiofrequency radiation accommodations:

- Adopt Salzburg, Austria radiofrequency radiation safety limits until biologically-based population-protective RF safety limits can be established (1microW/m2 inside and 10microW/m2 outside - lowered as necessary to prevent biological effects because our experience shows that levels should be below 3microW/m2).
- Eliminate wireless internet service from public places (including transportation).
- Transmitters on wireless devices turned off in public places - detectors should be installed at entrances to remind people.
- Hospitals only use wired internet, wired in-building networks, and wired devices within the hospital. This would also protect privacy and security.

- Cell and broadband antennas situated at a distance from hospitals and residential areas such that Salzburg radiation limits of 1microW/m2 not exceeded inside the hospital or homes.
- Medical clinics use only wired in-office network and internet service and devices.

"Dirty" electricity radiofrequency accommodations:

- Kazakstan "dirty" power standard adopted globally - maximum of 50 G/S units on Stetzerizer meter on building wiring. (www.stetzerelectric.com)
- Daylighting should be encouraged. All new lighting installations must be low radiofrequency lighting e.g. properly engineered lighting with very low or no emission of Incidental or Unintentional RF. LED lights can be engineered to this standard, but many are not at this time and therefore emit high amounts of RF. (Additional benefits - LEDs are more energy efficient than fluorescent lighting and do not emit UV thereby allowing greater access for people with lupus.)
- Use of tiered lighting instead of dimmer switches (also saves energy).

See the Solutions page at www.electricalpollution.com for a more comprehensive list of steps to minimize RF exposure.

Supplementary Information

Please visit (http://apps.fcc.gov/ecfs/comment_search/input?z=iw0f and search proceedings 03-137 and 12-357) to see the **over 300 comments from U.S. citizens pleading with the FCC to establish biologically-based safety limits for radiofrequency radiation** to replace the existing outdated thermally-based radiofrequency limits.

The 1500-page BioInitiative Report on RF/MW health effects was published in 2012. The authors are 29 scientists from ten countries. They reviewed thousands of studies showing interference with chemical processes in the body, implicating RF/MW in a whole spectrum of alarming effects including genetic damage, cancer, immune dysfunction, neurological injury, and infertility. The report can be found at www.bioinitiative.org. For people with radiofrequency sickness, these effects can be immediate and serious.

Cardiac arrhythmias can be caused by wireless technology. Recent replicated double blind studies show that a cordless phone base station operating at WiFi frequencies can cause cardiac arrhythmias in susceptible individuals. This short video discusses the cardiac effect that wireless can have- http://www.youtube.com/watch?v=_EI9fZX4iww. View this video http://www.youtube.com/watch?v=sv1E9IXUd6M to see further discussion. You can read the studies at http:// www.magdahavas.com/wordpress/wp-content/uploads/2012/01/Havas-HRV-Ramazzini.pdf and http:// www.ncbi.nlm.nih.gov/pubmed/23675629#. Obviously, for susceptible people (like those of us with radiofrequency sickness), WiFi can make whole buildings inaccessible and unsafe. A recent study in rabbits found that not only did WiFi change heart function parameters, but it dramatically changed the cardiac effects of both dopamine and epinephrine: Saili L, et al. *Effects of acute exposure to WIFI signals (2.45 GHz) on heart variability and blood pressure in Albinos rabbit*. Environmental Toxicology and Pharmacology 40 (2015) 600–605. This should be of great concern since WiFi has become ubiquitous in medical settings and may compromise the effectiveness of essential medical interventions, especially for people with radiofrequency sickness. **Medical care is considered to be a basic human right, but people with radiofrequency sickness can no longer access it without potentially endangering their lives or at least experiencing severe functional impairment.**

Causal connections between radiofrequency exposure and biological functional impairment. More recent papers look specifically at causality such as Pall ML *Microwave frequency electromagnetic fields (EMFs) produce widespread neuropsychiatric effects including depression*. J Chem Neuroanat. 2015 Aug 20. (http://www.sciencedirect.com/science/article/pii/S0891061815000599). It discusses the causal relationship between exposure to radiation from wireless technology and neuropsychiatric effects. Mechanisms of action are also discussed. Yakymenko et al discuss the fact that RF radiation is documented in numerous studies to cause oxidative damage and discusses mechanisms for bioeffects (*Low intensity radiofrequency radiation: a new oxidant for living cells* in Oxid Antioxid Med Sci 2014; 3(1):1-3) (http://www.sciencedirect.com/science/article/pii/S1382668915300594).

This case report documents the serious neurological functional impairment that exposure to radiation from wireless technology can cause. Johansson O and Redmayne M *Exacerbation of demyelinating syndrome after exposure to wireless modem with public hotspot* Electromagnetic Biolology and Medicine (http://dx.doi.org/10.3109/15368378.2015.1107839)**.**

The International Commission on Non-Ionizing Radiation Protection (ICNIRP) sets radiofrequency (RF) exposure limits for Europe that are similar to what the IEEE sets for the U.S. According to ICNIRP, FCC guidelines would not be protective for individuals with sensitivities/ impairments from low exposures of RF/MW. It is a scientific fact that even small amounts of these environmental exposures are harmful to some. ICNIRP stated the following: "*Different groups in a population may have differences in their ability to tolerate a particular NIR (non-ionizing radiation) exposure. For example, children, the elderly, and some chronically ill people might have a lower tolerance for one or more forms of NIR exposure than the rest of the population. Under such circumstances, it may be useful or necessary to develop separate guideline levels for different groups within the general population, but it may be more effective to adjust the guidelines for the general population to include such groups. Some guidelines may still not provide adequate protection for certain sensitive individuals nor for normal individuals exposed concomitantly to other agents, which may exacerbate the effect of the NIR exposure, an example being individuals with photosensitivity.*" from ICNIRP STATEMENT, GENERAL APPROACH TO PROTECTION AGAINST NON-IONIZING RADIATION PROTECTION, (HEALTH PHYSICS 82(4):540-548; 2002) (https://www.icnirp.org/documents/philosophy.pdf)

In light if this statement and all the other evidence, it is time that accessibility guidelines for hospitals, medical facilities, and other essential government buildings prohibit the presence of facility provided WiFi and other wireless transmissions within the facility. Medical records, electronic data, and the internet can be accessed perfectly well (and far more securely) using dedicated communication cables. Our doctors office has used electronic records for years which they accessed using direct cabled connections which they plugged their laptop into upon entering the office.

The Threat to Public Health Posed by Wireless Technology Makes Elimination of Wireless from Public Buildings, Hospitals, Medical Facilities, Schools, and Public Places a Very Reasonable Accommodation

The following links are of interest in spite of the fact that they relate to public health since they help with understanding that the accommodations needed for people with radiofrequency sickness are actually beneficial for public health. Wireless technology not only restricts accessibility for people with radiofrequency sickness, it jeopardizes public health.

U.S. National Toxicology Program (NTP) recently released findings that the radiation utilized by wireless technology is carcinogenic and breaks DNA. A replicated European study found that wireless radiation is also a cancer growth promoter. This excellent article by the Environmental Health Trust (http://ehtrust.org/science/facts-national-toxicology-program-cellphone-rat-cancer-study/) provides a good overview of the carcinogenicity findings.

International Scientists Appeal to U.N. to Protect Humans and Wildlife from Electromagnetic Fields and Wireless Technology (http://www.EMFscientist.org) "Today 190 scientists from 39 nations submitted an appeal to the United Nations, UN member states and the World Health Organization (WHO) requesting they adopt more protective exposure guidelines for electromagnetic fields (EMF) and wireless technology in the face of increasing evidence of risk. These exposures are a rapidly growing form of environmental pollution worldwide."

Captured Agency: How the Federal Communications Commission Is Dominated by the Industries It Presumably Regulates by Norm Alster. (http://ethics.harvard.edu/files/center-for-ethics/files/capturedagency_alster.pdf) A damning report reinforcing the contention of the International Scientist Appeal to the U.N. that regulatory agencies and standard-setting boards are not listening to researchers - read why this is happening in the U.S.

FCC Not Enforcing Existing Inadequate Radiofrequency Limits A detailed investigation by the EMR Policy Institute showed almost no enforcement of existing FCC RF limits and rampant violations (http://www.marketwire.com/press-release/-1770139.htm). A Wall Street Journal investigation (http://online.wsj.com/articles/cellphone-boom-spurs-antenna-safety-worries-1412293055) reports similar findings with one in ten towers out of compliance and experts concerned that out of compliance towers could be transmitting in the thermal range by around the end of 2015.

The International Agency for Research on Cancer (IARC), a committee of the World Health Organization, has classified RF radiation, including that emitted by wireless technology, as a class 2B carcinogen. http://www.iarc.fr/en/media-centre/pr/2011/pdfs/pr208_E.pdf.

"Electromagnetic Radiation, Health and Children 2014" by Dr. Erica Mallery-Blythe (https://www.youtube.com/watch?v=sNFdZVeXw7M) is a must-watch presentation about the hazard that RF radiation emitted by wireless technology poses to children. Dr. Mallery-Blythe does an excellent job of presenting the information in an interesting, coherent, and accessible way, but with enough detail to justify immediate action to minimize children's exposure to radiation from wireless technology.

Department of Interior: **"the electromagnetic radiation standards used by the Federal Communications Commission (FCC) continue to be based on thermal heating, a criterion now nearly 30 years out of date and inapplicable today."** (http://www.ntia.doc.gov/files/ntia/us_doi_comments.pdf)

RF radiation disrupts the endocrine system:

- Klaus Buchner and Horst Eger. Changes of Clinically Important Neurotransmitters under the Influence of Modulated RF Fields A Long-term Study under Real-life Conditions. Original study in German: BUCHNER K, EGER H (2011) Umwelt-Medizin-Gesellschaft 24(1): 44-57. http://www.radiationresearch.org/images/RRT_articles/Buchner%20Eger%20Rimbach%20Study%202011%20ENG%20FINAL%20Revised%2029%20July%202011.pdf

- Eskander EF, Estefan SF, Abd-Rabou AA. How does long term exposure to base stations and mobile phones affect human hormone profiles? Clinical Biochemistry 45 (2012) 157–161

RF radiation alters heart electrical activities and causes ventricular enlargement in rats. Additionally, "The histopathological examination revealed hypertrophy, fragmentation and vacuolation of the myocardium, which were directly proportional to the exposure time." Fatma A. Mohamed, Azza A. Ahmed, Bataa M.A. El- Kafoury, & Noha N. Lasheen. **Study Of The Cardiovascular Effects Of Exposure To Electromagnetic Field**. Life Science Journal. 2011;8(1):260-274. These findings have enormous implications for cardiac health in a chronically RF exposed population.

Catherine Kleiber

December 15, 2016

Dear Ms. Walker,

Thank you for your attention to my comments. My main interest in critiquing the FirstNet PEIS documents is making sure that the environmental and health effects of the radiofrequency (RF) radiation that the wireless component of FirstNet will emit are appropriately factored into decisions about how to implement FirstNet. I address the serious deficiencies below. (Page numbers listed originate from Volume 1 Chapter 2 Draft Programatic Environmental Impact Statement for the Central United States, but the critique should be broadly applicable to the RF radiation section for all four regions.)

There were seriously inaccurate statements made about the safety level assured by existing FCC RF radiation limits:

p. 2-10 "For 20 years, the regulatory levels for human exposure to RF emissions have been established by the FCC as a means of protecting both workers and the general public from any potential effects."
p. 2-12 "These limits are based on thermal effects (i.e., the amount of RF energy required to heat tissue). According to the FCC, the established limits are well below levels that are considered to have adverse health effects."

Other government officials dispute claims such as these that FCC RF radiation limits provide sufficient population-based protection from harm during continuous exposures. The Department of Interior (DOI) said "**the electromagnetic radiation standards used by the Federal Communications Commission (FCC) continue to be based on thermal heating, a criterion now nearly 30 years out of date and inapplicable today**" (http://www.ntia.doc.gov/files/ntia/us_doi_comments.pdf), clearly indicating that they do not consider FCC RF radiation limits to be "protecting both workers and the general public from any potential effects" as the PEIS states.

Mr. Norbert Hankin from the Center for Science and Risk Assessment, Radiation Protection Division, EPA, makes it clear in his correspondence with the EMR Policy Institute that "The FCC's current exposure guidelines, as well as those of the Institute of Electrical and Electronics Engineers (IEEE) and the International Commission on Non-ionizing Radiation Protection, **are thermally based, and do not apply to chronic, nonthermal exposure situations**. They are believed to protect against injury that may be caused by acute exposures that result in tissue heating or electric shock and burn. The hazard level (for frequencies generally at or greater than 3 MHz) is based on a specific absorption dose-rate, SAR, associated with an effect that results from an increase in body temperature. The FCC's exposure guideline **is considered protective of effects arising from a thermal mechanism but not from all possible mechanisms.** Therefore, the generalization by many that the guidelines protect human beings from harm by any or all mechanisms is not justified." (emphasis added) (http://www.emrpolicy.org/litigation/case_law/docs/noi_epa_response.pdf) This very credible evidence is unmentioned and ignored.

As Mr. Hankin makes plain above, the FCC RF radiation limits are not protective from all adverse effects only those from thermal mechanisms during acute exposures, so the second sentence of the quote

from the PEIS (p 2-12), and copied above, is an implicit lie. Whether this is intentional or inadvertent, it should be corrected. FCC RF radiation limits are based on thermal effects in a large male. They are not population-protective. They do not and were never intended to protect from biological effects or even thermal effects during the chronic exposures we all experience today and which FirstNet would increase.

Even ICNIRP acknowledges the need to adjust their RF radiation guidelines (referred to here as NIR): "*Different groups in a population may have differences in their ability to tolerate a particular NIR (non-ionizing radiation) exposure. For example, children, the elderly, and some chronically ill people might have a lower tolerance for one or more forms of NIR exposure than the rest of the population. Under such circumstances, it may be useful or necessary to develop separate guideline levels for different groups within the general population, but it may be more effective to adjust the guidelines for the general population to include such groups. Some guidelines may still not provide adequate protection for certain sensitive individuals nor for normal individuals exposed concomitantly to other agents, which may exacerbate the effect of the NIR exposure, an example being individuals with photosensitivity.*" from ICNIRP STATEMENT, GENERAL APPROACH TO PROTECTION AGAINST NON-IONIZING RADIATION PROTECTION, (HEALTH PHYSICS 82(4):540-548; 2002) https://www.icnirp.org/documents/philosophy.pdf

After the release of the U.S. National Toxicology Program (NTP) findings showing that non-thermal RF radiation exposures cause DNA breakage and cancer, the Institute for Electrical and Electronics Engineers (IEEE) posted an article with comments from Kenneth Foster of the IEEE committee that reviews RF radiation exposure limits:

> *With the NTP study results, Foster expects more governments to put out cautionary guidelines and radiation labeling for cellphones. He says he wouldn't be surprised if California adds RF radiation to its Proposition 65 list of carcinogenic chemicals, and if the IARC ups its classification rating from 2B: possibly carcinogenic to humans to 2A: probably carcinogenic to humans. "And they wouldn't be out of line in doing that," he says. "This is going to change the rhetoric in the field. People can point to much more hard evidence that [cellphone RF exposure] really is a problem."* (http://spectrum.ieee.org/the-human-os/biomedical/ethics/cellphone-radiation-causes-cancer-in-rats)

Th omission of the U.S. NTP findings from the PEIS RF radiation section is a very serious one and should be remedied. FirstNet cannot argue the U.S. National Toxicology Program is not a sufficiently reputable.

P. 2-18 "However, the BWG [BioInitiative Working Group] itself has been criticized by other scientific, professional, and governmental bodies for ignoring conflicting, inconsistent, or other credible evidence that clashed with its report (e.g., (Dolan, M. and J. Rowley, 2009))." The BioInitiative Working Group, a group of researchers and public health experts, are criticized in this quote with attribution to a paper written by representatives of telecom industry interest groups. This is analogous to dismissing the body of research on the health effects of tobacco, asbestos, or lead paint due to a critique by industry representatives. This was done for years and we have now seen what a mistake it was to allow it. Hundreds of thousands of people lost their lives due to the regulatory delays that resulted from allowing industry to dismiss research critical of it. This article is not different. If its opinions warrant inclusion in the PEIS at all, they should be clearly attributed as representing the telecom industry. This was definitely not done.

On p. 2-12, studies are cited as finding that even with roof-top antennas, measurements inside those buildings are low compared to FCC limits, scant comfort since we already established that the government knows that the FCC limits are "...**now nearly 30 years out of date and inapplicable today."**

Discussion about findings of widespread violations of FCC limits are omitted from the discussion, but are highly relevant and should be included. A detailed investigation by the EMR Policy Institute showed almost no enforcement of existing FCC RF radiation limits and rampant violations (http://www.marketwire.com/press-release/-1770139.htm). A Wall Street Journal investigation (http://online.wsj.com/articles/cellphone-boom-spurs-antenna-safety-worries-1412293055) reports similar findings with one in ten towers out of compliance and experts concerned that out of compliance towers could be transmitting in the thermal range by around the end of 2015.

The fact that the FCC is incredibly lax, even negligent, in taking regulatory action even when violations are reported, never mind going out and conducting unannounced spot inspections, should be of great concern and should be a factor considered in the PEIS.

Additionally, these studies are old and date to a time when few people used wireless in many areas and there were many fewer antennas. One major failing of the FCC limits that merits discussion in the PEIS is the fact that they govern each antenna separately. Collocations result in much higher RF radiation levels around the site because each antenna still broadcasts at the same level as if there were no collocation. Transmission from other antenna sites and mobile devices further increase ambient exposure levels. This must be discussed in the PEIS as an environmental impact since the purpose of the broadband provision portion of FirstNet's mission mentioned on p. 2-8 is to encourage the use of wireless technology which will in turn increase the ambient RF radiation levels from both devices and base station antennas. In the example on p. 2-14, each antenna produces a field of 477$\mu W/m^2$ at ground level, but collocation of 4 such arrays (which is not uncommon) would result in 1,908 $\mu W/m^2$ at ground level. This is still below the FCC RF radiation limits, but which we established above are outdated and meaningless according to the DOI and not protective in chronic exposure situations according to the EPA. Even 477$\mu W/m^2$ exceeds levels shown in studies to cause biological effects, specifically negative effects related to sleep, stress, immune function, brain cancer, breakage of the blood-brain barrier, other cancers, reproduction, and oxidative damage. A ground level of 1,908 $\mu W/m^2$ exceeds levels shown in studies to cause heart effects and calcium metabolic effects (http://emfsafetynetwork.org/wp-content/uploads/2013/08/Biological-Effects-From-RF-Radiation-and-Implications-for-Smart-Meters-June-5-2013-2.pdf). Thus, surrounding areas will certainly be exposed to high enough RF radiation levels on the ground to cause serious biological effects. RF radiation levels in portions of neighboring buildings elevated above ground level are likely to be even higher.

On p. 2-11, there is a list of "Some of the major problems with demonstrating cause and effect for RF" which seem to be cited as excusing FirstNet from an obligation to take action to protect the public and the environment. Each point is addressed below.

"*No consistent measures of exposure. Exposure is changing with the proliferation of cell phone use, and there is no real unexposed or "control" population (Ahlbom et al., 2004) (Khurana et al., 2010)*"

While the absence of a control population cannot be used to justify inaction, it does support the high level of urgency to making sure that public health policy and regulations related to RF radiation exposure are sufficiently protective since **everyone is exposed**. Exact continuity of exposure

measurement is not necessary between studies as long as care has been used within each study to be consistent. Studies show that RF radiation has very serious biological effects at levels far below existing FCC RF radiation limits. Below are some examples of serious clinically important biological effects resulting from real-life RF radiation exposures:

Cardiac arrhythmias can be caused by wireless technology. Recent replicated double blind studies show that a cordless phone base station operating at WiFi frequencies can cause cardiac arrhythmias in susceptible individuals. This short video discusses the cardiac effect that wireless can have- http://www.youtube.com/watch?v=_EI9fZX4iww. View this video http://www.youtube.com/watch?v=sv1E9IXUd6M to see further discussion. You can read the studies at http:// www.magdahavas.com/wordpress/wp-content/uploads/2012/01/Havas-HRV-Ramazzini.pdf and http:// www.ncbi.nlm.nih.gov/pubmed/23675629#. Obviously, for susceptible people (like those of us with radiofrequency sickness), WiFi can make whole buildings inaccessible and unsafe. A recent study in rabbits found that not only did WiFi change heart function parameters, but it dramatically changed the cardiac effects of both dopamine and epinephrine: Saili L, et al. *Effects of acute exposure to WIFI signals (2.45 GHz) on heart variability and blood pressure in Albinos rabbit*. Environmental Toxicology and Pharmacology 40 (2015) 600–605. A mouse cardiac study showed that mice exposed to RF radiation from a cellphone had significantly lower vitamin D levels, low calcium, low antioxidant capacity, low cardiac tissue MDA and elevated renin levels compared to controls. They also had enlarged left ventricles and ECG abnormalities (Fatma 2011). Both these cardiac effects are pre-disposing factors toward cardiac arrest. Obviously, these serious cardiac effects caused by RF radiation exposures from consumer devices ought to be discussed in the PEIS, since FirstNet will be promoting their use and emitting radiation levels from its antennas comparable to these exposures.

Cancer levels around antennas are elevated and FirstNet will either be elevating already heightened risks by adding collocation antennas, increasing emissions of existing antennas by increasing use, or putting up new towers and increasing cancer risk in those around them. This should be discussed in the PEIS. "*The Influence of Being Physically Near to a Cell Phone Transmission Mast on the Incidence of Cancer*" (http://emrstop.org/index.php?option=com_docman&task=doc_details&gid=4&Itemid=18) found significant increases in cancer risk at RF radiation levels below FCC RF radiation limits. Other studies have as well. These merit serious consideration in the FirstNet PEIS and should not be omitted. Anything that will increase cancer risk for a large segment of the population should be considered very carefully. A review by Dr. Cherry (2000). Criticism of the Health Assessment in the ICNIRP Guidelines for Radiofrequency and Microwave Radiation (100 kHz- 300 GHz) www.electricalpollution.com/documents/Cherry2000EMR_ICNIRP_critique_09-02.pdf discusses common errors in understanding about RF radiation exposures and studies and is, as its title states a criticism of ICNIRP.

Radiofrequency radiation exposure causes important endocrine changes. "*Changes of Clinically Important Neurotransmitters under the Influence of Modulated RF Fields- A Long-term Study under Real-life Conditions*" (http://www.radiationresearch.org/images/RRT_articles/Buchner%20Eger%20Rimbach%20Study%202011%20ENG%20FINAL%20Revised%2029%20July%202011.pdf) is an important study documenting hormonal changes in residents before installation of a cellphone antenna and for a year and a half afterward. They found initial hormone level increases consistent with a stress response to RF radiation exposure levels as low as 60μW/m^2. Initially adrenaline and noradrenaline increased and dopamine and phenylethylamine (PEA) levels decreased. While adrenaline and noradrenaline did decrease, dopamine and PEA levels never returned to pre-base station levels, remaining substantially lower during the year and a half of the study. According to the authors "This is of considerable clinical relevance because psychiatric symptoms also exhibit altered PEA levels. In

Rimbach, the increase in sleep problems, cephalgia, vertigo, concentration problems, and allergies could be clinically documented after the cell phone base station had been activated. The newly developed symptoms can be explained clinically with the help of disturbances in the humoral stress axis." These long-term debilitating effects of cell towers must be mentioned in the PEIS and weighed in the decision making about how to move forward with FirstNet.

"*How does long term exposure to base stations and mobile phones affect human hormone profiles?*," Eskander et al. (http://www.sciencedirect.com/science/article/pii/S0009912011027330) is a very important study which documented hormonal changes occurring over time with chronic exposures to base station antennas or cell phones. It is extremely important that ACTH, cortisol, and T4 were significantly reduced in exposed individuals compared to controls. So were testosterone, progesterone, and prolactin. These effects became more pronounced over time. Endocrine disruption is extremely important clinically and should be considered as an extremely negative effect of the planned wireless portion of FirstNet. It should not be omitted from the FirstNet PEIS.

"*No scientifically agreed upon biological mechanism for harm. The lack of a clear biological mechanism increases uncertainty into whether the health end point that the study examined is the correct endpoint to try and measure (Hauri et al., 2014) (Ahlbom et al., 2004)*"

Agreed upon by whom? The telecom industry? There are two mechanisms by which RF radiation produces biological effects that are currently well-supported by research literature.

One is oxidation caused by RF radiation exposure (http://www.ncbi.nlm.nih.gov/pubmed/26151230)**.** Oxidation can occur even with non-ionizing radiation exposure. At least 93 studies have now found that RF radiation has oxidative effects. Oxidation has important biological effects. Yakymenko states "In addition, ROS at relatively low concentrations can modulate inflammation via activation of NF-kB pathway (Hayden and Ghosh, 2011). Therefore, even subtle exposures to RFR with generation of hardly detectable quantities of free radicals can have their meaningful biological consequences." This is because "free radicals/ROS are an intrinsic part of the cellular signaling cascades." Increasing population-wide exposure to an unavoidable oxidant will have profound effects on public health and the environment and should be discussed and weighed appropriately in the FirstNet PEIS.

The second is the ability of non-thermal levels of RF radiation to cause voltage-gated Ca^{2+} ion channels to open inappropriately. This can have profound and detrimental biological effects because Ca^{2+} is utilized in many cellular and intercellular systems as a messenger, meaning that when the voltage-gated Ca^{2+} ion channel opens inappropriately it sets off a cascade that affects metabolic activities within the cell or body.

Not only is Ca^{2+} efflux well-documented in the literature, but a reasonable mechanistic explanation for how very low RF radiation levels can cause voltage-gated Ca^{2+} channels to open is elucidated by Dr. Martin Pall in *Electromagnetic Fields Act Similarly in Plants as in Animals: Probably Activation of Calcium Channels via Their Voltage Sensor, Current Chemical Biology*, 2016, Vol. 10, No. 1., as follows:

"*The voltage sensor opens the ion channel due to the action of changes in the electrical force across the plasma membrane acting directly on these 20 voltage sensor charges [8]. The structure of the VGCC voltage sensor is discussed in more detail in the Discussion section below. It is plausible, therefore, that*

the electrical forces of these low intensity EMFs act through their electrical effects on the voltage sensor to activate the VGCCs. It is predicted that the forces on the 20 charges in the VGCC voltage sensor are highly amplified because of two important factors [2]. The law of physics called Coulomb's law predicts that forces on charged groups are inversely proportional to the dielectric constant of the medium in which the charges occur. Because the dielectric constant of the aqueous phases in the cell or extra-cellular medium are about 120 times higher than the dielectric constant of the lipid bilayer [2], this predicts that forces on the each of the 20 charges of the voltage sensor are about 120 times higher than are electrical forces on singly charged groups in the aqueous phases. In addition, Sheppard et al. [10], predicted that the electrical forces produced by EMFs across the plasma membrane are amplified about 3000-fold compared with the forces in the aqueous phases because of the high electrical resistance of the plasma membrane. It follows from this, that the forces on the voltage sensor are estimated to be vastly increased as compared with forces on aqueous phase single charges, where most if not all charged groups occur:

20(# of charges in voltage sensor) X 120 (from the dielectric constant) X 3000 (amplification at the plasma membrane) = 7.2 million

Because of this, the electrical forces placed on the voltage sensor by these EMFs is calculated to be approximately 7.2 million times higher than are the forces placed on singly charged groups located elsewhere in the cell because these singly charged groups are predominantly in the aqueous phase [2]. It is highly plausible, therefore, that this extraordinary sensitivity of the voltage sensor to such weak electrical effects is the final answer to this long puzzle of how such low intensity EMFs can produce biological effects in many animals, including humans."

This important mechanism explains many of the biological effects RF radiation can have at levels far below the outdated FCC RF radiation limits and far below the levels that FirstNet would emit. Obviously this should be discussed in the PEIS and provides reasons for modifying the execution of FirstNet.

"*Some potential effects of major concern are rare, such as brain cancer and acoustic neuroma, both of which have been potentially linked to RF exposure. If the health outcome is rare, it is even harder to demonstrate cause and effect (Ahlbom et al., 2004)*."

Even rare effects are significant when the whole population is being exposed to the causal agent. The early study cited here likely contain gross underestimates of the effect of RF radiation exposure on brain cancers and acoustic neuroma due to the long latencies normally involved in brain cancers (30-40 years). That studies are already finding effects should highlight the truly dangerous nature of RF radiation as a carcinogen. The U.S. NTP study should be discussed here. It found that non-thermal levels of RF radiation break DNA (considered the hallmark of a carcinogen) and increases the risk of glioma of the brain and heart (http://ehtrust.org/science/facts-national-toxicology-program-cellphone-rat-cancer-study/). Furthermore, rates of Glioblastoma Multiforme, a type of glioma, is increasing 1.3%-2.3% per year over a 15-year period, which was statistically significant (http://microwavenews.com/news-center/ntp-and-brain-tumor-rates). Thus, controlled lab studies and epidemiological findings are in agreement. A replicated European study found that RF radiation promotes cancer growth, supporting the carcinogenicity of RF radiation (Lerchl, et. al., 2015 http://www.ncbi.nlm.nih.gov/pubmed/25749340). Exposures were non-thermal and well-below existing FCC RF radiation limits. These findings, especially taken together, should carry a lot of weight and strongly suggest the need for precaution,

especially with the studies above showing that cellular base station antennas cause increases in cancer. They must be included in the Firstnet PEIS.

Research findings are sufficiently strong now related to carcinogenicity that former IARC panelists like Dr. Dariusz Leszczynski warn that RF-EMF should be classified as a Group 2A carcinogen, and Dr. Lennart Hardell reports that several studies indicate a Group 1 classification is justified, placing RF-EMF in the same category as tobacco, asbestos, and benzene.

Dr. Dariusz Leszczynski MSc, DSc, PhD https://betweenrockandhardplace.wordpress.com/2014/08/14/carcinogenicity-of-cell-phone-radiation-2b-or-not-2b/

> "*In conclusion, I consider that currently the scientific evidence is sufficient to classify cell phone radiation as a probable human carcinogen – 2A category in IARC scale. Time will show whether 'the probable' will change into 'the certain'. However, it will take tens of years before the issue is really resolved. In the mean time we should implement the Precautionary Principle. There is a serious reason for doing so*."

Dr. Lennart Hardell MD, PhD http://www.ncbi.nlm.nih.gov/pubmed/24192496

> "*Based on the Hill criteria, glioma and acoustic neuroma should be considered to be caused by RF-EMF emissions from wireless phones and regarded as carcinogenic to humans, classifying it as group 1 according to the IARC classification. Current guidelines for exposure need to be urgently revised*."

These opinions are important because these researchers were among the IARC panelists that decided in 2013 only to classify RF radiation as a class 2B carcinogen and now they consider the evidence significant enough to warrant changing the classification to "probably carcinogenic" or even carcinogenic. The U.S. NTP study results have been released since these statements were made, probably further weighting them in the direction of carcinogenicity. These factors should definitely be discussed in the PEIS. They should also have real influence over whether the scope of the FirstNet project should be adjusted.

On pages 2-19 to 2-20 serious effects of RF radiation and RF infrastructure are discussed and dismissed in a bizarre manner. Nine studies showing harm to bird populations via a variety of mechanisms are discussed, including reproductive failure. Then two laboratory studies showing reproductive failure in chickens are discussed "*Laboratory studies conducted with domestic chicken embryos have shown that emissions at the same frequency and intensity as that used in cellular telephones have appeared to result in death (DiCarlo et al., 2002) (Manville II, A., 2007)*." Then the idea that these studies show that low level RF radiation emissions support the findings in the environmental studies is ridiculed because "*given the controlled nature of the studies and potential exposure differences in the wild, this causation is left to interpretation and extrapolation*." This is a case where bird epidemiological findings and bird lab studies are in agreement. Thus, the evidence show that towers affect birds negatively, at least reproductively. This should be given great weight. FirstNet should be adjusting its plans accordingly.

RF radiation kills and damages trees

Very little attention is paid to tree studies. This is an egregious oversight. We rely on trees for the very health of our planet. Trees are being killed and damaged across the U.S. and world-wide by RF radiation even without full-scale implementation of either FirstNet or 5G . RF radiation is being implicated as the cause. Several studies show the very serious effects that RF radiation has on the health of trees. Trees are essential to the welfare of the global environment and the continuation of the human race. They

convert carbon dioxide into oxygen for us and purify our air. These are essential services. They also cool and provide shade in our cities and countryside. Additionally, they provide important wildlife habitat. Decimation of the Amazon rainforest by direct human actions has been oft-cited as endangering the global environment. FirstNet should not be moving forward with plans to increase RF radiation exposure in urban or rural areas since it will hasten the RF radiation-induced death of our urban and rural forests. We cannot afford additional forest die-off. Large mature trees are being seriously damaged and killed, this damage will take 50 years or more to repair. The references listed below clearly show that RF radiation has detrimental effects on tree health at levels far below the outdated FCC RF radiation limits.

- Radiofrequency radiation injures trees around mobile phone base stations https://www.researchgate.net/publication/306435017_Radiofrequency_radiation_injures_trees_around_mobile_phone_base_stations

- Adverse Influence of Radio Frequency Background on Trembling Aspen Seedlings: Preliminary Observations https://www.hindawi.com/journals/ijfr/2010/836278/

- Tree damage in the vicinity of mobile phone base stations http://kompetenzinitiative.net/KIT/wp-content/uploads/2016/06/Tree-damages-in-the-vicinity-of-mobile-phone-base-stations.pdf

- The trees make it easy to recognize the effects of RF-EMF. Examples of tree damage: http://kompetenzinitiative.net/KIT/wp-content/uploads/2016/09/Trees-in-Bamberg-and-Hallstadt-Documentation-2006-2016.pdf

The damage to trees is not theoretical. We are seeing it on our farm now. We have seen it in the city for years, but now we are seeing it in the country as well, on a widespread basis. Please see attached file. The damage is becoming serious and widespread. The nation's trees cannot survive continued chronic increases in RF radiation levels such as FirstNet would bring through direct infrastructure-induced increases and increases caused by increased utilization and greater numbers of devices.

Please read the following reports which demonstrate that wireless technology is causing serious harm to wildlife:

"The Report on Possible Impacts of Communication Towers on Wildlife Including Birds and Bees" commissioned on 30th August 2010 by the Ministry of Environment and Forest, Government of India http://www.moef.nic.in/downloads/public-information/final_mobile_towers_report.pdf

"Impacts of radio-frequency electromagnetic field (RF-EMF) from cell phone towers and wireless devices on biosystem and ecosystem – a review" http://www.biolmedonline.com/Articles/Vol4_4_2012/Vol4_4_202-216_BM-8.pdf

Balmori, A. "Electromagnetic pollution from phone masts. Effects on wildlife," Pathophysiology (2009), doi:10.1016/j.pathophys.2009.01.007 http://www.ncbi.nlm.nih.gov/pubmed/19264463

The Supreme Court of India ordered cell towers removed from schools, colleges, hospitals and playgrounds in Rajasthan because of radiation being "hazardous to life." The court's amazing 200+ page decision thoroughly reviews the worldwide evidence that cell towers are harming human beings

and wildlife (http://timesofindia.indiatimes.com/city/jaipur/No-mobile-towers-near-schools-hospitals-directs-Rajasthan-HC/articleshow/17399705.cms).

On July 5, 2013 the Supreme Court of India upheld this decision.

None of these are mentioned in the PEIS. They are of great relevance.

The PEIS also did not mention the fact that increasing RF radiation exposure would increase RF radiation-induced functional impairments, violating the rights of those already experiencing serious effects from RF radiation (RF radiation sickness - see http://www.magdahavas.com/wordpress/wp-content/uploads/2010/08/Dodge_1969.pdf). Furthermore, FirstNet would be in violation of the 2008 ADA Amendments, causing further exclusion from society and greater levels of disability for those already experiencing RF radiation sickness and increasing the numbers of people developing RF radiation sickness since it is caused by chronic over exposure to RF radiation. The only cure for RF radiation sickness is avoiding exposure and the wireless broadband portion of FirstNet would make that virtually impossible. I have attached a comment I made to The National Institute on Disability, Independent Living and Rehabilitation Research (NIDILRR) regarding the need for the elimination of wireless from public places, public buildings, and medical facilities. Numerous other people also made comments. My comment also has relevance for ensuring that wired FirstNet infrastructure does not cause additional disability by causing "dirty" electricity. I hope that FirstNet will steps to ensure that its systems do not cause "dirty" electricity.

As noted on p. 2-12, in 1996 the FCC was given the responsibility to "prescribe and make effective rules regarding the environmental effects of radio frequency emissions" (TCA, 104 Pub. L. 104), obviously it has not done this, as discussed above the rules are outdated and inapplicable. The FCC is in the process of updating them so the common practice of relying on compliance with FCC RF radiation limits as being sufficient for protection of health and the environment must end (see p.2-12). As discussed previously, until the FCC completes revision of the FCC RF radiation limits so that they are population-based biologically-protective RF radiation limits the FCC is in violation of their Congressional delegated responsibility to adopt "uniform, consistent requirements, with adequate safeguards of the public health and safety" these were to be "established as soon as possible" (H.R. Report No. 104-204, p. 94). Unfortunately, it appears that the undue industry influence at the FCC documented in a report published by Harvard (http://ethics.harvard.edu/files/center-for-ethics/files/capturedagency_alster.pdf), may have compromised the agency's ability to promptly revise its RF radiation safety limits.

The need for biologically-based RF radiation safety limits is supported by the RF/EMF research community. Over 220 scientists have signed an appeal to the UN (www.emfscientist.org).

The need for FirstNet to do its own due diligence is supported by case law. In Massachusetts v. E.P.A., 549 U.S. 497 (2007) Justice Stevens wrote for the majority that agencies cannot ignore Congresses command to regulate. Thus, the fact that FCC has abrogated its duty to maintain protective up-to-date RF radiation limits does not excuse FirstNet from having to consider the serious health and environmental consequences of its program in the PEIS and find a reasonable alternative to protect public health and the environment. In Scenic Hudson Preservation Conference v. Federal Power Commission, 354 F.2d 608 (2d Cir. 1965), cert. denied 384 U.S. 941 (1966), on appeal the Circuit Court pointed out (at p. 620) that Congress gave the FPC a broader responsibility.

The Scenic Hudson Court noted "In this case, as in many others, the Commission has claimed to be the representative of the public interest. This role does not permit it to act as an umpire blandly calling balls and strikes for adversaries appearing before it; the right of the public must receive active and affirmative protection at the hands of the Commission." This decision has obvious applicability to the need for FirstNet to act proactively to protect the health of the American people, as well as the environmental health, not just do a *pro forma* PEIS without real consideration of the great potential for harm that a portion of the FirstNet program has.

Given both the serious inadequacy of the FCC RF radiation limits and the potential for serious harm to public health and the environment that can result if FirstNet implements the program as originally envisioned, FirstNet needs to take steps to amend the program to prevent that harm.

Recommended reasonable modifications to FirstNet:

FirstNet must inform Congress of the health and environmental hazard posed by the RF radiation emission required for wireless broadband and request Congress to eliminate provision of wireless broadband internet from FirstNet's mission. As discussed earlier in this document, it is now acknowledged by government agencies, particularly the Department of Interior and the Environmental Protection Agency that the FCC RF radiation limits are not protective of the public during the chronic exposures experienced today. Furthermore, the U.S. National Toxicology Program has found that RF radiation damages DNA and causes cancer. These are sufficient reasons to halt the portion of the FirstNet Program aimed at increasing wireless broadband coverage and usage. Increasing wired, cabled, and fiber optic access to broadband could be substituted instead. Thereby, achieving a comparable result without causing public health or environmental problems.

For the same reasons, FirstNet should delay implementation of the wireless first responder's component until they design as system that provides good interoperable first responder communication while minimizing radiofrequency emissions from antennas and first responder's communicators. Thus, communicators should be able to contact each other directly, not require an outside antenna (certain types of buildings might make communication to an outside antenna impossible anyway), but also be able to utilize it if needed and available. Radiofrequency emissions should not occur continuously, only as needed.

FirstNet should request that the NTP quickly undertake and complete toxicology studies comparing the different communication technologies, including, but not necessarily limited to, 3G, 4G, and 5G LTE technologies so that FirstNet can utilize the least toxic least biologically active technology for its first responder's interoperable communication system. Oxidative parameters and calcium efflux should be among the measures used.

Please make the necessary modifications to all the FirstNet Draft PEIS documents. Please also make the next versions more readily available. You should, for instance, include links to the different sections on your website so they can be readily located and downloaded.

Thank you.

Sincerely,

Catherine Kleiber

References

1. Alster, N. (2015). Captured Agency: How the Federal Communications Commission Is Dominated by the Industries It Presumably Regulates. Harvard University's Edmond J. Safra Center for Ethics. http://ethics.harvard.edu/files/center-for-ethics/files/capturedagency_alster.pdf
2. Buchner, K. and Eger, H. 2010 Changes of Clinically Important Neurotransmitters under the Influence of Modulated RF Fields A Long-term Study under Real-life Conditions
3. Cherry, N. (2000). Criticism of the Health Assessment in the ICNIRP Guidelines for Radiofrequency and Microwave Radiation (100 kHz- 300 GHz) www.electricalpollution.com/documents/Cherry2000EMR_ICNIRP_critique_09-02.pdf
4. Dodge, C. (1969). Clinical and Hygienic Aspects of Exposure to Electromagnetic Fields. Biological Effects and Health Implications of Microwave Radiation, Symposium Proceedings, Richmond, Virginia, September 17-19. http://www.magdahavas.com/wordpress/wp-content/uploads/2010/08/Dodge_1969.pdf
5. EMF Scientist (2015). International Scientists Appeal to U.N. to Protect Humans and Wildlife from Electromagnetic Fields and Wireless Technology http://www.EMFscientist.org
6. Eskander, E.F., Estefan, S.F., and Abd-Rabou, A.A. Case Report How does long term exposure to base stations and mobile phones affect human hormone profiles? Clinical Biochemistry 45 (2012) 157–161.
7. Fatma A. Mohamed, Azza A. Ahmed, Bataa M.A. El- Kafoury, & Noha N. Lasheen. Study Of The Cardiovascular Effects Of Exposure To Electromagnetic Field. Life Science Journal. 2011;8(1): 260-274] (ISSN:1097–8135). http://www.lifesciencesite.com.
8. Hankin, N (2002), Center for Science and Risk Assessment, Radiation Protection Division, EPA, correspondence regarding the limitations and purpose of the FCC exposure standards. http://www.emrpolicy.org/litigation/case_law/docs/noi_epa_response.pdf
9. Havas M, Marrongelle J, Pollner B, et al. (2010). Provocation study using heart rate variability shows microwave radiation from DECT phone affects autonomic nervous system. Eur. J. Oncol. Library, ; 5:273-300. http:// www.magdahavas.com/wordpress/wp-content/uploads/2012/01/Havas-HRV-Ramazzini.pdf
10. Havas, M., Marrongelle, J. (2013). Replication of Heart Rate Variability Provocation Study with 2.4 GHz Cordless Phone Confirms Original Findings. Electromagn Biol Med Jun;32(2):253-66. doi: 10.3109/15368378.2013.776437. http:// www.ncbi.nlm.nih.gov/pubmed/23675629#
11. IARC Monographs on the Evaluation of Carcinogenic Risks to Humans. (2013) Non-Ionizing Radiation, Part 2: Radiofrequency Electromagnetic Fields.102. http://monographs.iarc.fr/ENG/Monographs/vol102/mono102.pdf
12. ICNIRP Statement (2002). General Approach to Protection Against Non-Ionizing Radiation Protection. Health Physics 82(4):540-548. https://www.icnirp.org/documents/philosophy.pdf
13. Marha K, Musil J, Tuha H. Electromagnetic Fields and the Life Environment. San Francisco (CA): San Francisco Press, Inc.; 1971.
14. NTP (2016). Report of Partial Findings from the National Toxicology Program Carcinogenesis Studies of Cell Phone Radiofrequency Radiation in Hsd: Sprague Dawley® SD rats (Whole Body Exposures) bioRxiv preprint first posted online May. 26, 2016; http://dx.doi.org/10.1101/055699
15. Pall, M. (2014). Microwave electromagnetic fields act by activating voltage-gated calcium channels: why the current international safety standards do not predict biological hazard Recent Res Devel Mol Cell Biol 7.

16. Pall, M. L. (2015). Microwave frequency electromagnetic fields (EMFs) produce widespread neuropsychiatric effects including depression. J Chem Neuroanat DOI: 10.1016/j.jchemneu. 2015.08.001. http://dx.doi.org/10.1016/j.jchemneu.2015.08.001
17. Pall, M.L. (2016) Electromagnetic Fields Act Similarly in Plants as in Animals: Probably Activation of Calcium Channels via Their Voltage Sensor Current Chemical Biology, 2016, Vol. 10, No. 1.
18. Powell, R. (2013). "Biological Effects from RF Radiation at Low-Intensity Exposure, based on the BioInitiative 2012 Report, and the Implications for Smart Meters and Smart Appliances" http://emfsafetynetwork.org/wp-content/uploads/2013/08/Biological-Effects-From-RF-Radiation-and-Implications-for-Smart-Meters-June-5-2013-2.pdf
19. Sage, C., Carptenter D., ed. (2012) BioInitiative Report: A Rationale for a Biologically-based Public Exposure Standard for Electromagnetic Radiation. BioInitiative Working Group, at www.bioinitiative.org, December 31, 2012.
20. Sailia, L., Hanini, A., Smirani, C., et al. (2015). Effects of acute exposure to WIFI signals (2.45 GHz) on heart variability and blood pressure in Albinos rabbit. Environmental Toxicology and Pharmacology 40:600–605.
21. Taylor, W. (2014). U.S. Department of Interior, Willie Taylor, Director of the Office of Environmental Policy and Compliance, Comment on National Telecommunications and Information Administration plans for FirstNet, Feb 7, 2014, ER 14/0001 and ER 14/0004. http://www.ntia.doc.gov/files/ntia/us_doi_comments.pdf
22. Wyde, M. (2016) The U.S. NTP Study: A Real Game Changer or Just Another Study? BioElectroMagnetic Society Conference: June 8, 2016.
23. Yakymenko, I., Tsybulin, O., Sidorik, E., et al. (2015). Oxidative mechanisms of biological activity of low-intensity radiofrequency radiation. Electromagn Biol Med. Jul;7:1-16. http://www.ncbi.nlm.nih.gov/pubmed/26151230#

RF Radiation From Wireless Technology Kills and Damages Trees
By Catherine Kleiber

Trees are being killed and damaged across the U.S. and world-wide even without full-scale implementation of 5G. RF radiation is being implicated as the cause. Several studies show the very serious effects that RF radiation has on the health of trees. Trees are essential to the welfare of the global environment and the continuation of the human race. Decimation of the Amazon rainforest by direct human actions has been oft-cited as endangering the global environment, the FCC should not be moving forward with implementing a technology, 5G wireless technology, that will hasten the RF caused death of our urban and rural forests. Please read the following papers to see the toll RF is already taking on trees. We cannot afford additional forest die-off. Large mature trees are being seriously damaged and killed, this damage will take 50 years or more to repair.

- Radiofrequency radiation injures trees around mobile phone base stations https://www.researchgate.net/publication/306435017_Radiofrequency_radiation_injures_trees_around_mobile_phone_base_stations

- Adverse Influence of Radio Frequency Background on Trembling Aspen Seedlings: Preliminary Observations https://www.hindawi.com/journals/ijfr/2010/836278/

- Tree damage in the vicinity of mobile phone base stations http://kompetenzinitiative.net/KIT/wp-content/uploads/2016/06/Tree-damages-in-the-vicinity-of-mobile-phone-base-stations.pdf

- The trees make it easy to recognize the effects of RF-EMF. Examples of tree damage: http://kompetenzinitiative.net/KIT/wp-content/uploads/2016/09/Trees-in-Bamberg-and-Hallstadt-Documentation-2006-2016.pdf

The damage to trees is not theoretical. We are seeing it on our farm now. We have seen it in the city for years, but now we are seeing it in the country as well, on a widespread basis.

July 24, 2016
Note thinness in tree on right and bare spot developing between trees (both cottonwoods)

September 12, 2016
More leaves lost. No sign of healthy
fall leaf color so fall is not the

August 9, 2016
Damage progressing quickly

July 24, 2016
These cottonwoods trees began exhibiting damage similar to the trees above in 2015. Most of them greened up this spring, then had the leaves die and drop. Two still retain leaves low down. Others are completely dead.

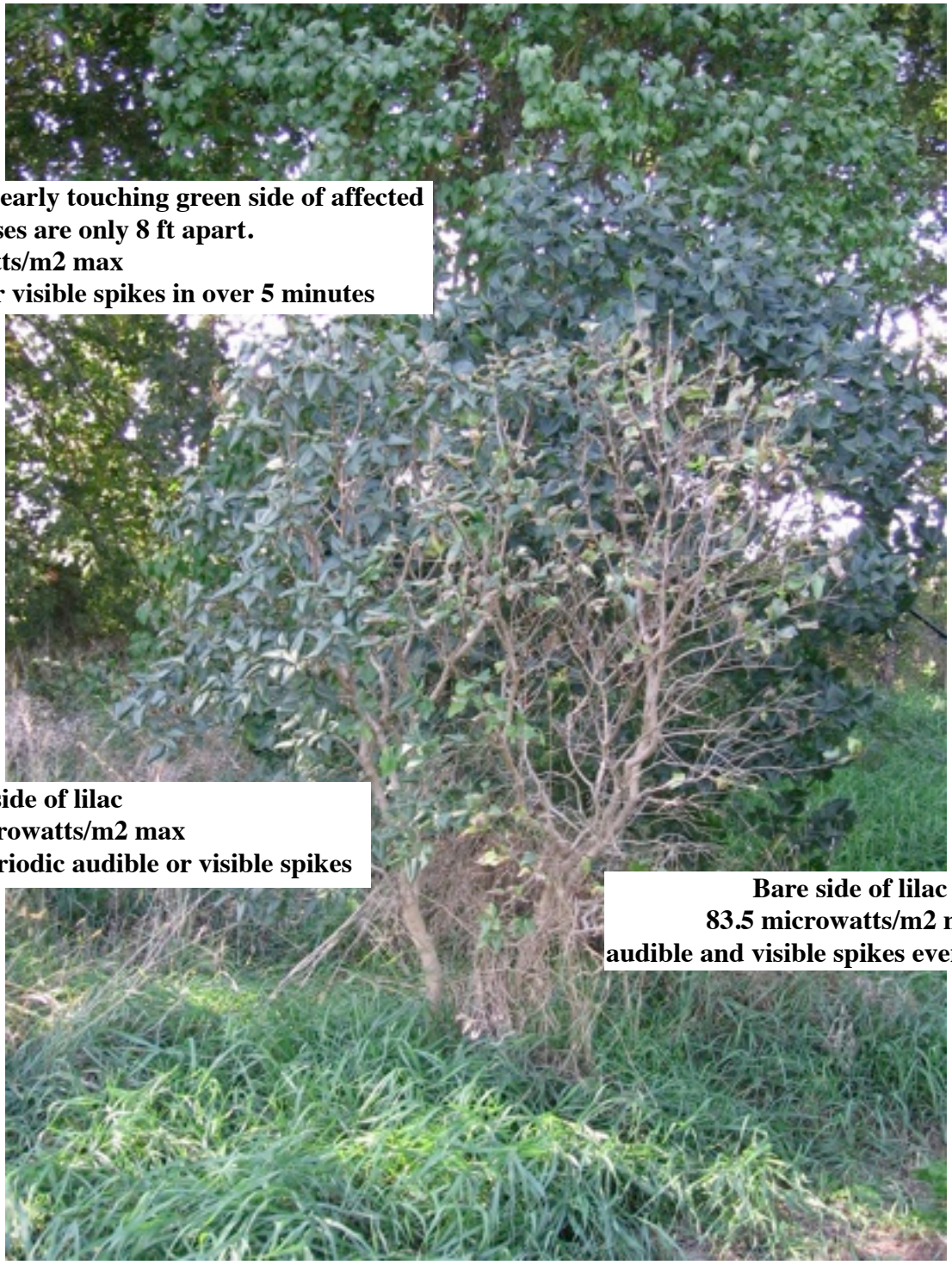
As you can see the damage to trees is progressing quickly to death. Balimori discusses the fact that "*White and black poplars (Populus sp.) and willows (Salix sp.) are more sensitive. There may be a special sensitivity of this family exists or it could be due to their ecological characteristics forcing them to live near water, and thus electric conductivity.*" Certainly the trees that are worst off in our area are willows and cottonwoods and they are growing in areas that are wet, but I have seen trees of all types exhibiting damage. Please think of the future. We cannot live without a healthy tree population. We rely on them for the very oxygen we breathe. **No technology is worth endangering something as essential as our source of oxygen.**

September 18, 2016
Notice uneven leaf drop, unhealthy green, and absence of fall color. Characteristic of RF damage

Notice necrotic lesions and off color characteristic of RF leave damage. No normal fall color present, despite on-going leaf drop.

Note the small damaged leaves across the top of the tree. Trees of all different species around our yard are demonstrating this damage. Also mentioned in the aforementioned papers. We own no transmitters so all RF from outside sources.

Lilac showing marked one sided damage. Signal appears to be coming from a WiFi tower on a hill about a mile away.



Green lilac nearly touching green side of affected lilac. The bases are only 8 ft apart.
0.6 microwatts/m2 max
no audible or visible spikes in over 5 minutes

Green side of lilac
2.8 microwatts/m2 max
only periodic audible or visible spikes

Bare side of lilac
83.5 microwatts/m2 max
audible and visible spikes every 9 seconds


10 microwatts/m2 max
Measured near bottom of
bare spot which points N
39 microwatts/m2 max
Bare spot pointing S/SW
Line of sight to cell tower
6 miles away
2.8 microwatts/m2 max
In first whorl where still has needles

Additional References Provided

Belyeav, Igor, Amy Dean, Horst Eger, Gerhard Hubmann, Reinhold Jandrisovits, Markus Kern, Michael Kundi, Hanns Moshammer, Piero Lercher, Kurt Müller, Gerd Oberfeld, Peter Ohnsorge, Peter Pelzmann, Claus Scheingraber, and Roby Thill. 2016. "EUROPAEM EMF Guideline 2016 for the prevention, diagnosis and treatment of EMF-related health problems and illnesses." *Reviews on Environmental Health*, 31(3): 363-397.

Havas, Magda. 2017. "When theory and observation collide: Can non-ionizing radiation cause cancer?" *Environmental Pollution,* 221(2017): 501-505.

Pall, Martin L. 2015. "Microwave frequency electromagnetic fields (EMFs) produce widespread neuropsychiatric effects including depression." *Journal of Chemical Neuroanatomy*, Volume 75, Part B, Pages 43-51.

_____. 2016. "Electromagnetic Fields Act Similarly in Plants as in Animals: Probably Activation of Calcium channels via Their Voltage Senor." *Current Chemical Biology*, 10(1): 74-82.

Unknown Author. 2003. *Permissible levels of high-frequency electromagnetic pollutions' voltage in a wires of industrial frequency alternating current Sanitary-epidemiologic norms*. Confirmed: The order of the Head State Sanitary Physician of the Republic of Kazakhstan. 28 November 2003.

Yakymenko, Igor, Olexandr Tsybulin, Evgeniy Sidorik, Diane Henshel, Olga Kyrylenko, and Sergiy Kyrylenko. 2015. "Oxidative mechanisms of biological activity of low-intensity radiofrequency radiation." *Electromagnetic Biology and Medicine*, 35(2): 186-202.

Tara Schell

-Page Intentionally Left Blank-

From:
Sent: Thursday, December 15, 2016 10:50:53 AM
To: Genevieve Walker
Subject: Urgent: Comment on FirstNet Draft Environmental Impact Statements

I would like to re-butt your arguments based on personal experience and studies regarding your FirstNet Draft Environmental Impact Statements.

Please see attached two documents below:

I would like to re-butt your arguments based on personal experience and studies regarding your FirstNet Draft Environmental Impact Statements.

I also am requesting that Congress eliminate your provision of wireless broadband internet from FirstNet's mission and:

Delay implementation of wireless first responder's component until they design as system that provides good interoperable first responder communication while minimizing radiofrequency emissions from antennas and first responder's communicators

-Cancer findings with radios in first responders

-Cancer findings from cellphone radiation from NTP - http://ehtrust.org/science/facts-national-toxicology-program-cellphone-rat-cancer-study/

Thus, communicators should be able to contact each other directly, not require an outside antenna (certain types of buildings might make communication to an outside antenna impossible anyway), but also be able to utilize it if needed and available. Radiofrequency emissions should not occur continuously, only as needed.

There is direct evidence of human and environmental harm with thousands of modern studies that trump the old ones. Please read through the list of critiques below for a list of some of the most problematic points and omissions.

We (and the Department of Interior) were successful in getting FirstNet to complete a Programatic Environmental Impact Statement (PEIS).

The Central Region document is available at the following site:
https://www.regulations.gov/document?D=FIRSTNET-2016-0003-0001

The East Region
https://www.regulations.gov/document?D=FIRSTNET-2016-0002-0001

The South region is available for review and comment at the following link:
https://www.regulations.gov/document?D=FIRSTNET-2016-0005-0001

West Region
https://www.regulations.gov/document?D=FIRSTNET-2016-0004-0001 or
https://www.regulations.gov/docketBrowser?rpp=25&so=DESC&sb=commentDueDate&po=0&D=FIRSTNET-2016-0004

The documents are huge, **however the RF portion is tiny**. It is not dealt with throughout the documents. It seems to be in 2.4 which I believe means Chapter 2 section 4 for the two PEIS documents that I was able to obtain.

Here are my critiques:

RF health risks to workers, the population, and the environment are not addressed throughout the document - they are isolated to the RF section and quickly dismissed.

"*The Influence of Being Physically Near to a Cell Phone Transmission Mast on the Incidence of Cancer*" (http://emrstop.org/index.php?option=com_docman&task=doc_details&gid=4&Itemid=18)
"*Changes of Clinically Important Neurotransmitters under the Influence of Modulated RF Fields- A Long-term Study under Real-life Conditions*" (http://www.radiationresearch.org/images/RRT_articles/Buchner%20Eger%20Rimbach%20Study%202011%20ENG%20FINAL%20Revised%2029%20July%202011.pdf)

"*How does long term exposure to base stations and mobile phones affect human hormone profiles?*," Eskander et al. (http://www.sciencedirect.com/science/article/pii/S0009912011027330)

FirstNet wireless technology will be LTE 4G or higher. Toxicology studies should be done comparing 4G and other communications protocols so that first responders and the population are exposed to the safest.

FirstNet has created to allow first responders to communicate easily AND TO PROVIDE WIRELESS BROADBAND NATIONWIDE (2-8).

Contrary to their statement FCC regulations do not protect from "any potential effects," as this letter from Mr. Norbert Hankin from the Center for Science and Risk Assessment, Radiation Protection Division, EPA, regarding the limitations and purpose of the FCC exposure standards notes (http://www.emrpolicy.org/litigation/case_law/docs/noi_epa_response.pdf) This very credible evidence is unmentioned and ignored.

FCC regulations are poorly enforced. (An issue which is completely ignored in the PEIS.) Rampant violations are documented by the Wall Street Journal and EMR Policy Institute. A detailed investigation by the EMR Policy Institute showed almost no enforcement of existing FCC RF limits and rampant violations (http://www.marketwire.com/press-release/-1770139.htm). A Wall Street Journal investigation (http://online.wsj.com/articles/cellphone-boom-spurs-antenna-safety-worries-1412293055) reports similar findings with one in ten towers out of compliance and experts concerned that out of compliance towers could be transmitting in the thermal range by around the end of 2015.

A fully elucidated mechanism should not be required to take action to protect public health when detrimental effects are found. Serious biological effects are acknowledged and then ignored on page 2-20.

The two mechanisms that are extremely plausible and well-supported in the literature are completely ignored:

Oxidation -

1. Yakymenko, I., Tsybulin, O., Sidorik, E., et al. (2015). Oxidative mechanisms of biological activity of low-intensity radiofrequency radiation. Electromagn Biol Med. Jul;7:1-16. http://www.ncbi.nlm.nih.gov/pubmed/26151230#

Ca 2+ channels

1. Pall, M. (2014). Microwave electromagnetic fields act by activating voltage-gated calcium channels: why the current international safety standards do not predict biological hazard Recent Res Devel Mol Cell Biol 7.
2. Pall, M. L. (2015). Microwave frequency electromagnetic fields (EMFs) produce widespread neuropsychiatric effects including depression. J Chem Neuroanat DOI: 10.1016/j.jchemneu.2015.08.001. http://dx.doi.org/10.1016/j.jchemneu.2015.08.001
3. Pall, M.L. (2016) Electromagnetic Fields Act Similarly in Plants as in Animals: Probably Activation of Calcium Channels via Their Voltage Sensor Current Chemical Biology, 2016, Vol. 10, No. 1.

The PEIS uses outdated documents to excuse inaction.

Contrary to their assertion, FCC limits do not protect against adverse effects, even the DOI noted "**the electromagnetic radiation standards used by the Federal Communications Commission (FCC) continue to be based on thermal heating, a criterion now nearly 30 years out of date and inapplicable today**" (http://www.ntia.doc.gov/files/ntia/us_doi_comments.pdf)

The opening of the FCC docket to re-evaluate limits is acknowledged, but then ignored. The logical step of delaying implementation of the wireless component until that is completed is not even mentioned.

The National Toxicology Program findings are not even mentioned.

Their exposure calculations are based on only one antenna and work out to 477uW/m2, which is over the level shown to cause biological effects (http://emfsafetynetwork.org/wp-content/uploads/2013/08/Biological-Effects-From-RF-Radiation-and-Implications-for-Smart-Meters-June-5-2013-2.pdf see graph at end). Most towers or building antenna sites have more than one antenna radiating in any given direction, plus signals come from other nearby sites, and the ground infrastructure such as cellphones, tablets etc. So levels at ground level are likely to be far higher than that and levels in apartments or homes which get a direct hit from neighboring buildings could be far higher depending on distance.

Several IARC panelists have made public statements that the evidence now shows that radiofrequency radiation should be classified as either a class 2A or class 1 human carcinogen. The recent (ignored) National Toxicology Program findings support this. This should cause the wireless portion to be stopped and FirstNet should explain why to Congress, but no mention is made and therefore no such action is recommended.

They refuse to take action to protect birds in spite of lab and epidemiological evidence that support each other in finding hard because it requires "interpretation and extrapolation."(2-20) Doesn't it always?

They hardly touch on tree damage and totally ignore the following tree and plant studies:

- Radiofrequency radiation injures trees around mobile phone base stations: https://www.researchgate.net/publication/306435017_Radiofrequency_radiation_injures_trees_around_mobile_phone_base_stations
- Adverse Influence of Radio Frequency Background on Trembling Aspen Seedlings: Preliminary Observations https://www.hindawi.com/journals/ijfr/2010/836278/
- Review: Weak radiofrequency radiation exposure from mobile phone radiation on plants: http://www.ncbi.nlm.nih.gov/pubmed/27650031?dopt=Abstract
- Tree damage in the vicinity of mobile phone base stations: http://kompetenzinitiative.net/KIT/wp-content/uploads/2016/06/Tree-damages-in-the-vicinity-of-mobile-phone-base-stations.pdf
- The trees make it easy to recognize the effects of RF-EMF. Examples of tree damage: http://kompetenzinitiative.net/KIT/wp-content/uploads/2016/09/Trees-in-Bamberg-and-Hallstadt-Documentation-2006-2016.pdf
- Pall, M.L. (2016) Electromagnetic Fields Act Similarly in Plants as in Animals: Probably Activation of Calcium Channels via Their Voltage Sensor Current Chemical Biology, 2016, Vol. 10, No. 1. - **IMPORTANT MECHANISTIC DISCUSSION**

On 2-20 the PEIS acknowledges "*A number of other studies generally touch upon the nature of RF exposure and the disruption of biological processes that are fundamental to plant and animal growth and health, including but not limited to behavior, DNA damage, immune deficiencies, reproductive system effects, hormone dysregulation, degraded cognition and sleep, and desynchronization of neural activity (BioInitiative Working Group, 2012) (Balmori, A., 2005),*" **but then no protective action is being taken because** *"The common practice for NEPA documents related to cellular towers is to cite FCC standards and point to the fact that they would be built and operated according to allowable FCC RF emission limits. Some NEPA documents that have more directly addressed the RF emissions potential largely point to the existing literature and suggest that although there is evidence that RF emissions could potentially affect some species, the evidence is insufficient to support a finding of adverse impacts on these species due to RF emissions (Ballistic Missile Defense Organization, 2000) (FCC, 2012)."*

This approach was not allowable by the courts in other situations. Especially since the inadequacy of the FCC RF limits is now acknowledged by both the DOI and the EPA. In addition, numerous studies have added to the knowledge about the hazard that RF poses to human health since both 2000 and 2012, including the NTP study which has found that RF is carcinogenic and breaks DNA.

I am fully disabled from wireless damage and exposure. Wireless has also caused a hypersensitivity in me to all types of EMFs.

It is against the Nuremberg Treaty to experiment on us without informed consent and it is unconstitutional to take away basic human rights and freedoms from me. I can not work, drive, access most public places or medical facilities, and can not even live on my own property without exposure with wireless being spread everywhere. Millions of Americans are already disabled from EMFs and most can not even use a wired device anymore because their sensitivity is too high. You are destroying the health of America and the environment creating a large microwave oven cooking everything within it. Radio Waves do not end. They continue forever.

The younger generation that was raised with this technology is already severely damaged. Young kids, teenagers, and young adults are already disabled from EMFs and environmental toxins and can not go out in public without a complete meltdown from EMFs including EMFs found in artificial lighting (except incandescent which is the safest artificial lighting there is and is the hardest to get now). I get contacts regularly from young adults and parents with kids who have no place to go or live without EMF exposure. Their lives have already been stripped from them. Disabling America and ruining our economy with all this sickness and medical issues is not the answer. Foreign countries are removing wireless from their cities and public places because it is a worldwide epidemic and they are having to pay out disability for it. Russia never allowed high amounts of radiation to begin with and told the world that these cell towers and RF levels were way too high. Will they be the only country left without damaged DNA to reproduce and without their whole country disabled, sick, economically collapsed and famined?

Wireless RF/EMFs reach everyone and everything 24/7. You can not opt out of it. It causes severe pain, brain fog, dementia, shuts down mitochondria and causes severe abnormal chronic fatigue, Parkinsons, Alzheimers, Diabetes type 3, shuts down kidneys/liver function, stops/paralyzes my heart, causes irregular heartbeat, anxiety, sharp painful heart jerking, rapid heart beat, cardiac arrest, headaches, joint pain, damages DNA, fertility, constant bleeding and severe abdominal pain, seizures, autism, ADHD, and so much more. It is the number one killer of bees and all pollinators along with birds, bats, frogs, etc. It makes animals and humans sick and destroys crops, trees, plants, etc as it weakens them and makes them more prone to sickness, disease, insect damage, etc.

It also increases mold both in your body and environment over 600 times including Lyme disease. There is now a mold epidemic due to all the wireless. When wireless hits mold, mold creates a self-defense against it and creates mycotoxins to survive. Mycotoxins are a chemical toxin that can be more deadly than mold itself and is still toxic will killed. It is too small to filter and extremely hard to kill but the dead spores are just as dangerous. Your body creates autoimmune disease the same way when wireless radiation hits your body to try to defend itself against the radiation poison. RF/wireless is a carcinogenic, neurotoxin and genotoxin.

Create safer technologies and safe zones where people can live with no wireless/RF radiation. Zone yourselves in and radiate only yourselves. Then when you are all dying from cancer, tumors, and sickness and have no more food after killing off all the pollinators, then let me know what ya think then?

I will be sending all my construction and medical bills to any company or government that causes radiation to be on my property. The answer isn't to cover up symptoms. The answer is to remove the problem. Just because there is a new technology, it does not mean that we have to use it. Every person who has a part in wireless deployments will be personally held accountable in court for the damage it has created as crimes against humanity and the environment. The law suits are coming!

I will attach a second word document with a list of videos, studies, medical information and more on the dangers of wireless radiation/EMFs along with a Worldwide list of wireless deactivation and removal that has already taken place due to this epidemic.

Citizen Fully Disabled from EMFs and Tired of Corrupt Companies Destroying Our Health, Children, and Environment:

Tara Schell
Virginia

Here are just a few links on the dangers of EMFs:
https://www.emfanalysis.com/
Engineer Discusses the Dangers of Wireless:
https://www.emfanalysis.com/new-paradigm-emf-science/
http://www.electricsense.com/
http://electricalpollution.com/
http://www.bioinitiative.org/
www.emfields-solutions.com
www.powerwatch.org.uk
Radiation-Limits-at-Wireless-Antenna-Sites,16,3024
http://articles.mercola.com/sites/articles/archive/2010/02/09/new-study-confirms-electrical-pollution-from-cell-phones-and-wifi-is-hazardous.aspx
Recent US Government Study Showing Wireless Causes Cancer & Brain Tumors
http://www.saferemr.com/2016/05/national-toxicology-progam-finds-cell.html
http://microwavenews.com/news-center/ntp-nyt
Town in Italy Bans Wifi in schools:
https://www.thelocal.it/20160108/italy-town-turns-off-school-wifi-over-health-concerns
European Leaders Ban wifi in schools:
http://articles.mercola.com/sites/articles/archive/2011/06/02/european-leaders-call-for-ban-of-cell-phones-and-wifi-in-schools.aspx
France Bans wifi from schools & daycares:
http://francesfox.com/france-bans-wifi-school/
http://www.earthcalm.com/wifi-dangers-to-children-france-bans-wifi-in-nurseries
Canada schools Ban wifi:
http://www.safeschool.ca/School_Bans_WiFi.html
More Bans:
http://www.wifi-in-schools-australia.org/p/worldwide.html
Quiet Zones:
http://www.emfs.com/article/emf-quiet-zones
EMFs & Bees, Birds, Bats, Insects, Frogs, & Pollinators
http://www.citizensforsafetechnology.org/bees-in-wildlife-and-environment,31,0
http://emfsafetynetwork.org/cell-phone-radiation-disturbs-honey-bees/
http://www.emfhealthalert.com/emf-and-the-bees/
http://rense.com/general81/emfs.htm
http://www.newmediaexplorer.org/sepp/2007/03/06/millions_of_bees_die_are_electromagnetic_signals_to_blame.htm
http://apps.fcc.gov/ecfs/document/view?id=7520941855
http://naturalsociety.com/is-the-cellphone-killing-the-honeybee/
http://www.bibliotecapleyades.net/scalar_tech/esp_scalartech_cellphonesmicrowave.htm
http://www.shiftfrequency.com/tag/scalar-waves/
https://lindasepp.wordpress.com/mcs-and-housing/
http://www.stopumts.nl/doc.php/Berichten%20Internationaal/8317/electrohypersensitivity_sanctuaries
http://www.nettally.com/prusty/mcs.htm
http://www.ecolibria.com.au/electromagnetic-radiation-emr-and-potential-adverse-health-affects/
http://reesewellness.com/electromagnetic-wellness-destroyers/

EMFs and Mold/Mycotoxins:
http://agoodhealthadvocate.com/health/mold-produces-600-times-more-bio-toxins-with-emf/
http://www.electricsense.com/6580/emfs-indoor-mold-connection/
http://www.klinghardtacademy.com/
http://www.earthcalm.com/emfs-and-mold-a-deadly-combination
http://www.helladelicious.com/diy/2012/06/biofilms-parasites-mold-and-electromagnetic-frequencies/
Dangers of Mold:
http://articles.mercola.com/sites/articles/archive/2011/09/03/molds-making-you-ill.aspx
Mold, Lyme, and EMFs
http://www.betterhealthguy.com/a-deep-look-beyond-lyme
EMFs and Heavy Metals:
http://articles.mercola.com/sites/articles/archive/2012/08/25/heavy-metal-electromagnetic-fields.aspx
EMFs & Autism:
http://naturalhealthforlife.com/autism/electromagnetic-radiation-emf-autism-hidden-connection/
Smart Meters Blowing Up & Catching on Fire Video:
https://www.change.org/p/stop-new-york-state-wireless-smart-meter-program/u/16015406?tk=kfdvUq27cMO2C2KHvc_GLYEMyifgVTAEuya_XeZi3yc&utm_source=petition_update&utm_medium=email
http://smartmeterdangers.org/smart-meter-scientific-research/new-studies-niradiation/
Dangers of Smart Meters & EMFs:
http://stopsmartmeters.org.uk/prof-martin-pall-how-wifi-other-emfs-cause-biological-harm/
http://www.freedomtaker.com
http://stopsmartgrid.org/
http://citizensforaradiationfreecommunity.org/
Meter Differences & Electrical Engineer Report on their Dangers:
https://www.emfanalysis.com/do-you-have-a-smart-meter/
https://michiganstopsmartmeters.com/2016/10/12/the-meter-itself-is-the-hazardous-condition/
Take Back Your Power Video on Not So Smart Murder Meters:
https://www.youtube.com/watch?v=ETfiksb3H4k
5G Spectrum Video:
https://www.youtube.com/watch?v=OMxfffqyDtc
http://www.parentsforsafetechnology.org/stop-5g-spectrum-frontiers.html
http://citizensforsafetechnology.org/Americans-Beware-Nationwide-Violations-of-FCC-
https://wearetheevidence.org/
Microwave Radiation Expert: Search Barrie Trower on youtube. Lots of videos available.
Wi-Fried Video:
https://www.youtube.com/watch?v=iTNYCMlgg7E
Jenny Fry Commits Suicide from Wifi in School:
https://www.youtube.com/watch?v=m6FcCtFAUcs
Israel's 3rd largest city bans wifi from schools:
Israel Video with English Subtitles discussing the epidemic of Wireless on our World titled "How we kill ourself –Radiation"
https://www.youtube.com/watch?v=bpJsIWuV-PA
How to Use the Cornet ED78s Scanning Meter taught by a Building Biologist:

https://www.youtube.com/watch?v=D64sr4kkbm8&feature=youtu.be
http://emfhelpcenter.com/

Radiation/EMFs Explained:

http://rense.com/general56/rad.htm
https://www.jackkruse.com/emf-5-what-are-the-biologic-effects-of-emf/
http://emwatch.com/what-emf-does-to-your-body/
http://www.americanassociationforcellphonesafety.org/
http://thepeoplesinitiative.org/
http://boilthefrogradio.com/kevin-mottus-joins-the-show/
http://www.saferemr.com/
http://articles.mercola.com/sites/articles/archive/2013/09/21/cell-phone-wifi-radiation.aspx#!

Dangers of Microwave Ovens:

http://naturalsociety.com/microwaves/
http://www.globalresearch.ca/the-dangers-of-microwave-radiation-cannot-be-ignored/24342
http://articles.mercola.com/sites/articles/archive/2010/05/18/microwave-hazards.aspx

Books:

Scientist Nick Begich "Angels Don't Play This Harp"
https://www.amazon.com/Angels-Dont-Play-This-Haarp/dp/0964881209
Tox-Sick by Suzanne Somers

- https://wh.gov/iewmv Petition: Please publicize the U.S. National Toxicology Program results that wireless radiation causes DNA breakage and cancer
- http://ehtrust.org/science/ facts-national-toxicology- program-cellphone-rat-cancer- study/ An excellent write-up about the NTP findings
- https://www.youtube.com/watch? v=DIlOVJd0lA8 Jimmy Gonzalez died at age 42 after he developed cancer where he was in contact with his phone: brain cancer, cancer under his chest pocket where he stored his phone, and cancer in the hand that held it.
- http://ehtrust.org/key-issues/ cell-phoneswireless/cell- phone-survivors/ Cell Phone Survivors & Non-Survivors
- www.EMFscientist.org Over 220 EMF/RF researchers from around the globe agree - existing RF limits are not protective and urgently need revision to protect people from getting cancer and other biological effects
- http://www.bioinitiative.org/ whats-new-2/ The response of the authors of the 2012 BioInitiative Report to the NTP findings.

If you have had cancer that you link to wireless technology or RF or know someone who has, please submit your story to:

https://www.whitehouse.gov/ webform/cancer-touches-all-us- share-your-story-here

Dangers of Blue Light:

All artificial lighting has blue light except old fashioned incandescent bulbs or red and purple lamps. Even LEDs have blue light.

"Morning sun has blue light in the spectrum, but it is balanced with the other colors in the sun so you get the exact amount you need to reset your circadian rhythm by getting out in the morning soon after

rising and being grounded outside as well. No lenses should be worn for the 15 minutes you do this. This helps to reset melatonin as well.

Blue light doesn't just affect our eye clock, it also affects our skin surface, and our skin detects this color. Jack always recommends that if there is blue light exposure and you're inside, make sure your body is covered up from the blue light exposure, as well as your eyes. Outside, you take everything off if possible."

Here is an app for the computer to block the blue light: It will change the lighting to go down with the sun and in the apps section, you can make it more orange.

https://justgetflux.com/

Here is a blue light map to see how much there is where you live. You want to live in the darkest places possible and avoid as much light as you can especially at night:

http://www.lightpollutionmap.info/#zoom=10&lat=4647733&lon=-8861149&layers=B0TFFFF

Regular glasses to block blue light:

Zenni Opticals sells them. They shouldn't be worn out in the sunlight though because our eyes need the full spectrum UV light. These lenses block all UV and blue light but have a clear lens.

You can get any style you want, and when you order them, you'll have the option to add Beyond UV to your glasses. You can get them in prescription and nonprescription.
http://www.zennioptical.com/beyond-uv-blue-blocker

Goggles to block blue light buy here:
https://www.amazon.com/Uvex-Blocking-Computer-SCT-Orange-S1933X/dp/B000USRG90

Here is some info on blue light from a friend:
"Jack Kruse believes that its the blue light that is at the heart of all health problems because it destroys DHA that is used by our mitochondria. Once the mitochondria doesn't work well, EMF problems loom large as well as other autoimmune conditions, cancer, etc. Once blue light is mitigated by using blue blockers, getting natural sunlight in our eyes, grounding outside barefoot, and setting our circadian rhythms right again, we can reverse the problems. In EMF fields he believes we need a LOT of fatty fish to replace our lost DHA.

Jack Kruse is really the top of the list when it comes to having information on blue light, non-native EMF, circadian biology and quantum biology. He is very wordy, and it takes a long time to read his work. He has a lot of videos online, and even podcasts you can follow. He's highly arrogant, but that's just his way.

You either like Jack or you don't.

Here is a list of different videos, podcasts, and links to his articles about blue light, and emf:
http://jamiegward.com/2016/08/14/2-dr-jack-kruse-mitochondria-sunglight-quantum-biology/
https://www.youtube.com/watch?v=vAZR0tmhMqY
https://www.youtube.com/watch?v=VLmhs6dalok

These two videos were from this July in Vermont. Rubin and Jack give these talks. They would be good to watch first:
https://www.youtube.com/watch?v=wHDNW4qQI9I
https://www.youtube.com/watch?v=N-_DTk9hYvI

Here's his website:
https://www.jackkruse.com/
It's much easier to listen to him talk than to read his work. He does have a book as well available on his site. He doesn't seem to have a word quota and can just talk and talk."

Article on Lighting and Insulin Resistance:
http://www.naturalhealth365.com/insulin-resistance-blood-glucose-1939.html

Worldwide Actions on Cell Phones/Wireless Radiation

Government Actions on Cell Phones/Wireless Radiation

Snapshot of the item below:

ENVIRONMENTAL HEALTH TRUST

INTERNATIONAL POLICY BRIEFING
Radiofrequency Radiation in Communities and Schools
Actions by Governments, Health Authorities and Schools Worldwide
Please go to source documents by clicking on the blue underlined hyperlink.
(Last updated 11/28/2016)

France

2016 The National Agency of Health Security of Food, Environment and Labour Report recommends

- regulatory changes to ensure "sufficiently large safety margins" to protect the health of young children.
- "ALL wireless devices, including tablets, cordless phones, remote controlled toys, wireless toys, baby monitors and surveillance bracelets, should be subjected to the same regulatory obligations as cell phones."

National Legislation *"Law on sobriety, transparency, information and consultation for exposure to electromagnetic waves"* passed in 2015.

- **WiFi Banned in Nursery Schools:** WIFI and Wireless devices will be banned in "the spaces dedicated to home, to rest and activities of children under 3 years".
- **WiFi on "OFF" as Default to Minimize Exposures in Schools**: In elementary schools,WIFI routers should be turned off when not in use.
- **Schools Will be Informed:** The school board should be informed when new tech equipment is being installed.
- **Cell Tower Emission Compliance Will Be Verified:** A decree will define the limits of emission of equipments for electronic communications or transmission to which the public is exposed. These values can be verified by accredited organizations and results will be made accessible to the public through a National Radiofrequency Agency.
- **Citizens Will Have Access to Environmental/Cell Tower Radiation Measurements** Near homes: Every resident may get access to the results of measurements for their living space.
- **Cell Antennae Maps For the Country**: A description and map of the places with atypical (higher than the limits) places will be conducted at regular intervals with follow up of the actions being taken to limit the exposure. A map of all antennas will be produced for each town.
- **Continued Evaluation of Health Effects:** The National Radiofrequence Agency will be in charge of surveillance and vigilance, evaluating potential risks and setting up scientific research, including information on health effects.
- **SAR Radiation Labeling Mandated:** The SAR of cell phones must be clearly indicated on the package.
- Information on Reducing Exposures Mandatory: Information on ways to reduce exposure will be detailed in the contents of the cell phone package. .
- **WIFI Hotspots will be Labeled:** Places where WIFI is provided should be clearly marked with a pictogram.
- Advertisements Must Recommend Devices That Reduce Radiation Exposure to the Brain: Advertising for cell phones should clearly indicate the recommendation of hand free kits for protection of the head of the user and it will be included in the package. Advertising for cell phone not accompanied by such a kit is forbidden. Companies in violation will be fined 75,000 Euros.
- **Children Must Be Provided Protections:** At the request of the buyer, equipment reducing cell phone radiation exposures to the head for children less than 14 years should be provided.
- **The Public Will Be Informed:** Within a year, a policy of information on awareness and information on a responsible and reasonable use of cell phones and other apparatus emitting radiofrequencies will be set up.
- **Electrohyper-sensitivity Report To Be Submitted:** Within a year, a report on electrohyper-sensitivity must be given to the Parliament.

France: As of January 2017, new regulations aimed to protect employees from electromagnetic fields emitted by the electronic devices present in the workplace. A decree was issued by the French Government on 6 August 2016:

- Specific precautions will be taken regarding pregnant women.

- It is forbidden to place workers under age 18 in posts where EMF is apt to exceed limit values
- each employer has to evaluate EMF risks.
- When exposure exceeding limit values is detected or when an undesirable or unexpected health effect from exposure to EMF is reported, the worker will benefit from a medical visit.
- The employer must provide information and training to his employees regarding the characteristics of EMF emissions, the direct and indirect biophysical effects that could result from exposure to EMF, etc.
- The employer must adapt as much as possible the post in order to limit exposure to EMF.
- Read about it here.

2011 French Cell Phone Statute:

- Merchants must display SAR Radiation levels for different phone models, all phones must be sold with a headset, cell phone ads aimed at children younger than 14 are banned and phones made for children under 6 are banned.

2013 French Agency for Food, Environmental and Occupational Health & Safety Report

- Recommends hands free phones, SAR labeling, and "limiting the population's exposure to radiofrequencies… especially for children and intensive users, and controlling the overall exposure that results from relay antennas."
- The French National Library along with other libraries in Paris, and a number of universities have removed all Wi-Fi networks.
- Herouville-Saint-Clair has removed all Wi-Fi equipment installed in municipalities.

The City of Lyon France ran a Campaign "No Cell Phone Before 12 Years old" See colorful poster here.

Belgium

Federal Public Health Regulations passed on March 2013 due to Health Concerns for Children.

- **Phones designed for children under 7 years old are prohibited from sale**.
- Total **Advertising Ban on cell phones aimed at children.**
- Mandatory Radiation SAR levels must be available for consumers at point of sale.
- Warning label on phones: "**Think about your health – use your mobile phone moderately, make your calls wearing an earpiece and choose a set with a lower SAR value."**
- Recommendations include use of hands-free methods to keep the phone away from the body such as text messaging and not making calls when the signal is weak, such as in elevator/vehicle.
- See examples of the posters that shops must display.
- Read Belgium's frequently asked questions about the new law.
- Powerpoint Presentation IMPLEMENTATION OF the Council Recommendations in Belgium Introduction of new rules for mobile phone sales Presentation by Dr.Marina Lukovnikova (Ministry of Public Health, Belgium)
- Read the Belgium Health Food and Safety Brochure on Wireless devices here.
- Read Dr. Moskowitz Press Release on the Belgium Law.
- Read the News article Flanders Today: Belgium bans sale of mobile phones designed for children
- The Belgian Foundation Against Cancer warns that intensive use of a mobile phone can increase the risk of contracting cancer. They suggest that children younger than 12 should not use a mobile phone, and that using a mobile phone as an alarm clock is not desirable because the phone is in close proximity to the head the entire night. The

Cancer Foundation also strongly advises people not to use a mobile phone in the car or a train. Read it here.

- Read the World Health Organization Belgium Report detailing the Law here.

Belgium Health Agency Recommendations to Reduce Exposure

- Read Belgium's Statement on Wireless Networks: **"**to reduce your exposure" which includes specific tips for Wi-Fi installations and I quote, " In order to limit the exposure, the following simple measures can be taken: Only switch on your wireless network connection when it is needed. This concerns the wifi adapter in your laptop in particular. Otherwise, your laptop tries to continually connect to the network, and that leads to unnecessary exposure and decreases the life expectancy of the batteries. Place the access point away from places where you spend lots of time."
- Read Belgium's Tips for Reducing Cell Phone Exposure HERE; "Experts – including those on the Superior Health Council(link is external) – advise everyone to limit their exposure to mobile phone radiation. The following simple tips will help you."
- Children and Cell Phones: "The use of the mobile phone by children is a special point of attention. Children may be more sensitive to radio waves. Children absorb twice as much radiation in the brain than adults do, and 10 times more in the bone marrow of the skull. In addition, due to the popularity of the mobile phone, the cumulative exposure of the current generation of children will be much higher by the time they reach their adulthood than that of the current adults."

Belgiums Ghent Municipality: Wireless internet is banned from spaces that cater to children between 0 and three: preschools and daycares to reduce exposure to microwave radiation. Read news article about the ban here.

Spain

- The Parliament of Navarra voted to urge removal of WIFI in schools and to apply the precautionary principle in relation to exposure limits to electromagnetic fields whose boundaries have become "obsolete".
    - The Parliament voted to adopt a resolution which calls to implement the Parliamentary Assembly of the Council of Europe resolution 1815 of 2011, which recommends to "review the scientific basis for the standards of exposure to electromagnetic fields" and " set thresholds for levels of preventive long-term exposure in all indoor areas not exceeding 0.6 volts per meter ".
- **2016 The High Court of Madrid recognizes "Electrosensitivity" as grounds for disability:** A telecommunications engineer who worked at Ericsson had his sensitivity recognized. "This is the first we have achieved total disability due exclusively to this syndrome," says attorney Jaume Cortés, the Col·lectiu Ronda. Read the news article here.
- The Vitoria City Council unanimously approved a precautionary approach with wireless: Citizens will be informed of the location of wireless transmitters are in civic centers and municipal buildings. It is recommended that children's spaces such as playgrounds and family libraries, will be free of WiFi or have decreased wifi and wifi free zones will be established in playgrounds and building entrances.
- **The Basque Parliament** joined the resolution of the Parliamentary Assembly of Council of Europe in 2011, which warns of the "potential risk" of electromagnetic fields and their effects on the environment and urged the promotion of campaigns against "excessive use "mobile phones among children.In a statement, the parliamentary Aralar, Dani Maeztustated, "To protect children's health, recommends the implementation of information campaigns and portable devices that emit microwaves, and prioritizes the use of cable connections in schools."

- **City of Tarragona Municipal Government (Tarragona is a major city 100 kilometres south of Barcelona) approved the "Institutional Declaration of support for people with Central Sensitivity Syndromes"**

1. Carry out (with a yearly update) a diagnosis and census of those affected by CSS in the City of Tarragona, showing what is the actual situation and the specific needs of these patients and their families.
2. An intervention protocol for the staff of the Area of Services to Citizens of the Tarragona City Government to look after those with CSS- including a list of economic subsidies for food, first necessity elements, reduced water bill, and home help specific to the needs of these patients.
3. Housing protocol for people with CSS, especially those who have MCS and/or EHS, those threatened by eviction or those who are forced to leave their home. This protocol has to include a series of safe social housing (green/white spaces: free of xenobiotics and electromagnetic waves).
4. Create green/white spaces in all municipal buildings (free of xenobiotics and electromagnetic waves).
5. Eliminate, as much as possible, the use of pesticides in the whole of the municipality. In the case when this is not possible, establish a communication protocol to contact those affected and the press regarding the places and dates of the interventions with preventive advice.
6. Training for social workers and educators about CSS, its social, health and economic reality. Elaboration of information and education to increase the knowledge about these illnesses amongst the general population and of the city workers in particular, with the objective of diminishing the stigma that is now present regarding these illnesses.
7. Protocol for adapting working conditions of the municipal workers who have CSS with specific measures of support when having a flare up. These would be the measures: work schedule flexibility, encourage work from home through internet (teleworking), reserved parking spaces and include in the collective agreement not deduct the salary of the first 20 days of sick leave.
8. Read the full article detailing the actions here.

Canada

- **Health Canada offers "Practical Advice"** on reducing exposure to wireless radiation: 1. Limit the length of cell phone calls, 2. Replace cell phone calls with text, use "hands-free" devices and 3. Encourage children under the age of 18 to limit their cell phone usage. Read it here.

> *"Health Canada reminds cell phone users that they can take practical measures to reduce RF exposure. The department also encourages parents to reduce their children's RF exposure from cell phones since children are typically more sensitive to a variety of environmental agents. As well, there is currently a lack of scientific information regarding the potential health impacts of cell phones on children."*

- Canadian Parliament Standing Committee on Health of the House of Commons issued a report "Radio Frequency Electromagnetic Radiation and the Health of Canadians" on June, 2015 after holding public hearings regarding Health Canada's Safety Code 6 recommended limits. They made 12 recommendations including an awareness campaign on reducing exposures, improved information collecting and policy measures regarding the marketing of radiation emitting devices to children under the age of 14, "in order to ensure they are aware of the health risks and how they can be avoided."
- **2015:** National Bill C-648 *was Introduced* into the House Of Commons,"An Act Respecting the Prevention of Potential Health Risks From Radiofrequency Electromagnetic Radiation" would require manufacturers of all wireless devices to place specific health warning labels clearly on packaging, or face daily penalties /fines and/or

imprisonment. Although the Bill did *not pass,* it made headlines.Press Conference for Bill C-648 Video.

- Canadian Pediatric Association issued a Position Statement Healthy active living: Physical activity guidelines for children and adolescents which states:

  For healthy growth and development: screen time (eg, TV, computer, electronic games) is not recommended for children under 2 years old. For children 2-4 years, screen time should be limited to <1 h/day; less is better. Read the Position Statement Here.

European Parliament

Resolution 1815: **In 2011 The Parliamentary Assembly of the Council of Europe issued *The Potential Dangers of Electromagnetic Fields and Their Effect on the Environment.***
A call to European governments to "take all reasonable measures" to reduce exposure to electromagnetic fields "particularly the exposure to children and young people who seem to be most at risk from head tumours." The Resolution calls for member states to:

- Implement "information campaigns about the risk of biological effects on the environment and human health, especially targeting children and young people of reproductive age. "
- "Reconsider the scientific basis for the present standards on exposure to electromagnetic fields set by the International Commission on Non-Ionising Radiation Protection, which have serious limitations, and apply ALARA principles, covering both thermal effects and the athermic or biological effects of electromagnetic emissions or radiation."

"For children in general, and particularly in schools and classrooms, give preference to wired Internet connections, and strictly regulate the use of mobile phones by schoolchildren on school premises." Read Resolution 1815
Read the 2009 Resolution: Health concerns associated with electromagnetic fields calling for a review of the issue.

Australia

The Australian Radiation Protection and Nuclear Safety Agency has issued a Fact Sheet titled *How to Reduce exposure from mobile phones and other wireless devices.*

- Reduce the risk from WiFi devices by "keeping them at a distance, for example placing the wireless router away from where people spend time", and "reducing the amount of time you use them".
- ARPANSA recommends that parents encourage their children to limit their exposure stating that "It is recommended that, due to the lack of sufficient data relating to children and their long term use of mobile phones, parents encourage their children to limit their exposure by reducing call time, by making calls where reception is good, by using hands-free devices or speaker options, or by texting." Read it HERE.

Queensland Department of Education, Training and Employment issued Your Guide to Safe Technology guide in 2015 to all schools that states:

It's not only physical hazards you need to consider when thinking about health and safety issues at work or home — you should also think about how you use technology. When using a computer, you need to think about:

- *ergonomics and posture*
- *radiation*
- *vision impacts*
- *harmful lack of exercise (DVT).*

"Wireless devices — smart/mobile phones, tablets, slates, monitors etc — all emit low levels of electromagnetic radiation and should be used correctly. When using electronic devices, the department recommends you follow WiFi/3G/4G best practice:

- *follow the manufacturer's usage guideline operate from a table or bench — not on your lap*
- *use 'hands-free' devices to keep smart/mobile phones away from your head and body during phone calls limit the number and length of calls*
- *position the device antenna away from your body*
- *do not sit within 0.5 m of a wireless router use smart/mobile phone in areas of good reception to reduce exposure."*
- Watch a video on these recommendations here.

New Zealand

Rotokawa School implemented steps to minimize RF Exposure on 2/2/2016
After concerns raised about e-learning by a small group of parents from the school, the principal has put some positive procedures in place as follows;

- Children will use ipads in flight mode
- Children using laptops and Chromebooks will work on the desk top
- Parents may request that their child use an Ethernet cord to access the internet
- Children are taught about the health precautions as part of their cyber citizenship
- Digital learning in the one to one Year 5 & 6 environment is kept to less than 2 hours per school day.
- The principal has also stated there are no plans to increase the existing Wi-Fi coverage at this stage.

Italy

- **2016: Mayor of Borgofranco d'Ivrea has ordered Wi-Fi to be turned off in schools.** "Mayor Livio Tola told the town's high school and elementary school to return to using cables to connect to the internet after reading that the electromagnetic waves given off by wireless routers were especially harmful to young children." Read the newspaper article here. Read the News article here "Ivrea, The Mayor Removes WiFi as it Could Be Dangerous".
- **On June 10, 2015, the State Parliament of South Tyrol voted to** allow the application of the precautionary principle **mandating the state government to:**
    - 1. To replace existing wireless networks whenever possible with networks that emit less radiation at schools, preschools, hospitals, nursing homes, and other public facilities.
    - 2. Establish a working group whose mandate it is to assess these new technologies and their exposure levels. With regard to wireless communication technologies, mobile Internet access, and public health, the working group shall clarify which technologies emit less radiation and provide sustainable technology options and
    - 3. To start an education and awareness campaign that informs about possible health risks, especially regarding the unborn, infants, children, and adolescents and that develops guidelines for a safer use of cell phones, smartphones, and Wi-Fi …Discussion at the Plenary Session, 10 June 2015 (in German) ///////Official Files, Resolutions (in German) ////////Previous Hearing at the Parliament of South Tyrol, 29 April 2015 (in German)
- **The** Italian Supreme Court **ruled a man's brain tumor was caused by his cell phone use in 2012.** The National Institute for Workmen's Compensation must compensate a worker with head tumor due to cell use. Read news article with details here. Read Daily Mail article Mobile phones CAN cause brain tumours, court rules in landmark case.
- **A school In Lecce, Italy, "Istituto Comprensivo Alighieri- Diaz" banned wifi.** Their two resolutions decided: a) to ban wifi in school and install a wired system for the use of

internet and b) Reject the request of the local government (Municipality) to install an antenna on the school roof for the wireless signal providing for the "Wireless city" program. The resolution also asks the Municipality to install the antenna at a reasonable distance from school.Read the official resolutions number 1here and Resolution 2 Here.

- **The Piemonte Region has adopted a resolution to limit EMF exposure,** to limit the use of wifi in schools and be considerate to the problem of EHS people. Read about it here.
- **The Italian Society for Preventive and Social Pediatrics has officially called to prohibit cell phones for children under 10 years old.** Giuseppe Di Mauro, president of the Italian Society of social and preventive pediatrics [Società italiana di pediatria preventiva e sociale (www.sipps.it)] "We do not know all the consequences associated with cell phone use, but excessive use could can lead to concentration and memory loss, increase in aggressiveness and sleep disturbances." and he cites electromagnetic fields stating"The damage to health are increasingly evident" Read it here.
- **Turin Mayor Chiara Appendino laid out plans "to cut back on Wi-Fi in state school**s and government buildings over concerns that radiation might damage people's health". Read 7/2016 News Report Turin could slash Wi-Fi over 'radiation' concerns

Finland

In 2015 the Radiation and Nuclear Safety Authority (STUK) revamped their public information website to recommend reduced exposure to children and state the following:

- The page *Mobile phones are a major source of radio frequency radiation* states that, 'The level of exposure to radiation from a mobile phone held next to user's ear can approach the exposure limits. *Never before have humans been exposed to equally strong sources of radiation in their living environments.* Identifying any health impacts is highly important because practically everybody uses a mobile phone today."
- Read STUK Recommendations to *reduce cell phone exposure* HERE: Use a hands free device, don't use phones reception is poor, the phone should be kept on a table or similar location instead of in the user's pocket.
- "STUK recommends that unnecessary exposure to radiation from mobile phones be avoided. In particular, children's unnecessary exposure should be avoided as their life-long exposure will be longer than that of those who begin using mobile phone as adults and as only scant research exists on health effects to children."

In 2009 the Radiation and Nuclear Safety Authority (STUK) initially issued recommendations to reduce exposure with more explicit cautionary language.

- Read the information posted on the STUK website in 2009- now removed.
- Read a policy position paper by STUK from 2009 detailing why "It would be good to restrict children's use of mobile phones."
- Read the 2011 policy position from STUK.
- Read a news article from 2009 when STUK first recommended restricting the use of mobile phones by children.

Israel

- The Israeli Government created the EMF public education webpage National Information Ctr for Non-Ionizing Radiation . The Israeli Ministry Of Education has issued guidelines limiting WiFi and cell phone use in schools.
    - Preschool through 2nd grade have banned the use of wireless networks. In third and fourth grade class internet is restricted to 3 hours per week.

- A hard wired direct cable connection is required if the teacher has a computer in the class.
- Magnetic fields below 4 mG are being reduced in schools representing the government's position that international guidelines are NOT protective of children.
- The Israeli Supreme Court ordered the Israeli government to reply on ceasing Wifi installations
- In third and fourth grade class internet is restricted to 3 hours per week.
- The Education Ministry has instructed all schools to perform radiation tests.
- Israel's Minister of Health Rabi Litzman stated that he supports a ban on Wi-Fi in schools.
- A hard wired direct cable connection is required if the teacher has a computer in the class.

2016: Cell phones are banned in classrooms per a memorandum from the Ministry of Education. Watch a newsreport on this action here.

Read the official ISRAEL 2015 RF Safety Report with actions being taken to reduce EMF.

The Ministry of Health published Environmental Health in Israel 2014 which states that "Precautions should be strictly enforced with regard to children, who are more sensitive to developing cancer." and that "wireless communication networks in schools be reduced." The Health Ministry recommends "sensible use of cellular and wireless technology, including: considering alternatives like landline telephones, use of a speaker while talking on a cellphone, and refraining from installing the base of wireless phones in a bedroom, work room, or children's room." The Report states that "Findings in Israel clearly indicated a link between cellphone use for more than 10 years and the development of tumors in the salivary glands, particularly among people who held the telephone on the same side where the tumor developed and individuals in the highest category of exposure (heavy use in rural areas)."

- Linda S. Birnbaum, Director, USA National Institute of Environmental Health Sciences and National Toxicology Program wrote in the Israeli Report final chapter that, " If some of the om studies turn out to be harbingers of things to come, we may have major health consequences from the nearly ubiquitous presence of wireless equipment."

Haifa (Israel's third largest city) removes Wi-fi from all schools.

- Haifa Major Yona Yahav, said that "When there is a doubt, when it comes to our children, there is no doubt". Read the News Report The - Wi-Fi in kindergartens and schools in Haifa severed.
- "The roots of the decision go back to a 2013 petition by parents in four schools who claim that such networks are harmful. The case eventually made its way to the High Court, which has postponed a final decision on the matter...The movement has spread from Haifa to other cities as well, and petitions have been signed by parents in dozens of cities demanding the removal of the networks. Haifa is the first city to take action on the matter.Haifa Mayor Yona Yahav said that the city would replace the wireless network with a wired connection that will provide safer options to students." Read the news article here.
- This action occurred after this Israeli TV Documentary – "HOW WE ARE KILLING OURSELVES – WIRELESS RADIATION" aired.

Read the 2009 News article on the cell phone guidelines in Israel Health Ministry.: Limit Kids' Use of Cell Phones

Switzerland

- **The Switzerland Federal Office for the Environment** FOEN has a webpage on Wi-Fi which states "caution should be exercised primarily when using devices held close to the body, such as laptops, PDAs and Internet telephones.." and gives recommendations on how to reduce exposure including turning the Wi-Fi off when not in use, installing the access point one metre away from places where you work, sit or rest for long periods of time and keeping laptops off laps.
- **The Switzerland Federal Office for the Environment** FOEN has a webpage on Cell Phones which details ways to reduce mobile phone radiation. FOEN also has additional EMF factsheets on various EMF sources including on baby monitors where they state that "it is **advisable to reduce the infant's exposure to emissions as far as possible."**
- **The 2015 Environmental Report Chapter 17 on Electrosmog** states "Effects can also be detected for weak radiation intensity. For example, weak high-frequency radiation can alter electric brain activity and influence brain metabolism and blood flow. Whether these effects have an impact on health is still unclear" and recommends the precautionary principle to reduce risk "Because major gaps still exist in our knowledge about the health impacts of long-term exposure to weak non-ionising radiation, the adopted protective strategy should be pursued consistently." Read it here.
- Switzerland FOEN 2012 Radiation of radio transmitters and Health "*In view of the fact that there are gaps in the available data, the absence of proof of health risks does not automatically also mean proof of their absence. From the scientific point of view, a cautious approach in dealing with non-ionising radiation is still called for. There remains a need for extensive research into the potential long-term effects"*
- The Governing Council of Thurgau Canton 2008 "The Governing Council recommends for schools to forgo the use of wireless networks when the structural makeup of a given school building allows for a wired network." Read a letter by the Council here.

Swiss Physicians Association of Doctors for Environmental Protection

2012 Swiss Physicians Letter "the risk of cancer for this type of [wireless] radiation is similar to that of the insecticide DDT, rightfully banned... From the medical point of view, it is urgent to apply the precautionary principle for mobile telephony, WiFi, power lines, etc."

2014: Preliminary draft for a federal law on the protection against dangers: Non-ionizing radiation (NIS) is growing steadily. Especially the everyday stress in the area of low-frequency and high-frequency. Read it here.

2016: Press Release on the NTP Study and Policy Implications: "There are increasingly clear indications that mobile radio is a health hazard. From a medical point of view it is clear: the scientific results so far show it is clear that prudent avoidance of unnecessary exposures is necessary."

- Additional Links by Swiss Physicians for the Environment

Report on Smartphones- (OEKOSKOP 1/16) AefU-News about Electrosmog

Germany

- The Federal Office for Radiation Protection (FORP) provides tips for reducing radiation exposure to smartphones, tablets and wireless devices stating, "*Since long term effects could not be sufficiently examined up to now the Federal Office for Radiation Protection (BfS) recommends to keep exposures to these fields as low as reasonably achievable.*" **Read the precautionary advice here.**

"There are uncertainties in the risk assessment that the German mobile communications research programme has not been able to remove completely. These include in particular:

- *possible health risks of the long-term exposure of adults to high frequency electromagnetic fields when making mobile telephone calls (intensive mobile use over more than 10 years)*
- *the question of whether the use of mobile phones by children could have an effect on health.*

For these reasons, the BfS continues to consider that precautionary measures are necessary: exposure to electromagnetic fields should be as low as possible."

- **Smartphones and Tablets: Read the webpage with recommendations to reduce exposure here:**

"Smartphones and tablets for children?

It is particularly important to minimise children's exposure to radiation. They are still developing and could therefore react more sensitively in terms of health."

- The FORP recommends landline phone instead of mobile phone base stations and that schools should not connect wirelessly to the internet. **Read a 2015 statement here.**

See their poster "Less radiation when Telephoning" here.

The German Federal Ministry for Radiation Protection stated in 2007 ,"supplementary precautionary measures such as wired cable alternatives are to be preferred to the WLAN system." See original German Bundestag document here, and an English translation here.

Bavaria: The State Ministry of Education and Cultural Affairs: "For precautionary reasons the Federal Office for Radiation Protection recommends for schools that if a wireless network is used to place its components in suitable locations and to prefer the use of wired network solutions whenever possible." In 2007 Parliament recommendation to all schools to *not* install wireless LAN networks.

Frankfurt: "In Frankfurt's schools there will be no wireless networks in the short or mid term. The Local Education Authority did not wish to conduct a "large scale human experiment," said Michael Damian, spokesperson of the Head of the School Department Jutta Ebeling.

2013: Four German Federal Agencies issued a guidebook recommending reducing cell phones and Wi-Fi to young children: "Parenting Guide: Environmental and Child Health" by the Federal Office for Radiation Protection (BfS), the Federal Institute for Risk Assessment (BfR), the Robert Koch Institute (RKI) and the Federal Environmental Agency (UBA). It contains practical information including reducing electromagnetic radiation from baby monitors and telephones: Baby monitors should be as far as possible away from the crib. Phones should be banished from the nursery. They are not suitable toys for

infants and toddlers. Use of cabled landline phones is preferable. Wi-Fi routers are are not suitable in children's bedrooms, and should be switched off when not in use, especially at night.

- Download Parenting Guide: Environmental and Child Health here.
- Read a news article about it by clicking here.

Austria

Salzberg: The Public Health Department Advises Against Wi-Fi in Schools: "The official advice of the Public Health Department of the Salzburg Region is not to use WLAN and DECT in Schools or Kindergartens." -Gerd Oberfeld, MD.

The public health department of Salzburg (Landessanitätsdirektion) recommends to evaluate mobile phone base station exposures based on the EUROPAEM EMF Guideline 2016

The Public Health Department of Salzburg lists Electrosmog studies highlighting the EUROPAEM EMF guideline 2016 as representing the current state of medical science that it is used by the Landessanitätsdirektion Salzburg for the health assessment of EMF.

The Vienna Medical Association has issued cell phone safety guidelines stating that cell phones should be used for as short of a time as possible and that children under 16 should not use cell phones at all. They also state that "wireless LAN leads to high microwave exposure".

January 2016 : Vienna Medical Association has issued new Ten Cell Phone Guidelines. They are:

1. Make calls as short and little as possible - use a landline or write SMS. Children and teenagers under 16 years old should carry cell phones *only for emergencies!*
2. Distance is your friend- Keep the phone away from body during connection of Phone. Pay attention to the manufacturer's safer distance recommendation in the manual, keep a distance during the call set-up from the head and body. Take advantage of the built-in speakerphone or a headset!
3. When using headsets or integrated hands-free, do not position mobile phones directly on the body - special caution applies here for pregnant women. For men, mobile phones are a risk to fertility if Mobile is stowed in Trouser pockets. Persons with electronic implants (pacemakers, insulin pumps et cetera) must pay attention to distance. Unless otherwise possible, use coat pocket, backpack or purse.
4. Not in vehicles (car, bus, train) calls - without an external antenna, the radiation in the vehicle is higher. In addition, you will be distracted and you bother in public transport the other passengers!
5. During the car when driving should be an absolute ban on SMS and internetworking - the distraction leads to self-endangerment and endangering other road users!
6. Make calls at home and at work via the fixed corded (not wireless) network - Internet access via LAN cable (eg via ADSL, VDSL, fiber optic) no Radiation, is fast and secure data transfer. Constant radiation emitters like DECT cordless telephones, WLAN access points, data sticks and LTE Home base stations (Box, Cube etc.) should be avoided!
7. Go offline more often or use Airplane mode - Remember that for functions such as listening to music, camera, alarm clock, calculator or offline games an internet connection is not always required!

8. Fewer apps means less radiation - Minimize the number of apps and disable the most unnecessary background services on your smartphone. Disabling "Mobile services" / "data network mode" turns the smartphone again into a cell phone. You can still be reached, but avoid a lot of unnecessary radiation by background traffic!
9. Avoid Mobile phone calls in places with poor reception (basement, elevator etc) as it increases transmission power. Use in poor reception Area a headset or the speakerphone!
10. For buyers of mobile phones, Look out for a very low SAR value and an external antenna connection!

Read the Press release (in German): http://www2.aekwien.at/1964. py?Page=1&id_news=8972

See The Poster (in German): http://www.aekwien.at/ aekmedia/Medizinische-Handy- Regeln.pdf

See the translated Poster with Tips in English

Austria's" Highest Health Council of the Ministry of Health" has a brochure with advice to reduce exposure to cell phone radiation. It states that since the long term research is still not completed, it is advisable to take simple precautions to reduce exposure. Read the Brochure here. See the WHO Report on Austria's EMF activities and research studies underway here.

India

2012 The Ministry of Communications and Information Technology issued new EMF guidelines with new Exposure Limits *lowered to 1/10 of the ICNIRP level, and* SAR labeling on phones.

- Official cell phone radiation guidelines *Precautionary Guidelines for mobile users*: 1. Keep distance – Hold the cell phone away from body to the extent possible. 2. Use a headset (wired or Bluetooth) to keep the handset away from your head. 3. Do not press the phone handset against your head. Radio Frequency (RF) energy is inversely proportional to the square of the distance from the source -- being very close increases energy absorption much more. 4. Limit the length of mobile calls. 5. Use text as compared to voice wherever possible. 6. Put the cell phone on speaker mode. 7. If the radio signal is weak, a mobile phone will increase its transmission power. Find a strong signal and avoid movement – Use your phone where reception is good. 8. Metal & water are good conductors of radio waves so avoid using a mobile phone while wearing metal-framed glasses or having wet hair. 9. Let the call connect before putting the handset on your ear or start speaking and listening – A mobile phone first makes the communication at higher power and then reduces power to an adequate level. More power is radiated during call connecting time. 10. If you have a choice, use a landline (wired) phone, not a mobile phone. 11. When your phone is ON, don't carry it in chest/breast or pants pocket. When a mobile phone is ON, it automatically transmits at high power every one or two minutes to check (poll) the network. 12. Reduce mobile phone use by children as a younger person will likely have a longer lifetime exposure to radiation from cell phones. 13. People having active medical implants should preferably keep the cell phone at least 15 cm away from the implant.
- The Parliamentary Standing Committee on Science & Technology, Environment & Forests issued a report in the Rajya Sabha on July 23, 2015, recommending "indigenous methodology and techniques to check the alarming increase in radiation from radio-active signals, RF and Electro-magnetic Fields (EMFs)." The committee said "Indians were more prone to risk from radiations as compared to Europeans because of their low body mass index (BMI) and low fat content.

Therefore, comprehensive scientific studies must be conducted to "conclusively establish the level of risks and adverse health effects of electromagnetic radiation (EMR) of cell towers".

- 2013: Supreme Court of India upheld the High Court of the State of Rajasthan decision to remove all cell towers from the vicinity of schools, hospitals and playgrounds because of radiation "hazardous to life." Two hundred and four mobile towers installed on the school premises of Rajasthan have been removed in compliance.
- A Journey for EMF: The Ministry of Communications and Information Technology has developed an EMF webpage.
- Zilla Parishad orders removal of all cellphone towers near schools citing exposure to "harmful radiation".
- **Municipal Corporation of Greater Mumbai**, the civic body that governs the capital city of Mumbai in Maharashtra (Indi a's richest municipal organization) in 2016 in its new policy on mobile towers, no longer allows cell towers on playgrounds, recreational grounds, gardens and parks. Read news article.
- Read a Document prepared by Dr. Sharma, Sr. Deputy Director of the Indian Council of Medical Research on Indian Research Studies.
- See the Colorful graphic created by the Government Ensuring Safety from Radiations : Mobile Towers and Handsets
- Read the 2011 Report: Ministry of Environment and Forest, Government of India's Expert Group study on the possible impacts of communication towers on Wildlife including Birds and Bees
    - "*The review of existing literature shows that the Electro Magnetic Radiations (EMRs) are interfering with the biological systems in more ways than one. There had already been some warning bells sounded in the case of bees and birds, which probably heralds the seriousness of this issue and indicates the vulnerability of other species as well."*

Russia

- The Russian National Committee on Non-Ionizing Radiation Protection in *ELECTROMAGNETIC FIELDS FROM MOBILE PHONES: HEALTH EFFECT ON CHILDREN AND TEENAGERS (2011)* has repeatedly warned about electromagnetic radiation impacts on children and recommended WiFi not be used in schools.
- **Official Recommendations:** The Russian Federation specifically advises that those under the age of 18 should not use a mobile phone at all, recommends low- emission phones; and requires the following: on-device labelling notifying users that it is a source of RF-EMF, user guide information advising that ''it is a source of harmful RF-EMF exposure'' and the inclusion of courses in schools regarding mobile phones use and RF-EMF exposure issues. "Thus, for the first time in the human history, children using mobile telecommunications along with the adult population are included into the health risk group due to the RF EMF exposure."
    - "In children, the amount of so-called stem cells is larger than in adults and the stem cells were shown to be the most sensitive to RF EMF exposure."
    - "It is reasonable to set limits on mobile telecommunications use by children and adolescents, including ban on all types of advertisement of mobile telecommunications for children."

Decision of Russian National Committee on Non-Ionizing Radiation Protection 2008, "Children and Mobile Phones: The Health of the Following Generations is in Danger"

European Environment Agency

- The EEA's issued 2013 *Late Lessons From Early Warnings: Chapter 12: Mobile phone use and brain tumour risk: early warnings, early actions?* which concludes that " Precautionary actions now to reduce head exposures, as pointed out by the EEA in 2007, and many others since, would limit the size and seriousness of any brain tumour risk that may exist. Reducing exposures may also help to reduce the other possible harms..." Read it here.
- 2011 David Gee, EEA Senior Advisor on Science, Policy and Emerging Issues stated in a press release that "We recommend using the precautionary principle to guide policy decisions in cases like this. This means that although our understanding is incomplete, this should not prevent policy makers from taking preventative action.**"** Read it here.
- 2009 EEA Recommendations based on current evidence (2009) The evidence is now strong enough, using the precautionary principle, to justify the following steps: 1. For governments, the mobile phone industry, and the public to take all reasonable measures to reduce exposures to EMF, especially to radio frequencies from mobile phones, and particularly the exposures to children and young adults who seem to be most at risk from head tumours.
- 2007 Professor Jacqueline McGlade, the EEA's executive director issued a statement that "Recent research and reviews on the long-term effects of radiations from mobile telecommunications suggest that it would be prudent for health authorities to recommend actions to reduce exposures, especially to vulnerable groups, such as children." Read it here.

Singapore

Singapore's National Environmental Agency specifically advises precautions. Below is the exact text found on the Frequently asked Questions About **Radiation Protection.**

"What is NEA's advice to the public on the proper way of using mobile phones amidst all the concerns?

	While further research is being carried out to study the long-term health effects of RF field, individuals could take precautionary measures to reduce RF exposure to themselves or their children by limiting the length of calls, or using 'hands-free' devices to keep the mobile phones away from the head and body."

United Kingdom

The UK National Health Service has changed it's advice. Here is the story. As of 2011 it offered specific Recommendations to reduce cell phone radiation exposure to children.

- Read the pre 2015 webpage entitled 'Risks of mobile phone use' with recommendations which state; *"Children are thought to be at higher risk of health implications from the use of mobile phones. This is because their skulls and cells are still growing and tend to absorb radiation more easily. It is recommended that children use mobile phones only if absolutely necessary."*
- Read the UK Department of Health pre- 2015 brochure on mobile phones and health which reads:

"The expert group has therefore recommended that in line with a precautionary approach, the widespread use of mobile phones by children (under the age of 16) should be discouraged for non-

essential calls. In the light of this recommendation the UK Chief Medical Officers strongly advise that where children and young people do use mobile phones, they should be encouraged to: • use mobile phones for essential purposes only • keep all calls short - talking for long periods prolongs exposure and should be discouraged The UK CMOs recommend that if parents want to avoid their children being subject to any possible risk that might be identified in the future, the way to do so is to exercise their choice not to let their children use mobile phones."

- Read the 2011 brochure on base stations and health which reads, *"Therefore, as a precaution, the UK Chief Medical Officers advise that children and young people under 16 should be encouraged to use mobile phones for essential purposes only, and to keep calls short. If you are concerned, you can take steps to reduce your exposure such as using hands free kits or texting.*"
- The NHS also had additional website sections on health effects. The Mobiles and mums-to-be webpage was about the research showing cell phone was linked to behavioral issues in children. Read it here. The NHS webpage Mobile effect on sleep detailed research which concluded RF " is associated with adverse effects on sleep quality within certain sleep stages". These webpages were deleted from the current site.
- For the public they had "recommendations to help lower any potential long-term risks" which include keeping calls short, keep phone away from the body on standby mode, only use it when the reception is strong and use a phone with an external antenna.
- 2002 The Stewart Report commissioned by the UK Government found that exposure to RF radiation below guidelines has not been "proven" to cause adverse health effects but it is not possible to say "that exposure to RF radiation, even at levels below national guidelines, is totally without potential adverse health effects" as "there is some scientific evidence which suggests that there may be biological effects and gaps in knowledge justify a precautionary approach to the use of mobile phone technologies until much more detailed and scientifically robust information on any health effects becomes available."
- Check out a slide presentation on people and wireless radiation by NHS here.

Then, the UK National Health service changed the public advice text. Everything noted *above* was reworded. *Now* the website states:

- "If there are any health risks from the use of mobile phones, children might be more vulnerable because their bodies and nervous systems are still developing. Research carried out to date hasn't supported a link between mobile phone use and childhood cancers such as leukaemia. However, if you have any concerns, you can lower your child's exposure to radio waves by only allowing them to use mobile phones for essential purposes and keeping calls short." Read this *new* text here.
- See the brochure (2011) entitled "Mobile phones and base stations: Health advice on using mobile phones" which states: The body and nervous system are still developing into the teenage years. Therefore, as a precaution, the UK Chief Medical Officers advise that children and young people under 16 should be encouraged to use mobile phones for essential purposes only, and to keep calls short.
- The newly edited section called Mobile phone safety - FAQs states:

Do scientists know everything about mobile phones and health?

No, and research is continuing. Mobile phones have only been widely used for about 20 to 30 years, so it's not possible to be so certain about the safety of long-term use. More research on the effects of mobile phones on children is also needed, as they're known to be more sensitive than adults to many

environmental agents, such as lead pollution and sunlight. Government advice is to be on the safe side and limit mobile phone use by children.

2016 The Control of Electromagnetic Fields at Work Regulations 2016 (CEFAW) requires employers to assess the levels of EMFs their employees may be exposed to, ensure compliance, provide information on risks and take action if necessary. Legislation http://www.legislation.gov.uk/uksi/2016/588/pdfs/uksi_20160588_en.pdf

- *"You must ensure you take workers at particular risk, such as expectant mothers and workers with active or passive implanted or body worn medical devices, into account when appropriate, devise and implement an action plan to ensure compliance with the exposure limits."* Read news article on regulations.

Cyprus

"Be Precautionary and reduce exposure to phones, Wi-Fi and other wireless devices," states the Cyprus National Committee on Environment and Child Health (ECH). Dr. Stella Michaelidou, President of the ECH, states that society should respond by taking precautions because "Documentation of other potential and more serious biological side effects are on the tip of an emerging iceberg." This stance was documented in a recent news article that quotes Michaelidou stating that "multiple and frequent exposure to this kind of radiation, which falls below the acceptable levels of thermal effects, pose a health risk to a developing embryo." and children who use their mobile phone more frequently face a higher risk at having a weaker memory, attention deficit disorder, and similar issues.

The Cyprus National Committee on Environment and Child Health supported by Cyprus "has as its basic aim the prevention of illnesses, which also are related with the exposure of children in environmental dangers." The activities of the National Committee are supported by the State of Cyprus. Read about the Committee and it's mission on their website here (click on the British flag to get the English translation.)

Official Statements and Documents

- *Protecting children from radiation emitted by Wi-Fi, mobile phones and wireless* by Dr. Stella Kanna Michailidou of the National Committee Chairman "Environment and Children's Health"
- See the Commission's EMF brochure on reducing the risks to children from exposure to the Non Ionizing Radiation (mobile phones, Wi-Fi, tablets, etc.).
- The National Committee on Environment and Children's Health Website Information on EMFs can be acessed at http://www.cyprus-child- environment.org/easyconsole. cfm/id/324

PSA Video Children's Health and Wi-Fi

- The Cyprus National Committee on Environment and Child Health created a short PSA for citizens about children and wireless radiation and how to reduce Wi-Fi exposure.
- Watch the greek version here https://www.youtube.com/watch? v=996vzcCYCnE
- Watch the video translated into english here https://www.youtube.com/watch? v=996vzcCYCnE

Scientific presentations:

- See the 12/2015 Powerpoint Slide Presentation by the President of the Commission, Dr. Stella Kanna Michaelides on EMFs (in Greek) by clicking here and Dr Michalis Tornaritis on media use (in Greek) by clicking here.
- IOANNINA UNIVERSITY COURSES IN PATHOLOGY Neurological and behavior effects of Non Ionizing Radiation emitted from mobile devices on children: Steps to be taken ASAP for the protection of children and future generation by Dr. Michaelidou of the Cyprus National Committee on Environment and Health. English slides at this link.

News Reports

- Watch the President of the Cyprus National Committee " Environment and Health of the Child" presents the issue of Electromagnetic radiation and its effects on children's health. April 2016
- https://www.youtube.com/watch? v=DatZGSq3bL4
- Sigma TV News Report on children and Wi-fi https://www.youtube.com/watch?v=WumF2qOUKrU
- Watch the president of the National Committee "Environment and Child Health" with Professor Loukas Margaritis speaking in a news piece. https://www.youtube.com/watch?v=WumF2qOUKrU
- 2015 In-Cyprus News Report: **Mobile devices could harm kids**
- 9/2015 News Report Cyprus Mail: 'Technology harming our children' MPs say

Argentina

2016 National law on electromagnetic pollution *proposed*: The law proposes a regulatory framework to "radio infrastructure with radiant systems, antennas and all installations capable of generating electromagnetic radiation" in order to "ensure the protection of public health" considering "both thermal effects and biological. " In education and health facilities only wired connections to data networks and Internet access may be used. Translated Article. Original text:

Taiwan

In 2015 the government *Updated their* Protection of Children and Youths Welfare and Rights Act to ban cell phones for young children. Read it here.

- Complete ban on children under the age of two from using electronic devices such as iPads, televisions and smartphones.
- Parents can be fined NT$50,000 (about $1600 US Dollars)
- The new law also states that parents must ensure that under-18s only use electronic products for a 'reasonable' length of time.
- Read a news article: Daily Mail- Taiwan makes it ILLEGAL for parents to let children under two use electronic gadgets... and under-18s must limit use to 'reasonable' lengths"

Namibia

Namibia's atomic energy review report states that current so called "safety" standards DO NOT protect citizens from long term health effects.

- "ICNIRP guidelines do not guarantee adequate protection against the long term effects of exposure, such as increased risk of cancer. " -Republic of Namibia:Atomic Energy Board: The Atomic Energy Review

Turkey

The Ministry of Health has issued public information brochures that recommend limiting exposure especially for pregnant women and children. In addition the Ministry is developing regulation on prohibiting phone use for children. The EMF in schools is monitored and the public can get measurements on EMF levels from cell towers and schools at a national site.

- See the Ministry of Health Brochure Mobile Phones and Health Effects: The Brochure starts by saying the research on cell phone radiation shows low levels of electromagnetic frequencies "may cause cancer". 13 Recommendations to Reduce Exposure *which include:* Pregnant women and children (under 16) are more vulnerable and they should use the phone only when necessary, Prefer speaker or headset, Decrease time on phones, Use low SAR phone, Keep phone away from the body, Keep phones out of baby and children's bedroom,Turn phone off when you sleep or keep it one meter away from bedside, using phones in cars increases your EMF exposure so it is not recommended.
- **Education on Safer Phone Use:** A Project funded by Ministry of Internal Affairs, accomplished by Temkoder (Prevention, Measurement of Electromagnetic Pollution and Training Organization) resulted in secondary school student training in the safer usage of cellular phones.
- **Development of regulations prohibiting children's cell phone use.** In 2014, the Ministry of Health started working on new regulations to prohibit cellphone usage for children under 14 year-old children.(See Turkey's 2014 World Health Organization EMF Report here). However by 2016 the regulation was weakened and in the 2016 WHO EMF Report Turkey states that they are developing regulations that only would pertain to children under 7 years old.
- The Ministry of Communications and Maritime Affairs monitors Electromagnetic fields around the schools and homes. See the website here http://ema-olcum.btk.gov.tr/.

Greece

Greek law mandates lower RF exposures near schools, nurseries and hospitals: The exposure limits in Greece are the 70% of the official European limits. In areas less than 300 m from schools, hospitals and nurseries the exposure limit is lower at 60% of the official European limits. Cell antennae are prohibited from being on top of schools and nurseries.

2012: The Greek government website materials recommend reducing cell phone radiation to children under 16 and they inform citizens of non-ionizing radiation power levels in their community.

- The National Observatory of Electromagnetic Fields which is an interactive web portal linked to a network of 500 fixed measurement stations throughout Greece that continuously monitor the EMF levels from all kinds of antenna stations in the frequency range 100 kHz – 7 GHz.
- ELF and EMF Site Measurements can be looked up for various locations at EEAE.
- The Greek government funds research as detailed on the WHO EMF report here.
- The Q and A on RF radiation states the following text about children. Read it here on page 32 and 33

"*Even though it hasn't been proven conclusively that children are more sensitive/reactive than adults to exposure to radiation, nevertheless, the direct/pointed recommendation of international organizations is*

that children be discouraged from [literally translated, learn not to trust] using cell phones. The above statement is supported by the following:

1. Up to about the age of 16, the nervous system of the human body is in the process of development. Consequently, it's totally possible (although not conclusively proven by relevant scientific research) that up until this age, human being are more sensitive to any number of factors/elements/determinants.

2. Younger people have more years ahead of them than older persons during which the long –term effects of mobile phones can be manifested.

3. Environmental factors/elements have a greater general impact on the health of children than on the health of adults."

Chile

2012, Law No 20.599, The Antennae Law 'Regulates the installation of antennas used for the emission and transmission of telecommunications services' This law limits the power of antennas, reduces urban impact of towers through 'infrastructure sharing' opens up a process for citizen participation in the approval or denial process, establishes mitigation measures in areas that are saturated with antennas and prohibits towers near "sensitive areas" institutions serving children, the elderly and medically compromised.

Cell antennae/towers are prohibited in "sensitive areas".

- Sensitive areas are those areas that demand special protection due to the presence of educational institutions, nurseries, kindergartens, hospitals, clinics, nursing homes or other institutions of similar nature. .
- Read New communications antenna law in Chile in the International Bar Association Legal Practice Division Newsletter for details on the Law. Read a Press release with summary.
- Read RCRWireless article Chilean telecom companies need to comply with new antenna law
- Chile's Minister of Transportation and Telecommunications Pedro Pablo Errazuriz stated, "*…in addition to protecting the urban landscape and the goodwill of the neighborhoods, the new law takes care of the most important: the health of people in a precautionary manner as recommended by the World Health Organization, setting strict limits on the powers of the antennas. Chile is setting standards in this regard."*

Ireland

The Irish Department of the Environment, Community and Local Government has a webpage on Electromagnetic fields which directs people to the advice of the Chief Medical Officer.

“Advice from the Chief Medical Officer on mobile phone use: We may not truly understand the health affects of mobile phones for many years. However, research does show that using mobile phones affects brain activity. There is general consensus that children are more vulnerable to radiation from mobile phones than adults. Therefore the sensible thing to do is to adopt a precautionary approach rather than wait to have the risks confirmed.

In the light of these findings, the Chief Medical Officer of the Department of Health and Children strongly advises that children and young people who do use mobile phones, should be encouraged to use mobile phones for “essential purposes only” All calls should be kept short as talking for long periods prolongs exposure to radiofrequency electromagnetic fields.

All mobile phone users can reduce their exposure to radiofrequency energy by making fewer calls, reducing the length of calls, sending text messages instead of calling, using cell phones only when landline phones are unavailable, using a wired “hands free” device so that the phone need not be held against the head and refraining from keeping an active phone clipped to the belt or in the pocket”.

Read the Advice of the Chief Medical Officer of Ireland.

Irish Doctors Environmental Association

The Irish Doctors Environmental Association wrote a statement in 2013 concerning health concerns with Wi-Fi in school:

“We urge you to use wired technologies for your own safety and that of your pupils and staff.” Read the 2013 Letter

Denmark

Denmark Board of Health states: “As a precautionary measure, the Board of Health recommends a series of simple steps you should follow to reduce exposure from mobile phones :

- Use the headset or handsfree with earbud, conversation, or use the speakerphone feature
- When possible, use text instead of call
- Limit the duration of calls
- Did not sleep with the phone close to the head
- Limit conversations during low reception and while in transport.
- Do not cover the phone with aluminum foil, special covers, etc.
- Compare phones' SAR value. Lower SAR require less exposure
- Denmark Board of Health Recommendations on Reducing Cell Phone Radiation

Tanzania

2014: Director General of Tanzania Atomic Energy Commission (TAEC), Mr Idy Mkilaha publicly endorses precaution.

"Mr Mkilaha says that when weighing up this convenient tool with the questionable health impact control, caution and measures must be taken to reduce one's exposure from radio frequency (RF) emissions from the cell phone to prevent health hazards."

"According to TAEC, we should use hands-free devices or wireless headset to increase the distance between the phone and our heads. This is the best approach because it creates distance between us and the radiating phone...

*We should also keep phone away from us when dialling. Phones use more radiation during co*nnection time, says TAEC."

Read News Report: Tanzania: We Should Manage Our Cell Phones Properly Otherwise..

Read Tanzania Daily News: Tanzania: Need to Protect Oneself When Using Cell Phone

Read the Tanzania Commission for Science and Technology Newsletter detailing how to reduce cell phone exposure (page 11)

After complaints were raised by residents about health effects the Commission co-authored a published paper that reviews national RF level profiles of the radiation emitted from base stations. Read Review on Measured and Calculated Radio Frequency Radiation Emission From The Base Stations which states that

In 2016, Director General of Tanzania Atomic Energy Commission (TAEC), Mr Idy Mkilaha died under investigated circumstances and at this time EHT is unable to find the Reports or official warnings as mentioned in the news reports on the current Atomic Commission webpage.

Ireland

Irish Doctors Environmental Association

The Irish Doctors Environmental Association wrote a statement in 2013 concerning health concerns with Wi-Fi in school:

"We urge you to use wired technologies for your own safety and that of your pupils and staff." Read the 2013 Letter

United States

Legislation has been introduced at the state and national level. Some Communities have issued proclamations, resolutions and and started initiatives to inform the public of wireless health issues.

CELL PHONE AND WIRELESS LABELING

2014 California, Berkeley: May 12, 2015 Berkeley Adopted the Cell Phone "Right to Know" Ordinance on a Unanimous Vote. Berkeley is the first city in the nation to require cell phone retailers to provide those who purchase a new phone an informational fact sheet which informs buyers to read the user manual to learn the cell phone's minimum separation distance from the body. The text states:

"The City of Berkeley requires that you be provided the following notice:

To assure safety, the Federal Government requires that cell phones meet

radio frequency (RF) exposure guidelines. If you carry or use your phone

in a pants or shirt pocket or tucked into a bra when the phone is ON and

connected to a wireless network, you may exceed the federal guidelines

for exposure to RF radiation. Refer to the instructions in your phone or user manual for information about how to use your phone safely." Full text here.

Watch a video of the historic vote featuring Harvard Law professor Lawrence Lessig.

Watch a video of testimony to Berkeley from November 8, 2011 on the need for cell phone guidelines.

Watch a video of the September 2016 Federal Appeals Court Hearing oral arguments CTIA vs. Berkeley as the CTIA tries to strike down the Ordinance. This the hearing considering whether to overturn the district court's decision that denied the CTIA's request for an injunction to block Berkeley's cellphone ordinance.

2014 New York: Wireless Router Labeling in all Suffolk Public buildings: 12/2014 The Suffolk County Legislature passed legislation to require all county buildings to post notices that wireless routers are in use such as, "Notice: Wireless technology in use." The resolution, sponsored by Legis. William Spencer (a physician), warns that every wireless device emits radio frequency radiation or microwave radiation. It notes that studies "that have looked at the effects of low-level RFR radiation on human cells and DNA have been inconclusive." Read Press Release.

2011 San Francisco, California: A *Passed* 2011 Ordinance by the City of San Francisco required cell phone retailers to distribute an educational sheet created by the San Francisco Department of Environment that explains radiofrequency emissions from cell phones and details how consumers can minimize their exposure. However implementation was blocked after a **three year court battle.** The CTIA sued the city and settled with the City to block implementation of the Ordinance in exchange for a waiver of attorney's' fees. Although implementation was halted, the City Cell Phone Radiation Webpage remains online.

- Read the Open Letter to San Francisco Mayor and Board of Supervisors
- Read San Francisco's Cell Phone Fact Sheet is Factual
- Watch video from testimony to the City of San Francisco
- Watch video of San Francisco Supervisor discussing the Ordinance here.

- Watch a press conference with surviors speaking on cellphone health risks at the San Francisco Commonwealth Club. Cellphone cancer victims tell their personal stories and those of their lost loved ones.

PUBLIC SCHOOLS

2016: Onteora School District in New York State USA: District adopts "Best Practices with Wi-Fi **Read the April 20, 2016 Meeting Minutes Page 2.** "Turn off the device when not in use and at the end of each day. If device is to stay on, turn Wi-Fi off when not in use. Always place device on a solid surface. Viewing distance should be a minimum of 12 inches from the screen. Staff was asked by the Principals to post this in areas that contain computers and devices. They are reminding staff to follow it."

2015: Ashland Public Schools, Mass (USA): The District has passed"Best Practices" to turn the WiFi off when not in use and keep devices away from the body Download Slides . Video of parent who initiated this. Video of school board member discussing the process. Read Magazine article on Ashland's Decision Here.

Los Angeles California Public Schools

- The LA School District Uses a RF-EMF Exposure Threshold 10,000 Less Than the FCC Limits: Read the RF Report the LA School District Used to recommend a cautionary exposure level. RADIOFREQUENCY (RF) EVALUATION REPORT Use of Wireless Devices in Educational Settings
- 2009 LA School Board Resolution Banning Cell Towers from schools and recommending against WiFi. Read the adopted resolution HERE. 2009 Resolution *Condemning Cell towers NEAR Schools* as was this T-Mobile Cell Tower across the street from an elementary school. Read it here.

Read the motion by Supervisors Zev Yaroslavsky and Michael Antonovich

- **2000 LA School Board Resolution Opposing Cell Tower Placement on Schools** and calling for precautions with wireless. 'Whereas, Recent studies suggest there is evidence that radio-frequency radiation may produce "health effects" at "very low field" intensities' Read it here.

SEE A FULL LIST OF PUBLIC AND PRIVATE SCHOOLS THAT REMOVED WI-FI LATER IN DOCUMENT

HEALTH ADVICE TO THE PUBLIC

2016: American Academy of Pediatrics Issues Recommendations to Reduce Exposure

The AAP has updated their Healthy Children Webpage on Cell Phones entitled *Cell Phone Radiation & Children's Health: What Parents Need to Know.* The webpage reiterated children's unique vulnerability to cell phone radiation stating, *"Another problem is that the cell phone radiation test used by the FCC is based on the devices' possible effect on large adults—not children. Children's skulls are thinner and can absorb more radiation."* The AAP issued the following cell phone safety tips specifically to reduce exposure to wireless radiation:

- Use text messaging when possible, and use cell phones in speaker mode or with the use of hands-free kits.
- When talking on the cell phone, try holding it an inch or more away from your head.

- Make only short or essential calls on cell phones.
- Avoid carrying your phone against the body like in a pocket, sock, or bra. Cell phone manufacturers can't guarantee that the amount of radiation you're absorbing will be at a safe level.
- Do not talk on the phone or text while driving. This increases the risk of automobile crashes.
- Exercise caution when using a phone or texting while walking or performing other activities. "Distracted walking" injuries are also on the rise.
- If you plan to watch a movie on your device, download it first, then switch to airplane mode while you watch in order to avoid unnecessary radiation exposure.
- Keep an eye on your signal strength (i.e. how many bars you have). The weaker your cell signal, the harder your phone has to work and the more radiation it gives off. It's better to wait until you have a stronger signal before using your device.
- Avoid making calls in cars, elevators, trains, and buses. The cell phone works harder to get a signal through metal, so the power level increases.
- Remember that cell phones are not toys or teething items.
- Press Release: The AAP responds to study showing link between cell phone radiation, tumors in rats May 27, 2016

2015 AAP Healthy Child Web Page on Electromagnetic Fields: A Hazard to Your Health?

This webpage states:

"Cell Phones: In recent years, concern has increased about exposure to radio frequency electromagnetic radiation emitted from cell phones and phone station antennae. An Egyptian study confirmed concerns that living nearby mobile phone base stations increased the risk for developing: *Headaches, Memory problems, Dizziness, Depression, Sleep problems*

Short-term exposure to these fields in experimental studies have not always shown negative effects, but this does not rule out cumulative damage from these fields, so larger studies over longer periods are needed to help understand who is at risk. In large studies, an association has been observed between symptoms and exposure to these fields in the everyday environment."

2013 AAP Letter to FCC Commissioner Mignon Clyburn and FDA Commissioner Margaret Hamburg calling for a review of RF guidelines 8/29/2013

2012 AAP Letter to US Representative Dennis Kucinich in Support of the Cell Phone Right to Know Act

Time Magazine (2012): Pediatricians Say Cell Phone Radiation Standards Need Another Look

2012, the AAP published Pediatric Environmental Health, Textbook of Children's Environmental Health 3rd Edition edited by Philip J. Landrigan, Ruth A. Etzel. Chapter 41: Electromagnetic Fields. Read it on Google Books *Chapter 41: Electromagnetic Fields* at this link page 383. Oxford Medicine Chapter 41 Link

AAP News 2011: *More study needed on risk of brain tumors from cell phone use* by Ruth A. Etzel, AAP News, Oct 2011

The California Medical Association, USA

The California Medical Association (CMA) passed a Wireless Resolution in 2014 that states :

"Whereas scientists are increasingly identifying EMF from wireless devices as a new form of environmental pollution ...

Whereas peer reviewed research has demonstrated adverse biological effects of wireless EMF including single and double stranded DNA breaks, creation of reactive oxygen species, immune dysfunction, cognitive processing effects, stress protein synthesis in the brain, altered brain development, sleep and memory disturbances, ADHD, abnormal behavior, sperm dysfunction, and brain tumors; and...Resolved, That CMA support efforts to implement new safety exposure limits for wireless devices to levels that do not cause human or environmental harm based on scientific research." Read the full CMA Resolution here.

Read a the Santa Clara Medical Bulletin article by Dr. Cindy Russell that explains the CMA resolution and gives recommendations for schools.

2014: The Connecticut Department of Public Health has issued specific recommendations to reduce exposure to cellphone radiation. It is notable that the Department has provided information more in depth than the CDC, EPA and FDA in detailing 7 steps on *how* people can reduce exposure. Furthermore, the Department states *"It is wise to reduce your exposure to radiofrequency energy from cell phones whenever possible."* Read the Connecticut Department of Public Health Cell Phone Q and A about Cell phones here.

2016: Massachusetts Department of Health: Minimizing Exposure to RF

"Below are common recommendations and include those for both cell phone and non-cell phone sources:

- Use wired communication devices instead of wireless devices
- Limit children's use of cell phones except for emergencies
- Keep cell phones and other sources at a distance
- If using wireless devices like computers, laptops, tablets, and printers, place the wireless router away from where children and adults usually spend time.

Read these recommendations from the Department of Health in full at this link.

2014 Maryland, Greenbelt: The Greenbelt Maryland City Council voted **unanimously** on November 24, 2014 to do the following:

1. Alert citizens about the fine print warnings and possible health risks of cell phones and wireless devices By sharing the Environmental Health Trusts 10 Steps to Safe Tech and Doctors Advice on Cell Phones Brochure in City health fairs and city centers.

2. To send the FCC Chairman a letter urging the adoption of "radiation standards that will protect human health and safety." Download the letter here.

3. To oppose cell towers on school grounds and write a letter to the local school board and County Executive.

2011 San Francisco, California: Cell Phone Radiation (How to Reduce Exposures) Webpage launched with public information on how to reduce exposures to cell phone radiation. San Francisco developed the following public health information resources:

- Answers on How to reduce exposures to cell phone radiation.
- A Poster on Cell Phones and RF Radiation
- A Factsheet for the Public
- Display stickers for Cell Phone packaging.

2012 Wyoming: Jackson Hole issued a Proclamation of Cell Phone Awareness which cites concern over long term health effects as well as the increased risk that the radiation poses to children.

2012 Florida: Pembroke Pines, passed Resolution 3362 expressing the City's "Urgent Concerns" about Wireless Radiation and Health and which encourages citizens to read their manuals and presents information on how to reduce exposure by using a headset or speakerphone. Jimmy Gonzalez, an attorney who had developed brain cancer after heavy cell use, initially petitioned the Commission. Watch the Video of his powerful testimony here.

2010 California, San Francisco: Cell Phone Radiation (How to Reduce Exposures) Webpage launched. Answers on how to reduce exposures to cell phone radiation. The City developed a poster, factsheets and display stickers with public health information.

2010 California: Burlingame California City Council voted to include cell phone safety guidelines in their Healthy Living in Burlingame initiative (WHO classification and consumer precautions).

2010 Maine, Portland :Mayor Mavodenes, Jr. declared October "Cell Phone Awareness Month"

Colorado 2009 The Governor of Colorado issued a Proclamation on Electrical Hypersensitivity.

"*Electromagnetic Sensitivity is a painful chronic illness of hypersensitive reactions to electromagnetic radiations.*

WHEREAS, the symptoms of EMS include, dermal changes, acute numbness and tingling, dermatitis, flashing, headaches, arrhythmia, muscular weakness, tinnitus, malaise, gastric problems, nausea, visual disturbances, severe neurological, respiratory, speech problems, and numerous other physiological symptoms.

WHEREAS, Electromagnetic Sensitivity is recognized by the Americans with Disabilities Act, the US Access Board and numerous commissions;" **Read the Proclamation HERE.**

May 2009 The Governor of Connecticut issued a Proclamation on Electrical Hypersensitivity.

"*WHEREAS, the health of the general population is at risk from electromagnetic exposures that can lead to illness indicted by electromagnetic radiations; and, WHEREAS, this illness may be preventable through*

the reduction or avoidance of electromagnetic radiations, in both outdoor and indoor environments and by conducting further scientific research; and, " Read the Proclamation HERE.

Broward County Florida May 2009, The Mayor issued a Proclamation on Electrical Hypersensitivity.

"*WHEREAS, as a result of global electromagnetic pollution, people of all ages in Broward County and throughout the world have developed an illness known as Electromagnetic Sensitivity; and, "*

Read it all HERE.

US Proposed Legislation

2012 National Law The Cell Phone Right to Know Act H.R. 6358 was introduced receiving strong **s**upport from many organizations including the American Academy of Pediatrics. (AAP Letter here.) This legislation called for labels on mobile devices at point of sale, a comprehensive national research program to study whether exposure to wireless devices causes adverse biological effects directed by NIEHS and the EPA and exposure level regulation.

HR 6358 received strong **s**upport from the American Academy of Pediatrics Read the AAP Letter here.

Congressional hearings in 2009 provided expert testimony to Congress. Watch CSPAN VIDEO.

Library of Congress Summary: Written by the Congressional Research Service

Cell Phone Right to Know Act - Requires the Director of the National Institute of Environmental Health Sciences and the Administrator of the Environmental Protection Agency (EPA) to:

1. conduct or support a comprehensive research program to determine whether exposure to electromagnetic fields from mobile communication devices causes adverse biological effects in humans, including vulnerable subpopulations such as children, pregnant women, those with compromised immune systems and hypersensitivity reactions, men and women of reproductive age, and the elderly;
2. disseminate research results to the general public; and
3. report findings and conclusions to Congress.

Directives:

- Directs the Federal Communications Commission (FCC) to promulgate regulations to allow a subscriber to access personally or to give consent to allow researchers with institutional review board approval to access specific usage data required to investigate the link between electromagnetic radiation exposure and potential adverse biological effects in humans.
- Directs the EPA to promulgate regulations establishing maximum exposure level goals and maximum exposure levels for exposure to electromagnetic fields generated by mobile communication devices.
- Directs the Commissioner of Food and Drugs (FDA) to promulgate regulations to provide for labeling (including exposure ratings and the maximum allowable exposure levels and goals) on mobile communication devices, packaging, instruction manuals, and at points of sale in stores and on websites.

- Requires the Secretary of Health and Human Services (HHS) to increase: (1) the number and size of grants to institutions for training scientists in the field of examining the relationship between electromagnetic fields and human health; and (2) the number of career development awards for such training for health professionals pursuing careers in pediatric basic and clinical research, including pediatric pharmacological research.

Amends the Public Health Service Act to establish a graduate educational loan repayment program and authorize national awards for researchers in such fields.

Amends the Communications Act of 1934 with respect to the prohibition on state or local government zoning regulation of personal wireless service facilities on the basis of the environmental effects of radiofrequency emissions. Excludes from such prohibition state or local regulation based on the adverse human health effects of emissions of radiofrequency electromagnetic fields.

2015 NEW Massachusetts proposed MA Senate Bill 1222: An Act creating a special commission to study the health impacts of electromagnetic fields and Bill H2007: An Act relative to a special commission to study electric and magnetic fields. *Bills Still in Process as of August,2015.* Watch a view of the statehouse briefing on RF here.

2015 Nassau County will have a proposed Wireless Router Labeling Act that would place visible warning signs in all county buildings and facilities where a wireless router is located.. Please read recent coverage of the initiative here.

2014 The Maine LD 1013 **"The Wireless Information Act"** passed the State Senate and House but then failed to pass the second vote. The Bill requires manufacturer's information on radio-frequency exposure be visible on the outside of the cell phone's product packaging.

- Please a video of State Representative Andrea Boland on how the legislation was thwarted.
- Read Maine's "Cellular Telephone Labeling Act" -April 17, 2015
- Read Cell Phone Radiation Label Bill Passes Maine Legislature Before Dying

The San Francisco Cell Phone Right to Know Ordinance was signed in 2011 requiring cell phone retailers to distribute an educational sheet created by the San Francisco Department of Environment that explains radiofrequency emissions from cell phones and how consumers can minimize their exposure. The CTIA sued the city and settled with the City to block implementation of the Ordinance in exchange for a waiver of attorneys' fees. The City Cell Phone Radiation Webpage remains online.

2015 Oregon HB 3350: This proposed legislation directs the Department of Education to prepare statement that discloses potential health risks of wireless technology and requires public and private schools to distribute statement to employees and parents of students. It declares an emergency effective July 1, 2015. Read the Bill here.

2015 Oregon HB 3351: This proposed legislation states that cell phones must have a visible written label that advises consumers of possible risks and steps that consumers can take to reduce the risk of radio-frequency radiation exposure from cellular telephone use. Read it here.

2014 Hawaii Senate Bill SB 2571 was introduced calling for a warning label encouraging consumers to follow the enclosed product safety guidelines to reduce exposure to radiation that may be hazardous to their health.

SB 932 California: This 2011 legislation would have required retailers to include notices on product packaging that cell phones emit radio frequency (RF) energy. A second notice would be posted at the point of sale when purchasing online or in a physical store.

HM 32, New Mexico: This 2011 proposed law request the Department of Health and the Department of Environment to study and review all available literature and reports on the effects of cell phone radiation on human health.

HB 1408 Pennsylvania: This 2011 proposed law would require warning labels on cell phones "to inform all citizens about possible health dangers that have been linked to microwave radiation that is emitted by cellular telephones and the steps that can be taken to mitigate those dangers, especially as they relate to children and pregnant women."

- Dr. Ronald B. Herberman, former director of the University of Pittsburgh Cancer Institute (UPCI) and the UPMC Cancer Center offered testimony at a PA House Democratic Policy Committee hearing. CBS Local coverage of hearing HERE. Philadelphia Tribune News coverage Here.

SB 679 Oregon: This 2011 proposed law would require warning labels for all new cell phones and cell phone packaging. Watch a news video about the law here.

H.R. 2835 In 1999 Congressman Bernie Sanders sponsored H.R. 2835 (106th): To require an assessment of research on effects of radio frequency emissions on human health.

(Note: This document does not cover ALL EMF policy but is simply a sampling. Please feel free to contact EHT to send documentation of other policy actions.)

Schools Worldwide Removing the WiFi/Taking Action

2016: Haifa, Israel: Haifa Mayor Yona Yahav(of Israel's 3rd largest city) ordered all schools to have wireless removed and replaced with wired connections. Read Krayot article. Hamodia article. Related Reshet TV Report Watch News Report with unofficial English translation Watch News Report on Supreme Court Case in Israel

2016 Lowell School, Washington DC: In the kindergarten wing, the Wi-Fi hotspots were removed and the teachers are given ethernet and adapters so that computers and class technology can be ethernet connected (corded) to reduce RF-EMF exposure.

2016 Italy: Turin Mayor Chiara Appendino laid out plans "to cut back on Wi-Fi in state schools and government buildings over concerns that radiation might damage people's health".

Read 7/2016 News Report Turin could slash Wi-Fi over 'radiation' concerns

2016: Onteora School District in New York State USA: District adopts "Best Practices with Wi-Fi **Read the April 20, 2016 Meeting Minutes Page 2.** "Turn off the device when not in use and at the end of each day. If device is to stay on, turn Wi-Fi off when not in use. Always place device on a solid surface. Viewing distance should be a minimum of 12 inches from the screen. Staff was asked by the Principals to post this in areas that contain computers and devices. They are reminding staff to follow it."

2016 Italy: Mayor of Borgofranco d'Ivrea (Italy) orders Wi-Fi to be turned off in schools. "Mayor Livio Tola told the town's high school and elementary school to return to using cables to connect to the internet after reading that the electromagnetic waves given off by wireless routers were especially harmful to young children." Read the newspaper article here. Read the News article here "Ivrea, The Mayor Removes WiFi as it Could Be Dangerous".

2016: Rotokawa School New Zealand, implemented steps to minimize RF Exposure Children use ipads in flight mode on desk and parents may request that their child use an Ethernet cord. Children are taught about the health precautions as part of their cyber citizenship.

2016: Istituto Comprensivo Alighieri- Diaz in Lecce Italy has banned wifi. Their two resolutions decided: a) to ban wifi in school and install a wired system for the use of internet and b) Reject the request of the local government (Municipality) to install an antenna on the school roof for the wireless signal providing for the "Wireless city" program. The resolution also asks the Municipality to install the antenna at a reasonable distance from school.Read the official resolutions number 1 here and Resolution 2 Here.

2016: The Piemonte Region has adopted a resolution to limit EMF exposure, to limit the use of wifi in schools and be considerate to the problem of EHS people. Read about it here.

2015: Ashland Public Schools, Mass (USA): "Best Practices" to turn the WiFi off when not in use, Download Slides . Video of parent who initiated this. Video of school board member discussing the process. Read Magazine article on Ashland's Decision Here.

2016: Shearwater The Mullumbimby Steiner School, Australia, 100% Wi-Fi Free School

2016: Yallingup Steiner School Australia , WiFi Free Classrooms

2016: Linuwel School , Australia ,WiFi in some classrooms, Can accommodate children with EHS.

2016: Cairns Hinterland Steiner School , Australia, WiFi Free Classrooms (may be available in other areas)

2016: Wild Cherry School, Australia , 100% Wi-Fi Free

2015: St. Cajetanus School, Belgium: Wired Internet installed and wireless removed.

2015: Washington Waldorf School, Maryland, USA: Removed Wi-Fi Routers from Buildings, Ethernet installed.

2015: Freshwater Creek School, Australia, 100% Wi-Fi Free

2015: Lorien Novalis School, Australia, 100% Wi-Fi Free School Preschool to 12th grade.

2015: Cairns Hinterland School, Austraia, WiFi Free Classrooms for EHS

2014: Acorn Hill School, Maryland: Wi-Fi Networks removed.

2014: Friends Community School: Wi-Fi turned off in wing for lower elementary school students. WiFi routers moved OUT of classrooms into hallways for older grades to reduce EMF exposure. Ethernet wires made available in classrooms for families who want children on corded (not wireless) computers.

2014: DearCroft Montessori: Hardwired internet to younger grades, limited Wi-Fi Router exposure to older grades.

2014: Portland Waldorf School, Portland Oregon,USA, WiFi removed.

2014: Meeting House Montessori, Braintree Massachusetts, USA, WiFi replaced with ethernet.

2014: Ghent, Finland, Wi-fi banned from pre-schools and day care.

2014: UPPER Sturt Primary School, Australia. Read article. Read "No WIFI" LOW EMF School Policy.

2014: The St. Augustine School in Italy turned off Wifi and goes back to Wires.

2013 Winlaw Elementary School, B.C. Canada turned off WiFi.

2013 Te Horo Primary School New Zealand Replaced WIFI with cable-based internet.

2013 Kootenay Lakes District School Board BC (One school without Wi-Fi)

2013 Blaise-Cendrars High School, Switzerland. Teachers vote to remove WiFi.

2012 Kivioja primary school in Ylivieska Finland bans phones and minimizes Wireless.

2012: Halton Waldorf, in Burlington Vermont: Remaining free of Wireless Radiation

2011 City of Lakes Waldorf School, WiFi taken out. Minneapolis, Minnesota USA

2011 Aurora School in Ontario removed Wifi and replaced with hardwired.

2011 North Cariboo Christian School in Quesnel, B.C., removed Wi-fi .

2011 Pretty River Academy in Ontario no WiFi.

2011 Wayside Academy, Peterborough, Ontario no Wi Fi.

2010 Surrey, BC Roots and Wings Montessori removed Wi-Fi.

2010 Ontario St. Vincent Euphrasia elementary school: Parents voted to turn off Wi-Fi.

2009 HEROUVILLE-SAINT-CLAIR wi-fi networks removed**.**

Teacher Unions and Parent Teacher Organizations

2016: New Jersey Education Association (NJEA) publishes "Minimize health risks from electronic devices" in the September 2016 NJEA Review. *Adrienne Markowitz and Eileen Senn detail how to reduce physical health risks from devices including risks from radiation exposure*

- *"Keep devices away from the body and bedroom.*
- *Carry phones in briefcases, etc., not on the body.*
- *Put devices on desks, not laps.*
- *Hard wire all devices that connect to the internet.*
- *Hard wire all fixed devices such as printers, projectors and boards.*
- *Use hard-wired phones instead of cell or cordless phones.*
- *Text rather than call.*
- *Keep conversations short or talk in person.*
- *Put devices in airplane mode, which suspends EMF transmission by the device, thereby disabling Bluetooth, GPS, phone calls, and WiFi.*
- *Use speaker phone or ear buds instead of holding the phone next your head.*
- *Take off Bluetooth devices when not using them."*

2016: Phoenicia Elementary School Onteora School District, New York State

- The PTA wrote a letter to the Onteora School District calling for the Wi-Fi to be turned off as a precautionary action . Watch a video of the School Board Meetings where letter is read here. Watch videos of parents and students calling for Wi-Fi removal here.
- Read News Report: Some Onteora parents fear Wi-Fi signals in schools are harming their children.

2016: Ontario Secondary School Teachers Federation

- A new call for a moratorium on WIFI and in the Limestone School District and they have taken the issue to the school trustees in that District. "The Teacher Union's president says there is a growing mountain of evidence that WIFI can pose health risks." Andrea Loken/OSSTF District President stated in a 3/2016 news interview that, "There are thousands of published peer reviewed papers that are indicating adverse health effects from WIFI and we are seeing an increased awareness around this issue worldwide." Watch the video of the news piece with Union members here . Read the National Post article here. Radio Canada International article here.

2016: Elementary Teachers Federation of Ontario

- A 3/2016 News Report states that they are calling for a "WIFI moratorium until further health studies are done, and lawmakers can catch up with new regulations." Watch the video of the news piece with Union members here . Read the National Post article here. Radio Canada International article here.

2014 United Federation of Teachers (Teachers, nurses and professionals working in New York City).

- In 2014 their Wireless Radiation Webpage stated "Wireless radiation is emitted by the myriad of wireless devices we encounter every day. It was once thought to be relatively harmless.

However, we now know that wireless radiation can cause non-thermal biological effects as well, including damage to cells and DNA, even at low levels. Curiously in March of 2016, this statement was removed and replaced with new text mimicking FCC verbiage. However the site *still posts* how to reduce exposure.

- Resources posted on their site include Dr. Moskowitz' Reducing Your Exposure to Wireless Radiation and the BabySafe Project brochure What You Need to Know About Wireless Radiation and Your Baby. "Taking certain precautions around wireless radiation is appropriate for our most vulnerable populations, including pregnant women."

2014 New York State Teachers Union NYSUT: A federation of more than 1,200 local unions.

- *"We have enough evidence to justify taking action and we are not willing to wait until our members, their children and the students suffer health consequences from not doing anything,"* - Paul Pecorale, Vice President of the New York State United Teachers Union.
- Read the Press Release on Best Practices For Schools prepared for NYSUT
- Download the Guidelines for Safer Use of Wireless Technology in Classrooms Published for NYSUT
- NYSUT hosted a Webinar: Risks of wireless technologies and protecting children and staff in schools.

2014 National Education Association

"The National Education Association believes that all educational facilities must have healthy indoor air quality, be smoke-free, be safe from environmental and chemical hazards, *and be safe from hazardous electromagnetic fields."*

"Students and/or their parents/guardians, education employees, and the public should be notified of actual *and potential hazards."*

"School districts should conduct periodic testing for harmful water *and airborne particles/agents* that are detrimental to the health of students and education employees and shall report the results publicly."

"The Association also believes in the development and enforcement of health and safety standards specifically for children." **Read Section C-19 of the NEA 2013-2014 Resolutions**

2013 Canadian Teacher Federation's Brief (200,000 elementary and secondary school teachers)

- "CTF is concerned about the lack of definitive research regarding the adverse health effects of Wi-Fi.
- "We propose a prudent approach to the use of Wi-Fi, especially where children are present."
- "We recommend an education program regarding the relative safety of Wi-Fi exposure and that appropriate resources be developed to educate the public regarding ways to avoid potential exposure risks of Wi-Fi access points and devices."
- "Pedagogical needs could be met in schools with an approach that limits exposure to Wi-Fi."
- Read the Briefing The Use of Wi-Fi in Schools - Briefing Document

2015: Canadian Teacher's Magazine published *CTF Sounds the Alarm on Wi-Fi*

2013 United Teachers of Los Angeles, representing 40,000 teachers and staff

- Resolution passed: "I move that UTLA will abide by current National NEA Policy for Environmentally Safe Schools which states that all employees and stakeholders should be informed when there are changes in their exposure to environmental hazards including electromagnetic radiation and that all stakeholders and the public should be notified of any actual and potential hazards. UTLA will advocate for technological solutions that maintain technology upgrades while not increasing employees exposure to electromagnetic radiation."
- Health and Human Services Committee 3-6-13 #1: Moved by Kevin Mottus, seconded by John Cabrera.

- See UTLA Newsletter editorial by social worker Kevin Mottus.

2013 Elementary Teacher's Federation of Ontario - over 76,000 teachers

"There is cause for concern for members' health and safety, especially women," said Sandra Wash, a teacher representing the Peel district when the Federation issued a 2014 position statement supporting an Expert Panel recommendation that Health Canada provide the public with more information about radiofrequency energy, and the safe use of wireless technology. ETFO voted to:

- Turn cell phones off in classrooms
- Label the location Of Wi-Fi access points.
- Research Radio Frequency radiation.
- Develop a hazard control program related to wireless microwave radiation through JHSC.

2012 The Ontario English Catholic Teachers Association (45,000 Ontario teachers)

- Recommends a wired infrastructure as WIFI "may present a potential Health and Safety risk or hazard in the workplace...The safety of this technology has not thoroughly been researched and therefore the precautionary principle and prudent avoidance of exposure should be practiced."
- Read the Position Statement here. "Controls for WiFi would best be guided by the ALARA principle (As Low As Reasonably Achievable), as well as by applying the concept of prudent avoidance (of non-ionizing radiation)."
- Read CBC News article

2013 BC Teachers Federation adopted Wireless Resolutions and Proposed Resolutions

- "The BCTF supports members who are suffering from Electromagnetic Hypersensitivity by ensuring their medical needs are accommodated in the workplace."
- Proposed Resolutions "the World Health Organization's classification of radiofrequency/electromagnetic fields emitted by wireless devices as a 2B possible cancer risk to humans; that the BCTF ensures all teachers have the right to work in a safe environment, including the right to work in a Wi-Fi/ wireless-free environment."
- Recommendation to the Ministry of Education that school boards "begin immediate installation of on/off switches for Wi-Fi routers in schools, thereby reducing microwave radiation exposure and reducing health risks to members, and/or provide safer Ethernet cables or fibre optics". Read the Wireless Resolutions and Proposed Resolutions
- Read Daily News Coverage:Merritt teachers demand protection from wi-fi radiation 'Evidence is piling up that wi-fi radiation may in fact be harmful'
- Read the Vancouver Sun News Report Here.

2013 The BC Confederation of Parent Advisory Councils (BCCPAC) **of 821 Advisory Councils representing over 500,000 parents in British Columbia passed two resolutions.**

- Resolution 17 "calls on each Board of Education to have one public school at each education level that is free of Wi-Fi, cordless phones and cell phones. This school will only be equipped with wired computers and wired telephones for personal, educational and administrative purposes."
- Resolution 18 calls on Boards of Education to "cease to install Wi-Fi and other wireless networks in schools where other networking technology is feasible." passed with a clear majority.
- Read Resolution On/Off switches for WiFi Routers and Protocol for the Use of Wireless Devices

2010 UK VOICE ;The Union for Education Professionals- 20,000 members

- "Voice has advocated that new Wi-Fi systems should not be installed in schools, that existing systems should be turned off when not required and that schools should consider whether they really need to use Wi-Fi, which was developed to facilitate Internet access on the move rather than to be used as a convenient alternative to cables in dedicated IT facilities."
- " In the light of what has happened to one of our members *[who has developed sensitivity to electro-magnetic radiation]*, I am concerned that so many wireless networks are being installed in school and colleges without any real understanding of the possible long-term consequences."- Voice General Secretary Philip Parkin
- Read their Position Statement read their Blog post.

Los Angeles California Public Schools

- The LA School District Uses a RF-EMF Exposure Threshold 10,000 Less Than the FCC Limits: The OEHS supported a precautionary threshold level that is 10,000 times lower than the current Federal Communications Commission standard. Read the RF Report the LA School District Used to recommend a cautionary exposure level. RADIOFREQUENCY (RF) EVALUATION REPORT Use of Wireless Devices in Educational Settings
- 2009 LA School Board Resolution Banning Cell Towers from schools and recommending against WiFi.
    - "The Board supports responsible deployment of fiberoptic broadband technology which is superior to wireless in speed, reliability, security, durability and protections it affords people and the environment from the potential hazards of exposure to radio frequency radiation."
    - Read the adopted resolution HERE.
    - Read the Press Release here LOS ANGELES BOARD OF EDUCATION MEMBERS VOTE TO PROHIBIT CELL PHONE TOWERS NEAR SCHOOLS
- 2009 December Resolution *Condemning Cell towers NEAR Schools* as was this T-Mobile Cell Tower across the street from an elementary school. Read it here.

"As long as questions exist as to the adequacy of these federal regulations, local governments should have the ability to include consideration of health and environmental effects of these facilities." (referring to cell towers) Read the motion by Supervisors Zev Yaroslavsky and Michael Antonovich

2000 LA School Board Resolution **Opposing Cell Tower Placement on Schools** and calling for precautions with wireless. 'Whereas, Recent studies suggest there is evidence that radio-frequency radiation may produce "health effects" at "very low field" intensities' Read it here.

2010 Greater Victoria Teachers' Association

"The GVTA recommends a precautionary approach to the School District with regard to provision of wireless internet in schools. The precautionary approach comes from the environmental movement and

has been adopted as common practice in areas regarding potential environmental, ecological or biodiversity damage. It suggests that the lack of significant evidence is not enough of a reason to be unconcerned. The fact that many other countries have instituted regulations to protect children, seniors, pregnant women and other susceptible populations should be the guide for a District policy on WiFi installation and use in the worksites."

The GVTA Wireless in Schools Webpage states now that:

- Wi-Fi free zones should be available.
- On/Off routers recommended and record any adverse Wi-Fi health effects.
- Minimal or non-use within elementary schools.

2008 Lucerne Elementary Secondary Arrow Lakes District SD 10 New Denver BC, Canada Opts for "No WIFI

2001 Fletcher Hills PTA Resolution submitted to the California State PTA

- "RESOLVED, that the California PTA supports local municipal zoning setback rules of at 1000 feet or more from an operating wireless transmitter and a school or residential area; and be it further
- RESOLVED that the California PTA supports encouraging schools to use cable lines for all communications services on campus and to avoid the endorsement, purchase or use of wireless local area network systems on campus; and be it further
- RESOLVED that the California PTA recommend that teachers and students should limit use of cellular phones or other mobile devices on school property to emergencies and that cellular phones, pagers and other mobile phones be turned off and placed out of sight while the individual is on school property"
- Resolution on Wireless Equipment/Cellular Phones and Antennas Read it here.

DOCTORS AND SCIENTISTS APPEAL FOR STRICTER WIRELESS TECHNOLOGY REGULATION

Vienna Resolution 1998	**Helsinki Appeal 2005**	**Potenza Picena Resolution 2011**
Salzburg Resolution 2000	**Parish Kirchner Appeal 2005**	**World Health Organization 2011**
Stewart Report, UK 2000	**Saarlander Appeal 2005**	**Austrian Medical Association 2012**
Declaration of Alcalá 2002	**Stockacher Appeal 2005**	**Resolution on Electromagnetic Health 2012**
Catania Resolution 2002	**Vancouver School Resolution 2005**	**British Doctor Initiative 2013**
Freiburger Appeal 2002	**Benevento Resolution 2006**	**BabySafe Project: Joint Statement on Pregnancy and**
Bamberger Appeal 2004	**Allgäuer Appeal 2006**	
Maintaler Appeal 2004	**WiMax Appeal 2006**	

International Association of Fire Fighters Resolution on Cell Towers 2004 Coburger Appeal 2005 Oberammergauer Appeal 2005 Haibacher Appeal 2005 Pfarrkirchener Appeal 2005 Freienbacher Appeal 2005 Lichtenfelser Appeal 2005 Hofer Appeal 2005	Schlüchterner appeal Brussels Appeal 2007 Venice Resolution 2008 Porto Alegre Resolution 2009 European Parliament EMF Resolution 2009 Dutch Appeal 2009 Int'l Appeal of Würzburg 2010 Copenhagen Resolution 2010 Seletun Consensus Statement 2010 Russian National Committee on Non-Ionizing Radiation Protection 2011	Wireless Radiation 2014 Canadian Doctors Declaration to Health Canada 2014 Scientific Declaration to Health Canada (International Doctors) 2014 International Scientists Appeal to U.N. to Protect Humans and Wildlife from Electromagnetic Fields and Wireless Technology 2015 ***Over 200 Scientists***

INTERNATIONAL ASSOCIATION OF FIRE FIGHTERS

DIVISION OF OCCUPATIONAL HEALTH, SAFETY AND MEDICINE

"The IAFF opposes the use of fire stations as base stations for towers and/or antennas for the conduction of cell phone transmissions until a study with the highest scientific merit and integrity on health effects of exposure to low-intensity RF/MW radiation is conducted and it is proven that such sitings are not hazardous to the health of our members."

The IAFF Official Position *Against* Cell Towers on Fire stations passed in 2004 iaff.org/HSFacts/ CellTowerFinal.asp.

- This Position was initiated after increasing complaints among firefighters with cellular antennas on their stations coupled with the California study showing neurological damage in California firefighters conducted by Dr. Gunnar Heuser. Read the Press Release on the Resolution and Research Study here

L.A. County Firefighters Local 1014

- Local 1014 has a webpage dedicated to stopping towers because of a plan to install them on over 200 of their stations. http://www. stopcellphonetowers.com/index. html
- "As firefighters and paramedics, we live in these firehouses. What effect will these towers have on us? What are the risks to our neighbors? It's a no-brainer that LA County should at least have

done a proper study before before putting 200-foot high-power microwave antennas on top of our heads."

- Dave Gillotte, Active Duty Fire Captain

President, LA County Firefighters Local 1014

Watch him testify on this issue here.

- *The Firefighter's Website in 2015* http://www. stopcellphonetowers.com/index. html

United Firefighters of Los Angeles City Local 112 IAFF-CIO-CLC

Opposes Cell Towers on Their Stations.

- " It is inexcusable that once again our firefighters in the field were the last to know about a massive 150 million dollar project that could jeopardize their health and safety. ... nobody talked to us and we have not heard from one single expert who has told us that this project will be safe."
- "UFLAC will strongly oppose the use of Fire Stations as base locations for cell towers and/or antennas "

DownLoad the letter from this LA Firefighters Union Local 112 asking for an immediate halt to cell towers on fire stations.

Watch videos the these Firefighter Union Presidents testifying to the LA Board of Supervisors on the Issue here.

-Page Intentionally Left Blank-

Rebecca Smith

-Page Intentionally Left Blank-

From: Rebecca Smith
Sent: Thursday, December 15, 2016 3:06:52 PM
To: Genevieve Walker
Subject: A New Paradigm in EMF Science

Please see attached document file.

I am a descendant of an atomic US veteran, former US Army Reserve Combat Electrician and for many more years was a US Navy air traffic controller, and then an FAA air traffic controller, I assure you I am quite sane and recently completed four graduate degrees in aeronautical science including Space Studies, I am an electromagnetic hypersensitive female, diagnosed at age 55 by functional MRI imaging. This condition is a global problem.I have quite a voluminous assortment of supportive documents. Attached is a most recent article written for the engineering sector.

Sincerely,

Rebecca Smith

From: Rebecca Smith
Sent: Wednesday, December 21, 2016 6:31 PM
To: Genevieve Walker
Cc: Andrew Bielakowski; Amanda Pereira; Salerno, Jennifer [USA]; Claudia Wayne
Subject: Re: A New Paradigm in EMF Science

Please see also attached documents.

On Thu, Dec 15, 2016 at 6:49 PM, Genevieve Walker <Genevieve.Walker@firstnet.gov> wrote:

Ms. Smith- thank you for taking the time to write. I look forward to reading your attachment.

Thank you for the information.

Genevieve Walker
FirstNet
Director of Environmental Compliance
12201 Sunrise Valley Drive M/S 243
Reston, VA 20192
(571) 665-6134

From: Rebecca Smith
Sent: Thursday, December 15, 2016 3:06:52 PM
To: Genevieve Walker
Subject: A New Paradigm in EMF Science

Please see attached document file.

I am a descendant of an atomic US veteran, former US Army Reserve Combat Electrician and for many more years was a US Navy air traffic controller, and then an FAA air traffic controller, I assure you I am quite sane and recently completed four graduate degrees in aeronautical science including Space Studies, I am an electromagnetic hypersensitive female, diagnosed at age 55 by functional MRI imaging. This condition is a global problem.I have quite a voluminous assortment of supportive documents. Attached is a most recent article written for the engineering sector.

Sincerely,

Rebecca Smith

Additional References Provided

Adams, Ronald L. and R.A. Williams. 1976. *Biological Effects of Electromagnetic Radiation (Radiowaves and Microwaves)—Eurasian Communist Countries*. Department of Defense, Defense Intelligence Agency. Prepared by U.S. Army Medical Intelligence and Information Agency.

Johnson, Jeromy C. 2016. "Wireless Wake-Up Call: A New Paradigm in EMF Science." *The Bent*, Summer 2016: 15-19.

Unknown Author. 1998. *Bioeffects of Selected Nonlethal Weapons(fn1)*. Addendum to the Nonlethal Technologies–Worldwide (NGIC-11 47-101-98) Study. 17 February 1998.

-Page Intentionally Left Blank-