Appendix D
I-94 East-West Corridor Study Environmental Justice Analysis & Plan

2022

I-94 East-West Corridor Study
Environmental Justice Analysis & Plan

July 2022

Executive Summary

Environmental Justice

The Wisconsin Department of Transportation (WisDOT) recognizes the importance of implementing environmental justice into project development efforts. The key regulations and policy directives behind environmental justice assessment requirements are Title VI of the Civil Rights Act of 1964 and Executive Order 12898 issued by President Clinton in 1994.

Title VI of the Civil Rights Act of 1964[1] prohibits intentional discrimination, as well as disparate impact discrimination, that results when a facially neutral policy has disparate impacts on protected population groups. To clarify and amplify the nondiscrimination requirements of Title VI, President Clinton issued Executive Order 12898, "Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations" in 1994.

Presidential Executive Order on Environmental Justice 12898 directs federal agencies to take appropriate and necessary steps to identify and address disproportionately high and adverse effects of federal projects on the health or environment of minority and/or low-income populations to the greatest extent practicable by law. The Executive Order states, to the extent practicable and permitted by law, that neither minority nor low-income populations may receive disproportionately high or adverse effects[2] as a result of a proposed project. The order requires that representatives of low-income or minority populations that could be affected by the project be given the opportunity to be included in the impact assessment and public involvement process.

Federal Highway Administration (FHWA) guidance, "Addressing Environmental Justice in Environmental Assessments / Environmental Impact Statements," outlines the elements and steps to be followed when preparing an EIS and requires the following steps:

- Identify existing minority or low-income population.
- Explain coordination with, access to information, and participation of environmental justice populations.
- Identify disproportionately high and adverse effects (if applicable) on environmental justice populations.

If the high and adverse impacts are found to be borne disproportionately by low-income and minority populations, an analysis must examine mitigation measures, offsetting benefits, and impacts of other

[1] Title VI states that "[n]o person in the United States shall, on the ground of race, color, or national origin be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving Federal financial assistance."

[2] Disproportionately high and adverse effect on low-income and minority populations is defined in FHWA Order 6640.23A as (1) is predominately borne by a minority population and/or a low-income population; or (2) will be suffered by the minority population and/or low-income population and is appreciably more severe or greater in magnitude than the adverse effect that will be suffered by the non-minority population and/or non-low-income population. Adverse effects are defined in FHWA Order 6640.23A as the totality of significant individual or cumulative human-health or environmental effects, including interrelated social and economic effects, which may include, but are not limited to: bodily impairment, infirmity, illness, or death; air, noise, and water pollution and soil contamination; destruction or disruption of man-made or natural resources; destruction or diminution of aesthetic values; destruction or disruption of community cohesion or a community's economic vitality; destruction or disruption of the availability of public and private facilities and services; vibration; adverse employment effects; displacement of persons, businesses, farms, or nonprofit organizations; increased traffic congestion, isolation, exclusion, or separation of minority or low-income individuals within a given community or from the broader community; and the denial of, reduction in, or significant delay in the receipt of, benefits of FHWA programs, policies, or activities.

system elements in accordance with FHWA Order 6640.23A, Actions to Address Environmental Justice in Minority Populations and Low-Income Populations (1998).

Environmental Justice Analysis and Plan

The I-94 East-West Corridor Study Environmental Justice Analysis and Plan & Plan reflects WisDOT's interest in environmental justice for all stakeholders affected by or interested in the planning and implementation of the I-94 East-West Corridor Study. The purpose of this document is twofold. The document presents:

- Existing demographic information present in the I-94 East-West Corridor study area
- A plan for assessing environmental justice data and impacts, and a plan for engaging environmental justice populations in the study area

This document provides a preliminary environmental justice population analysis through identifying existing environmental justice populations in the study corridor. The next step is to analyze adverse or beneficial impacts to minority or low-income populations in those areas compared to non-minority or low-income populations. These impacts (both direct and indirect) will be documented thoroughly in the I-94 East-West Corridor Study Supplemental Draft Environmental Impact Statement (Supplemental DEIS).

WisDOT used data available from the United States Census Bureau to identify potential environmental justice populations in the I-94 East-West Corridor study area. A series of maps and tables provide an overview of the various social and economic groups present in the study corridor. The preliminary environmental justice analysis includes four study bands to identify potential environmental justice populations in the study corridor:

- Within a 1,000 foot corridor of centerline I-94
- Within a 0.5-mile corridor
- Within a 1-mile corridor
- Travel dispersion corridor (outline based on how far away from I-94 one must go before taking a route other than I-94 to reach a destination outside of the study area)
- WisDOT obtained 2010 and 2020 demographic information for each corridor noted above. To serve as a point of comparison, demographic information from the following entities was obtained:
- State of Wisconsin
- Milwaukee County
- Aggregate of the four municipalities that are in the project area: Cities of Milwaukee, Wauwatosa, and West Allis and the Village of West Milwaukee
- City of Milwaukee
- City of Wauwatosa
- City of West Allis
- Village of West Milwaukee

Preliminary analysis on the presence of low-income, minority, and other populations within these specific geographic proximities is found in this document. There are environmental justice populations

found throughout the I-94 East-West Corridor and concentrated within certain regions of the study area. This document identifies these areas while the Supplemental DEIS will discuss specific impacts to these environmental justice populations.

Within the travel dispersion corridor, 1-mile corridor, 0.5-mile corridor, and 1,000-foot corridor of I-94, minorities made up 62.8 percent, 53.1 percent, 50.5 percent, and 51.2 percent of the population in 2020, respectively. The minority population in Milwaukee County grew 11.6 percent between 2010 and 2020, to 51.4 percent. The travel dispersion corridor minority population also increased between 2010 and 2020, by 2.4 percent. Within study area communities, minority population has experienced differing levels of growth from 4 percent in the City of Milwaukee (67.7 percent total minority population) to approximately 73 percent in the City of West Allis (31.1 percent total minority population).

In the travel dispersion corridor in 2020, 30.5 percent of the population is considered Hispanic or Latino of any race, while 22.1 percent of the population is Black or African American. The Black or African American population in the travel dispersion corridor is similar to that in Milwaukee County (25.6 percent); however, the percentage of Hispanic or Latino population in the study area is nearly double that of the percentage in Milwaukee County (16.3 percent). In Milwaukee County, the largest minority population is Black or African American.

Based on 2020 ACS data, the median household income in the travel dispersion corridor ($39,710) was lower than the median household income for Milwaukee County ($52,260) and communities within the study area. The percentage of persons living in poverty is greater in the travel dispersion corridor (25.5 percent) than it is in Milwaukee County (18.3 percent) and communities within the study area.

Outreach

Additionally, this document lists the neighborhood and community groups, businesses, business organizations, churches, and schools the project team will reach out to as part of this study. Project staff will contact and arrange to meet with these stakeholders to inform them of the study, solicit information and input on the study, and to equip them with information regarding Public Information Meetings and other opportunities for their membership to provide input about the project. Post-meeting follow-up will include database additions for mailed and electronic newsletters to keep them informed of the project status and timeline.

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SECTION 1

Purpose and Goals of the Environmental Justice Analysis and Plan

This I-94 East-West Corridor Environmental Justice Analysis and Plan identifies and describes environmental justice populations and stakeholders within the I-94 East-West Corridor. A plan is provided as to conduct analysis to determine if there are disproportionately high and adverse effects of the project being borne by environmental justice populations. The results of this detailed analysis will be presented in the I-94 East-West Corridor Supplemental DEIS.

1.1 Environmental Justice Background

The key regulations and policy directives behind environmental justice assessment requirements are Title VI of the Civil Rights Act of 1964 and Executive Order 12898 issued by President Clinton in 1994.

Title VI of the Civil Rights Act of 1964[3] prohibits intentional discrimination, as well as disparate impact discrimination, which results when a facially neutral policy has disparate impacts on protected population groups. To clarify and amplify the non-discrimination requirements of Title VI, President Clinton issued Executive Order 12898, "Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations" in 1994.

Presidential Executive Order on Environmental Justice 12898 directs federal agencies to take appropriate and necessary steps to identify and address disproportionately high and adverse effects of federal projects on the health or environment of minority and/or low-income populations to the greatest extent practicable by law. The Executive Order states that, to the extent practicable and permitted by law, neither minority nor low-income populations may receive disproportionately high or adverse impacts as a result of a proposed project. The order also requires that representatives of any low-income or minority population that could be affected by the project be given the opportunity to be included in the impact assessment and public involvement process.

FHWA guidance on "Addressing Environmental Justice in Environmental Assessments/Environmental Impact Statements" outlines the elements and steps to be followed when preparing an EIS and requires the following steps:

- Identification of existing populations.
- Identification of coordination, access to information, and participation.
- Identification of disproportionately high and adverse effects.

As part of the Draft EIS WisDOT and FHWA will complete an environmental justice analysis to determine whether the proposed project has the potential to incur disproportionately high and adverse effects.[4]

3 Title VI states that "(n)o person in the United States shall, on the ground of race, color, or national origin be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving Federal financial assistance."

4 Adverse effects are defined in FHWA Order 6640.23A as the totality of significant individual or cumulative human-health or environmental effects, including interrelated social and economic effects, which may include, but are not limited to the following: bodily impairment, infirmity, illness, or death; air, noise, and water pollution and soil contamination; destruction or disruption of man-made or natural resources; destruction or diminution of aesthetic values; destruction or disruption of community cohesion or a community's economic vitality; destruction or disruption of the availability of public and private facilities and services; vibration; adverse employment effects; displacement of persons, businesses, farms, or nonprofit organizations; increased traffic congestion, isolation, exclusion, or separation of minority or low-income individuals within a given community or from the broader community; and the denial of, reduction in, or significant delay in the receipt of, benefits of FHWA programs, policies, or activities.

upon minority or low-income populations.[5] If the high and adverse impacts are found to be borne disproportionately by low-income and minority populations, an analysis must examine mitigation measures, offsetting benefits, and impacts of other system elements in accordance with FHWA Order 6640.23A, Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, issued in 2012.[6]

In addition, FHWA issued a memorandum in December 2011 providing guidance on the process to address environmental justice during the NEPA review, including documentation requirements. The memorandum supplements FHWA Technical Advisory 6640.8A, which provides guidance for documenting the potential social, economic, and environmental impacts considered in the selection and implementation of highway projects. The memorandum notes that environmental justice discussion in environmental documents should include the following:

- Identifying existing minority and low-income populations.
- Explain coordination with, access to information, and participation of environmental justice populations.
- Identify disproportionately high and adverse effects (if applicable) on environmental justice populations

1.2 Purpose of Environmental Justice Analysis and Plan

The I-94 East-West Corridor Study Environmental Justice Analysis and Plan identifies a set of goals, recommended target audiences, and proposed deliverables. The plan also defines criteria to identify and communicate with minority persons and low-income persons located within the study area, as well as strategies to assess and mitigate potential impacts on those populations. Analysis will include close coordination with public outreach efforts and will document communication between WisDOT and leaders, groups, and individuals representing minority groups within the study area. Information, results of analyses, and feedback received from stakeholders will be documented and provided to the study team throughout the process.

1.3 Goals

Specific goals of the I-94 East-West Corridor Study Environmental Justice Analysis and Plan include:

- Identifying and locating minority populations and/or low-income populations within the study area.[7]
- Conducting outreach and building open lines of communication to engage minority and low-income stakeholders in discussion to identify interests, questions, concerns, and obtain feedback into the proposed project design.

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[5] Disproportionately high and adverse effect on low-income and minority populations is defined in FHWA Order 6640.23 as follows: (1) is predominately borne by a minority population and/or a low-income population; or (2) will be suffered by the minority population and/or low-income population and is appreciably more severe or greater in magnitude than the adverse effect that will be suffered by the non-minority population and/or non-low-income population.

[6] FHWA Order 6640.23A cancels FHWA Order 6640.23 which was issued in 1998.

[7] Minority populations and low-income populations are two distinct population categories. Executive Order 12898 applies to both categories independent of one another.

The Environmental Justice analysis includes an outreach component and thus becomes closely tied with the Public Involvement effort.[8] The I-94 East-West study team anticipates that the efforts outlined in this plan will enhance the Public Involvement process and encourage interested parties to share ideas, expectations, and concerns for the project and future WisDOT projects, resulting in the best possible integrity of the project and well-being of all stakeholders.

Results of this analysis and plan will assist the study team in determining if potential disproportionately high and adverse human health and environmental impacts may occur as a result of the I-94 East West Corridor project. This analysis and plan will be included as part of the Supplemental Draft EIS on the project website.

[8] See Appendix IV: I-94 East-West Corridor Study Public Involvement Plan

SECTION 2

Preliminary Analysis

2.1 Environmental Justice Populations

In order to meet specific requirements outlined in Executive Order 12898, WisDOT will conduct a preliminary analysis of the various demographic groups located near the study corridor and will include focused communication through grassroots outreach in the following general demographic groups. To determine the presence of minority and low-income populations in the study area, WisDOT used localized census tract, block group, and block data, supplemented by the study team's extensive public involvement program and other relevant data sources.

Minority – a person who is:

- Black/African American (having origins in any of the black racial groups of Africa)
- Hispanic or Latino (of Mexican, Puerto Rican, Cuban, South American, or other Spanish culture or origin, regardless of race)
- Asian American (having origins in any of the original peoples of the Far East, Southeast Asia, the Indian subcontinent, or the Pacific Islands)
- American Indian or Alaska Native (having origins in any of the original people of North America and who maintains cultural identification through tribal affiliation or community recognition)
- Hawaiian Native or other Pacific Islander (people having origin in any of the original peoples of Hawaii, Guam, Samoa, or other Pacific Islanders)
- Caucasian and any combination of the above (EJ, Title VI[9], Executive Order 12898)

Low-income – is defined as a household income at or below poverty thresholds. According to the U.S. Census Bureau, a family is considered in poverty if their income is lower than the poverty threshold for that family. For example, in 2020, a family of four with two children under the age of 18 would be considered in poverty if the family's total income was less than $26,246 (U.S. Census Bureau 2020).[10]

- Other indicators of low-income:
  - Child lunch vouchers (Executive Order 13045)[11]
  - Section 8 Housing

[9] See Appendix V: Title VI

[10] Income data is collected by the American Community Survey (ACS). The ACS tracks local economic conditions annually rather than on a decennial basis like the U.S. Census. The U.S. Department of Health and Human Services (HHS) annually publishes poverty guidelines to determine financial eligibility for certain programs. The HS guidelines are a simplification of the U.S. Census Bureau's poverty thresholds for use for administrative purposes; for instance, determining financial eligibility for certain federal programs. According to the HHS guideline, in 2020 a household containing four persons was considered to be living in poverty if the total income of the family was less than $26,200. See Appendix III American Community Survey and Puerto Rico Community Survey 2020 Subject Definitions.

[11] See Appendix VI: Executive order 13045

Other population groups not protected under the Executive Order or Environmental Justice but potentially affected by the proposed action:

- Persons with disabilities (Americans with Disabilities Act Amendment Act)[12]
- Elderly (Age Discrimination Act)[13]
- Limited English Proficiency (Executive Order 13166)[14]
- Children
- Persons with zero vehicle ownership

2.2 Environmental Justice Analysis Areas

The I-94 East-West Corridor study area includes approximately 3.5 miles of I-94 freeway corridor from 70th Street (west limit) to 16th Street (east limit) (Exhibit 2-1). The study area also includes one system interchange (Stadium interchange) and five service interchanges along I-94 (the 68th/70th Street split diamond, Hawley Road, Mitchell Boulevard, 35th Street, and 25th/26th/28th Street).

The preliminary environmental justice analysis includes four study bands to identify potential environmental justice populations in the study corridor:

- Within a 1,000 foot corridor of centerline I-94
- Within a 0.5-mile corridor
- Within a 1-mile corridor
- Travel dispersion corridor (outline based on how far away from I-94 one must go before taking a route other than I-94 to reach a destination outside of the study area)

Exhibit 2-2 shows the location of the study bands listed above.

This represents an initial look at demographic composition of the study area. Additional demographic data may be required, or the same data may be gathered for a larger area after the project's area of effect is better understood. This will be determined during initial outreach to environmental justice groups and as the initial range of alternatives are developed and evaluated.

[12] See Appendix VII Americans with Disabilities Act – Amendment Act

[13] See Appendix VIII: Age Discrimination Act

[14] See Appendix IX: Executive Order 13166

Exhibit 2-1. Project Location Map

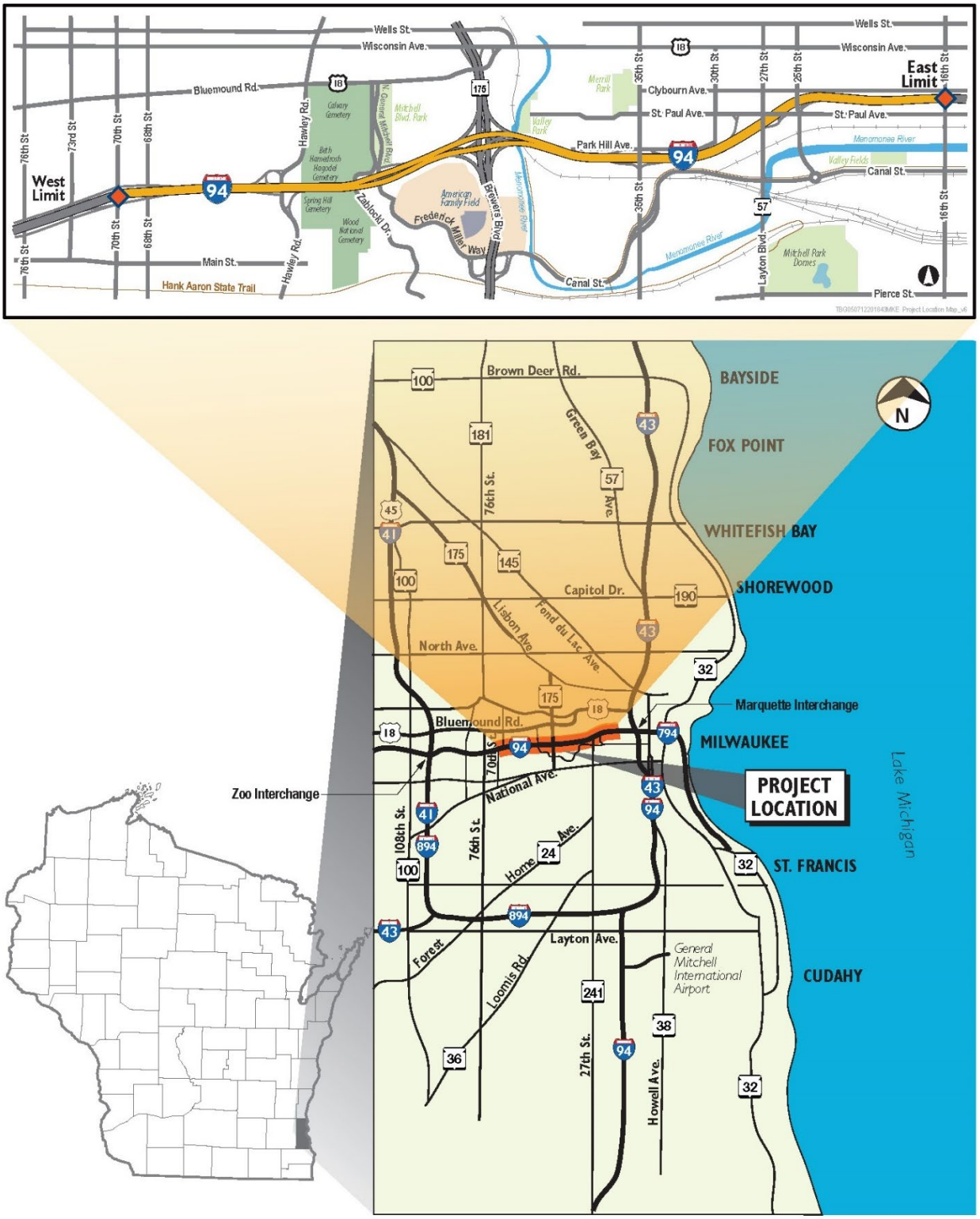
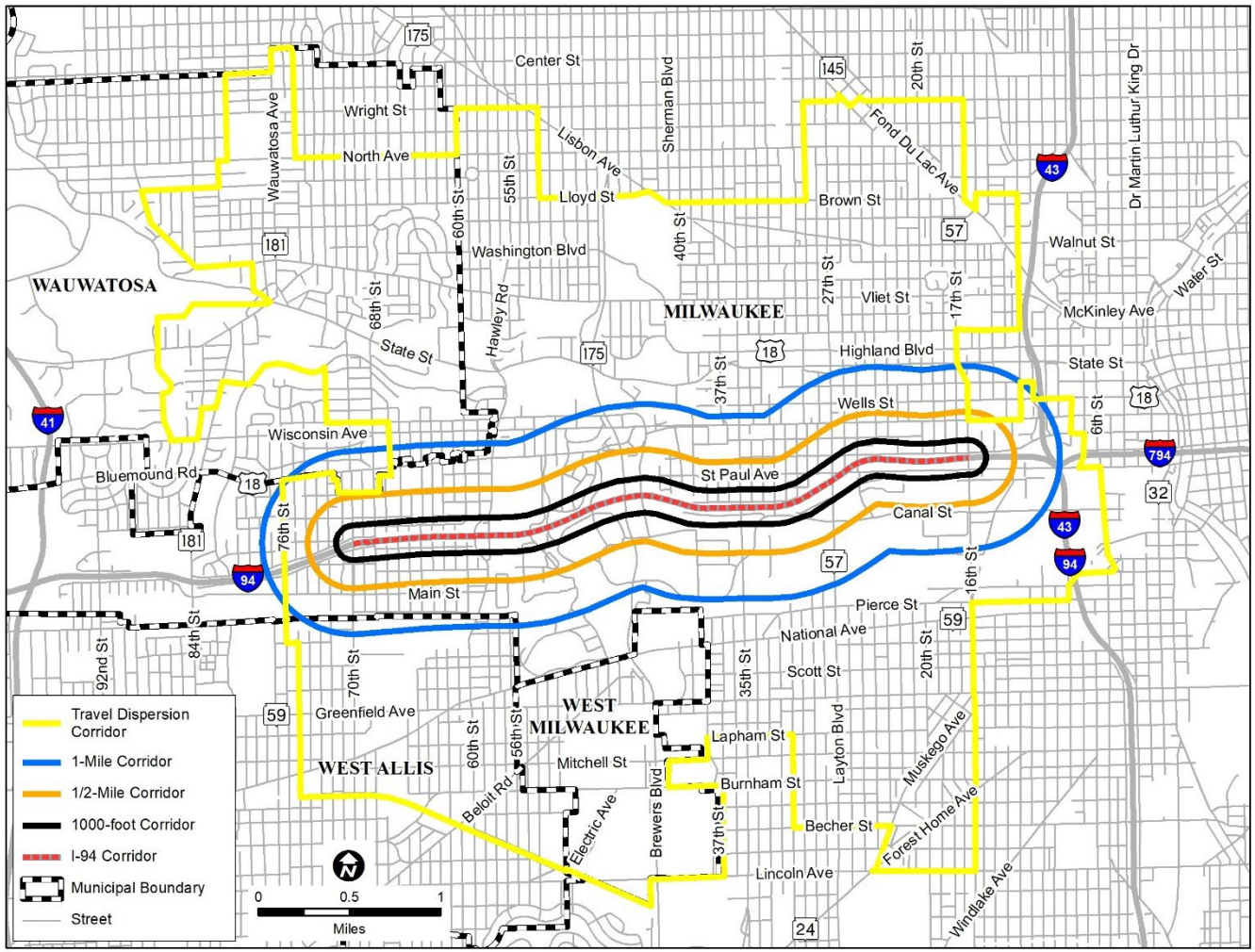


Exhibit 2-2. I-94 Corridor Study Areas



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SECTION 3

Proposed Methodology

The I-94 East-West Corridor Study is surrounded by many different and distinct communities, neighborhoods, and organizations, thus the pool of stakeholders is large and diverse. Census information will initially be analyzed to determine stakeholder make-up and best identify and assess their needs. WisDOT's preliminary analysis will include but not be limited to identifying the following within the project limits:

- Low-income stakeholder census tracts
- Low-income rental property locations
- Minority populations
- Businesses
- Preferred contact person at each identified local government
- Churches
- Schools
- Cemeteries
- Community Organizations

Analysis will include a demographic profile of stakeholders, including 2020 American Community Survey (ACS) data and documentation of issues and concerns raised by various stakeholders. In order to reasonably analyze the project data, all areas within the project area will be considered. Stakeholders who are not located directly within the limits designated for analysis may be identified through the Public Involvement process. Due to the interconnectedness between Environmental Justice and Public Involvement, the Environmental Justice analysis may incorporate considerations of issues raised as part of the Public Involvement effort where appropriate.

While the primary objective of the Environmental Justice analysis is to assess the disproportionate impacts to certain populations resulting from proposed actions, it is important that the analysis also provides information on low-income and minority populations so that alternatives which address recurring community-wide problems can be developed. This approach includes both a qualitative and quantitative process of gathering stakeholder input on the potential impacts of alternatives identified during the EIS process, as well as data gathering using various demographic and economic data resources available at the regional, state, and federal levels.

The Environmental Justice Analysis will be completed in five phases. Phase I will identify and describe the stakeholders by defining a study area and gathering information about the people and organizations within it. Phase II will identify socio-economic factors present, beyond quantifiable data, within the study area. Phase III will identify and assess issues concerning Environmental Justice using public involvement feedback and calculating impacts for each alternative. Phase IV will analyze the effect of those impacts on minority and/or low-income populations, and if those impacts are adverse, if they are proportionate or disproportionate to those experienced by the general public. Phase V links the Environmental Justice Analysis to public involvement efforts so that all stakeholders including minority and/or low-income populations have the opportunity to participate in the EIS process.

This document will address Phase I (identify and describe stakeholders within the I-94 East-West Corridor); while the other four phases will be completed as part of the EIS process and discussed in the Draft EIS.

3.1 Phase I – Identify and describe stakeholders within the I-94 East-West Corridor

1. Develop a base map of the defined limits of the Environmental Justice study area.
2. Overlay the base map with the recommended initial distance of one mile radius around the study area to identify the range of potential schools, churches, residences, and other stakeholders within the Environmental Justice study area.
3. Determine the presence and estimate the size of the minority populations and/or low-income populations within the study limits.
4. Identify and give a brief demographic description of the minority populations and/or low-income populations within the Environmental Justice corridor limits and initial one mile radius.
5. Where appropriate, identify and give a brief description of communities within study limits.
6. Where appropriate, develop a community profile to include applicable and/or appropriate:
   - Neighborhood boundaries
   - Demographic information
   - Economic Data
   - Other pertinent data

Areas of interest to the Environmental Justice analysis will be identified through part of the PI team's outreach specialists and socioeconomic analysis efforts. These efforts include identification and consideration of the location and nature of neighborhoods and residents within the study limit, a brief overview of the local social history of the communities within the area, and the land use plans.

3.2 Phase II – Identify and define the socio-economic factors of communities along the corridor

Pursuant to WisDOT's policy and procedures, analysis of the socio-economic factors requires an analysis that extends beyond quantifiable aspects to non-quantifiable aspects such as a community's values and history.

Analysis of socio-economic factors will be addressed as part of the environmental impact statement and will include from this effort, but not to be limited to: neighborhood and community cohesion, regional economic impacts, and public and private development plans.

3.3 Phase III - Identify and assess issues, concerns of Environmental Justice and stakeholder populations within the corridor study area

1. Using information gathered from Public Involvement and information collected above, WisDOT will identify and describe issues of concern or controversy within the minority communities and low-income communities.
2. Using the range of alternatives, data collected, issues identified, and described effects to minority populations and low-income populations resulting from the reasonable alternative developed and presented at the public information hearings.

3.4 Phase IV – Analysis of impacts to minority populations and/or low-income populations

Assess whether effects to the minority populations and/or low-income populations are beneficial or adverse.

Review considerations:

- Are the effects proportionate or disproportionate to those experienced by the general population?
    1. What are the effects?
    2. Direct
    3. Indirect
    4. Cumulative
- Are there any disproportionately high or adverse effects?
    1. Predominantly borne by minority or traditionally underserved populations
    2. What are the comparative effects experienced by minority or low-income populations and are they more severe or greater in magnitude than the adverse effects suffered by non-minority and/or non-traditionally underserved?
- Are any of the minorities or low-income populations protected under the Title VI of the 1964 Civil Rights Act (which prohibits discrimination on the basis of race, color, or country of origin)?
- Consider the Age Discrimination Act or Americans with Disabilities Act as noted in the Environmental Justice Impact Evaluation.
- Provide data, support, and brief analysis for consideration in the development of the EIS Review discussion of the potential mitigation and enhancement efforts to address disproportionately high and adverse effects to Environmental Justice populations.

3.5 Phase V –Environmental Justice link to Public Involvement

The Environmental Justice component is closely related to Public Involvement on the I-94 East-West Corridor Study project, as the study's communication efforts will strive to ensure the full and fair participation of minority populations and low-income groups to provide input to the project team. A variety of successful tools and methods for achieving maximized public involvement from all parties have been developed through previous mega-project studies in the Southeast Region including those completed as part of the Marquette Interchange Project, I-94 North-South Freeway Project, and Zoo Interchange Project. Public Involvement continues to serve a vital role to educate citizens about the transportation development process and increase the likelihood of implementation of an alternative through informed consent from all groups.

SECTION 4

Environmental Justice Preliminary Analysis

4.1 Terminology

1. The headings refer to areas to be researched. For example, the Half-Mile Corridor heading refers to just the population that is located within a half-mile corridor around I-94.
2. The Total Population row refers to the population of the group represented in the table. In this example, the African American or Black population within a half-mile corridor around I-94 is 1,952.
3. The Percentage by Race Type is the percentage of the total population that the value in the Population column represents. For example, 21.9% of the population within a half-mile corridor around I-94 is African American or Black.

The terminology used in this document is intended to have the same definitions used in the census and ACS. Terms used such as “Hispanic”, “family”, and “poverty” have the same meaning as used in the census.[15]

The following tables describe demographic and economic data provided in the 2020 Census and 2020 ACS. For race and ethnicity categories, Census blocks were the geographic entity used. For economic categories Census blocks were used when available and tracts when blocks were not available. Trats are often he smallest geographic entity used to report economic data. The following exhibits and tables display actual counts and percentages of select populations within each Census geographic entity (either block or tract).

4.2 General Population

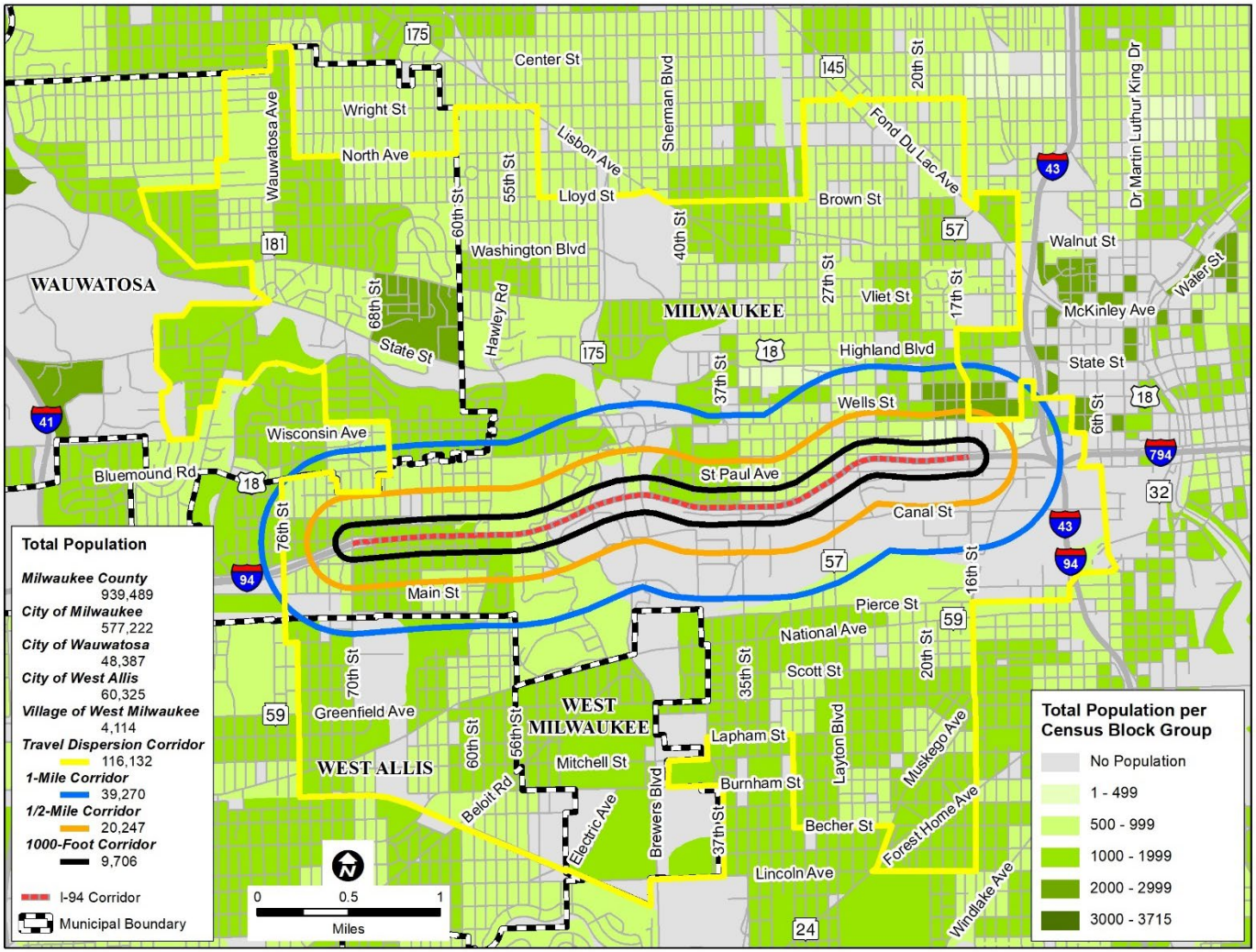
Exhibit 4-1 shows the total population of each census block within the travel dispersion corridor (travel dispersion corridor on the map). The blocks with the most population are located along Highland Avenue, Wells Street, Wisconsin Avenue near Marquette University, located north of I-94 and east of the Stadium Interchange. Also, due to its industrial nature, the Menomonee Valley, south of I-94 and east of the Stadium Interchange, has no population. Exhibit 4-1 illustrates the areas without population in grey.

4.3 Race and Ethnicity

Population by race was taken from data indicating race alone (2020 ACS Table B03002). It should be noted that 'Hispanic' is an ethnic group and not a race category, and is expressed separately from race in the data. Thus, Hispanic persons are also White, Black, etc., in addition to being Hispanic. Total minority population was calculated as the sum of all non-white race groups.

[15] See Appendix III: American Community Survey and Puerto Rico Community Survey 2020 Subject Definitions.

Exhibit 4-1. Total Population in I-94 Corridor



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Demographics within the four bands, 1,000 foot, 0.5 mile, 1.0 mile, and travel dispersion corridor have been identified and compared to the demographics and economics of the surrounding cities, Milwaukee County, and the State of Wisconsin. Table 4-1 shows race/ethnicity for the four bands and surrounding cities, Milwaukee County, and the State of Wisconsin. The data depicted on the following pages represent various sub-groups of the population.

Table 4-1. Race and Ethnicity

Race/Ethnicity	State of Wisconsin	Milwaukee County	City of Milwaukee	City of Wauwatosa	City of West Allis	Village of West Milwaukee	1000' Corridor	Half Mile Corridor	One Mile Corridor	Travel Dispersion Corridor
White/Caucasian Total Population & Percentage by Race Type	4,634,018	456,520	186,419	39,388	41,549	1,752	4,737	10,287	20,104	43,242
	78.6%	48.6%	32.3%	81.4%	68.9%	42.6%	48.8%	50.8%	51.2%	37.2%
Black or African American Total Population & Percentage by Race Type	366,508	240,416	218,273	2,840	3,540	564	1,780	4,185	9,031	25,715
	6.2%	25.6%	37.8%	5.9%	5.9%	13.7%	18.3%	20.7%	23.0%	22.1%
American Indian or Alaska Native Total Population & Percentage by Race Type	48,384	3,878	2,365	73	497	26	99	135	235	736
	0.8%	0.4%	0.4%	0.2%	0.8%	0.6%	1.0%	0.7%	0.6%	0.6%
Asian Total Population & Percentage by Race Type	174,267	45,989	29,969	1,659	1,515	102	321	1,029	1,860	6,007
	3.0%	4.9	5.2%	3.4%	2.5%	2.5%	3.3%	5.1%	4.7%	5.2%
Hawaiian Native or other Pacific Islander Total Population & Percentage by Race Type	1,892	262	166	17	17	0	4	15	31	54
	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%	0.1%	0.1%
	447,290	153,017	116,306	2,219	10,211	1,465	2,186	3,526	6,045	35,390

Table 4-1. Race and Ethnicity

Race/Ethnicity	State of Wisconsin	Milwaukee County	City of Milwaukee	City of Wauwatosa	City of West Allis	Village of West Milwaukee	1000' Corridor	Half Mile Corridor	One Mile Corridor	Travel Dispersion Corridor
Hispanic Total Population & Percentage by Race Type	7.6%	16.3%	20.1%	4.6%	16.9%	35.6%	22.5%	17.4%	15.4%	30.5%
Other Race Alone Total Population & Percentage by Race Type	17,613	4,227	2,971	160	244	23	62	111	192	460
	0.3%	0.4%	0.5%	0.3%	0.4%	0.6%	0.6%	0.6%	0.5%	0.4%
Two or More Races Total Population & Percentage by Race Type	203,746	35,180	20,753	2,031	2,752	182	517	959	1,772	4,528
	3.5%	3.7%	3.6%	4.2%	4.6%	4.4%	5.3%	4.7%	4.5%	3.9%

Source: U.S. Census Bureau 2020 Decennial Census

4.3.1 White/Caucasian Population

Table 4-2 provides data on the White/Caucasian population in and near the I-94 East-West Corridor study area.

Table 4-2. White/Caucasian Population In and Near I-94 Study Area

		City of Milwaukee		City of Wauwatosa	
	Milwaukee County	Total	In travel dispersion corridor	Total	In travel dispersion corridor
Total Population	456,520	186,419	22,617	39,388	13,018
% of Population	48.6%	32.3%	26.3%	81.4%	84.4%

		City of West Allis		Village of West Milwaukee	
	Milwaukee County	Total	In travel dispersion corridor	Total	In travel dispersion corridor
Total Population	456,520	41,549	5,855	1,752	1,752
% of Population	48.6%	68.9%	55.5%	42.6%	42.6%

	Milwaukee County	Municipalities in Study Area	1000' Corridor	Half Mile Corridor	One Mile Corridor	Travel Dispersion Corridor
Total Population	456,520	269,108	4,737	10,287	20,104	43,242
% of Population	48.6%	39.0%	48.8%	50.8%	51.2%	37.2%

Source: U.S. Census Bureau 2020 Decennial Census

Figure 4-1 provides a visual representation of the White/Caucasian population percentages in the study bands, compared to Milwaukee County, City of Milwaukee, City of Wauwatosa, City of West Allis, and Village of West Milwaukee.

Figure 4-1. White/Caucasian Population Percentage

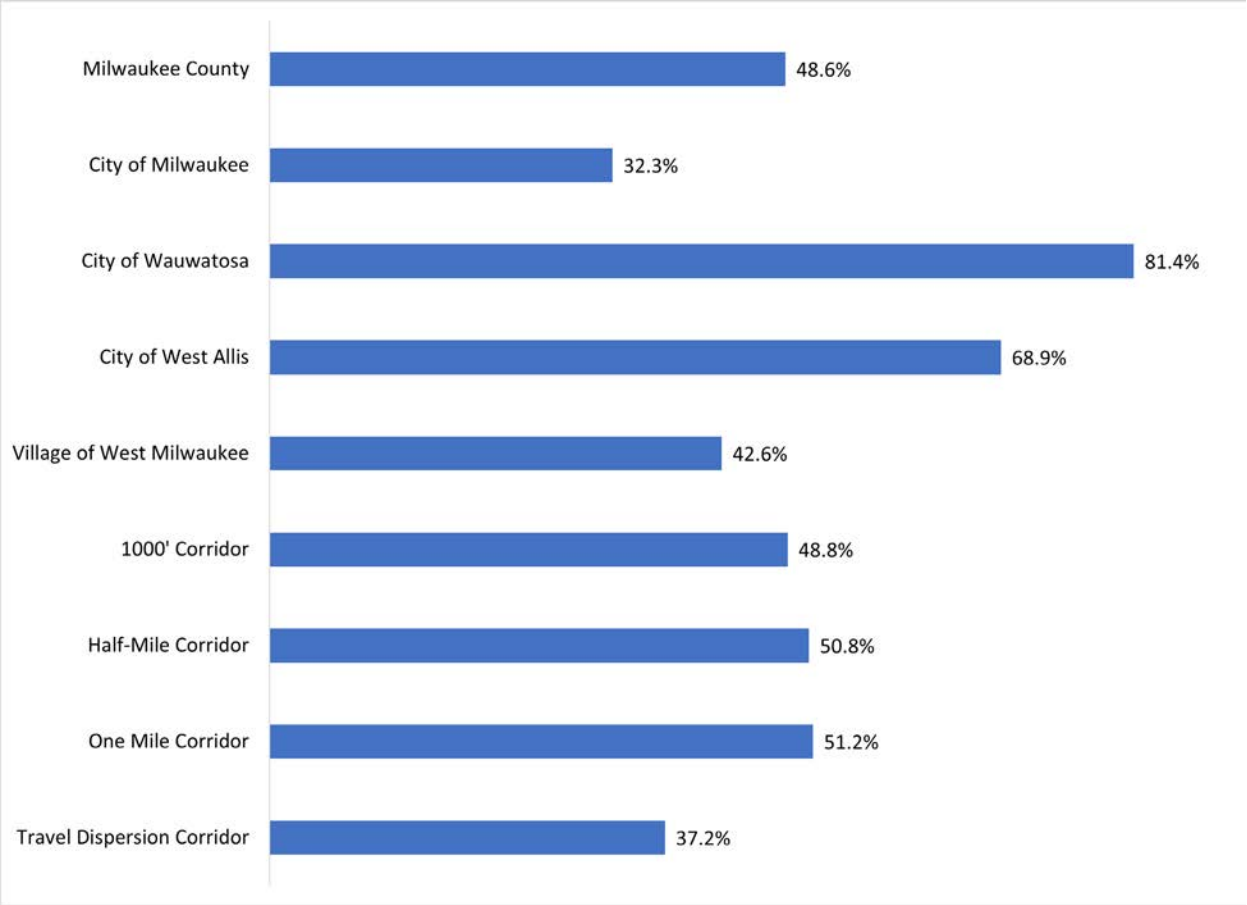
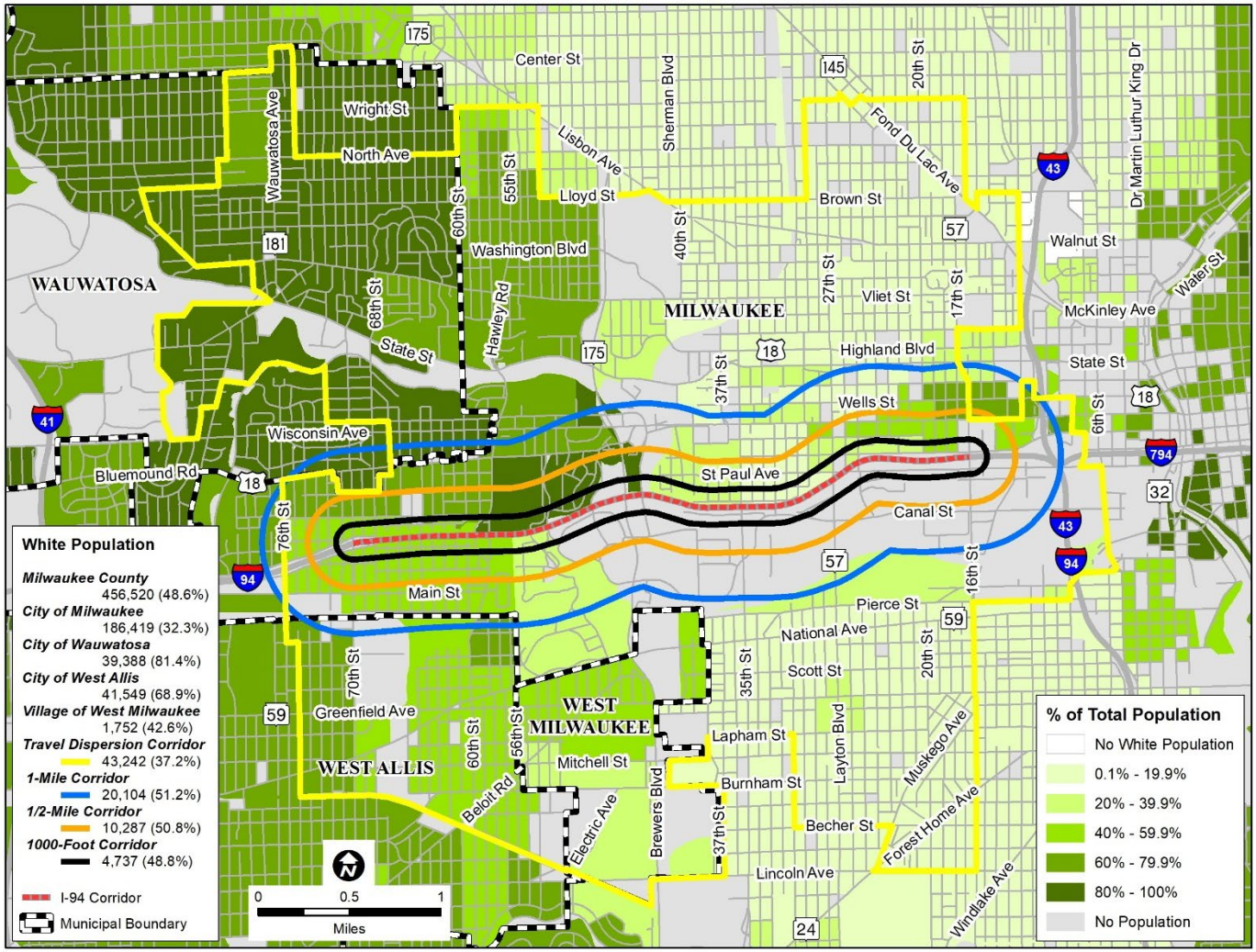


Exhibit 4-2 illustrates where white populations live within the study corridor. Within the half-mile corridor around I-94 in the study corridor (one-quarter mile in each direction from I-94), approximately 50 percent of the population identifies themselves as White/Caucasian. Most of the census blocks within the travel dispersion corridor containing 60.1 to 100.0 percent whites are located west of WIS 175, mostly north of I-94.

Exhibit 4-2. White Population Alone (Not Hispanic or Latino) in I-94 Corridor



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4.3.2 Minority Population

Table 4-3 provides data on the total minority population in and near the I-94 East-West Corridor study area.

Table 4-3. Minority Population

		City of Milwaukee		City of Wauwatosa	
	Milwaukee County	Total	In travel dispersion corridor	Total	In travel dispersion corridor
Total Population	482,969	390,803	63,423	8,999	2,403
% of Population	51.4%	67.7%	73.7%	18.6%	15.6%

		City of West Allis		Village of West Milwaukee	
	Milwaukee County	Total	In travel dispersion corridor	Total	In travel dispersion corridor
Total Population	482,969	18,776	4,702	2,362	2,362
% of Population	51.4%	31.1%	44.5%	57.4%	57.4%

	Milwaukee County	Municipalities in Study Area	1000' Corridor	Half Mile Corridor	One Mile Corridor	Travel Dispersion Corridor
Total Population	482,969	420,940	4,969	9,960	19,166	72,890
% of Population	51.4%	61.0%	51.2%	49.2%	48.8%	62.8%

Source: U.S. Census Bureau 2020 Decennial Census

Figure 4-2 provides a visual representation of the Minority Population Percentages in the study bands, compared to Milwaukee County, City of Milwaukee, City of Wauwatosa, City of West Allis, and Village of West Milwaukee.

Figure 4-2. Minority Population Percentage

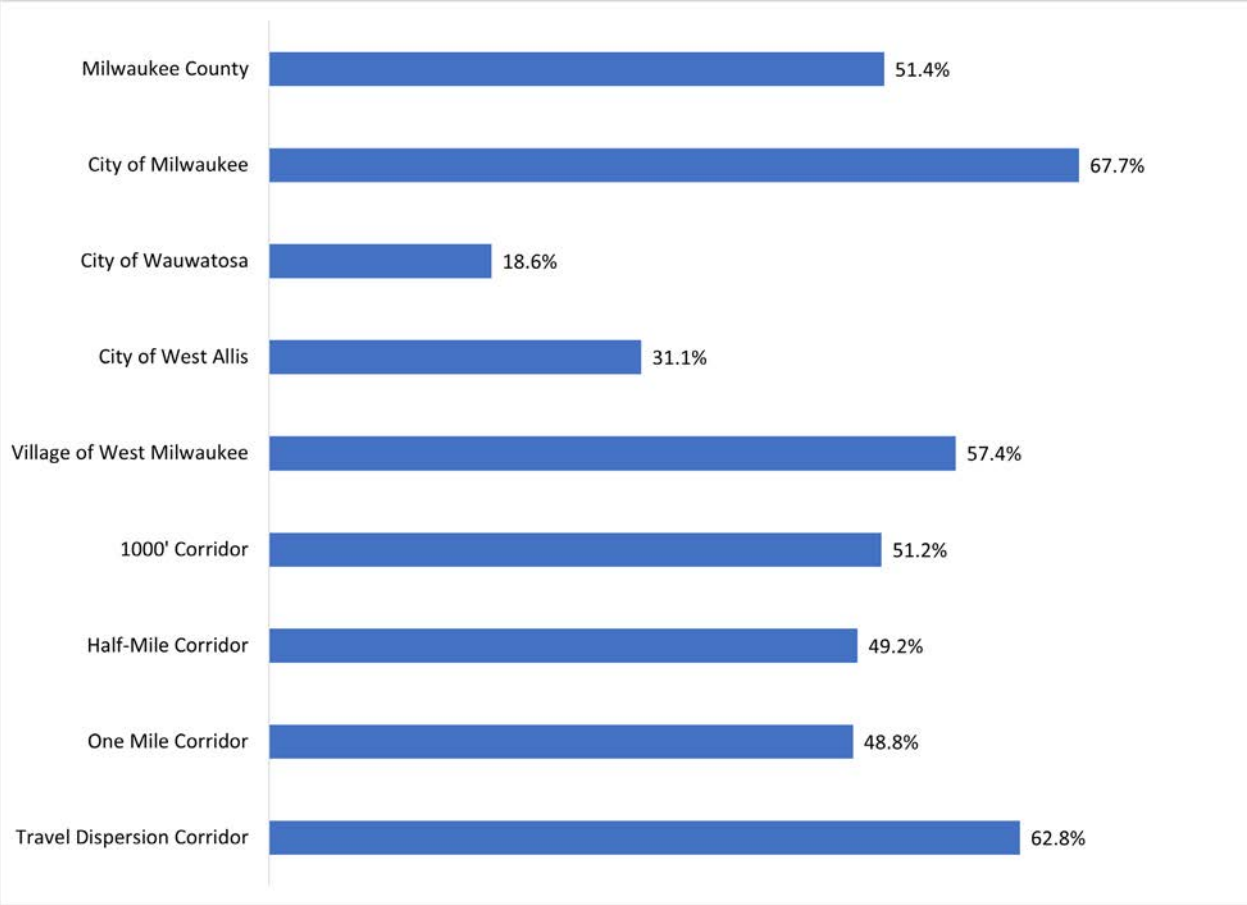
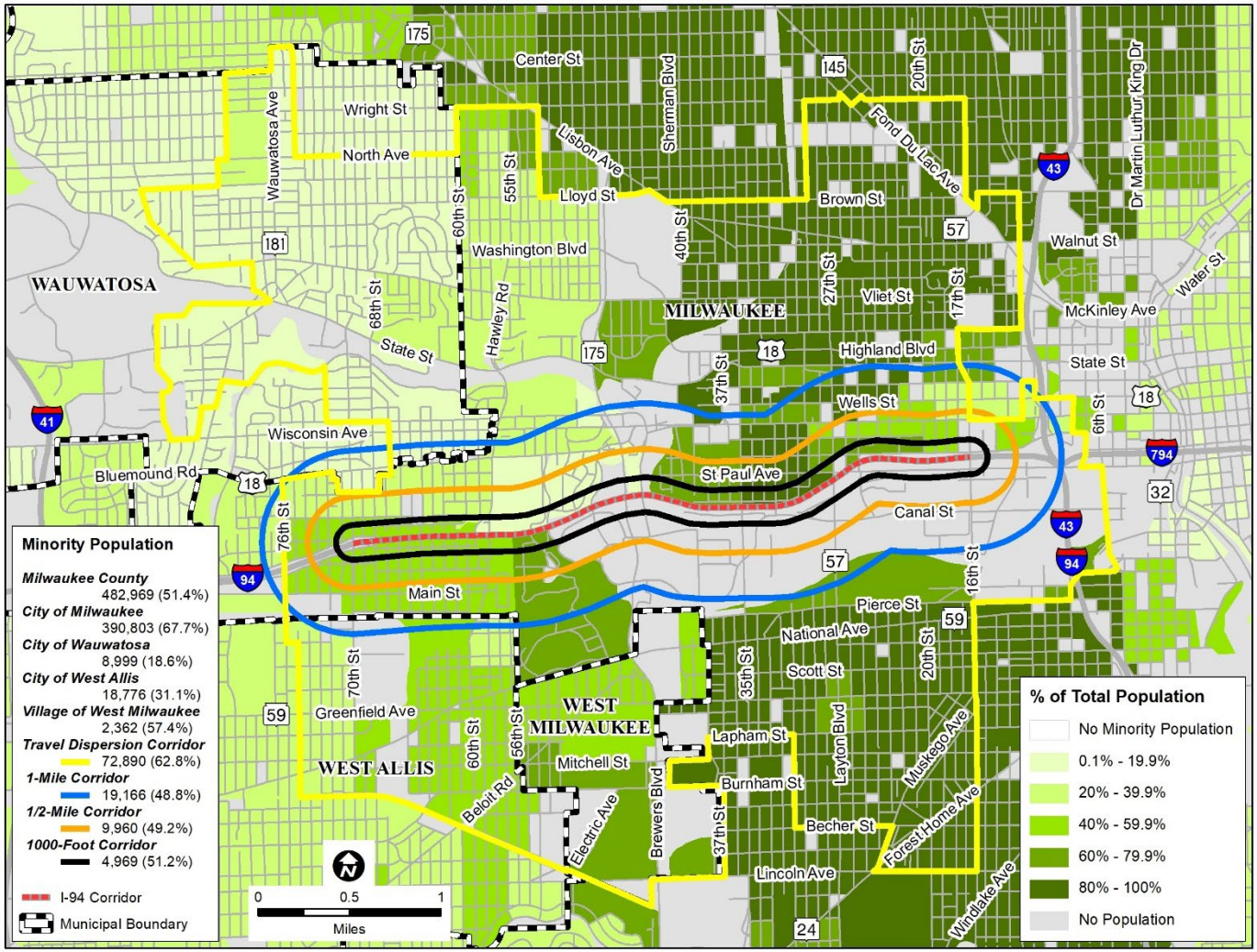


Exhibit 4-3 illustrates where minority populations live within the study corridor. Within the half-mile corridor around I-94 in the study corridor (one-quarter mile in each direction from I-94), approximately 51 percent of the population identifies themselves as minority. Most of the census blocks containing 60.1 percent to 100.0 percent minorities are located east of WIS 175 and west of I-43. Most of the blocks in the area east of WIS 175 contain 80.0 to 100.0 percent minorities.

Exhibit 4-3. Minority Population in I-94 Corridor



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4.3.3 Black or African American Population

Table 4-4 provides data on the Black/African American population in and near the I-94 East-West Corridor study area.

Table 4-4. Black or African American Population

		City of Milwaukee		City of Wauwatosa	
	Milwaukee County	Total	In travel dispersion corridor	Total	In travel dispersion corridor
Total Population	240,416	218,273	23,674	2,840	605
% of Population	25.6%	37.8%	27.5%	5.9%	3.9%

		City of West Allis		Village of West Milwaukee	
	Milwaukee County	Total	In travel dispersion corridor	Total	In travel dispersion corridor
Total Population	240,416	3,540	872	564	564
% of Population	25.6%	5.9%	8.3%	13.7%	13.7%

	Milwaukee County	Municipalities in Study Area	1000' Corridor	Half Mile Corridor	One Mile Corridor	Travel Dispersion Corridor
Total Population	240,416	225,217	1,780	4,185	9,031	25,715
% of Population	25.6%	32.6%	18.3%	20.7%	23.0%	22.1%

Source: U.S. Census Bureau 2020 Decennial Census

Figure 4-3 provides a visual representation of the Black or African American Population Percentages in the study bands, compared to Milwaukee County, City of Milwaukee, City of Wauwatosa, City of West Allis, and Village of West Milwaukee.

Figure 4-3. Black or African American Population Percentage

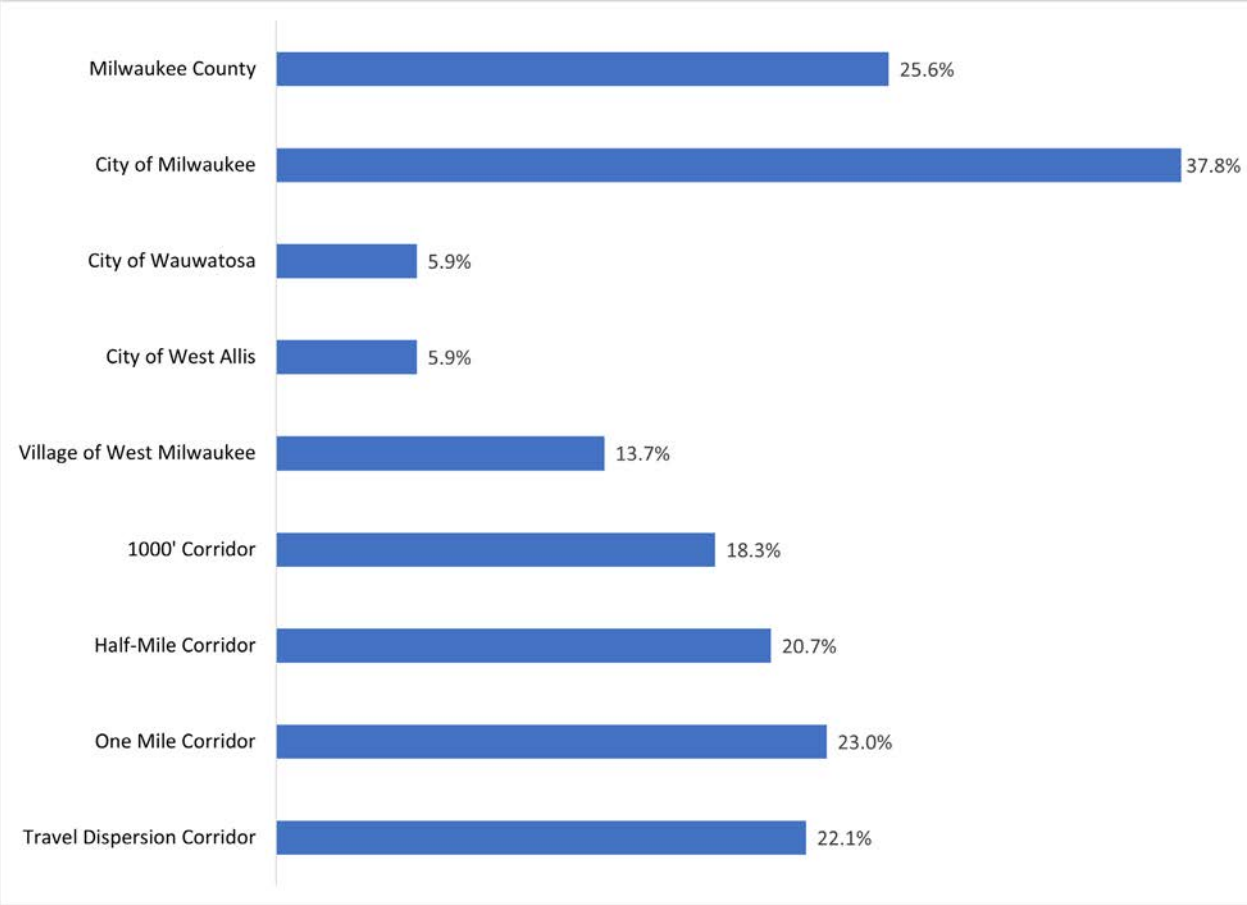
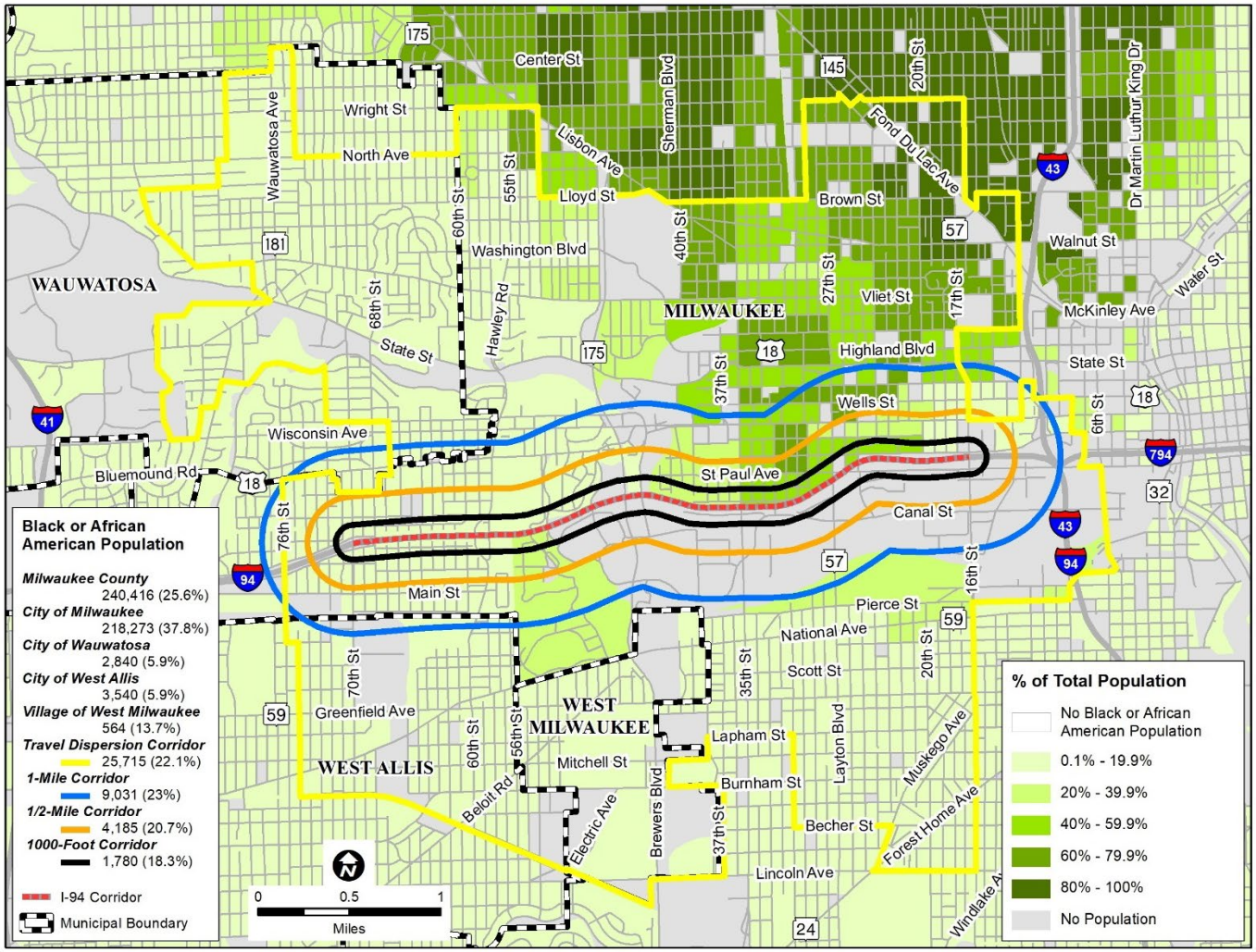


Exhibit 4-4 illustrates where Black or African American populations live within the study corridor. Within the half-mile corridor around I-94 in the study corridor (one-quarter mile in each direction from I-94), approximately 21 percent of the population identifies themselves as Black or African American. Most of the census blocks containing 60.1 percent to 100.0 percent Blacks or African Americans are located east of WIS 175 and north of I-94.

Exhibit 4-4. Black or African American (Not Hispanic or Latino) Population Alone in I-94 Corridor



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4.3.4 American Indian or Alaska Native Population

Table 4-5 provides data on the American Indian or Alaska Native population in and near the I-94 East-West Corridor study area.

Table 4-4. American Indian or Alaska Native Population

		City of Milwaukee		City of Wauwatosa	
	Milwaukee County	Total	In travel dispersion corridor	Total	In travel dispersion corridor
Total Population	3,878	2,365	552	73	37
% of Population	0.4%	0.4%	0.6%	0.2%	0.2%

		City of West Allis		Village of West Milwaukee	
	Milwaukee County	Total	In travel dispersion corridor	Total	In travel dispersion corridor
Total Population	3,878	497	121	26	26
% of Population	0.4%	0.8%	1.2%	0.6%	0.6%

	Milwaukee County	Municipalities in Study Area	1000' Corridor	Half Mile Corridor	One Mile Corridor	Travel Dispersion Corridor
Total Population	3,878	2,961	99	135	235	736
% of Population	0.4%	0.4%	1.0%	0.7%	0.6%	0.6%

Source: U.S. Census Bureau 2020 Decennial Census

Figure 4-4 provides a visual representation of the American Indian or Alaska Native Population Percentages in the study bands, compared to Milwaukee County, City of Milwaukee, City of Wauwatosa, City of West Allis, and Village of West Milwaukee.

Figure 4-4. American Indian or Alaska Native Population Percentage

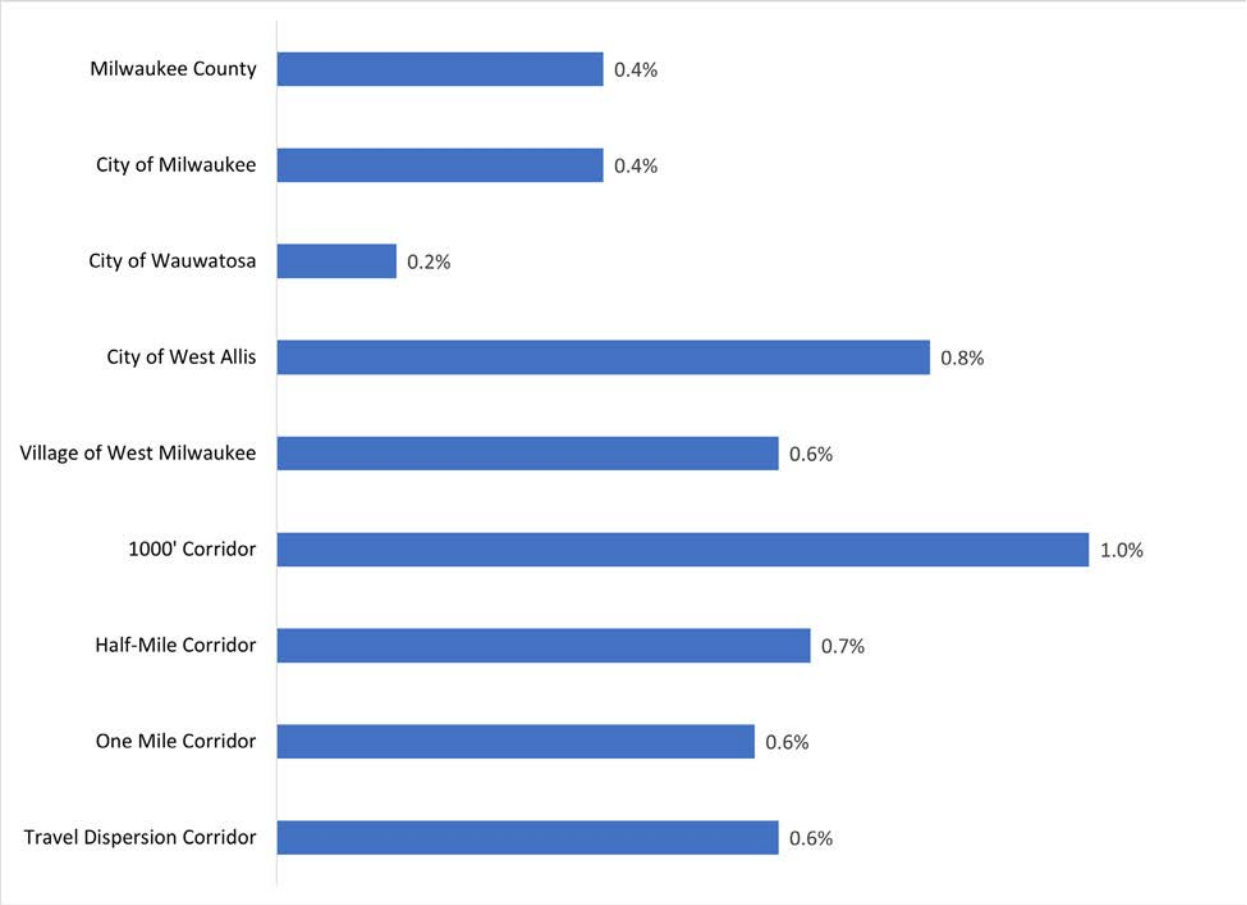
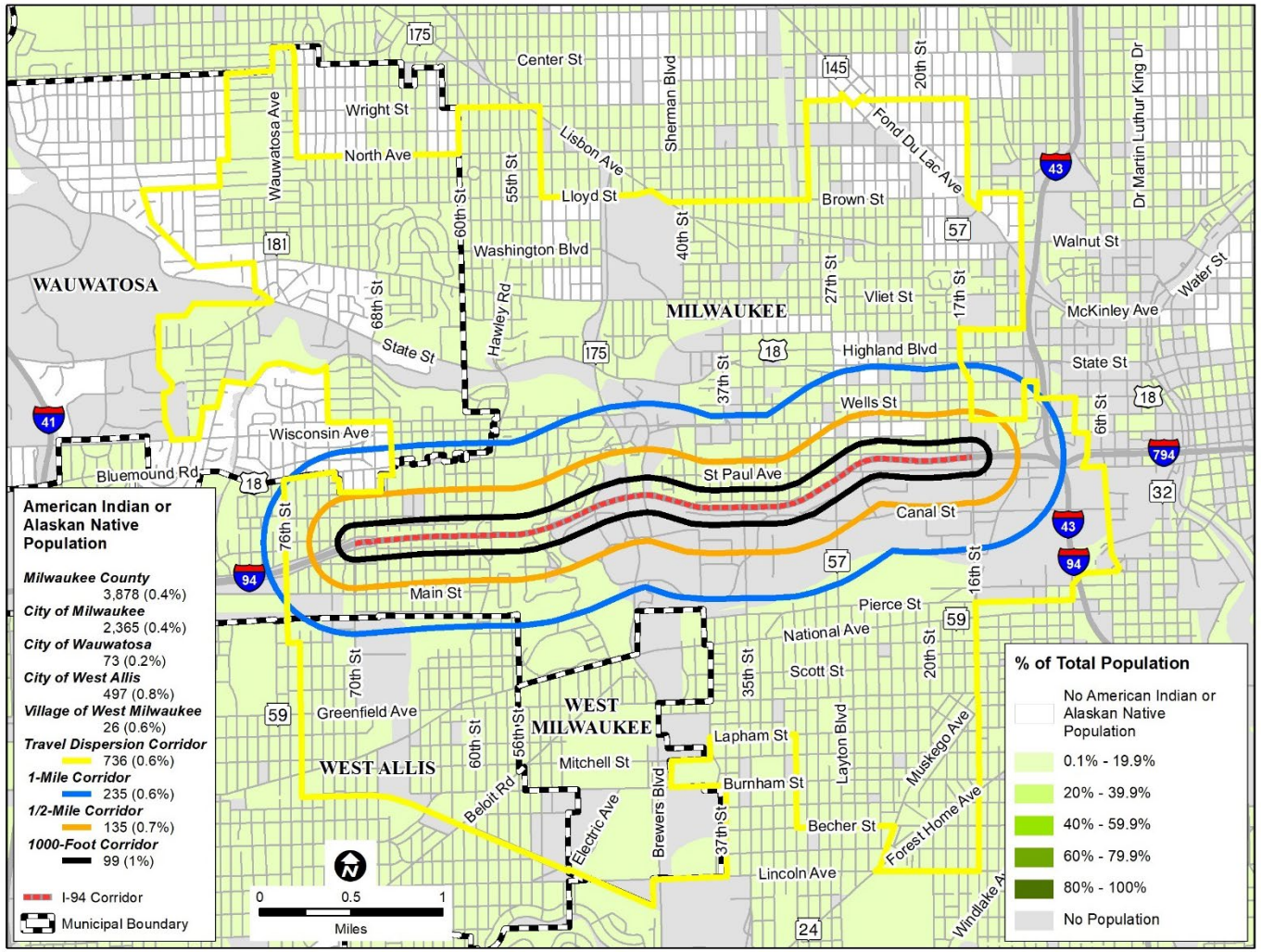


Exhibit 4-5 illustrates where American Indian or Alaska Native populations live within the study corridor. Within the half-mile corridor around I-94 in the study corridor (one-quarter mile in each direction from I-94), less than 1.0 percent of the population identifies themselves as American Indian or Alaska Native. There are no blocks where American Indian or Alaska Native populations make up more than 20.0 percent of the population; however, generally, there are more blocks containing 0.1 to 20.0 percent south of I-94.

Exhibit 4-5. American Indian or Alaskan Native (Not Hispanic or Latino) Population Alone in I-94 Corridor



4.3.5 Asian Population

Table 4-6 provides data on the Asian population in and near the I-94 East-West Corridor study area.

Table 4-5. Asian Population

	Milwaukee County	City of Milwaukee		City of Wauwatosa	
		Total	In travel dispersion corridor	Total	In travel dispersion corridor
Total Population	45,989	29,969	5,311	1,659	416
% of Population	4.9%	5.2%	6.2%	3.4%	2.7%

	Milwaukee County	City of West Allis		Village of West Milwaukee	
		Total	In travel dispersion corridor	Total	In travel dispersion corridor
Total Population	45,989	1,515	178	102	102
% of Population	4.9%	2.5%	1.7%	2.5%	2.5%

	Milwaukee County	Municipalities in Study Area	1000' Corridor	Half Mile Corridor	One Mile Corridor	Travel Dispersion Corridor
Total Population	45,989	33,245	321	1,029	1,860	6,007
% of Population	4.9%	4.8%	3.3%	5.1%	4.7%	5.2%

Source: U.S. Census Bureau 2020 Decennial Census

Figure 4-5 provides a visual representation of the Asian Population Percentages in the study bands, compared to Milwaukee County, City of Milwaukee, City of Wauwatosa, City of West Allis, and Village of West Milwaukee.

Figure 4-5. Asian Population Percentage

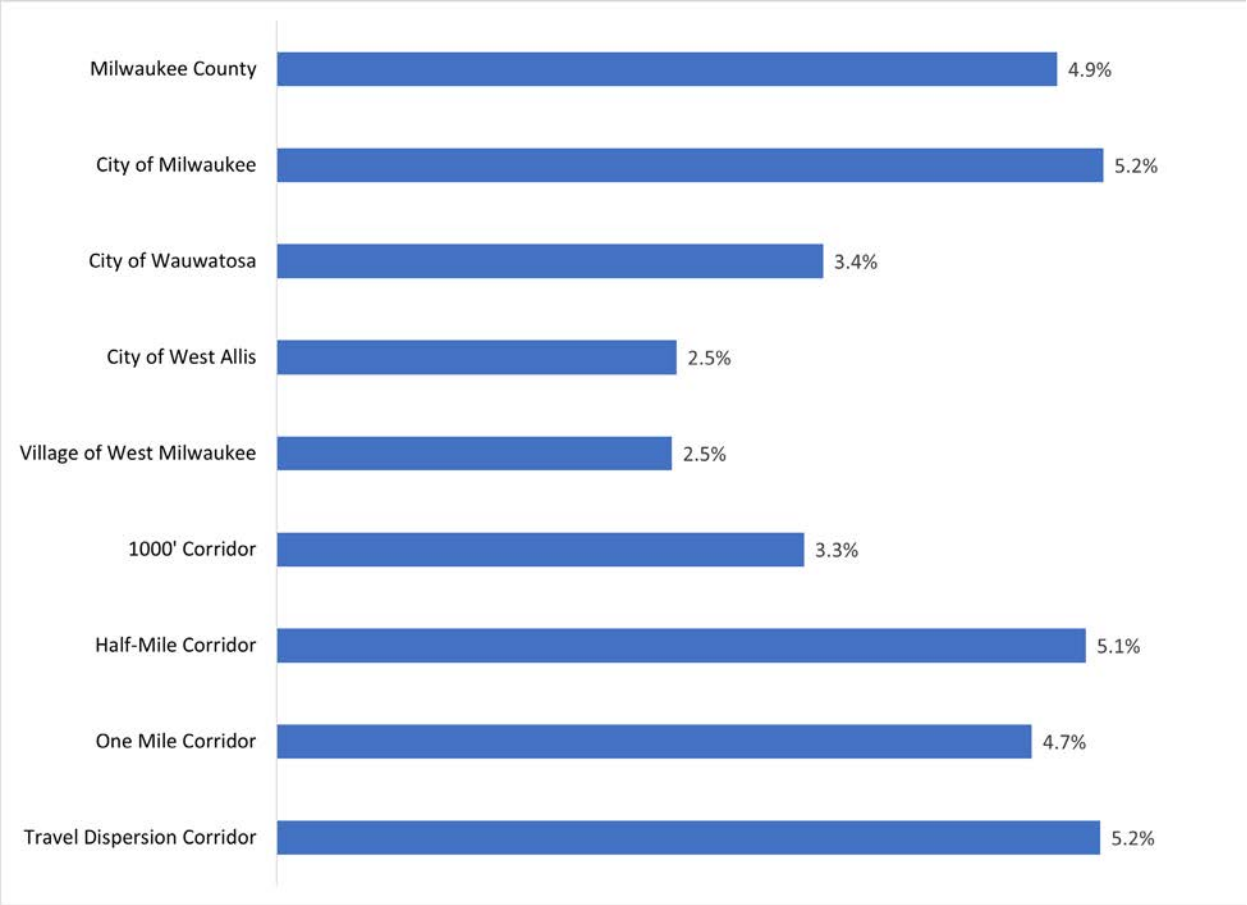
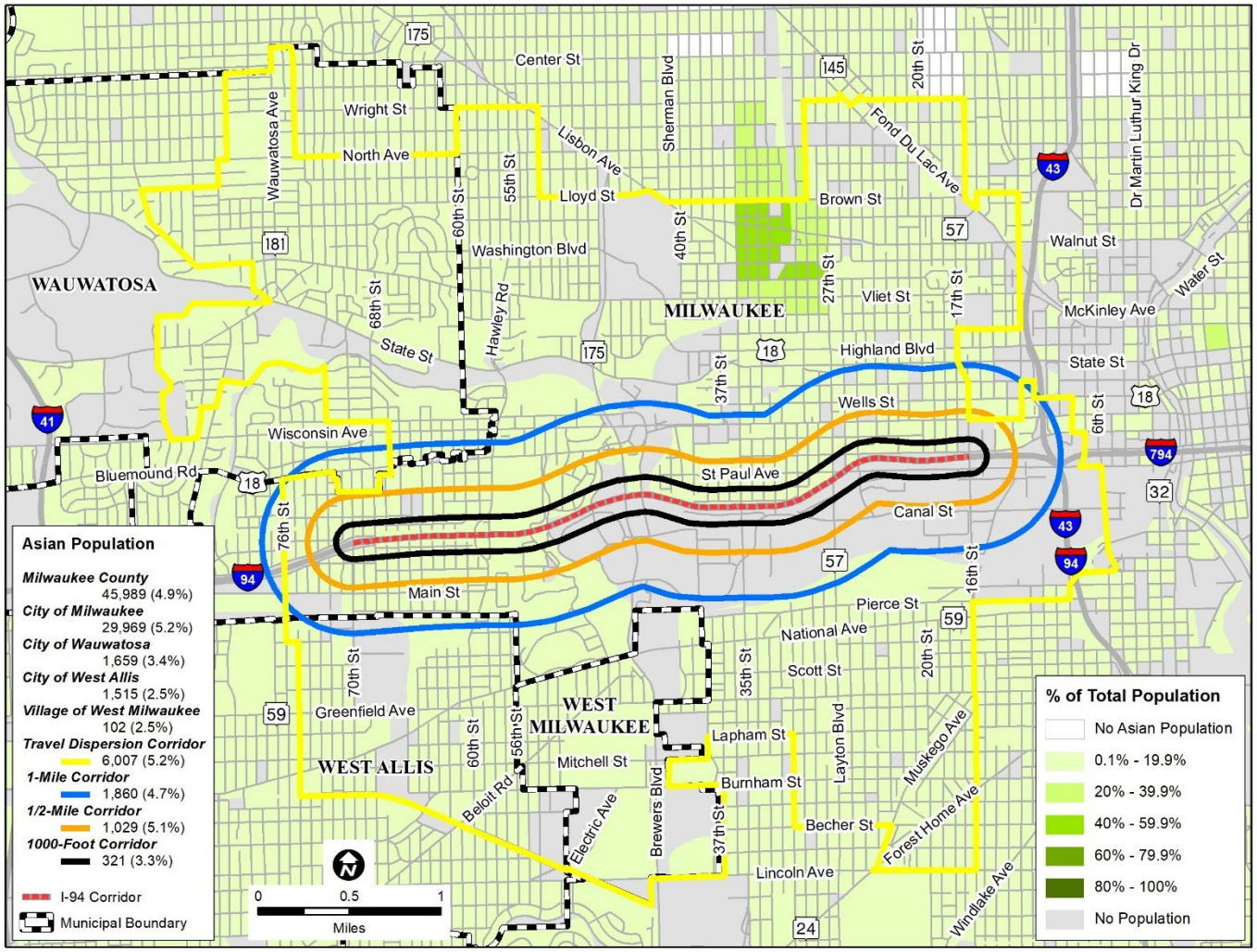


Exhibit 4-6 illustrates where Asian populations live within the study corridor. Within the half-mile corridor around I-94 in the study corridor (one-quarter mile in each direction from I-94), approximately 5 percent of the population identifies themselves as Asian. Asian populations are generally evenly spread throughout the travel dispersion corridor and in most cases make up less than 20.1 percent of each block. There is a population cluster of multiple blocks with populations of 40.0 to 59.9 percent located south of Brown Street north of Vliet Street between 35th Street and 27th Street.

Exhibit 4-6. Asian Population Alone in I-94 Corridor



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4.3.6 Hispanic or Latino Population

Table 4-7 provides data on the Hispanic or Latino population in and near the I-94 East-West Corridor study area. It should be noted that 'Hispanic' is an ethnic group and not a race category, and is expressed separately from race in the data. Thus, Hispanic persons are also White, Black, etc., in addition to being Hispanic. Total minority population was calculated as the sum of all non-white race groups, plus Hispanics.

Table 4-7. Hispanic or Latino Population

	Milwaukee County	City of Milwaukee		City of Wauwatosa	
		Total	In travel dispersion corridor	Total	In travel dispersion corridor
Total Population	153,017	116,306	30,387	2,219	620
% of Population	16.3%	20.2%	35.3%	4.6%	4.0%

	Milwaukee County	City of West Allis		Village of West Milwaukee	
		Total	In travel dispersion corridor	Total	In travel dispersion corridor
Total Population	153,017	10,211	2,918	1,465	1,465
% of Population	16.3%	16.9%	27.6%	35.6%	35.6%

	Milwaukee County	Municipalities in Study Area	1000' Corridor	Half Mile Corridor	One Mile Corridor	Travel Dispersion Corridor
Total Population	153,017	130,201	2,186	3,526	6,045	35,390
% of Population	16.3%	18.9%	22.5%	17.4%	15.4%	30.5%

Source: U.S. Census Bureau 2020 Decennial Census

Figure 4-6 provides a visual representation of the Hispanic or Latino Population Percentages in the study bands, compared to Milwaukee County, City of Milwaukee, City of Wauwatosa, City of West Allis, and Village of West Milwaukee.

Figure 4-6. Hispanic/Latino Population Percentage

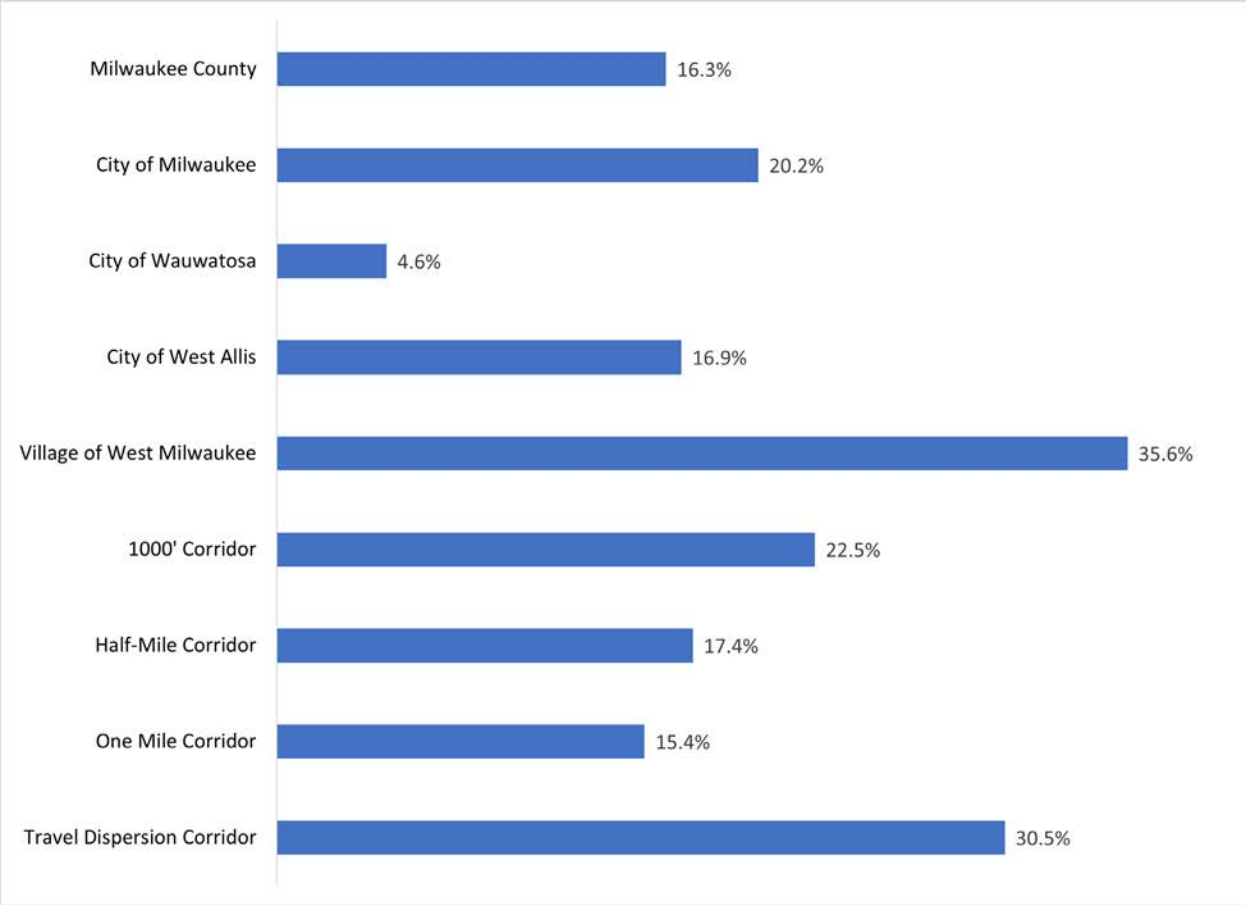
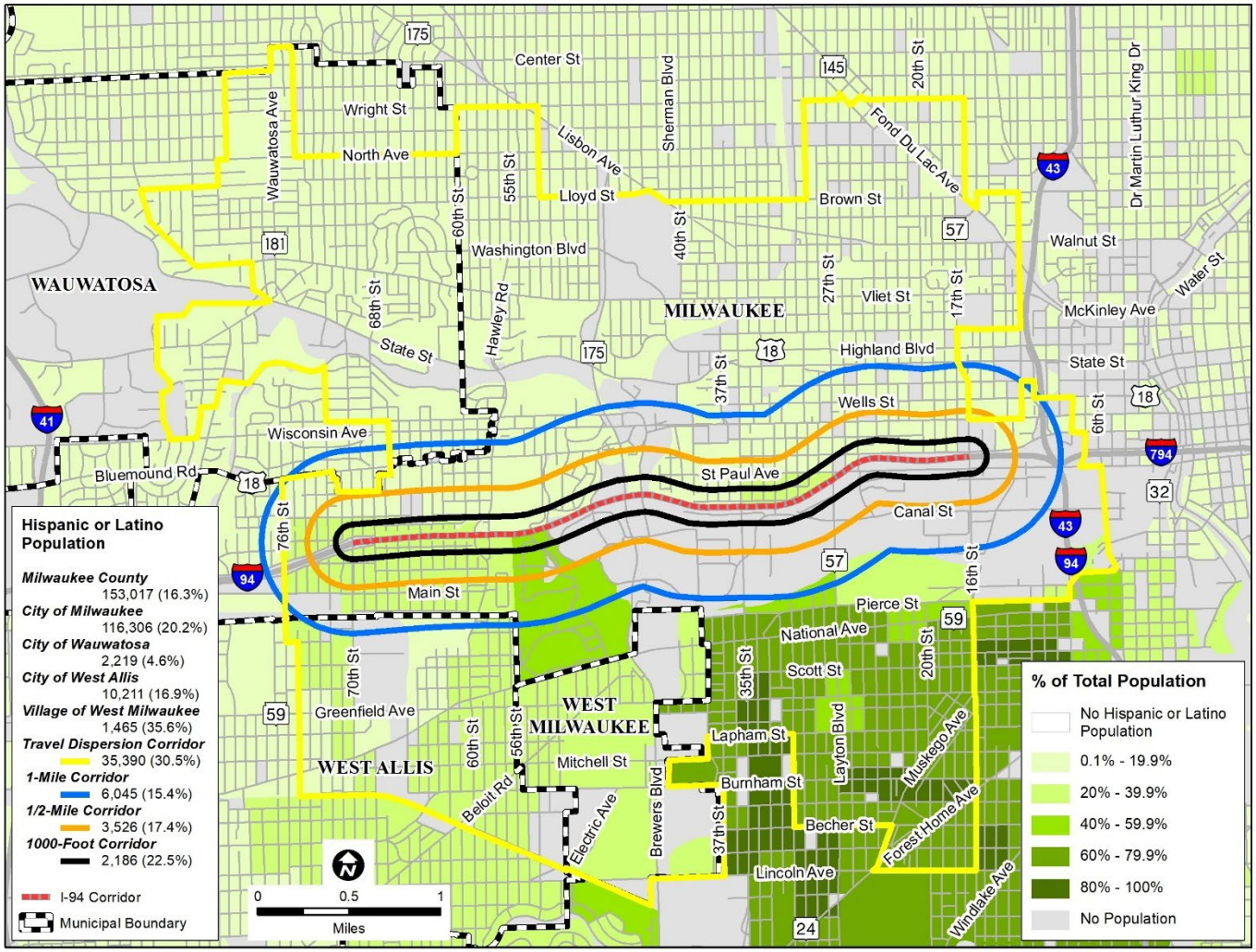


Exhibit 4-7 illustrates where Hispanic or Latino populations live within the study corridor. Within the half-mile corridor around I-94 in the study corridor (one-quarter mile in each direction from I-94), approximately 17 percent of the population identifies themselves as Hispanic or Latino. The area within the travel dispersion corridor of highest Hispanic or Latino concentration is east of 35th Street and south Pierce Street. Most of the blocks in this area are 60.0 to 100.0 percent Hispanic or Latino.

Exhibit 4-7. Hispanic or Latino Population Alone in I-94 Corridor



4.3.7 Hawaiian Native and other Pacific Islander Population

Table 4-8 provides data on the Hawaiian Native and other Pacific Islander population in and near the I-94 East-West Corridor study area.

Table 4-8. Hawaiian Native or other Pacific Islander Population

	Milwaukee County	City of Milwaukee		City of Wauwatosa	
		Total	In travel dispersion corridor	Total	In travel dispersion corridor
Total Population	262	166	43	17	5
% of Population	0.03%	0.03%	0.05%	0.04%	0.03%

	Milwaukee County	City of West Allis		Village of West Milwaukee	
		Total	In travel dispersion corridor	Total	In travel dispersion corridor
Total Population	262	17	6	0	0
% of Population	0.03%	0.03%	0.06%	0%	0%

	Milwaukee County	Municipalities in Study Area	1000' Corridor	Half Mile Corridor	One Mile Corridor	Travel Dispersion Corridor
Total Population	262	200	4	15	31	54
% of Population	0.03%	0.03%	0.04%	0.07%	0.07%	0.05%

Source: U.S. Census Bureau 2020 Decennial Census

Figure 4-7 provides a visual representation of the Hawaiian Native or other Pacific Islanders Population Percentages in the study bands, compared to Milwaukee County, City of Milwaukee, City of Wauwatosa, City of West Allis, and Village of West Milwaukee.

Figure 4-7. Hawaiian Native or other Pacific Islander Population Percentage

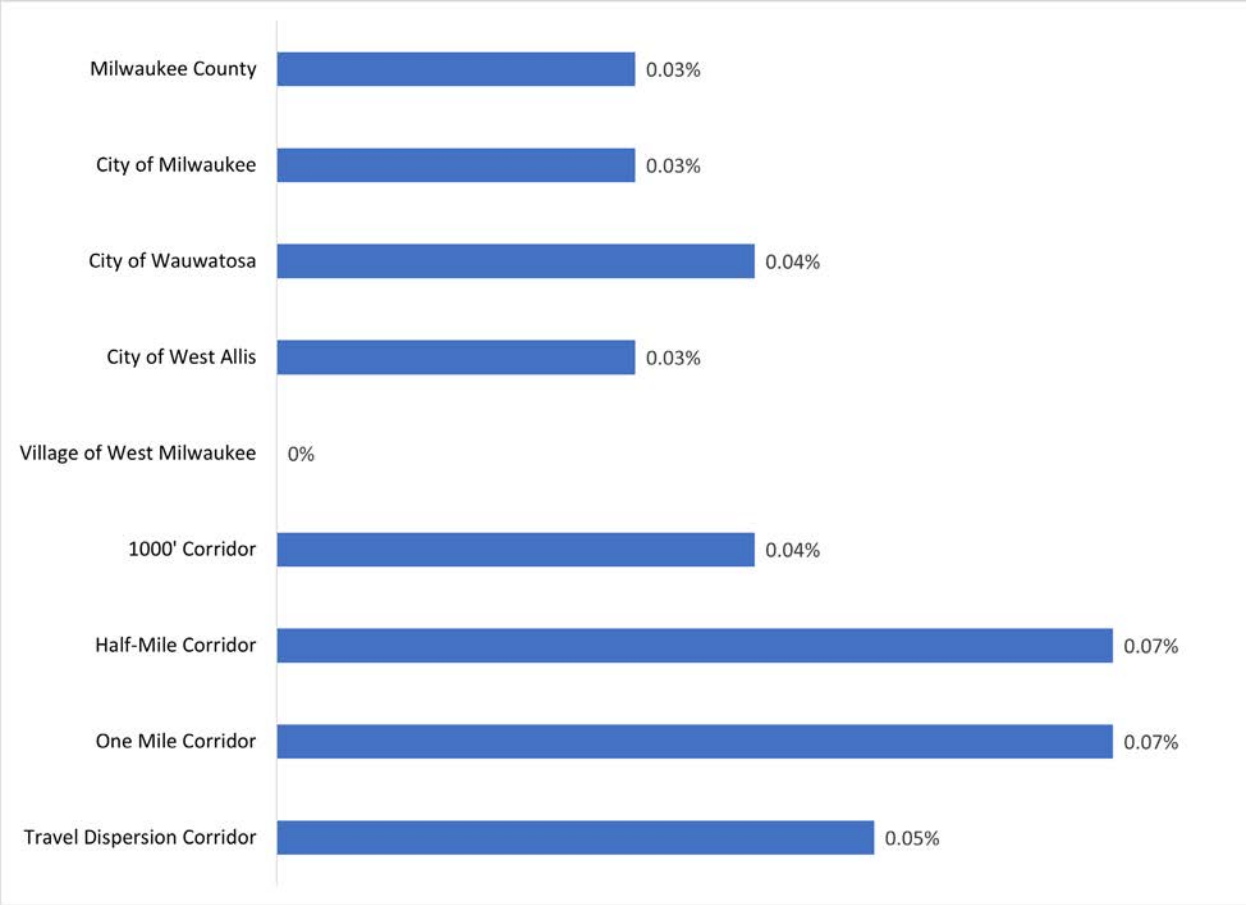
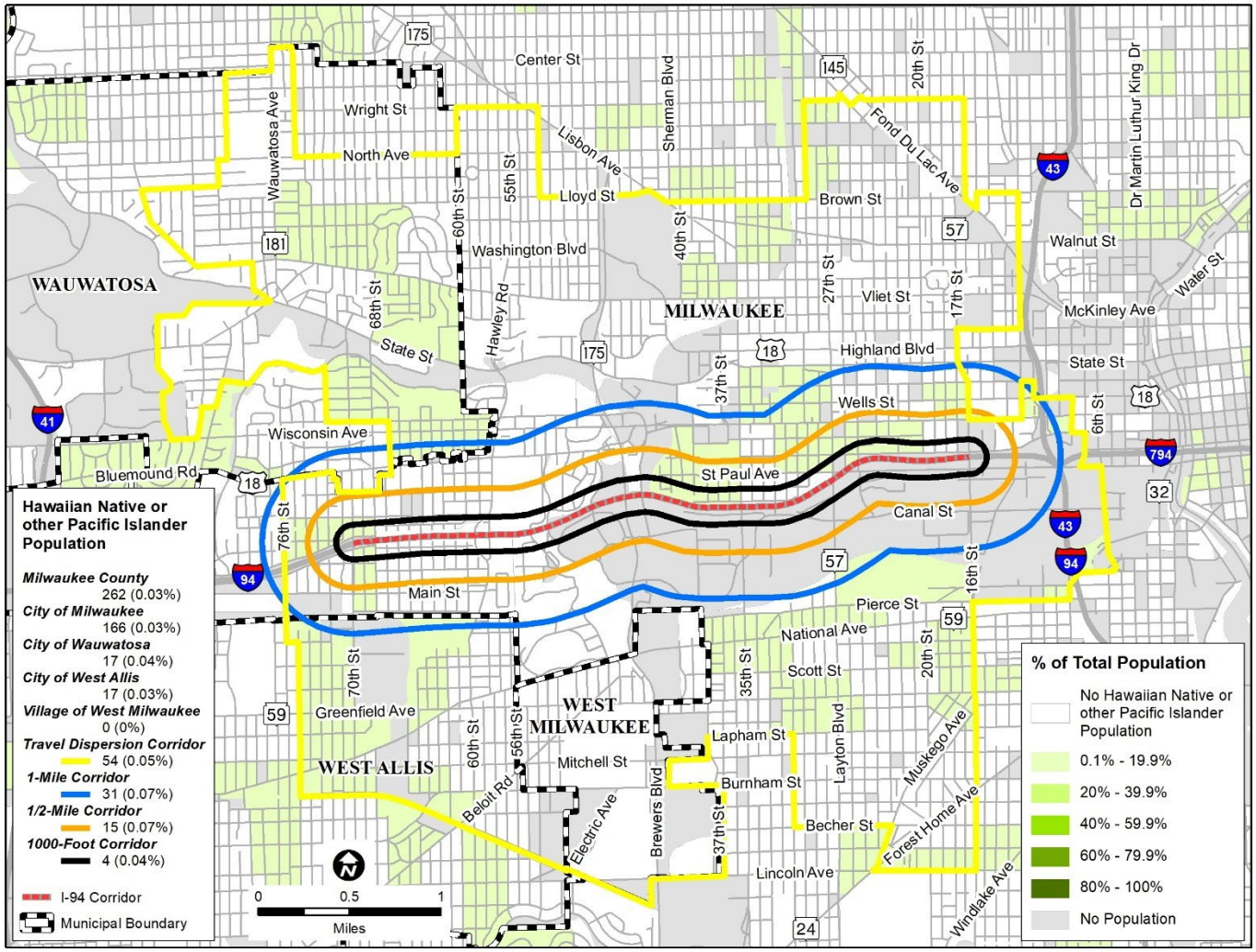


Exhibit 4-8 illustrates where Native Hawaiian or other Pacific Islander populations are located within the study corridor. Within the half-mile corridor around I-94 in the study corridor (one-quarter mile in each direction from I-94), less than 0.1 percent of the population identifies themselves as Hawaiian Native or Other Pacific Islander. There are no blocks where Hawaiian Native or Other Pacific Islander populations make up more than 20.0 percent of the population. There are several small population clusters with multiple blocks showing 0.1 to 20.0 percent Native Hawaiian or other Pacific Islander within the travel dispersion corridor.

Exhibit 4-8. Hawaiian Native of other Pacific Islander (Not Hispanic or Latino) Population Alone in I-94 Corridor



4.3.8 Some Other Race Population

Table 4-9 provides data on the Some Other Race population in and near the I-94 East-West Corridor study area. Some Other Race populations include all other Census responses not included in the "White," "Black or African American," "American Indian and Alaska Native," "Asian," and "Hawaiian and other Pacific Islander" race categories described above. Respondents provided write-in entries such as multiracial, mixed, interracial, or a Hispanic/Latino group (for example Mexican, Puerto Rican, or Cuban) in the Some Other Race category.

Table 4-6. Some Other Race Population

		City of Milwaukee		City of Wauwatosa	
	Milwaukee County	Total	In travel dispersion corridor	Total	In travel dispersion corridor
Total Population	4,227	2,971	338	160	54
% of Population	0.5%	0.5%	0.4%	0.3%	0.4%

		City of West Allis		Village of West Milwaukee	
	Milwaukee County	Total	In travel dispersion corridor	Total	In travel dispersion corridor
Total Population	4,227	244	45	23	23
% of Population	0.5%	0.4%	0.4%	0.6%	0.6%

	Milwaukee County	Municipalities in Study Area	1000' Corridor	Half Mile Corridor	One Mile Corridor	Travel Dispersion Corridor
Total Population	4,227	3,398	62	111	192	460
% of Population	0.5%	0.5%	0.6%	0.6%	0.5%	0.4%

Source: U.S. Census Bureau 2020 Decennial Census

Figure 4-8 provides a visual representation of the Some Other Race Population Percentages in the study bands, compared to Milwaukee County, City of Milwaukee, City of Wauwatosa, City of West Allis, and Village of West Milwaukee.

Figure 4-8. Some Other Race Population Percentage

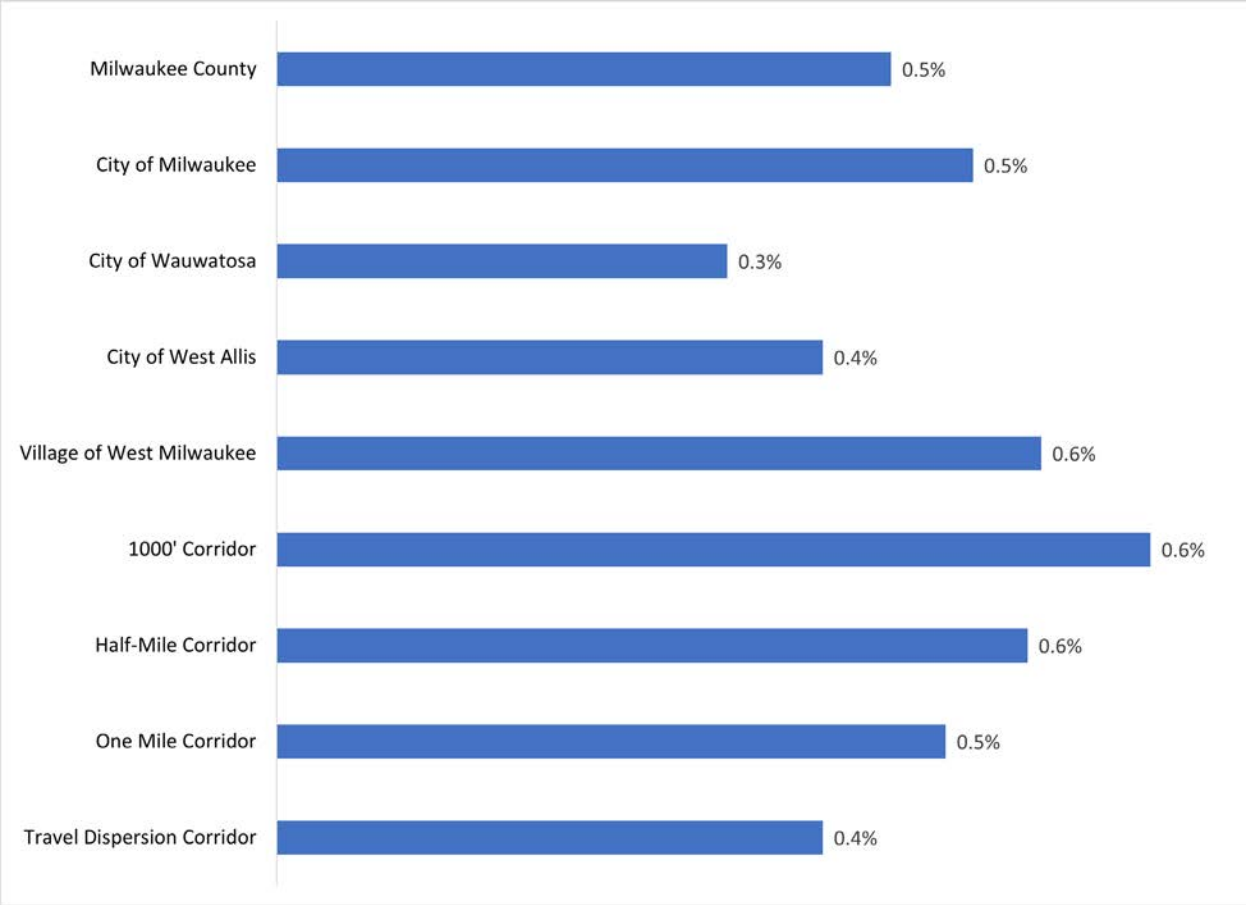
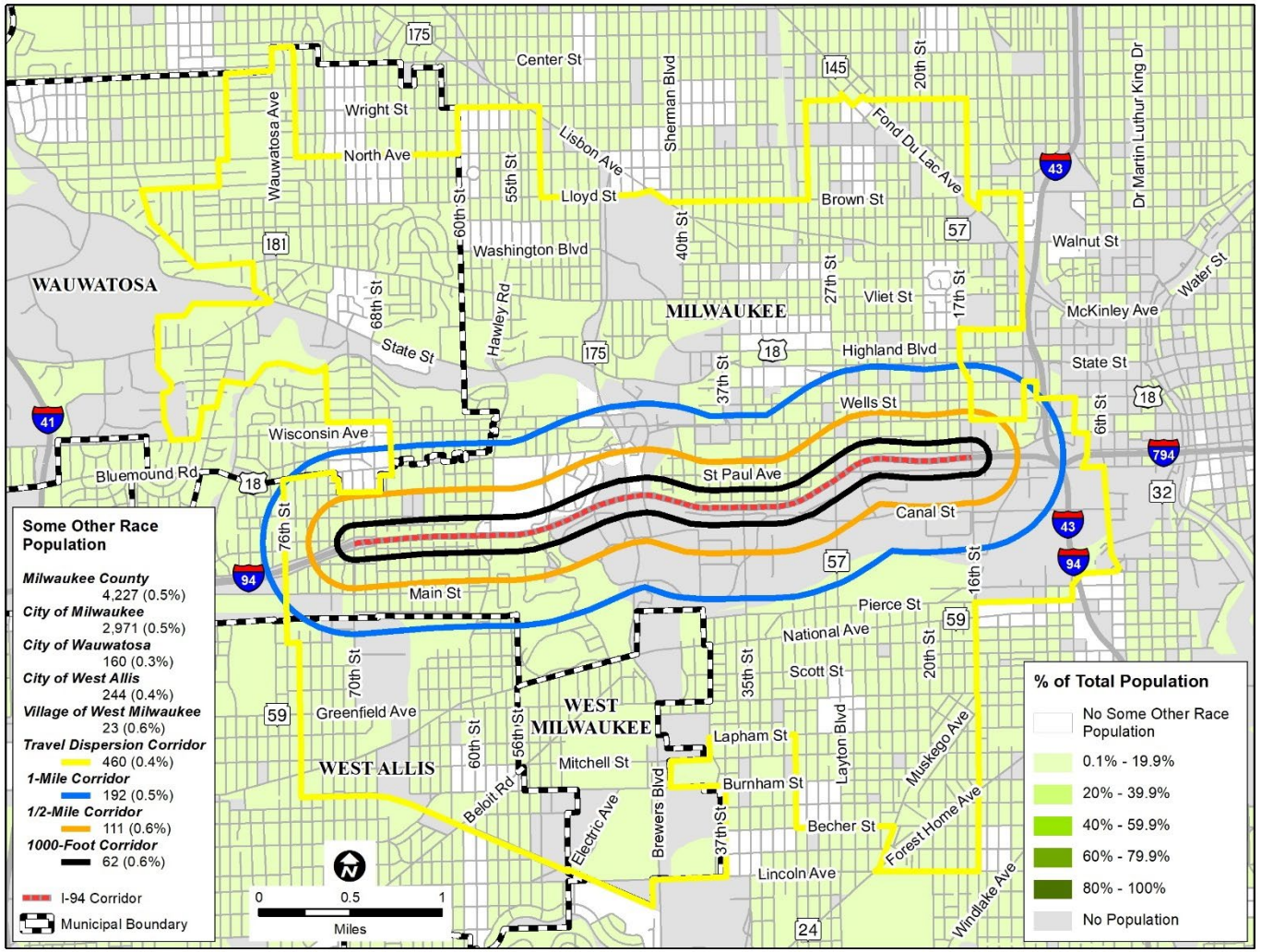


Exhibit 4-9 illustrates where Some Other Race populations are located within the study corridor. Within the half-mile corridor around I-94 in the study corridor (one-quarter mile in each direction from I-94), 0.6 percent of the population identifies themselves as Some Other Race. Most blocks within the travel dispersion area have 0.1 to 19.9 percent of Some Other Race population. There are no blocks where Some Other Race populations make up more than 20.0 percent of the population.

Exhibit 4-9. Some Other Race (Not Hispanic or Latino) Population Alone in I-94 Corridor



4.3.9 Two or More Races Population

Table 4-10 provides data on the Two or More Races population in and near the I-94 East-West Corridor study area.

Table 4-7. Two or More Races Population

		City of Milwaukee		City of Wauwatosa	
	Milwaukee County	Total	In travel dispersion corridor	Total	In travel dispersion corridor
Total Population	35,180	20,753	3,118	2,031	666
% of Population	3.7%	3.6%	3.6%	4.2%	4.3%

		City of West Allis		Village of West Milwaukee	
	Milwaukee County	Total	In travel dispersion corridor	Total	In travel dispersion corridor
Total Population	35,180	2,752	562	182	182
% of Population	3.7%	4.6%	5.3%	4.4%	4.4%

	Milwaukee County	Municipalities in Study Area	1000' Corridor	Half Mile Corridor	One Mile Corridor	Travel Dispersion Corridor
Total Population	35,180	25,718	517	959	1,772	4,528
% of Population	3.7%	3.7%	5.3%	4.7%	4.5%	3.9%

Source: U.S. Census Bureau 2020 Decennial Census

Figure 4-9 provides a visual representation of the Two or More Races Population Percentages in the study bands, compared to Milwaukee County, City of Milwaukee, City of Wauwatosa, City of West Allis, and Village of West Milwaukee.

Figure 4-9. Two or More Races Population Percentage

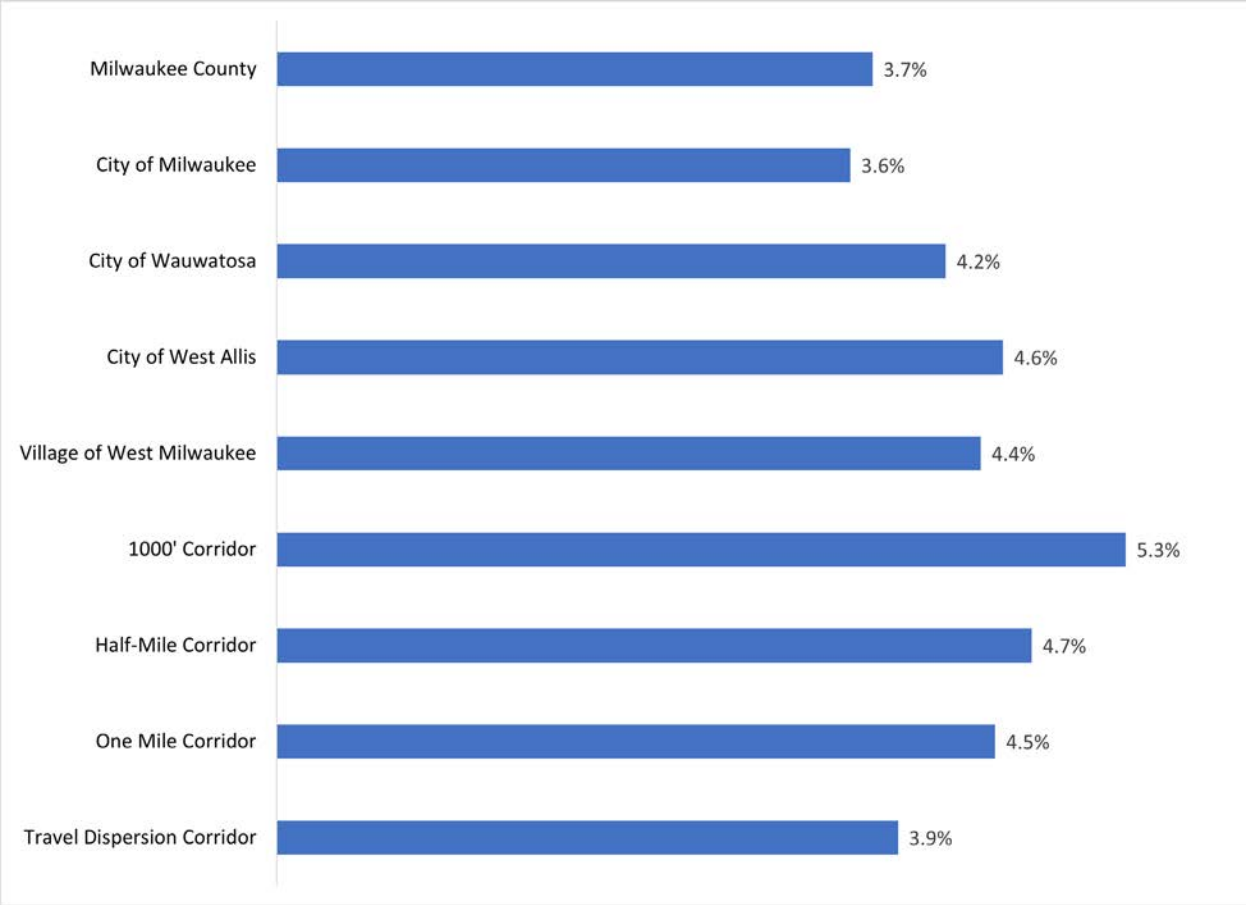
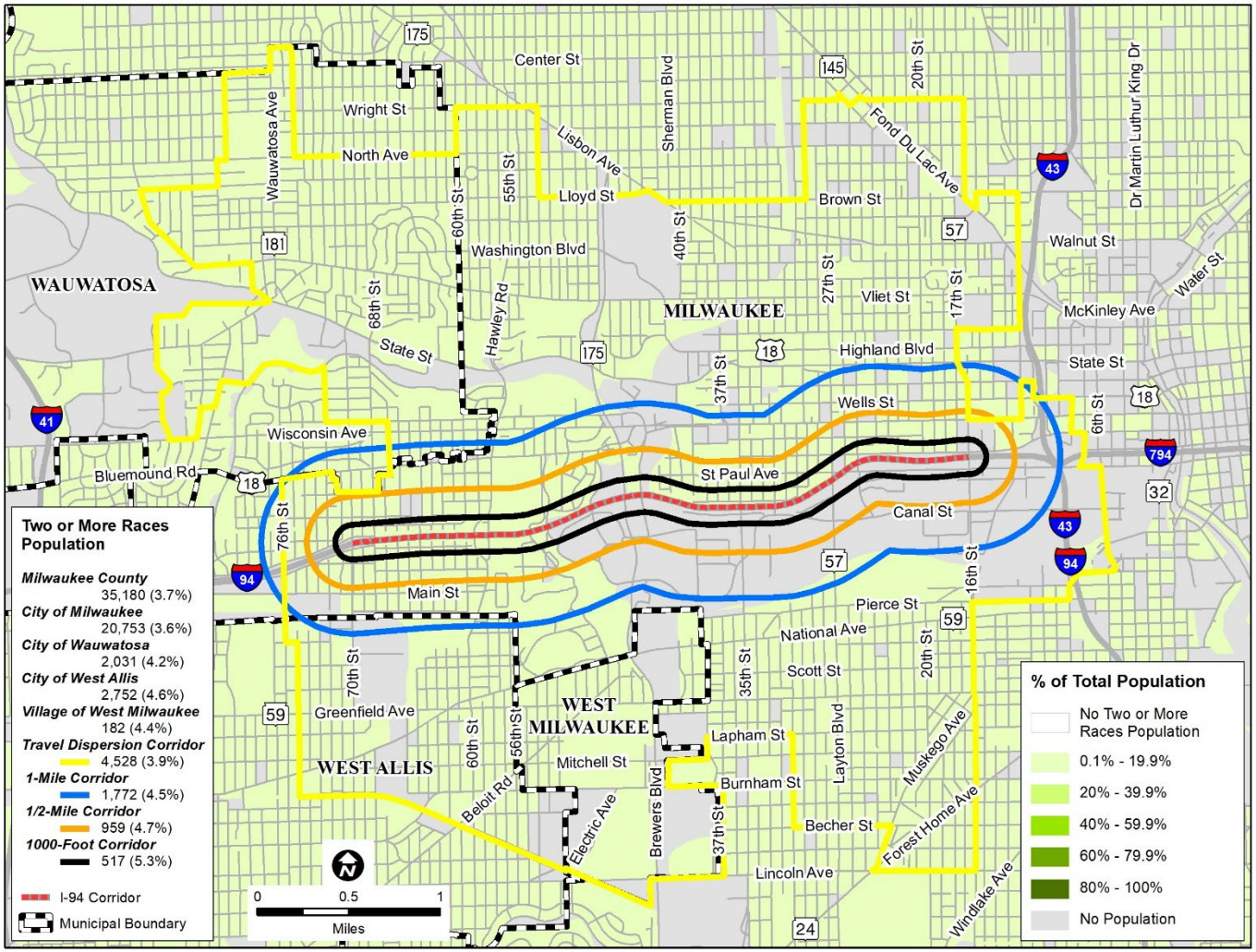


Exhibit 4-10 illustrates where Two or More Race populations are located within the study corridor. Within the half-mile corridor around I-94 in the study corridor (one-quarter mile in each direction from I-94), approximately 5 percent of the population identifies themselves as two or more races. Two or More Race populations of 0.1 to 19.9 percent are scattered throughout the corridor. There are no blocks with a two or more races population over 20.0 percent.

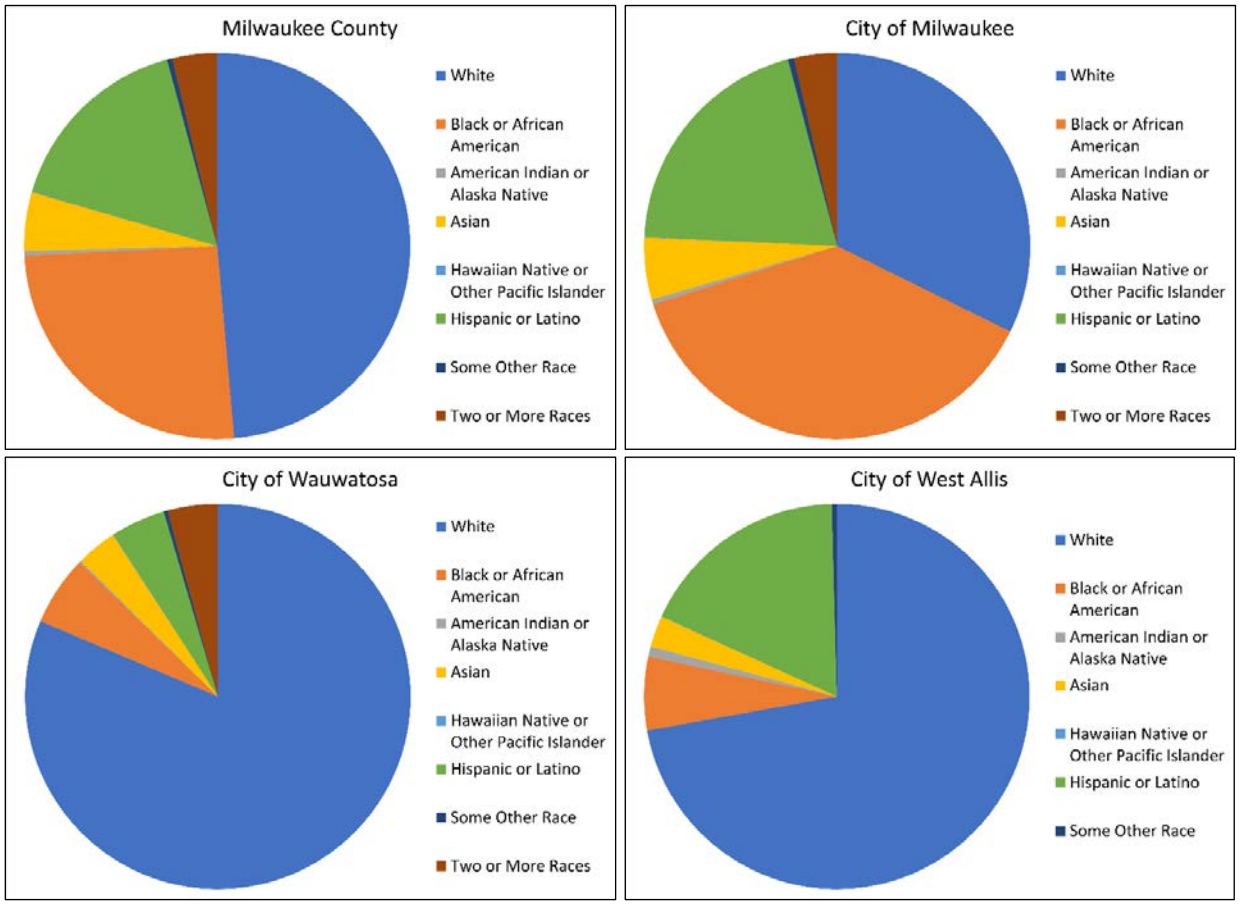
Exhibit 4-10. Two or More Races (Not Hispanic or Latino) Population in I-94 Corridor

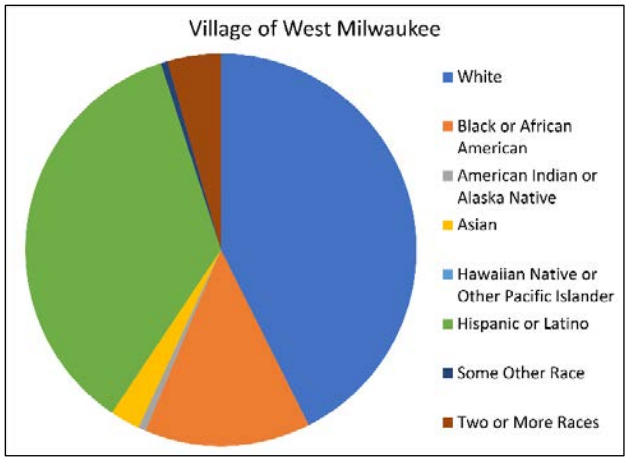


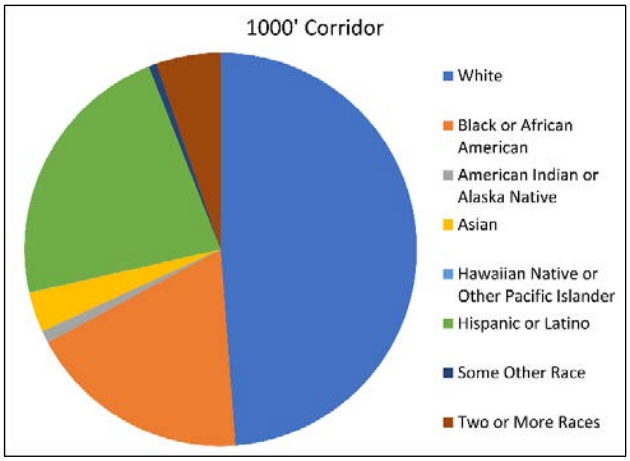
4.3.10 Minority Population Breakdown

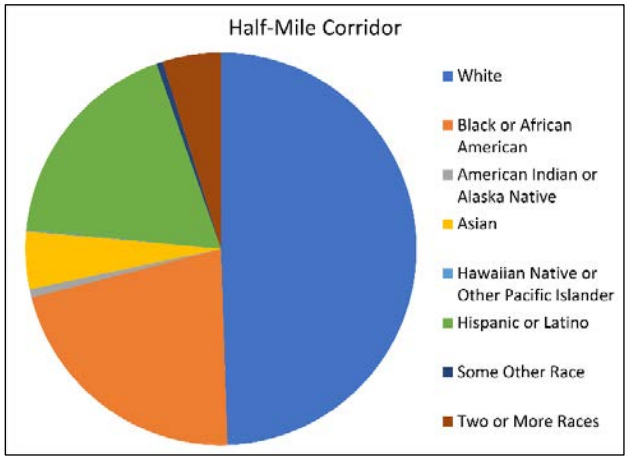
Figure 4-10 depicts the minority breakdown within the study bands, Milwaukee County, City of Milwaukee, City of Wauwatosa, City of West Allis, and Village of West Milwaukee. In most cases, Black/African Americans or Hispanic/Latino represent the largest minority population, followed by the Asian, American Indian/Alaska Native, and then Hawaiian Native/Other Pacific Islander. In Milwaukee County, City of Milwaukee, City of Wauwatosa, Half-Mile Corridor, and One Mile Corridor, the largest minority population is Black or African American. In the City of West Allis, Village of West Milwaukee, 1000' Corridor, and Travel Dispersion Corridor, the largest minority population is Hispanic or Latino. Percentages for each minority group can be found above in the discussion of each respective race or ethnic group.

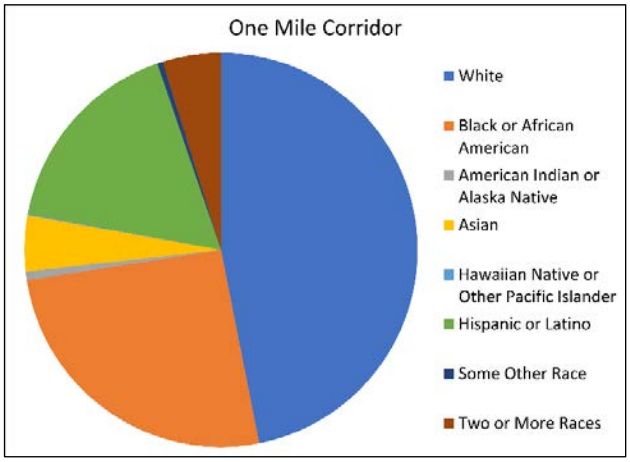
Figure 4-10. Minority Population Distribution by Geography

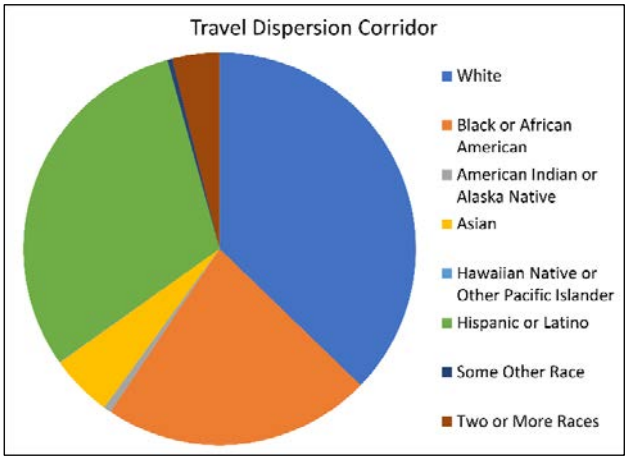












4.4 Low-Income Populations

Four indicators of low-income populations were analyzed in full because they directly account for income level or poverty in a given area. They include:

- Median Income
- Families Receiving Public Income Assistance
- Poverty
- Families Below Poverty Level

Several other indicators of low-income populations were analyzed to supplement the above indicators. These supplemental indicators demonstrate characteristics of low-income populations without specifically accounting for income level or poverty. They include:

- Immigrant populations
- Household characteristics
- Transportation
- Persons with disabilities
- Housing Characteristics
- Educational Attainment

Data for low-income indicators is provided at the census tract level. The census tract is the smallest geographical entity for which income data is collected. Low-income indicator data was collected from the 2020 American Community Survey (ACS) 5-year estimates, where applicable.

4.4.1 Median Household Income

Table 4-11 provides data on the median household income in and near the I-94 East-West Corridor study area.

Table 4-8. Median Household Income

		City of Milwaukee		City of Wauwatosa	
	Milwaukee County	Total	In travel dispersion corridor	Total	In travel dispersion corridor
Median Household Income	$52,260	$43,125	$32,986	$84,306	$94,205

		City of West Allis		Village of West Milwaukee	
	Milwaukee County	Total	In travel dispersion corridor	Total	In travel dispersion corridor
Median Household Income	$52,260	$53,634	$46,034	$41,267	$43,875

	Milwaukee County	Municipalities in Study Area	1000' Corridor	Half Mile Corridor	One Mile Corridor	Travel Dispersion Corridor
Median Household Income	$52,260	$48,380	$47,908	$27,109	$27,109	$39,710

Source: U.S. Census Bureau 2016-2020 ACS 5-Year Estimates

Figure 4-11 provides a visual representation of the median household income in the study bands, compared to Milwaukee County, City of Milwaukee, City of Wauwatosa, City of West Allis, and Village of West Milwaukee.

Figure 4-11. Median Household Income

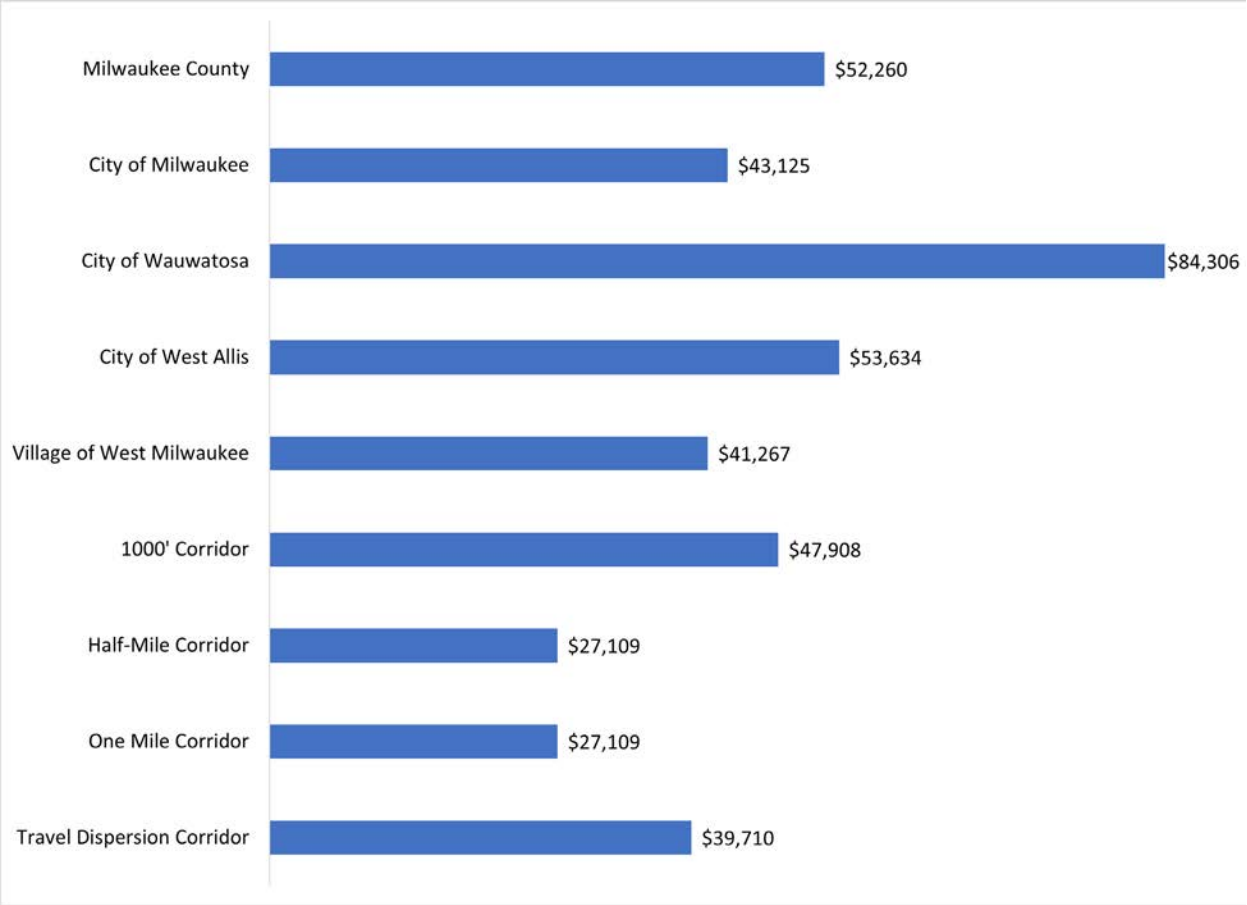
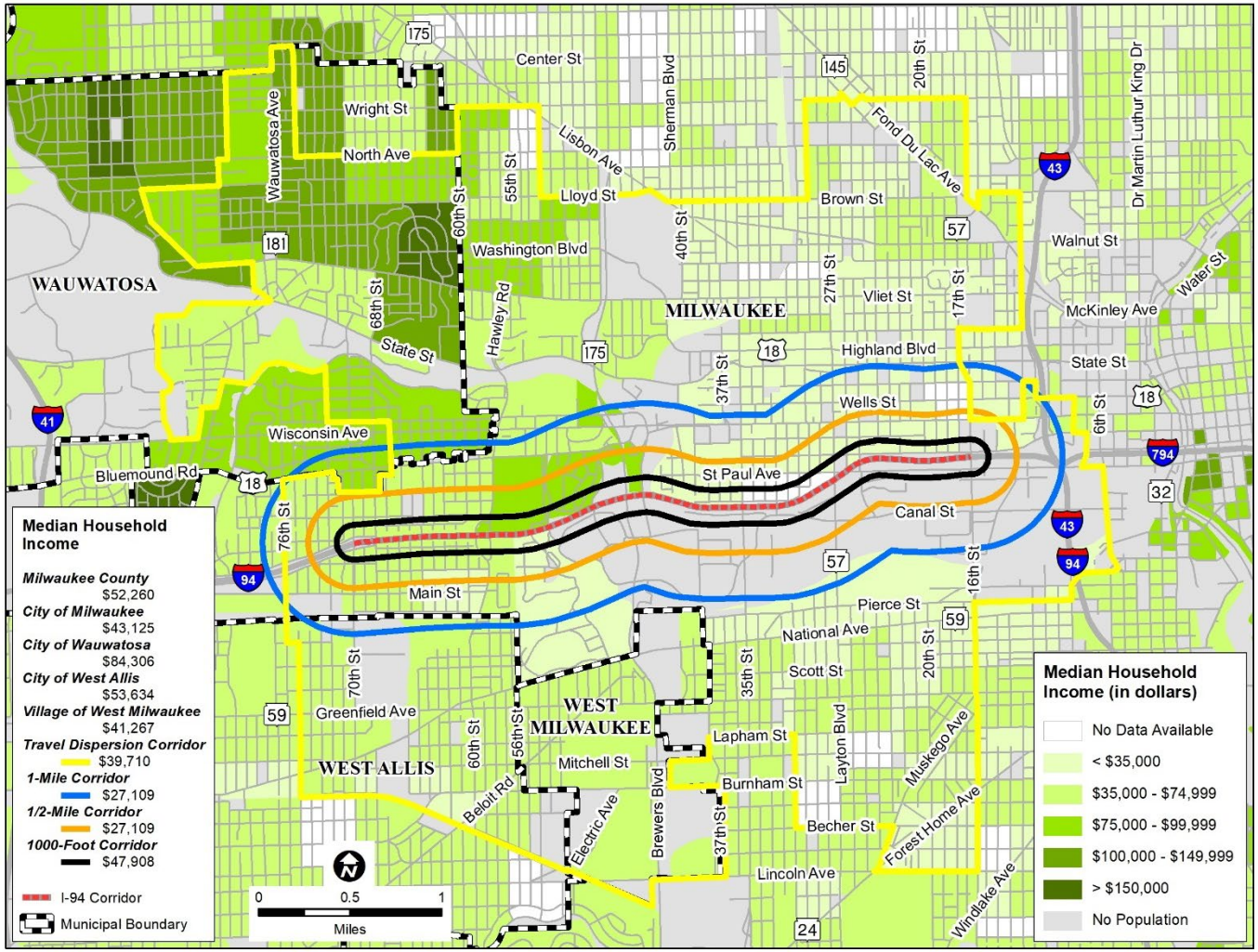


Exhibit 4-11 illustrates the median household income within the study corridor. Generally, households east of 35th Street, north and south of I-94, have a median household income of $35,000 or less. Households to the west of 35th Street generally have a median household income ranging from $35,000 to $74,999. There are some areas north of I-94 and west of 60th Street with a median income of over $100,000.

Exhibit 4-11. Median Household Income in I-94 Corridor



4.4.2 Families Receiving Public Income Assistance

Table 4-12 provides data on families receiving public income assistance in and near the I-94 East-West Corridor study area.

Table 4-9. Families Receiving Public Income Assistance

		City of Milwaukee		City of Wauwatosa	
	Milwaukee County	Total	In travel dispersion corridor	Total	In travel dispersion corridor
Number of Families Receiving Public Income Assistance	44,914	37,995	5,648	649	161
% of Population	21.3%	31.0%	36.3%	5.4%	3.9%

		City of West Allis		Village of West Milwaukee	
	Milwaukee County	Total	In travel dispersion corridor	Total	In travel dispersion corridor
Number of Families Receiving Public Income Assistance	44,914	1,841	502	130	130
% of Population	21.3%	13.8%	21.1%	17.0%	17.0%

	Milwaukee County	Municipalities in Study Area	1000' Corridor	Half Mile Corridor	One Mile Corridor	Travel Dispersion Corridor
Number of Families Receiving Public Income Assistance	44,914	40,615	482	703	1,235	6,441
% of Population	21.3%	27.3%	26.8%	26.62%	20.6%	28.2%

Source: U.S. Census Bureau 2016-2020 ACS 5-Year Estimates

Figure 4-12 provides a visual representation of the families receiving public income assistance in the study bands, compared to Milwaukee County, City of Milwaukee, City of Wauwatosa, City of West Allis, and Village of West Milwaukee.

Figure 4-12. Families Receiving Public Income Assistance Percentage

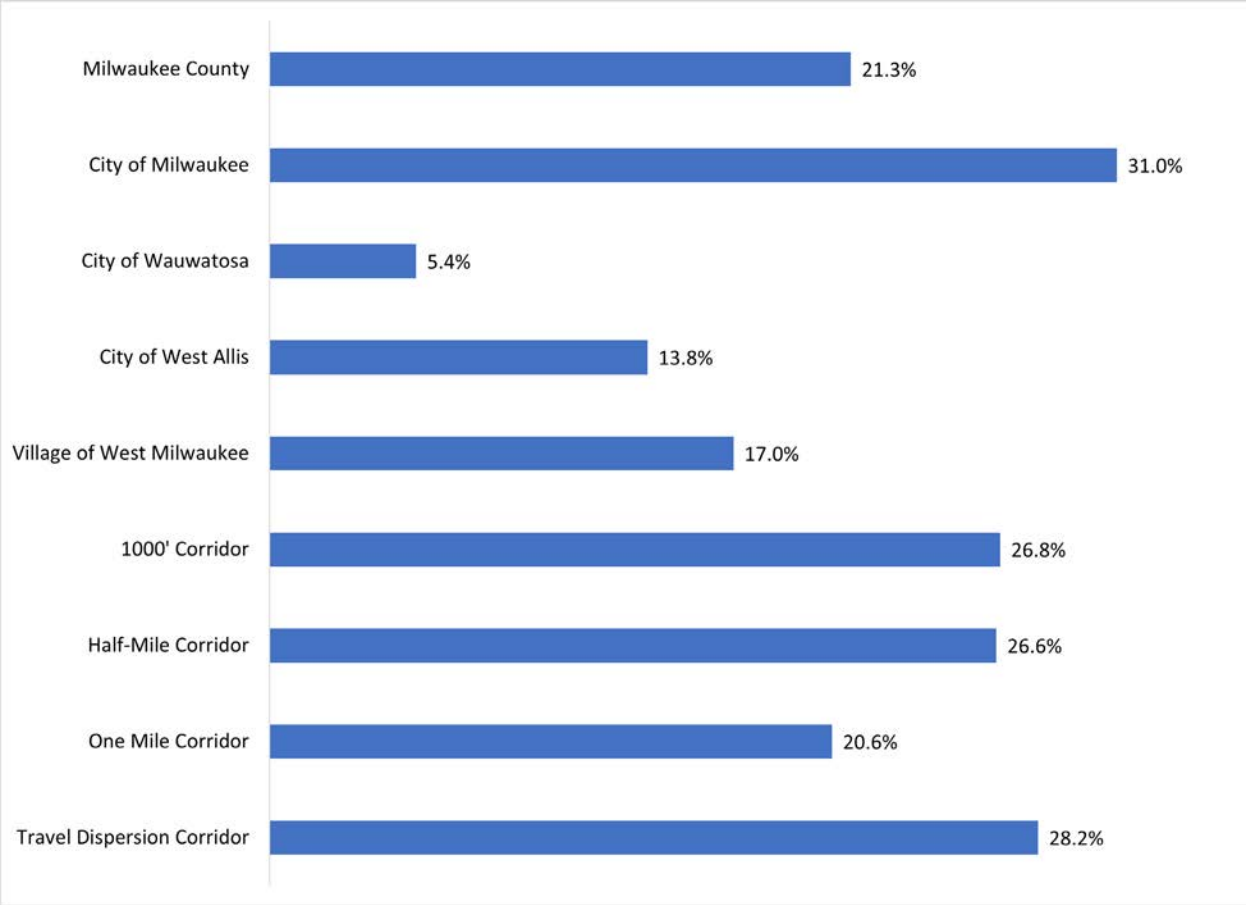
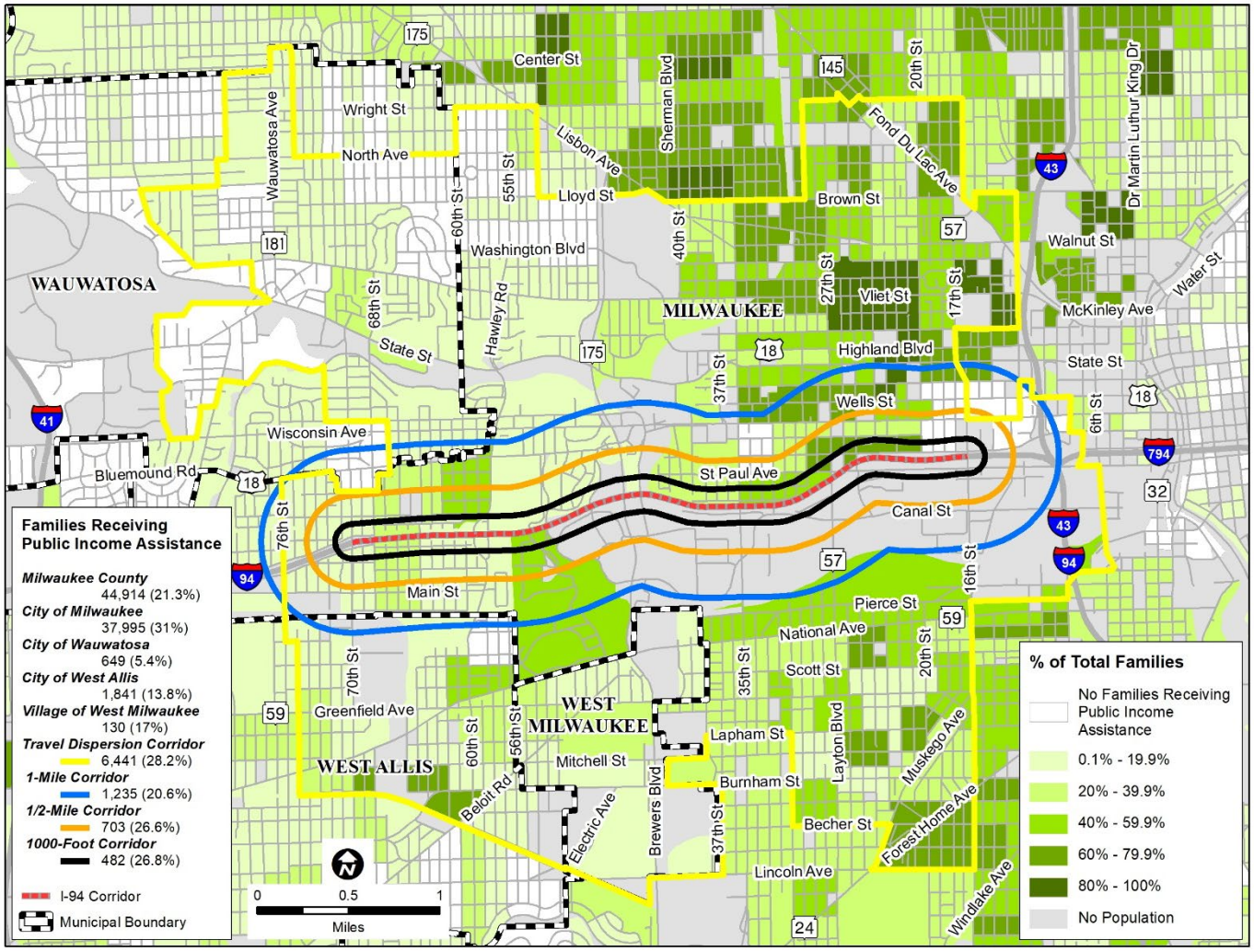


Exhibit 4-12 illustrates where families receiving public income assistance are located. Every tract has families receiving public income assistance. Most tracts are 0.1 to 40.0 percent families receiving public assistance. Tracts with 40.0 to 59.9 percent are generally located east of WIS 175. There are some areas within the travel dispersion corridor with 60.0 to 100.0 percent of families receiving public income assistance, generally located east of 37th Street and north of I-94.

Exhibit 4-12. Families Receiving Public Income Assistance in I-94 Corridor



4.4.3 Poverty

Table 4-13 provides data on persons living below the poverty level in and near the I-94 East-West Corridor study area. The U.S. Department of Health and Human Services (HHS) annually publishes poverty guidelines to determine financial eligibility for certain programs. The HHS guidelines are a simplification of the U.S. Census Bureau's poverty thresholds for use for administrative purposes; for instance, determining financial eligibility for certain federal programs. According to the HHS guideline, in 2020 a household containing four persons was considered to be living in poverty if the total income of the family was less than $26,200. The Census Bureau's Poverty Guidelines were used for this analysis. See Appendix III American Community Survey and Puerto Rico Community Survey 2020 Subject Definitions.

Table 4-10. Persons Below Poverty Level

		City of Milwaukee		City of Wauwatosa	
	Milwaukee County	Total	In travel dispersion corridor	Total	In travel dispersion corridor
Persons Below Poverty Level	170,190	141,667	26,429	2,827	1,274
% of Population	18.3%	24.6%	31.8%	5.9%	6.4%

		City of West Allis		Village of West Milwaukee	
	Milwaukee County	Total	In travel dispersion corridor	Total	In travel dispersion corridor
Persons Below Poverty Level	170,190	6,606	1,408	515	515
% of Population	18.3%	11.2%	13.7%	12.6%	12.6%

	Milwaukee County	Municipalities in Study Area	1000' Corridor	Half Mile Corridor	One Mile Corridor	Travel Dispersion Corridor
Persons Below Poverty Level	170,190	151,615	3,776	8,402	12,616	28,192
% of Population	18.3%	22.1%	24.4%	37.5%	28.3%	25.5%

Source: U.S. Census Bureau 2016-2020 ACS 5-Year Estimates

Figure 4-13 provides visual representation of the persons below poverty level in the study bands, compared to Milwaukee County, City of Milwaukee, City of Wauwatosa, City of West Allis, and Village of West Milwaukee.

Figure 4-13. Persons Below Poverty Level Percentage

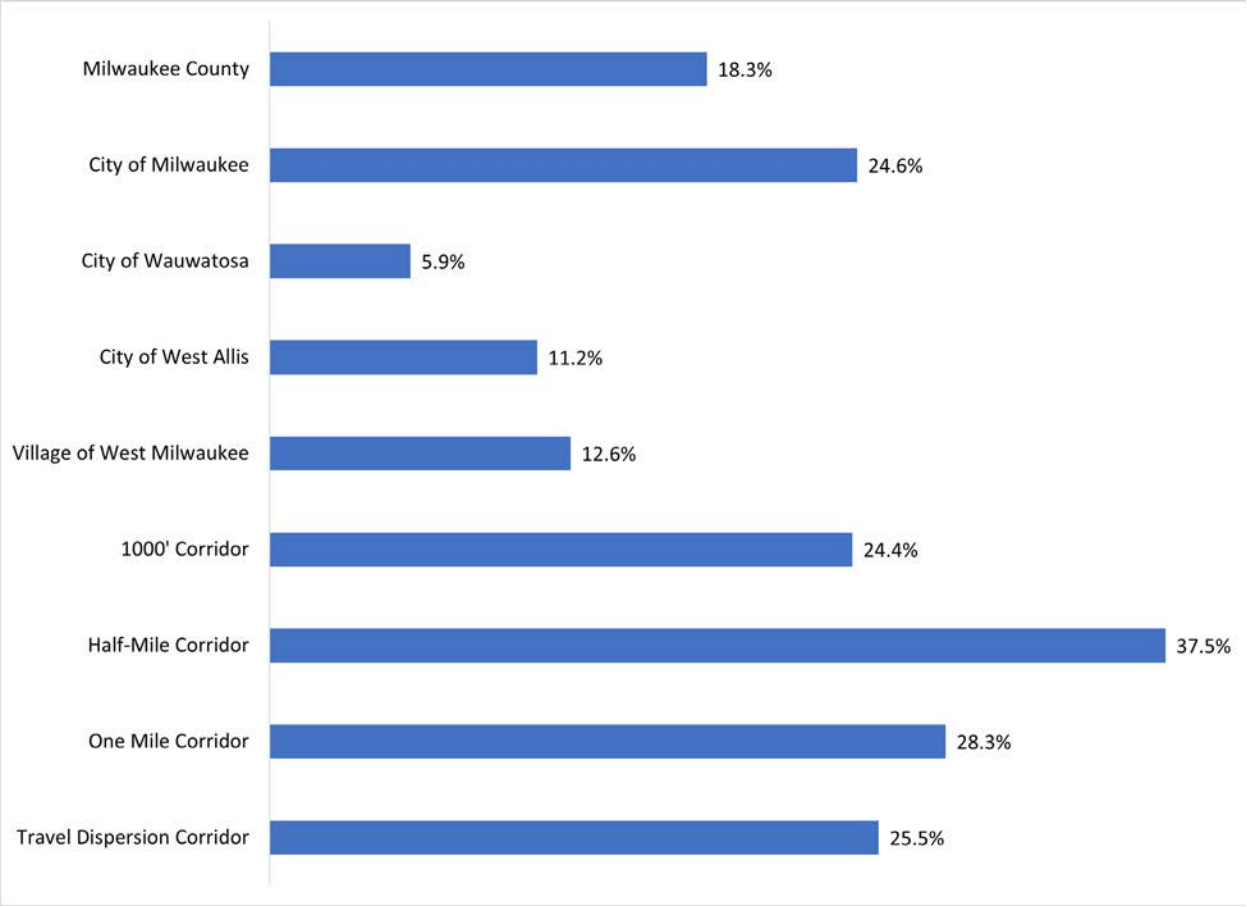
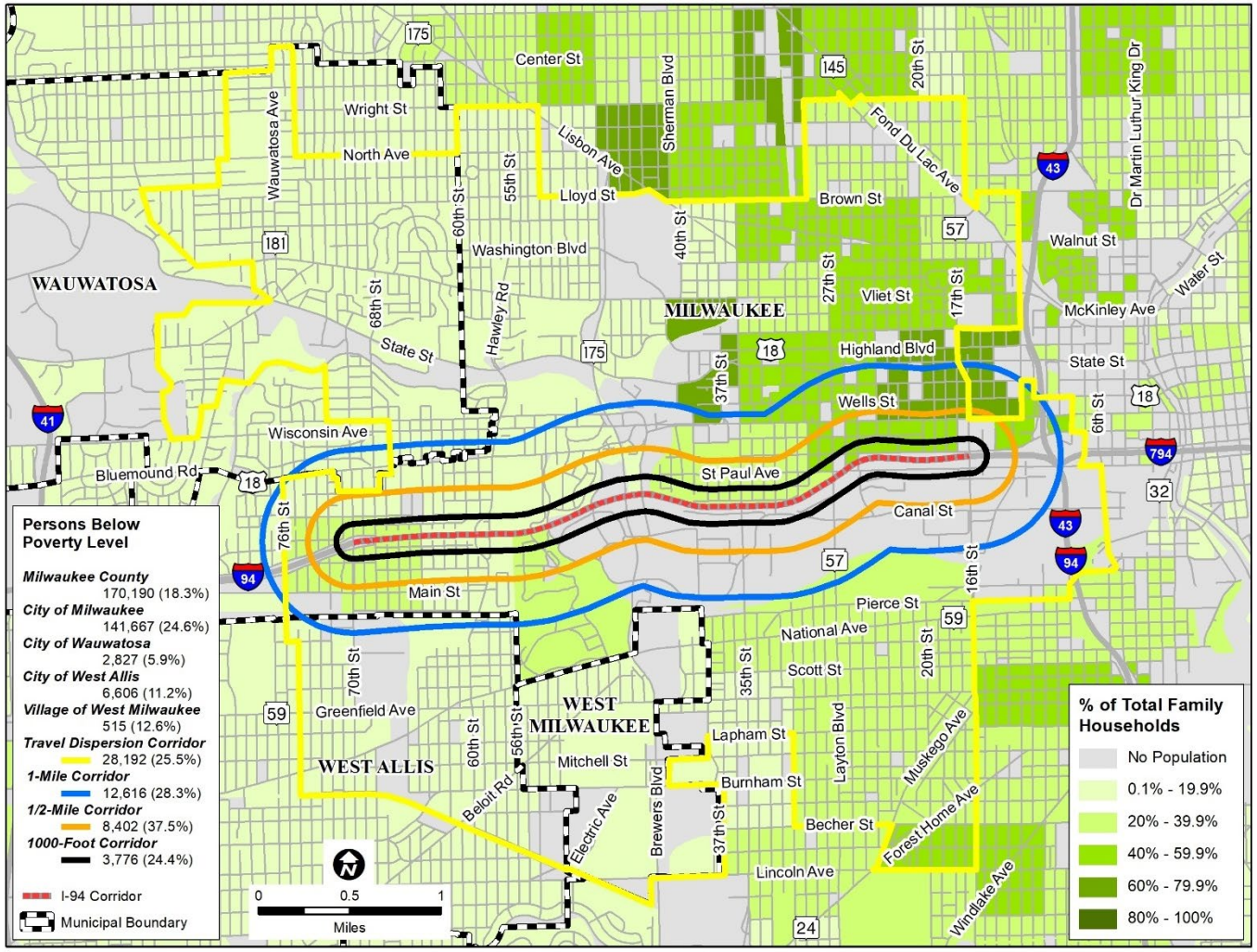


Exhibit 4-13 illustrates where persons below the poverty level are located within the study corridor. Generally, there are more persons below the poverty level to the east of WIS 175. Areas with the highest percent of persons below the poverty level (60.0 to 79.9 percent) are located east of 27th Street near Highland Boulevard and Wells Street.

Exhibit 4-13. Persons Below Poverty Level in I-94 Corridor



U.S. Department of Transportation Federal Highway Administration

4.4.4 Families Below Poverty Level

Table 4-14 provides data on families living below the poverty level in and near the I-94 East-West Corridor study area.

Table 4-11. Families Below Poverty Level

		City of Milwaukee		City of Wauwatosa	
	Milwaukee County	Total	In travel dispersion corridor	Total	In travel dispersion corridor
Families Below Poverty Level	28,266	23,998	4,027	308	146
% of Population	7.4%	10.5%	13.1%	1.5%	2.2%

		City of West Allis		Village of West Milwaukee	
	Milwaukee County	Total	In travel dispersion corridor	Total	In travel dispersion corridor
Families Below Poverty Level	28,266	968	226	30	30
% of Population	7.4%	3.5%	4.8%	1.5%	1.5%

	Milwaukee County	Municipalities in Study Area	1000' Corridor	Half Mile Corridor	One Mile Corridor	Travel Dispersion Corridor
Families Below Poverty Level	28,266	25,304	304	554	1,235	4,429
% of Population	7.4%	9.1%	7.2%	7.5%	8.0%	10.0%

Source: U.S. Census Bureau 2016-2020 ACS 5-Year Estimates

Figure 4-14 is a visual representation of the families below poverty level in the study bands, compared to Milwaukee County, City of Milwaukee, City of Wauwatosa, City of West Allis, and Village of West Milwaukee.

Figure 4-14. Families Below Poverty Level

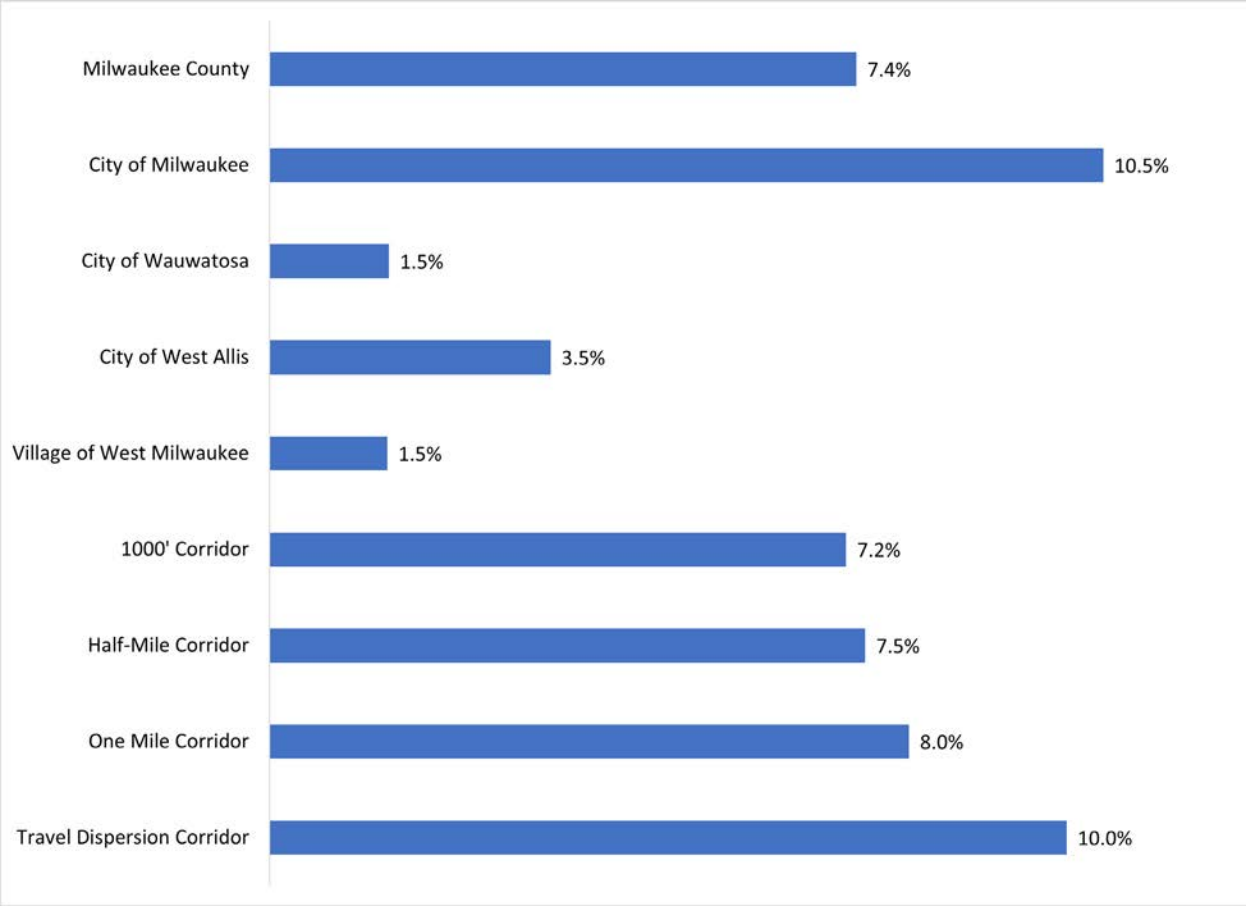
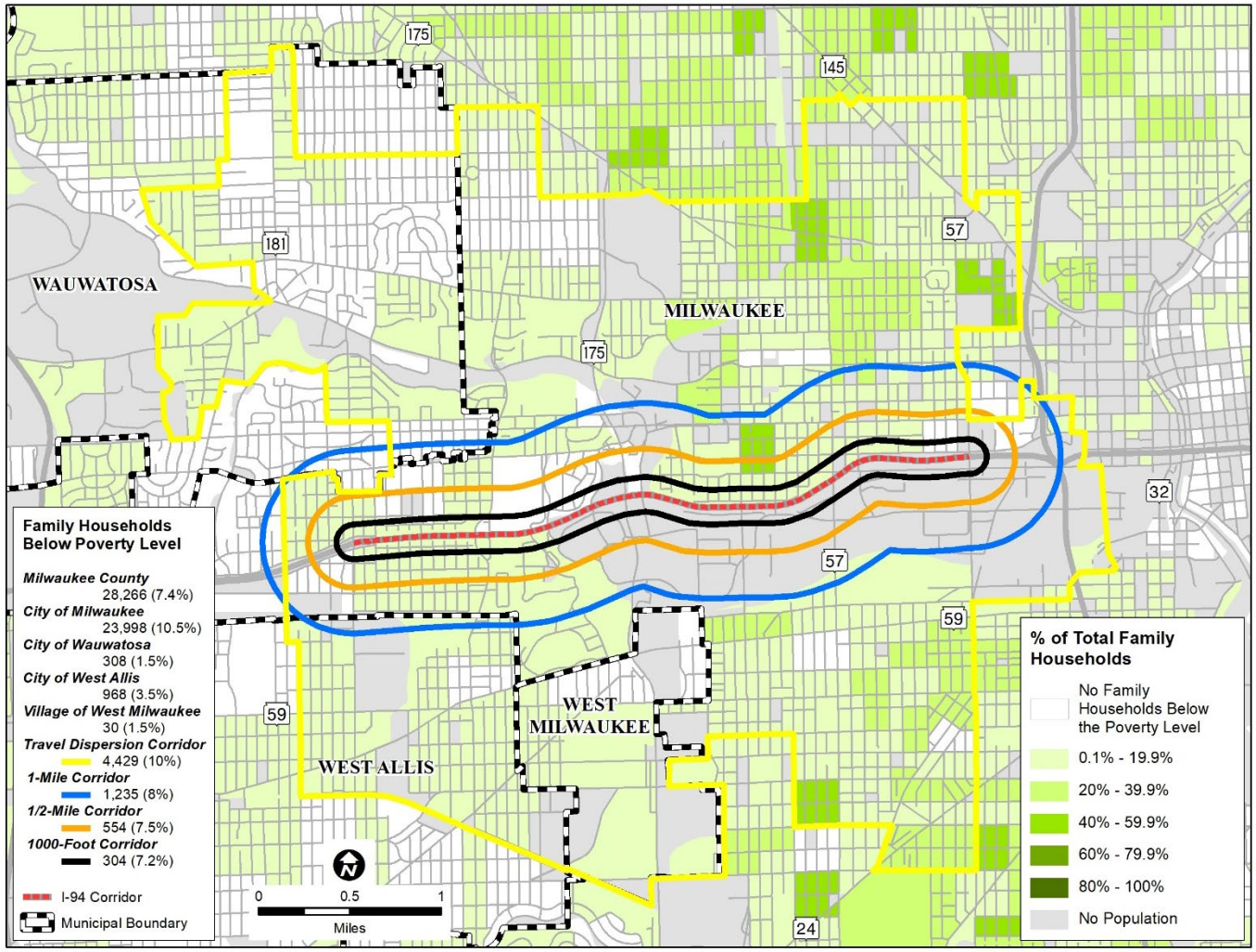


Exhibit 4-14 illustrates where families below the poverty level are located within the study corridor. There are areas where the percentage of families below the poverty level is 20.0 to 59.9 percent within the travel dispersion corridor, located east of WIS 175.

Exhibit 4-14. Family Households Below Poverty Level in I-94 Corridor



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I-94 East-West Study Environmental Justice Plan & Preliminary Analysis

4.4.5 Low-income rental property locations

Table 4-15 provides data on the locations of low-income rental property locations in and near the I-94 East-West Corridor study area.

Table 4-12. Low-income Rental Properties

		City of Milwaukee		City of Wauwatosa	
	Milwaukee County	Total	In travel dispersion corridor	Total	In travel dispersion corridor
Public Housing Units	2,501	2,439	447	0	0
% of Total Housing Units	0.6%	1.0%	1.2%	0%	0%
Subsidized Housing Units	9,986	6,833	1,185	249	53
% of Total Housing Units	2.4%	2.7%	3.2%	1.2%	0.6%

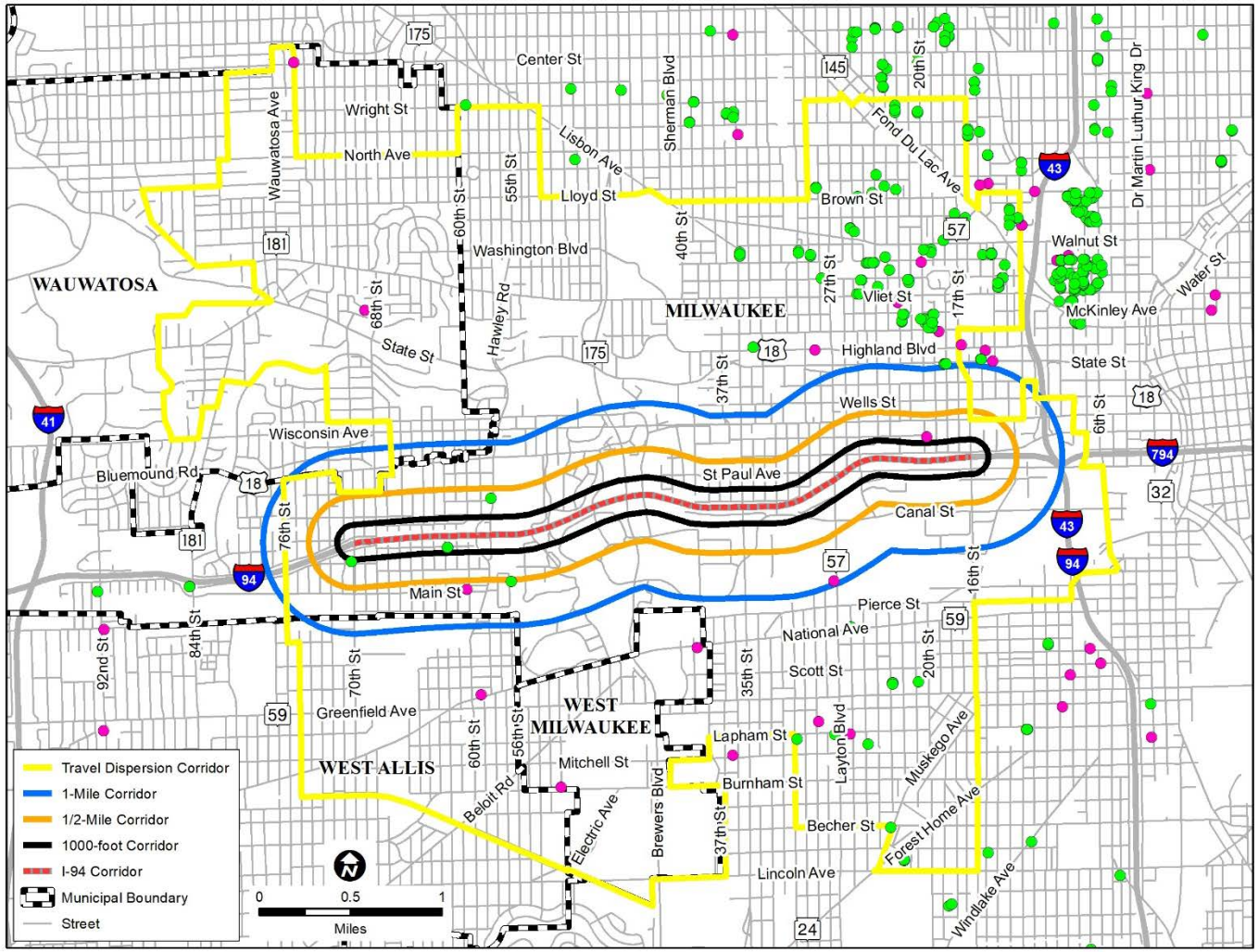
		City of West Allis		Village of West Milwaukee	
	Milwaukee County	Total	In travel dispersion corridor	Total	In travel dispersion corridor
Public Housing Units	2,501	2	0	0	0
% of Total Housing Units	0.6%	0.01%	0%	0%	0%
Subsidized Housing Units	9,986	635	35	144	144
% of Total Housing Units	2.4%	2.2%	0.7%	6.5%	6.5%

	Milwaukee County	Municipalities in Study Area	1000' Corridor	Half Mile Corridor	One Mile Corridor	Travel Dispersion Corridor
Public Housing Units	2,501	2,441	2	5	6	447
% of Total Housing Units	0.6%	0.8%	0.02%	0.04%	0.03%	0.9%
Subsidized Housing Units	9,986	7,861	0	79	289	1,417
% of Total Housing Units	2.4%	2.5%	0.0%	0.7%	1.2%	2.8%

Source: Department of Housing and Urban Development

Exhibit 4-15 illustrates where low-income rental property locations are located within the study corridor. There are areas where the percentage of families below the poverty level is 20.0 to 59.9 percent within the travel dispersion corridor, located east of WIS 175.

Exhibit 4-15. Public and Subsidized Housing in I-94 Corridor



U.S. Department of Transportation Federal Highway Administration

I-94 East-West Study Environmental Justice Plan & Preliminary Analysis

4.5 Other Pertinent Demographic Information

4.5.1 Immigration

Table 4-13. Foreign Born Citizens

		City of Milwaukee		City of Wauwatosa	
	Milwaukee County	Total	In travel dispersion corridor	Total	In travel dispersion corridor
Total Population	88,086	60,518	13,625	2,723	1,194
% of Population	9.3%	10.2%	2.4%	5.7%	2.5%

		City of West Allis		Village of West Milwaukee	
	Milwaukee County	Total	In travel dispersion corridor	Total	In travel dispersion corridor
Total Population	88,086	3,123	834	410	410
% of Population	9.3%	5.2%	1.4%	9.9%	10.0%

	Milwaukee County	Municipalities in Study Area	1000' Corridor	Half Mile Corridor	One Mile Corridor	Travel Dispersion Corridor
Total Population	88,086	66,774	1,901	2,883	4,468	15,463
% of Population	9.3%	9.7%	12.3%	12.9%	10.0%	14.0%

Source: U.S. Census Bureau 2016-2020 ACS 5-Year Estimates

Table 4-14. Non-U.S. Citizens

		City of Milwaukee		City of Wauwatosa	
	Milwaukee County	Total	In travel dispersion corridor	Total	In travel dispersion corridor
Total Population	49,859	37,582	9,808	1,227	609
% of Population	5.4%	6.5%	11.8%	2.6%	3.1%

		City of West Allis		Village of West Milwaukee	
	Milwaukee County	Total	In travel dispersion corridor	Total	In travel dispersion corridor
Total Population	49,859	1,740	392	217	217
% of Population	5.4%	2.9%	3.8%	5.3%	5.3%

Table 4-14. Non-U.S. Citizens

	Milwaukee County	Municipalities in Study Area	1000' Corridor	Half Mile Corridor	One Mile Corridor	Travel Dispersion Corridor
Total Population	49,859	40,766	1,245	2,026	2,807	10,721
% of Population	5.4%	5.9%	8%	9%	6.3%	9.7%

Source: U.S. Census Bureau 2016-2020 ACS 5-Year Estimates

Table 4-15. Primary Language Other Than English

		City of Milwaukee		City of Wauwatosa	
	Milwaukee County	Total	In travel dispersion corridor	Total	In travel dispersion corridor
Total Population	154,880	115,444	27,893	3,028	1,108
% of Population	17.5%	21.1%	34.6%	6.7%	5.9%

		City of West Allis		Village of West Milwaukee	
	Milwaukee County	Total	In travel dispersion corridor	Total	In travel dispersion corridor
Total Population	154,880	5,850	1,386	1,033	1,033
% of Population	17.5%	10.4%	14%	26.2%	26.2%

	Milwaukee County	Municipalities in Study Area	1000' Corridor	Half Mile Corridor	One Mile Corridor	Travel Dispersion Corridor
Total Population	154,880	125,355	2,887	4,368	6,698	30,618
% of Population	17.5%	19.2%	18.6%	17.5%	14.6%	29.1%

Source: U.S. Census Bureau 2016-2020 ACS 5-Year Estimates.

Table 4-16. Persons Who Speak English Less than "Very Well"

		City of Milwaukee		City of Wauwatosa	
	Milwaukee County	Total	In travel dispersion corridor	Total	In travel dispersion corridor
Total Population	56,570	43,996	11,415	906	341
% of Population	6.4%	8%	14.2%	2%	1.8%

Table 4-16. Persons Who Speak English Less than "Very Well"

	Milwaukee County	City of West Allis		Village of West Milwaukee	
		Total	In travel dispersion corridor	Total	In travel dispersion corridor
Total Population	56,570	2,030	634	361	361
% of Population	6.4%	3.6%	6.4%	9.2%	9.2%

	Milwaukee County	Municipalities in Study Area	1000' Corridor	Half Mile Corridor	One Mile Corridor	Travel Dispersion Corridor
Total Population	56,570	47,293	1,252	1,719	2,675	12,570
% of Population	6.4%	7.3%	8.1%	6.9%	5.8%	11.9%

Source: U.S. Census Bureau 2016-2020 ACS 5-Year Estimates.

4.5.2 Household Characteristics

Table 4-17. Average Household Size

	Milwaukee County	City of Milwaukee		City of Wauwatosa	
		Total	In travel dispersion corridor	Total	In travel dispersion corridor
Number of People	2.42	2.51	2.58	2.32	2.43

	Milwaukee County	City of West Allis		Village of West Milwaukee	
		Total	In travel dispersion corridor	Total	In travel dispersion corridor
Number of People	2.42	2.15	2.17	2.03	2.02

	Milwaukee County	Municipalities in Study Area	1000' Corridor	Half Mile Corridor	One Mile Corridor	Travel Dispersion Corridor
Number of People	2.42	2.46	2.03	2.06	2.1	2.55

Source: U.S. Census Bureau 2016-2020 ACS 5-Year Estimates.

Table 4-18.Households with Children

	Milwaukee County	City of Milwaukee		City of Wauwatosa	
		Total	In travel dispersion corridor	Total	In travel dispersion corridor
Households	109,085	69,662	10,084	5,878	2,560
% of Households	28.4%	30.4%	31.4%	28.7%	31.4%

	Milwaukee County	City of West Allis		Village of West Milwaukee	
		Total	In travel dispersion corridor	Total	In travel dispersion corridor
Households	109,085	6,301	1,118	368	368
% of Households	28.4%	23%	23.6%	18.2%	18.2%

	Milwaukee County	Municipalities in Study Area	1000' Corridor	Half Mile Corridor	One Mile Corridor	Travel Dispersion Corridor
Households	109,085	82,209	1,655	2,143	4,613	13,480
% of Households	28.4%	29.5%	23.1%	20.8%	22.5%	30.5%

Source: U.S. Census Bureau 2016-2020 ACS 5-Year Estimates

Table 4-19. Single Parents

Single Parents	Milwaukee County	City of Milwaukee		City of Wauwatosa	
		Total	In travel dispersion corridor	Total	In travel dispersion corridor
Total Population	37,998	29,666	4,456	1,053	471
% of Population	9.9%	12.9%	13.86%	5.2%	5.77%

Single Parents	Milwaukee County	City of West Allis		Village of West Milwaukee	
		Total	In travel dispersion corridor	Total	In travel dispersion corridor
Total Population	37,998	1,838	387	99	99
% of Population	9.9%	6.8%	8.17%	5.2%	4.88%

Table 4-19. Single Parents

Single Parents	Milwaukee County	Municipalities in Study Area	1000' Corridor	Half Mile Corridor	One Mile Corridor
Total Population	37,998	32,656	645	953	1,884
% of Population	9.9%	11.7%	9%	9.3%	9.2%

Source: U.S. Census Bureau 2015-2019 ACS 5-Year Estimates

Note: 2016-2020 ACS data not available

4.5.3 Transportation

Table 4-20. Households with No Vehicle

		City of Milwaukee		City of Wauwatosa	
	Milwaukee County	Total	In travel dispersion corridor	Total	In travel dispersion corridor
Occupied Housing Units	50,511	39,330	7,290	1,797	710
% of Occupied Housing Units	13.2%	17.2%	22.7%	8.8%	8.7%

		City of West Allis		Village of West Milwaukee	
	Milwaukee County	Total	In travel dispersion corridor	Total	In travel dispersion corridor
Occupied Housing Units	50,511	2,939	662	387	387
% of Occupied Housing Units	13.2%	10.7%	14.0%	19.1%	19.1%

	Milwaukee County	Municipalities in Study Area	1000' Corridor	Half Mile Corridor	One Mile Corridor	Travel Dispersion Corridor
Occupied Housing Units	50,511	44,453	1,213	2,538	4,481	8,570
% of Occupied Housing Units	13.2%	15.9%	16.9%	24.7%	21.9%	19.4%

Source: U.S. Census Bureau 2016-2020 ACS 5-Year Estimates.

Table 4-21. Persons Who Take Public Transportation to Work

		City of Milwaukee		City of Wauwatosa	
	Milwaukee County	Total	In travel dispersion corridor	Total	In travel dispersion corridor
Total Population	21,079	18,070	3,412	327	145
% of Population	4.7%	6.7%	9%	1.3%	1.4%

		City of West Allis		Village of West Milwaukee	
	Milwaukee County	Total	In travel dispersion corridor	Total	In travel dispersion corridor
Total Population	21,079	1,071	267	96	96
% of Population	4.7%	3.4%	5.1%	4.7%	4.7%

	Milwaukee County	Municipalities in Study Area	1000' Corridor	Half Mile Corridor	One Mile Corridor	Travel Dispersion Corridor
Total Population	21,079	19,564	576	888	1,806	3,811
% of Population	4.7%	6.0%	7.1%	7.2%	7.8%	7.4%

Source: U.S. Census Bureau 2016-2020 ACS 5-Year Estimates

4.5.4 Disability

Table 4-22. Disability Status of the Civilian Non-Institutionalized Population

		City of Milwaukee		City of Wauwatosa	
	Milwaukee County	Total	In travel dispersion corridor	Total	In travel dispersion corridor
Number of People	116,586	74,495	10,555	4,502	1,630
% of Civilian Non-Institutionalized Population	12.4%	12.7%	12.1%	9.5%	8.2%

		City of West Allis		Village of West Milwaukee	
	Milwaukee County	Total	In travel dispersion corridor	Total	In travel dispersion corridor
Number of People	116,586	9,008	2,024	758	758
% of Civilian Non-Institutionalized Population	12.4%	15.2%	19.5%	18.4%	18.4%

	Milwaukee County	Municipalities in Study Area	1000' Corridor	Half Mile Corridor	One Mile Corridor	Travel Dispersion Corridor
Number of People	116,586	88,763	2,315	3,143	6,700	14,067
% of Civilian Non-Institutionalized Population	12.4%	12.7%	14%	11.9%	13.7%	12.4%

Source: U.S. Census Bureau 2016-2020 ACS 5-Year Estimates.

4.5.5 Housing Characteristics

Table 4-23. Vacant Housing Units

		City of Milwaukee		City of Wauwatosa	
	Milwaukee County	Total	In travel dispersion corridor	Total	In travel dispersion corridor
Housing Units	35,607	27,629	5,096	1,240	322
% of Housing Units	8.5%	10.8%	13.7%	5.7%	3.8%

		City of West Allis		Village of West Milwaukee	
	Milwaukee County	Total	In travel dispersion corridor	Total	In travel dispersion corridor
Housing Units	35,607	1,790	436	205	205
% of Housing Units	8.5%	6.1%	8.4%	9.2%	9.2%

	Milwaukee County	Municipalities in Study Area	1000' Corridor	Half Mile Corridor	One Mile Corridor	Travel Dispersion Corridor
Housing Units	35,607	30,864	892	1,706	2,934	5,713
% of Housing Units	8.5%	10.0%	11.1%	14.2%	12.5%	11.4%

Source: U.S. Census Bureau 2016-2020 ACS 5-Year Estimates.

Table 4-24. Median Rent

		City of Milwaukee		City of Wauwatosa	
	Milwaukee County	Total	In travel dispersion corridor	Total	In travel dispersion corridor
Median Rent	$889	$866	$789	$1,121	$1,185

		City of West Allis		Village of West Milwaukee	
	Milwaukee County	Total	In travel dispersion corridor	Total	In travel dispersion corridor
Median Rent	$889	$851	$895	$738	$738

	Milwaukee County	Municipalities in Study Area	1000' Corridor	Half Mile Corridor	One Mile Corridor	Travel Dispersion Corridor
Median Rent	$889	$859	$815	$747	$808	$801

Source: U.S. Census Bureau 2016-2020 ACS 5-Year Estimates

4.5.6 Education

Table 4-25. Persons with Less Than a High School Diploma

		City of Milwaukee		City of Wauwatosa	
	Milwaukee County	Total	In travel dispersion corridor	Total	In travel dispersion corridor
Total Population	71,018	57,346	10,813	908	286
% of Population	11.3%	15.6%	21.4%	2.6%	2%

		City of West Allis		Village of West Milwaukee	
	Milwaukee County	Total	In travel dispersion corridor	Total	In travel dispersion corridor
Total Population	71,018	3,384	729	318	318
% of Population	11.3%	7.6%	9.5%	10.5%	10.5%

	Milwaukee County	Municipalities in Study Area	1000' Corridor	Half Mile Corridor	One Mile Corridor	Travel Dispersion Corridor
Total Population	71,018	61,956	1,022	1,574	2,986	11,908
% of Population	11.3%	13.8%	9.5%	11.5%	10%	16.7%

Source: U.S. Census Bureau 2016-2020 ACS 5-Year Estimates.

SECTION 5
Outreach

Outreach for the I-94 East-West Corridor Study will be ongoing. Preliminary groups and stakeholders have been identified below; this is a living list and will be updated throughout the duration of the project.

Project staff will contact and arrange to meet with identified stakeholders to inform them of the study, solicit information and input on the study, and to equip them with information regarding upcoming Public Information Meetings and other opportunities for their membership to provide input about the project. Post-meeting follow-up will include database additions for mailed and electronic newsletters to keep them informed of the project status and timeline.

Additionally, diverse stakeholders will be identified and invited to participate in the Community Advisory Committee for the I-94 East-West Corridor Study.

5.1 Community Organization and Neighborhood Association Outreach

Table 5-1. Community Organization and Neighborhood Association Outreach List

Organization Name	Address	Phone Number
African-American Chamber of Commerce	1920 N Doctor M.L.K. Jr Drive Milwaukee, WI 53212	414-462-9450
Hispanic Chamber of Commerce	1021 W. National Avenue Milwaukee, WI 53204	414-643-6963
NAACP	2745 N Doctor M.L.K. Drive #202 Milwaukee, WI 53212	414-562-1000
Latino Health Coalition	1032 S. Cesar E. Chavez Drive Milwaukee, WI 53204	414-672-1353
Milwaukee Urban League	435 W. North Avenue Milwaukee, WI 53212	414-374-5850
Menomonee Valley Partners	231 W Michigan Street P421 Milwaukee, WI 53203	414-221-5506
30th Street Industrial Corridor Business Improvement District (The Corridor)	PO Box 16498 Milwaukee, WI 53216	414-509-5115
Via (previously known as Layton Blvd West Neighbors)	1545 S Layton Boulevard Milwaukee, WI 53215	414-383-9038
Historic Concordia Neighborhood	PO Box 80096 Milwaukee, WI 53208	414-459-9375
Story Hill Neighborhood Association	317 N. 50th Street Milwaukee, WI 53208	414-303-3686
Charles Jacobus Park Neighborhood Association	6768 Maple Terrace Milwaukee, WI 53213	414-507-6769

Table 5-1. Community Organization and Neighborhood Association Outreach List

Organization Name	Address	Phone Number
Washington Heights Neighborhood Association	PO Box 080104 Milwaukee, WI 53208	414-297-9617
Merrill Park Neighborhood Association	3325 W. Michigan Avenue Milwaukee, WI 53208	414-933-7577
Westown Association	310 W Wisconsin Avenue #1450e Milwaukee, WI 53203	414-276-6696
Hmong American Friendship Association	3824 W. Vliet Street Milwaukee, WI 53208	414-344-6575
UMOS	2701 W. Chase Avenue Suite B Milwaukee, WI 53207	414-389-6600
Boy Scouts of America – Wisconsin	330 S. 84th Street Milwaukee, WI 53214	414-774-1776
Girl Scouts of Wisconsin Southeast	131 S. 69th Street Milwaukee, WI 53214	800-565-4475

5.2 Neighborhoods

Table 5-2. Neighborhoods Organization and Location List

Organization Name	Location
Washington Heights Neighborhood	West of US 41, North Avenue to Vliet Street
Wick Field Neighborhood	West of US 41, Vliet Street to State Street
Washington Park Neighborhood	East of US 41, Vliet Street to North Avenue
Martin Drive Neighborhood	East of US 41, Vliet Street to State Street
Valley Park Neighborhood	NE Quadrant of Stadium Interchange
Bluemound Heights	North of I-94, west of Hawley Road
Story Hill	NW Quadrant of Stadium Interchange
Johnson's Woods	South of I-94, west of Hawley Road
The Valley/Pigsville	NE Quadrant of Stadium Interchange
Merrill Park	East of US 41, north of I-94, west of 35th Street
Historic Concordia Neighborhood	West of 27th Street to 35th Street, North of Wisconsin Avenue to Highland Avenue
Jacobus Park	West of US 41, north of I-94, east of 68th Street

5.3 School Outreach

Table 5-3. School Outreach List

Organization Name	Address	Phone Number
West Milwaukee Middle School	5104 W. Greenfield Avenue Milwaukee, WI 53214	414-604-3300
Pius XI High School	135 N. 76th Street Milwaukee, WI 53213	414-290-7000
Woodlands School	5510 W. Bluemound Road Milwaukee, WI 53208	414-475-1600
Marquette University High School	3401 W. Wisconsin Avenue Milwaukee, WI 53208	414-933-7220
Alston's Preparatory Academy	921 N. 49th Street Milwaukee, WI 53208	414-771-2443
Milwaukee Montessori School	345 N 95th Street Milwaukee, WI 53226	414-259-0370
St. Vincent Pallotti Catholic School	201 N. 76th Street Milwaukee, WI 53213	414-258-4165
Ebenezer Lutheran School	1127 S 35th Street Milwaukee, WI 53215	414-384-2916
Pershing Elementary School	1330 S. 47th Street West Milwaukee, WI 53214	414-604-4600
St. Leo School	514 N. 31st Street Milwaukee, WI 53208	414-442-1100
Burbank School	6035 W. Adler Street Milwaukee, WI 53214	414-256-8400

5.4 Business Outreach

Table 5-4. Business Outreach List

Organization Name	Address	Phone Number
Children's Hospital of Wisconsin	8915 W. Connell Court P.O. Box 1997 Milwaukee, WI 53226	414-266-2000
Children's Health Alliance of Wisconsin	6737 W. Washington Street Suite 1111 West Allis, WI 53214	414-337-4560
Potawatomi Bingo Casino	1721 W. Canal Street Milwaukee, WI 53233	800-729-7244
Milwaukee Brewers Baseball Club	1 Brewers Way Milwaukee, WI 53214	414-902-4400
Department of Veterans Affairs	5400 W. National Avenue Milwaukee, WI 53214	800-827-1000
Wisconsin Humane Society	4500 W. Wisconsin Avenue, Milwaukee, WI 53208	414-264-6257

Table 5-4. Business Outreach List

Organization Name	Address	Phone Number
Miller Coors	3939 W Highland Boulevard Milwaukee, WI 53208	414-931-2000
Wood National Cemetery	5000 W. National Avenue Building 1301 Milwaukee, WI 53295	414-382-5300
Calvary Cemetery	5503 W. Bluemound Road Milwaukee, WI 53208	414-438-4430
Harley Davidson	3700 W. Juneau Avenue Milwaukee, WI 53208	414-343-7027
Beth Hamedrosh Hagodel Cemetery	134 South Dana Court Milwaukee, WI 53214	414-871-2232
Wisconsin State Fair Park	640 S. 84th Street West Allis, WI 53214	414-266-7000
Pettit National Ice Center	500 S. 84th Street Milwaukee, WI 53214	414-266-0100
Joy Global Surface Mining	4400 W. National Avenue Milwaukee, WI 53214	414-670-4400

5.5 Church Outreach

Table 5-5. Church Outreach List

Organization Name	Address	Phone Number
First Spiritualist Church of West Allis	6228 W. Washington Street West Allis, WI 53214	414-436-5121
Fairview Evangelical Lutheran Church	137 N. 66th Street Milwaukee, WI 53213	414-771-2530
Nativity Lutheran Church	6905 W. Bluemound Road Milwaukee, WI 53213	414-476-1853
Chinese Community Baptist Church	120 N. 73rd Street Milwaukee, WI 53213	414-258-2410
St. Vincent Pallotti Church	5424 W. Bluemound Road Milwaukee, WI 53208	414-453-5344
Free Will Church of God	320 N. 33rd Street Milwaukee, WI 53208	414-342-3473
Great Westside Church of God in Christ	2602 W. Auer Street Milwaukee, WI	414-447-9778
Christian Faith Fellowship Church	8605 Good Hope Road Milwaukee, WI 53224	414-760-2332
St. Sebastian Church	5400 W. Washington Boulevard Milwaukee, WI 53208	414-453-1061

Table 5-5. Church Outreach List

Organization Name	Address	Phone Number
DivineWord Lutheran Church	5505 W. Lloyd Street Milwaukee, WI 53208	414-476-3189
Holy Angels Cathedral	1510 N. 70th Street Milwaukee, WI 53213	414-774-6420
Matthew's Evangelical Lutheran Church	1615 N. Wauwatosa Avenue Milwaukee, WI 53213	414-774-0441
Reformation Lutheran Church	3806 W Lisbon Avenue Milwaukee, WI 53208	414-444-0440
New Covenant Missionary Church	2315 N. 38th Street Milwaukee, WI 53210	414-873-1221

SECTION 6

Environmental Justice Staff Resources

The following individuals will be involved in implementing the Environmental Justice Plan for the I-94 East-West Corridor Study project:

Table 6-1. Environmental Justic Plan Implementation Individuals

Name, Representing	Role
Dave Nguyen, WisDOT	Project Development Chief
Jay Waldschmidt, WisDOT	Project Supervisor
Joshua LeVeque, WisDOT	Project Manager
Dobra Payant, WisDOT	Deputy Project Manager
Mike Pyritz, WisDOT	Communications Manager
Jeff Bauer, Jacobs	Project Manager
Ben Goldsworthy, Jacobs	Environmental Task Lead
Beth Foy, Beth Foy & Associates	Public Involvement
Tim Anheuser, Kapur & Associates	Public Involvement

SECTION 7

Timelines, Activities, and Deliverables

Findings in this preliminary assessment will inform the decision-making process in considering potential effects of the identified alternatives and inform the project study team of community issues and concerns.

Initial deliverables drawn from the assessment include, but are not limited to, as listed in Table 7-1.

Table 7-1. Initial Deliverables Schedule

Deliverable / Milestone	Timeframe
Environmental Justice Analysis Report (draft)/update	Winter 2012/13/Fall 2021
Public Involvement Plan/update	Summer 2012/Summer 2021
Conduct Preliminary Outreach (Public Information Meeting #1)	August 2012
Conduct Outreach (Public Information Meetings #2, #3, #4, #5, #6 and #7)	• December 2012 • May 3013 • July 2013 • June 2014 • March 2021 • December 2021 • June 2022
Conduct Indirect and Cumulative Effects Focus Group Meeting	June 2013/November 2021
Combine EJ analysis with preliminary outreach findings, make adjustments to EJ (updates)	Summer 2013/Fall 2021
Conduct final outreach to disseminate findings of study (preferred alternative) to community	Summer 2022
Stakeholder Database Development	Ongoing
Media Coordination	Ongoing
Meeting Handouts and Collateral Materials	Ongoing

SECTION 8

Tentative Methods of Evaluation of Environmental Justice Plan Effectiveness

- Quarterly internal check-in.
- Periodic checks of the current project status against established deliverables listed in section 11 above.
- Surveys – Conducted with the public at various times, diverse types of outreach meetings, small group meetings and online.
- Develop clear, measurable goals – Number of meetings, number of stakeholders added to mailing list, number of inquiries, response to inquiries.
- Comments and requests from minority and low-income advisory committee participants and neighborhood meetings will be incorporated into the development of the project and proposed project alternatives.

Appendix A
Executive Order 12898

Federal Register
Vol. 59, No. 32
Wednesday, February 16, 1994

Presidential Documents

Title 3—

The President

Executive Order 12898 of February 11, 1994

Federal Actions To Address Environmental Justice in Minority Populations and Low-Income Populations

By the authority vested in me as President by the Constitution and the laws of the United States of America, it is hereby ordered as follows:

Section 1–1.*Implementation.*

1–101. *Agency Responsibilities.* To the greatest extent practicable and permitted by law, and consistent with the principles set forth in the report on the National Performance Review, each Federal agency shall make achieving environmental justice part of its mission by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority populations and low-income populations in the United States and its territories and possessions, the District of Columbia, the Commonwealth of Puerto Rico, and the Commonwealth of the Mariana Islands.

1–102. *Creation of an Interagency Working Group on Environmental Justice.* (a) Within 3 months of the date of this order, the Administrator of the Environmental Protection Agency (''Administrator'') or the Administrator's designee shall convene an interagency Federal Working Group on Environmental Justice (''Working Group''). The Working Group shall comprise the heads of the following executive agencies and offices, or their designees: (a) Department of Defense; (b) Department of Health and Human Services; (c) Department of Housing and Urban Development; (d) Department of Labor; (e) Department of Agriculture; (f) Department of Transportation; (g) Department of Justice; (h) Department of the Interior; (i) Department of Commerce; (j) Department of Energy; (k) Environmental Protection Agency; (l) Office of Management and Budget; (m) Office of Science and Technology Policy; (n) Office of the Deputy Assistant to the President for Environmental Policy; (o) Office of the Assistant to the President for Domestic Policy; (p) National Economic Council; (q) Council of Economic Advisers; and (r) such other Government officials as the President may designate. The Working Group shall report to the President through the Deputy Assistant to the President for Environmental Policy and the Assistant to the President for Domestic Policy.

(b) The Working Group shall: (1) provide guidance to Federal agencies on criteria for identifying disproportionately high and adverse human health or environmental effects on minority populations and low-income populations;

(2) coordinate with, provide guidance to, and serve as a clearinghouse for, each Federal agency as it develops an environmental justice strategy as required by section 1–103 of this order, in order to ensure that the administration, interpretation and enforcement of programs, activities and policies are undertaken in a consistent manner;

(3) assist in coordinating research by, and stimulating cooperation among, the Environmental Protection Agency, the Department of Health and Human Services, the Department of Housing and Urban Development, and other agencies conducting research or other activities in accordance with section 3–3 of this order;

(4) assist in coordinating data collection, required by this order;

(5) examine existing data and studies on environmental justice;

(6) hold public meetings as required in section 5–502(d) of this order; and

(7) develop interagency model projects on environmental justice that evidence cooperation among Federal agencies.

1–103. *Development of Agency Strategies.* (a) Except as provided in section 6–605 of this order, each Federal agency shall develop an agency-wide environmental justice strategy, as set forth in subsections (b)–(e) of this section that identifies and addresses disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority populations and low-income populations. The environmental justice strategy shall list programs, policies, planning and public participation processes, enforcement, and/or rulemakings related to human health or the environment that should be revised to, at a minimum: (1) promote enforcement of all health and environmental statutes in areas with minority populations and low-income populations; (2) ensure greater public participation; (3) improve research and data collection relating to the health of and environment of minority populations and low-income populations; and (4) identify differential patterns of consumption of natural resources among minority populations and low-income populations. In addition, the environmental justice strategy shall include, where appropriate, a timetable for undertaking identified revisions and consideration of economic and social implications of the revisions.

(b) Within 4 months of the date of this order, each Federal agency shall identify an internal administrative process for developing its environmental justice strategy, and shall inform the Working Group of the process.

(c) Within 6 months of the date of this order, each Federal agency shall provide the Working Group with an outline of its proposed environmental justice strategy.

(d) Within 10 months of the date of this order, each Federal agency shall provide the Working Group with its proposed environmental justice strategy.

(e) Within 12 months of the date of this order, each Federal agency shall finalize its environmental justice strategy and provide a copy and written description of its strategy to the Working Group. During the 12 month period from the date of this order, each Federal agency, as part of its environmental justice strategy, shall identify several specific projects that can be promptly undertaken to address particular concerns identified during the development of the proposed environmental justice strategy, and a schedule for implementing those projects.

(f) Within 24 months of the date of this order, each Federal agency shall report to the Working Group on its progress in implementing its agency-wide environmental justice strategy.

(g) Federal agencies shall provide additional periodic reports to the Working Group as requested by the Working Group.

1–104. *Reports to the President.* Within 14 months of the date of this order, the Working Group shall submit to the President, through the Office of the Deputy Assistant to the President for Environmental Policy and the Office of the Assistant to the President for Domestic Policy, a report that describes the implementation of this order, and includes the final environmental justice strategies described in section 1–103(e) of this order.

Sec. 2–2. *Federal Agency Responsibilities for Federal Programs.* Each Federal agency shall conduct its programs, policies, and activities that substantially affect human health or the environment, in a manner that ensures that such programs, policies, and activities do not have the effect of excluding persons (including populations) from participation in, denying persons (including populations) the benefits of, or subjecting persons (including populations) to discrimination under, such programs, policies, and activities, because of their race, color, or national origin.

Sec. 3–3. *Research, Data Collection, and Analysis.*

3–301. *Human Health and Environmental Research and Analysis.* (a) Environmental human health research, whenever practicable and appropriate, shall include diverse segments of the population in epidemiological and clinical studies, including segments at high risk from environmental hazards, such as minority populations, low-income populations and workers who may be exposed to substantial environmental hazards.

(b) Environmental human health analyses, whenever practicable and appropriate, shall identify multiple and cumulative exposures.

(c) Federal agencies shall provide minority populations and low-income populations the opportunity to comment on the development and design of research strategies undertaken pursuant to this order.

3–302. *Human Health and Environmental Data Collection and Analysis.* To the extent permitted by existing law, including the Privacy Act, as amended (5 U.S.C. section 552a): (a) each Federal agency, whenever practicable and appropriate, shall collect, maintain, and analyze information assessing and comparing environmental and human health risks borne by populations identified by race, national origin, or income. To the extent practical and appropriate, Federal agencies shall use this information to determine whether their programs, policies, and activities have disproportionately high and adverse human health or environmental effects on minority populations and low-income populations;

(b) In connection with the development and implementation of agency strategies in section 1–103 of this order, each Federal agency, whenever practicable and appropriate, shall collect, maintain and analyze information on the race, national origin, income level, and other readily accessible and appropriate information for areas surrounding facilities or sites expected to have a substantial environmental, human health, or economic effect on the surrounding populations, when such facilities or sites become the subject of a substantial Federal environmental administrative or judicial action. Such information shall be made available to the public, unless prohibited by law; and

(c) Each Federal agency, whenever practicable and appropriate, shall collect, maintain, and analyze information on the race, national origin, income level, and other readily accessible and appropriate information for areas surrounding Federal facilities that are: (1) subject to the reporting requirements under the Emergency Planning and Community Right-to-Know Act, 42 U.S.C. section 11001–11050 as mandated in Executive Order No. 12856; and (2) expected to have a substantial environmental, human health, or economic effect on surrounding populations. Such information shall be made available to the public, unless prohibited by law.

(d) In carrying out the responsibilities in this section, each Federal agency, whenever practicable and appropriate, shall share information and eliminate unnecessary duplication of efforts through the use of existing data systems and cooperative agreements among Federal agencies and with State, local, and tribal governments.

Sec. 4–4. *Subsistence Consumption of Fish and Wildlife.*

4–401. *Consumption Patterns.* In order to assist in identifying the need for ensuring protection of populations with differential patterns of subsistence consumption of fish and wildlife, Federal agencies, whenever practicable and appropriate, shall collect, maintain, and analyze information on the consumption patterns of populations who principally rely on fish and/or wildlife for subsistence. Federal agencies shall communicate to the public the risks of those consumption patterns.

4–402. *Guidance.* Federal agencies, whenever practicable and appropriate, shall work in a coordinated manner to publish guidance reflecting the latest scientific information available concerning methods for evaluating the human health risks associated with the consumption of pollutant-bearing fish or

wildlife. Agencies shall consider such guidance in developing their policies and rules.

Sec. 5–5. *Public Participation and Access to Information.* (a) The public may submit recommendations to Federal agencies relating to the incorporation of environmental justice principles into Federal agency programs or policies. Each Federal agency shall convey such recommendations to the Working Group.

(b) Each Federal agency may, whenever practicable and appropriate, translate crucial public documents, notices, and hearings relating to human health or the environment for limited English speaking populations.

(c) Each Federal agency shall work to ensure that public documents, notices, and hearings relating to human health or the environment are concise, understandable, and readily accessible to the public.

(d) The Working Group shall hold public meetings, as appropriate, for the purpose of fact-finding, receiving public comments, and conducting inquiries concerning environmental justice. The Working Group shall prepare for public review a summary of the comments and recommendations discussed at the public meetings.

Sec. 6–6. *General Provisions.*

6–601. *Responsibility for Agency Implementation.* The head of each Federal agency shall be responsible for ensuring compliance with this order. Each Federal agency shall conduct internal reviews and take such other steps as may be necessary to monitor compliance with this order.

6–602. *Executive Order No. 12250.* This Executive order is intended to supplement but not supersede Executive Order No. 12250, which requires consistent and effective implementation of various laws prohibiting discriminatory practices in programs receiving Federal financial assistance. Nothing herein shall limit the effect or mandate of Executive Order No. 12250.

6–603. *Executive Order No. 12875.* This Executive order is not intended to limit the effect or mandate of Executive Order No. 12875.

6–604. *Scope.* For purposes of this order, Federal agency means any agency on the Working Group, and such other agencies as may be designated by the President, that conducts any Federal program or activity that substantially affects human health or the environment. Independent agencies are requested to comply with the provisions of this order.

6–605. *Petitions for Exemptions.* The head of a Federal agency may petition the President for an exemption from the requirements of this order on the grounds that all or some of the petitioning agency's programs or activities should not be subject to the requirements of this order.

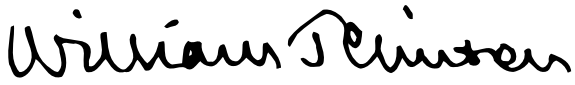
6–606. *Native American Programs.* Each Federal agency responsibility set forth under this order shall apply equally to Native American programs. In addition, the Department of the Interior, in coordination with the Working Group, and, after consultation with tribal leaders, shall coordinate steps to be taken pursuant to this order that address Federally-recognized Indian Tribes.

6–607. *Costs.* Unless otherwise provided by law, Federal agencies shall assume the financial costs of complying with this order.

6–608. *General.* Federal agencies shall implement this order consistent with, and to the extent permitted by, existing law.

6–609. *Judicial Review.* This order is intended only to improve the internal management of the executive branch and is not intended to, nor does it create any right, benefit, or trust responsibility, substantive or procedural, enforceable at law or equity by a party against the United States, its agencies, its officers, or any person. This order shall not be construed to create any right to judicial review involving the compliance or noncompliance

of the United States, its agencies, its officers, or any other person with this order.



THE WHITE HOUSE,
February 11, 1994.

[FR Citation 59 FR 7629]

Appendix B
FHWA Directive 6640.23A

U.S. DEPARTMENT OF TRANSPORTATION

Federal Highway Administration

Order

Subject: **FHWA Actions to Address Environmental Justice in Minority Populations and Low-Income Populations**

Classification Code	Date	OPI
6640.23A		HEP

Par.

1. **What is the purpose of this directive?** This FHWA directive establishes policies and procedures for the Federal Highway Administration (FHWA) to use in complying with Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations (EO 12898), dated February 11, 1994.

2. **Does this directive cancel an existing FHWA directive?** Yes. This directive cancels FHWA Order 6640.23 FHWA Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, dated December 2, 1998.

3. **What authorities govern this directive?**

   a. Executive Order (EO) 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations (EO 12898), issued February 11, 1994. EO 12898 requires Federal agencies to achieve environmental justice by identifying and addressing disproportionately high and adverse human health or environmental effects, including the interrelated social and economic effects of their programs, policies, and activities on minority populations and low-income populations in the United

States. As indicated in the EO, the foregoing requirements are to be carried out to the greatest extent practicable and permitted by law and consistent with the principles set forth in the report on the National Performance Review. Compliance with this FHWA Order is a key element in the environmental justice strategy adopted by FHWA to implement EO 12898, and can be achieved within the framework of existing laws, regulations, and guidance.

b. Department of Transportation (DOT) Order 5610.2(a), Final DOT Environmental Justice Order, issued May 2, 2012.

c. Title VI of the Civil Rights Act of 1964 (Title VI).

d. Title 23, United States Code (U.S.C.), Section 109(h).

e. National Environmental Policy Act (NEPA).

f. Title 49, Code of Federal Regulations (CFR), Part 21.9(b).

g. 23 CFR 200.9(b)(4).

h. Uniform Relocation Assistance and Real Property Acquisition Act of 1970 (Uniform Act)

4. **What is the scope of this directive?** Consistent with paragraph 6-609 of EO 12898 and DOT Order 5610.2(a), this directive is limited to improving the internal management of the FHWA and is not intended to, nor does it, create any rights, benefits, or trust responsibility, substantive or procedural, enforceable at law or equity, by a party against the FHWA, its officers, or any person. This directive should not be construed to create any right to judicial review involving the compliance or noncompliance with this directive by FHWA, its officers, or any other person.

5. **What definitions are used in this directive?** The following terms, where used in this directive, shall have the following meanings[1]:

a. **FHWA.** The Federal Highway Administration as a whole and one or more of its individual components.

[1] These definitions are intended to be consistent with the draft definitions for EO 12898 that have been issued by the Council on Environmental Quality (CEQ) and the Environmental Protection Agency (EPA). To the extent that these definitions vary from the CEQ and EPA draft definitions, they reflect further refinements deemed necessary to tailor the definitions to fit within the context of the FHWA program.

b. **Low-Income.** A person whose median household income is at or below the Department of Health and Human Services poverty guidelines.

c. **Minority.** A person who is:

(1) Black: a person having origins in any of the black racial groups of Africa;

(2) Hispanic or Latino: a person of Mexican, Puerto Rican, Cuban, Central or South American, or other Spanish culture or origin, regardless of race;

(3) Asian American: a person having origins in any of the original peoples of the Far East, Southeast Asia or the Indian subcontinent;

(4) American Indian and Alaskan Native: a person having origins in any of the original people of North America, South America (including Central America), and who maintains cultural identification through tribal affiliation or community recognition; or

(5) Native Hawaiian and Other Pacific Islander: a person having origins in any of the original peoples of Hawaii, Guam, Samoa or other Pacific Islands.

d. **Low-Income Population.** Any readily identifiable group of low-income persons who live in geographic proximity, and, if circumstances warrant, geographically dispersed/transient persons (such as migrant workers or Native Americans) who will be similarly affected by a proposed FHWA program, policy, or activity.

e. **Minority Population.** Any readily identifiable groups of minority persons who live in geographic proximity, and if circumstances warrant, geographically dispersed/transient persons (such as migrant workers or Native Americans) who will be similarly affected by a proposed FHWA program, policy, or activity.

f. **Adverse Effects.** The totality of significant individual or cumulative human health or environmental effects, including interrelated social and economic effects, which may include, but are not limited to: bodily impairment, infirmity, illness or death; air, noise, and water pollution and soil contamination; destruction or disruption of human-made or natural resources; destruction or diminution of aesthetic values; destruction or disruption of community cohesion or a community's economic vitality; destruction or disruption of the availability of public and private facilities and services; vibration;

adverse employment effects; displacement of persons, businesses, farms, or nonprofit organizations; increased traffic congestion, isolation, exclusion or separation of minority or low-income individuals within a given community or from the broader community; and the denial of, reduction in, or significant delay in the receipt of, benefits of FHWA programs, policies, or activities.

g. **Disproportionately High and Adverse Effect on Minority and Low-Income Populations.** An adverse effect that:

(1) is predominately borne by a minority population and/or a low-income population; or

(2) will be suffered by the minority population and/or low-income population and is appreciably more severe or greater in magnitude than the adverse effect that will be suffered by the nonminority population and/or non-low-income population.

h. **Programs, Policies, and/or Activities.** All projects, programs, policies, and activities that affect human health or the environment, and that are undertaken, funded (in whole or in part), or approved by FHWA. These include, but are not limited to, permits, licenses, and financial assistance provided by FHWA. Interrelated projects within a system may be considered to be a single project, program, policy, or activity for purposes of this directive.

i. **Regulations and Guidance.** Regulations, programs, policies, guidance, and procedures promulgated, issued, or approved by FHWA.

6. **What is FHWA's policy concerning Environmental Justice?**

a. It is FHWA's longstanding policy to actively ensure nondiscrimination in federally funded activities. Furthermore, it is FHWA's continuing policy to identify and prevent discriminatory effects by actively administering its programs, policies, and activities to ensure that social impacts to communities and people are recognized early and continually throughout the transportation decisionmaking process--from early planning through implementation. Should the potential for discrimination be discovered, action to eliminate the potential shall be taken.

b. EO 12898, DOT Order 5610.2(a), and this directive reaffirm the principles of Title VI and related statutes, NEPA, 23 U.S.C. 109(h), and other Federal environmental laws, emphasizing the incorporation of those provisions with the environmental and transportation decisionmaking processes.

c. Under Title VI, each Federal agency is required to ensure that no person on the grounds of race, color, or national origin, is excluded from participation in, denied the benefits of, or subjected to discrimination under any program or activity receiving Federal financial assistance. This statute applies to every program area in FHWA.

d. Under EO 12898, each Federal agency must identify and address, as appropriate, disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority populations and low-income populations. FHWA will implement this EO and the principles of DOT Order 5610.2(a) and EO 12898 by incorporating environmental justice principles in all FHWA programs, policies, and activities within the framework of existing laws, regulations, and guidance.

e. In complying with this directive, FHWA will rely upon existing authorities to collect necessary data and conduct research associated with environmental justice concerns, including, but not limited to, 49 CFR 21.9(b) and 23 CFR 200.9(b)(4).

f. The FHWA will administer its governing statutes so as to identify and avoid discrimination and disproportionately high and adverse effects on minority populations and low-income populations by:

(1) identifying and evaluating environmental, public health, and interrelated social and economic effects of FHWA programs, policies, and activities;

(2) proposing measures to avoid, minimize, and/or mitigate disproportionately high and adverse environmental or public health effects and interrelated social and economic effects, and providing offsetting benefits and opportunities to enhance communities, neighborhoods, and individuals affected by FHWA programs, policies, and activities, where permitted by law and consistent with EO 12898;

(3) considering alternatives to proposed programs, policies, and activities where such alternatives would result in avoiding and/or minimizing disproportionately high and adverse human health or environmental impacts, where permitted by law and consistent with EO 12898; and

(4) providing public involvement opportunities and considering the results thereof, including providing meaningful access to public information concerning the human health or environmental impacts and soliciting input from affected

minority populations and low-income populations in considering alternatives during the planning and development of alternatives and decisions.

7. **How should Environmental Justice principles be integrated into existing operations?**

   a. The principles outlined in this directive are required to be integrated into existing operations.

   b. Future rulemaking activities undertaken, and the development of any future guidance or procedures for FHWA programs, policies, or activities that affect human health or the environment, shall explicitly address FHWA compliance with EO 12898, with DOT Order 5610.2(a), and with this directive.

   c. The formulation of future FHWA policy statements and proposals for legislation that may affect human health or the environment will include consideration of the provisions of EO 12898 and this directive.

8. **What are the FHWA's responsibilities?** FHWA managers and staff are responsible for the following:

   a. Under Title VI, FHWA managers and staff must administer their programs in a manner to ensure that no person is excluded from participating in, denied the benefits of, or subjected to discrimination under any program or activity of FHWA because of race, color, or national origin.

   b. Under EO 12898, FHWA managers and staff must administer their programs to identify and address, as appropriate, disproportionately high and adverse human health or environmental effects of FHWA programs, policies, and activities on minority populations and low-income populations.

   c. The FHWA currently administers policies, programs, and activities that are subject to the requirements of NEPA, Title VI, the Uniform Act, Title 23 of the United States Code, and other statutes that involve human health or environmental matters, or interrelated social and economic impacts. These requirements will be administered to identify the risk of discrimination early in the development of FHWA's programs, policies, and activities so that positive corrective action can be taken. In implementing these requirements, the following

information should be obtained where relevant, appropriate, and practical:

(1) population served and/or affected by race, color, or national origin, and income level;

(2) proposed steps to guard against disproportionately high and adverse effects on persons on the basis of race, color, or national origin; and

(3) present and proposed membership by race, color, or national origin, in any planning or advisory body that is part of the program.

d. Following the guidance set forth in this directive, FHWA managers and staff shall ensure that FHWA programs, policies, and activities for which they are responsible do not have a disproportionately high and adverse effect on minority populations or low-income populations.

e. When determining whether a particular program, policy, or activity will have disproportionately high and adverse effects on minority and low-income populations, FHWA managers and staff should take into account mitigation and enhancement measures and potential offsetting benefits to the affected minority and/or low-income populations. Other factors that may be taken into account include design, comparative impacts, and the relevant number of similar existing system elements in nonminority and non-low-income areas.

f. The FHWA managers and staff will ensure that the programs, policies, and activities that will have disproportionately high and adverse effects on minority populations and/or low-income populations will only be carried out if further mitigation measures or alternatives that would avoid or reduce the disproportionately high and adverse effects are not practicable. In determining whether a mitigation measure or an alternative is "practicable," the social, economic (including costs) and environmental effects of avoiding or mitigating the adverse effects will be taken into account.

g. The FHWA managers and staff will also ensure that any of their respective programs, policies, or activities that have the potential for disproportionately high and adverse effects on populations protected by Title VI ("protected populations") will only be carried out if:

(1) a substantial need for the program, policy or activity exists, based on the overall public interest; and

(2) alternatives that would have less adverse effects on protected populations have either:

(a) adverse social, economic, environmental, or human health impacts that are severe; or

(b) would involve increased costs of an extraordinary magnitude.

h. Any relevant finding identified during the implementation of this directive must be included in the planning or NEPA documentation that is prepared for the appropriate program, policy, or activity.

i. Environmental and civil rights statutes, along with Executive Orders require that the environmental effects on minority populations and low-income populations be addressed. Under Title VI, each Federal agency is required to ensure that no person on grounds of race, color, or national origin is excluded from participation in, denied the benefits of, or in any other way subjected to discrimination under any program or activity receiving Federal assistance. Therefore, any member of a protected class under Title VI may file a complaint with the FHWA Office of Civil Rights, alleging that he or she was subjected to disproportionately high and adverse health or environmental effects.

9. **Where can I obtain additional guidance?** For more information or additional guidance related to Environmental Justice, please see the FHWA Environmental Justice web site.

Victor M. Mendez
Administrator

Appendix C
American Community Survey and Puerto Rico Community Survey 2020 Subject Definitions

American Community Survey and Puerto Rico Community Survey

2020 Subject Definitions

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General Information

Contact List: To obtain additional information on these and other American Community Survey (ACS) subjects, see the list of Census Contacts on the Internet at http://www.census.gov/about/contact-us.html.

Scope: These definitions apply to the data collected in both the United States and Puerto Rico. The text specifically notes any differences. References about comparability to the previous ACS years refer only to the ACS in the United States. Beginning in 2006, the population in group quarters was included in the data tabulations.

Historical Census Comparability: For additional information about the data in previous decennial censuses, see http://www.census.gov/prod/www/decennial.html.

Why We Ask: For additional information about the Federal Uses and why we ask specific questions, see https://www.census.gov/programs-surveys/acs/operations-and-administration/2014-content-review/federal-uses.html.

Weighting Methodology: The weighting methodology in the 2006 ACS was modified in order to ensure consistent estimates of occupied housing units, households, and householders. For more information on the 2006 weighting methodology changes, see the user note titled "Modification Made in 2006 ACS Weighting Methodology-Family Equalization" on the ACS website (https://www.census.gov/programs-surveys/acs/technical-documentation/user-notes/2006-03.html). There were no significant changes to the 2007 or 2008 weighting methodology. Beginning in 2009, the weighting methodology has changed to include the use of controls for total population for incorporated places and minor civil divisions.

For subject definitions from previous years, visit http://www.census.gov and search for "ACS Code Lists, Definitions, and Accuracy."

Living Quarters

Living quarters are classified as either housing units or group quarters. Living quarters are usually found in structures intended for residential use, but also may be found in structures intended for nonresidential use as well as in places such as tents, vans, and emergency and transitional shelters.

Housing Unit

A housing unit may be a house, an apartment, a mobile home, a group of rooms or a single room that is occupied (or, if vacant, intended for occupancy) as separate living quarters. Separate living quarters are those in which the occupants live separately from any other individuals in the building and which have direct access from outside the building or through a common hall. For vacant units, the criteria of separateness and direct access are applied to the intended occupants whenever possible. If that information cannot be obtained, the criteria are applied to the previous occupants.

Both occupied and vacant housing units are included in the housing unit inventory. Boats, recreational vehicles (RVs), vans, tents, railroad cars, and the like are included only if they are occupied as someone's current place of residence. Vacant mobile homes are included provided they are intended for occupancy on the site where they stand. Vacant mobile homes on dealers' sales lots, at the factory, or in storage yards are excluded from the housing inventory. Also excluded from the housing inventory are quarters being used entirely for nonresidential purposes, such as a store or an office, or quarters used for the storage of business supplies or inventory, machinery, or agricultural products.

Occupied Housing Unit – A housing unit is classified as occupied if it is the current place of residence of the person or group of people living in it at the time of interview, or if the occupants are only temporarily absent from the residence for two months or less, that is, away on vacation or a business trip. If all the people staying in the unit at the time of the interview are staying there for two months or less, the unit is considered to be temporarily occupied and classified as “vacant.” The occupants may be a single family, one person living alone, two or more families living together, or any other group of related or unrelated people who share living quarters. The living quarters occupied by staff personnel within any group quarters are separate housing units if they satisfy the housing unit criteria of separateness and direct access; otherwise, they are considered group quarters.

Occupied rooms or suites of rooms in hotels, motels, and similar places are classified as housing units only when occupied by permanent residents, that is, people who consider the hotel as their current place of residence or have no current place of residence elsewhere. If any of the occupants in rooming or boarding houses, congregate housing, or continuing care facilities live separately from others in the building and have direct access, their quarters are classified as separate housing units.

Vacant Housing Unit – A housing unit is vacant if no one is living in it at the time of interview. Units occupied at the time of interview entirely by persons who are staying two months or less and who have a more permanent residence elsewhere are considered to be temporarily occupied, and are classified as "vacant."

New units not yet occupied are classified as vacant housing units if construction has reached a point where all exterior windows and doors are installed and final usable floors are in place. Vacant units are excluded from the housing inventory if they are open to the elements, that is, the roof, walls, windows, and/or doors no longer protect the interior from the elements. Also excluded are vacant units with a sign that they are condemned or they are to be demolished.

Comparability –The ACS estimates of occupied housing units and vacant housing units differ from those obtained from the 2020 Census. For more information, see "Comparing 2010 ACS & 2010 Census Occupancy, Vacancy, & Household Size" on the Census website.

Group Quarters

A Group Quarters (GQs) is a place where people live or stay in a group living arrangement that is owned or managed by an entity or organization providing housing and/or services for the residents. These services may include custodial or medical care, as well as other types of assistance, and residency is commonly restricted to those receiving these services. This is not a typical household-type living arrangement. People living in GQs usually are not related to each other. GQs include such places as college residence halls, residential treatment centers, skilled nursing facilities, group homes, military barracks, correctional facilities, workers' dormitories, and facilities for people experiencing homelessness. GQs are defined according to the housing and/or services provided to residents and are identified by Census GQ type codes.

In January 2006, the American Community Survey (ACS) was expanded to include the population living in GQ facilities. The ACS GQ sample encompasses 12 independent samples; like the housing unit (HU) sample, a new GQ sample is introduced each month. The GQ data collection lasts only 6 weeks and does not include a formal nonresponse follow-up operation. The GQ data collection operation is conducted in two phases. First, U.S. Census Bureau Field Representatives (FRs) conduct interviews with the GQ facility contact person or administrator of the selected GQ (GQ level), and second, the FR conducts interviews with a sample of individuals from the facility (person level).

The GQ-level data collection instrument is an automated Group Quarters Facility Questionnaire (GQFQ). Information collected by the FR using the GQFQ during the GQ-level interview is used to determine or verify the type of facility, population size, and the sample of individuals to be interviewed. FRs conduct GQ-level data collection at approximately 20,000 individual GQ facilities each year.

A list of the GQ facilities (and their respective type codes) that are in scope for the 2020 ACS can be found in the 2020 Code List on the ACS website. Go to http://www.census.gov and enter "ACS Code Lists, Definitions, and Accuracy" in the search box.

Question/Concept History – Though the ACS was expanded to include the population living in GQ facilities in 2006, the ACS began field testing early. The pretest in 2001 allowed the ACS to determine whether or not the new processes, type codes, and procedures would produce the desired outcome for the 2006 ACS GQ data collection operation.

In 2001, the ACS GQ operational staff and other ACS staff implemented a number of changes in the GQ operation, the greatest of which was developing an automated Group Quarters Facility Questionnaire (GQFQ). The staff developed the GQFQ based on the decennial Other Living Quarters (OLQ) questionnaire used in the 2004 Census test. However, in order to make that questionnaire script fit with the ACS operation, the developers made some modifications, such as dropping the listing component and adding the ability to capture multiple GQ types within the GQ sampled.

Along with the introduction of an automated GQFQ, the ACS made the decision to use the revised GQ definitions planned for the 2010 Census, even though the definitions of GQ types were still evolving. The pretest used a draft version of the GQ definitions that existed at the end of November 2004. Since these definitions will continue to evolve over the next several years, the ACS needed a GQFQ that could easily adopt future revisions to the definitions. Thus, the developers designed a flexible GQFQ. It was through this flexibility that group quarter types have been able to be added or dropped (e.g. YMCA/YWCA and hostels).

Comparability – The total group quarters population in the ACS may not be comparable with the 2010 or 2020 Censuses because there are some 2010 and 2020 Census GQ types that were out of scope in the ACS. These include soup kitchens, regularly scheduled mobile food vans, targeted non-sheltered outdoor locations, crews of maritime vessels, and living quarters for victims of natural disasters. The exclusion of these GQ types from the ACS may result in a small bias in some ACS estimates to the extent that the excluded population is different from the included population. Furthermore, only a sample of GQ facilities throughout the United States and Puerto Rico are selected for the ACS. ACS controls the GQ sample at the state level only. Therefore, for lower levels of geography, particularly when there are relatively few GQs in a geographic area, the ACS estimate of the GQ population may vary from the count from the 2010 and 2020 Censuses.

When comparing the 2020 ACS data with previous ACS data, the data should be compared with caution at the National and State levels. It should not be compared below the State level because the weighting for the group quarters (GQ) population is not controlled below the state level. Because of this, users may observe greater fluctuations in year-to-year ACS estimates of the GQ population at sub-state levels than at state levels. The causes of these fluctuations typically are the result of either GQs that have closed or where the current population of the GQ is significantly different than the expected population as reflected on the sampling frame. Substantial changes in the ACS GQ estimates can impact ACS estimates of total population characteristics for areas where either the GQ population is a substantial proportion of the total population or where the GQ population may have very different characteristics than the total population as a whole. Users can assess the impact that year-to-year changes in sub-state GQ total population estimates have on the changes in total ACS

population estimates by accessing Table B26001. Go to https://data.census.gov/ and enter the table number. Users should also use their local knowledge to help determine whether the year-to-year change in the ACS estimate represents a real change in the GQ population or may be the result of the lack of adequate population controls for sub-state areas.

When comparing ACS GQ data across the years when group quarters data were collected, it must be noted that beginning in 2008 military transient quarters, YMCA/YWCA and hostels were no longer in scope. These data were collected in 2006 and 2007.

Since the 2011 ACS, the GQ population has been supplemented using whole person imputation into not-in-sample GQ facilities. This increased the reliability of substate estimates for the total GQ population and characteristics of the residence population. State-level estimates were relatively unchanged by the new methodology.

Housing Variables

Acreage (Cuerda)

The data on acreage were obtained from Housing Question 4 in the 2020 American Community Survey (ACS). This question was asked at occupied and vacant one-family houses and mobile homes. The data for vacant units were obtained by asking a neighbor, real estate agent, building manager, or anyone else who had knowledge of the vacant unit in question.

This question determines a range of acres (cuerdas) on which the house or mobile home is located. A major purpose for this question, in conjunction with Housing Question 5 on agricultural sales, is to identify farm units. In previous ACS questionnaires and in Census 2000, this question was used to determine single-family homes on 10 or more acres (cuerdas). The land may consist of more than one tract or plot. These tracts or plots are usually adjoining; however, they may be separated by a road, creek, another piece of land, etc.

In the ACS prior to 2004 and in Census 2000, acreage was one of the variables used to determine specified owner- and renter-occupied housing units.

Question/Concept History – The 1996-1998 question asked, "Is this house or mobile home on less than 1 acre, 1 to less than 10 acres, or 10 or more acres." Since 1999, the question wording was changed to ask, "How many acres is this house or mobile home on?" and the second response category was modified to "1 to 9.9 acres." (In the Puerto Rico Community Survey, the question wording was changed to ask about cuerdas instead of acres.)

Comparability – Data on acreage in the 2020 ACS can be compared to previous ACS and Census 2000 acreage data.

Agricultural Sales

Data on the sales of agricultural crops were obtained from Housing Question 5 in the 2020 American Community Survey (ACS). The question was asked at occupied one-family houses and mobile homes located on lots of 1 or more acres (cuerdas). Data for this question exclude units on lots of less than 1 acre (cuerda), units located in structures containing two or more units, and all vacant units. This question refers to the total amount (before taxes and expenses) received in the 12 months prior to the interview from the sale of crops, vegetables, fruits, nuts, livestock and livestock products, and nursery and forest products produced on "this property." Respondents new to a unit were to estimate total agricultural sales from the 12 months prior to the interview, even if some portion of the sales had been made by previous occupants of the unit.

This question is used mainly to classify housing units as farm or nonfarm residences, not to provide detailed information on the sale of agricultural products. Detailed information on the

sale of agricultural products is provided by the Census of Agriculture, which is conducted by the U.S. Department of Agriculture/National Agricultural Statistics Service (see http://www.agcensus.usda.gov).

Question/Concept History – On the 1996-1998 ACS questionnaires, there were just two response categories to indicate whether or not the amount of sales was over $1,000. Since 1999, the question has included a series of response categories for the amount of the agricultural sales.

Comparability – Data on agricultural sales in the 2020 ACS can be compared to previous ACS and Census 2000 agricultural sales data.

Bedrooms

The data on bedrooms were obtained from Housing Question 6b in the 2020 American Community Survey (ACS). The question was asked at both occupied and vacant housing units. The number of bedrooms is the count of rooms designed to be used as bedrooms, that is, the number of rooms that would be listed as bedrooms if the house, apartment, or mobile home were on the market for sale or for rent. Included are all rooms intended to be used as bedrooms even if they currently are being used for some other purpose. A housing unit consisting of only one room is classified, by definition, as having no bedroom.

Bedrooms provide the basis for estimating the amount of living and sleeping spaces within a housing unit. These data allow officials to evaluate the adequacy of the housing stock to shelter the population and to determine any housing deficiencies in neighborhoods. The data also allow officials to track the changing physical characteristics of the housing inventory over time.

Question/Concept History – The 1996-1998 ACS question provided a response category for "None" and space for the respondent to enter a number of bedrooms. From 1999-2007, the question provided pre-coded response categories from "No bedroom" to "5 or more bedrooms." Starting in 2008, the question became the second part of a two-part question that linked the number of "rooms" and number of "bedrooms" questions together. In addition, the wording of the question was changed to ask, "How many of these rooms are bedrooms?" Additional changes introduced in 2008 included removing the pre-coded response categories and adding a write-in box for the respondent to enter the number of bedrooms, providing the rule to use for defining a "bedroom" as an instruction, and providing an additional instruction addressing efficiency and studio apartments - *"If this is an efficiency/studio apartment, print '0'."*

Limitation of the Data – The Census Bureau tested the changes introduced to the 2008 version of the bedrooms question in the 2006 ACS Content Test. The results of this testing show that the changes may introduce an inconsistency in the data produced for this question as observed from the years 2007 to 2008. For more information, see "Evaluation Report Covering Rooms and Bedrooms" from the 2006 ACS Content Test. Go to

http://www.census.gov and enter "2006 ACS Content Test Evaluation Report Covering Rooms and Bedrooms" in the search box.

Comparability – Caution should be used when comparing ACS data on bedrooms from the years 2008 and after with both pre-2008 ACS and Census 2000 data. Changes made to the bedrooms question between the 2007 and 2008 ACS involving the wording as well as the response option resulted in an inconsistency in the ACS data. This inconsistency in the data was most noticeable as an increase in "No bedroom" responses and as a decrease in "1 bedroom" to "3 bedrooms" responses.

Computer and Internet Use

The 2008 Broadband Improvement Act mandated the collection of data about computer and internet use. As a result, three questions were added to the 2013 American Community Survey (ACS) to measure these topics. Data about computer and internet use were derived from answers to Question 9, Question 10 and Question 11 on the 2020 ACS, and are asked of all occupied housing units.

The computer use question (Question 9) asked if anyone in the household owned or used a computer and included four response categories for a desktop or laptop, a smartphone, a tablet or other portable wireless computer, and some other type of computer. Respondents selected a checkbox for "Yes" or "No" for each response category. Respondents could select all categories that applied.

Respondents who checked "Yes" for the some other type of computer category are asked to write in descriptions of their other computer type(s). These are mostly used for internal purposes and to verify whether the household has some other type of computer, although some people may write in a type of computer that can be reclassified as a desktop or laptop, a smartphone, or a tablet or other portable wireless computer.

Question 10 asked if any member of the household has access to the internet. "Access" refers to whether or not someone in the household uses or can connect to the internet, regardless of whether or not they pay for the service. Respondents were to select only ONE of the following choices:

Yes, by paying a cell phone company or Internet service provider– This category includes housing units where someone pays to access the internet through a service such as a data plan for a smartphone; a broadband internet service such as cable, fiber optic or DSL; satellite; dial-up; or other type of service. This will normally refer to a service that someone is billed for directly for internet alone or sometimes as part of a bundle.

Yes, without paying a cell phone company or Internet service provider– Some respondents may live in a city or town that provides free internet service for their residents. In addition, some colleges or universities provide internet service. These are examples of cases where respondents may be able to access the internet without a subscription.

No access to the Internet at this house, apartment, or mobile home- This category includes housing units where no one can connect to or uses the internet using a paid service or any free service.

If a respondent answers "Yes, by paying a cell phone company or Internet service provider" to Question 10, they are asked to select the type of internet service in Question 11. Respondents select a checkbox for "Yes" or "No" for each of five types of service: a.) cellular data plan for a smartphone or other mobile device, b.) broadband (high speed) Internet service such as cable, fiber optic, or DSL, c.) satellite, d.) dial-up or e.) some other service. Respondents could select "Yes" for all categories that apply.

If a respondent selected "Yes" to the "some other service" category, they are asked to write in a description of the type of internet service. These codes are primarily used internally and to verify whether the household has some other service, although some people may write in a type of internet service that can be reclassified into one of the other categories such as broadband or satellite service.

These data are used by a variety of government agencies, local communities, and other data users. The Federal Communications Commission (FCC) use these statistics to measure the nationwide development of broadband access, as well as the successful deployment of the next generation of broadband technology. These data also allow the FCC to develop measures to increase access to broadband technology and decrease barriers.

The National Telecommunications and Information Administration (NTIA) use these data to provide grants that help expand public access to broadband service and fund broadband education and support, particularly to groups that have traditionally underutilized broadband technology.

State and local governments can use these data to evaluate access to broadband in their communities, and institute policies and programs to increase access for areas with less connectivity. Businesses and non-profits can use these statistics to analyze computer and internet usage in their communities.

Question/Concept History – The computer and internet use questions were added to the ACS in 2013 and were mandated by the 2008 Broadband Improvement Act. In 2016, questions 8 (computer use) and 10 (type of internet service) were revised to improve the measurement of internet subscriptions and cellular data planes, as well as adjusting response categories for types of computers to account for changes in the types of computers available and the terminology used to describe them.

Limitation of the Data – These questions are not asked for the group quarters population, so do not include data about people living in housing such as dorms, prisons, nursing homes, etc.

Comparability – Data prior to 2013 are not available because 2013 was the first year that these questions were collected using the ACS. For more information, go to http://www.census.gov and enter "Comparing ACS Data" in the search box.

Caution should be used when comparing pre-2016 estimates due to question revisions. Observed changes may be due to the revised wording used in the questions and improved measurement rather than a change in use. For more information, go to http://www.census.gov and enter "Computer and Internet Use in the United States: 2016" in the search box.

The Current Population Survey (CPS) has periodically collected data about computer use since 1984 and about internet use since 1997. Both surveys exclude those living in group quarters. However, users should note CPS data are not necessarily comparable to ACS data in several important ways. First, unlike the ACS, some CPS questions are asked at the person level. In addition, the CPS questions and answer categories have changed multiple times over the years. Therefore, comparable data may not be available for certain questions during some years. In addition, some questions may appear to have similar wording as the ACS questions, but may not have been asked of the same type of people. Finally, weighting procedures differ between the two surveys.

Condominium Status and Fee

The data on condominium housing units were obtained from Housing Question 16 in the 2020 American Community Survey (ACS). The question was asked at occupied housing units.

Condominium Status – Condominium is a type of ownership that enables a person to own an apartment or house in a development of similarly owned units and to hold a common or joint ownership in some or all of the common areas and facilities such as land, roof, hallways, entrances, elevators, swimming pool, etc. Condominiums may be single-family houses as well as units in apartment buildings. Renters don't always report condo fees, as they may be collected as part of the rent. Therefore, ACS data are only shown for owner-occupied condominiums.

Condominium Fee – A condominium fee normally is charged monthly to the owners of the individual condominium units by the condominium owners' association to cover operating, maintenance, administrative, and improvement costs of the common property (grounds, halls, lobby, parking areas, laundry rooms, swimming pool, etc.). The costs for utilities and/or fuels may be included in the condominium fee if the units do not have separate meters.

Data on condominium fees may include real estate taxes and/or insurance payments for the common property, but do not include real estate taxes or fire, hazard, and flood insurance reported in Housing Questions 20 and 21 (in the 2020 ACS) for the individual unit.

Amounts reported were the regular monthly payment, even if paid by someone outside the household or remain unpaid. Costs were estimated as closely as possible when exact costs were not known.

The data from this question were added to payments for mortgages (both first, second, home equity loans, and other junior mortgages); real estate taxes; fire, hazard, and flood insurance payments; and utilities and fuels to derive "Selected Monthly Owner Costs" and "Selected Monthly Owner Costs as a Percentage of Household Income" for condominium owners. These data provide information on the cost of home ownership and offer an excellent measure of housing affordability and excessive shelter costs.

By listing the condominium status and fee separately on the questionnaire, the data also serve to improving the accuracy of estimating monthly housing costs for mortgaged owners.

Question/Concept History – Since 1996, the ACS included the question on condominium status with one that asked for condominium fees. The words "or mobile home," and an instruction for renters to enter the amount of the condominium fee only if the fee was in addition to rent, were added starting in 1999.

Comparability – Data on condominium status and fee in the 2020 ACS can be compared to previous ACS and Census 2000 condominium status and fee data. However, some caution should be used when using estimates that include condominium fee data (e.g. Selected Monthly Owner Costs, ACS PUMS data, etc.), particularly higher categories and upper quartiles, to those in previous years as there was a change in 2020 to the maximum allowed condominium fee.

Contract Rent

The data on contract rent (also referred to as "rent asked" for vacant units) were obtained from Housing Question 18a in the 2020 American Community Survey (ACS). The question was asked at renter-occupied housing units, and vacant housing units that were for rent, and vacant units rented but not occupied at the time of interview.

Housing units that are renter occupied without payment of rent are shown separately as "No rent paid." The unit may be owned by friends or relatives who live elsewhere and who allow occupancy without charge. Rent-free houses or apartments may be provided to compensate caretakers, ministers, tenant farmers, sharecroppers, or others.

Contract rent is the monthly rent agreed to or contracted for, regardless of any furnishings, utilities, fees, meals, or services that may be included. For vacant units, it is the monthly rent asked for the rental unit at the time of interview.

If the contract rent includes rent for a business unit or for living quarters occupied by another household, only that part of the rent estimated to be for the respondent's unit was included. Excluded was any rent paid for additional units or for business premises.

If a renter receives payments from lodgers or roomers who are listed as members of the household, the rent without deduction for any payments received from the lodgers or roomers was to be reported. The respondent was to report the rent agreed to or contracted for even if paid by someone else such as friends or relatives living elsewhere, a church or welfare agency.The respondent was to exclude subsidies paid by a local housing authority or other agency.

Contract rent provides information on the monthly housing cost expenses for renters. When the data is used in conjunction with utility costs and income data, the information offers an excellent measure of housing affordability and excessive shelter costs. The data also serve to aid in the development of housing programs to meet the needs of people at different economic levels and to provide assistance to agencies in determining policies on fair rent.

Adjusting Contract Rent for Inflation – To inflate contract rent amounts from previous years, the dollar values are inflated to the latest year's dollar values by multiplying by a factor equal to the average annual Consumer Price Index (CPI-U-RS-All items) factor for the current year, divided by the average annual CPI-U-RS-All items factor for the earlier/earliest year.

Median and Quartile Contract Rent – The median divides the rent distribution into two equal parts: one-half of the cases falling below the median contract rent and one-half above the median. Quartiles divide the rent distribution into four equal parts. Median and quartile contract rent are computed on the basis of a standard distribution. (See the "Median Standard Distributions" section in Appendix A.) In computing median and quartile contract rent, units reported as "No rent paid" are excluded. Median and quartile rent calculations are rounded to the nearest whole dollar. Upper and lower quartiles can be used to note large rent differences among various geographic areas. The median contract rent explanation is comparable to the description used for Median Gross Rent. (For more information, see "Median" and "Quartile" under "Derived Measures.")

Aggregate Contract Rent – Aggregate contract rent is calculated by adding the contract rents for all renter-occupied housing units in an area. Aggregate contract rent is rounded to the nearest hundred dollars. This explanation is comparable to the description used for Aggregate Gross Rent. (For more information, see "Aggregate" under "Derived Measures.")

Aggregate Rent Asked – Aggregate rent asked is calculated by adding the asking rents for all vacant-for-rent and rented, not occupied housing units in an area. Aggregate rent asked is rounded to the nearest hundred dollars. (For more information, see "Aggregate" under "Derived Measures.")

Question/Concept History – Since 1996, the ACS questionnaires provided a space for the respondent to enter a dollar amount. The words "or mobile home" were added to the question starting in 1999 to be more inclusive of the structure type. In 2004, contract rent was shown for all renter-occupied housing units and rent asked was shown for all vacant-for-rent housing units in an area. In previous years (1996-2003), it was shown only for specified renter occupied and specified vacant-for-rent housing units. (For more information, see

"Specified Owner-Occupied and Vacant-For-Sale Units" and "Specified Renter-Occupied and Vacant-For-Rent Units.") In 2005, the combined vacancy status category of "rented or sold, not occupied" was split into two categories: "rented, not occupied" and "sold, not occupied." Beginning in 2005, then, the rented, not occupied housing units were combined with vacant-for-rent units to form the universe of vacant rental units used in publication tables.

Comparability – Data on contract rent and rent asked in the 2020 ACS should not be compared to Census 2000 contract rent and rent asked data. For Census 2000, tables were not released for total renter-occupied units or total vacant-for-rent housing units. The universes in Census 2000 were "specified renter-occupied housing units" and "specified vacant-for-rent housing units" whereas the universes in the 2020 ACS were "renter- occupied housing units" and "vacant-for-rent and rented, not occupied housing units". Thus comparisons cannot be made between these two data sets. Data on contract rent, particularly medians and quartiles, in the 2020 ACS can be compared to previous ACS data on contract rent. Some caution, however, should be exercised in comparing the share of each by categories, particularly higher categories and upper quartiles, to those in previous years as there was a change to the maximum allowed contract rent.

Food Stamp/Supplemental Nutrition Assistance Program Benefits (SNAP)

The data on SNAP benefits were obtained from Housing Question 15 in the 2020 American Community Survey (ACS). The Food Stamp Act of 1977 defines this federally-funded program as one intended to "permit low-income households to obtain a more nutritious diet" (from Title XIII of Public Law 95-113, The Food Stamp Act of 1977, declaration of policy). Food purchasing power is increased by providing eligible households with cards that can be used to purchase food. The Food and Nutrition Service (FNS) of the U.S. Department of Agriculture (USDA) administers SNAP through state and local welfare offices. SNAP is the major national income support program to which all low-income and low-resource households, regardless of household characteristics, are eligible. In Puerto Rico, the program is named the Nutrition Assistance Program (NAP).

On October 1, 2008, the Federal Food Stamp program was renamed SNAP (Supplemental Nutrition Assistance Program).

Respondents were asked if one or more of the current members received benefits from the food stamp program or SNAP during the past 12 months.

Question/Concept History – The 1996-1998 ACS asked for a 12-month amount for the value of the food stamps following the Yes response category. For the 1999-2002 ACS, the words "Food Stamps" were capitalized in the question following the Yes response category, and the instruction "Past 12 months' value – *Dollars"* was added. Since 2003, the words "received during the past 12 months" were added to the question following the Yes response category. Beginning in 2008, the value of food stamps received was no longer collected; the wording of

the question was changed from “At anytime during the past 12 months” to “In the past 12 months.”.

Limitation of the Data – Beginning in 2006, the population in group quarters (GQ) was included in the ACS. Many types of GQ populations have SNAP distributions that are very different from the household population. The inclusion of the GQ population could therefore have a noticeable impact on the SNAP distribution. This is particularly true for areas with a substantial GQ population.

The Census Bureau tested the changes introduced to the 2008 version of the Food Stamp benefits question in the 2006 ACS Content Test. The results of this testing show that the changes may introduce an inconsistency in the data produced for this question as observed from the years 2007 to 2008. For more information, see “Evaluation Report Covering Receipt of Food Stamps” from the 2006 ACS Content Test. Go to http://www.census.gov and enter “2006 ACS Content Test Evaluation Report Covering Receipt of Food Stamps” in the search box.

Comparability – The Food Stamp/SNAP question was not asked in Census 2000. Because of the wording change on the 2008 ACS questionnaire, you cannot compare data before 2008 to data after 2008. However, you can compare 2008 data to 2009 and later.

Gross Rent

The data on gross rent were obtained from answers to Housing Questions 14a-d and 18a in the 2020 American Community Survey (ACS). Gross rent is the contract rent plus the estimated average monthly cost of utilities (electricity, gas, and water and sewer) and fuels (oil, coal, kerosene, wood, etc.) if these are paid by the renter (or paid for the renter by someone else). Gross rent is intended to eliminate differentials that result from varying practices with respect to the inclusion of utilities and fuels as part of the rental payment. The estimated costs of water and sewer, and fuels are reported on a 12-month basis but are converted to monthly figures for the tabulations. Renter units occupied without payment of rent are shown separately as “No rent paid” in the tabulations.

Gross rent provides information on the monthly housing cost expenses for renters. When the data is used in conjunction with income data, the information offers an excellent measure of housing affordability and excessive shelter costs. The data also serve to aid in the development of housing programs to meet the needs of people at different economic levels and to provide assistance to agencies in determining policies on fair rent.

Adjusting Gross Rent for Inflation – To inflate gross rent amounts from previous years, the dollar values are inflated to the latest year’s dollar values by multiplying by a factor equal to the average annual Consumer Price Index (CPI-U-RS-All items) factor for the current year, divided by the average annual CPI-U-RS-All items factor for the earlier/earliest year.

Median Gross Rent – Median gross rent divides the gross rent distribution into two equal parts: one-half of the cases falling below the median gross rent and one-half above the

median. Median gross rent is computed on the basis of a standard distribution. (See the "Median Standard Distributions" section in Appendix A.) In computing median gross rent, units reported as "No rent paid" are excluded. Median gross rent is rounded to the nearest whole dollar. The median gross rent explanation is comparable to the description used for Median and Quartile Contract Rent. (For more information, see "Median" under "Derived Measures.")

Aggregate Gross Rent – Aggregate gross rent is calculated by adding together the gross rents for all renter-occupied housing units in an area. Aggregate gross rent is rounded to the nearest hundred dollars. This explanation is comparable to the description used for Aggregate Contract Rent and Aggregate Rent Asked. (For more information, see "Aggregate" under "Derived Measures.")

Question/Concept History – Since 1996, the ACS questionnaires provided a space for the respondent to enter dollar amounts. The words "or mobile home" were added to the rent question starting in 1999 to be more inclusive of the structure type. Since 2004, gross rent has been shown for all renter-occupied housing units. In previous years (1996-2003), it was shown only for specified renter-occupied housing units. (For more information, see "Specified Owner-Occupied and Vacant-For-Sale Units" and "Specified Renter-Occupied and Vacant-For-Rent" units.)

Comparability – Data on gross rent in the 2020 ACS should not be compared to Census 2000 gross rent data. For Census 2000, tables were not released for total renter-occupied units. The universe in Census 2000 was "specified renter-occupied housing units" whereas the universe in the 2020 ACS is "renter occupied housing units," thus comparisons cannot be made between these two data sets. Data on gross rent, particularly medians and quartiles, in the 2020 ACS can be compared to previous ACS data on gross rent. Some caution, however, should be exercised in comparing the share of each by categories, particularly higher categories and upper quartiles, to those in previous years as there was a change to the maximum allowed gross rent.

Gross Rent as a Percentage of Household Income

Gross rent as a percentage of household income is a computed ratio of monthly gross rent to monthly household income (total household income divided by 12). The ratio is computed separately for each unit and is rounded to the nearest tenth. Units for which no rent is paid and units occupied by households that reported no income or a net loss comprise the category "Not computed."

Gross rent as a percentage of household income provides information on the monthly housing cost expenses for renters. The information offers an excellent measure of housing affordability and excessive shelter costs. The data also serve to aid in the development of housing programs to meet the needs of people at different economic levels and to provide assistance to agencies in determining policies on fair rent.

Median Gross Rent as a Percentage of Household Income – This measure divides the gross rent as a percentage of household income distribution into two equal parts: one-half of the cases falling below the median gross rent as a percentage of household income and one-half above the median. Median gross rent as a percentage of household income is computed on the basis of a standard distribution. (See the "Median Standard Distributions" section in Appendix A.) In computing median gross rent as a percentage of household income, units reported as "No rent paid" or renters reporting no income are excluded. Median gross rent as a percentage of household income is rounded to the nearest tenth. (For more information on medians, see "Derived Measures.")

Comparability – Data on gross rent as a percentage of household income in the 2020 ACS should not be compared to Census 2000 gross rent as a percentage of household income data. For Census 2000, tables were not released for total renter-occupied units. The universe in Census 2000 was "specified renter-occupied housing units" whereas the universe in the 2020 ACS is "renter occupied housing units," thus comparisons cannot be made between these two data sets. (For more information, see "Specified Owner-Occupied and Vacant-For-Sale Units" and "Specified Renter-Occupied and Vacant-For-Rent" units.)

Homeowner Vacancy Rate

See Vacancy Status.

House Heating Fuel

The data on house heating fuel were obtained from Housing Question 13 in the 2020 American Community Survey (ACS). The question was asked at occupied housing units. The data show the type of fuel used most to heat the house, apartment, or mobile home.

House heating fuel provides information on energy supply and consumption. These data are used by planners to identify the types of fuel used in certain areas and the consequences this usage may have on the area. The data also serve to aid in forecasting the need for future energy needs and power facilities such as generating plants, long distance pipelines for oil or natural gas, and long distance transmission lines for electricity.

House heating fuel is categorized on the ACS questionnaire as follows:

Utility Gas – This category includes gas piped through underground pipes from a central system to serve the neighborhood.

Bottled, Tank, or LP Gas – This category includes liquid propane gas stored in bottles or tanks that are refilled or exchanged when empty.

Electricity – This category includes electricity that is generally supplied by means of above or underground electric power lines.

Fuel Oil, Kerosene, etc. – This category includes fuel oil, kerosene, gasoline, alcohol, and other combustible liquids.

Coal or Coke – This category includes coal or coke that is usually distributed by truck.

Wood – This category includes purchased wood, wood cut by household members on their property or elsewhere, driftwood, sawmill or construction scraps, or the like.

Solar Energy – This category includes heat provided by sunlight that is collected, stored, and actively distributed to most of the rooms.

Other Fuel – This category includes all other fuels not specified elsewhere.

No Fuel Used – This category includes units that do not use any fuel or that do not have heating equipment.

Question/Concept History – Since 1996, the ACS questions have remained the same.

Comparability – Data on house heating fuel in the 2020 ACS can be compared to previous ACS and Census 2000 house heating fuel data.

Household Size

This question is based on the count of people in occupied housing units. All people occupying the housing unit are counted, including the householder, occupants related to the householder, and roommates, housemates, and so forth.

Average Household Size of Occupied Unit – A measure obtained by dividing the number of people living in occupied housing units by the total number of occupied housing units. This measure is rounded to the nearest hundredth.

Average Household Size of Owner-occupied Unit – A measure obtained by dividing the number of people living in owner-occupied housing units by the total number of owner-occupied housing units. This measure is rounded to the nearest hundredth.

Average Household Size of Renter-occupied Unit – A measure obtained by dividing the number of people living in renter-occupied housing units by the total number of renter-occupied housing units. This measure is rounded to the nearest hundredth.

Comparability – Data on household size in the 2020 ACS can be compared to previous ACS data. The ACS estimates of household size differ from those obtained from the 2010 Census. For more information, see “Comparing 2010 American Community Survey 1-Year Estimates

of Occupancy Status, Vacancy Status, and Household Size with the 2010 Census – Preliminary Results" on the Census website. Go to http://www.census.gov and enter the paper title in the search box.

Housing Units

See Living Quarters.

Insurance for Fire, Hazard, and Flood

The data on fire, hazard, and flood insurance were obtained from Housing Question 21 in the 2020 American Community Survey (ACS). The question was asked of owner-occupied units. The statistics for this question refer to the annual premium for fire, hazard, and flood insurance on the property (land and buildings), that is, policies that protect the property and its contents against loss due to damage by fire, lightning, winds, hail, flood, explosion, and so on.

Liability policies are included only if they are paid with the fire, hazard, and flood insurance premiums and the amounts for fire, hazard, and flood cannot be separated. Premiums are reported even if they have not been paid or are paid by someone outside the household. When premiums are paid on other than a yearly basis, the premiums are converted to a yearly basis.

The payment for fire, hazard, and flood insurance is added to payments for real estate taxes, utilities, fuels, and mortgages (both first, second, home equity loans, and other junior mortgages) to derive "Selected Monthly Owner Costs" and "Selected Monthly Owner Costs as a Percentage of Household Income." These data provide information on the cost of home ownership and offer an excellent measure of housing affordability and excessive shelter costs.

A separate question (22d in the 2020 American Community Survey) determines whether insurance premiums are included in the mortgage payment to the lender(s). This makes it possible to avoid counting these premiums twice in the computations.

Median Fire, Hazard, and Flood Insurance – Median fire, hazard, and flood insurance divides the fire, hazard, and flood insurance distribution into two equal parts: one-half of the cases falling below the median fire, hazard, and flood insurance and one-half above the median. Median fire, hazard, and flood insurance is computed on the basis of a standard distribution (see the "Median Standard Distributions" section under Appendix A.) Median fire, hazard, and flood insurance is rounded to the nearest whole dollar. (For more information on medians, see "Derived Measures.")

***Question/Concept History* –** The ACS questions have been the same since 1996.

Comparability – Data on fire, hazard, and flood insurance in the 2020 ACS can be compared to previous ACS and Census 2000 fire, hazard, and flood insurance data.

Internet Use

See Computer and Internet Use.

Kitchen Facilities

Data on kitchen facilities were obtained from Housing Question 7c-e in the 2020 American Community Survey (ACS). The question was asked at both occupied and vacant housing units. A unit has complete kitchen facilities when it has all three of the following facilities: (c) a sink with a faucet, (d) a stove or range, and (e) a refrigerator. All kitchen facilities must be located in the house, apartment, or mobile home, but they need not be in the same room. A housing unit having only a microwave or portable heating equipment such as a hot plate or camping stove should not be considered as having complete kitchen facilities. An icebox is not considered to be a refrigerator.

Kitchen facilities provide an indication of living standards and assess the quality of household facilities within the housing inventory. These data provide assistance in determining areas that are eligible for programs and funding, such as Meals on Wheels. The data also serve to aid in the development of policies based on fair market rent and to identify areas in need of rehabilitation loans or grants.

Question/Concept History – The 1996-1998 ACS questions asked whether the house or apartment had complete kitchen facilities, requiring that the three facilities all be in the same unit. In 1999, “mobile home” was added to the question, along with the capitalization of the word “COMPLETE” for emphasis. Starting in 2008, the structure of the question changed and combined kitchen facilities with plumbing facilities and telephone service availability into one question to ask, “Does this house, apartment, or mobile home have-” and provided the respondent with a “Yes” or “No” checkbox for each component needed for complete facilities. Also in 2008, the component “sink with piped water” was changed to “sink with a faucet.”

Comparability – Caution should be used when comparing ACS data on kitchen facilities from the years 2008 and after with both pre-2008 ACS and Census 2000 data. Changes made to the kitchen facilities question between the 2007 and 2008 ACS involving the wording as well as the response option resulted in an inconsistency in the ACS data. This inconsistency in the data was most noticeable as an increase in housing units "lacking complete kitchen facilities."

Meals Included in Rent

The data on meals included in the rent were obtained from Housing Question 18b in the 2020 American Community Survey (ACS). The question was asked of occupied housing units that

were rented and vacant housing units that were for rent or rented but not yet occupied at the time of enumeration. These data only include rental units, which meals are included in the rent, or if occupants contract for either their meals or a meal plan in order to live in the unit. Renters in continuing care or life facilities are included in this category if their contracts cover meal services.

The meals included in rent allows for a measurement on the amount of congregate housing within the housing inventory. Congregate housing is considered to be housing units where the rent includes meals and other services.

Question/Concept History – Since 1996, the ACS questions have been the same. Starting in 2004, meals included in rent is shown for all renter-occupied housing units. In previous years (1996-2003), it was shown only for specified renter-occupied housing units.

Comparability – Data on meals included in rent in the 2020ACS should not be compared to Census 2000 meals included in rent data. For Census 2000, tables were not released for total renter-occupied units. The universe in Census 2000 was "specified renter-occupied housing units" whereas the universe in the ACS is "renter occupied housing units," thus comparisons cannot be made between these two data sets. (For more information, see "Specified Owner-Occupied and Vacant-For-Sale Units" and "Specified Renter-Occupied and Vacant-For-Rent" units.)

Mobile Home Costs

The data on mobile home costs were obtained from Housing Question 24 in the 2020 American Community Survey (ACS). The question was asked at owner-occupied mobile homes.

These data include the total yearly costs for personal property taxes, land or site rent, registration fees, and license fees on all owner-occupied mobile homes. The instructions are to exclude real estate taxes already reported in Question 20. Additionally, the mobile home costs exclude installment loan payments on the purchase of the mobile home, as respondents are instructed to include these payments in Question 22b about the mortgage payment amount.

Costs are estimated as closely as possible when exact costs are not known. Amounts are the total for an entire 12-month billing period, even if they are paid by someone outside the household or remain unpaid.

The data from this question are added to payments for mortgages; real estate taxes; fire, hazard, and flood insurance payments; utilities; and fuels to derive "Selected Monthly Owner Costs" and "Selected Monthly Owner Costs as a Percentage of Household Income" for mobile home owners. These data provide information on the cost of home ownership and offer an excellent measure of housing affordability and excessive shelter costs.

Question/Concept History – The 1996-1998 ACS questions were the same. Between 1999 and 2002, the question had a lead-in question on whether the respondent had an installment loan or a contract on the mobile home. The question then asked for total costs including any installment loan. Beginning in 2003, the lead-in question was removed and the question about mobile home costs was worded in its current form.

Comparability – Data on mobile home costs in the 2020 ACS can be compared to previous ACS and Census 2000 mobile home costs data. However, some caution should be used when using estimates that include mobile home costs data (e.g. Selected Monthly Owner Costs, ACS PUMS data, etc.), particularly higher categories and upper quartiles, to those in previous years as there was a change in 2020 to the maximum allowable mobile home costs.

Monthly Housing Costs

The data for monthly housing costs are developed from a distribution of "Selected Monthly Owner Costs" for owner-occupied units and "Gross Rent" for renter-occupied units. The owner-occupied categories are further separated into those with a mortgage and those without a mortgage. See the sections on "Selected Monthly Owner Costs" and "Gross Rent" for more details on what characteristics are included in each measure and how these data are comparable to previous ACS and Census 2000 data.

Monthly housing costs provide information on the cost of monthly housing expenses for owners and renters. When the data is used in conjunction with income data, the information offers an excellent measure of housing affordability and excessive shelter costs. The data also serve to aid in the development of housing programs to meet the needs of people at different economic levels.

Median Monthly Housing Costs – This measure divides the monthly housing costs distribution into two equal parts: one-half of the cases falling below the median monthly housing costs and one-half above the median. Medians are shown separately for units "with a mortgage" and for units "not mortgaged." Median monthly housing costs are computed on the basis of a standard distribution. (See the "Median Standard Distributions" section under Appendix A.) Median monthly housing costs are rounded to the nearest whole dollar.

Monthly Housing Costs as a Percentage of Household Income

The data for monthly housing costs as a percentage of household income are developed from a distribution of "Selected Monthly Owner Costs as a Percentage of Household Income" for owner-occupied and "Gross Rent as a Percentage of Household Income" for renter-occupied units. The owner-occupied categories are further separated into those with a mortgage and those without a mortgage. See sections on "Selected Monthly Owner Costs as a Percentage of Household Income" and "Gross Rent as a Percentage of Household Income" for more details on what characteristics are included in each measure and how these data are comparable to previous ACS and Census 2000 data.

Monthly housing costs as a percentage of household income provide information on the cost of monthly housing expenses for owners and renters. The information offers an excellent measure of housing affordability and excessive shelter costs. The data also serve to aid in the development of housing programs to meet the needs of people at different economic levels.

Mortgage Payment

The data on mortgage payment were obtained from Housing Question 22b in the 2020 American Community Survey (ACS). The question was asked at owner-occupied units that have a mortgage, deed of trust, or similar debt; or contract to purchase. The question provides the regular monthly amount required to be paid to the lender for the first mortgage (deed of trust, contract to purchase, or similar debt) on the property. Amounts are included even if the payments are delinquent or paid by someone else. The amounts reported are included in the computation of "Selected Monthly Owner Costs" and "Selected Monthly Owner Costs as a Percentage of Household Income" for units with a mortgage.

The amounts reported include everything paid to the lender including principal and interest payments; real estate taxes; fire, hazard, and flood insurance payments; and mortgage insurance premiums. Separate questions determine whether real estate taxes and fire, hazard, and flood insurance payments are included in the mortgage payment to the lender. This makes it possible to avoid counting these components twice in the computation of "Selected Monthly Owner Costs."

Mortgage payment provides information on the monthly housing cost expenses for owners with a mortgage. When the data is used in conjunction with income data, the information offers an excellent measure of housing affordability and excessive shelter costs. The data also serve to aid in the development of housing programs aimed to meet the needs of people at different economic levels.

Question/Concept History – Since 1996, the ACS questions have been the same.

Comparability – Data on mortgage payment in the 2020 ACS can be compared to previous ACS and Census 2000 mortgage payment data. For Census 2000, tables for both total owner-occupied housing units and specified owner-occupied housing units were released, thus comparisons can be made only when comparing the same universes between the two data sets.

Mortgage Status

The data on mortgage status were obtained from Housing Questions 22a and 23a in the 2020 American Community Survey (ACS). The questions were asked at owner-occupied units. "Mortgage" refers to all forms of debt where the property is pledged as security for repayment of the debt, including deeds of trust; trust deeds; contracts to purchase; land contracts; junior mortgages; and home equity loans.

A mortgage is considered a first mortgage if it has prior claim over any other mortgage or if it is the only mortgage on the property. All other mortgages (second, third, etc.) are considered junior mortgages. . If no first mortgage is reported, but a junior mortgage is reported, then the loan is considered a first mortgage. However, starting with the 2020 ACS release, even though a home equity loan is considered a junior mortgage, if a respondent reports only a home equity loan and no other loan, these home equity loans will not be considered a first mortgage.In most data products, the tabulations for "Selected Monthly Owner Costs" and "Selected Monthly Owner Costs as a Percentage of Household Income" usually are shown separately for units "with a mortgage" and for units "not mortgaged." The category "not mortgaged" is comprised of housing units owned free and clear of debt.

Mortgage status provides information on the cost of home ownership. When the data is used in conjunction with mortgage payment data, the information determines shelter costs for living quarters. These data can be used in the development of housing programs aimed to meet the needs of people at different economic levels.

Question/Concept History – Since 1996, the ACS for mortgage status questions have been the same.

Comparability – Data on mortgage status in the 2020 ACS can be compared to previous ACS and Census 2000 mortgage status data. However, some caution should be used when using estimates that include mortgage status data, particularly for housing units without a first mortgage that have a home equity loan, to those in previous years as there was a change in 2020 to accommodate this categorization. For Census 2000, tables for both total owner-occupied housing units and specified owner-occupied housing units were released, thus comparisons can be made only when comparing the same universes between the two data sets.

Occupants Per Room

Occupants per room is obtained by dividing the reported number of current residents in each occupied housing unit by the number of rooms in the unit. The figures show the number of occupied units having the specified ratio of current residents per room. Occupants per room is rounded to the nearest hundredth.

This data is the basis for estimating the amount of living and sleeping spaces within a housing unit. The data also serve to aid in planning for future services and infrastructure, such as home energy assistance programs and the development of waste treatment facilities.

Comparability – Caution should be used when comparing American Community Survey (ACS) data on occupants per room from the years 2008 and after with pre-2008 data. Changes to the rooms question between the 2007 and 2008 ACS involving the wording as well as the response option resulted in an inconsistency in the ACS data. This inconsistency in the data was most noticeable in a 2006 content test with the revised question showing an increase in "1 room" responses, decrease in "2 rooms" to "6 rooms" responses, and increase

in “7 rooms” and “9 or more” room responses, with an overall increase in the median number of rooms reported using the revised question.

Data on occupants per room in the ACS should be compared with great caution to Census 2000 data due to: 1) differences in residence rules and the absence of population controls used to adjust for undercoverage in the reported number of current residents in the ACS used in this measure and 2) differences in the reported number of rooms due to changes in the rooms question between the 2007 and 2008 ACS.

Occupied Housing Units

See Living Quarters.

Owner-Occupied Units

See Tenure.

Plumbing Facilities

The data on plumbing facilities were obtained from Housing Question 7a and b in the 2020 American Community Survey (ACS). The question was asked at both occupied and vacant housing units. Complete plumbing facilities include: (a) hot and cold running water and (b) a bathtub or shower. Both facilities must be located inside the house, apartment, or mobile home, but not necessarily in the same room. Housing units are classified as lacking complete plumbing facilities when either of the two facilities is not present.

Plumbing facilities provide an indication of living standards and assess the quality of household facilities within the housing inventory. These data provide assistance in the assessment of water resources and to serve as an aid to identify possible areas of ground water contamination. The data also are used to forecast the need for additional water and sewage facilities, aid in the development of policies based on fair market rent, and to identify areas in need of rehabilitation loans or grants.

Question/Concept History – The 1996-2007 ACS questions were stand-alone questions that asked the respondent to answer either “Yes, has all three facilities” (before 2016, a housing unit with complete plumbing had to have hot and cold piped (later changed to running) water, a flush toilet, and a bathtub or shower) or “No” to the question of whether the housing unit had complete plumbing facilities, requiring that the facilities all be in the same unit. Starting in 2008, the structure of the question changed and combined plumbing facilities with kitchen facilities and telephone service availability into one question. The one question had multiple components including the three plumbing facilities . It asked individually for each plumbing facility, “Does this house, apartment, or mobile home have -” and provided the respondent with a “Yes” or “No” checkbox for each component needed for complete plumbing facilities (and also for the components of complete kitchen and telephone service; in 2019, telephone service was broken out into a separate question). An additional change introduced in 2008

included changing the description of the component “hot and cold piped water” to “hot and cold running water.” In 2013, the question changed for Puerto Rico as follows: “hot and cold running water” was changed to “running water” and “water heater” yes-no checkbox was added to the plumbing facilities, although the presence of a water heater in a home in Puerto Rico was not necessary for the home to be considered to have complete plumbing. So Puerto Rico, like the US, only had the three requirements for complete plumbing. In 2016, ACS no longer asked if the housing unit had a flush toilet. So by 2016, there were only two plumbing facilities – hot and cold running water (running water for Puerto Rico) and a bathtub or shower required for complete plumbing.

Comparability – Caution should be used when comparing ACS data on plumbing facilities from the years 2008 and after with both pre-2008 ACS and Census 2000 data. Changes made to the plumbing facilities question between 2007 and 2008 ACS involving the wording as well as the response option resulted in an inconsistency in the ACS data. This inconsistency in the data was most noticeable as an increase in housing units "lacking complete plumbing facilities." This increase in housing units “lacking complete plumbing” was most noticeable in Puerto Rico, when a component of complete plumbing was hot and cold running water. Due to the temperate climate there, hot water was not common there; thus many housing units that would have had complete plumbing under “Yes, has all three facilities” did not under the 2008 through 2012 questions. By 2013, the problem with the Puerto Rico complete plumbing had been fixed making 2013 plumbing for Puerto Rico comparable with pre-2008.

Population in Occupied Housing Units

The data shown for population in occupied units is the total population minus any people living in group quarters. All people occupying the housing unit are counted, including the householder, occupants related to the householder, and roommates, housemates, and so forth.

Population in occupied housing units provides information on the population within the housing inventory. The data allow the identification of population patterns within areas to assist in developing housing programs. These data also serve to aid officials in tracking the changing population characteristics of the housing inventory over time.

Comparability – Data on the population in occupied housing units in the 2020 American Community Survey (ACS) can be compared to previous ACS data. The ACS estimates of occupied housing units differ from those obtained from the 2010 Census. For more information, see “Comparing 2010 American Community Survey 1-Year Estimates of Occupancy Status, Vacancy Status, and Household Size with the 2010 Census – Preliminary Results” on the Census website. Go to http://www.census.gov and enter the paper title in the search box.

Poverty Status of Households

The data on poverty status of households were derived from answers to the income questions. Since poverty is defined at the family level and not the household level, the poverty status of the household is determined by the poverty status of the householder. Households are classified as poor when the total income of the householder's family is below the appropriate poverty threshold (For nonfamily householders, their own income is compared with the appropriate threshold.). The income of people living in the household who are unrelated to the householder is not considered when determining the poverty status of a household, nor does their presence affect the family size in determining the appropriate threshold. The poverty thresholds vary depending on three criteria: size of family, number of related children, and, for 1-and 2-person families, age of householder. See the table "The 2020 Poverty Factors" in Appendix A. (For more information, see "Poverty Status in the Past 12 Months" and "Income in the Past 12 Months" under "Population Variables.")

Real Estate Taxes

The data on real estate taxes were obtained from Housing Question 20 in the 2020 American Community Survey (ACS). The question was asked at owner-occupied units. The statistics from this question refer to the total amount of all real estate taxes on the entire property (land and buildings) payable to all taxing jurisdictions, including special assessments, school taxes, county taxes, and so forth.

Real estate taxes include state, local, and all other real estate taxes even if delinquent, unpaid, or paid by someone who is not a member of the household. However, taxes due from prior years are not included. If taxes are paid on other than a yearly basis, the payments are converted to a yearly basis.

The payment for real estate taxes is added to payments for fire, hazard, and flood insurance; utilities and fuels; and mortgages (both first and second mortgages, home equity loans, and other junior mortgages) to derive "Selected Monthly Owner Costs" and "Selected Monthly Owner Costs as a Percentage of Household Income." These data provide information on the cost of home ownership and offer an excellent measure of housing affordability and excessive shelter costs.

A separate question (Question 22c in the 2020 ACS) determines whether real estate taxes are included in the mortgage payment to the lender(s). This makes it possible to avoid counting taxes twice in the computations.

Question/Concept History – Since 1996, the ACS questions have been the same.

Comparability – Data on real estate taxes in the 2020 ACS should not be compared to Census 2000 real estate taxes data. The universe in Census 2000 was "specified owner-occupied housing units" whereas the universe in the ACS is "owner occupied housing units," thus comparisons cannot be made between these two data sets. When comparing to ACS data from previous years, some caution should be used when using estimates that include real estate tax data (e.g. Selected Monthly Owner Costs, ACS PUMS data, etc.), particularly

higher categories and upper quartiles, as there was a change in 2020 to the maximum allowable real estate taxes.

Rent Asked

See Contract Rent.

Rental Vacancy Rate

See Vacancy Status.

Renter-Occupied Housing Units

See Tenure.

Rooms

The data on rooms were obtained from Housing Question 6a in the 2020 American Community Survey (ACS). The question was asked at both occupied and vacant housing units. The statistics on rooms are in terms of the number of housing units with a specified number of rooms. The intent of this question is to count the number of whole rooms used for living purposes.

For each unit, rooms include living rooms, dining rooms, kitchens, bedrooms, finished recreation rooms, enclosed porches suitable for year-round use, and lodger's rooms. Excluded are strip or pullman kitchens, bathrooms, open porches, balconies, halls or foyers, half-rooms, utility rooms, unfinished attics or basements, or other unfinished space used for storage. A partially divided room is a separate room only if there is a partition from floor to ceiling, but not if the partition consists solely of shelves or cabinets.

Rooms provide the basis for estimating the amount of living and sleeping spaces within a housing unit. These data allow officials to plan and allocate funding for additional housing to relieve crowded housing conditions. The data also serve to aid in planning for future services and infrastructure, such as home energy assistance programs and the development of waste treatment facilities.

Median Rooms – This measure divides the room distribution into two equal parts: one-half of the cases falling below the median number of rooms and one-half above the median. In computing median rooms, the whole number is used as the midpoint of the interval; thus, the category "3 rooms" is treated as an interval ranging from 2.5 to 3.5 rooms. Median rooms is rounded to the nearest tenth. (For more information on medians, see the discussion under "Derived Measures.")

Aggregate Rooms – Aggregate rooms is calculated by adding all of the rooms for housing units in an area. (For more information on aggregates, see "Derived Measures.")

Question/Concept History – The 1996-1998 ACS question provided a space for a write-in entry on the number of rooms. From 1999-2007, the question provided response categories from "1 room" to "9 or more rooms." Starting in 2008, the response categories were removed and a write-in box was added for the respondent to enter the number of rooms. Additional changes introduced in 2008 included adding the word "separate" to the question stem, adding an instruction that defines a "room," adding an inclusion instruction to include bedrooms and kitchens in the count of rooms, and changing the current exclusion instruction by removing the word "half-room" and adding the phrase "unfinished basements."

Limitation of the Data – The Census Bureau tested the changes introduced to the 2008 version of the rooms question in the 2006 ACS Content Test. The results of this testing show that the changes may introduce an inconsistency in the data produced for this question as observed from the years 2007 to 2008. For more information, see "Evaluation Report Covering Rooms and Bedrooms" from the 2006 ACS Content Test. Go to http://www.census.gov and enter "2006 ACS Content Test Evaluation Report Covering Rooms and Bedrooms" in the search box.

Comparability – Caution should be used when comparing ACS data on rooms from the years 2008 and after with both pre-2008 ACS and Census 2000 data. Changes made to the rooms question between the 2007 and 2008 ACS involving the wording as well as the response option resulted in an inconsistency in the ACS data. This inconsistency in the data was most noticeable as an increase in "1 room" response and as a decrease in "2 rooms" to "6 rooms" responses.

Second or Junior Mortgage Payments or Home Equity Loan

The data on second mortgages or home equity loan payments were obtained from Housing Questions 23a and 23b in the 2020 American Community Survey (ACS). The questions were asked at owner-occupied units. Question 23a asks whether a second mortgage or a home equity loan exists on the property. Question 23b provides the regular monthly amount required to be paid to the lender on all second and junior mortgages and home equity loans. Amounts are included even if the payments are delinquent or paid by someone else. The amounts reported are included in the computation of "Selected Monthly Owner Costs" and "Selected Monthly Owner Costs as a Percentage of Household Income" for units with a mortgage.

All mortgages other than first mortgages (for example, second, third, etc.) are classified as "junior" mortgages. A second mortgage is a junior mortgage that gives the lender a claim against the property that is second to the claim of the holder of the first mortgage. Any other junior mortgage(s) would be subordinate to the second mortgage. A home equity loan is a line of credit available to the borrower that is secured by real estate. It may be placed on a property that already has a first or second mortgage, or it may be placed on a property that is owned free and clear.

If the respondents answered that no first mortgage existed, but a second mortgage did, a computer edit assigned the unit a first mortgage and made the first mortgage monthly

payment the amount reported in the second mortgage. The second mortgage loan data was then made "No" in Question 23a and blank in Question 23b. This is not the case for a respondent that answered that no first mortgage existed, but a home equity loan for the unit did. Starting with the 2020 ACS, the categorization of no first mortgage currently existing while having a home equity loan is a permissible response. In these instances, the monthly payment amount reported for the home equity loan is not converted to a first mortgage monthly payment.

Second mortgage or home equity loan data provide information on the monthly housing cost expenses for owners. When the data is used in conjunction with income data, the information offers an excellent measure of housing affordability and excessive shelter costs. The data also serve to aid in the development of housing programs aimed to meet the needs of people at different economic levels.

By listing the second mortgage or home equity loan question separately on the questionnaire from other housing cost questions, the data also serve to improve the accuracy of estimating monthly housing costs for mortgaged owners.

Question/Concept History – Since 1996, the ACS questions remained the same.

Comparability – Data on second mortgages in the 2020 ACS should not be compared to Census 2000 second mortgage data. For Census 2000, while some tables were released for total owner-occupied units, second mortgage was not. The universe in Census 2000 was "specified owner-occupied housing units" whereas the universe in the ACS is "owner-occupied housing units," thus comparisons cannot be made between these two data sets.

Selected Conditions

The variable "Selected Conditions" is defined for owner- and renter-occupied housing units as having at least one of the following conditions: 1) lacking complete plumbing facilities, 2) lacking complete kitchen facilities, 3) with 1.01 or more occupants per room, 4) selected monthly owner costs as a percentage of household income greater than 30 percent, and 5) gross rent as a percentage of household income greater than 30 percent.

Selected conditions provide information in assessing the quality of the housing inventory and its occupants. The data is used to easily identify those homes in which the quality of living and housing can be considered substandard.

Comparability – Data on selected conditions in the 2020 American Community Survey (ACS) can be compared to previous ACS and Census 2000 selected conditions data.

Selected Monthly Owner Costs

The data on selected monthly owner costs were obtained from Housing Questions 14, 16, and Questions 20 through 24 in the 2020 American Community Survey (ACS). The data were obtained for owner-occupied units. Selected monthly owner costs are the sum of payments for mortgages, deeds of trust, contracts to purchase, or similar debts on the property (including payments for the first mortgage, second mortgages, home equity loans, and other junior mortgages); real estate taxes; fire, hazard, and flood insurance on the property; utilities (electricity, gas, and water and sewer); and fuels (oil, coal, kerosene, wood, etc.). It also includes, where appropriate, the monthly condominium fee for condominiums (Question 16) and mobile home costs (Question 24) (personal property taxes, site rent, registration fees, and license fees). Selected monthly owner costs were tabulated for all owner-occupied units, and usually are shown separately for units "with a mortgage" and for units "not mortgaged."

Selected monthly owner costs provide information on the monthly housing cost expenses for owners. When the data is used in conjunction with income data, the information offers an excellent measure of housing affordability and excessive shelter costs. The data also serve to aid in the development of housing programs to meet the needs of people at different economic levels.

Adjusting Selected Monthly Owner Costs for Inflation – To inflate selected monthly owner costs from previous years, the dollar values are inflated to the latest year's dollar values by multiplying by a factor equal to the average annual Consumer Price Index (CPI-U-RS-All items) factor for the current year and dividing by the average annual CPI-U-RS-All items factor for the earlier/earliest year.

Median Selected Monthly Owner Costs – This measure divides the selected monthly owner costs distribution into two equal parts: one-half of the cases falling below the median selected monthly owner costs and one-half above the median. Medians are shown separately for units "with a mortgage" and for units "not mortgaged." Median selected monthly owner costs are computed on the basis of a standard distribution. (See the "Median Standard Distributions" section in Appendix A.) Median selected monthly owner costs are rounded to the nearest whole dollar.

***Question/Concept History* –** Since 1996, the ACS questions have been the same. The ACS collected the monthly cost of electricity and gas, and the 12-month cost of water and sewer and fuel (oil, coal, kerosene, wood, etc.) Since 2004, selected monthly owner costs has been shown for all owner-occupied housing units. In previous years (1996-2003), the question was shown only for specified owner-occupied housing units.

***Comparability* –** Caution should be used when comparing selected monthly owner costs data between the ACS and Census 2000. For Census 2000, tables for both total owner-occupied housing units and specified owner-occupied housing units were released, thus comparisons can be made only when comparing the same universes between the two data sets. Additionally, for Census 2000, tables with full distributions were released for total owner-occupied housing units, but medians were not shown. Caution should also be used when

using estimates that include real estate tax data (e.g. Selected Monthly Owner Costs, ACS PUMS data, etc.), particularly higher categories and upper quartiles, to those in previous years as there was a change in 2020 to maximum allowable amounts for several variables that comprise Selected Monthly Owner Costs .

Selected Monthly Owner Costs as a Percentage of Household Income

The information on selected monthly owner costs as a percentage of household income is the computed ratio of selected monthly owner costs to monthly household income. The ratio was computed separately for each unit and rounded to the nearest whole percentage. The data are tabulated only for owner-occupied units.

Separate distributions are often shown for units "with a mortgage" and for units "not mortgaged." Units occupied by households reporting no income or a net loss are included in the "not computed" category. (For more information, see the discussion under "Selected Monthly Owner Costs.")

Selected monthly owner costs as a percentage of household income provide information on the monthly housing cost expenses for owners. The information offers an excellent measure of housing affordability and excessive shelter costs. The data also serve to aid in the development of housing programs to meet the needs of people at different economic levels.

Median Selected Monthly Owner Costs as a Percentage of Household Income. This measure divides the selected monthly owner costs as a percentage of household income distribution into two equal parts: one-half of the cases falling below the median selected monthly owner costs as a percentage of household income and one-half above the median. Median selected monthly owner costs as a percentage of household income is computed on the basis of a standard distribution. (See the "Median Standard Distributions" section under Appendix A.) Median selected monthly owner costs as a percentage of household income is rounded to the nearest tenth. (For more information on medians, see "Derived Measures.")

Comparability **–**For Census 2000, tables were not released for total owner-occupied units. The universe in the ACS is "owner-occupied" whereas in Census 2000, the universe was "specified owner-occupied housing units," thus comparisons cannot be made. Caution should be used when using estimates that include real estate tax data (e.g. Selected Monthly Owner Costs as a Percentage of Household Income, ACS PUMS data, etc.), particularly higher categories and upper quartiles, to those in previous years as there was a change in 2020 to maximum allowable amounts for several variables that comprise Selected Monthly Owner Costs .

Specified Owner-Occupied and Vacant-for-Sale Units

Specified owner-occupied and vacant-for-sale units include only 1-family houses on less than 10 acres (cuerdas). The data for "specified units" exclude mobile homes, houses on 10 or more acres (cuerdas), and housing units in multiunit buildings. (Specified is rarely used any

longer, although specified units can be determined using pre-2016 ACS data for cautious comparisons to Census 2000 and earlier decennial data.)

Before 2004, specified owner-occupied and vacant-for-sale housing unit information was used to maintain a comparable universe between the American Community Survey (ACS) and earlier decennial census data. Owner costs, owner costs as a percentage of income, and value for owner-occupied and asking price for vacant-for-sale housing units in earlier census data (1990 and prior; in 2000, Census published both) were based on specified owner-occupied and vacant-for-sale housing units; however, beginning in 2004 the ACS no longer published information solely for this universe. Rather, the ACS began publishing information for all owner-occupied and vacant-for-sale and sold, not occupied housing units. The characteristics for a specified owner housing unit (acreage, building type, and before 2016, whether or not there was a business on the property) as well as a single variable SVAL that combines all the characteristics necessary to be a specified unit into one variable are maintained within the ACS Public Use Microdata Sample (PUMS) file ensuring that comparisons between the two data sets can be made.

Through 2015 then, comparisons between the ACS and earlier decennial census data sets can be made by using the PUMS to extract specified units to which to compare to 1990 and prior decennial Census data . In 2016, ACS stopped asking whether there was a business or medical office on property , the lack of which was formerly a characteristic required to be considered specified in both ACS and decennial Census data. So, although there is still the single variable that combines all the characteristics for specified owner housing in 2016 and later ACS PUMS, it is not directly comparable to preceding years which had the requirement of no business or medical office on property.

Question/Concept History – Prior to 1990, much of the owner-occupied housing inventory was comprised of single-family homes, either detached or attached. Therefore, earlier census data provided financial housing characteristics for the specified owner-occupied unit universe. However, the housing market began to change during the 1990's as an increasing number of units in multiunit structures were constructed and sold as condominiums, as well as the increase of mobile homes as an option for lower-income owners to purchase a home. As a result of these changes, the ACS abandoned the concept of the specified owner-occupied universe to ensure housing data was provided for all owner-occupied units.

Comparability – Since 2004, the ACS only publishes financial housing characteristics for all owner-occupied units. (ACS no longer publishes tables of the characteristics of vacant units other than the vacancy status and whether the units are temporarily occupied or not.) The ACS PUMS files will still provide the individual characteristics of a specified owner housing unit (acreage and building type) needed to construct specified. The ACS PUMS will also provide a single variable (SVAL) that combines the characteristics necessary for specified owner housing. However, in 2016, the question about the presence of a business or medical office on the property, which was formerly required for an owner unit to be specified, was dropped. The ACS PUMS still provide the acreage and building type characteristics to construct specified and there is still the variable SVAL, which is now composed to just two of the three characteristics of

specified. So neither a constructed variable nor this single variable for specified owner housing (SVAL) from 2016 and later PUMS files is comparable to the ACS single variable (SVAL) from ACS PUMS files through 2015 and 1990 and prior decennial data.

For Census 2000, tables were released for both all owner-occupied and all vacant-for-sale units and the more restricted universe of specified owner-occupied and specified vacant-for-sale units. So caution must be exercised to choose the universe for all owner-occupied units if published data tables from ACS files prior to 2016 are to be compared directly to Census 2000 data. Comparisons for specified owner-occupied units between these two data sets can only be made if the characteristics of a specified owner-occupied or vacant-for sale unit (acreage and building type) or the single variable SVAL from the ACS PUMS (prior to 2016) are used to construct the same specified owner universe as Census 2000. Beginning in 2016, the ACS cannot be compared to either Census 2000 or to ACS in previous years due to the elimination of the business or medical office on property question. All ACS data from 2016 forward are comparable. ACS data are also comparable to the decennial Census beginning in 2010.

Specified Renter-Occupied and Vacant-for-Rent Units

Specified renter-occupied and vacant-for-rent housing units are renter-occupied units and vacant-for-rent units that exclude 1-family houses on 10 or more acres (cuerdas). (Specified is rarely used any longer, although specified units can be determined for cautious comparisons to earlier decennial Census data.) Before 2004, specified renter-occupied and vacant-for-rent housing unit information is used to maintain a comparable universe between the American Community Survey (ACS) and earlier decennial census data. Contract rent, gross rent, and gross rent as a percentage of income in earlier census data (2000 and prior) were based on specified renter-occupied and vacant-for-rent units; however, beginning in 2004, the ACS no longer published information solely for this universe. Rather, the ACS began publishing information for all renter-occupied and vacant-for-rent and rented, not occupied housing units. The characteristics for a specified rental unit (acreage and building type) as well as a single variable SRNT that combines all the characteristics for specified into one variable are maintained within the PUMS file ensuring that comparisons between the two data sets can be made.

Comparability – Since 2004, the ACS only publishes financial housing characteristics for all renter-occupied units. So all ACS data from 2004 forward are comparable. ACS data are also comparable to the decennial Census beginning in 2010. (ACS no longer publishes tables of the characteristics of vacant units other than the vacancy status and whether the units are temporarily occupied or not.) The ACS PUMS files will still provide the individual characteristics of a specified rental unit (acreage and building type) needed to construct specified for comparison to older Census data. The ACS PUMS will also provide a single variable (SRNT) that combines the characteristics necessary for specified renter housing. .

For Census 2000, tables were only released for specified renter-occupied and specified vacant-for-rent units. Therefore, comparisons between these two data sets can only be made if the characteristics of a specified renter-occupied or vacant-for rent unit (acreage and building type) from the ACS PUMS are used to construct the same specified universe as Census 2000 or the single variable SRNT on the ACS PUMS is used to produce the comparable specified renter universe.

Telephone Service Available

The data on telephone service availability were obtained from Housing Question 8 in the 2020 American Community Survey (ACS). The question was asked at occupied housing units.

The question asked whether any member of the household could both make and receive phone calls while at the house, apartment, or mobile home. Respondents are instructed to mark "Yes" if any household member has a working cell phone, smart phone, or any other type of phone device, or if the housing unit has a land line telephone in working order. Households whose service has been discontinued for nonpayment or other reasons are not counted as having telephone service available.

The availability of telephone service provides information on the isolation of households. These data help assess the level of communication access amongst elderly and low-income households. The data also serve to aid in the development of emergency telephone, medical, or crime prevention services.

Question/Concept History – For the 1996-1998 ACS, the question asked whether there was a telephone in the house or apartment. A telephone must be inside the house or apartment for the unit to be classified as having a telephone. Units where the respondent used a telephone located inside the building, but not in the respondent's living quarters, were classified as having no telephone. In 1999, the words "or mobile home" were added question to be more inclusive of the structure type. In 2004, instructions that accompanied the ACS mail questionnaire advised respondents that if the household members used cell phones to answer, that the house, apartment, or mobile home had telephone service. Starting in 2008, the structure of the question changed and combined telephone service availability with plumbing facilities and kitchen facilities into one question to ask, "Does this house, apartment, or mobile home have -" and provided the respondent with a "Yes" or "No" checkbox for each component needed for complete facilities. In 2008, the instruction "*Include cell phones*" was added.

Beginning in 2019, the question was removed from the plumbing and kitchen battery of questions/responses and made into a stand alone question. The question wording was revised to focus on whether household members had phones with telephone service, rather than the housing unit itself, in order to make it easier for respondents to understand the meaning of the question.

Limitation of the Data – The Census Bureau tested the changes introduced to the current version of the telephone service available question in the 2016 ACS Content Test, where this version was then implemented into data collection in 2019. The results of this testing show that the changes may introduce an inconsistency in the data between pre-2019 and 2019 and on data estimates. For more information, see "2016 American Community Survey Content Test Evaluation Report: Telephone Service," found at https://www.census.gov/programs-surveys/acs/methodology/content-test.2017.html.

Comparability – Caution should be used when comparing ACS data on telephone service availability from the year 2020 with both pre-2019 ACS and Census 2000 data. In general, changes made to the telephone service availability question beginning in 2019 led to an increase of telephone service availability estimates across most geographies when compared to pre-2019 estimates.

Tenure

The data for tenure were obtained from Housing Question 17 in the 2020 American Community Survey (ACS). The question was asked at occupied housing units. Occupied housing units are classified as either owner-occupied or renter-occupied.

Tenure provides a measurement of home ownership, which has served as an indicator of the nation's economy for decades. These data are used to aid in the distribution of funds for programs such as those involving mortgage insurance, rental housing, and national defense housing. Data on tenure allows planners to evaluate the overall viability of housing markets and to assess the stability of neighborhoods. The data also serve in understanding the characteristics of owner-occupied and renter-occupied units to aid builders, mortgage lenders, planning officials, government agencies, etc., in the planning of housing programs and services.

Owner-Occupied – A housing unit is owner-occupied if the owner or co-owner lives in the unit, even if it is mortgaged or not fully paid for. The owner or co-owner must live in the unit and usually is Person 1 on the questionnaire. The unit is "Owned by you or someone in this household with a mortgage or loan" if it is being purchased with a mortgage or some other debt arrangement such as a deed of trust, trust deed, contract to purchase, land contract, or purchase agreement. The housing unit is also considered owned with a mortgage if there is a home equity line of credit on it. The unit also is considered owned with a mortgage if it is built on leased land and there is a mortgage on the unit. Mobile homes occupied by owners with installment loan balances also are included in this category.

A housing unit is "Owned by you or someone in this household free and clear (without a mortgage or loan)" if there is no mortgage or other similar debt on the house, apartment, or mobile home, including units built on leased land if the unit is owned outright without a mortgage.

Renter-Occupied – All occupied housing units which are not owner-occupied, whether they are rented or occupied without payment of rent, are classified as renter-occupied. "No rent

paid" units are separately identified in the rent tabulations. Such units are generally provided free by friends or relatives or in exchange for services such as resident manager, caretaker, minister, or tenant farmer. Housing units on military bases also are classified in the "No rent paid" category. "Rented" includes units in continuing care, sometimes called life care arrangements. These arrangements usually involve a contract between one or more individuals and a health services provider guaranteeing the individual shelter, usually a house or apartment, and services, such as meals or transportation to shopping or recreation. (For more information, see "Meals Included in Rent.")

Question/Concept History – From 1996-2007 the ACS questions were the same. Starting in 2008, the instruction "*Mark (X) ONE box.*" was added following the question, and the instruction "*Include home equity loans.*" was added following the response category "Owned by you or someone in this household with a mortgage or loan?" Additional changes introduced in 2008 included revising the wording of two of the response categories from "Rented for cash rent?" to "Rented?" and "Occupied without payment of cash rent?" to "Occupied without payment of rent?"

Comparability – Data on tenure in the 2020 ACS can be compared to previous ACS, Census 2020, Census 2010, Census 2000 tenure data. Compare with caution to Census data as ACS estimates can differ from those of Census.

Units in Structure

The data on units in structure (also referred to as "type of structure") were obtained from Housing Question 1 in the 2020 American Community Survey (ACS). The question was asked at occupied and vacant housing units. A structure is a separate building that either has open spaces on all sides or is separated from other structures by dividing walls that extend from ground to roof. In determining the number of units in a structure, all housing units, both occupied and vacant, are counted. Stores and office space are excluded. The data are presented for the number of housing units in structures of specified type and size, not for the number of residential buildings.

The units in structure provides information on the housing inventory by subdividing the inventory into one-family homes, apartments, and mobile homes. When the data is used in conjunction with tenure, year structure built, and income, units in structure serves as the basic identifier of housing used in many federal programs. The data also serve to aid in the planning of roads, hospitals, utility lines, schools, playgrounds, shopping centers, emergency preparedness plans, and energy consumption and supplies.

Mobile Home – Both occupied and vacant mobile homes to which no permanent rooms have been added are counted in this category. Towable recreational vehicles, such as travel trailers or fifth-wheel trailers, are considered mobile homes. Mobile homes used only for business purposes or for extra sleeping space and mobile homes for sale on a dealer's lot, at the factory, or in storage are not counted in the housing inventory.

1-Unit, Detached – This is a 1-unit structure detached from any other house, that is, with open space on all four sides. Such structures are considered detached even if they have an adjoining shed or garage. A one-family house that contains a business is considered detached as long as the building has open space on all four sides. Mobile homes to which one or more permanent rooms have been added or built also are included.

1-Unit, Attached – This is a 1-unit structure that has one or more walls extending from ground to roof separating it from adjoining structures. In row houses (sometimes called townhouses), double houses, or houses attached to nonresidential structures, each house is a separate, attached structure if the dividing or common wall goes from ground to roof.

2 or More Apartments – These are units in structures containing 2 or more housing units, further categorized as units in structures with "2 apartments," "3 or 4 apartments," "5 to 9 apartments," "10 to 19 apartments," "20 to 49 apartments," and "50 or more apartments."

Boat, RV, Van, Etc. – This category is for any living quarters occupied as a housing unit that does not fit the previous categories. Examples that fit this category are houseboats, self-propelled recreational vehicles, motor homes, railroad cars, campers, and vans. Recreational vehicles, boats, vans, tents, railroad cars, and the like are included only if they are occupied as someone's current place of residence.

Question/Concept History – The 1996-1998 ACS question provided the response category, "a mobile home or trailer." Starting in 1999, the ACS response category dropped "or trailer" to read as "a mobile home."

Comparability – Data on units in structure in the 2020 ACS can be compared to previous ACS and Census 2000 units in structure data.

Utility Costs

The data on utility costs were obtained from Housing Questions 14a through 14d in the 2020 American Community Survey (ACS). The questions were asked of occupied housing units. The questions about electricity and gas asked for the monthly costs, and the questions about water/sewer and other fuels (oil, coal, wood, kerosene, etc.) asked for the yearly costs.

Costs are recorded if paid by or billed to occupants, a welfare agency, relatives, or friends. Costs that are paid by landlords, included in the rent payment, or included in the condominium fee are excluded.

The cost of utilities provides information on the cost of either home ownership or renting. When the data is used as part of monthly housing costs and in conjunction with income data, the information offers an excellent measure of housing affordability and excessive shelter costs. The data also serve to aid in the development of housing programs to meet the needs of people at different economic levels and to provide assistance in forecasting future utility services and energy supplies.

Question/Concept History – The ACS questions ask for monthly costs for electricity and gas, and yearly costs for water/sewer and other fuels. Since 1999, the words "or mobile home" were added to each question, and Question 13b, which asked "Last month, what was the cost of gas for this house, apartment, or mobile home?" had an additional response category, "included in electricity payment entered above."

Limitation of the Data – Caution should be exercised in using these data for direct analysis because costs are not reported for certain kinds of units such as renter-occupied units with all utilities included in the rent and owner-occupied condominium units with utilities included in the condominium fee.

Comparability – Data on utility costs in the 2020 ACS can be compared to previous ACS and Census 2000 utility costs data. However, some caution should be used when using estimates that include utility costs data (e.g. Selected Monthly Owner Costs, ACS PUMS data, etc.), particularly higher categories and upper quartiles, to those in previous years as there was a change in 2020 to the maximum allowed monthly electric and gas cost amounts, as well as the annual water cost amounts.

Vacancy Status

Before 2013, the data on vacancy status were obtained only for a sample of cases in the computer-assisted personal interview (known as "CAPI") follow-up by field representatives. Data on vacancy status were obtained at the time of the personal visit. Vacancy status and other characteristics of vacant units were determined by field representatives obtaining information from landlords, owners, neighbors, rental agents, and others. Beginning in 2013, vacancy status and other characteristics of vacant units were obtained in the Internet self-response instrument as well as the CAPI.

Vacancy status has long been used as a basic indicator of the housing market and provides information on the stability and quality of housing for certain areas. The data is used to assess the demand for housing, to identify housing turnover within areas, and to better understand the population within the housing market over time. These data also serve to aid in the development of housing programs to meet the needs of people at different economic levels.

Vacant units are subdivided according to their housing market classification as follows:

For Rent – These are vacant units offered "for rent," and vacant units offered either "for rent" or "for sale."

Rented, Not Occupied – These are vacant units rented but not yet occupied, including units where money has been paid or agreed upon, but the renter has not yet moved in.

For Sale Only – These are vacant units being offered "for sale only," including units in cooperatives and condominium projects if the individual units are offered "for sale only." If units are offered either "for rent" or "for sale," they are included in the "for rent" classification.

Sold, Not Occupied – These are vacant units sold but not yet occupied, including units that have been sold recently, but the new owner has not yet moved in.

For Seasonal, Recreational, or Occasional Use – These are vacant units used or intended for use only in certain seasons or for weekends or other occasional use throughout the year. Seasonal units include those used for summer or winter sports or recreation, such as beach cottages and hunting cabins. Seasonal units also may include quarters for such workers as herders and loggers. Interval ownership units, sometimes called shared-ownership or time-sharing condominiums, also are included here.

For Migrant Workers – These include vacant units intended for occupancy by migrant workers employed in farm work during the crop season. (Work in a cannery, a freezer plant, or a food-processing plant is not farm work.)

Other Vacant – If a vacant unit does not fall into any of the categories specified above, it is classified as "Other vacant." For example, this category includes units held for occupancy by a caretaker or janitor, and units held for personal reasons of the owner.

Homeowner Vacancy Rate – The homeowner vacancy rate is the proportion of the homeowner inventory that is vacant "for sale." It is computed by dividing the number of vacant units "for sale only" by the sum of the owner-occupied units, vacant units that are "for sale only," and vacant units that have been "sold but not yet occupied", and then multiplying by 100. This measure is rounded to the nearest tenth.

Rental Vacancy Rate – The rental vacancy rate is the proportion of the rental inventory that is vacant "for rent." It is computed by dividing the number of vacant units "for rent" by the sum of the renter-occupied units, vacant units that are "for rent," and vacant units that have been "rented but not yet occupied", and then multiplying by 100. This measure is rounded to the nearest tenth.

Available Housing Vacancy Rate – The proportion of the housing inventory that is vacant-"for-sale only" and vacant"for-rent." It is computed by dividing the sum of vacant units "for sale only" and vacant units "for rent", by the sum of occupied units, vacant units that are "for sale only" , vacant units that have been "sold but not yet occupied", vacant units that are "for rent" , and vacant units that have been "rented but not yet occupied" , and then multiplying by 100. This measure is rounded to the nearest tenth.

Question/Concept History – The 1996-2004 American Community Survey (ACS) and Census 2000 used a single vacancy status category for units that were either "Rented or sold, not occupied." Since the 2005 ACS, there have been two separate categories, "Rented, not occupied" and "Sold, not occupied." This change created consistency among the ACS, the

Housing Vacancy Survey, and the 2010 Census vacancy status response options. The revised categories were incorporated in the calculations of the rental vacancy rate and the homeowner vacancy rate.

Comparability – Do not compare because differences in the design and data collection methods between the ACS and the Decennial Census may materially affect estimates of vacancy rates. For more information on differences in vacancy rates between the ACS and Census, see Comparing 2010 ACS & 2010 Census Occupancy, Vacancy, & Household Size on the Census website.

Vacant – Current Residence Elsewhere

Also known as a temporarily-occupied housing unit, a current residence elsewhere is a housing unit occupied at the time of interview entirely by people who will be there for 2 months or less. At sample units where all the people are staying less than 2 months, the respondent is asked a subset of the questions from the housing section, including the question on vacancy status.

In Computer-Assisted Telephone Interviews (CATI) and Computer-Assisted Personal Interviews (CAPI), the data for current residence elsewhere were obtained after creating the roster of people staying at the sample unit and after asking the current residence questions. If it is determined that the housing unit is not the current residence of any household members, the CAPI instrument begins the battery of vacant housing unit questions. Beginning in 2013, in the Internet self-response instrument, the roster of people is not created. Rather, if no one is living or staying there for more than 2 months, it is established that the home is not the current residence of any household members and the instrument begins the battery of vacant housing questions.

The current residence concept is unique to the American Community Survey (ACS). By using the current residence to decide for whom to collect survey information, the ACS can provide a more accurate description of an area's social and economic characteristics. Most surveys, as well as the decennial census, use the concept of usual residence. Usual residence is defined as the place where a person lives and sleeps most of the time. The census defines everyone as having only one usual residence.

Comparability – Do not compare estimates of vacant – current residence elsewhere between the ACS and Census 2000 because differences in the design, data collection methods and residency rules between the ACS and the Decennial Census may materially affect estimates. For more information on differences between the ACS and Census, see Comparing 2010 ACS & 2010 Census Occupancy, Vacancy, & Household Size on the Census website.

Vacant Housing Units

See Living Quarters.

Value

The data on value (also referred to as "price asked" for vacant units) were obtained from Housing Question 19 in the 2020 American Community Survey (ACS). The question was asked at housing units that were owned, being bought, vacant for sale, or sold but not occupied at the time of the survey. Value is the respondent's estimate of how much the property (house and lot, mobile home and lot (if lot owned), or condominium unit) would sell for if it were for sale. If the house was owned or being bought, but the land on which it sits was not, the respondent was asked to estimate the combined value of the house and the land. Owners of noncondominium multi-unit buildings who live in one of the building's units, like duplexes and small apartment buildings, should report the value of the building, the land, and any additional buildings on the same plot of land. For vacant units, value was the price asked for the property. Value was tabulated separately for all owner-occupied and vacant-for-sale and sold, not occupied housing units, as well as owner-occupied mobile homes.

The value of a home provides information on neighborhood quality, housing affordability, and wealth. These data provide socioeconomic information not captured by household income and comparative information on the state of local housing markets. The data also serve to aid in the development of housing programs designed to meet the housing needs of persons at different economic levels.

Median and Quartile Value – The median divides the value distribution into two equal parts: one-half of the cases falling below the median value of the property (house and lot, mobile home and lot (if lot owned), or condominium unit) and one-half above the median. Quartiles divide the value distribution into four equal parts. Median and quartile value are computed on the basis of a standard distribution. (See the "Median Standard Distributions" section in Appendix A.) Median and quartile value calculations are rounded to the nearest hundred dollars. Upper and lower quartiles can be used to note large value differences among various geographic areas. (For more information on medians and quartiles, see "Derived Measures.")

Aggregate Value (Price Asked) –Aggregate value (price asked) is calculated by adding all of the value estimates for owner occupied housing units in an area (and all the prices asked for vacant-for-sale and sold, not occupied housing units in an area). Aggregate value (price asked) is rounded to the nearest hundred dollars. (For more information on aggregates, see "Derived Measures.")

***Question/Concept History* –** The 1996-1998 ACS question provided a space for the respondent to enter a dollar amount. From 1999-2007 the question provided 19 pre-coded response categories from "Less than $10,000" to "$250,000 or more – *Specify*." Starting in 2004, value was shown for all owner-occupied housing units, unlike from1996-2003 in which value was shown only for specified owner-occupied housing units. Changes introduced in 2008 were removing the pre-coded response categories and adding a write-in box for the respondent to enter the property value amount in dollars, and revising the wording of the question to ask, "About how much do you think this house and lot, apartment, or mobile home (and lot, if owned) would sell for if it were for sale?"

Limitation of the Data – The Census Bureau tested the changes introduced to the 2008 version of the value question in the 2006 ACS Content Test. The results of this testing show that the changes may introduce an inconsistency in the data produced for this question as observed from the years 2007 to 2008. For more information, see "Evaluation Report Covering Property Value" from the 2006 ACS Content Test. Go to http://www.census.gov and enter "2006 ACS Content Test Evaluation Report Covering Property Value" in the search box.

Comparability – Caution should be used when comparing ACS data on value (price asked) from the years 2008 and after with pre-2008 ACS data. Changes made to the value (price asked) question between the 2007 and 2008 ACS involving the response option may have resulted in an inconsistency in the value distribution for some areas. In 2007 and previous years, the ACS value question included categorical response options with a write-in for values over $250,000. Beginning in 2008, the response option became solely a write-in.

Caution also should be used when comparing value (price asked) data from the ACS produced in 2008 or later with Census 2000 value data. The 2008 or later ACS provides solely a write-in response option while Census 2000 collected data in categories.

Additionally, Census 2000 tables on value were released for both total owner-occupied housing units and specified owner-occupied housing units, thus comparisons can be made only when comparing the same universes between the two data sets.

Vehicles Available

The data on vehicles available were obtained from Housing Question 12 in the 2020 American Community Survey (ACS). The question was asked at occupied housing units. These data show the number of passenger cars, vans, and pickup or panel trucks of one-ton (2,000 pounds) capacity or less kept at home and available for the use of household members. Vehicles rented or leased for one month or more, company vehicles, and police and government vehicles are included if kept at home and used for non-business purposes. Motorcycles or other recreational vehicles are excluded. Dismantled or immobile vehicles are excluded. Vehicles kept at home but used only for business purposes also are excluded.

The availability of vehicles provides information for numerous transportation programs. When the data is used in conjunction with place-of-work and journey-to-work data, the information can provide insight into vehicle travel and aid in forecasting future travel and its effect on transportation systems. The data also serve to aid in the development of emergency and evacuation planning, special transportation services, and forecasting future energy consumption and needs.

Question/Concept History – The 1996-1998 ACS question provided a space for the respondent to enter the number of vehicles. Since 1999, the American Community Survey question provided seven pre-coded response categories ranging from "None" to "6 or more."

Comparability – Data on vehicle availability in the 2020 ACS can be compared to previous ACS and Census 2000 vehicle availability data.

Year Householder Moved into Unit

The data on year householder moved into unit were obtained from answers to Housing Question 3 in the 2020 American Community Survey (ACS), which was asked at occupied housing units. These data refer to the year of the latest move by the householder. If the householder moved back into a housing unit he or she previously occupied, the year of the latest move was reported. If the householder moved from one apartment to another within the same building, the year the householder moved into the present apartment was reported. The intent is to establish the year the present occupancy by the householder began. The year that the householder moved in is not necessarily the same year other members of the household moved in, although in the great majority of cases an entire household moves at the same time.

The year the householder moved into the unit provides information on the specific period of time when mobility occurs, especially for recent movers. These data help to measure neighborhood stability and to identify transient communities. The data also is used to assess the amount of displacement caused by floods and other natural disasters, and as an aid to evaluate the changes in service requirements.

Median Year Householder Moved into Unit – Median year householder moved into unit divides the distribution into two equal parts: one-half of the cases falling below the median year householder moved into unit and one-half above the median. Median year householder moved into unit is computed on the basis of a standard distribution. (See the "Median Standard Distributions" section in Appendix A.) Median year householder moved into unit is rounded to the nearest calendar year. (For more information on medians, see "Derived Measures.")

Question/Concept History – Since 1996, the question provided two write-in spaces for the respondent to enter month and year the householder (person 1) moved into the house, apartment, or mobile home.

Comparability – Data on year householder moved into unit in the 2020 ACS can be compared to previous ACS and Census 2000 year householder moved into unit data.

Year Structure Built

The data on year structure built were obtained from Housing Question 2 in the 2020 American Community Survey (ACS). The question was asked at both occupied and vacant housing units. Year structure built refers to when the building was first constructed, not when it was remodeled, added to, or converted. Housing units under construction are included as vacant housing if they meet the housing unit definition, that is, all exterior windows, doors, and final usable floors are in place. For mobile homes, houseboats, RVs, etc., the manufacturer's model year was assumed to be the year built. The data relate to the

number of units built during the specified periods that were still in existence at the time of interview.

The year the structure was built provides information on the age of housing units. These data help identify new housing construction and measures the disappearance of old housing from the inventory, when used in combination with data from previous years. The data also serve to aid in the development of formulas to determine substandard housing and provide assistance in forecasting future services, such as energy consumption and fire protection.

Median Year Structure Built – Median year structure built divides the distribution into two equal parts: one-half of the cases falling below the median year structure built and one-half above the median. Median year structure built is computed on the basis of a standard distribution. (See the "Median Standard Distributions" section in Appendix A.) The median is rounded to the nearest calendar year. Median age of housing can be obtained by subtracting median year structure built from survey year. For example, if the median year structure built is 1969, the median age of housing in that area is 49 years (2018 minus 1969). (For more information on medians, see "Derived Measures.")

Question/Concept History – The 1996-1998 ACS question provided a write-in space for the respondent to enter a year the structure was built. From 1999-2007 the question provided 9 pre-coded response categories, which showed ranges of years, and from 2003-2007 the response categories were updated to provide detail for recently built structures. Starting in 2008, the response category "2000 or later" and the instruction "*Specify year*" with a write-in box replaced the two categories "2000 to 2004" and "2005 or later."

Limitation of the Data – Data on year structure built are more susceptible to errors of response and non-reporting than data for many other questions because respondents must rely on their memory or on estimates by people who have lived in the neighborhood a long time.

Comparability – Data on year structure built in the 2020 ACS can be compared to previous ACS and Census 2000 year structure built data.

Population Variables

Ability to Speak English

Respondent's Ability to Speak English – Respondents who reported speaking a language other than English (question 14a in the 2020 American Community Survey (ACS)) were asked to indicate their English-speaking ability (question 14c in the 2020 ACS) based on one of the following categories: "Very well," "Well," "Not well," or "Not at all." Those who answered "Well," "Not well," or "Not at all" are sometimes referred to as "Less than 'very well.'" Respondents were not instructed on how to interpret the response categories in this question.

Limited English speaking households- This variable identifies households that may need English-language assistance. A "Limited English speaking household" is one in which no member 14 years old and over (1) speaks only English at home or (2) speaks a language other than English at home and speaks English "Very well."

After data are collected for each person in the household, the limited English-speaking household variable is calculated by checking if all people 14 years old and older speak a language other than English. If so, the calculation checks the English-speaking ability responses to see if all people 14 years old and older speak English "Less than 'very well.'" If all household members 14 and over speak a language other than English and speak English "Less than 'very well,'" the household is considered part of this group that may be in need of English language assistance. All members of a household are included in this group, including members under 14 years old who may speak only English or speak a language other than English at home and speak English "Very well."

Government agencies use information on language spoken at home and ability to speak English for their programs that serve the needs of those who have difficulty with English. Under the Voting Rights Act, data on language are necessary to meet statutory requirements for making voting materials available in minority languages. This Act directs the Census Bureau, using data about language spoken at home and the ability to speak English, to identify minority groups that speak a language other than English and to assess their English-speaking ability. The U.S. Department of Education uses the language data to prepare a report to Congress on the social and economic status of children served by different local school districts. State and local agencies concerned with aging develop health care and other services tailored to the language and cultural diversity of the elderly under the Older Americans Act.

Question/Concept History – The English Language Ability question has been the same since the beginning of the ACS. "Limited English-speaking households" has been calculated the same way in all years of ACS data collection, but has sometimes been termed "Linguistic Isolation" or "Households in which no one 14 and over speaks English only or speaks a language other than English and speaks English 'Very Well.'"

Limitation of the Data – Beginning in 2006, the population in group quarters (GQ) was included in the ACS. Some types of GQ populations may have ability to speak English distributions that are different from the household population. The inclusion of the GQ population could therefore have a noticeable impact on the ability to speak English distribution. This is particularly true for areas with a substantial GQ population.

Ideally, the data on ability to speak English represented a person's perception of their own English-speaking ability. However, because one household member usually completes ACS questionnaires, the responses may have represented the perception of another household member.

Comparability – Caution should be taken when comparing language data from the ACS and 1980, 1990, and 2000 Censuses across time. Methodological changes to data collection in 2013 may have affected language data. Users should be aware of these changes when comparing data from 2013 or after to data from before 2013, or when using multi-year ACS data containing data from before and after 2013. For more information on comparability of language data, see the user note, "2013 Language Estimates." Though the term "Linguistic Isolation" is no longer used, data under this heading were tabulated in the same way as data under the heading "Limited English speaking households" or "Households in which no one 14 and over speaks English only or speaks a language other than English and speaks English 'Very well.'"

Age

The data on age were derived from answers to Question 4 in the 2020 American Community Survey (ACS). The age classification is based on the age of the person in complete years at the time of interview. Both age and date of birth are used in combination to calculate the most accurate age at the time of the interview. Respondents are asked to give an age in whole, completed years as of interview date as well as the month, day and year of birth. People are not to round an age up if the person is close to having a birthday. They can estimate an age if the exact age is not known. For babies less than 1 year old, respondents are asked not to write the age in months, but to write 0 as the age. Inconsistently reported and missing values are assigned or imputed based on the values of other variables for that person, from other people in the household, or from people in other households ("hot deck" imputation).

Age is asked for all persons in a household or group quarters. On the mailout/mailback paper questionnaire for households, both age and date of birth are asked for persons listed as person numbers 1-5 on the form. Only age (in years) is initially asked for persons listed as 6-12 on the mailout/mailback paper questionnaire. If a respondent indicates that there are more than 5 people living in the household, then telephone center staffers call respondents to obtain date of birth data for the additional household members during the Failed Edit Follow-up (FEFU) operation. In the Internet, and Computer-Assisted Personal Interview (CAPI) instruments, both age and date of birth are collected for all persons. Date of birth is asked first, so that the instruments can calculate age from that information. Respondents are then asked to confirm that the calculated age is correct. In 2006, the ACS began collecting data in

group quarters (GQs). This included asking both age and date of birth for persons living in a group quarters. For additional data collection methodology, please go to https://www.census.gov/programs-surveys/acs/.

Data on age are used to determine the applicability of other questions for a particular individual and to classify other characteristics in tabulations. Age data are needed to interpret most social and economic characteristics used to plan and analyze programs and policies. Age is central for any number of federal programs that target funds or services to children, working-age adults, women of childbearing age, or the older population. The U.S. Department of Education uses census age data in its formula for allotment to states. The U.S. Department of Veterans Affairs uses age to develop its mandated state projections on the need for hospitals, nursing homes, cemeteries, domiciliary services, and other benefits for veterans. For more information on the use of age data in Federal programs, please go to "ACS Handbook of Questions and Current Federal Uses".

Median Age – The median age is the age that divides the population into two equal-size groups. Half of the population is older than the median age and half is younger. Median age is based on a standard distribution of the population by single years of age and is shown to the nearest tenth of a year. (See the sections on "Standard Distributions" and "Medians" under "Derived Measures.")

Age Dependency Ratio – The age dependency ratio is derived by dividing the combined under 18 years and 65 years and over populations by the 18-to-64 population and multiplying by 100.

Old-Age Dependency Ratio – The old-age dependency ratio is derived by dividing the population 65 years and over by the 18-to-64 population and multiplying by 100.

Child Dependency Ratio – The child dependency ratio is derived by dividing the population under 18 years by the 18-to-64 population, and multiplying by 100.

Question/Concept History – The 1996-2002 ACS question asked for month, day, and year of birth before age. Since 2003, the ACS question asked for age, followed by month, day, and year of birth. In 2008, an additional instruction was provided with the age and date of birth question on the ACS questionnaire to report babies as age 0 when the child was less than 1 year old. The addition of this instruction occurred after 2005 National Census Test results indicated increased accuracy of age reporting for babies less than one year old. In 2020, the instruction for babies less than one year old was edited to ask respondents not to write the age in months, but to write 0 as the age. This was a result of cognitive testing in 2014 and 2015, which indicated the revised wording was clearer for Spanish-speaking respondents.

Limitation of the Data – Beginning in 2006, the population living in group quarters (GQ) was included in the ACS population universe. Some types of group quarters have populations with age distributions that are very different from that of the household population. The inclusion of the GQ population could therefore have a noticeable impact on the age distribution for a given geographic area. This is particularly true for areas with a

substantial GQ population. For example, in areas with large colleges and universities, the percent of individuals 18-24 would increase due to the inclusion of GQs in the ACS universe.

Comparability – Caution should be taken when comparing population in age groups across time. The entire population continually ages into older age groups over time, and babies fill in the youngest age group. Therefore, the population of a certain age is made up of a completely different group of people in one time period than in another (e.g. one age group in 2000 versus same age group in 2015). Since populations occasionally experience booms/increases and busts/decreases in births, deaths, or migration (for example, the postwar Baby Boom from 1946-1964), one should not necessarily expect that the population in an age group in one year should be similar in size or proportion to the population in the same age group in a different period in time. For example, Baby Boomers were age 36 to 54 in Census 2000 while they were age 56 to 74 in the 2020 ACS. The age structure and distribution would therefore shift in those age groups to reflect the change in people occupying those age-specific groups over time.

Data users should also be aware of methodology differences that may exist between different data sources if they are comparing ACS age data to other data sources, such as Population Estimates or Decennial Census data. For example, ACS data are that of a respondent-based survey and subject to various quality measures, such as sampling and nonsampling error, response rates, and item allocation error. This differs in design and methodology from other data sources, such as Population Estimates, which is not a survey and involves computational methodology to derive intercensal estimates of the population. While ACS estimates are controlled to Population Estimates for age at the nation, state and county levels of geography as part of the ACS weighting procedure, variation may exist in the age structure of a population at lower levels of geography when comparing different time periods or comparing across time due to the absence of controls below the county geography level. For more information on ACS data accuracy and weighting procedures, please go to https://www.census.gov/programs-surveys/acs/.

It also should be noted that although the ACS produces population, demographic, and housing unit estimates, it is the Census Bureau's Population Estimates Program that produces and disseminates the official estimates of the population for the nation, states, counties, cities and towns, and estimates of housing units for states and counties.

Ancestry

Ancestry refers to a person’s ethnic origin, heritage, descent, or “roots,” which may reflect their place of birth or that of previous generations of their family. Some ethnic identities, such as “Egyptian” or “Polish” can be traced to geographic areas outside the United States, while other ethnicities such as “Pennsylvania German” or “Cajun” evolved in the United States.

The intent of the ancestry question was not to measure the degree of attachment the respondent had to a particular ethnicity, but simply to establish that the respondent had a connection to and self-identified with a particular ethnic group. For example, a response of

"Irish" might reflect total involvement in an Irish community or only a memory of ancestors several generations removed from the individual.

The data on ancestry were derived from answers to Question 13 in the 2020 American Community Survey (ACS). The question was based on self-identification; the data on ancestry represent self-classification by people according to the ancestry group(s) with which they most closely identify.

The Census Bureau coded the responses into a numeric representation of over 1,000 categories. To do so, responses initially were processed through an automated coding system; then, those that were not automatically assigned a code were coded by individuals trained in coding ancestry responses. The code list reflects the results of the Census Bureau's own research and consultations with many ethnic experts. Many decisions were made to determine the classification of responses. These decisions affected the grouping of the tabulated data. For example, the "Indonesian" category includes the responses of "Indonesian," "Celebesian," "Moluccan," and a number of other responses.

The ancestry question allowed respondents to report one or more ancestry groups. Generally, only the first two responses reported were coded. If a response was in terms of a dual ancestry, for example, "Irish English," the person was assigned two codes, in this case one for Irish and another for English. However, in certain cases, multiple responses such as "French Canadian," "Scotch-Irish," "Greek Cypriot," were assigned a single code reflecting their status as unique groups. If a person reported one of these unique groups in addition to another group, for example, "Scotch-Irish English," resulting in three terms, that person received one code for the unique group (Scotch-Irish) and another one for the remaining group (English). If a person reported "English Irish French," only English and Irish were coded. If there were more than two ancestries listed and one of the ancestries was a part of another, such as "German Bavarian Hawaiian," the responses were coded using the more detailed groups (Bavarian and Hawaiian).

The Census Bureau accepted "American" as a unique ethnicity if it was given alone or with one other ancestry. There were some groups such as "American Indian," "Mexican American," and "African American" that were coded and identified separately.

The ancestry question is asked for every person in the ACS, regardless of age, place of birth, Hispanic origin, or race.

Ancestry identifies the ethnic origins of the population, and federal agencies regard this information as essential for fulfilling many important needs. Ancestry is required to enforce provisions under the Civil Rights Act, which prohibits discrimination based upon race, sex, religion, and national origin. More generally, these data are needed to measure the social and economic characteristics of ethnic groups and to tailor services to accommodate cultural differences. The Department of Labor draws samples for surveys that provide employment statistics and other related information for ethnic groups using ancestry.

The ACS data on ancestry are released annually on https://data.census.gov . The Detailed Tables (B04004-B04006) contain estimates of over 100 different ancestry groups for the

nation, states, and many other geographic areas, while the Special Population Profiles contain characteristics of different ancestry groups. Go to https://data.census.gov and select "Advanced Search" to enter the table number.

In all tabulations, when respondents provided an unclassifiable ethnic identity (for example, "multi-national," "adopted," or "I have no idea"), the answer was included in "Unclassified or not reported."

The tabulations on ancestry show two types of data– one where estimates represent the number of people, and the other where estimates represent the number of responses. If you want to know how many people reported an ancestry, use the estimates based on people. If you want to know how many reports there were of a certain ancestry, use the estimates based on reports. The difference between the two types of data presentations represents the fact that people can provide more than one ancestry, and therefore can be counted twice in the same ancestry category.

The following are the types of estimates shown:

People Reporting Single Ancestry – Includes all people who reported only one ethnic group such as "German." Also included in this category are people with only a multiple-term response such as "Scotch-Irish" who are assigned a single code because they represent one distinct group. For example, in this type of table, the count for German would be interpreted as "The number of people who reported only German as their ancestry."

People Reporting Multiple Ancestries – Includes all people who reported more than one group, such as "German" and "Irish" and were assigned two ancestry codes. The German line on this table would be interpreted as "The number of people who responded that German was part of their multiple ancestry."

People Reporting Ancestry – Includes all people who reported each ancestry, regardless of whether it was their first or second ancestry, or part of a single or multiple response. This estimate is the sum of the two estimates above (for Single and Multiple ancestry). People can be listed twice in this table. For example, if someone reports their ancestry as "German and Danish," they will be listed once in German and once in Danish, and therefore the sum of the rows would not equal the total population. Interpret the German line of this table as "The total number of people who reported they had German ancestry."

Note that three other tables were available prior to 2014:

B04001 – First Ancestry Reported
B04002 – Second Ancestry Reported
B04003—Total Ancestries Reported

These tables were removed in 2014 because they were less user-friendly than B04004-B04006. The tables were tallies of the number of people reporting each ancestry first, second, and in total, which resulted in double-counting within many ancestry groups. For example, if

a respondent reported two different types of German ancestry, they would be tallied twice under German in B04003. Or, if a respondent had two different types of Arab ancestry, they would be tallied twice under Arab. Thus, table B04006 is a better table to use if a data user is interested in knowing the total number of people who responded that they had German or Arab ancestry, for example.

Question/Concept History – The question on ancestry has been asked on the ACS since 1996. The question wording has never changed, although placement of the question changed slightly. Also, the examples listed below the write-in lines changed in 1999, but have remained the same since then.

The question on ancestry was first asked in the 1980 Census. It replaced the question on parental place of birth, in order to include ancestral heritage for people whose families have been in the U.S. for more than two generations. The question also was asked in the 1990 Census and Census 2000.

The ACS editing system uses answers to the race and place of birth questions to clarify ancestry responses of "Indian," where possible. It also aids in the interpretation of two-word ancestries, such as "Black Irish."

Limitation of the Data – Although some experts consider religious affiliation a component of ethnic identity, the ancestry question was not designed to collect any information concerning religion. The Census Bureau is prohibited from collecting information on religion. Thus, if a religion was given as an answer to the ancestry question, it was coded as an "Other" response.

Beginning in 2006, the population in group quarters (GQ) was included in the ACS. Some types of GQ populations may have ancestry distributions that are different from the household population. The inclusion of the GQ population could therefore have a noticeable impact on the ancestry distribution. This is particularly true for areas with a substantial GQ population.

Comparability – The data are comparable to Census 2000, as long as some caution is used. Response rates to the ancestry question are generally higher for the ACS than for the Census, and data are never generated for missing ancestry responses; therefore, some ancestry groups are reported more heavily in the ACS than in Census 2000.

In 2010, there were two major changes to the coding rules. If up to two ancestries were listed, both were coded, even if one was the specific of the other or if one was American. Also, race groups and Hispanic groups were coded with the same priority as non-race and non-Hispanic groups. For example, "Haitian Black French" would previously have been coded Haitian and French, but now would be coded Haitian and Black.

For more information, see the Ancestry Code List found within the 2020 ACS Code List. Go to http://www.census.gov and enter "ACS Code Lists, Definitions, and Accuracy" in the search box.

Children Ever Born

For the 1996-1998 American Community Survey (ACS), the data on fertility (also referred to as "children ever born") was asked of all women 15 years old and over regardless of marital status. Stillbirths, stepchildren, and adopted children were excluded from the number of children ever born. Ever-married women were instructed to include all children born to them before and during their most recent marriage, children no longer living, and children living away from home, as well as children who were still living in the home. Never-married women were instructed to include all children born to them. The question on children ever born was asked to measure lifetime fertility experience of women up to the survey date.

Data were most frequently presented in terms of the aggregate number of children ever born to women in the specified category and in terms of the rate per 1,000 women.

Beginning in 1999, ACS data on fertility were derived from questions that asked if the person had given birth in the past 12 months (Question 25 in the 2020ACS). See the section on "Fertility" for more information.

Question/Concept History – The 1996-1998 ACS used a write-in space for the number and a response category for "None." No question addressed "children ever born" after 1998.

Limitation of the Data – The data available for 1996-1998 are only available for a limited number of geographies.

Comparability – The data on children ever born are comparable to data from the 1990 Census and prior censuses. The data are also comparable to the June supplement to the Current Population Survey.

Citizen Voting-Age Population

The citizen voting-age population includes all United States citizen 18 years of age or older at the time of the interview. Data on the citizen voting-age population is derived using the data on age and citizenship status. See Age and Citizenship Status for information on these topics.

Citizenship Status (U.S. Citizenship Status)

The data on citizenship status were derived from answers to Question 8 in the 2020 American Community Survey (ACS). This question was asked about Persons 1 through 5 in the ACS.

Respondents were asked to select one of five categories: (1) born in the United States; (2) born in Puerto Rico, Guam, the U.S. Virgin Islands, or Northern Marianas; (3) born abroad of U.S. citizen parent or parents; (4) U.S. citizen by naturalization; or (5) not a U.S. citizen. Respondents indicating they were a U.S. citizen by naturalization were asked to print their year of naturalization.

For the Puerto Rico Community Survey, respondents were asked to select one of five categories: (1) born in Puerto Rico; (2) born in a U.S. state, District of Columbia, Guam, the U.S. Virgin Islands, or Northern Marianas; (3) born abroad of U.S. citizen parent or parents; (4) U.S. citizen by naturalization; or (5) not a U.S. citizen. Respondents indicating they were a U.S. citizen by naturalization were asked to print their year of naturalization.

When no information on citizenship status was reported for a person, information for other household members, if available, was used to assign a citizenship status to the respondent. All cases of nonresponse that were not assigned a citizenship status based on information from other household members were allocated the citizenship status of another person with similar characteristics who provided complete information. In cases of conflicting responses, place of birth information was used to edit citizenship status. For example, if a respondent stated he or she was born in Puerto Rico but was not a U.S. citizen, the edits used the response to the place of birth question to change the respondent's status to "U.S. citizen at birth."

U.S. Citizen – Respondents who indicated that they were born in the United States, Puerto Rico, Guam, the Northern Marianas, or the U.S. Virgin Islands, as well as those born abroad of at least one U.S. citizen parent are considered U.S. citizens at birth. Foreign-born people who indicated that they were U.S. citizens through naturalization also are considered U.S. citizens.

Not a U.S. Citizen – Respondents who indicated that they were not U.S. citizens at the time of the survey.

Native – The native population includes anyone who was a U.S. citizen at birth. This includes respondents who indicated they were born in the United States, Puerto Rico, Guam, the Northern Marianas, or the U.S. Virgin Islands, as well as those born abroad of at least one U.S. citizen parent.

Foreign born – The foreign-born population includes anyone who was not a U.S. citizen at birth. This includes respondents who indicated they were a U.S. citizen by naturalization or not a U.S. citizen.

The ACS questionnaires do not ask about immigration status. The population surveyed includes all people who indicated that the United States was their usual place of residence on the survey date. The foreign-born population includes naturalized U.S. citizens, lawful permanent residents (i.e. immigrants), temporary migrants (e.g., foreign students), humanitarian migrants (e.g., refugees), and unauthorized migrants (i.e. people illegally present in the United States).

The responses to this question are used to determine the U.S. citizen and non-U.S. citizen populations as well as to determine the native and foreign-born populations.

Question/Concept History – In the 1996-1998 ACS, the third response category was "Yes, born abroad of American parent(s)." However, in 1999 for the ACS and 2005 for the Puerto

Rico Community Survey, the response category was then changed to "Yes, born abroad of American parent or parents." In 2008, respondents who indicated that they were a U.S. citizen by naturalization were asked to print their year of naturalization. Also in 2008, modifications in wording were made to both the third response category (changed from "Yes, born abroad of American parent or parents" to "Yes, born abroad of U.S. citizen parent or parents") and the fifth response category (changed from "No, not a citizen of the United States" to "No, not a U.S. citizen").

Limitation of the Data – Beginning in 2006, the population in group quarters (GQ) was included in the ACS. Some types of GQ populations may have citizenship status distributions that are different from those of the household population. Consequently, the inclusion of the GQ population may have a noticeable impact on the overall citizenship status distribution. This is particularly true for areas with substantial GQ populations.

Comparability – Citizenship can be compared both across ACS years and to Census 2000 data. For more information, go to http://www.census.gov and enter "Comparing ACS Data" in the search box.

Class of Worker

Class of worker categorizes workers according to the type of ownership of the employing organization. This variable identifies whether the respondent is self-employed, works in the private sector, or in government. The class of worker category is, in most cases, independent of industry and occupation.

On the American Community Survey (ACS), demographic class of worker data are derived primarily from answers to questions 42a. These questions are asked of all people 15 years old and over who had worked in the past 5 years. The text of these questions as they appear in the 2020 ACS questionnaire is as follows:

(Boxes located to the left of response categories)

a. Which one of the following best describes this person's employment last week or the most recent employment in the past 5 years? Mark (X) ONE box.

PRIVATE SECTOR EMPLOYEE
- For-profit company or organization
- Non-profit organization (including tax-exempt and charitable organizations)

GOVERNMENT EMPLOYEE
- Local government (for example: city or county school district)
- State government (including state colleges/universities)
- Active duty U.S. Armed Forces or Commissioned Corps
- Federal government civilian employee

SELF-EMPLOYED OR OTHER

- Owner of non-incorporated business, professional practice, or farm
- Owner of incorporated business, professional practice, or farm
- Worked without pay in a for-profit family business or farm for 15 hours or more per week

For employed people, the data refer to the person's job during the previous week. For those who worked two or more jobs, the data refer to the job where the person worked the greatest number of hours. For people who are unemployed or not in the labor force, but report having had a job within the last five years, the data refer to their last job.

The class of worker categories are defined as follows:

Private wage and salary workers – This includes people who worked for wages, salary, commission, tips, pay-in-kind, or piece rates for a private, for-profit employer or a private not-for-profit, tax-exempt or charitable organization. Self-employed people whose business was incorporated are included with private wage and salary workers because they are paid employees of their own companies. Published tabulations sometimes present data separately for the basic classes: "employee of private company workers" (a salaried employee in the for-profit sector), "private not-for-profit wage and salary workers," and "self-employed in own incorporated business workers." Also, “employee of private company workers” and “self-employed in own incorporated business workers” are often reported together as “private-for-profit wage and salary workers”

Government workers – This includes people who were employees of any local, state, or federal governmental unit, regardless of the activity of the particular agency. Often, the data are presented separately for the three levels of government. The government class of worker categories include all government workers, though they may work in industries other than public administration. For example, people who work in a public elementary school or city owned bus line are classified as local government workers.

Employees of Indian tribal governments, foreign governments, the United Nations, or other formal international organizations controlled by governments were classified as “Federal government workers.”

Self-employed in own not incorporated business workers – Includes people who worked for profit or fees in their own unincorporated business, profession, or trade, or who operated a farm. This class is often tabulated together with the following group, unpaid family workers

Unpaid family workers – This includes people who worked without pay in a business or on a farm operated by a relative. Note that, on tabulations with earnings data, unpaid family workers may have earnings. This can be either from a second job (class of worker is assigned based on the job accounting for the most hours worked) or from previous employment (because the earnings reference period is the past year, while for class of worker it is the previous week).

Editing Procedures – A computer edit and allocation process excludes all responses that should not be included in the universe and evaluates the consistency of the remaining responses. Class of worker responses are checked for consistency with the industry and occupation data provided for that respondent. Occasionally respondents do not report a response for class of worker, industry, or occupation. Certain types of incomplete entries are corrected using the *Alphabetical Index of Industries and Occupations* (https://www.census.gov/topics/employment/industry-occupation/guidance/indexes.html). If one or more of the three codes (occupation, industry, or class of worker) is blank after the edit, a code is assigned from a donor respondent who is a "similar" person based on questions such as age, sex, educational attainment, income, employment status, and weeks worked. If all of the labor force and income data are blank, all of these economic questions are assigned from a "similar" person who had provided all the necessary data.

These data are used to formulate policy and programs for employment and career development and training. Companies use these data to decide where to locate new plants, stores, or offices.

Question/Concept History – Class of worker data have been collected during decennial censuses since 1910. Starting with the 2010 Census, class of worker data is no longer be collected during the decennial census. Long form data collection has transitioned to the ACS. The ACS began collecting data on class of worker in 1996. The questions on class of worker were designed to be consistent with the 1990 Census questions on class of worker. The 1996-1998 ACS class of worker question had an additional response category for "Active duty U.S. Armed Forces member." People who marked this category were tabulated as Federal government workers. A check box was added to the employer name question in the 1999 ACS through the 2019 ACS (Question 42 in 2019 ACS).

In 2016, ACS underwent content testing for the class of worker, industry, and occupation questions. As a result, in 2019, ACS adopted an additional response category of "Active Duty or U.S. Armed Forces or Commissioned Corps" in the Class of Worker question to aide coders in assigning the best industry code for military cases. Other changes were also implemented to the formatting, response category wording, numbering of questions, and write-in industry and occupation questions examples provided on the questionnaire.

Limitation of the Data – Beginning in 2006, the population in group quarters (GQ) was included in the ACS. Some types of GQ populations have class of worker distributions that are different from the household population. The inclusion of the GQ population could therefore have a noticeable impact on the class of worker distribution in some geographic areas with a substantial GQ population.

Data on occupation, industry, and class of worker are collected for the respondent's current primary job or the most recent job for those who are not employed but have worked in the last 5 years. Other labor force questions, such as questions on earnings or work hours, may have different reference periods and may not limit the response to the primary job. Although the prevalence of multiple jobs is low, data on some labor force items may not exactly correspond to the reported occupation, industry, or class of worker of a respondent.

Comparability – Class of worker categories have remained consistent since the implementation of the ACS in 1996. The 1996-1998 ACS class of worker question had a response category for "Active duty U.S. Armed Forces member" within the class of worker question. Beginning with the 1999 ACS through the 2019 ACS, the Active Duty check box was added to the employer name questionnaire item. As result of the 2016 ACS Content Test and beginning with 2019 ACS, the Active Duty check box was removed from the employer name question and was added back as a response category to the class of worker question. Throughout the changes, Active duty U.S. Armed Forces have been coded as Federal government workers from 1996 to the present.

See also, Industry and Occupation.

Disability Status

Under the conceptual framework of disability described by the Institute of Medicine (IOM) and the International Classification of Functioning, Disability, and Health (ICF), disability is defined as the product of interactions among individuals' bodies; their physical, emotional, and mental health; and the physical and social environment in which they live, work, or play. Disability exists where this interaction results in limitations of activities and restrictions to full participation at school, at work, at home, or in the community. For example, disability may exist where a child has difficulty learning because the school cannot accommodate the child's deafness.

Furthermore, disability is a dynamic concept that changes over time as one's health improves or declines, as technology advances, and as social structures adapt. As such, disability is a continuum in which the degree of difficulty may also increase or decrease. Because disability exists along a continuum, various cut-offs are used to allow for a simpler understanding of the concept, the most common of which is the dichotomous "With a disability"/"no disability" categorization.

Measuring this complex concept of disability with a short set of six questions is difficult. Because of the multitude of possible functional limitations that may present as disabilities, and in the absence of information on external factors that influence disability, surveys like the ACS are limited to capturing difficulty with only selected activities. Thus, people identified by the ACS as having a disability are those who report difficulty with specific functions, and may, in the absence of accommodation, have a disability. While this definition is different from the one described by the IOM and ICF conceptual frameworks, it relates to the programmatic definitions used in most Federal and state legislation.

In an attempt to capture a variety of characteristics that encompass the definition of disability, the ACS identifies serious difficulty with four basic areas of functioning – hearing, vision, cognition, and ambulation. These functional limitations are supplemented by questions about difficulties with selected activities from the Katz Activities of Daily Living (ADL) and Lawton Instrumental Activities of Daily Living (IADL) scales, namely difficulty bathing and dressing, and difficulty performing errands such as shopping. Overall, the ACS

attempts to capture six aspects of disability, which can be used together to create an overall disability measure, or independently to identify populations with specific disability types.

Information on disability is used by a number of federal agencies to distribute funds and develop programs for people with disabilities. For example, data about the size, distribution, and needs of the population with a disability are essential for developing disability employment policy. For the Americans with Disabilities Act, data about functional limitations are important to ensure that comparable public transportation services are available for all segments of the population. Federal grants are awarded, under the Older Americans Act, based on the number of older adults with physical and mental disabilities.

Question/Concept History – In the current American Community Survey (ACS), disability concepts are asked in questions 17 through 19. Question 17 has two subparts and is asked of all persons regardless of age. Question 18 had three subparts and is asked of people age 5 years and older. Question 19 is asked of people age 15 years and older.

Hearing difficulty was derived from question 17a, which asked respondents if they were "deaf or … [had] serious difficulty hearing." *Vision difficulty* was derived from question 17b, which asked respondents if they were "blind or … [had] serious difficulty seeing even when wearing glasses." Prior to the 2008 ACS, hearing and vision difficulty were asked in a single question under the label "Sensory disability."

Cognitive difficulty was derived from question 18a, which asked respondents if due to physical, mental, or emotional condition, they had "serious difficulty concentrating, remembering, or making decisions." Prior to the 2008 ACS, the question on cognitive functioning asked about difficulty "learning, remembering, or concentrating" under the label "Mental disability."

Ambulatory difficulty was derived from question 18b, which asked respondents if they had "serious difficulty walking or climbing stairs." Prior to 2008, the ACS asked if respondents had "a condition that substantially limits one or more basic physical activities such as walking, climbing stairs, reaching, lifting, or carrying." This measure was labeled "Physical difficulty" in ACS data products.

Self-care difficulty was derived from question 18c, which asked respondents if they had "difficulty dressing or bathing." Difficulty with these activities are two of six specific Activities of Daily Living (ADLs) often used by health care providers to assess patients' self-care needs. Prior to the 2008 ACS, the question on self-care limitations asked about difficulty "dressing, bathing, or getting around inside the home," under the label "Self-care disability."

Independent living difficulty was derived from question 19, which asked respondents if due to a physical, mental, or emotional condition, they had difficulty "doing errands alone such as visiting a doctor's office or shopping." Difficulty with this activity is one of several Instrumental Activities of Daily Living (IADL) used by health care providers in making care decisions. Prior to the 2008 ACS, a similar measure on difficulty "going outside the home

alone to shop or visit a doctor's office" was asked under the label "Go-outside-home disability."

Disability status is determined from the answers from these six types of difficulty. For children under 5 years old, hearing and vision difficulty are used to determine disability status. For children between the ages of 5 and 14, disability status is determined from hearing, vision, cognitive, ambulatory, and self-care difficulties. For people aged 15 years and older, they are considered to have a disability if they have difficulty with any one of the six difficulty types.

Limitation of the Data – The universe for most disability data tabulations is the civilian noninstitutionalized population. Some types of GQ populations have disability distributions that are different from the household population. The inclusion of the noninstitutionalized GQ population could therefore have a noticeable impact on the disability distribution. This is particularly true for areas with a substantial noninstitutionalized GQ population. For a discussion of the effect of group quarters data has on estimates of disability status, see "Disability Status and the Characteristics of People in Group Quarters: A Brief Analysis of Disability Prevalence Among the Civilian Noninstitutionalized and Total Populations in the American Community Survey".

Comparability – The ACS disability estimates are comparable for data years 2008 and for subsequent years. Beginning in 2008, questions on disability represent a conceptual and empirical break from earlier years of the ACS. Hence, the Census Bureau does not recommend any comparisons of ACS disability data from 2008 or later years with estimates from 2007 and earlier years.

Research suggests that combining the new separate measures of hearing and vision difficulty to generate a sensory difficulty measure does not create a comparable estimate to the prior sensory disability estimates in previous ACS products. Likewise, the cognitive difficulty, ambulatory difficulty, self-care difficulty, and independent living difficulty measures are based on different sets of activities and different question wordings from similar measures in ACS questionnaires prior to 2008 and thus should not be compared. Because the overall measure of disability status beginning in 2008 is based on different measures of difficulty, these estimates should also not be compared to prior years. For additional information on the differences between the ACS disability questions beginning in 2008 and prior ACS disability questions, see "Review of Changes to the Measurement of Disability in the 2008 American Community Survey".

Disability estimates for 2008 and subsequent years also should not be compared with disability estimates from Census 2000 for reasons similar to the ones noted above. ACS disability estimates also should not be compared with more detailed measures of disability, such as the National Health Interview Survey and the Survey of Income and Program Participation.

Educational Attainment

Educational attainment data are needed for use in assessing the socioeconomic condition of the U.S. population. Government agencies also require these data for funding allocations and program planning and implementation. These data are needed to determine the extent of illiteracy rates of citizens in language minorities in order to meet statutory requirements under the Voting Rights Act. Based on data about educational attainment, school districts are allocated funds to provide classes in basic skills to adults who have not completed high school.

Data on educational attainment were derived from answers to Question 11 on the 2020 ACS, which was asked of all respondents. Educational attainment data are tabulated for people 18 years old and over. Respondents are classified according to the highest degree or the highest level of school completed. The question included instructions for persons currently enrolled in school to report the level of the previous grade attended or the highest degree received.

The educational attainment question included a response category that allowed people to report completing the 12th grade without receiving a high school diploma. Respondents who received a regular high school diploma and did not attend college were instructed to report "Regular high school diploma." Respondents who received the equivalent of a high school diploma (for example, passed the test of General Educational Development (G.E.D.)), and did not attend college, were instructed to report "GED or alternative credential." "Some college" is in two categories: "Some college credit, but less than 1 year of college credit" and "1 or more years of college credit, no degree." The category "Associate's degree" included people whose highest degree is an associate's degree, which generally requires 2 years of college level work and is either in an occupational program that prepares them for a specific occupation, or an academic program primarily in the arts and sciences. The course work may or may not be transferable to a bachelor's degree. Master's degrees include the traditional MA and MS degrees and field-specific degrees, such as MSW, MEd, MBA, MLS, and MEng. Professional school degrees may include those in medicine, dentistry, chiropractic, optometry, osteopathic medicine, pharmacy, podiatry, veterinary medicine, law, and theology. The order in which degrees were listed suggested that doctorate degrees were "higher" than professional school degrees, which were "higher" than master's degrees. If more than one box was filled, the response was edited to the highest level or degree reported.

Help text available to people responding by Internet and through personal interviews were instructed that schooling completed in foreign or ungraded school systems should be reported as the equivalent level of schooling in the regular American system. The instructions specified that certificates or diplomas for training in specific trades or from vocational, technical or business schools were not to be reported. Honorary degrees awarded for a respondent's accomplishments were not to be reported.

High School Graduate or Higher – This category includes people whose highest degree was a high school diploma or its equivalent, people who attended college but did not receive a degree, and people who received an associate's, bachelor's, master's, or professional or

doctorate degree. People who reported completing the 12th grade but not receiving a diploma are not included.

Not Enrolled, Not High School Graduate – This category includes people of compulsory school attendance age or above who were not enrolled in school and were not high school graduates. These people may be referred to as "high school dropouts." There is no restriction on when they "dropped out" of school; therefore, they may have dropped out before high school and never attended high school.

Question/Concept History – Since 1999, the ACS question does not have the response category for "Vocational, technical, or business school degree" that the 1996-1998 ACS question had. Starting in 1999, the ACS question had two categories for some college: "Some college credit, but less than 1 year" and "1 or more years of college, no degree." The 1996-1998 ACS question had one category: "Some college but no degree."

In the 1996-1998 ACS, the educational attainment question was used to estimate level of enrollment. Since 1999, a question regarding grade of enrollment was included.

The 1999-2007 ACS attainment question grouped grade categories below high school into the following three categories: "Nursery school to 4th grade," "5th grade or 6th grade," and "7th grade or 8th grade." The 1996-1998 ACS question allowed a write-in for highest grade completed for grades 1-11 in addition to "Nursery or preschool" and "Kindergarten."

Beginning in 2008, the ACS attainment question was changed to the following categories for levels up to Grade 12, no diploma: "Nursery school," "Kindergarten," "Grade 1 through grade 11," and "12th grade, no diploma." The survey question allowed a write-in for the highest grade completed for grades 1-11. In addition, the category that was previously "High school graduate (including GED)" was broken into two categories: "Regular high school diploma" and "GED or alternative credential." The term "*credit*" for the two some college categories was emphasized. The phrase "*beyond a bachelor's degree*" was added to the professional degree category.

Limitation of the Data – Beginning in 2006, the population in group quarters (GQ) was included in the ACS. Some types of GQ populations may have educational attainment distributions that are different from the household population. The inclusion of the GQ population could therefore have a noticeable impact on the educational attainment distribution. This is particularly true for areas with a substantial GQ population.

The Census Bureau tested the changes introduced to the 2008 version of the educational attainment question in the 2006 ACS Content Test. The results of this testing show that the changes may introduce an inconsistency in the data produced for this question as observed from the years 2007 to 2008. For more information, see "Evaluation Report Covering Educational Attainment" from the 2006 ACS Content Test.

Comparability – New questions were added to the 2008 ACS Computer-Assisted Telephone Interview (CATI) and Computer-Assisted Personal Interview (CAPI) instruments.

Respondents who received a high school diploma, GED or equivalent also were asked if they had completed any college credit. Therefore, data users may notice a decrease in the number of high school graduates relative to previous years because those people are now being captured in the "Some college credit, but less than 1 year of college credit" or "1 or more years of college credit, no degree" categories. For more information, see "Evaluation Report Covering Educational Attainment" from the 2006 ACS Content Test.

Data about educational attainment also are collected from the decennial Census and from the Current Population Survey (CPS). ACS data are generally comparable to data from the Census. For more information about the comparability of ACS and CPS data, please see the Educational Attainment Fact Sheet at https://www.census.gov/topics/education/educational-attainment/guidance/factsheet-acs-cps.html. More information about the comparability of ACS and CPS data can also be found in the paper "Comparison of ACS and ASEC Data on Educational Attainment: 2004".

Employment Status

The data on employment status were derived from Questions 30 and 36 to 38 in the 2020 American Community Survey (ACS). (In the 1999-2002 ACS, data were derived from Questions 22 and 28 to 30; in the 1996-1998 ACS, data were derived from Questions 21 and 28 to 30.) The questions were asked of all people 15 years old and over. The series of questions on employment status was designed to identify, in this sequence: (1) people who worked at any time during the reference week; (2) people on temporary layoff who were available for work; (3) people who did not work during the reference week but who had jobs or businesses from which they were temporarily absent (excluding layoff); (4) people who did not work during the reference week, but who were looking for work during the last four weeks and were available for work during the reference week; and (5) people not in the labor force. (For more information, see the discussion under "Reference Week.")

The employment status data shown in ACS tabulations relate to people 16 years old and over.

Employment status is key to understanding work and unemployment patterns and the availability of workers. Based on labor market areas and unemployment levels, the U.S. Department of Labor identifies service delivery areas and determines amounts to be allocated to each for job training. The impact of immigration on the economy and job markets is determined partially by labor force data, and this information is included in required reports to Congress. The Office of Management and Budget, under the Paperwork Reduction Act, uses data about employed workers as part of the criteria for defining metropolitan areas. The Bureau of Economic Analysis uses this information, in conjunction with other data, to develop its state per capita income estimates used in the allocation formulas and eligibility criteria for many federal programs such as Medicaid.

Employed – This category includes all civilians 16 years old and over who either (1) were "at work," that is, those who did any work at all during the reference week as paid employees, worked in their own business or profession, worked on their own farm, or worked 15 hours or more as unpaid workers on a family farm or in a family business; or (2) were

"with a job but not at work," that is, those who did not work during the reference week but had jobs or businesses from which they were temporarily absent due to illness, bad weather, industrial dispute, vacation, or other personal reasons. Excluded from the employed are people whose only activity consisted of work around the house or unpaid volunteer work for religious, charitable, and similar organizations; also excluded are all institutionalized people and people on active duty in the United States Armed Forces.

Civilian Employed – This term is defined exactly the same as the term "employed" above.

Unemployed – All civilians 16 years old and over are classified as unemployed if they (1) were neither "at work" nor "with a job but not at work" during the reference week, and (2) were actively looking for work during the last 4 weeks, and (3) were available to start a job. Also included as unemployed are civilians who did not work at all during the reference week, were waiting to be called back to a job from which they had been laid off, and were available for work except for temporary illness. Examples of job seeking activities are:

- Registering at a public or private employment office
- Meeting with prospective employers
- Investigating possibilities for starting a professional practice or opening a business
- Placing or answering advertisements
- Writing letters of application
- Being on a union or professional register

Civilian Labor Force – Consists of people classified as employed or unemployed in accordance with the criteria described above.

Unemployment Rate – The unemployment rate represents the number of unemployed people as a percentage of the civilian labor force. For example, if the civilian labor force equals 100 people and 7 people are unemployed, then the unemployment rate would be 7 percent.

Labor Force – All people classified in the civilian labor force plus members of the U.S. Armed Forces (people on active duty with the United States Army, Air Force, Navy, Marine Corps, or Coast Guard).

Labor Force Participation Rate – The labor force participation rate represents the proportion of the population that is in the labor force. For example, if there are 100 people in the population 16 years and over, and 64 of them are in the labor force, then the labor force participation rate for the population 16 years and over would be 64 percent.

Not in Labor Force – All people 16 years old and over who are not classified as members of the labor force. This category consists mainly of students, homemakers, retired workers, seasonal workers interviewed in an off season who were not looking for work, institutionalized people, and people doing only incidental unpaid family work (less than 15 hours during the reference week).

Worker – This term appears in connection with several subjects: employment status, journey-to-work questions, class of worker, weeks worked in the past 12 months, and number of workers in family in the past 12 months. The meaning varies and, therefore, should be determined in each case by referring to the definition of the subject in which it appears. When used in the concepts "workers in family" and "full-time, year-round workers," the term "worker" relates to the meaning of work defined for the "work experience" subject.

Question/Concept History –

Worked Last Week (Question 30 in the 2020 ACS): From 1999-2007, an italicized instruction was added to the question to help respondents determine what to count as work. Starting in 2008, the instruction was removed and the question was separated into two parts in an effort to give respondents – particularly people with irregular kinds of work arrangements – two opportunities to grasp and respond to the correct intent of the question.

On Layoff (Question 36a in the 2020 ACS): Starting in 1999, the "Yes, on temporary layoff from most recent job" and "Yes, permanently laid off from most recent job" response categories were condensed into a single "Yes" category. An additional question (Q35b) was added to determine the temporary/permanent layoff distinction.

Temporarily Absent (Question 36b in the 2020 ACS): Starting in 2008, the temporarily absent question included a revised list of examples of work absences.

Recalled to Work (Question 36c in the 2020 ACS): This question was added in the 1999 ACS to determine if a respondent who reported being on layoff from a job had been informed that he or she would be recalled to work within 6 months or been given a date to return to work.

Looking for Work (Question 37 in the 2020 ACS): Starting in 2008, the actively looking for work question was modified to emphasize 'active' job-searching activities.

Available to Work (Question 38 in the 2020 ACS): Starting in 1999, the "Yes, if a job had been offered" and "Yes, if recalled from layoff" response categories were condensed into one category, "Yes, could have gone to work."

Limitation of the Data – The data may understate the number of employed people because people who have irregular, casual, or unstructured jobs sometimes report themselves as not working. The number of employed people "at work" is probably overstated in the data (and conversely, the number of employed "with a job, but not at work" is understated) since some people on vacation or sick leave erroneously reported themselves as working. This problem has no effect on the total number of employed people. The reference week for the employment data is not the same for all people. Since people can change their employment status from one week to another, the lack of a uniform reference week may mean that the employment data do not reflect the reality of the employment situation of any given week. (For more information, see the discussion under "Reference Week.")

Beginning in 2006, the population in group quarters (GQ) was included in the ACS. Some types of GQ populations have employment status distributions that are different from the household population. All institutionalized people are placed in the "not in labor force" category. The inclusion of the GQ population could therefore have a noticeable impact on the employment status distribution. This is particularly true for areas with a substantial GQ population. For example, in areas having a large state prison population, the employment rate would be expected to *decrease* because the base of the percentage, which now includes the population in correctional institutions, is larger.

The Census Bureau tested the changes introduced to the 2008 version of the employment status questions in the 2006 ACS Content Test. The results of this testing show that the changes may introduce an inconsistency in the data produced for these questions as observed from the years 2007 to 2008. For more information, see "Evaluation Report Covering Employment Status" from the 2006 ACS Content Test. Go to http://www.census.gov and enter "2006 ACS Content Test Evaluation Report Covering Employment Status" in the search box.

Along with the 2008 ACS release, the Census Bureau produced a research note comparing 2007 and 2008 ACS employment estimates to 2007 and 2008 Current Population Survey (CPS)/Local Area Unemployment Statistics (LAUS) estimates. The research note shows that the changes to the employment status series of questions in the 2008 ACS will make ACS labor force data more consistent with benchmark data from the CPS and LAUS program. For more information, see "Changes to the American Community Survey between 2007 and 2008 and the Effects on the Estimates of Employment and Unemployment" (https://www2.census.gov/programs-surveys/demo/guidance/labor-force/researchnote-report.pdf).

Comparability – Since employment data from the ACS are obtained from respondents in households, they differ from statistics based on reports from individual business establishments, farm enterprises, and certain government programs. People employed at more than one job are counted only once in the ACS and are classified according to the job at which they worked the greatest number of hours during the reference week. In statistics based on reports from business and farm establishments, people who work for more than one establishment may be counted more than once. Moreover, some tabulations may exclude private household workers, unpaid family workers, and self-employed people, but may include workers less than 16 years of age.

An additional difference in the data arises from the fact that people who had a job but were not at work are included with the employed in the ACS statistics, whereas many of these people are likely to be excluded from employment figures based on establishment payroll reports. Furthermore, the employment status data in tabulations include people on the basis of place of residence regardless of where they work, whereas establishment data report people at their place of work regardless of where they live. This latter consideration is particularly significant when comparing data for workers who commute between areas.

For several reasons, the unemployment figures of the Census Bureau are not comparable with published figures on unemployment compensation claims. For example, figures on unemployment compensation claims exclude people who have exhausted their benefit rights, new workers who have not earned rights to unemployment insurance, and people losing jobs not covered by unemployment insurance systems (including some workers in agriculture, domestic services, and religious organizations, and self-employed and unpaid family workers). In addition, the qualifications for drawing unemployment compensation differ from the definition of unemployment used by the Census Bureau. People working only a few hours during the week and people with a job but not at work are sometimes eligible for unemployment compensation but are classified as "Employed" in the ACS. Differences in the geographical distribution of unemployment data arise because the place where claims are filed may not necessarily be the same as the place of residence of the unemployed worker.

For guidance on differences in employment and unemployment estimates from different sources, go to https://www.census.gov/topics/employment/labor-force/guidance/survey-differences.html

Families

See Household Type and Relationship.

Fertility

The data on fertility were derived from Question 17 in 1999-2002, Question 18 in 2003-2007, question 23 in 2008, Question 24 in 2009-2018, and Question 25 since 2019 in the American Community Survey (ACS). The question asked if the person had given birth in the past 12 months, and was asked of all women 15 to 50 years old regardless of marital status. From this question, we are able to determine geographies with high numbers of women with births and the characteristics of these women, such as age and marital status. When fertility was not reported, it was imputed according to the woman's age and marital status and the possibility there was an infant in the household.

Data are most frequently presented in terms of the aggregate number of women who had a birth in the past 12 months in the specified category, and in terms of the rate per 1,000 women.

Total Fertility Rate- This measure estimates the number of children a group of 1,000 women would have by the end of their childbearing years if they all experienced the same age-specific birth rates between ages 15-50 in a given year. This rate is used for comparisons among different population groups—for example, women in different geographical areas--as the rate accounts for differences in the age distribution in those areas.

***Question/Concept History* –** The 1996-1998 ACS collected data on "children ever born." (See the section on "Children Ever Born" for more information.) In 1999, the ACS began collecting data on children born in the last 12 months.

Limitation of the Data – Beginning in 2006, the population in group quarters (GQ) was included in the ACS. Some types of GQ populations may have fertility distributions that are different from the household population. The inclusion of the GQ population could therefore have a noticeable impact on the fertility distribution. This is particularly true for areas with a substantial GQ population.

Comparability – The data on fertility can be compared to previous ACS years, to data from the National Center for Health Statistics (NCHS), and to similar data collected in the Current Population Survey (CPS) before that question changed in 2012. Keep in mind there are differences among these that can lead to differences in estimates. For instance, the NCHS collects administrative records while the ACS and CPS estimates are based on survey data. Also, all of these surveys have slightly different ways of determining the reference period, but generally show births occurring over a period of 12 months.

Field of Degree

Field of degree data are used by the National Science Foundation (NSF) to study the characteristics of the population with science and engineering degrees and occupations.

Data on field of bachelor's degree were derived from answers to Question 12 in the 2020 American Community Survey (ACS). This question was asked only to persons with a bachelor's degree or higher. Eligible respondents were asked to list the specific major(s) of any bachelor's degree received. This question does not ask for the field of any other type of degree earned (such as master's or doctorate).

An automated computer system coded write-in responses to Question 12 into 192 areas. Clerical coding categorized any write-in responses that could not be autocoded by the computer. Respondents listing multiple fields were assigned a code for each field, with a maximum of 10 fields per respondent.

The majors were further classified into a category scheme detailed in Field of Degree Classification table in Appendix A.

Question/Concept History – The field of degree question first appeared in the 2009 ACS. The inclusion of a field of degree question on the ACS was proposed to provide field of degree data annually for small levels of geography and to assist in building a sampling frame for the NSF's National Survey of College Graduates (NSCG).

Limitation of the Data – Beginning in 2006, the population in group quarters (GQ) was included in the ACS. Some types of GQ populations may have field of degree distributions that are different from the household population. The inclusion of the GQ population could therefore have a noticeable impact on the field of degree distribution. This is particularly true for areas with a substantial GQ population.

Comparability – Tables based on 2010-2020 ACS data are not completely comparable to tables based on 2009 ACS data due to slight changes in the field of degree coding and classifications. More information can be found here.

These data may be roughly comparable to the NSCG and the National Survey of Recent College Graduates, although the sampling frame and survey instruments differ between the surveys. Field of degree data also were collected in the Survey of Income and Program Participation (SIPP) from 1984 to 2004. However, these data would not be comparable to ACS due to differences in data collection period, methodology, and collection methods. For example, the SIPP only collects data for respondents who are 15 years and older and does not include group quarters.

Foreign-Born Population

The foreign-born population includes anyone who was not a U.S. citizen at birth. This includes respondents who indicated they were a U.S. citizen by naturalization or not a U.S. citizen. See Citizenship Status.

Foster Children

See Household Type and Relationship.

Grade in Which Enrolled

See School Enrollment and Type of School.

Grandparents as Caregivers

Data on grandparents as caregivers were derived from Questions 26a through 26c in the 2020 American Community Survey (ACS). Data are collected on whether a grandchild lives with a grandparent in the household, whether the grandparent has responsibility for the basic needs of the grandchild, and the duration of that responsibility.

Existence of a Grandparent Living with a Grandchild in the Household – This was determined by a "Yes" answer to the question, "Does this person have any of his/her own grandchildren under the age of 18 living in this house or apartment?" This question was asked of people 15 years of age and over. Because of the low numbers of persons under 30 years old living with their grandchildren, data were only tabulated for people 30 and over.

Responsibility for Basic Needs – This question determines if the grandparent is financially responsible for food, shelter, clothing, day care, etc., for any or all grandchildren living in the household. In selected tabulations, grandparent responsibility is further classified by presence of parent (of the grandchild).

Duration of Responsibility – The answer refers to the grandchild for whom the grandparent has been responsible for the longest period of time. Duration categories ranged from less than 6 months to 5 or more years.

Question/Concept History – This set of questions was added to the ACS in 1999 to comply with legislation passed in the 104th Congress requiring that the decennial census program obtain information about grandparents who have primary responsibility for the care of their grandchildren.

The response categories for length of time caring for grandchildren were modified slightly between the 1999 and 2000 ACS questionnaires to match the 2000 decennial census questionnaire. The question has remained unchanged since then.

Limitation of the Data – Before 2006, ACS grandparents data had a universe of people in households (which was the same as that in Census 2000). Beginning in 2006, the population in group quarters (GQ) was included in the ACS. Some types of GQ populations may have grandparents as caregivers distributions that are different from the household population. The inclusion of the GQ population could therefore have a noticeable impact on the grandparents as caregivers distribution. This is particularly true for areas with a substantial GQ population.

Comparability – The data on grandparents as caregivers can be compared to previous ACS years and Census 2000 (with the potential limitation noted above about areas with a substantial GQ population). For more information, go to http://www.census.gov and enter "Comparing ACS Data" in the search box.

Group Quarters (GQ)

See "Group Quarters" in the Living Quarters section.

Health Insurance Coverage

Data on health insurance coverage were derived from answers to Question 16 in the American Community Survey (ACS), which was asked of all respondents. Respondents were instructed to report their current coverage and to mark "yes" or "no" for each of the eight types listed (labeled as parts 16(a) to 16(h)).

a. Insurance through a current or former employer or union (of this person or another family member)

b. Insurance purchased directly from an insurance company (by this person or another family member)

c. Medicare, for people 65 and older, or people with certain disabilities

d. Medicaid, Medical Assistance, or any kind of government-assistance plan for those with low incomes or a disability

e. TRICARE or other military health care

f. VA (enrolled for VA health care)

g. Indian Health Service

h. Any other type of health insurance or health coverage plan

Respondents who answered "yes" to question 16(h) were asked to provide their other type of coverage type in a write-in field.

The VA Coverage question was updated in 2019 to better reflect the post-2010 Patient Protection and Affordable Care Act (ACA) climate. The new text says, "enrolled for VA health care" instead of "including those who have ever used or enrolled for VA health care". Keeping the previous VA question wording, after implementation of the ACA, would have overestimated the number of veterans with current VA coverage.

In 2019, the ACS also introduced additional questions regarding health insurance premiums and subsidy receipt to estimate subsidized Marketplace coverage. These questions (labeled as 17(a) and 17(b)) ask if a person pays a health insurance premium and, if so, whether the person received a tax credit or subsidy to help pay for it. For additional information about these questions, see ACS memo "Subsidized Marketplace Coverage in the American Community Survey" (Hernandez-Viver and Berchick, 2020).

Health insurance coverage in the ACS and other Census Bureau surveys define coverage to include plans and programs that provide comprehensive health coverage. Plans that provide insurance only for specific conditions or situations such as cancer and long-term care policies are not considered comprehensive health coverage. Likewise, other types of insurance like dental, vision, life, and disability insurance are not considered comprehensive health insurance coverage.

In defining types of coverage, write-in responses were reclassified into one of the first seven types of coverage or determined not to be a coverage type. Write-in responses that referenced the coverage of a family member were edited to assign coverage based on responses from other family members. As a result, only the first seven types of health coverage are included in the microdata file.

Beginning in 2009, an eligibility edit was applied to assign Medicaid, Medicare, and TRICARE coverage to individuals based on program eligibility rules. TRICARE or other military health care was assigned to active-duty military personnel and their spouses and children. Medicaid or other means-tested public coverage was assigned to foster children, certain individuals receiving Supplementary Security Income or Public Assistance, and the spouses and children of certain Medicaid beneficiaries. Medicare coverage was assigned to people 65 and older who received Social Security or Medicaid benefits. This eligibility edit was subsequently applied to the 2008 data (during spring 2010). Updated estimates of health insurance coverage in 2008 are available online (https://www.census.gov/data/tables/time-series/acs/1-year-re-run-health-insurance.html). For more information on the logical coverage

(eligibility) edits, see "Applying and Evaluating Logical Coverage Edits to Health Insurance Coverage in the American Community Survey"

People were considered insured if they reported at least one "yes" to Questions 16a to 16f. People who had no reported health coverage, or those whose only health coverage was Indian Health Service, were considered uninsured. For reporting purposes, the Census Bureau broadly classifies health insurance coverage as private health insurance or public coverage. Private health insurance is a plan provided through an employer or union, a plan purchased by an individual from a private company, or TRICARE or other military health care. Respondents reporting a "yes" to the types listed in parts a, b, or e were considered to have private health insurance. Public health coverage includes the federal programs Medicare, Medicaid, and VA Health Care (provided through the Department of Veterans Affairs), as well as the Children's Health Insurance Program (CHIP) and individual state health plans. Respondents reporting a "yes" to the types listed in c, d, or f were considered to have public coverage. The health insurance classifications are not mutually exclusive--people may be covered by more than one at the same time.

The U.S. Department of Health and Human Services, as well as other federal agencies, use data on health insurance coverage to more accurately distribute resources and better understand state and local health insurance needs.

Question/Concept History – The ACS began asking questions about health insurance coverage in 2008. Because 2008 was the first year of collection, the Census Bureau limited the number and type of data products to simple age breakdowns of overall, private, and public coverage status. The evaluation of the 2008 data suggested that the data were of good quality, so the Census Bureau expanded the data products to include estimates of the specific types of coverage along with estimates about social, economic, and demographic details for people with and without health insurance.

The health insurance coverage category names were modified in 2010. For a list of the of the new definitions, go to https://www.census.gov/topics/health/health-insurance/about/glossary.html#par_textimage_18.

In 2019, the Census Bureau introduced additional questions regarding health insurance premiums and subsidy receipt to estimate subsidized Marketplace coverage, and updated the VA coverage question to better reflect the post-ACA climate.

Limitation of the Data – The universe for most health insurance coverage estimates is the civilian noninstitutionalized population. This population excludes active-duty military personnel and the population living in institutional group quarters (GQ) (such as correctional facilities and nursing homes), but includes the population living in noninstitutional group quarters (such as college dormitories). Some noninstitutional group quarter (GQ) populations have health insurance coverage distributions that are different from the household population (e.g. the prevalence of private health insurance among residents of college dormitories is higher than the household population). The proportion of the universe that is in the noninstitutional GQ populations could, therefore, have a noticeable impact on estimates of

the health insurance coverage. Since institutional GQ populations may also have health insurance coverage distributions that are different from the civilian noninstitutionalized population, the distributions in the published tables may differ slightly from how they would look if the total population were represented.

Comparability **–**The question on health insurance coverage was added to the 2008 ACS, and thus no equivalent measure is available from previous ACS surveys or Census 2000. Because of the addition of the eligibility edit to the 2009 ACS health insurance coverage, data users should be careful as to which 2008 ACS estimates they use to make comparisons. National, state, county and place-level 2008 (1-year) data incorporating the eligibility edit are available for select geographies (https://www.census.gov/topics/health/health-insurance/guidance/acs-2008-1-year-re-run.html); these tables, comparable to the 2009 and later tables, are available at https://www.census.gov/data/tables/time-series/acs/1-year-re-run-health-insurance.html. For more information on the logical coverage (eligibility) edits, see "Applying and Evaluating Logical Coverage Edits to Health Insurance Coverage in the American Community Survey"

Because coverage in the ACS references an individual's current status, caution should be taken when making comparisons to other surveys that may define coverage as "at any time in the last year" or "throughout the past year." A discussion of how the ACS health insurance estimates relate to other survey health insurance estimates can be found in "A Preliminary Evaluation of Health Insurance Coverage in the 2008 American Community Survey" (https://www.census.gov/library/working-papers/2009/acs/2009_Turner_01.html)

Hispanic or Latino Origin

The data on the Hispanic or Latino population were derived from answers to a question that was asked of all people (Question 5 in the 2020 American Community Survey (ACS)). The ethnicity classifications used by the U.S. Census Bureau adhere to the October 30, 1997, *Federal Register* notice entitled, "Revisions to the Standards for the Classification of Federal Data on Race and Ethnicity" issued by the Office of Management and Budget (OMB). These OMB standards govern the definitions and categories used to collect and present federal data on ethnicity and race. OMB requires two minimum categories on ethnicity (Hispanic or Latino and Not Hispanic or Latino).

The 2020 ACS Hispanic origin question included three detailed checkboxes ("Mexican, Mexican Am., or Chicano," "Puerto Rican," "Cuban"), along with a "Yes, another Hispanic, Latino, or Spanish origin" checkbox, updated example groups, and a write-in area to collect additional detailed Hispanic responses. The 2020 ACS instruction stated, "Print, for example, Salvadoran, Dominican, Colombian, Guatemalan, Spaniard, Ecuadorian, etc." The examples for 2020 are the largest Hispanic population groups representing the geographic diversity of the Hispanic or Latino category, as defined by the 1997 OMB standards.

The terms "Hispanic," "Latino," and "Spanish" are used interchangeably. Some respondents identify with all three terms while others may identify with only one of these three specific terms. People who identify with the terms "Hispanic," "Latino," or "Spanish" are those who

classify themselves in one of the specific Hispanic, Latino, or Spanish categories listed on the questionnaire ("Mexican, Mexican Am., or Chicano," "Puerto Rican," or "Cuban") as well as those who indicate that they are "another Hispanic, Latino, or Spanish origin." People who do not identify with one of the specific origins listed on the questionnaire but indicate that they are "another Hispanic, Latino, or Spanish origin" are those whose origins are from Spain, the Spanish-speaking countries of Central or South America, or another Spanish culture or origin. Origin can be viewed as the heritage, nationality group, lineage, or country of birth of the person or the person's parents or ancestors before their arrival in the United States. People who identify their origin as Hispanic, Latino, or Spanish may be of any race.

Hispanic origin is used in numerous programs and is vital in making policy decisions. These data are needed to determine compliance with provisions of antidiscrimination in employment and minority recruitment legislation. Under the Voting Rights Act, data about Hispanic origin are essential to ensure enforcement of bilingual election rules.

Some tabulations are shown by the origin of the householder. In all cases where the origin of households, families, or occupied housing units is classified as Hispanic, Latino, or Spanish, the origin of the householder is used. (For more information, see the discussion of householder under "Household Type and Relationship.")

Coding of Hispanic Origin Write-in Responses – There were two types of coding operations: (1) automated coding where a write-in response was automatically coded if it matched a write-in response already contained in a database known as the "master file," and (2) expert coding, which took place when a write-in response did not match an entry already on the master file, and was sent to expert coders familiar with the subject matter.

During the coding process, subject-matter specialists reviewed and coded written entries from the "Yes, another Hispanic, Latino or Spanish origin" write-in response category on the Hispanic origin question. While the 2019 ACS captured up to 30 characters from the write-in line, allowing up to two responses to be coded, the 2020 ACS captured 200 characters, allowing for up to six responses to be coded from the write-in line. Knowing that some respondents may self-identify by reporting multiple Hispanic ethnicities, such as "Cuban" ***and*** "Salvadoran," 2020 ACS entries with multiple detailed Hispanic responses will be collected for research purposes. However, following the OMB standards, only a single Hispanic response will be tabulated, as was done in the 2019 ACS.

Editing of Hispanic Origin Responses – If an individual did not provide a Hispanic origin response, their origin was allocated using specific rules of precedence of household relationship. For example, if origin was missing for a natural-born child in the household, then either the origin of the householder, another natural-born child, or spouse of the householder was allocated. If Hispanic origin was not reported for anyone in the household and origin could not be obtained from a response to the race question, then the Hispanic origin of a householder in a previously processed household with the same race was allocated to the individual missing a response. Surnames (Spanish and Non-Spanish) were used to assist in allocating an origin or race.

Question/Concept History – Beginning in 1996, the ACS question was worded "Is this person Spanish/Hispanic/Latino?" In 2008, the question wording changed to "Is Person 1 of Hispanic, Latino, or Spanish origin?" From 1999 to 2007, the Hispanic origin question provided an instruction, "Mark (X) the "**No**" box if **not** Spanish/Hispanic/Latino." The 2008 question, as well as the 1996 to 1998 questions, did not have this instruction. In addition, in 2008, the "Yes, another Hispanic, Latino, or Spanish" category provided examples of six Hispanic origin groups (Argentinean, Colombian, Dominican, Nicaraguan, Salvadoran, Spaniard, and so on).

Although the 2020 ACS Hispanic origin question included the same three detailed checkboxes ("Mexican, Mexican Am., or Chicano" "Puerto Rican," "Cuban"), along with a "Yes, another Hispanic, Latino, or Spanish origin" checkbox that was included in the 2019 ACS, there were two important changes to the 2020 ACS Hispanic origin question. The instruction to "Print origin, for example" was revised to "Print, for example." The example groups were revised from "Argentinean, Colombian, Dominican, Nicaraguan, Salvadoran, Spaniard, and so on." to "Salvadoran, Dominican, Colombian, Guatemalan, Spaniard, Ecuadorian, etc." in order to represent the largest Hispanic population groups and the geographic diversity of the Hispanic or Latino category, as defined by OMB's 1997 Standards.

Limitation of the Data – Beginning in 2006, the population in group quarters (GQ) was included in the ACS. Some types of GQ populations may have Hispanic or Latino origin distributions that are different from the household population. The inclusion of the GQ population could therefore have a noticeable impact on the Hispanic or Latino origin distribution. This is particularly true for areas with a substantial GQ population.

Comparability – Changes in estimates may be due to demographic changes, as well as factors including questionnaire changes, differences in ACS population controls, and methodological differences in the population estimates. The ACS question on Hispanic origin was revised in 2008 to make it consistent with the 2010 Census Hispanic origin question. Additional information about the changes in the ACS and their potential effect on the estimates of Hispanic origin can be found in the paper "Changes to the American Community Survey Between 2007 and 2008 and Their Potential Effects on the Estimates of Hispanic Origin Type, Nativity, Race and Language." Go to http://www.census.gov and enter the paper title in the search box.

The ACS question on Hispanic origin was revised in 2020 to make it consistent with the 2020 Census Hispanic origin question.

For more information on comparing 2020 estimates to estimates from previous years, go to http://www.census.gov and enter "Comparing ACS Data" in the search box.

For more information, see the Hispanic Origin and Race Code List found within the 2020 ACS Code List. Go to http://www.census.gov and enter "ACS Code Lists, Definitions, and Accuracy" in the search box.

Household

See Household Type and Relationship.

Household Type and Relationship

The data on relationship to householder were derived from answers to Question 2 in the 2020American Community Survey (ACS), which was asked of all people in housing units. The question on relationship is essential for classifying the population information on families and other groups. Information about changes in the composition of the American family, from the number of people living alone to the number of children living with only one parent, is essential for planning and carrying out a number of federal programs.

The responses to this question were used to determine the relationships of all persons to the householder, as well as household type (married couple family, nonfamily, etc.). From responses to this question, we were able to determine numbers of related children, own children, unmarried partner households, and multigenerational households. We calculated average household and family size. When relationship was not reported, it was imputed using the age difference between the householder and the person, sex, and marital status.

Household – A household includes all the people who occupy a housing unit. (People not living in households are classified as living in group quarters.) A housing unit is a house, an apartment, a mobile home, a group of rooms, or a single room that is occupied (or if vacant, is intended for occupancy) as separate living quarters. Separate living quarters are those in which the occupants live separately from any other people in the building and which have direct access from the outside of the building or through a common hall. The occupants may be a single family, one person living alone, two or more families living together, or any other group of related or unrelated people who share living arrangements.

Average Household Size – A measure obtained by dividing the number of people in households by the number of households. In cases where people in households are cross-classified by race or Hispanic origin, people in the household are classified by the race or Hispanic origin of the householder rather than the race or Hispanic origin of each individual. Average household size is rounded to the nearest hundredth.

Relationship to Householder

> **Householder –** One person in each household is designated as the householder. In most cases, this is the person or one of the people in whose name the home is owned, being bought, or rented and who is listed on line one of the survey questionnaire. If there is no such person in the household, any adult household member 15 years old and over could be designated as the householder.

Households are classified by type according to the sex of the householder and the presence of relatives. Two types of householders are distinguished: a family householder and a non-family householder. A family householder is a householder living with one or more individuals related to him or her by birth, marriage, or adoption. A nonfamily householder is a householder living alone or with non-relatives only.

Spouse – Includes a person married to and living with the householder. The categories "same-sex husband/wife/spouse" and "opposite-sex husband/wife/spouse" include people in formal marriages, as well as people in common-law marriages. In tabulations, beginning in 2013, unless otherwise specified, "Spouse" and "married couple" includes same-sex married couples.

Child – Includes a son or daughter by birth, a stepchild, or adopted child of the householder, regardless of the child's age or marital status. The category excludes sons-in-law, daughters-in-law, and foster children.

- **Biological son or daughter** – The son or daughter of the householder by birth.
- **Adopted son or daughter** – The son or daughter of the householder by legal adoption. If a stepson or stepdaughter has been legally adopted by the householder, the child is then classified as an adopted child.
- **Stepson or stepdaughter** – The son or daughter of the householder through marriage but not by birth, excluding sons-in-law and daughters-in-law. If a stepson or stepdaughter of the householder has been legally adopted by the householder, the child is then classified as an adopted child.

Own Child – A never-married child under 18 years who is a son or daughter by birth, a stepchild, or an adopted child of the householder. In certain tabulations, own children are further classified as living with two parents or with one parent only. Own children of the householder living with two parents are by definition found only in married-couple families. (Note: When used in "EMPLOYMENT STATUS" tabulations, own child refers to a never married child under the age of 18 in a family or a subfamily who is a son or daughter, by birth, marriage, or adoption, of a member of the householder's family, but not necessarily of the householder.)

Related Child – Any child under 18 years old who is related to the householder by birth, marriage, or adoption. Related children of the householder include ever-married as well as never-married children. Children, by definition, exclude persons under 18 years who maintain households or are spouses or unmarried partners of householders.

Other Relatives – In tabulations, the category "other relatives" includes any household member related to the householder by birth, marriage, or adoption, but not

included specifically in another relationship category. In certain detailed tabulations, the following categories may be shown:

- **Grandchild –** The grandson or granddaughter of the householder.
- **Brother/Sister –** The brother or sister of the householder, including stepbrothers, stepsisters, and brothers and sisters by adoption. Brothers-in-law and sisters-in-law are included in the "Other Relative" category on the questionnaire.
- **Parent –** The father or mother of the householder, including a stepparent or adoptive parent. Fathers-in-law and mothers-in-law are included in the "Parent-in-law" category on the questionnaire.
- **Parent-in-law –** The mother-in-law or father-in-law of the householder.
- **Son-in-law or daughter-in-law –** The spouse of the child of the householder.
- **Other Relatives –** Related by birth, marriage, or adoption, but NOT one of the categories above- for example, niece or nephew. If a foster child is related to the householder, respondents are advised to select the appropriate relative category, such as grandchild, or include in the "Other relative" category.

Nonrelatives – This category includes any household member, including foster children, not related to the householder by birth, marriage, or adoption. The following categories may be presented in more detailed tabulations:

- **Roommate or Housemate –** A roommate or housemate is a person who is not related to the householder by birth, marriage, or adoption, and is not their boyfriend or girlfriend, but who lives in the household.
- **Unmarried Partner –** An unmarried partner is a person who is in an intimate relationship with the householder, such as a boyfriend or girlfriend. An "unmarried partner" can be of the same sex or of the opposite sex as the householder.
- **Foster Child –** A foster child is a person under 21 years old AND involved in the formal foster care system.
- **Other Nonrelatives –** Anyone who is not related by birth, marriage, or adoption to the householder and who is not described by the categories given above.

When relationship is not reported for an individual, it is imputed according to the responses for age, sex, and marital status for that person while maintaining consistency with responses for other individuals in the household.

Unrelated Individual – An unrelated individual is: (1) a householder living alone or with nonrelatives only, (2) a household member who is not related to the householder, or (3) a person living in group quarters who is not an inmate of an institution.

Family Households – A family consists of a householder and one or more other people living in the same household who are related to the householder by birth, marriage, or

adoption. All people in a household who are related to the householder are regarded as members of his or her family. A family household may contain people not related to the householder, but those people are not included as part of the householder's family in tabulations. Thus, the number of family households is equal to the number of families, but family households may include more members than do families. A household can contain only one family for purposes of tabulations. Not all households contain families since a household may be comprised of a group of unrelated people or of one person living alone – these are called nonfamily households. Families are classified by type as either a "married-couple family" or "other family" according to the sex of the householder and the presence of relatives. The data on family type are based on answers to questions on sex and relationship that were asked of all people.

- **Married-Couple Family –** A family in which the householder and his or her spouse are listed as members of the same household.

- **Other Family:**
    - **Male Householder, No Spouse Present –** A family with a male householder and no spouse of householder present.
    - **Female Householder, No Spouse Present –** A family with a female householder and no spouse of the householder present.

Family households and married-couple families include same-sex married couples, beginning with the 2013 data.

Average Family Size – A measure obtained by dividing the number of people in families by the total number of families (or family householders). In cases where the measures, "people in family" or "people per family" are cross-tabulated by race or Hispanic origin, the race or Hispanic origin refers to the householder rather than the race or Hispanic origin of each individual. Average family size is rounded to the nearest hundredth.

Subfamily – A subfamily is a married couple (husband and wife interviewed as members of the same household) with or without never-married children under 18 years old, or one parent with one or more never-married children under 18 years old. A subfamily does not maintain its own household, but lives in a household where the householder or householder's spouse is a relative. The number of subfamilies is not included in the count of families, since subfamily members are counted as part of the householder's family. Subfamilies are defined during processing of data. Same-sex married couples are only shown as the householder and spouse, and are not included in subfamilies.

In selected tabulations, subfamilies are further classified by type: married-couple subfamilies, with or without own children; mother-child subfamilies; and father-child subfamilies.

In some labor force tabulations, children in both one-parent families and one-parent subfamilies are included in the total number of children living with one parent, while children in both married-couple families and married-couple subfamilies are included in the total number of children living with two parents.

Multigenerational Household – Multigenerational households are family households consisting of three or more generations. These households include (1) a householder, a parent or parent-in-law of the householder, and an own child of the householder, (2) a householder, an own child of the householder, and a grandchild of the householder, or (3) a householder, a parent or parent-in-law of the householder, an own child of the householder, and a grandchild of the householder.

Nonfamily Household – A householder living alone or with nonrelatives only. Unmarried couples households, whether opposite-sex or same-sex, with no relatives of the householder present are tabulated in nonfamily households.

Unmarried-Partner Household – An unmarried-partner household is a household other than a "married-couple household" that includes a householder and an "unmarried partner." An "unmarried partner" can be of the same sex or of the opposite sex as the householder. An "unmarried partner" in an "unmarried-partner household" is an adult who is unrelated to the householder, but shares living quarters and is in an intimate relationship with the householder. An unmarried-partner household also may be a family household or a nonfamily household, depending on the presence or absence of another person in the household who is related to the householder by birth or adoption. There may be only one unmarried partner per household, and an unmarried partner may not be included in a married-couple household, as the householder cannot have both a spouse and an unmarried partner.

Question/Concept History – Between 1996 and 2007, the question response categories remained the same. In 2008, the "Son or daughter" category was expanded to "Biological son or daughter," "Adopted son or daughter," and "Stepson or stepdaughter." Also "In-law" was expanded to "Parent-in-law" and "Son-in-law or daughter-in-law." In 2019, the "Husband or wife" category was expanded to "Opposite-sex husband/wife/spouse" and "Same-sex husband/wife/spouse" and the "Unmarried partner" category was expanded to "Opposite-sex unmarried partner" and "Same-sex unmarried partner." The "Roomer or Boarder" category was deleted, and the "Housemate or Roommate" category was reworded to "Roommate or Housemate."

Limitation of the Data – Unlike the Current Population Survey (CPS) and the Survey of Income and Program Participation (SIPP), the ACS relationship question does not have a parent pointer to identify whether both parents are present. For example, if a child lives with unmarried parents, we only know the relationship of the child to the householder, not to the other parent. So a count of children living with two biological parents is not available from these data.

Comparability – The relationship categories for the most part can be compared to previous ACS years and to similar data collected in the decennial census, CPS, and SIPP. With the change in 2008 from "In-law" to the two categories of "Parent-in-law" and "Son-in-law or daughter-in-law," caution should be exercised when comparing data on in-laws from previous years. "In-law" encompassed any type of in-law such as sister-in-law. Combining "Parent-in-law" and "son-in-law or daughter-in-law" does not represent all "in-laws" in 2008. The same can be said of comparing the three categories of "biological" "step," and "adopted"

child in 2008 to “Child” in previous years. Before 2008, respondents may have considered anyone under 18 as “child” and chosen that category. The ACS includes “foster child” as a category. However, the 2010 Census did not contain this category, and “foster children” were included in the “Other nonrelative” category. Therefore, comparison of “foster child” cannot be made to the 2010 Census. Beginning in 2013, the “spouse” category includes same-sex spouses.

Household Size

See Household Type and Relationship.

Householder

See Household Type and Relationship.

Immigrants

According to the Department of Homeland Security (DHS), immigrants are foreign-born persons who obtain legal permanent residence in the United States. DHS is responsible for publishing immigration statistics based on administrative data, such as the number of persons obtaining legal permanent resident status, refugees and asylees, naturalizations, nonimmigrant admissions, and enforcement actions.

See Foreign-Born Population.

Income in the Past 12 Months

The data on income were derived from answers to Questions 43 and 44 in the 2020 American Community Survey (ACS), which were asked of the population 15 years old and over. “Total income” is the sum of the amounts reported separately for wage or salary income; net self-employment income; interest, dividends, or net rental or royalty income or income from estates and trusts; Social Security or Railroad Retirement income; Supplemental Security Income (SSI); public assistance or welfare payments; retirement, survivor, or disability pensions; and all other income.

Receipts from the following sources are not included as income: capital gains, money received from the sale of property (unless the recipient was engaged in the business of selling such property); the value of income “in kind” from food stamps, public housing subsidies, medical care, employer contributions for individuals, etc.; withdrawal of bank deposits; money borrowed; tax refunds; exchange of money between relatives living in the same household; gifts and lump-sum inheritances, insurance payments, and other types of lump-sum receipts.

Income is a vital measure of general economic circumstances. Income data are used to determine poverty status, to measure economic well-being, and to assess the need for

assistance. These data are included in federal allocation formulas for many government programs. For instance:

Social Services: Under the Older Americans Act, funds for food, health care, and legal services are distributed to local agencies based on data about elderly people with low incomes. Data about income at the state and county levels are used to allocate funds for food, health care, and classes in meal planning to low-income women with children.

Employment: Income data are used to identify local areas eligible for grants to stimulate economic recovery, run job-training programs, and define areas such as empowerment or enterprise zones.

Housing: Under the Low-Income Home Energy Assistance Program, income data are used to allocate funds to areas for home energy aid. Under the Community Development Block Grant Program, funding for housing assistance and other community development is based on income and other census data.

Education: Data about poor children are used to allocate funds to counties and school districts. These funds provide resources and services to improve the education of economically disadvantaged children.

In household surveys, respondents tend to underreport income. Asking the list of specific sources of income helps respondents remember all income amounts that have been received, and asking total income increases the overall response rate and thus, the accuracy of the answers to the income questions. The eight specific sources of income also provide needed detail about items such as earnings, retirement income, and public assistance.

Income Type in the Past 12 Months

The eight types of income reported in the ACS are defined as follows:

1. **Wage or salary income:** Wage or salary income includes total money earnings received for work performed as an employee during the past 12 months. It includes wages, salary, Armed Forces pay, commissions, tips, piece-rate payments, and cash bonuses earned before deductions were made for taxes, bonds, pensions, union dues, etc.

2. **Self-employment income:** Self-employment income includes both farm and non-farm self-employment income.

Farm self-employment income includes net money income (gross receipts minus operating expenses) from the operation of a farm by a person on his or her own account, as an owner, renter, or sharecropper. Gross receipts include the value of all products sold, government farm programs, money received from the rental of farm equipment to others, and incidental receipts from the sale of wood, sand, gravel, etc. Operating expenses include cost of feed, fertilizer, seed, and other farming supplies, cash wages paid to farmhands, depreciation charges, rent, interest on farm mortgages, farm building repairs, farm taxes (not state and

federal personal income taxes), etc. The value of fuel, food, or other farm products used for family living is not included as part of net income.

Non-farm self-employment income includes net money income (gross receipts minus expenses) from one's own business, professional enterprise, or partnership. Gross receipts include the value of all goods sold and services rendered. Expenses include costs of goods purchased, rent, heat, light, power, depreciation charges, wages and salaries paid, business taxes (not personal income taxes), etc.

3. Interest, dividends, net rental income, royalty income, or income from estates and trusts: Interest, dividends, or net rental income includes interest on savings or bonds, dividends from stockholdings or membership in associations, net income from rental of property to others and receipts from boarders or lodgers, net royalties, and periodic payments from an estate or trust fund.

4. **Social Security or Railroad Retirement income:** Social Security income includes Social Security and U.S. railroad retirement pensions and survivor benefits, permanent disability insurance payments made by the Social Security Administration prior to deductions for medical insurance, and railroad retirement insurance checks from the U.S. government. Medicare reimbursements are not included.

5. **Supplemental Security Income (SSI):** Supplemental Security Income (SSI) is a nationwide U.S. assistance program administered by the Social Security Administration that guarantees a minimum level of income for needy aged, blind, or disabled individuals. The Puerto Rico Community Survey questionnaire asks about the receipt of SSI; however, SSI is not a federally-administered program in Puerto Rico. Therefore, it is probably not being interpreted by most respondents in the same manner as SSI in the United States. The only way a resident of Puerto Rico could have appropriately reported SSI would have been if they lived in the United States at any time during the past 12-month reference period and received SSI.

6. **Public assistance income:** Public assistance income includes general assistance and Temporary Assistance to Needy Families (TANF). Separate payments received for hospital or other medical care (vendor payments) are excluded. This does not include Supplemental Security Income (SSI) or noncash benefits such as Food Stamps. The terms "public assistance income" and "cash public assistance" are used interchangeably in the 2020 ACS data products.

7. **Retirement, survivor, or disability income:** Retirement, survivor, or disability income includes (1) regular income from a company pension, union pension, Federal government pension, state government pension, local government pension, U.S. military pension, KEOGH retirement plan, SEP (Simplified Employee Pension) or any other type of pension, retirement account or annuity such as IRA, ROTH IRA, 401(k) or 403(b); (2) survivor income which is paid to spouses or children of a deceased person; (3) regular income from a disability pension paid to those who are unable to work due to a disability from companies or unions; federal, state, or local government; and the U.S. military.

Do not include Social Security or income that is "rolled over" or reinvested in another retirement account.

8. **All other income:** All other income includes unemployment compensation, worker's compensation, Department of Veterans Affairs (VA) payments, alimony and child support, contributions received periodically from people not living in the household, military family allotments, and other kinds of periodic income other than earnings.

Cash Public Assistance – See "Public assistance income."

Income of Households – This includes the income of the householder and all other individuals 15 years old and over in the household, whether they are related to the householder or not. Because many households consist of only one person, average household income is usually less than average family income. Although the household income statistics cover the past 12 months, the characteristics of individuals and the composition of households refer to the time of interview. Thus, the income of the household does not include amounts received by individuals who were members of the household during all or part of the past 12 months if these individuals no longer resided in the household at the time of interview. Similarly, income amounts reported by individuals who did not reside in the household during the past 12 months but who were members of the household at the time of interview are included. However, the composition of most households was the same during the past 12 months as at the time of interview.

Income of Families – In compiling statistics on family income, the incomes of all members 15 years old and over related to the householder are summed and treated as a single amount. Although the family income statistics cover the past 12 months, the characteristics of individuals and the composition of families refer to the time of interview. Thus, the income of the family does not include amounts received by individuals who were members of the family during all or part of the past 12 months if these individuals no longer resided with the family at the time of interview. Similarly, income amounts reported by individuals who did not reside with the family during the past 12 months but who were members of the family at the time of interview are included. However, the composition of most families was the same during the past 12 months as at the time of interview.

Income of Individuals – Income for individuals is obtained by summing the eight types of income for each person 15 years old and over. The characteristics of individuals are based on the time of interview even though the amounts are for the past 12 months.

Median Income – The median divides the income distribution into two equal parts: one-half of the cases falling below the median income and one-half above the median. For households and families, the median income is based on the distribution of the total number of households and families including those with no income. The median income for individuals is based on individuals 15 years old and over with income. Median income for households, families, and individuals is computed on the basis of a standard distribution. (See the "Standard Distributions" section under "Derived Measures.") Median income is rounded to

the nearest whole dollar. Median income figures are calculated using linear interpolation. (For more information on medians and interpolation, see "Derived Measures.")

Aggregate Income – Aggregate income is the sum of all incomes for a particular universe. Aggregate income is subject to rounding, which means that all cells in a matrix are rounded to the nearest hundred dollars. (For more information, see "Aggregate" under "Derived Measures.")

Mean Income – Mean income is the amount obtained by dividing the aggregate income of a particular statistical universe by the number of units in that universe. For example, mean household income is obtained by dividing total household income by the total number of households. (The aggregate used to calculate mean income is rounded. For more information, see "Aggregate income.")

For the various types of income, the means are based on households having those types of income. For household income and family income, the mean is based on the distribution of the total number of households and families including those with no income. The mean income for individuals is based on individuals 15 years old and over with income. Mean income is rounded to the nearest whole dollar.

Care should be exercised in using and interpreting mean income values for small subgroups of the population. Because the mean is influenced strongly by extreme values in the distribution, it is especially susceptible to the effects of sampling variability, misreporting, and processing errors. The median, which is not affected by extreme values, is, therefore, a better measure than the mean when the population base is small. The mean, nevertheless, is shown in some data products for most small subgroups because, when weighted according to the number of cases, the means can be computed for areas and groups other than those shown in Census Bureau tabulations. (For more information on means, see "Derived Measures.")

Income Quintile Upper Limits – Negative incomes are converted to zero for these measures. These measures are the quintile cutoffs, along with the 95th percentile of the distribution. (For more information on quintiles, see "Derived Measures.")

Means of Household Income by Quintiles – Means of household income by quintiles are calculated by dividing aggregate household income in each quintile by the number of households in each quintile (one-fifth of the total number of households). (For more information on aggregates, see "Aggregate Income." For more information on quintiles, see "Derived Measures.")

Shares of Household Income by Quintiles – Negative incomes are converted to zero for these measures. These measures are the aggregate household income in each quintile as a percentage of the total aggregate household income. (For more information on aggregates, see "Aggregate income." For more information on quintiles, see "Derived Measures.")

Gini Index of Income Inequality – Negative incomes are converted to zero. The Gini index of income inequality measures the dispersion of the household income distribution. (For more information on the Gini index, see "Derived Measures.")

Earnings – Earnings are defined as the sum of wage or salary income and net income from self-employment. "Earnings" represent the amount of income received regularly for people 16 years old and over before deductions for personal income taxes, Social Security, bond purchases, union dues, Medicare deductions, etc. An individual with earnings is one who has either wage/salary income or self-employment income, or both. Respondents who "break even" in self-employment income and therefore have zero self-employment earnings also are considered "individuals with earnings."

Median Earnings – The median divides the earnings distribution into two equal parts: one-half of the cases falling below the median and one-half above the median. Median earnings is restricted to individuals 16 years old and over with earnings and is computed on the basis of a standard distribution. (See the "Standard Distributions" section under "Derived Measures.") Median earnings figures are calculated using linear interpolation. (For more information on medians and interpolation, see "Derived Measures.")

Aggregate Earnings – Aggregate earnings are the sum of wage/salary and net self-employment income for a particular universe of people 16 years old and over. Aggregate earnings are rounded to the nearest hundred dollars. (For more information, see "Aggregate" under "Derived Measures.")

Mean Earnings – Mean earnings is calculated by dividing aggregate earnings by the population 16 years old and over with earnings. (The aggregate used to calculate mean earnings is rounded. For more information, see "Aggregate earnings.") Mean earnings is rounded to the nearest whole dollar. (For more information on means, see "Derived Measures.")

Women's Earnings as a Percentage of Men's Earnings – Women's earnings as a percentage of men's earnings is defined as median earnings for females who worked full-time, year-round divided by median earnings for males who worked full-time, year-round, multiplied by 100. (For more information, see "full-time, year-round workers" under "Usual hours worked per weeks worked in the past 12 months" and "Median earnings.")

Per Capita Income – Per capita income is the mean income computed for every man, woman, and child in a particular group including those living in group quarters. It is derived by dividing the aggregate income of a particular group by the total population in that group. (The aggregate used to calculate per capita income is rounded. For more information, see "Aggregate" under "Derived Measures.") Per capita income is rounded to the nearest whole dollar. (For more information on means, see "Derived Measures.")

Adjusting Income for Inflation – Income components were reported for the 12 months preceding the interview month. Monthly Consumer Price Indices (CPI) factors were used to inflation-adjust these components to a reference calendar year (January through December).

For example, a household interviewed in March 2020 reports their income for March 2019 through February 2020. Their income is adjusted to the 2020 reference calendar year by multiplying their reported income by 2020 average annual CPI (January-December 2020) and then dividing by the average CPI for March 2019-February 2020.

In order to inflate income amounts from previous years, the dollar values on individual records are inflated to the latest year's dollar values by multiplying by a factor equal to the average annual CPI-U-RS factor for the current year, divided by the average annual CPI-U-RS factor for the earlier/earliest year.

Question/Concept History – The 1998 ACS questionnaire deleted references to Aid to Families with Dependent Children (AFDC) because of welfare law reforms.

In 1999, the ACS questions were changed to be consistent with the questions for Census 2000. The instructions are slightly different to reflect differences in the reference periods. The ACS asks about the past 12 months, and the questions for the decennial census ask about the previous calendar year.

The 2019 questionnaire revised the retirement income question to reflect the growing popularity of defined contribution retirement plans over defined benefit retirement plans (such as pensions). For the first time, the 2019 questionnaire specifically asked about income from retirement accounts such as IRA, ROTH IRA, 401(k), 403(b), and similar accounts specifically designed for retirement.

Limitation of the Data – Since answers to income questions are frequently based on memory and not on records, many people tend to forget minor or sporadic sources of income and, therefore, underreport their income. Underreporting tends to be more pronounced for income sources that are not derived from earnings, such as public assistance, interest, dividends, and net rental income.

Extensive computer editing procedures were instituted in the data processing operation to reduce some of these reporting errors and to improve the accuracy of the income data. These procedures corrected various reporting deficiencies and improved the consistency of reported income questions associated with work experience and information on occupation and class of worker. For example, if people reported they were self-employed on their own farm, not incorporated, but had reported only wage and salary earnings, the latter amount was shifted to self-employment income. Also, if any respondent reported total income only, the amount was generally assigned to one of the types of income questions according to responses to the work experience and class-of-worker questions. Another type of problem involved non-reporting of income data. Where income information was not reported, procedures were devised to impute appropriate values with either no income or positive or negative dollar amounts for the missing entries. (For more information on imputation, see "Accuracy of the Data" on the Census website. Go to http://www.census.gov and enter "ACS Code Lists, Definitions, and Accuracy" in the search box.)

In income tabulations for households and families, the lowest income group (for example, less than $10,000) includes units that were classified as having no income in the past 12 months. Many of these were living on income "in kind," savings, or gifts, were newly created families, or were families in which the sole breadwinner had recently died or left the household. However, many of the households and families who reported no income probably had some money income that was not reported in the ACS.

Users should exercise caution when comparing income and earnings estimates for individuals since the 2006 ACS to earlier years because of the introduction of group quarters. Household and family income estimates are not affected by the inclusion of group quarters.

Users should exercise caution when comparing medians from the 2020 ACS to medians before 2009. There was a change between 2008 and 2009 Data Products in Income and Earnings median calculations. Medians above $75,000 were most likely to be affected.

Comparability – The income data shown in ACS tabulations are not directly comparable with those that may be obtained from statistical summaries of income tax returns. Income, as defined for federal tax purposes, differs somewhat from the Census Bureau concept. Moreover, the coverage of income tax statistics is different because of the exemptions for people having small amounts of income and the inclusion of net capital gains in tax returns. Furthermore, members of some families file separate returns and others file joint returns; consequently, the tax reporting unit is not consistent with the census household, family, or person units.

The earnings data shown in ACS tabulations are not directly comparable with earnings records of the Social Security Administration (SSA). The earnings record data for SSA excludes the earnings of some civilian government employees, some employees of nonprofit organizations, workers covered by the Railroad Retirement Act, and people not covered by the program because of insufficient earnings. Because ACS data are obtained from household questionnaires, they may differ from SSA earnings record data, which are based upon employers' reports and the federal income tax returns of self-employed people.

The Commerce Department's Bureau of Economic Analysis (BEA) publishes annual data on aggregate and per-capita personal income received by the population for states, metropolitan areas, and selected counties. Aggregate income estimates based on the income statistics shown in ACS products usually would be less than those shown in the BEA income series for several reasons. The ACS data are obtained from a household survey, whereas the BEA income series is estimated largely on the basis of data from administrative records of business and governmental sources. Moreover, the definitions of income are different. The BEA income series includes some questions not included in the income data shown in ACS publications, such as income "in kind," income received by nonprofit institutions, the value of services of banks and other financial intermediaries rendered to people without the assessment of specific charges, and Medicare payments. On the other hand, the ACS income data include contributions for support received from people not residing in the same household if the income is received on a regular basis.

In comparing income for the most recent year with income from earlier years, users should note that an increase or decrease in money income does not necessarily represent a comparable change in real income, unless adjusted for inflation.

For more information, go to http://www.census.gov and enter "Comparing ACS Data" in the search box.

Industry

Industry data describe the kind of business conducted by a person's employing organization. These data are derived from a combination of write-in and check box questions, which are autocoded and clerically coded by Census Bureau staff, using the Census Industry Code List developed for Census Bureau household surveys.

On the ACS, demographic industry data are derived primarily from answers to questions 42 b, c, and d. These questions are asked of all people 15 years old and over who had worked in the past 5 years. The text of these questions as they appear in the 2020 ACS questionnaire is as follows:

Question 42 b. What was the name of this person's employer, business, agency, or branch of the Armed Forces?
(Write-in field)

Question 42 c. - What kind of business or industry was this?
Include the main activity, product, or service provided at the location employed. (For example: elementary school, residential construction)
(Write-in field)

Question 42 d. - Was this mainly - (Mark (X) ONE box.)
(Boxes located to the left of each response category)

- manufacturing?
- wholesale trade?
- retail trade?
- other (agriculture, construction, service, government, etc.)?

For employed people, the data refer to the person's job during the previous week. For those who worked two or more jobs, the data refer to the job where the person worked the greatest number of hours. For unemployed people and people who are not in the labor force but report having had a job within the last five years, the data refer to their last job.

Coding Procedures – The Census Bureau has maintained its own code list since 1910. Written responses to the industry questions are coded using the Census Industry Code list based on the 2017 North American Industry Classification System (NAICS) published by the Executive Office of the President, Office of Management and Budget (OMB). The Census Industry Code list consists of 270 categories for employed people, including military, classified into 20 sectors. The first NAICS was developed in 1997 as an improvement over the Standard Industrial Classification (SIC) system that had been previously updated from the

1930s through 1987. The NAICS has been updated every five years – 1997, 2002, 2007, 2012, and 2017. It was developed to increase comparability in industry definitions between the United States, Mexico, and Canada. It provides industry classifications that group establishments into industries based on the activities in which they are primarily engaged. The NAICS was created for establishment designations and provides detail about the smallest operating establishment, while data collected from households differ in detail and nature from those obtained from establishment surveys. Because of potential disclosure issues, the Census Industry Code List, while defined in NAICS terms, cannot reflect the full detail for all categories.

In addition, ACS used 3-digit census industry codes until 2002, when it transitioned to 4-digit industry codes. As the NAICS changes, the Census Bureau updates its code lists, coding procedures, and data products accordingly.

Respondents provided the data for the tabulations by writing on the questionnaires descriptions of the kind of business and business activities they are doing. These write-ins are converted to a code category through automated coding. Cases not autocoded on both industry and occupation are sent to the clerical staff in the National Processing Center (NPC) in Jeffersonville, Indiana, who assign codes by comparing these descriptions to entries in the *Alphabetical Index of Industries and Occupations* (https://www.census.gov/topics/employment/industry-occupation/guidance/indexes.html).

It should be noted that the industry category, "Public administration," is limited to regular government functions such as legislative, judicial, administrative, and regulatory activities. Other government organizations such as public schools, public hospitals, and bus lines are classified by industry according to the activity in which they are engaged.

For full code lists and other technical information, please see our Guidance for Data Users Page < https://www.census.gov/topics/employment/industry-occupation/guidance.html>.

Editing Procedures – Following the coding operation, a computer edit and allocation process excludes all responses that should not be included in the universe, and evaluates the consistency of the remaining responses. The codes for industry are checked for consistency with the occupation and class of worker data provided for that respondent. Occasionally respondents supply industry descriptions that are not sufficiently specific for precise classification, or they do not report on these questions at all. Certain types of incomplete entries are corrected using the *Alphabetical Index of Industries and Occupations*. If one or more of the three codes (industry, occupation, or class of worker) is blank after the edit, a code is assigned from a donor respondent who is a “similar” person based on questions such as age, sex, educational attainment, income, employment status, and weeks worked. If all of the labor force and income data are blank, all of these economic questions are assigned from a “similar” person who had provided all the necessary data.

Question/Concept History – Industry data have been collected during decennial censuses intermittently since 1820 and on a continuous basis since 1910. Starting with the 2010 Census, industry data is no longer be collected during the decennial census. Long form data

collection has transitioned to the ACS. The ACS began collecting data on industry in 1996. The questions on industry were designed to be consistent with the 1990 Census questions on industry.

In the 1990 Census, and starting with the 1999 ACS, a check box was added to the employer name question to be marked by anyone "now on active duty in the Armed Forces..." This information was used by the industry and occupation coders to assist in assigning proper industry codes for active duty military. Between 1996-1998, the ACS class of worker question had an additional response category for "Active duty U.S. Armed Forces member." In 2016, ACS underwent content testing for the class of worker, industry, and occupation questions. As a result, in 2019, ACS adopted an additional response category of “Active Duty or U.S. Armed Forces or Commissioned Corps” in the Class of Worker question to aide coders in assigning the best industry code for military cases. Other changes were implemented to the formatting, numbering of questions, write-in industry and occupation questions examples provided on the questionnaire.

Limitation of the Data – Beginning in 2006, the population in group quarters (GQ) was included in the ACS. Some types of GQ populations have industry distributions that are different from the household population. The inclusion of the GQ population could therefore have a noticeable impact on the industry distribution in some geographic areas with a substantial GQ population.

Demographic data on occupation, industry, and class of worker are collected for the respondent’s current primary job or the most recent job for those who are unemployed or out of the labor force but have worked in the last 5 years. Other labor force questions, such as questions on earnings or work hours, may have different reference periods and may not limit the response to the primary job. Although the prevalence of multiple jobs is low, data on some labor force items may not exactly correspond to the reported occupation, industry, or class of worker of a respondent.

Comparability –

Comparability of industry data across time is affected by a number of factors, primarily the system used to classify the questionnaire responses. These changes are needed to recognize when new industries emerge, the growth and decline in existing industries, and the desire of analysts, researchers, and other users for more detail in the presentation of the data. Usually, the greatest cause of non-comparability is the movement of a segment from one sector to another. Changes in the nature of jobs, respondent terminology, and refinement of category composition made these movements necessary. These changes in the industry classification system thus limit comparability of the data from one year to another, and with other surveys that use older classification systems (see below).

Since 1990, the industry classification has had major revisions to reflect the shift from the Standard Industrial Classification (SIC) to the North American Industry Classification System (NAICS). These changes were reflected in the Census 2000 industry codes. For more information on industry comparability across classification systems, please see Technical

Paper #65: The Relationship Between the 1990 Census and Census 2000 Industry and Occupation Classification Systems. The 2000-2002 ACS data used the same industry classification systems used for the 2000 census, therefore, the data are comparable. In 2002, NAICS underwent another change and the industry codes were changed accordingly. Because of the possibility of new industries being added to the list of codes, the Census Bureau needed to have more flexibility in adding codes. Consequently, in 2002, Census Bureau industry codes were expanded from three-digit codes to four-digit codes. In addition, 5 new codes were added between 1997 and 2002 (4585, 5591, 5592, 6675, 6692, and 6695). Changes between 2002 and 2007 were focused on the Information Sector where one census code was added (6672) and two were deleted (6675, 6692).

The ACS followed the 2007 code list through 2012, making the ACS 2008-2012 industry codes comparable. NAICS was updated again in 2012. The changes were used to create the 2012 Census Industry Code List, which was first applied to the 2013 ACS and used until the 2017 ACS. The revision included 9 new codes (3095, 3365, 3875, 3895, 4195, 4265, 4795, 5275, and 5295), 9 deletions (3090, 3360, 3870, 3890, 4190, 4260, 4790, 5270, and 5290) and 19 title changes. Then, between 2012 and 2017, NAICS updates resulted in 19 new Census industry codes (1691, 3291, 4971, 4972, 5381, 5391, 5593, 6991, 6992, 7071, 7181, 8191, 8192, 8561, 8562, 8563, 8564, and 8891) and 18 deleted ones (1680, 1690, 3190, 3290, 4970, 5380, 5390, 5590, 6990, 7070, 7180, 8190, 8560, 8880, and 8890). These changes were applied to the 2018 ACS, making the 2017 Census industry codes only partially comparable with previous years.

For more information, see the 2017 Census Industry Code List within the 2020 ACS Code List. Go to http://www.census.gov and enter "ACS Code Lists, Definitions, and Accuracy" in the search box.

See also Occupation and Class of Worker.

Journey to Work

Place of Work – The data on place of work were derived from answers to Question 31 in 2020 American Community Survey (ACS), which was asked of people who indicated in 2020 ACS Question 30a that they worked at some time during the reference week. (See "Reference Week.")

Data were tabulated for workers 16 years old and over, that is, members of the Armed Forces and civilians who were at work during the reference week. Data on place of work refer to the geographic location at which workers carried out their occupational activities during the reference week. In the ACS, the exact address (number and street name) of the place of work was asked, as well as the place (city, town, or post office); whether the place of work was inside or outside the limits of that city or town; and the county, state or foreign country, and ZIP Code. In the Puerto Rico Community Survey (PRCS), the question asked for the exact address, including the development or condominium name, as well as the place; whether or not the place of work was inside or outside the limits of that city or town; the municipio or U.S. county. Respondents also were asked to "enter Puerto Rico or name of U.S. state or

foreign country" and the ZIP Code. If the respondent's employer operated in more than one location, the exact address of the location or branch where he or she worked was requested. When the number and street name were unknown, a description of the location, such as the building name or nearest street or intersection, was to be entered. People who worked at more than one location during the reference week were asked to report the location at which they worked the greatest number of hours. People who regularly worked in several locations each day during the reference week were requested to give the address at which they began work each day. For cases in which daily work did not begin at a central place each day, the respondent was asked to provide as much information as possible to describe the area in which he or she worked most during the reference week.

Place-of-work data may show a few workers who made unlikely daily work trips (e.g., workers who lived in New York and worked in California). This result is attributable to people who worked during the reference week at a location that was different from their usual place of work, such as people away from home on business.

In areas where the workplace address was geographically coded to the block level, people were tabulated as working inside or outside a specific place based on the location of that address regardless of the response to Question 31c concerning city/town limits. In areas where it was impossible to code the workplace address to the block level, or the coding system was unable to match the employer name and street address responses, people were tabulated as working inside or outside a specific place based on the combination of state, county, ZIP Code, place name, and city limits indicator. The city limits indicator was used only in coding decisions when there were multiple geographic codes to select from, after matching on the state, county, place, and ZIP Code responses. The accuracy of place-of-work data for census designated places (CDPs) may be affected by the extent to which their census names were familiar to respondents, and by coding problems caused by similarities between the CDP name and the names of other geographic jurisdictions in the same vicinity.

Place-of-work data are given for selected minor civil divisions (MCDs), (generally cities, towns, and townships) in the 12 strong MCD states (Connecticut, Maine, Massachusetts, Michigan, Minnesota, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, Vermont, and Wisconsin), based on the responses to the place of work question. Many towns and townships are regarded locally as equivalent to a place, and therefore, were reported as the place of work. When a respondent reported a locality or incorporated place that formed a part of a township or town, the coding and tabulating procedure was designed to include the response in the total for the township or town.

Workplace-based Geography – The characteristics of workers may be shown using either residence-based or workplace-based geography. If you are interested in the number and characteristics of workers living in a specific area, you should use the standard (residence-based) journey-to-work tables. If you are interested in the number and characteristics of workers who work in a specific area, you should use the workplace-based journey-to-work tables. Because place-of-work information for workers cannot always be specified below the place level, the workplace-based tables are presented only for selected geographic areas.

Means of Transportation to Work – The data on means of transportation to work were derived from answers to Question 32 in 2020 ACS, which was asked of people who indicated in 2020 ACS Question 30a that they worked at some time during the reference week. (See "Reference Week.") Means of transportation to work refers to the principal mode of travel or type of conveyance that the worker usually used to get from home to work during the reference week.

People who used different means of transportation on different days of the week were asked to specify the one they used most often, that is, the greatest number of days. People who used more than one means of transportation to get to work each day were asked to report the one used for the longest distance during the work trip. The category, "Car, truck, or van," includes workers using a car (including company cars but excluding taxicabs), a truck of one-ton capacity or less, or a van. The category, "Public transportation," includes workers who used a bus, subway or elevated rail, long-distance train or commuter rail, light rail, streetcar, or trolley, or ferryboat, even if each mode is not shown separately in the tabulation. "Carro público" is included in the public transportation category in Puerto Rico. The category, "Other means," includes workers who used a mode of travel that is not identified separately within the data distribution. The category, "Other means," may vary from table to table, depending on the amount of detail shown in a particular distribution.

The means of transportation data for some areas may show workers using modes of public transportation that are not available in those areas (for example, subway or elevated riders in a metropolitan area where there is no subway or elevated service). This result is largely due to people who worked during the reference week at a location that was different from their usual place of work (such as people away from home on business in an area where subway service was available), and people who used more than one means of transportation each day but whose principal means was unavailable where they lived (for example, residents of nonmetropolitan areas who drove to the fringe of a metropolitan area, and took the commuter railroad most of the distance to work).

Private Vehicle Occupancy – The data on private vehicle occupancy were derived from answers to Question 33 in 2020 ACS. This question was asked of people who indicated in 2020 ACS Question 30a that they worked at some time during the reference week and who reported in 2020 ACS Question 32 that their means of transportation to work was "Car, truck, or van." Data were tabulated for workers 16 years old and over, that is, members of the Armed Forces and civilians who were at work during the reference week. (See "Reference Week.")

Private vehicle occupancy refers to the number of people who usually rode to work in the vehicle during the reference week. The category, "Drove alone," includes people who usually drove alone to work as well as people who were driven to work by someone who then drove back home or to a non-work destination. The category, "Carpooled," includes workers who reported that two or more people usually rode to work in the vehicle during the reference week.

Workers Per Car, Truck, or Van – Workers per car, truck, or van is a ratio obtained by dividing the aggregate number of workers who reported using a car, truck, or van to get to work by the number of such vehicles that they used. Workers per car, truck, or van is rounded to the nearest hundredth. This measure also may be known as "Workers per private vehicle."

Aggregate Number of Vehicles (Car, Truck, or Van) Used in Commuting – The aggregate number of vehicles used in commuting is derived by counting each person who drove alone as occupying one vehicle, each person who reported being in a two-person carpool as occupying one-half of a vehicle, each person who reported being in a three-person carpool as occupying one-third of a vehicle, and so on, then summing all the vehicles. This aggregate is used in the calculation for "workers per car, truck, or van."

Time of Departure to Go to Work – The data on time leaving home to go to work were derived from answers to Question 34 in 2020 ACS. This question was asked of people who indicated in 2020 ACS Question 30a that they worked at some time during the reference week, and who reported in 2020 ACS Question 32 that they worked outside their home. The departure time refers to the time of day that the respondent usually left home to go to work during the reference week. (See "Reference Week.")

Travel Time to Work – The data on travel time to work were derived from answers to Question 35 in 2020 ACS. This question was asked of people who indicated in 2020 ACS Question 30a that they worked at some time during the reference week, and who reported in 2020 ACS Question 32 that they worked outside their home. Travel time to work refers to the total number of minutes that it usually took the worker to get from home to work during the reference week. The elapsed time includes time spent waiting for public transportation, picking up passengers in carpools, and time spent in other activities related to getting to work. (See "Reference Week.")

Aggregate Travel Time to Work (in Minutes) – Aggregate travel time to work is calculated by adding all of the travel times (in minutes) for workers who did not work at home. Aggregate travel times of workers having specific characteristics also are computed. The aggregate travel time is subject to rounding, which means that all cells in a matrix are rounded to the nearest 5 minutes. (For more information, see "Aggregate" under "Derived Measures.")

Mean Travel Time to Work (in Minutes) – Mean travel time to work (in minutes) is the average travel time that workers usually took to get from home to work (one way) during the reference week. This measure is obtained by dividing the total number of minutes taken to get from home to work (the aggregate travel time) by the number of workers 16 years old and over who did not work at home. The travel time includes time spent waiting for public transportation, picking up passengers and carpools, and time spent in other activities related to getting to work. Mean travel times of workers having specific characteristics also are computed. For example, the mean travel time of workers traveling 45 or more minutes to work is computed by dividing the aggregate travel time of workers whose travel times were 45 or more minutes by the number of workers whose travel times were 45 or more minutes.

The aggregate travel time to work used to calculate mean travel time to work is rounded. (For more information, see "Aggregate Travel Time to Work (in Minutes)."") Mean travel time is rounded to the nearest tenth of a minute. (For more information on means, see "Derived Measures."")

Time Arriving at Work – The data on time arriving at work from home were derived from answers to Question 34 (Time Leaving Home to Go to Work) and from answers to Question 35 (Travel Time to Work), both in the 2020 ACS. These questions were asked of people who indicated in 2020 ACS Question 30a that they worked at some time during the reference week, and who reported in 2020 ACS Question 32 that they worked outside their home. The arrival time is calculated by adding the travel time to work to the reported time leaving home to go to work. These data are presented with other characteristics of workers at their workplace. (See "Time of Departure to Go to Work" and "Travel Time to Work."")

The responses to the place of work and journey to work questions provide basic knowledge about commuting patterns and the characteristics of commuter travel. The commuting data are essential for planning highway improvement and developing public transportation services, as well as for designing programs to ease traffic problems during peak periods, conserve energy, reduce pollution, and estimate and project the demand for alternative-fueled vehicles. These data are required to develop standards for reducing work-related vehicle trips and increasing passenger occupancy during peak period of travel.

Question/Concept History – Starting in 1999, the ACS questions differ from the 1996-1998 questions in that the labels on the write-in spaces and format of the skip instructions were modified to provide clarifications.

Beginning in 2004, the category, "Public transportation" for means of transportation was tabulated to exclude workers who used taxicab as their means of transportation.

The 2004 ACS marked the first time that workplace-based tables were released as a part of a standard census data product.

Beginning in 2019, several transportation categories provided to respondents in ACS question 32 were modified to reflect contemporary trends and nomenclature.

Limitation of the Data – Beginning in 2006, the group quarters (GQ) population was included in the ACS. Some types of GQ populations have place of work distributions that are different from the household population. The inclusion of the GQ population could therefore have a noticeable impact on the place of work distribution. This is particularly true for areas with a substantial GQ population.

The data on place of work is related to a reference week, that is, the calendar week preceding the date on which the respondents completed their questionnaires or were interviewed. This week is not the same for all respondents because data were collected over a 12-month period. The lack of a uniform reference week means that the place-of-work data reported in the

survey will not exactly match the distribution of workplace locations observed or measured during an actual workweek.

The place-of-work data are estimates of people 16 years and over who were both employed and at work during the reference week (including people in the Armed Forces). People who did not work during the reference week but had jobs or businesses from which they were temporarily absent due to illness, bad weather, industrial dispute, vacation, or other personal reasons are not included in the place-of-work data. Therefore, the data on place of work understate the total number of jobs or total employment in a geographic area during the reference week. It also should be noted that people who had irregular, casual, or unstructured jobs during the reference week might have erroneously reported themselves as not working.

The address where the individual worked most often during the reference week was recorded on the questionnaire. If a worker held two jobs, only data about the primary job (the job where one worked the greatest number of hours during the preceding week) was requested. People who regularly worked in several locations during the reference week were requested to give the address at which they began work each day. For cases in which daily work was not begun at a central place each day, the respondent was asked to provide as much information as possible to describe the area in which he or she worked most during the reference week.

Comparability – This data source is comparable to the decennial censuses prior to 2010 for all journey to work variables. Since both the ACS and the decennial censuses are related to a "reference week" that has some variability, the data do not reflect any single week. Since the ACS data are collected over 12 months, the reference week in ACS has a greater range of variation. (See "Reference Week.") No journey to work questions were asked on the 2010 Census.

For more detailed information regarding the difference of place of work and journey to work in the ACS and Census 2000, see "Estimates about Journey to Work from the 2005 ACS, C2SS, and Census 2000" on the Census website (http://www.census.gov/library/working-papers/2007/acs/2007_Jiles_01.html).

For more information, see the Place of Work Code List found within the 2020ACS Code List. Go to http://www.census.gov and enter "ACS Code Lists, Definitions, and Accuracy" in the search box.

Labor Force Status

See Employment Status.

Language Spoken at Home

Language Spoken at Home by the Respondent – Data on language spoken at home were derived from answers to questions 14a and 14b in the 2020 American Community Survey (ACS). These questions were asked only of persons 5 years of age and older. Instructions

mailed with the ACS questionnaire instructed respondents to mark "Yes" on Question 14a if they sometimes or always spoke a language other than English at home, and "No" if the person speaks only English, or if a non-English language is spoken only at school, or is limited to a few expressions or slang. For Question 14b, respondents printed the name of the non-English language they spoke at home. If the person spoke more than one non-English language, accompanying instructions instructed them to report the language spoken most often. If the language spoken most frequently could not be determined, the respondent was instructed to report the language learned first.

Questions 14a and 14b referred to languages spoken at home in an effort to measure the current use of languages other than English. This category excluded respondents who spoke a language other than English exclusively outside of the home.

Write-in responses to Question 14b were categorized into more than 1300 detailed language codes. In 2016, American Community Survey language codes were standardized based on the International Statistical Organization ISO-639-3 standard. Using an automated computer system, the language coding procedure compared write-in responses with a master computer code list – which contained approximately 190,000 previously coded language names and variants – and then assigned a detailed language category to each write-in response. The computerized matching assured that identical alphabetic entries received the same code. Clerical coding categorized any write-in responses that did not match the computer dictionary. When multiple languages other than English were specified, only the first was coded.

The write-in responses represented the names people used for languages they spoke. They may not have matched the names or categories used by linguists. Whenever possible, the write-ins were matched with an ISO-639-3 standardized individual language; however, language families and geographical terms were used if classifying at the individual language level was not possible. Presenting data for all languages is not sensible due to sample size and confidentiality concerns. The Four Group Classifications and Forty-Two Group Classifications of Languages Spoken at Home with Examples table in Appendix A provides an illustration of the content of the classification schemes used to present language data. These four-group and forty-two group classifications are used in many standardized data products on data.census.gov. However, many more languages are available in the American Community Survey Public Use Microdata Sample (PUMS) and in detailed tables packages. Languages as small as 10,000 speakers may be included in the PUMS dataset. For more information on the Public Use Microdata Sample, please see the PUMS technical documentation.

Household Language – In households where one or more people spoke a language other than English, the household language assigned to all household members was the non-English language spoken by the first person with a non-English language in the following order: householder, spouse, parent, sibling, child, grandchild, in-law, other relative, unmarried partner, housemate or roommate, roomer/boarder, foster child, or other nonrelatives. Therefore, a person who spoke only English may have had a non-English household language assigned during tabulations as a result of living in a household with a

non-English household language. If no member of the household age 5 and over speaks a language other than English at home then the household language is English only.

Government agencies use information on language spoken at home for their programs that serve the needs of those who have difficulty with English. Under the Voting Rights Act, language is needed to meet statutory requirements for making voting materials available in minority languages. The Census Bureau is directed, using data about language spoken at home and the ability to speak English, to identify minority groups that speak a language other than English and to assess their English-speaking ability. The U.S. Department of Education uses these data to prepare a report to Congress on the social and economic status of children served by different local school districts. State and local agencies concerned with aging develop health care and other services tailored to the language and cultural diversity of the elderly under the Older Americans Act.

Question/Concept History – The Language Spoken At Home Questions have changed only once since ACS began. Examples of languages were listed immediately followed the question "What is this language?" in the 1996-1998 questionnaire. Starting in 1999, the list of languages was moved to below the write-in box. In 2016, the code list for languages was standardized to match the International Statistical Organization's standard ISO-639-3.

Limitation of the Data – Beginning in 2006, the population in group quarters (GQ) was included in the ACS. Some types of GQ populations may have language spoken at home distributions that are different from the household population. The inclusion of the GQ population could therefore have a noticeable impact on the language spoken at home distribution. This is particularly true for areas with a substantial GQ population.

The language question is about current use of a non-English language, not about ability to speak another language or the use of such a language in the past. People who speak a language other than English outside of the home are not reported as speaking a language other than English. Similarly, people whose mother tongue is a non-English language but who do not currently use the language at home do not report the language. Some people who speak a language other than English at home may have first learned that language in school. These people are expected to indicate speaking English "Very well."

Comparability – Caution should be taken when comparing language data from the ACS and 1980, 1990, and 2000 Censuses across time. Methodological changes to data collection in 2013 may have affected language data. Users should be aware of these changes when comparing data from 2013 or after to data from before 2013, or when using multi-year ACS data containing data from before and after 2013. For more information on comparability of language data, see the user note, "2013 Language Estimates."

The full Language Code List is found within the 2020 ACS Code List. Go to http://www.census.gov and enter "ACS Code Lists, Definitions, and Accuracy" in the search box.

Marital Status/Marital History

The data on marital status and marital history were derived from answers to Questions 21 through 24 in the 2020 ACS. The marital status question is asked to determine the status of the person at the time of interview. Many government programs need accurate information on marital status, such as the number of married women in the labor force, elderly widowed individuals, or young single people who may establish homes of their own. The marital history data enables multiple agencies to more accurately measure the effects of federal and state policies and programs that focus on the well-being of families. Marital history data can provide estimates of marriage and divorce rates and duration, as well as flows into and out of marriage. This information is critical for more refined analyses of eligibility for program services and benefits, and of changes resulting from federal policies and programs.

Before 2008, the marital status question was asked of all people. Beginning in 2008, the question on marital status was asked only for people 15 years old and over. People 15 and over are asked whether they are "now married," "widowed," "divorced," "separated," or "never married." People in common-law marriages are allowed to report the marital status they considered the most appropriate. When marital status is not reported, it is imputed according to the person's relationship to the householder, sex, and age.

Differences in the number of married males and females occur because there is no step in the weighting process to equalize the weighted estimates of husbands and wives.

Never Married – Includes all people who have never been married, including people whose only marriage(s) was annulled.

Ever Married – Includes people ever married at the time of interview (including those now married, separated, widowed, or divorced).

Now Married, Except Separated – Includes people whose current marriage has not ended through widowhood or divorce (regardless of previous marital history), and who are not currently separated. The category may also include couples who live together or people in common-law marriages if they consider this category the most appropriate. In certain tabulations, currently married people are further classified as "spouse present" or "spouse absent."

Separated – Includes people legally separated or otherwise absent from their spouse because of marital discord. Those without a final divorce decree are classified as "separated." This category also includes people who have been deserted or who have parted because they no longer want to live together, but who have not obtained a divorce.

Widowed – Includes widows and widowers who have not remarried.

Divorced – Includes people who are legally divorced and who have not remarried. Those without a final divorce decree are classified as "separated."

Now Married – All people whose current marriage has not ended by widowhood or divorce. This category includes people defined above as "separated."

- **Spouse Present –** Married people whose wife or husband was reported as a member of the same household, including those whose spouses may have been temporarily absent for such reasons as travel or hospitalization.
- **Spouse Absent –** Married people whose wife or husband was not reported as a member of the same household or people reporting they were married and living in a group quarters facility.
    - **Separated –** Defined above.
    - **Spouse Absent, Other –** Married people whose wife or husband was not reported as a member of the same household, excluding separated. Included is any person whose spouse was employed and living away from home or in an institution or serving away from home in the Armed Forces.

Note that beginning in 2013, same-sex married couples are included in the married spouse present category.

Differences between the number of married males and the number of married females occur because some husbands and wives have their usual residence in different areas. Furthermore, husbands and wives do not have the same weights. Same-sex couples also contribute to the differences in the number of men and women who are married.

Median Age at First Marriage – The median age at first marriage is calculated indirectly by estimating the proportion of young people who will marry during their lifetime, calculating one-half of this proportion, and determining the age (at the time of the survey) of people at this half-way mark by osculatory interpolation. It does not represent the actual median age of the population who married during the calendar year. It is shown to the nearest tenth of a year. Henry S. Shryock and Jacob S. Siegel outline the osculatory procedure in *Methods and Materials of Demography*, First Edition (May 1973), Volume 1, pages 291-296.

Marital History – Beginning in 2008, people 15 years and over who were ever married (married, widowed, separated, or divorced) were asked if they had been married, widowed, or divorced in the past 12 months. They are asked how many times (once, two times, or three or more times) they have been married, and the year of their last marriage.

Question/Concept History – The word "current" was dropped from the 1996-1998 marital status question. Since 1999, the question states, "What is this person's marital status?" The American Community Survey began providing the median age at first marriage with the 2004 data. Before 2008, the marital status question was asked of all people and only tabulated for those 15 and over. In 2008, marital status was moved from the basic demographic section, at the beginning of the ACS questionnaire, to the detailed person section - a part of the questionnaire where some questions are asked of only people 15 and over. Data on marital history were first collected in 2008 at the request of the Department of Health and Human Services to provide more detailed annual information on the marital history of the population. The marital history questions follow the marital status question on the questionnaire.

Beginning in 2013, same-sex married couples were edited and shown as such, so they have a marital status of "now married" and also have marital history data.

Limitation of the Data – Beginning in 2006, the population in group quarters (GQ) was included in the ACS. Some types of GQ populations have marital status distributions that are very different from the household population. The inclusion of the GQ population could therefore have a noticeable impact on the marital status distribution. This is particularly true for areas with a substantial GQ population.

Comparability – The data on marital status can be compared to previous ACS years and to similar data collected on CPS and SIPP. Marital status is no longer asked on the Decennial Census. For information on comparing ACS data, go to http://www.census.gov and enter "Comparing ACS Data" in the search box. Marriage and divorce rates, derived from the questions asking whether the person got married or divorced in the last 12 months, are not directly comparable to vital statistics collected by the National Center for Health Statistics. ACS estimates are survey based whereas vital statistics use administrative records. Beginning in 2013, the "now married" category includes same-sex spouses.

Means of Transportation to Work

See Journey to Work.

Migration

See Residence 1 Year Ago.

Native Population

The native population includes anyone who was a U.S. citizen at birth. This includes respondents who indicated they were born in the United States, Puerto Rico, Guam, the Northern Marianas, or the U.S. Virgin Islands, as well as those born abroad of at least one U.S. citizen parent. See Citizenship Status.

Nativity

Nativity status refers to whether a person is native or foreign born.

See Place of Birth.

Nativity of Parent

Nativity of parent indicates the nativity (native or foreign born) of the parent(s) of children living in a family or subfamily with one or more parents present in the household. It applies to "own children," that is, never married children under 18 years of age living with one or more of their parents. (See also "Household Type and Relationship.") The nativity of the

child's parent(s) is determined by the citizenship status of the parent(s). A person is considered native if he/she is a United States citizen at birth and foreign born if he/she is not a United States citizen at birth. (See also "Place of Birth.")

Limitation of the Data – Nativity of parent does not provide information about children over the age of 18 who may live in the same household as their parents, or children of any age who live apart from their parents.

Comparability – No comparable data were published prior to 2006. However, prior years do include the nativity and relationship data from which "nativity of parent" was created.

Occupation

Occupation data describe the kind of work the person does on the job. These data are derived from responses to write-in questions that are autocoded and clerically coded by Census Bureau staff, using the Census Occupation Code List developed for Census Bureau household surveys.

On the ACS, demographic occupational data are derived primarily from answers to questions 42 e and f. These questions are asked of all people 15 years old and over who had worked in the past 5 years. The text of these questions as they appear in the 2020 ACS questionnaire is as follows:

Question 42 e. - What was this person's main occupation? *(For example: 4th grade teacher, entry-level plumber)*
(Write-in field)

Question 42 f. - Describe this person's most important activities or duties. *(For example: instruct and evaluate students and create lesson plans, assemble and install pipe sections and review building plans for work details)*
(Write-in field)

For employed people, the data refer to the person's job during the previous week. For those who worked two or more jobs, the data refer to the job where the person worked the greatest number of hours. For unemployed people and people who are not currently employed but report having a job within the last five years, the data refer to their last job.

Coding Procedures – The Census Bureau has maintained its own code list since 1850. Written responses to the occupation questions are coded using the 2018 occupational classification system, which consists of 569 specific occupational categories for employed people, including 4 military codes, arranged into 23 major occupational groups. This classification was developed based on the Standard Occupational Classification (SOC) Manual: 2018, published by the Executive Office of the President, Office of Management and Budget (OMB). The SOC classifies paid work or work for profit into occupational categories based on the work performed. Every Census Bureau occupation code crosswalks to an SOC code. In 2010, the Census Occupation Code List included 540 occupation codes.

In 2018, it included 570 occupation codes. Between 2010 and 2018, 125 occupation codes were deleted and 155 new occupation codes were added.

Respondents provided the data for the tabulations by writing on the questionnaires descriptions of the kind of work and activities they are doing. These write-ins are converted to a code category through automated coding. Cases not autocoded on both industry and occupation are sent to the clerical staff in the National Processing Center (NPC) in Jeffersonville, Indiana, who assign codes by comparing these descriptions to entries in the *Alphabetical Index of Industries and Occupations* (https://www.census.gov/topics/employment/industry-occupation/guidance/indexes.html).

Some occupation groups are related closely to certain industries. Operators of transportation equipment, farm operators and workers, and healthcare providers account for major portions of their respective industries of transportation, agriculture, and health care. However, the industry categories include people in other occupations. For example, people employed in agriculture include truck drivers and bookkeepers; people employed in the transportation industry include mechanics, freight handlers, and payroll clerks; and people employed in the health care industry include janitors, security guards, and secretaries.

For full code lists and other technical information, please see our Guidance for Data Users Page < https://www.census.gov/topics/employment/industry-occupation/guidance.html>.

Editing Procedures – Following the coding operation, a computer edit and allocation process excludes all responses that should not be included in the universe, and evaluates the consistency of the remaining responses. The codes for occupation are checked for consistency with the industry and class of worker data provided for that respondent. Occasionally respondents supply occupation descriptions that are not sufficiently specific for precise classification, or they do not report on these questions at all. Certain types of incomplete entries are corrected using the *Alphabetical Index of Industries and Occupations*. If one or more of the three codes (occupation, industry, or class of worker) is blank after the edit, a code is assigned from a donor respondent who is a "similar" person based on questions such as age, sex, educational attainment, income, employment status, and weeks worked. If all of the labor force and income data are blank, all of these economic questions are assigned from a "similar" person who had provided all the necessary data.

Question/Concept History – Occupation data have been collected during decennial censuses since 1850. Starting with the 2010 Census, occupation data is no longer collected during the decennial census. Long form data collection has transitioned to the ACS. The ACS began collecting data on occupation in 1996. The questions on occupation were designed to be consistent with the 1990 Census questions on occupation. In 2016, the ACS underwent content testing for the class of worker, industry, and occupation questions. As a result, in 2019, the ACS implemented changes to the formatting, numbering of questions, and examples for the industry and occupation write-in questions provided on the questionnaire.

Limitation of the Data – Beginning in 2006, the population in group quarters (GQ) was included in the ACS. Some types of GQ populations have occupational distributions that are

different from the household population. The inclusion of the GQ population could therefore have a noticeable impact on the occupational distribution in some geographic areas with a substantial GQ population.

Data on occupation, industry, and class of worker are collected for the respondent's current primary job or the most recent job for those who are not employed but have worked in the last 5 years. Other labor force questions, such as questions on earnings or work hours, may have different reference periods and may not limit the response to the primary job. Although the prevalence of multiple jobs is low, data on some labor force items may not exactly correspond to the reported occupation, industry, or class of worker of a respondent.

Comparability – Comparability of occupation data across time and across data sources is affected by a number of factors, primarily the system used to classify the questionnaire responses. Changes in the occupational classification system limit comparability of the data from one year to another, and with surveys that use older coding systems (see below). In 2016, the ACS underwent content testing for the class of worker, industry, and occupation questions. As a result, in 2019, the ACS implemented changes to the formatting, numbering of questions, and examples for the industry and occupation write-in questions provided on the questionnaire.

These changes are needed to recognize when new occupations emerge, the growth and decline in existing occupations, and the desire of analysts, researchers, and other users for more detail in the presentation of the data. Usually, the greatest cause of non-comparability is the movement of a segment from one category to another. Changes in the nature of jobs, respondent terminology, and refinement of category composition made these movements necessary. While the ACS occupation questions were slightly modified, the codes used for occupation have changed over the history of the ACS. This happened because of changes to the Standard Occupational Classification (SOC) system, which guides the coding structure implemented by all federal agencies.

The initial ACS used 3-digit census occupation codes based on 1990 SOC codes. In 2000, the ACS began using the 2000 Census Occupation Code list, which was based on the 2000 SOC. For more information on occupational comparability across classification systems between 1990 and 2000, see Technical Paper #65: The Relationship Between the 1990 Census and Census 2000 Industry and Occupation Classification Systems. After the revisions to the code lists for 2000, Census Bureau analysts anticipated the possibility of new occupations being added to the list of codes and the ability to have more flexibility in adding codes. Consequently, in 2002, census occupation codes were expanded from three-digit codes to four-digit codes. This entailed adding a "0" to either the beginning or the end of each occupation code from the 2000 Census Occupation Code List. In 2010, the ACS transitioned to the 2010 Census Occupation Code List, based on the 2010 SOC. To compare 2002 to 2010 occupation codes, see 2006-2010 ACS PUMS Occupation Conversion Rates (2002 to 2010 Occupation Census codes). The 2010 code list was used through the 2017 ACS. Starting in 2018, the ACS began coding occupation data using the 2018 Census Occupation Code List, based on the 2018 SOC. For more information, see the Census Occupation Code List found

within the 2020 ACS Code List. Go to http://www.census.gov and enter "ACS Code Lists, Definitions, and Accuracy" in the search box.

See also, Industry and Class of Worker.

Own Children

See Household Type and Relationship.

Period of Military Service

See Veteran Status.

Persons in Family

See Household Type and Relationship.

Persons in Household

See Household Type and Relationship.

Place of Birth

The data on place of birth were derived from answers to Question 7 in the 2020 American Community Survey (ACS). Respondents were asked to select one of two categories: (1) in the United States, or (2) outside the United States. In the ACS, respondents selecting category (1) were then asked to report the name of the state while respondents selecting category (2) were then asked to report the name of the foreign country, or Puerto Rico, Guam, etc. In the Puerto Rico Community Survey (PRCS), respondents selecting category (1) were also asked to report the name of the state, while respondents selecting category (2) were then asked to print Puerto Rico or the name of the foreign country, or U.S. Virgin Islands, Guam, etc. People not reporting a place of birth were assigned the state or country of birth of another family member, or were allocated the response of another individual with similar characteristics. People born outside the United States were asked to report their place of birth according to current international boundaries. Since numerous changes in boundaries of foreign countries have occurred in the last century, some people may have reported their place of birth in terms of boundaries that existed at the time of their birth or emigration, or in accordance with their own national preference.

The place of birth questions along with the citizenship status question provide essential data for setting and evaluating immigration policies and laws. Knowing the characteristics of immigrants helps legislators and others understand how and to what extent different immigrant groups are integrated. Federal agencies require these data to develop programs for

refugees and other foreign-born individuals. Vital information on lifetime migration among states also comes from the place of birth question.

Nativity – Information on place of birth and citizenship status was used to classify the population into two major categories: native and foreign born.

Native – The native population includes anyone who was a U.S. citizen at birth. The native population includes those born in the United States, Puerto Rico, Guam, the Northern Marianas, or the U.S. Virgin Islands, as well as those born abroad of at least one U.S. citizen parent. The native population is divided into the following groups: people born in the state in which they resided at the time of the survey; people born in a different state, by region; people born in Puerto Rico, Guam, the Northern Marianas, or the U.S. Virgin Islands; and people born abroad with at least one U.S. citizen parent. (See also "Citizenship Status.")

Foreign Born – The foreign-born population includes anyone who was not a U.S. citizen at birth. This includes respondents who indicated they were a U.S. citizen by naturalization or not a U.S. citizen. (See also "Citizenship Status.")

The foreign-born population is shown by selected area, country, or region of birth. The places of birth shown in data products were chosen based on the number of respondents who reported that area or country of birth.

Question/Concept History – The 1996-1998 ACS question asked respondents to write in the U.S. state, territory, commonwealth or foreign country where this person was born. Beginning in 1999, the question asked "Where was this person born?" and provided two check-boxes, each with a write-in space.

Limitation of the Data – Beginning in 2006, the group quarters (GQ) population was included in the ACS. Some types of GQ populations may have place of birth distributions that are different from those of the household population. Consequently, the inclusion of the GQ population could have a noticeable impact on the overall place of birth distribution. This is particularly true for areas with a substantial GQ population.

Comparability– This data source is comparable to the decennial censuses prior to 2010. No place of birth question was asked on the 2010 Census.

For more information, see the Place of Birth Code List found within the 2020 ACS Code List. Go to http://www.census.gov and enter "ACS Code Lists, Definitions, and Accuracy" in the search box.

Place of Work

See Journey to Work.

Poverty Status in the Past 12 Months

Poverty statistics in American Community Survey (ACS) products adhere to the standards specified by the Office of Management and Budget in Statistical Policy Directive 14. The Census Bureau uses a set of dollar value thresholds that vary by family size and composition to determine who is in poverty. Further, poverty thresholds for people living alone or with nonrelatives (unrelated individuals) vary by age (under 65 years or 65 years and older). The poverty thresholds for two-person families also vary by the age of the householder. If a family's total income is less than the dollar value of the appropriate threshold, then that family and every individual in it are considered to be in poverty. Similarly, if an unrelated individual's total income is less than the appropriate threshold, then that individual is considered to be in poverty.

How the Census Bureau Determines Poverty Status

In determining the poverty status of families and unrelated individuals, the Census Bureau uses thresholds (income cutoffs) arranged in a two-dimensional matrix. The matrix consists of family size (from one person to nine or more people) cross-classified by presence and number of family members under 18 years old (from no children present to eight or more children present). Unrelated individuals and two-person families are further differentiated by age of reference person (householder) (under 65 years old and 65 years old and over).

To determine a person's poverty status, one compares the person's total family income in the last 12 months with the poverty threshold appropriate for that person's family size and composition (see example below). If the total income of that person's family is less than the threshold appropriate for that family, then the person is considered "below the poverty level," together with every member of his or her family. If a person is not living with anyone related by birth, marriage, or adoption, then the person's own income is compared with his or her poverty threshold. The total number of people below the poverty level is the sum of people in families and the number of unrelated individuals with incomes in the last 12 months below the poverty threshold.

Since ACS is a continuous survey, people respond throughout the year. Because the income questions specify a period covering the last 12 months, the appropriate poverty thresholds are determined by multiplying the base-year poverty thresholds (1982) by the average of the monthly inflation factors for the 12 months preceding the data collection. See the table in Appendix A titled "Poverty Thresholds in 1982, by Size of Family and Number of Related Children Under 18 Years (Dollars)," for appropriate base thresholds. See the table "The 2020 Poverty Factors" in Appendix A for the appropriate adjustment based on interview month.

For example, consider a family of three with one child under 18 years of age, interviewed in July 2020 and reporting a total family income of $20,000 for the last 12 months (July 2019 to June 2020). The base year (1982) threshold for such a family is $7,765, while the average of the 12 inflation factors is 2.6653. Multiplying $7,765 by 2.6653 determines the appropriate poverty threshold for this family type, which is calculated to be $20,696. Comparing the

family's income of $20,000 with the poverty threshold shows that the family and all people in the family are considered to have been in poverty. The only difference for determining poverty status for unrelated individuals is that the person's individual total income is compared with the threshold rather than the family's income.

Individuals for Whom Poverty Status is Determined – Poverty status was determined for all people except institutionalized people, people in military group quarters, people in college dormitories, and unrelated individuals under 15 years old. These groups were excluded from the numerator and denominator when calculating poverty rates.

Specified Poverty Levels – Specified poverty levels are adjusted thresholds that are obtained by multiplying the official thresholds by specific factor. Using the threshold cited from the previous example (a family of three with one related child under 18 years responding in July 2020), the dollar value at 125 percent of the poverty threshold was $25,870 ($20,696 x 1.25).

Income Deficit – Income deficit represents the difference between the total income in the last 12 months of families and unrelated individuals below the poverty level and their respective poverty thresholds. In computing the income deficit, families reporting a net income loss are assigned zero dollars, and for such cases, the deficit is equal to the poverty threshold.

This measure provides an estimate of the amount, which would be required to raise the incomes of all poor families and unrelated individuals to their respective poverty thresholds. The income deficit is thus a measure of the degree of the impoverishment of a family or unrelated individual. However, please use caution when comparing the average deficits of families with different characteristics. Apparent differences in average income deficits may, to some extent, be a function of differences in family size.

Aggregate Income Deficit – Aggregate income deficit refers only to those families or unrelated individuals who are classified as below the poverty level. It is defined as the group (e.g., type of family) sum total of differences between the appropriate threshold and total family income or total personal income. Aggregate income deficit is subject to rounding, which means that all cells in a matrix are rounded to the nearest hundred dollars. (For more information, see "Aggregate" under "Derived Measures.")

Mean Income Deficit – Mean income deficit represents the amount obtained by dividing the aggregate income deficit for a group below the poverty level by the number of families (or unrelated individuals) in that group. (The aggregate used to calculate mean income deficit is rounded. For more information, see "Aggregate Income Deficit.") As mentioned above, please use caution when comparing mean income deficits of families with different characteristics, as apparent differences may, to some extent, be a function of differences in family size. Mean income deficit is rounded to the nearest whole dollar (For more information on means, see "Derived Measures.").

Poverty Status of Households in the Past 12 Months

Since poverty is defined at the family level and not the household level, the poverty status of the household is determined by the poverty status of the householder. Households are classified as poor when the total income of the householder's family in the last 12 months is below the appropriate poverty threshold. (For nonfamily householders, their own income is compared with the appropriate threshold.) The income of people living in the household who are unrelated to the householder is not considered when determining the poverty status of a household, nor does their presence affect the family size in determining the appropriate threshold. The poverty thresholds vary depending upon three criteria: size of family, number of children, and, for one- and two- person families, age of the householder.

Question/Concept History –

Derivation of the Current Poverty Measure – When the original poverty definition was developed in 1964 by the Social Security Administration (SSA), it focused on family food consumption. The U.S. Department of Agriculture (USDA) used its data about the nutritional needs of children and adults to construct food plans for families. Within each food plan, dollar amounts varied according to the total number of people in the family and the family's composition, that is, the number of children within each family. The cheapest of these plans, the Economy Food Plan, was designed to address the dietary needs of families on an austere budget.

Since the USDA's 1955 Food Consumption Survey showed that families of three or more people across all income levels spent roughly one-third of their income on food, the SSA multiplied the cost of the Economy Food Plan by three to obtain dollar figures for total family income. These dollar figures, with some adjustments, later became the official poverty thresholds. Since the Economy Food Plan budgets varied by family size and composition, so too did the poverty thresholds. For two-person families, the thresholds were adjusted by slightly higher factors because those households had higher fixed costs. Thresholds for unrelated individuals were calculated as a fixed proportion of the corresponding thresholds for two-person families.

The poverty thresholds are revised annually to allow for changes in the cost of living as reflected in the Consumer Price Index for All Urban Consumers (CPI-U). The poverty thresholds are the same for all parts of the country; they are not adjusted for regional, state, or local variations in the cost of living.

Limitation of the Data – Beginning in 2006, the population in group quarters (GQ) was included in the ACS. The part of the group quarters population in the poverty universe (for example, people living in group homes or those living in agriculture workers' dormitories) is many times more likely to be in poverty than people living in households. Direct comparisons of the data would likely result in erroneous conclusions about changes in the poverty status of all people in the poverty universe.

Comparability – Because of differences in survey methodology (questionnaire design, method of data collection, sample size, etc.), the poverty rate estimates obtained from ACS data may differ from those reported in the Current Population Survey, Annual Social and

Economic Supplement, and those reported in Census 2000. For a comparison of poverty rates and analysis of differences between the ACS and the CPS ASEC, see "A Comparison of the American Community Survey and the Current Population Survey" at http://www.census.gov/library/working-papers/2006/demo/SEHSD-WP2006-03.html. For a comparison of poverty estimates from the ACS and Census 2000, go to http://www.census.gov and enter "Comparing ACS Data" in the search box.

Private Vehicle Occupancy

See Journey to Work.

Race

The data on race were derived from answers to the question on race that was asked of all people (Question 6 in the 2020 American Community Survey (ACS)). The U.S. Census Bureau collects race data in accordance with guidelines provided by the U.S. Office of Management and Budget (OMB), and these data are based on self-identification. The racial categories included in the census questionnaire generally reflect a social definition of race recognized in this country and not an attempt to define race biologically, anthropologically, or genetically. In addition, it is recognized that the categories of the race item include racial and national origin or sociocultural groups. People may choose to report more than one race to indicate their racial mixture, such as "American Indian" ***and*** "White." People who identify their origin as Hispanic, Latino, or Spanish may be of any race.

The racial classifications used by the Census Bureau adhere to the October 30, 1997, *Federal Register* notice entitled, "Revisions to the Standards for the Classification of Federal Data on Race and Ethnicity" issued by OMB. These OMB standards govern the definitions and categories used to collect and present federal data on race and ethnicity. OMB requires five minimum categories (White, Black or African American, American Indian or Alaska Native, Asian, and Native Hawaiian or Other Pacific Islander) for race. The race categories are described below with a sixth category, "Some Other Race," added with OMB approval. In addition to the five race groups, OMB also states that respondents should be offered the option of selecting one or more races. Based on extensive research and outreach over the past decade, the design of the 2020 ACS race and ethnicity questions provides ways for all respondents to self-identify their detailed identities.

Editing of Race Responses. If an individual did not provide a race response, the race or races of the householder or other household members were allocated using specific rules of precedence of household relationship. For example, if race was missing for a natural-born child in the household, then either the race or races of the householder, another natural-born child, or spouse of the householder were allocated.

If race was not reported for anyone in the household, then the race or races of a householder in a previously processed household were allocated.

Definitions from OMB guide the Census Bureau in classifying written responses to the race question:

White. A person having origins in any of the original peoples of Europe, the Middle East, or North Africa. It includes people who indicate their race as "White" or report responses such as German, Irish, English, Italian, Lebanese, and Egyptian. The category also includes groups such as Polish, French, Iranian, Slavic, Cajun, Chaldean, etc.

Black or African American. A person having origins in any of the Black racial groups of Africa. It includes people who indicate their race as "Black or African American" or report responses such as African American, Jamaican, Haitian, Nigerian, Ethiopian, or Somali. The category also
includes groups such as Ghanaian, South African, Barbadian, Kenyan, Liberian, Bahamian, etc.

American Indian or Alaska Native. A person having origins in any of the original peoples of North and South America (including Central America) and who maintains tribal affiliation or community attachment. This category includes people who indicate their race as "American Indian or Alaska Native" or report entries such as Navajo Nation, Blackfeet Tribe, Mayan,
Aztec, Native Village of Barrow Inupiat Traditional Government, or Nome Eskimo Community.

Respondents who identified themselves as "American Indian or Alaska Native" were asked to report their enrolled or principal tribe. Therefore, tribal data in tabulations reflect the entries reported on the questionnaires. Some of the entries (for example, Metlakatla Indian Community and Umatilla) represent reservations or a confederation of tribes on a reservation. The information on tribe is based on self-identification and therefore does not reflect any designation of federally or state-recognized tribe. The information for the 2020 Census was updated from 2010 to 2020 based on the annual Federal Register notice entitled "Indian Entities Recognized and Eligible to Receive Services From the United States Bureau of Indian Affairs," Department of the Interior, Bureau of Indian Affairs, issued by OMB, and through consultation with American Indian and Alaska Native communities and leaders.

The American Indian categories shown in the 2020 ACS Detailed Race tables represent tribal groupings, which refer to the combining of individual American Indian tribes, such as Fort Sill Apache, Mescalero Apache, and San Carlos Apache, into the general Apache tribal grouping.

The Alaska Native categories shown in the 2020 ACS Detailed Race tables represent tribal groupings, which refer to the combining of individual Alaska Native tribes, such as King Salmon Tribe, Native Village of Kanatak, and Sun'aq Tribe of Kodiak, into the general Aleut tribal grouping.

All Other American Indian Tribes (with only one tribe reported). Includes respondents who provide a response of another American Indian tribe not shown separately, such as Abenaki, Catawba, Eastern Tribes, Kickapoo, Mattaponi, Quapaw, Shawnee, or Yuchi.

American Indian Tribes, not specified. Includes people who provide a generic term such as "American Indian" or tribal groupings not elsewhere classified.

Alaska Native Tribes, not specified. Includes people who provide a generic term such as "Alaska Indian" or "Alaska Native" or tribal groupings not elsewhere classified.

American Indian Tribes or Alaska Native Tribes, not specified. Includes respondents who checked the American Indian or Alaska Native response category on the ACS questionnaire and did not write in a specific group.

Two or more American Indian or Alaska Native Tribes. Includes respondents who provided multiple American Indian or Alaska Native Tribes responses such as Blackfeet and Pueblo; or Alaskan Athabascan and Tlingit-Haida; or Paiute and Aleut.

Asian. A person having origins in any of the original peoples of the Far East, Southeast Asia, or the Indian subcontinent including, for example, India, China, the Philippine Islands, Japan,
Korea, or Vietnam. It includes people who indicate their race as "Asian Indian," "Chinese," "Filipino," "Korean," "Japanese," "Vietnamese," and "Other Asian" or provide other detailed Asian responses such as Pakistani, Cambodian, Hmong, Thai, Bengali, Mien, etc.

Asian Indian. Includes respondents who indicate their race as "Asian Indian" or report entries such as India or East Indian.

Bangladeshi. Includes respondents who report entries such as Bangladeshi or Bangladesh.

Bhutanese. Includes respondents who report entries such as Bhutanese or Bhutan.

Burmese. Includes respondents who report entries such as Burmese or Burma.

Cambodian. Includes respondents who report entries such as Cambodian or Cambodia.

Chinese, except Taiwanese. Includes respondents who indicate their race as "Chinese" or report entries such as China or Chinese American.

Filipino. Includes respondents who indicate their race as "Filipino" or report entries such as Philippines or Filipino American.

Hmong. Includes respondents who report entries such as Hmong or Mong.

Indonesian. Includes respondents who report entries such as Indonesian or Indonesia.

Japanese. Includes respondents who indicate their race as "Japanese" or report entries such as Japan or Japanese American.

Korean. Includes respondents who indicate their race as "Korean" or report entries such as Korea or Korean American.

Laotian. Includes respondents who report entries such as Laotian or Laos.

Malaysian. Includes respondents who report entries such as Malaysian or Malaysia.

Mongolian. Includes respondents who report entries such as Mongolian, Mongolia or Mongol.

Nepalese. Includes respondents who report entries such as Nepalese or Nepal.

Okinawan. Includes respondents who report entries such as Okinawan or Okinawa.

Pakistani. Includes respondents who report entries such as Pakistani or Pakistan.

Sri Lankan. Includes respondents who report entries such as Sri Lankan or Sri Lanka.

Taiwanese. Includes respondents who report entries such as Taiwanese or Taiwan.

Thai. Includes respondents who report entries such as Thai or Thailand.

Vietnamese. Includes respondents who indicate their race as "Vietnamese" or report entries such as Vietnam or Vietnamese American.

Other Asian, specified. Includes respondents who provide a response of another Asian group not shown separately, such as Afghan, Maldivian, or Singaporean.

Other Asian, not specified. Includes respondents who checked the "Other Asian" response category on the ACS questionnaire and did not write in a specific group or wrote in a generic term such as "Asian," or "Asiatic."

Two or more Asian. Includes respondents who provided multiple Asian responses such as Asian Indian and Japanese; or Vietnamese, Chinese, and Hmong.

Native Hawaiian or Other Pacific Islander. A person having origins in any of the original peoples of Hawaii, Guam, Samoa, or other Pacific Islands. It includes people who indicate their race as "Native Hawaiian," "Chamorro," "Samoan," and "Other Pacific Islander" or

provide other detailed Pacific Islander responses such as Palauan, Tahitian, Chuukese, Pohnpeian, Saipanese, Yapese, etc.

Native Hawaiian. Includes respondents who indicate their race as "Native Hawaiian" or report entries such as Part Hawaiian or Hawaiian.

Samoan. Includes respondents who indicate their race as "Samoan" or report entries such as American Samoan or Western Samoan.

Tongan. Includes respondents who report entries such as Tongan or Tonga.

Other Polynesian. Includes respondents who provide a response of another Polynesian group, such as Tahitian, Tokelauan, or wrote in a generic term such as "Polynesian."

Chamorro. Includes respondents who indicate their race as "Chamorro" or report entries such as Chamorro.

Marshallese. Includes respondents who report entries such as Marshallese or Marshall Islands.

Other Micronesian. Includes respondents who provide a response of another Micronesian group, such as Carolinian, Chuukese, I-Kiribati, Kosraean, Mariana Islander, Palauan, Pohnpeian, Saipanese, Yapese, or wrote in a generic term such as "Micronesian."

Fijian. Includes respondents who report entries such as Fijian or Fiji.

Other Melanesian. Includes respondents who provide a response of another Melanesian group, such as Papua New Guinean, Ni-Vanuatu (New Hebrides Islander), Solomon Islander, or wrote in a generic term such as "Melanesian."

Other Pacific Islander, not specified. Includes respondents who checked the Other Pacific Islander response category on the ACS questionnaire and did not write in a specific group or wrote in a generic term such as "Pacific Islander."

Two or more Native Hawaiian and Pacific Islander. Includes respondents who provide multiple Pacific Islander responses such as Native Hawaiian and Chamorro; or Tokelauan and Tongan.

Some Other Race. Includes all other responses not included in the "White," "Black or African American," "American Indian or Alaska Native," "Asian," and "Native Hawaiian or Other Pacific Islander" race categories described above. Respondents reporting entries such as multiracial, mixed, interracial, or a Hispanic, Latino, or Spanish group (for example, Mexican, Puerto Rican, Cuban, or Spanish) in response to the race question are included in this category.

Two or More Races. People may choose to provide two or more races either by checking two or more race response check boxes, by providing multiple responses, or by some combination of check boxes and other responses. The race response categories shown on the questionnaire are collapsed into the five minimum race groups identified by OMB, and the Census Bureau's "Some Other Race" category. For data product purposes, "Two or More Races" refers to combinations of two or more of the following race categories:

1. White
2. Black or African American
3. American Indian or Alaska Native
4. Asian
5. Native Hawaiian or Other Pacific Islander
6. Some Other Race

There are 57 possible combinations (see "Race Combinations" in Appendix A) involving the race categories shown above. Thus, according to this approach, a response of "White" and "Asian" was tallied as Two or More Races, while a response of "Japanese" and "Chinese" was not because "Japanese" and "Chinese" are both Asian responses.

Race Concepts

Given the many possible ways of displaying data on race, data products will provide varying levels of detail. There are several concepts used to display and tabulate race information for the six major race categories (White; Black or African American; American Indian or Alaska Native; Asian; Native Hawaiian or Other Pacific Islander; and Some Other Race) and the various details within these groups.

The concept "race *alone*" includes people who reported a single entry (e.g., Korean) and no other race, as well as people who reported two or more entries within the same major race group (e.g., Asian). For example, respondents who reported Korean and Vietnamese are part of the larger "Asian alone" race group.

The concept "race *alone or in combination*" includes people who reported a single race alone (e.g., Asian) and people who reported that race in combination with one or more of the other major race groups (e.g., White, Black or African American, American Indian and Alaska Native, Native Hawaiian and Other Pacific Islander, and Some Other Race). The "race alone or in combination" concept, therefore, represents the maximum number of people who reported as that race group, either alone, or in combination with another race(s). The sum of the six individual race "alone or in combination" categories may add to more than the total population because people who reported more than one race were tallied in each race category.

The concept "race *alone or in any combination*" applies only to detailed race iteration groups, such as American Indian and Alaska Native tribes, detailed Asian groups, and detailed Pacific Islander groups. For example, Korean alone or in any combination includes people who reported a single response (e.g., Korean), people who reported Korean and

another Asian group (e.g., Korean and Vietnamese), and people who reported Korean in combination with one or more other non-Asian race groups (e.g., White, Black or African American, American Indian and Alaska Native, Native Hawaiian and Other Pacific Islander, or Some Other Race).

Coding of Write-in Entries. The 2020 ACS included an automated review, computer edit, and coding operation on a 100 percent basis for the write-in responses to the race question, similar to that used in the 2019 ACS. There were two types of coding operations: (1) automated coding where a write-in response was automatically coded if it matched a write-in response already contained in a database known as the "master file" and (2) expert coding, which took place when a write-in response did not match an entry already on the master file and was sent to expert coders familiar with the subject matter. During the coding process, subject-matter specialists reviewed and coded written entries from the response areas on the race question: White, Black or African American, American Indian or Alaska Native, Other Asian, Other Pacific Islander, and Some Other Race. Several updates were made to the amount of data that are collected from each of the write-in lines on the race question. While the 2019 ACS captured up to 30 characters from each line, allowing two distinct groups to be tabulated from each, the 2020 ACS captured 200 characters, allowing up to six groups to be coded and tabulated from each line. The OMB standards encourage the collection of more detailed information, and facilitating the reporting of detailed racial/ethnic identities for all population groups has been a major objective of the Census Bureau's research for improving race and ethnicity data over the past decade. This objective is in line with OMB standards, which encourage federal agencies to collect additional detailed data, as long as the data can be aggregated to the minimum OMB categories.

Question/Concept History

1996-1998 American Community Survey

- The sequence of the questions on race and Hispanic origin was switched. In the 1996-1998 ACS, the question on race immediately followed the question on Hispanic origin. This approach differed from the 1990 Census, where the question on race preceded the question on Hispanic origin with two intervening questions.

- The 1990 Census category, "Black or Negro" was changed to "Black, African Am."

- The 1990 Census category, "Other race," was renamed "Some other race." A separate "Multiracial" category was added. The instruction to "print the race(s) or group below" pertained to both the "Some other race" and "Multiracial" categories.

- The "Indian (Amer.)," "Other Asian/Pacific Islander," "Some other race," and "Multiracial" response categories all shared a single write-in area.

1999-2002 American Community Survey

- The response category “Black, African Am.” was changed to “Black, African Am., or Negro” to correspond with the Census 2000 response category.

- The separate 1990 Census and 1996-1998 ACS response categories “Indian (Amer.),” “Eskimo,” and “Aleut,” were combined into one response category, “American Indian or Alaska Native.” Respondents were asked to “print name of enrolled or principal tribe” on a separate write-in line to correspond with the Census 2000 response category.

- The 1990 Asian or Pacific Islander category was separated into two categories, “Asian” and “Native Hawaiian or Other Pacific Islander.” Also, the six detailed Asian groups were alphabetized; and the three detailed Pacific Islander groups were alphabetized after the Native Hawaiian response category.

- The response category “Hawaiian” was changed to “Native Hawaiian.” The response category “Guamanian” was changed to “Guamanian or Chamorro.” The response category “Other Asian/Pacific Islander” was split into two separate response categories, “Other Asian,” and “Other Pacific Islander.” These changes correspond to those in the Census 2000 response categories.

- The separate “multiracial” response category was dropped. Rather, respondents were instructed to “**Mark [x] one or more races** *to indicate what this person considers himself/herself to be*.” Respondents were allowed to select more than one category for race in Census 2000.

- In the ACS, the “Other Asian,” “Other Pacific Islander,” and “Some other race” response categories shared the same write-in area. On the Census 2000 questionnaire, only the “Other Asian” and “Other Pacific Islander” response categories shared the same write-in area, and the “Some other race” category had a separate write-in area.

2003-2007 American Community Survey Change

- The response category “Black, African Am., or Negro” was changed to “Black or African American.”

Puerto Rico Community Survey, started in 2005

- Separate questions on race and Hispanic origin were included on the questionnaire. These questions were identical to the questions used in the United States.

2008-2013 American Community Survey

- The wording of the race question was changed to read, “What is Person 1’s race? Mark (X) one or more boxes” and the reference to what this person considers him/herself to be was deleted.

- The response category “Black or African American” was changed to “Black, African Am., or Negro.”

- Examples were added to the “Other Asian” response categories (Hmong, Laotian, Thai, Pakistani, Cambodian, and so on) and the “Other Pacific Islander” response categories (Fijian, Tongan, and so on).

2014-2019 American Community Survey

- The response category “Black, African Am., or Negro” was changed to “Black or African Am.”

2020 American Community Survey

- Write-in response areas were added for the "White" and "Black or African Am." racial categories.
- Six examples were provided for each of the write-in fields allocated to the "White," "Black or African Am.," and "American Indian or Alaska Native" groups. These examples represent some of the largest population groups within the geographically diverse population of each category.
- The examples provided for the "Other Asian" and "Other Pacific Islander" groups have been updated to reflect the changes in population sizes and proportions.
- The checkbox category “Guamanian or Chamorro” was changed to “Chamorro.”
- The write-in instructions for the "Some Other Race" category have been updated to better solicit detailed reporting. Whereas the 2019 ACS form included the instruction to "Print race," the instruction used in the 2020 ACS was updated to "Print race or origin."

Limitation of the data – Beginning in 2006, the population in group quarters (GQ) was included in the ACS. Some types of GQ populations may have race distributions that are different from the household population. The inclusion of the GQ population could therefore have a noticeable impact on the race distribution. This is particularly true for areas with a substantial GQ population.

Comparability – The data on race in the 2020 ACS are not directly comparable across all years. Ongoing research conducted following the 1990 Census affected the ACS question on race since its inception in 1996. Also, the October 1997 revised standards for federal data on race and ethnicity issued by the OMB led to changes in the question on race for Census 2000. Consequently, in order to achieve consistency, other census-administered surveys such as the ACS were modified to reflect changes required by OMB. The 2020 Census and ACS data collections continue to follow the 1997 OMB Standards.

The ACS question on race was revised in 2020 to make it consistent with the 2020 Census race question.

For more information on comparing 2020 estimates to estimates from previous years, go to http://www.census.gov and enter "Comparing ACS Data" in the search box.

For more information, see the Hispanic Origin and Race Code List found within the 2020 ACS Code List. Go to http://www.census.gov and enter "ACS Code Lists, Definitions, and Accuracy" in the search box.

Reference Week

The data on employment status and journey to work relate to the reference week, that is, the calendar week preceding the date on which the respondents completed their questionnaires or were interviewed. This week is not the same for all respondents since the interviewing was conducted over a 12-month period. The occurrence of holidays during the relative reference week could affect the data on actual hours worked during the reference week, but probably had no effect on overall measurement of employment status.

Relatives and Nonrelatives

See Household Type and Relationship.

Residence 1 Year Ago

The data on residence 1 year ago were derived from answers to Question 15 in the 2020 American Community Survey (ACS), which were asked of the population 1 year and older. For the ACS, people who had moved from another residence in the United States or Puerto Rico 1 year earlier were asked to report the exact address (number and street name); the name of the city, town, or post office; the name of the U.S. county or municipio in Puerto Rico; state or Puerto Rico; and the ZIP Code where they lived 1 year ago. People living outside the United States and Puerto Rico were asked to report the name of the foreign country or U.S. Island Area where they were living 1 year ago.

For the Puerto Rico Community Survey (PRCS), people who moved from another residence in Puerto Rico or the United States 1 year ago were asked to report the exact address, including the development or condominium name; the name of the city, town, or post office; the municipio in Puerto Rico (county equivalent) or county in the U.S.; and the ZIP Code where they lived. People living outside Puerto Rico and the United States were asked to report the name of the foreign country or U.S. Island Area where they were living 1 year ago.

Residence 1 year ago is used in conjunction with location of current residence to determine the extent of residential mobility of the population and the resulting redistribution of the population across the various states, metropolitan areas, and regions of the country.

When no information on previous residence was reported for a person, information for other family members, if available, was used to assign a location of residence 1 year ago. All cases of nonresponse or incomplete response that were not assigned a previous residence based on information from other family members were allocated the previous residence of another person with similar characteristics who provided complete information.

The tabulation category, "Same house," includes all people 1 year and over who did not move during the 1 year as well as those who had moved and returned to their residence 1 year ago. The category, "Different house in the United States" includes people who lived in the United States 1 year ago but in a different house or apartment from the one they occupied at the time of interview. These movers are then further subdivided according to the type of move.

In most tabulations, movers within the U.S. are divided into three groups according to their previous residence: "Different house, same county," "Different county, same state," and "Different state." The last group may be further subdivided into region of residence 1 year ago. An additional category, "Abroad," includes those whose previous residence was in a foreign country, Puerto Rico, American Samoa, Guam, the Northern Marianas, or the U.S. Virgin Islands, including members of the Armed Forces and their dependents. Some tabulations show movers who were residing in Puerto Rico or one of the U.S. Island Areas 1 year ago separately from those residing in foreign countries.

In most tabulations, movers within Puerto Rico are divided into two groups according to their residence 1 year ago: "Same municipio" and "Different municipio." Other tabulations show movers within or between metropolitan areas similar to the stateside tabulations.

Residence-1-Year-Ago-based Geography – The characteristics of movers may be shown using either current residence-based or previous residence-based geography. If you are interested in the number and characteristics of movers living in a specific area, you should use the standard (residence-based) tables. If you are interested in the number and characteristics of movers whose previous residence was in a specific area, you should use the residence-1-year-ago-based tables. Because residence-1-year-ago information for movers cannot always be specified below the place level, the previous residence-based tables are presented only for selected geographic areas.

Residence 1 year ago is used to assess the residential stability and the effects of migration in both urban and rural areas. This item provides information on the mobility of our population. Knowing the number and characteristics of movers is essential for federal programs dealing with employment, housing, education, and the elderly. The U.S. Department of Veterans Affairs develops its mandated projection of the need for hospitals and other veteran benefits for each state with migration data about veterans. The Census Bureau develops state age and sex estimates and small-area population projections based on data about residence 1 year ago.

Question/Concept History – The 1996-1998 questions asked about residence 5 years ago. Beginning in 1999, the time period was changed to that of 1 year ago, which reflects the on-going data collection on the ACS, and allows for annual estimates of migration. Beginning

in 1999, a separate write-in line and a skip instruction were added for a foreign country response. This write-in line was moved to one of the answer categories for the residence one year ago question. The migration parts (city, county, and state response areas) were also reordered. Beginning in 2003, the numerical order was changed so that part c of this question would not be displayed in a separate column of the questionnaire.

Beginning with 2008, a write-in space for street address was included and the questions were reworded on both the ACS and the PRCS so that the geographic specificity is maintained for movers within and between the U.S. and Puerto Rico. Municipio of previous residence in Puerto Rico is available for people living in the United States as a result of this change. For more information, see the "Evaluation Report Covering Residence 1 Year Ago (Migration)" from the 2006 ACS Content Test. Go to http://www.census.gov and enter "2006 ACS Content Test Evaluation Report Covering Residence 1 Year Ago (Migration)" in the search box.

Limitation of the Data – Beginning in 2006, the group quarters (GQ) population was included in the ACS. Some types of GQ populations have residence one year ago (migration) distributions that are different from the household population. The inclusion of the GQ population could therefore have a noticeable impact on the residence one year ago (migration) distribution. This is particularly true for areas with a substantial GQ population.

Comparability – This data source is not comparable to Census 2000. The ACS asked for residence 1 year ago whereas Census 2000 asked for residence 5 years ago. No migration question was asked on the 2010 Census.

For more information, see the Migration Code List found within the 2020 ACS Code List. Go to http://www.census.gov and enter "ACS Code Lists, Definitions, and Accuracy" in the search box.

School Enrollment and Type of School

School enrollment data are used to assess the socioeconomic condition of school-age children. Government agencies also require these data for funding allocations and program planning and implementation.

Data on school enrollment and grade or level attending were derived from answers to Question 10 in the 2020 American Community Survey (ACS). People were classified as enrolled in school if they were attending a public or private school or college at any time during the 3 months prior to the time of interview. The question included instructions to "include only nursery or preschool, kindergarten, elementary school, home school, and schooling which leads to a high school diploma, or a college degree." Respondents who did not answer the enrollment question were assigned the enrollment status and type of school of a person with the same age, sex, race, and Hispanic or Latino origin whose residence was in the same or nearby area.

School enrollment is only recorded if the schooling advances a person toward an elementary school certificate, a high school diploma, or a college, university, or professional school (such as law or medicine) degree. Tutoring or correspondence schools are included if credit can be obtained from a public or private school or college. People enrolled in "vocational, technical, or business school" such as postsecondary vocational, trade, hospital school, and on job training were not reported as enrolled in school. Field interviewers were instructed to classify individuals who were home schooled as enrolled in private school. The guide sent out with the mail questionnaire included instructions for how to classify home schoolers.

Enrolled in Public and Private School – Includes people who attended school in the reference period and indicated they were enrolled by marking one of the questionnaire categories for "public school, public college," or "private school, private college, home school." The instruction guide defines a public school as "any school or college controlled and supported primarily by a local, county, state, or federal government." Private schools are defined as schools supported and controlled primarily by religious organizations or other private groups. Home schools are defined as "parental-guided education outside of public or private school for grades 1-12." Respondents who marked both the "public" and "private" boxes are edited to the first entry, "public."

Grade in Which Enrolled – From 1999-2007, in the ACS, people reported to be enrolled in "public school, public college" or "private school, private college" were classified by grade or level according to responses to Question 10b, "What grade or level was this person attending?" Seven levels were identified: "nursery school, preschool;" "kindergarten;" elementary "grade 1 to grade 4" or "grade 5 to grade 8;" high school "grade 9 to grade 12;" "college undergraduate years (freshman to senior);" and "graduate or professional school (*for example: medical, dental, or law school*)."

In 2008, the school enrollment questions had several changes. "Home school" was explicitly included in the "private school, private college" category. For question 10b the categories changed to the following "Nursery school, preschool," "Kindergarten," "Grade 1 through grade 12," "College undergraduate years (freshman to senior)," "Graduate or professional school beyond a bachelor's degree (for example: MA or PhD program, or medical or law school)." The survey question allowed a write-in for the grades enrolled from 1-12.

Question/Concept History – Since 1999, the ACS enrollment status question (Question 10a) refers to "regular school or college," while the 1996-1998 ACS did not restrict reporting to "regular" school, and contained an additional category for the "vocational, technical or business school."

The 1996-1998 ACS used the educational attainment question to estimate level of enrollment for those reported to be enrolled in school, and had a single year write-in for the attainment of grades 1 through 11. Grade levels estimated using the attainment question were not consistent with other estimates, so a new question specifically asking grade or level of enrollment was added starting with the 1999 ACS questionnaire.

Limitation of the Data – Beginning in 2006, the population universe in the ACS includes people living in group quarters. Data users may see slight differences in levels of school enrollment in any given geographic area due to the inclusion of this population. The extent of this difference, if any, depends on the type of group quarters present and whether the group quarters population makes up a large proportion of the total population. For example, in areas that are home to several colleges and universities, the percent of individuals 18 to 24 who were enrolled in college or graduate school would increase, as people living in college dormitories are now included in the universe.

Comparability – Data about level of enrollment are also collected from the decennial Census and from the Current Population Survey (CPS). ACS data are generally comparable to data from the Census. Although it should be noted that the ACS reference period was 3 months preceding the date of interview, while the Census 2000 reference period was any time since February 1, 2000. For more information about the comparability of ACS and CPS data, please see the School Enrollment Fact Sheet on the Census website (https://www.census.gov/topics/education/school-enrollment/guidance/acs-vs-cps.html).

Data on school enrollment also are collected and published by other federal, state, and local government agencies. Because these data are obtained from administrative records of school systems and institutions of higher learning, they are only roughly comparable to data from population censuses and surveys. Differences in definitions and concepts, subject matter covered, time references, and data collection methods contribute to the differences in estimates. At the local level, the difference between the location of the institution and the residence of the student may affect the comparability of census and administrative data because census data are collected from and based on a respondent's residence. Differences between the boundaries of school districts and census geographic units also may affect these comparisons.

Sex

The data on sex were derived from answers to Question 3 in the 2020 American Community Survey (ACS). Individuals were asked to mark either "male" or "female" to indicate their biological sex. For most cases in which sex was invalid, the appropriate entry was determined from other information provided for that person, such as the person's given (i.e., first) name and household relationship. Otherwise, sex was allocated from a hot deck.

Sex is asked for all persons in a household or group quarters. On the mailout/mailback paper questionnaire for households, sex is asked for all persons listed on the form. This form accommodates asking sex for up to 12 people listed as living or residing in the household for at least 2 months. If a respondent indicates that more people are listed as part of the total persons living in the household than the form can accommodate, telephone center staffers call respondents to obtain sex data for the additional household members during the Failed Edit Follow-up (FEFU) operation. In the internet and Computer-Assisted Personal Interviews (CATI), sex is asked for all persons. In 2006, the ACS began collecting data in group quarters (GQs). This included asking sex for persons living in a group quarters. For

additional data collection methodology, please see https://www.census.gov/programs-surveys/acs/.

Data on sex are used to determine the applicability of other questions for a particular individual and to classify other characteristics in tabulations. The sex data collected on the forms are aggregated and provide the number of males and females in the population. These data are needed to interpret most social and economic characteristics used to plan and analyze programs and policies. Data about sex are critical because so many federal programs must differentiate between males and females. The U.S. Departments of Education and Health and Human Services are required by statute to use these data to fund, implement, and evaluate various social and welfare programs, such as the Special Supplemental Food Program for Women, Infants, and Children (WIC) or the Low-Income Home Energy Assistance Program (LIHEAP). Laws to promote equal employment opportunity for women also require census data on sex. The U.S. Department of Veterans Affairs must use census data to develop its state projections of veterans' facilities and benefits. For more information on the use of sex data in Federal programs, please see "ACS Handbook of Questions and Current Federal Uses."

Sex Ratio – The sex ratio represents the balance between the male and female populations. Ratios above 100 indicate a larger male population, and ratios below 100 indicate a larger female population. This measure is derived by dividing the total number of males by the total number of females and then multiplying by 100. It is rounded to the nearest tenth.

Question/Concept History – Sex has been asked of all persons living in a household since the 1996 ACS Test phase. When group quarters were included in the survey universe in 2006, sex was asked of all persons in group quarters as well.

Beginning in 2008, the layout of the sex question response categories was changed to a horizontal side-by-side layout from a vertically stacked layout on the mail paper ACS questionnaire.

Limitation of the data – Beginning in 2006, the population in group quarters (GQ) was included in the ACS. Some types of GQ populations have sex distributions that are very different from the household population. The inclusion of the GQ population could therefore have a noticeable impact on the sex distribution. This is particularly true for a given geographic area, especially areas with a substantial GQ population.

The Census Bureau tested the changes introduced to the 2008 version of the sex question in the 2007 ACS Grid-Sequential Test. The results of this testing show that the changes may introduce an inconsistency in the data produced for this question as observed from the years 2007 to 2008. For more information, please see "Effects of Using a Grid Versus a Sequential Form on the ACS Basic Demographic Data."

Comparability – Sex is generally comparable across different data sources and data years. However, data users should still be aware of methodological differences that may exist between different data sources if they are comparing ACS sex data to other data sources, such

as Population Estimates or Decennial Census data. For example, the ACS data are that of a respondent-based survey and subject to various quality measures, such as sampling and nonsampling error, response rates, and item allocation. This differs in design and methodology from other data sources, such as Population Estimates, which is not a survey and involves computational methodology to derive intercensal estimates of the population. While ACS estimates are controlled to Population Estimates for sex at the nation, state and county levels of geography as part of the ACS weighting procedure, variation may exist in the sex structure of a population at lower levels of geography when comparing different time periods or comparing across time due to the absence of controls below the county geography level. For more information on ACS data accuracy and weighting procedures, please go to https://www.census.gov/programs-surveys/acs/.

It also should be noted that although the ACS produces population, demographic, and housing unit estimates, it is the Census Bureau's Population Estimates Program that produces and disseminates the official estimates of the population for the nation, states, counties, cities and towns and estimates of housing units for states and counties. See https://www.census.gov/programs-surveys/popest.html for data.

Social Security Income

See Income in the Past 12 Months.

Subfamily

See Household Type and Relationship.

Time Leaving Home to Go to Work

See Journey to Work.

Travel Time to Work

See Journey to Work.

Type of School

See School Enrollment.

Usual Hours Worked in the Past 12 Months

See Work Experience.

Veteran Status

Data on veteran status and period of military service were derived from answers to Questions 27 and 28 in the 2020 American Community Survey (ACS).

Veteran Status – Answers to this question provide specific information about veterans. Veteran status is used to identify people with active duty military service and service in the military Reserves and the National Guard. Veterans are men and women who have served (even for a short time), but are not currently serving, on active duty in the U.S. Army, Navy, Air Force, Marine Corps, or the Coast Guard, or who served in the U.S. Merchant Marine during World War II. People who served in the National Guard or Reserves are classified as veterans only if they were ever called or ordered to active duty, not counting the 4-6 months for initial training or yearly summer camps. All other civilians are classified as nonveterans. These data are used primarily by the Department of Veterans Affairs (VA) to measure the needs of veterans.

While it is possible for 17 year olds to be veterans of the Armed Forces, ACS data products are restricted to the population 18 years and older.

Veteran Status is:

- Used at state and county levels to plan programs for medical and nursing home care for veterans.
- Used by VA to plan the locations and sizes of veterans' cemeteries.
- Used by local agencies, under the Older Americans Act, to develop health care and other services for elderly veterans.
- Used to allocate funds to states and local areas for employment and job training programs for veterans under the Job Training Partnership Act.

Question/Concept History – For the 1999-2002 ACS, the question was changed to match the Census 2000 item. The response categories were modified by expanding the "No active duty service" answer category to distinguish persons whose only military service was for training in the Reserves or National Guard, from persons with no military experience whatsoever.

For the 2003-2012 ACS, the "Yes, on active duty in the past, but not now" category was split into two categories. Veterans were asked whether or not their service ended in the last 12 months.

Beginning in 2013, the veteran status question was revised in several ways based on recommendations from previous analysis of the question and a change in data needs for the veterans' series. First, VA no longer needed the 12-month distinction in veteran classifications, which resulted in collapsing the response options from five to four categories. Second, the revised question eliminated the lead-in "yes" and "no" for each response option. Finally, the response category for Reservists incorporated information from the instructions in the old version of the question, eliminating the need for the instruction to the question itself.

Limitation of the Data – There may be a tendency for the following kinds of persons to report erroneously that they served on active duty in the Armed Forces: (a) persons who served in the National Guard or Military Reserves but were never called to Federal duty; (b) civilian employees or volunteers for the USO, Red Cross, or the Department of Defense (or its predecessors, the Department of War and the Department of the Navy); and (c) employees of the Merchant Marine or Public Health Service.

Beginning in 2006, the population in group quarters (GQ) was included in the ACS. Some types of GQ populations may have period of military service and veteran status distributions that are different from the household population. The inclusion of the GQ population could therefore have a noticeable impact on the period of service and veteran status distributions. This is particularly true for areas with a substantial GQ population.

Comparability – The ACS has two separate questions for veteran status and period of military service, whereas in Census 2000, it was a two-part question. The wording for the veteran status question has remained the same; however, the response categories have changed over time (see the section "Question/Concept History"). While the response categories differ slightly from those in Census 2000, data from the two questions can still be compared to one another.

For comparisons to Census 2000 and earlier ACS data, go to http://www.census.gov and enter "Comparing ACS Data" in the search box.

The Group Quarters (GQ) population was included in the 2006 ACS and not included in prior years of ACS data, thus comparisons should be made only if the geographic area of interest does not include a substantial GQ population.

For comparisons to the Current Population Survey (CPS), please see "Comparison of ACS and ASEC Data on Veteran Status and Period of Military Service: 2007" on the ACS website. Go to http://www.census.gov and enter the paper title in the search box.

Period of Military Service – People who indicate that they had ever served on active duty in the past or were currently on active duty are asked to indicate the period or periods in which they served. Currently, there are 9 periods of service on the ACS questionnaire. Respondents are instructed to mark a box for each period in which they served, even if just for part of the period. The periods were determined by the Department of Veterans Affairs (VA) and generally alternate between peacetime and wartime.

The responses to this question are edited for consistency and reasonableness. The edit eliminates inconsistencies between reported period(s) of service and age of the person; it also removes reported combinations of periods containing unreasonable gaps (for example, it will not accept a response that indicated the person had served in World War II and in the Vietnam era, but not in the Korean conflict).

Period of military service distinguishes veterans who served during wartime periods from those whose only service was during peacetime. Questions about period of military service

provide necessary information to estimate the number of veterans who are eligible to receive specific benefits.

Question/Concept History – In 1999, the response categories were modified by closing the "August 1990 or later (including Persian Gulf War)" period at March 1995, and adding the "April 1995" or later category.

For the 2001-2002 ACS question, the response category was changed from "Korean conflict" to "Korean War."

For the 2003-2012 ACS, the response categories for the question were modified in several ways. The first category "April 1995 or later" was changed to "September 2001 or later" to reflect the era that began after the events of September 11, 2001; the second category "August 1990 to March 1995" was then expanded to "August 1990 to August 2001 (including Persian Gulf War)." The category "February 1955 to July 1964" was split into two categories: "March 1961 to July 1964" and "February 1955 to February 1961." To match the revised dates for war-time periods of the Department of Veterans Affairs, the dates for the "World War II" category were changed from "September 1940 to July 1947" to "December 1941 to December 1946," and the dates for the "Korean War" were changed from "June 1950 to January 1955" to "July 1950 to January 1955." To increase specificity, the "Some other time" category was split into two categories: "January 1947 to June 1950" and "November 1941 or earlier."

Beginning in 2013, the period of military service question was revised to make the categories more meaningful to VA needs. The "September 1980 to July 1990" and "May 1975 to August 1980" categories were collapsed into "May 1975 to July 1990." The "March 1961 to July 1964" and "February 1955 to February 1961" categories were collapsed into "February 1955 to July 1964."

Limitation of the Data – There may be a tendency for people to mark the most recent period in which they served or the period in which they began their service, but not all periods in which they served.

Beginning in 2006, the population in group quarters (GQ) was included in the ACS. Some types of GQ populations may have period of military service and veteran status distributions that are different from the household population. The inclusion of the GQ population could therefore have a noticeable impact on the period of service and veteran status distributions. This is particularly true for areas with a substantial GQ population.

Comparability – Since Census 2000, the period of military service categories on the ACS questionnaire were updated to: 1) include the most recent period "September 2001 or later;" 2) alternate "peace time" periods and "wartime periods" in the list; and 3) update the Korean War and World War II dates to match the official dates as listed in U.S. Code, Title 38. While the response categories differ slightly from those in Census 2000, data from the two questions can still be compared to one another.

For comparisons to Census 2000 and earlier ACS data, go to http://www.census.gov and enter "Comparing ACS Data" in the search box.

Due to an editing error, the veteran's period of service recode (VPS) prior to 2007 was being incorrectly assigned for some individuals. The majority of the errors misclassified some people who reported only serving during the Vietnam Era as having served in the category "Gulf War and Vietnam Era." The remainder of the errors misclassified some people who reported only serving between the Vietnam Era and Gulf War as having served in the category "Gulf War."

The Group Quarters (GQ) population was included in the 2006 ACS and not included in prior years of ACS data, thus comparisons should be made only if the geographic area of interest does not include a substantial GQ population.

For comparisons to the Current Population Survey (CPS), please see "Comparison of ACS and ASEC Data on Veteran Status and Period of Military Service: 2007" on the ACS website. Go to http://www.census.gov and enter the paper title in the search box.

Service-Connected Disability Status and Ratings – Data on service-connected disability-rating status and service-connected disability ratings were derived from answers to Questions 29a and 29b in the 2019 ACS.

Service-Connected Disability-Rating Status – People who indicated they had served on active duty in the U.S. Armed Forces, military Reserves, or National Guard, or trained with the Reserves or National Guard or were now on active duty were asked to indicate whether they had a Department of Veterans Affairs (VA) service-connected disability rating. These disabilities are evaluated according to the VA Schedule for Rating Disabilities in Title 38, U.S. Code of Federal Regulations, Part 4.

"Service-connected" means the disability was a result of disease or injury incurred or aggravated during active military service.

VA uses a priority system to allocate health care services among veterans enrolled in its programs. Data on service-connected disability status and ratings are used to measure the demand for VA health care services in local market areas across the country as well as to classify veterans into priority groups for VA health care enrollment.

Question/Concept History – This question was added to the ACS in 2008. For more information, see "Evaluation Report Covering Service-Connected Disability" from the 2006 ACS Content Test. Go to http://www.census.gov and enter "2006 ACS Content Test Evaluation Report Covering Service-Connected Disability" in the search box.

Limitation of the Data – There may be a tendency for people to erroneously report having a 0 percent rating when they have no service-connected disability rating at all.

Comparability – The question was not asked in Census 2000. It was added to the ACS in 2008.

Service-Connected Disability Rating – This question is asked of people who reported having a VA service-connected disability rating. These ratings are graduated according to degrees of disability on a scale from 0 to 100 percent, in increments of 10 percent. The ratings determine the amount of compensation payments made to the veterans. A zero-rating, which is different than having no rating at all, means a disability exists but it is not so disabling that it entitles the veteran to compensation payments.

VA uses a priority system to allocate health care services among veterans enrolled in its programs. Data on service-connected disability status and ratings are used to measure the demand for VA health care services in local market areas across the country as well as to classify veterans into priority groups for VA health care enrollment.

Question/Concept History – This question was added to the ACS in 2008. For more information, see "Evaluation Report Covering Service-Connected Disability" from the 2006 ACS Content Test. Go to http://www.census.gov and enter "2006 ACS Content Test Evaluation Report Covering Service-Connected Disability" in the search box.

Limitation of the Data – There may be a tendency for people to erroneously report having a 0 percent rating when they have no service-connected disability rating at all.

Comparability – The question was not asked in Census 2000. It was added to the ACS in 2008.

Weeks Worked in the Past 12 Months

See Work Experience.

Work Experience

The data on work experience were derived from answers to Questions 39, 40, and 41 in the 2019 American Community Survey (ACS). This term relates to work status in the past 12 months, weeks worked in the past 12 months, and usual hours worked per week worked in the past 12 months.

To comply with provisions of the Civil Rights Act, the U.S. Department of Justice uses these data to determine the availability of individuals for work. Government agencies, in considering the programmatic and policy aspects of providing federal assistance to areas, have emphasized the requirements for reliable data to determine the employment resources available. Data about the number of weeks and hours worked last year are essential because these data allow the characterization of workers by full-time/part-time and full-year/part-year status. Data about working last year are also necessary for collecting accurate income data by defining the universe of persons who should have earnings as part of their total income.

Work Status in the Past 12 Months

The data on work status in the past 12 months were derived from answers to Question 39 in the 2019 ACS. People 16 years old and over who worked 1 or more weeks according to the criteria described below are classified as "Worked in the past 12 months." All other people 16 years old and over are classified as "Did not work in the past 12 months."

Weeks Worked in the Past 12 Months

The data on weeks worked in the past 12 months were derived from responses to Question 40 in the 2019 ACS, which was asked of people 16 years old and over who indicated that they worked during the past 12 months.

The data pertain to the number of weeks during the past 12 months in which a person did any work for pay or profit (including paid vacation and paid sick leave) or worked without pay on a family farm or in a family business. Weeks of active service in the Armed Forces are also included.

Usual Hours Worked Per Week Worked in the Past 12 Months

The data on usual hours worked per week worked in the past 12 months were derived from answers to Question 41 in the 2019 ACS. This question was asked of people 16 years old and over who indicated that they worked during the past 12 months.

The data pertain to the number of hours a person usually worked during the weeks worked in the past 12 months. The respondent was to report the number of hours worked per week in the majority of the weeks he or she worked in the past 12 months. If the hours worked per week varied considerably during the past 12 months, the respondent was to report an approximate average of the hours worked per week.

People 16 years old and over who reported that they usually worked 35 or more hours each week during the weeks they worked are classified as "Usually worked full time;" people who reported that they usually worked 1 to 34 hours are classified as "Usually worked part time."

Aggregate Usual Hours Worked Per Week in the Past 12 Months – Aggregate usual hours worked is the sum of the values for usual hours worked each week of all the people in a particular universe. (For more information, see "Aggregate" under "Derived Measures.")

Mean Usual Hours Worked Per Week in the Past 12 Months – Mean usual hours worked is the number obtained by dividing the aggregate number of hours worked each week of a particular universe by the number of people in that universe. For example, mean usual hours worked for workers 16 to 64 years old is obtained by dividing the aggregate usual hours worked each week for workers 16 to 64 years old by the total number of workers 16 to 64 years old. Mean usual hours worked values are rounded to the nearest one-tenth of an hour. (For more information, see "Mean" under "Derived Measures.")

Full-Time, Year-Round Workers – All people 16 years old and over who usually worked 35 hours or more per week for 50 to 52 weeks in the past 12 months.

Number of Workers in Family in the Past 12 Months – The term "worker" as used for these data is defined based on the criteria for work status in the past 12 months.

***Question/Concept History* –** Beginning in 2008, the weeks worked question was separated into 2 parts: part (a) asked whether the respondent worked 50 or more weeks in the past 12 months and part (b) asked respondents who answered 'no' to part (a) how many weeks they worked, even for a few hours.

***Limitation of the Data* –** It is probable that the number of people who worked in the past 12 months and the number of weeks worked are understated since there is some tendency for respondents to forget intermittent or short periods of employment or to exclude weeks worked without pay. There may also be a tendency for people not to include weeks of paid vacation among their weeks worked; one result may be that the ACS figures understate the number of people who worked "50 to 52 weeks."

The ACS data refer to the 12 months preceding the date of interview. Since not all people in the ACS were interviewed at the same time, the reference period for the ACS data is neither fixed nor uniform.

Beginning in 2006, the population in group quarters (GQ) was included in the ACS. Some types of GQ populations may have work experience distributions that are different from the household population. The inclusion of the GQ population could therefore have a noticeable impact on the work experience distribution. This is particularly true for areas with a substantial GQ population.

The Census Bureau tested the changes introduced to the 2008 version of the weeks worked question in the 2006 ACS Content Test. The results of this testing show that the changes may introduce an inconsistency in the data produced for this question as observed from the years 2007 to 2008. For more information, see "Evaluation Report Covering Weeks Worked" from the 2006 ACS Content Test. Go to http://www.census.gov and enter "2006 ACS Evaluation Report Covering Weeks Worked" in the search box.

***Comparability* –** For information on Work Experience data comparability, please see the comparability section for Employment Status.

Work Status in the Past 12 Months

See Work Experience.

Year of Entry

The data on year of entry were derived from answers to Question 9 in the 2020 American Community Survey (ACS). This question was asked about Persons 1 through 5 in the ACS and was restricted to those persons who on Question 8 answered that they were in citizenship categories (2) born in Puerto Rico, Guam, the U.S. Virgin Islands, or Northern Marianas; (3) born abroad of U.S. citizen parent or parents; (4) U.S. citizen by naturalization; or (5) not a U.S citizen.

All respondents born outside the United States were asked for the year in which they came to live in the United States. This includes people born in Puerto Rico, Guam, the Northern Marianas, or the U.S. Virgin Islands; people born abroad of at least one U.S. citizen parent; and the foreign born. (See "Citizenship Status.") For the Puerto Rico Community Survey, respondents born outside Puerto Rico were asked for the year in which they came to live in Puerto Rico.

The responses to this question indicate when persons born outside the U.S. came to live in the United States.

Question/Concept History – Since 1996, the year of entry questions for the ACS and for the Puerto Rico Community Survey (PRCS) have been identical. An instruction was added beginning in 1999 to "Print numbers in boxes." In 2015, this instruction was changed to "If this person came to live in the United States more than once, print latest year" for ACS and "If this person came to live in Puerto Rico more than once, print latest year" for PRCS.

Limitation of the Data – Respondents were directed to indicate the year they entered the U.S. "to live" (or "to live" in Puerto Rico, for PRCS). For respondents who entered the U.S. (or entered Puerto Rico for PRCS) multiple times, the interviewers were instructed to request the most recent year of entry. For respondents who entered multiple times and did not ask the interviewer for clarification or who mailed back the questionnaire without being interviewed in person, it is unclear which year of entry was provided (i.e. first or most recent).

Beginning in 2006, the population in group quarters (GQ) was included in the ACS. Some types of GQ populations may have year of entry distributions that are different from those of the household population. Consequently, the inclusion of the GQ population could have a noticeable impact on the overall year of entry distribution. This is particularly true for areas with substantial GQ populations.

Comparability – Year of entry was comparable across ACS years. A note of caution when comparing ACS and Census 2000 year of entry data: Census 2000 represents data collected as of April 1, 2000 and thus the "2000" year of entry category accounts only for the first quarter (Jan-Mar) in 2000. In comparison, the ACS represents data collected throughout the entire year and thus the "2000" year of entry category accounts for the entire year of 2000. For more information, go to http://www.census.gov and enter "Comparing ACS Data" in the search box.

Derived Measures

Census data products include various derived measures, such as medians, means, and percentages, as well as certain rates and ratios. Most derived measures that round to less than 0.1 are shown as zero.

Aggregate

See "Mean."

Average

See "Mean."

Gini Index

The Gini is a measure of how much a distribution varies from a proportionate distribution. A purely proportionate distribution would have every value in the distribution being equal (that is 20% of the values would equal 20% of the aggregate total of all the values). This also is known as "perfect equality" – all households have an equal share of income. An example of a distribution that deviates the most from perfect equality would be have every value except one equal to zero, and one value that would be equal to the nonzero aggregate total for all the values. This also is known as "perfect inequality" – one household has all income.

The Gini ranges from zero (perfect equality) to one (perfect inequality), and it is calculated by measuring the difference between a diagonal line (the purely proportionate distribution) and the distribution of actual values (a Lorenz curve). This measure is presented for household income.

Interpolation

Interpolation is frequently used to calculate medians, quartiles, or quintiles and to approximate standard errors from tables based on interval data. Different kinds of interpolation may be used to estimate the value of a function between two known values, depending on the form of the distribution. The most common distributional assumption is that the data are linear, resulting in linear interpolation.

Mean

This measure represents an arithmetic average of a set of values. It is derived by dividing the sum (or aggregate) of a group of numerical questions by the total number of questions in that group. For example, mean household earnings is obtained by dividing the aggregate of all earnings reported by individuals with earnings living in households by the total number of

households with earnings. (Additional information on means and aggregates is included in the separate explanations of many population and housing variables.)

Aggregate. An aggregate is the sum of the values for each of the elements in the universe. For example, aggregate household income is the sum of the incomes of all households in a given geographic area. Means are derived by dividing the aggregate by the appropriate universe. When an aggregate used as a numerator is rounded in the detailed (base) tables, the rounded value is used for the calculation of the mean.

Rounding for selected aggregates. To protect the confidentiality of responses, the aggregates shown in matrices for the list of subjects below are rounded. This means that the aggregates for these subjects, except for travel time to work, are rounded to the nearest hundred dollars. Unless special rounding rules apply (see below); $150 rounds up to $200; $149 rounds down to $100; $100 stays $100 unless otherwise noted. Note that each cell in a matrix is rounded individually. This means that an aggregate value shown for the United States may not necessarily be the sum total of the aggregate values in the matrices for the states. This also means that the cells in the aggregate matrices may not add to the total and/or subtotal lines.

Special rounding rules for aggregates.

- If the dollar value is –$99 through +$99, then the dollar value is rounded to $0.
- If the dollar value is less than –$100, then the dollar value is rounded to the nearest -$100.
- If the dollar value is $100 or -$100, do not change the value.

<u>Aggregates Subject to Rounding:</u>

Contract Rent, Rent Asked
Earnings in the Past 12 Months (Households)
Earnings in the Past 12 Months (Individuals)
Gross Rent*
Income Deficit in the Past 12 Months (Families)
Income Deficit in the Past 12 Months Per Family Member
Income Deficit in the Past 12 Months Per Unrelated Individual
Income in the Past 12 Months (Household/Family/Nonfamily Household)
Income in the Past 12 Months (Individuals)
Mobile Home Costs
Real Estate Taxes (Per $1,000 Value)
Rent Asked
Selected Monthly Owner Costs* by Mortgage Status
Total Mortgage Payment
Travel Time to Work**
Type of Income in the Past 12 Months (Households)
Value, Price Asked

[***Note:** Gross Rent and Selected Monthly Owner Costs include other aggregates that also are subject to rounding. For example, Gross Rent includes aggregates of payments for "contract rent" and the "costs of utilities and fuels." Selected Monthly Owner Costs includes aggregates of payments for "mortgages, deeds of trust, contracts to purchase, or similar debts on the property (including payments for the first mortgage, second mortgage, home equity loans, and other junior mortgages); real estate taxes; fire, hazard, and flood insurance on the property, and the costs of utilities and fuels."]
[****Note:** Aggregate Travel Time to Work is zero if the aggregate is zero, is rounded to 4 minutes if the aggregate is 1 to 7 minutes, and is rounded to the nearest multiple of 5 minutes for all other values (if the aggregate is not already evenly divisible by 5).]

Median

This measure represents the middle value (if n is odd) or the average of the two middle values (if n is even) in an ordered list of n data values. The median divides the total frequency distribution into two equal parts: one-half of the cases falling below the median and one-half above the median. Each median is calculated using a standard distribution (see below). (For more information, see "Interpolation.")

For data products displayed in data.census.gov, medians that fall in the upper-most category of an open-ended distribution will be shown with a plus symbol (+) appended (e.g., "$3,500+" for contract rent), and medians that fall in the lowest category of an open-ended distribution will be shown with a minus symbol (-) appended (e.g., "$100- for contract rent"). For other data products and data files that are downloaded by users (i.e., FTP files), plus and minus signs will not be appended. Contract Rent, for example will be shown as $3501 if the median falls in the upper-most category ($3,500 or more) and $99 if the median falls in the lowest category (Less than $100). (The "Median Standard Distributions" section in Appendix A shows the open-ended intervals for medians.)

Standard Distributions. In order to provide consistency in the values within and among data products, standard distributions from which medians and quartiles are calculated are used for the American Community Survey (ACS). The ACS "Median Standard Distributions" are listed in Appendix A.

Percentage

This measure is calculated by taking the number of questions in a group possessing a characteristic of interest and dividing by the total number of questions in that group, and then multiplying by 100.

Quartile

This measure divides a distribution into four equal parts. The first quartile (or lower quartile) is the value that defines the upper limit of the lowest one-quarter of the cases. The second

quartile is the median. The third quartile (or upper quartile) is defined as the upper limit of the lowest three quarters of cases in the distribution. Quartiles are presented for certain financial characteristics such as housing value and contract rent. The distribution used to compute quartiles is the same as that used to compute medians for that variable.

Quintile

This measure divides a distribution into five equal parts. The first quintile (or lowest quintile) is the value that defines the upper limit of the lowest one-fifth of the cases. The second quintile is the 40th percentile. The third quintile is the 60th percentile. The fourth quintile is defined as the upper limit of the lowest four fifths of cases in the distribution, or the 80th percentile. Quintiles are presented for household incomes.

Rate

This is a measure of occurrences in a given period of time divided by the possible number of occurrences during that period. For example, the homeowner vacancy rate is calculated by dividing the number of vacant units "for sale only" by the sum of owner-occupied units and vacant units that are "for sale only," and then multiplying by 100. Rates are sometimes presented as percentages.

Ratio

This is a measure of the relative size of one number to a second number expressed as the quotient of the first number divided by the second. For example, the sex ratio is calculated by dividing the total number of males by the total number of females, and then multiplying by 100.

Quality Measures

General Information

Measures describing the quality of the American Community Survey (ACS) sample and the data collected by the ACS – including sample sizes, coverage rates, and response rates – are available for 2000 through the current data year on the ACS web page, at http://www.census.gov/acs/www/methodology/sample_size_and_data_quality. The quality measures illustrate the steps the Census Bureau takes to ensure that ACS survey data are accurate and reliable.

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Quality measures are available for 2010 and later through data.census.gov. Go to data.census.gov and enter "B98" for the full list or a specific table ID in the search box.

Sample Size

Initially Selected Housing Unit Addresses – The number of addresses in each state and for the nation that were selected for the ACS sample for a particular year. Each year's sample is systematically divided into 12 monthly samples for ACS interviewing. This initial number includes addresses later determined to be commercial or nonexistent, as well as housing units that are not interviewed due to subsampling for personal visit follow-up, refusals, or other reasons.

Housing Unit Final Interviews – The final number of interviews across all three modes of data collection for the ACS in a given year. This number **includes** occupied and vacant housing units that were interviewed by internet, mail, telephone, or personal visit methods between January 1 - December 31. It **excludes** addresses determined to be nonexistent or commercial, and addresses not selected in the subsample for personal visit follow-up, and addresses that are not interviewed due to refusals or other reasons.

Group Quarters Person Initial Sample Selected – The number of people living in GQs that could be contacted for ACS interviewing in a given year for a given geographic area. Each year's sample is systematically divided into 12 monthly samples for ACS interviewing. This initial number includes people thought to be in group quarters that were later determined to be out of scope or nonexistent, as well as people not interviewed due to the group quarter refusing entry, the person refusing to respond, or other reasons.

Group Quarters People Final Actual Interviews – The final number of actual person interviews for the ACS for those living in group quarters in a given year for a given geographic area.

Group Quarters People Synthetic Final Interviews - The final number of synthetic person interviews for the ACS in a given year, for the nation and by state. See the Group Quarters section for more information.

Coverage Rates

There are two kinds of coverage error: under-coverage and over-coverage. Under-coverage exists when housing units or people do not have a chance of being selected in the sample. Over-coverage exists when housing units or people have more than one chance of selection in the sample, or are included in the sample when they should not have been. If the characteristics of under-covered or over-covered housing units or individuals differ from those that are selected, the ACS may not provide an accurate picture of the population.

The coverage rates measure coverage error in the ACS. The coverage rate is the ratio of the ACS population or housing estimate of an area or group to the independent estimate for that area or group, times 100.

Coverage rates for the total resident population are calculated by sex at the national, state, and Puerto Rico levels, and at the national level only for total Hispanics, and non-Hispanics crossed by the five major race categories: White, Black, American Indian and Alaska Native, Asian, and Native Hawaiian and Other Pacific Islander. The total resident population includes persons in both housing units and group quarters. In addition, a coverage rate that includes only the group quarters population is calculated at the national level. Coverage rates for housing units are calculated at the national and state level, except for Puerto Rico because independent housing unit estimates are not available for Puerto Rico. These rates are weighted to reflect the probability of selection into the sample, the subsampling for personal visit follow-up, and non-response adjustment.

Response Rates

The survey response rate is the ratio of the estimate of units interviewed after data collection is complete to the estimate of all units that should have been interviewed. Separate rates are calculated for housing unit response and GQ person response. For housing units, this means all interviews after mail, Internet, telephone and personal visit follow-up. For GQ persons, this means all interviews after the personal visit. Interviews include complete and partial interviews with enough information to be processed.

All final noninterviews have been grouped into one of the following Reasons for Noninterviews:

Refusal: Even though the ACS is a mandatory survey and households whose addresses are selected and GQ persons who are selected for the survey are required to answer the survey questions, a few are reluctant to cooperate and refuse to participate.

Unable to Locate: If the interviewer cannot find the sample address after using all possible sources, they consider it "unable to locate." For GQ persons, the individual could not be located.

No One Home: Interviewers assign this code if they could not find anyone at the housing unit during the entire month's interview period. There is no equivalent rate for GQ persons.

Temporarily Absent: The interviewers confirm that all household members or the GQ person are away during the entire month's interview period on vacation, a business trip, or caring for sick relatives.

Language Problem: The interviewer could not conduct an interview because of language barriers, was not able to get an interpreter who could translate, and the supervisor or regional office could not help complete this case.

Insufficient Data: To be considered an interviewed unit in ACS, a household or GQ person's response needs to have a minimum amount of data. Occupied housing units and GQ persons not meeting this minimum are treated as noninterviews in the estimation process. Responses for vacant housing units are not subject to a minimum data requirement.

Maximum Contact Attempts Reached: This is a new category introduced in 2016 due to a change in the housing unit personal interviewing process. After the maximum number of contact attempts across all data collection mode has been reached, the interviewer discontinues follow-up attempts for the case.

Other: Unique situations when the reason for noninterview does not fit into one of the classifications described above. Possible reasons include "death in the family," "household quarantined," or "roads impassable."

Whole GQ Refusal: Some group quarters refuse to allow the ACS to interview any of their residents, citing legal or other reasons.

Whole GQ Other: These account for other situations where no one in the GQ was interviewed due to reasons other than refusals.

Allocation Rates

Missing data for a particular question or item is called item nonresponse. It occurs when a respondent fails to provide an answer to a required item. The ACS also considers invalid answers as item nonresponse. The Census Bureau uses imputation methods that either use rules to determine acceptable answers or use answers from similar housing units or people who provided the item information. One type of imputation, allocation, involves using statistical procedures, such as within-household or nearest neighbor matrices populated by donors, to impute for missing values.

Overall Person Characteristic Allocation Rate – This rate is calculated by adding together the weighted number of allocated items across a set of person characteristics, and dividing by the total weighted number of responses across the same set of characteristics.

Overall Housing Characteristic Allocation Rate – This rate is calculated by adding together the weighted number of allocated items across a set of household and housing unit characteristics, and dividing by the total weighted number of responses across the same set of characteristics.

These rates give an overall picture of the rate of item nonresponse for a geographic area.

Appendix A

Field of Degree Classification

Five-Group Classification	Fifteen-Group Classification	Examples
Science and Engineering	Computers, Mathematics and Statistics	Computer Science, Mathematics, General Statistics
	Biological, Agricultural, and Environmental Sciences	Cellular and Molecular Biology, Soil Sciences, Natural Resource Management
	Physical and Related Sciences	Physics, Organic Chemistry, Astronomy
	Psychology	Psychology, Counseling, Child Psychology
	Social Sciences	Criminology, Sociology, Political Science
	Engineering	Chemical Engineering, Thermal Engineering, Electrical Engineering
	Multidisciplinary Studies	Nutritional Science, Cognitive Science, Behavioral Science
Science and Engineering Related	Science and Engineering Related	Pre-Med, Physical Therapy, Mechanical Engineering Technology
Business	Business	Business Administration, Accounting, Human Resources Development
Education	Education	Early Childhood Education, Higher Education Administration, Special Education
Arts, Humanities, and Other	Literature and Languages	English, Foreign Language and Literature, Spanish
	Liberal Arts and History	Philosophy, Theology, American History
	Visual and Performing Arts	Interior Design, Dance, Voice
	Communications	Mass Communications, Journalism, Public Relations
	Other	Public Administration, Pre-law, Kinesiology

Four and Forty-Two Group Classifications of Languages Spoken at Home with Examples

Four Group Classification	Forty-Two Group Classification	Examples
Spanish	Spanish	Spanish, Ladino
Other Indo-European languages	French (incl. Cajun)	French, Cajun
	Haitian	Haitian
	Italian	Italian
	Portuguese	Portuguese, Kabuverdianu
	German	German, Luxembourgian
	Yiddish, Pennsylvania Dutch or other West Germanic languages	Yiddish, Dutch
	Greek	Greek
	Russian	Russian
	Polish	Polish
	Serbo-Croatian	Serbo-Croatian, Croatian, Serbian
	Ukrainian or other Slavic languages	Czech, Slovak, Ukrainian
	Armenian	Armenian
	Persian (incl. Farsi, Dari)	Iranian Persian (Farsi), Dari
	Gujarati	Gujarati
	Hindi	Hindi
	Urdu	Urdu
	Punjabi	Punjabi
	Bengali	Bengali
	Nepali, Marathi, or other Indic languages	Nepali, Marathi, Konkani
	Other Indo-European languages	Albanian, Lithuanian, Pashto, Romanian, Swedish
	Telugu	Telugu
	Tamil	Tamil
	Malayalam, Kannada, or other Dravidian languages	Malayalam, Kannada
Asian and Pacific Island languages	Chinese (incl. Mandarin, Cantonese)	Mandarin Chinese, Min Nan Chinese (incl. Taiwanese), Yue Chinese (Cantonese)
	Japanese	Japanese
	Korean	Korean

	Hmong	Hmong
	Vietnamese	Vietnamese
	Khmer	Central Khmer (Cambodian)
	Thai, Lao, or other Tai-Kadai languages	Thai, Lao
	Other languages of Asia	Burmese, Tibetan, Turkish
	Tagalog (incl. Filipino)	Tagalog, Filipino
	Ilocano, Samoan, Hawaiian, or other Austronesian languages	Hawaiian, Cebuano (Bisayan), Iloko (Ilocano), Samoan, Indonesian
All other languages	Navajo	Navajo
	Other Native languages of North America	Apache languages, Cherokee, Dakota languages, Tohono O'odham
	Arabic	Arabic
	Hebrew	Hebrew
	Amharic, Somali, or other Afro-Asiatic languages	Amharic, Chaldean Neo-Aramaic, Somali, Tigrinya
	Yoruba, Twi, Igbo, or other languages of Western Africa	Akan (incl. Fanti, Twi), Igbo (Ibo), Wolof, Yoruba
	Swahili or other languages of Central, Eastern, and Southern Africa	Bantu languages, Lingala, Swahili
	Other and unspecified languages	Hungarian, Jamaican Creole English, Unspecified

Poverty Factors

The 2020 Poverty Factors:

Interview Month	Poverty Factors
January	2.64903
February	2.65444
March	2.65954
April	2.66292
May	2.66364
June	2.66390
July	2.66533
August	2.66752
September	2.67042
October	2.67346
November	2.67609
December	2.67869

Poverty Thresholds

Poverty Thresholds in 1982, by Size of Family and Number of Related Children Under 18 Years Old (Dollars)

Size of family unit	Related children under 18 years								
	None	One	Two	Three	Four	Five	Six	Seven	Eight or more
One person (unrelated individual)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Under 65 years	5,019	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
65 years and over	4,626	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Two persons	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Householder under 65 years	6,459	6,649	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Householder 65 years and over	5,831	6,624	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Three persons	7,546	7,765	7,772	N/A	N/A	N/A	N/A	N/A	N/A
Four persons	9,950	10,112	9,783	9,817	N/A	N/A	N/A	N/A	N/A
Five persons	11,999	12,173	11,801	11,512	11,336	N/A	N/A	N/A	N/A
Six persons	13,801	13,855	13,570	13,296	12,890	12,649	N/A	N/A	N/A
Seven persons	15,879	15,979	15,637	15,399	14,955	14,437	13,869	N/A	N/A
Eight persons or more	17,760	17,917	17,594	17,312	16,911	16,403	15,872	15,738	N/A
Nine persons or more	21,364	21,468	21,183	20,943	20,549	20,008	19,517	19,397	18,649

Source: U.S. Census Bureau

Race Combinations

Two or More Races (57 Possible Specified Combinations)

1. White; Black or African American
2. White; American Indian and Alaska Native
3. White; Asian
4. White; Native Hawaiian and Other Pacific Islander
5. White; Some Other Race
6. Black or African American; American Indian and Alaska Native
7. Black or African American; Asian
8. Black or African American; Native Hawaiian and Other Pacific Islander
9. Black or African American; Some Other Race
10. American Indian and Alaska Native; Asian
11. American Indian and Alaska Native; Native Hawaiian and Other Pacific Islander
12. American Indian and Alaska Native; Some other race
13. Asian; Native Hawaiian and Other Pacific Islander
14. Asian; Some Other Race
15. Native Hawaiian and Other Pacific Islander; Some Other Race
16. White; Black or African American; American Indian and Alaska Native
17. White; Black or African American; Asian
18. White; Black or African American; Native Hawaiian and Other Pacific Islander
19. White; Black or African American; Some Other Race
20. White; American Indian and Alaska Native; Asian
21. White; American Indian and Alaska Native; Native Hawaiian and Other Pacific Islander
22. White; American Indian and Alaska Native; Some Other Race
23. White; Asian; Native Hawaiian and Other Pacific Islander
24. White; Asian; Some Other Race
25. White; Native Hawaiian and Other Pacific Islander; Some Other Race
26. Black or African American; American Indian and Alaska Native; Asian
27. Black or African American; American Indian and Alaska Native; Native Hawaiian and Other Pacific Islander
28. Black or African American; American Indian and Alaska Native; Some Other Race
29. Black or African American; Asian; Native Hawaiian and Other Pacific Islander
30. Black or African American; Asian; Some Other Race
31. Black or African American; Native Hawaiian and Other Pacific Islander; Some Other Race
32. American Indian and Alaska Native; Asian; Native Hawaiian and Other Pacific Islander
33. American Indian and Alaska Native; Asian; Some Other Race
34. American Indian and Alaska Native; Native Hawaiian and Other Pacific Islander; Some Other Race
35. Asian; Native Hawaiian and Other Pacific Islander; Some Other Race
36. White; Black or African American; American Indian and Alaska Native; Asian
37. White; Black or African American; American Indian and Alaska Native; Native Hawaiian and Other Pacific Islander

38. White; Black or African American; American Indian and Alaska Native; Some Other Race
39. White; Black or African American; Asian; Native Hawaiian and Other Pacific Islander
40. White; Black or African American; Asian; Some Other Race
41. White; Black or African American; Native Hawaiian and Other Pacific Islander; Some Other Race
42. White; American Indian and Alaska Native; Asian; Native Hawaiian and Other Pacific Islander
43. White; American Indian and Alaska Native; Asian; Some Other Race
44. White; American Indian and Alaska Native; Native Hawaiian and Other Pacific Islander; Some other race
45. White; Asian; Native Hawaiian and Other Pacific Islander; Some Other Race
46. Black or African American; American Indian and Alaska Native; Asian; Native Hawaiian and Other Pacific Islander
47. Black or African American; American Indian and Alaska Native; Asian; Some Other Race
48. Black or African American; American Indian and Alaska Native; Native Hawaiian and Other Pacific Islander; Some Other Race
49. Black or African American; Asian; Native Hawaiian and Other Pacific Islander; Some Other Race
50. American Indian and Alaska Native; Asian; Native Hawaiian and Other Pacific Islander; Some Other Race
51. White; Black or African American; American Indian and Alaska Native; Asian; Native Hawaiian and Other Pacific Islander
52. White; Black or African American; American Indian and Alaska Native; Asian; Some Other Race
53. White; Black or African American; American Indian and Alaska Native; Native Hawaiian and Other Pacific Islander; Some Other Race
54. White; Black or African American; Asian; Native Hawaiian and Other Pacific Islander; Some Other Race
55. White; American Indian and Alaska Native; Asian; Native Hawaiian and Other Pacific Islander; Some Other Race
56. Black or African American; American Indian and Alaska Native; Asian; Native Hawaiian and Other Pacific Islander; Some Other Race
57. White; Black or African American; American Indian and Alaska Native; Asian; Native Hawaiian and Other Pacific Islander; Some Other Race

Median Standard Distributions

In order to provide consistency in the values within and among data products, standard distributions from which medians and quartiles are calculated are used for the American Community Survey.

Standard Distribution for **Median Age**:
[101 data cells]

Under 1 year
1 year
2 years
3 years
4 years
5 years
.
.
.
97 years
98 years
99 years
100 years and over

Standard Distribution for **Median Contract Rent/Quartile Contract Rent/Rent Asked/Gross Rent**:
[24 data cells]

Less than $100
$100 to $149
$150 to $199
$200 to $249
$250 to $299
$300 to $349
$350 to $399
$400 to $449
$450 to $499
$500 to $549
$550 to $599
$600 to $649
$650 to $699
$700 to $749
$750 to $799
$800 to $899
$900 to $999
$1,000 to $1,249
$1,250 to $1,499

$1,500 to $1,999
$2,000 to $2,499
$2,500 to $2,999
$3,000 to $3,499
$3,500 or more

Standard Distribution for **Duration of Current Marriage**:
[101 data cells]

Under 1 year
1 year
2 years
3 years
4 years
5 years
.
.
.
97 years
98 years
99 years
100 years and over

Standard Distribution for **Median Earnings and Median Income (Individuals)**:
[101 data cells]

Less than $2,500
$2,500 to $4,999
$5,000 to $7,499
$7,500 to $9,999
$10,000 to $12,499
$12,500 to $14,999
$15,000 to $17,499
$17,500 to $19,999
$20,000 to $22,499
$22,500 to $24,999
$25,000 to $27,499
$27,500 to $29,999
$30,000 to $32,499
$32,500 to $34,999
$35,000 to $37,499
$37,500 to $39,999
$40,000 to $42,499
$42,500 to $44,999
$45,000 to $47,499

$47,500 to $49,999
$50,000 to $52,499
$52,500 to $54,999
$55,000 to $57,499
$57,500 to $59,999
$60,000 to $62,499
$62,500 to $64,999
$65,000 to $67,499
$67,500 to $69,999
$70,000 to $72,499
$72,500 to $74,999
$75,000 to $77,499
$77,500 to $79,999
$80,000 to $82,499
$82,500 to $84,999
$85,000 to $87,499
$87,500 to $89,999
$90,000 to $92,499
$92,500 to $94,999
$95,000 to $97,499
$97,500 to $99,999
$100,000 to $102,499
$102,500 to $104,999
$105,000 to $107,499
$107,500 to $109,999
$110,000 to $112,499
$112,500 to $114,999
$115,000 to $117,499
$117,500 to $119,999
$120,000 to $122,499
$122,500 to $124,999
$125,000 to $127,499
$127,500 to $129,999
$130,000 to $132,499
$132,500 to $134,999
$135,000 to $137,499
$137,500 to $139,999
$140,000 to $142,499
$142,500 to $144,999
$145,000 to $147,499
$147,500 to $149,999
$150,000 to $152,499
$152,500 to $154,999
$155,000 to $157,499
$157,500 to $159,999
$160,000 to $162,499

$162,500 to $164,999
$165,000 to $167,499
$167,500 to $169,999
$170,000 to $172,499
$172,500 to $174,999
$175,000 to $177,499
$177,500 to $179,999
$180,000 to $182,499
$182,500 to $184,999
$185,000 to $187,499
$187,500 to $189,999
$190,000 to $192,499
$192,500 to $194,999
$195,000 to $197,499
$197,500 to $199,999
$200,000 to $202,499
$202,500 to $204,999
$205,000 to $207,499
$207,500 to $209,999
$210,000 to $212,499
$212,500 to $214,999
$215,000 to $217,499
$217,500 to $219,999
$220,000 to $222,499
$222,500 to $224,999
$225,000 to $227,499
$227,500 to $229,999
$230,000 to $232,499
$232,500 to $234,999
$235,000 to $237,499
$237,500 to $239,999
$240,000 to $242,499
$242,500 to $244,999
$245,000 to $247,499
$247,500 to $249,999
$250,000 or more

Standard Distribution for **Median Gross Rent as a Percentage of Household Income**:
[13 data cells]

Less than 10.0 percent
10.0 to 14.9 percent
15.0 to 19.9 percent
20.0 to 24.9 percent
25.0 to 29.9 percent

30.0 to 34.9 percent
35.0 to 39.9 percent
40.0 to 49.9 percent
50.0 percent or more

Standard Distribution for **Median Income in the Past 12 Months (Household/Family/Nonfamily Household)**:
[101 data cells]

Less than $2,500
$2,500 to $4,999
$5,000 to $7,499
$7,500 to $9,999
$10,000 to $12,499
$12,500 to $14,999
$15,000 to $17,499
$17,500 to $19,999
$20,000 to $22,499
$22,500 to $24,999
$25,000 to $27,499
$27,500 to $29,999
$30,000 to $32,499
$32,500 to $34,999
$35,000 to $37,499
$37,500 to $39,999
$40,000 to $42,499
$42,500 to $44,999
$45,000 to $47,499
$47,500 to $49,999
$50,000 to $52,499
$52,500 to $54,999
$55,000 to $57,499
$57,500 to $59,999
$60,000 to $62,499
$62,500 to $64,999
$65,000 to $67,499
$67,500 to $69,999
$70,000 to $72,499
$72,500 to $74,999
$75,000 to $77,499
$77,500 to $79,999
$80,000 to $82,499
$82,500 to $84,999
$85,000 to $87,499
$87,500 to $89,999
$90,000 to $92,499

$92,500 to $94,999
$95,000 to $97,499
$97,500 to $99,999
$100,000 to $102,499
$102,500 to $104,999
$105,000 to $107,499
$107,500 to $109,999
$110,000 to $112,499
$112,500 to $114,999
$115,000 to $117,499
$117,500 to $119,999
$120,000 to $122,499
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$125,000 to $127,499
$127,500 to $129,999
$130,000 to $132,499
$132,500 to $134,999
$135,000 to $137,499
$137,500 to $139,999
$140,000 to $142,499
$142,500 to $144,999
$145,000 to $147,499
$147,500 to $149,999
$150,000 to $152,499
$152,500 to $154,999
$155,000 to $157,499
$157,500 to $159,999
$160,000 to $162,499
$162,500 to $164,999
$165,000 to $167,499
$167,500 to $169,999
$170,000 to $172,499
$172,500 to $174,999
$175,000 to $177,499
$177,500 to $179,999
$180,000 to $182,499
$182,500 to $184,999
$185,000 to $187,499
$187,500 to $189,999
$190,000 to $192,499
$192,500 to $194,999
$195,000 to $197,499
$197,500 to $199,999
$200,000 to $202,499
$202,500 to $204,999
$205,000 to $207,499

$207,500 to $209,999
$210,000 to $212,499
$212,500 to $214,999
$215,000 to $217,499
$217,500 to $219,999
$220,000 to $222,499
$222,500 to $224,999
$225,000 to $227,499
$227,500 to $229,999
$230,000 to $232,499
$232,500 to $234,999
$235,000 to $237,499
$237,500 to $239,999
$240,000 to $242,499
$242,500 to $244,999
$245,000 to $247,499
$247,500 to $249,999
$250,000 or more

Standard Distribution for **Median Monthly Housing Costs**:
[26 cells]

Less than $100
$100 to $149
$150 to $199
$200 to $249
$250 to $299
$300 to $349
$350 to $399
$400 to $449
$450 to $499
$500 to $549
$550 to $599
$600 to $649
$650 to $699
$700 to $749
$750 to $799
$800 to $899
$900 to $999
$1,000 to $1,249
$1,250 to $1,499
$1,500 to $1,749
$1,750 to $1,999
$2,000 to $2,499
$2,500 to $2,999
$3,000 to $3,499

$3,500 to $3,999
$4,000 or more

Standard Distribution for **Median Real Estate Taxes Paid**:
[14 data cells]

Less than $200
$200 to $299
$300 to $399
$400 to $599
$600 to $799
$800 to $999
$1,000 to $1,499
$1,500 to $1,999
$2,000 to $2,999
$3,000 to $3,999
$4,000 to $4,999
$5,000 to $7,499
$7,500 to $9,999
$10,000 or more

Standard Distribution for **Median Rooms**:
[9 data cells]

1 room
2 rooms
3 rooms
4 rooms
5 rooms
6 rooms
7 rooms
8 rooms
9 or more rooms

Standard Distribution for **Median Selected Monthly Owner Costs/Median Selected Monthly Owner Costs by Mortgage Status (With a Mortgage)**:
[19 data cells]

Less than $100
$100 to $199
$200 to $299
$300 to $399
$400 to $499
$500 to $599
$600 to $699
$700 to $799

$800 to $899
$900 to $999
$1,000 to $1,249
$1,250 to $1,499
$1,500 to $1,749
$1,750 to $1,999
$2,000 to $2,499
$2,500 to $2,999
$3,000 to $3,499
$3,500 to $3,999
$4,000 or more

Standard Distribution for **Median Selected Monthly Owner Costs by Mortgage Status (Without a Mortgage)**:
[19 data cells]

Less than $100
$100 to $149
$150 to $199
$200 to $249
$250 to $299
$300 to $349
$350 to $399
$400 to $499
$500 to $599
$600 to $699
$700 to $799
$800 to $899
$900 to $999
$1,000 to $1,099
$1,100 to $1,199
$1,200 to $1,299
$1,300 to $1,399
$1,400 to $1,499
$1,500 or more

Standard Distribution for **Median Selected Monthly Owner Costs as a Percentage of Household Income by Mortgage Status**:
[9 data cells]

Less than 10.0 percent
10.0 to 14.9 percent
15.0 to 19.9 percent
20.0 to 24.9 percent
25.0 to 29.9 percent
30.0 to 34.9 percent

35.0 to 39.9 percent
40.0 to 49.9 percent
50.0 percent or more

Standard Distribution for **Median Value/Quartile Value/Price Asked**:
[28 data cells]

Less than $10,000
$10,000 to $14,999
$15,000 to $19,999
$20,000 to $24,999
$25,000 to $29,999
$30,000 to $34,999
$35,000 to $39,999
$40,000 to $49,999
$50,000 to $59,999
$60,000 to $69,999
$70,000 to $79,999
$80,000 to $89,999
$90,000 to $99,999
$100,000 to $124,999
$125,000 to $149,999
$150,000 to $174,999
$175,000 to $199,999
$200,000 to $249,999
$250,000 to $299,999
$300,000 to $399,999
$400,000 to $499,999
$500,000 to $749,999
$750,000 to $999,999
$1,000,000 to $1,249,999
$1,250,000 to $1,499,999
$1,500,000 to $1,749,999
$1,750,000 to $1,999,999
$2,000,000 or more

Standard Distribution for **Median Year Householder Moved Into Unit**:
[6 data cells]

Moved in 2019 or later
Moved in 2015 to 2018
Moved in 2010 to 2014
Moved in 2000 to 2009
Moved in 1990 to 1999
Moved in 1989 or earlier

Standard Distribution for **Median Year Structure Built**:
[10 data cells]
Built in 2014 or later
Built in 2010 to 2013
Built in 2000 to 2009
Built 1990 to 1999
Built 1980 to 1989
Built 1970 to 1979
Built 1960 to 1969
Built 1950 to 1959
Built 1940 to 1949
Built 1939 or earlier

Appendix D
I-94 East-West 70th Street – 16th Street Public Involvement Plan

I-94 EAST-WEST

70TH STREET – 16TH STREET

PUBLIC INVOLVEMENT PLAN

August 2021

MILWAUKEE COUNTY

PROJECT ID 1060-27-03

U.S.Department of Transportation
Federal Highway Administration

Table of Contents

Introduction

The Public Involvement Plan (PIP) for the I-94 East-West Freeway Corridor project provides a framework for both soliciting information from and disseminating information to a wide range of stakeholders, including residents, businesses, community groups, faith-based organizations, elected officials, and other interested parties.

This is a multi-faceted plan designed to achieve meaningful input via a comprehensive and transparent process.

The PIP allows for several things:
(1) a comprehensive geographical range of community outreach
(2) opportunities for both outreach and feedback, and
(3) significant interaction between the environmental document processes with stakeholders and interested parties. The PIP will accommodate all of these elements while retaining the opportunity for flexibility and change throughout the process.

This PIP is based on the same concepts that the Wisconsin Department of Transportation (WisDOT) has employed on other Southeast Freeway projects, including:

- Meeting with a broad spectrum of groups to create meaningful dialogue.
- Establishing credibility and trust within the community.
- Being the first and best source of information.

Project Description

The I-94 East-West Corridor includes approximately 3.5 miles of I-94 between 70th Street and 16th Street, and WIS 175 between Frederick Miller Way and Wisconsin Avenue (including the Stadium Interchange) in Milwaukee County. This corridor provides a critical interstate link for manufacturers, commuters, sports fans, and tourists within the Milwaukee Metropolitan Area and the southeast region of Wisconsin. This section of I-94 carries high traffic volumes.

Most crash rates in the I-94 East-West Corridor are at least 2 to 3 times higher than the statewide average for similar roadways (large urban freeways), and several sections are more than 4 times higher than the statewide average.

The corridor is also displaying significant physical degradation (the corridor was built in the early and mid-1960s), and also features a number of horizontal, vertical, typical section, and vertical clearance design deficiencies.

A Federal Register Notice was published indicating a Supplemental Environmental Impact Statement (EIS) will be prepared for the I-94 East West Corridor. The project team will review the previous environmental documentation, and update the following:

- Engineering/design topics: Updated traffic analysis, design alternatives (including 6-lane modernization) and related impacts analysis
- Land use, transportation, utilities

- Residential development, commercial and industrial development, institutional/public services
- Socioeconomic, environmental justice
- Surface water and fishery, groundwater, wetlands, environmental corridors & natural areas, floodplains and hydraulics, upland habitat, wildlife, threatened and endangered species
- Visual character, noise, air quality
- Hazardous materials, soil resources
- Cemeteries, historic sites, archaeological, recreational resources/public use land
- Construction, mitigation
- Indirect effects, cumulative effects
- Continued public involvement (PI) and consideration/documentation of input (including a public hearing)

Goals and Objectives

The primary objective of this PIP is to provide pathways for all stakeholders to be meaningfully engaged in the I-94 East-West decision-making process.

Achieving the goal will require the fulfillment of the following objectives:

- Establish and maintain the legitimacy of the current project.
- Establish and maintain the legitimacy of the project planning process.
- Understand and articulate project history.
- Establish two-way dialogue with the potentially affected stakeholders.
- Identify all potentially relevant issues and work to generate solutions to those problems, within the requirements and limitations of engineering, environmental, and other controlling factors.
- Articulate and clarify the key issues.
- Establish credibility.
- Ensure that communication is understandable to all stakeholders.
- Listen to and understand information that is communicated by all stakeholders

Project Schedule

The study began on March 28, 2012, and a Record of Decision was issued on September 9, 2016. The Record of Decision was rescinded at the request of the State of Wisconsin in 2017. The PI schedule will coincide with all major project milestones and tasks that will be completed over the course of the project, and will continue through the design and construction phases of the project.

The focus of the Supplemental EIS is to identify and analyze changes in existing conditions, evaluate alternatives, establish a preferred alternative, and evaluate the previously completed environmental documentation in terms of updates to laws, rules, regulations, and administrative codes that may have changed in the years since the Final EIS was approved in 2016.

This PIP will be updated during the subsequent final design phase and the construction phase of the project.

Project Staff

WisDOT's I-94 East-West team, and by extension its consultant CH2M/Jacobs, will be responsible for the implementation of the overall PIP.

The team will also interface with other WisDOT and/or consultant staff involved in the areas of environmental justice and minority economic opportunities outreach.

WisDOT Public Involvement Staff and Roles:

- Project Chief – Brian Bliesner
- Project Supervisor – Bill Mohr
- Project Manager – Josh LeVeque
- Technical Services Section Chiefs – Emlynn Grisar and James Robinette
- Communications Manager – Mike Pyritz
- Region Technical Services - Dobra Payant
- Bureau of Technical Services – Jay Waldschmidt and Joel Brown
- Office of Public Affairs – Kristin McHugh

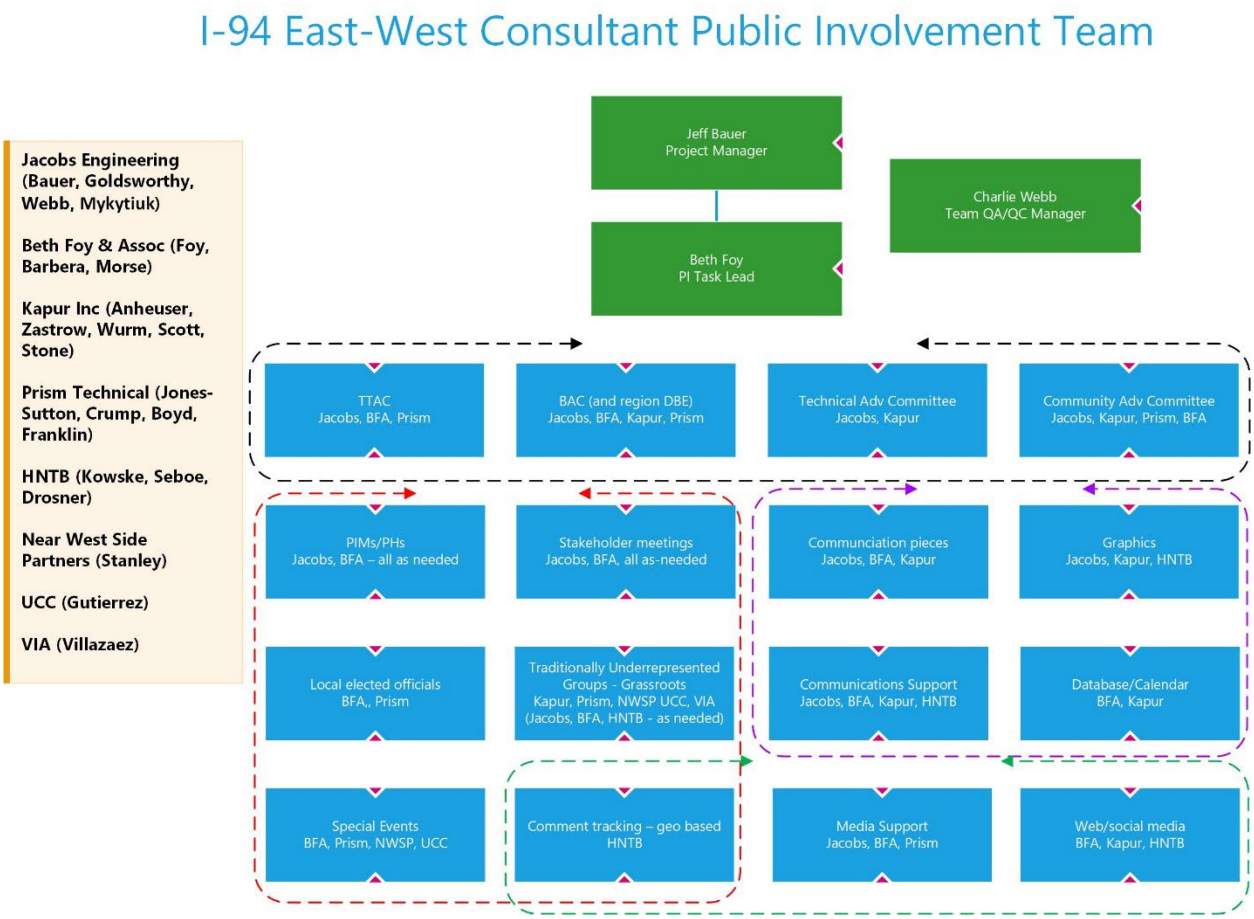
CH2M/Jacobs Public Involvement Management and Roles:

- Jeff Bauer –Project Manager
- Charlie Webb –Consultant Team Quality Manager
- Beth Foy – Task Lead for public involvement; responsible for day-to-day public involvement administration and strategy

- Kapur - PI planning, graphics, communications support
- Prism - Committee support, community outreach, workforce coordination with internal and external agencies
- HNTB - GIS support, comment tracking/geographic based software; communications support
- Community Based organizations (outreach support):
    - VIA

- United Community Center
- Near West Side Partners

Consultant Organization Chart



Public Involvement Plan Elements

- General public outreach
- Community outreach
  - Adjacent residents
  - Corridor users
  - Unique groups/communities
  - Community-based organizations
- Business outreach
  - Regional and local stakeholders

    - Associations representing both businesses and labor
    - Individual businesses
- Industry stakeholders
    - Freight
    - Statewide and regional business users of the I-94 East-West Freeway
- Minority and low-income groups, Native American Tribes
- Agencies and local officials—outreach to local governments, the Regional Planning Commission, transit providers, emergency providers, ports, harbors, and airports
- Elected officials

The project team anticipates each of these audiences will have specific interests in the corridor related to design and construction activities.

The team will bring an array of citizen participation techniques and tools to this initiative. During this phase of the project, virtual and in-person tools will be needed to engage the community. Due to lingering concerns about in-person gatherings and the COVID-19 pandemic-related regulations, public meetings and committees may include a virtual component.

Public involvement tools include:

Public Involvement Meeting and Public Hearing

During preparation of the Supplemental EIS, a Public Involvement Meeting (PIM) and Public Hearing (PH) will be conducted. When a PIM is conducted, it will likely be conducted in-person with a virtual component depending on the local regulations and community expectations at that time. When the PH is conducted, in-person and virtual options may be offered. The in-person portion of the PIM/PH will be held at a publicly accessible building in the corridor. Meeting locations may include schools, parks, or other easily identifiable locations.

Media participation and coverage of the PIM/PH will be encouraged via press releases and through coordination with WisDOT's Communications Manager.

PIM format will be an informal, open-house style. The PH will be conducted in a hybrid style with written testimony, private testimony and public testimony accepted into the PH record.

Staff planners, environmental specialists, roadway designers, traffic engineers, real estate specialists and others will be in attendance to share information and listen to community concerns.

Small Group Meetings/Listening Sessions

Individual Meetings with Elected Officials and Local Governments

The team will meet with city, county, and state elected officials. Because these elected officials represent various residents and businesses as part of their constituencies, it is desirable to provide them with early notice regarding what is occurring in the

process, as well as what work is planned for the near future. These meetings will generally take place on an individual or very small group basis.

State-level elected official meetings (and those with local units of government, at their discretion) will be arranged by the WisDOT representatives with support from the team as needed.

See Appendix A for a sample list of Elected Officials.

Meetings with Interest Groups and Businesses

The project team will meet with representatives of community, business, environmental, and metropolitan organizations. Materials will be developed and modified as appropriate during the course of the project for use with interest groups. Regular updates and briefings will be held as the project progresses.

See Appendix B for a list of sample special interest groups and businesses.

Grassroots Community Outreach Activities

Community outreach that establishes a presence and reputation of openness and responsiveness for the team amongst stakeholders, and that produces tangible and constructive feedback, requires a proactive grassroots effort. Establishing and maintaining trust and credibility with residents, businesses, and stakeholders is important in setting the foundation for meaningful communication. Providing accurate, timely, and understandable information in a variety of formats is a key element in establishing trust and credibility.

Property Owner Outreach

The team will meet with adjacent property owners. These meetings will be one-on-one, with neighborhood associations, and in other venues as requested. Door-to-door outreach may be appropriate.

Community-Based Organization Outreach/Listening Sessions/Targeted Interviews

The team will meet with various community organizations located in Milwaukee, West Allis, Wauwatosa, West Milwaukee, and elsewhere as requested. Materials will be developed and modified as appropriate during the course of the project for use with smaller meetings, such as executive directors and organization boards, as well as for larger groups.

The meetings may be in the form of listening sessions, interviews, or traditional information-sharing give-and-take meetings. The format will depend on the goals of the meeting and the audience.

See Appendix B for a sample list of community organizations.

Transit User Outreach

The team will work with partner agencies to conduct outreach to local transit users.

Outreach to Minority and Low-Income Groups

Introduction

The primary purpose of this effort is to further facilitate the involvement of, and help provide opportunity for the full and fair participation of, minority and low-income communities in the continued development of the I-94 East-West project during the environmental, design and construction phases of the project. Improving communication and understanding between the Department and minority and low-income communities in Milwaukee County is a primary objective.

The overall public involvement program will work to identify potential benefits and adverse effects of the project with respect to minority and low-income populations while assisting in obtaining ideas, opinions and feedback as well as disseminating information. These emphases will be fully integrated with other planned outreach by WisDOT throughout the life of the project.

The I-94 East-West project approach will complement and coordinate with WisDOT Southeast Region's DBE and Labor Committee. Any contacts or inquiries regarding DBE business opportunities or job opportunities will be referred to that committee.

The public involvement efforts will also coordinate with and complement the Southeastern Wisconsin Regional Planning Commission's (SEWRPC) Environmental Justice Task Force. Any contacts or inquiries regarding regional transportation planning will be referred to this task force.

It is anticipated that some outreach and meetings may require participation by both the Southeast Regions DBE/Labor Committee and SEWRPC's EJTF to be able to present and answers questions about the entire life of a transportation project from planning through design and into construction.

A Community Advisory Committee (CAC) will be convened, similar to the CAC developed in the initial study phase of the project, with a focus on issues pertaining to minority and low-income populations within the public involvement program.

Invited participants to the CAC will include the project team, WisDOT Southeast Region and Central Office, Federal Highway Administration, community stakeholders and neighborhood associations along with individuals and groups representing minority and low-income populations in Milwaukee County.

The CAC will be involved in developing and reviewing of goals and strategies and in some cases the implementation of PI efforts. The advisory committee will meet on a regular basis to monitor the progress and recommend changes to the PIP as it unfolds.

This effort will also coordinate with and complement the other project advisory committees: Transit Technical Advisory Committee (TTAC), Business Advisory Committee (BAC), Local Officials Committee, and Technical Advisory Committee (TAC).

Develop Goals

To ensure effective outcomes and a focused effort, goals specific to minority and low-income communities will be developed. Input will be gathered from a variety of sources including the project team, WisDOT Southeast Region and Central Office, Federal Highway Administration, and the CAC. Goals should complement WisDOT's Southeast Region DBE/Labor Committee.

There will be a review of WisDOT's performance and follow through of past goals and commitments to minority and low-income communities in Milwaukee County. Acknowledging past successes and failures will be an important part of building trust with the community.

Both short-term and long-term goals will be developed.

The short-term goals will be built around supporting the project and the Supplemental EIS. Short-term goals will include outreach in support of the identification of a preferred alternative, and collaboration with the Southeast Region DBE/Labor Committee. Short-term goals will be reviewed and, as appropriate, carried forward to the design and construction phases of the project.

Long-term goals will be built around transportation in general including WisDOT program level issues such as workforce development, DBE development, and transit/multi-modal options. Input received thus far indicates the need for long-term relationship building between the Department and the targeted communities in Milwaukee County. This effort through the I-94 East-West project can be part of that long-term relationship building and will include WisDOT program-related outreach goals. Long-range goals will include the establishment of regular communication avenues regarding the Department's six-year program as well as other WisDOT programs.

Another aspect of developing goals will be to understand how any short-term or long-term mitigation will be developed in relation to the project vs other potential program improvements. The project-specific and Department program improvement efforts will be clearly communicated to project stakeholders.

Identify Groups and Organizations

Once short- and long-term goals are established, and with consultant team representatives from Prism Technical, Near West Side Partners (NWSP), the United Community Center (UCC) and VIA, the sample list (Appendix C) of organizations, groups, neighborhoods will be refined.

Within the I-94 project corridor there are many organizations, groups, neighborhoods, and ethnicities adjacent to and surrounding the corridor. The targeted communities include many organizations, groups, neighborhoods, and ethnicities, each with potentially unique perspectives and communication styles.

Develop Short-Term and Long-Term Strategies for each group

For each of the organizations, groups, neighborhoods identified, a strategy for reaching both the short-term and long-term goals will be developed.

Short-term project strategies will focus on identifying benefits and concerns about the I-94 East-West Project. Techniques will be developed to obtain input and share information regarding the project.

Long-term strategies may focus on identifying general transportation and mobility benefits and concerns facing the targeted communities in Milwaukee County. Other WisDOT divisions and local governments will be brought in as necessary to continue the discussion as a separate initiative or program. Techniques will be developed to gather input, share information and develop trust between the Department and targeted communities and neighborhoods in the county. Potential tools and techniques include:

- Small group meetings
- Large group meetings/workshops
- Attending community and neighborhood events
- Surveys
- Door to door - lit drops
- Canvassing or information sharing at transit stops
- Fact sheets
- Geographic-based comment tracking

A calendar of events, meetings and activities will be created and maintained as a part of the overall public involvement effort. Meeting notes and follow up action plans will be prepared.

Media Outreach

The team, in coordination with and at the direction of the WisDOT Communications Manager, will use local and community media outlets to facilitate project coverage and public meetings. Press releases will be sent by WisDOT to local media outlets prior to PIM/PH and other project milestones.

The team contacts for the I-94 East-West Freeway media requests are the WisDOT Southeast Region Communications Manager and WisDOT Project Development Chief. All requests for information must be referred to them. A member of the public involvement team

will be assigned to work with reporters who attend the PIMs to make sure they have the information they need and the opportunity to interview spokespersons.

Event opportunities for participation by WisDOT's Secretary or other WisDOT high-level officials will be evaluated on regular and ongoing basis.

Advisory Committees

The committees will be non-decision-making, will provide advice, formulate opinions, and make recommendations on questions where topics impact the community. Advisory Committees may include:

- Business Advisory Committee
- Transit Technical Advisory Committee
- Local Officials Committee
- Technical Advisory Committee
- Community Advisory Committee

Business Advisory Committee

The Business Advisory Committee is on-going; it is part of the project effort to gain private sector input on aspects of the corridor design, implementation, and impacts. Topics may include:

- Purpose and need
- Discussion of alternatives
- Information from other committees
- Traffic Operations/corridor accessibility
- Construction schedule, staging and mitigation strategy
- Disadvantaged Business Enterprise (DBE) business/employment opportunities; workforce development
- Project implementation strategy
- Coordination with WisDOT Southeast Region business and labor committees

Transit Technical Advisory Committee

The Transit Technical Advisory Committee is on-going; it is part of the project to gain input on aspects of the corridor design, implementation, and impacts as they relate to transit considerations. Information is shared from other committees

Participants include transit operators in the region and other transit technical experts (Southeastern Wisconsin Regional Planning Commission (SEWRPC), the University of Wisconsin-Milwaukee, and Regional Transit Leadership Council) and major transit/traffic

generators (Milwaukee Regional Medical Center, Menomonee Valley Partners, Milwaukee Brewers), local government representatives and transit advocates.

Local Officials Committee

The Local Officials Committee is on-going; its purpose is to gain input and share information with officials in the corridor who will be interested in design and construction progress. Key concerns of local officials are expected to include:

- Project design; access changes
- Discussion of alternatives
- Information from other committees
- Stakeholder involvement
- Project schedules and milestones
- Mitigation strategies
- Traffic management plan, construction, and work zone updates

Technical Advisory Committee

The Technical Advisory Committee will be composed of technical experts from the communities in the project corridor (Milwaukee, West Allis, Wauwatosa, Milwaukee County), as well as representatives from the Milwaukee Metropolitan Sewerage District, WE Energies, American Transmission Company, Wisconsin Department of Natural Resources, Federal Highway Administration, and SEWRPC.

Community Advisory Committee

The Community Advisory Committee will be convened. An emphasis will be placed on the topics of outreach/inclusion of minority and low-income groups, and special interest groups representing water resources, bicycle and pedestrian issues. (see page 8 – Outreach to Minority and Low Income Groups) Topics may include:

- Purpose and need, discussion of alternatives, impacts and mitigation
- Information from other committees
- DBE business/employment opportunities; workforce development
- Coordination with WisDOT Southeast Region business and labor committees

Informational Materials

Mailing List

The project team will create, maintain, and update the master mailing and email list.

Website/social media/online presence

A robust online presence is necessary for this project. Virtual, 24/7 information is critical. The consultant and DOT teams will consider various project storytelling techniques for this project, as follows:

- Project information will be available on WisDOT's website. The site will include data pertaining to existing facilities and operations, recent developments, schedule, maps, alternatives, a summary of the purpose and need for the I-94 East-West Freeway project and links to related websites. Updated information will be added to the website regularly.
- Social media tools may be used to share information on the corridor and the status of the project. (Likely Facebook, Twitter and/or Instagram)

All information posted on the website will be reviewed and posted by WisDOT. The website will also include links for direct email connections with WisDOT project staff. WisDOT project staff will respond to web and email inquiries as necessary, with assistance from consultant staff as required.

Newsletter/Fact Sheets/Written Materials

The project team will prepare newsletters to share the latest project information with the public.

The newsletters will be mailed to those on the project's mailing list, including businesses and organizations within the project area. Translations into Spanish will be completed. Translations into other languages, will be done as needed. Newsletters will be made available on the website.

The newsletter will be approved by WisDOT prior to printing or dissemination.

Presentation of Technical Information

The general public is often not familiar with technical data and terminology used by engineers, designers, and planners. In order to achieve effective two-way communication between the project team and the general public, technical phrases and data must be clearly explained in a format easily understood.

To assist the public's understanding of the project, the project team will employ several techniques, including the following:

- Work with public involvement staff in the design of technical exhibits.

- Present information to the public that is accurate, timely, and consistent.
- Assist the public by defining, in layman's terms, key engineering and construction terminology to assist both their understanding of the project, as well as facilitate their engagement.
- Use graphics to explain complicated analysis or findings.
- Develop a standard meeting presentation template in PowerPoint.
- Engage in active listening and two-way dialogue.

Methods for Incorporating Public Input

Input from community conversations, meetings with community-based organizations, special interest groups, neighborhood organizations, businesses and local, city, and state officials and elected officials will be documented. Summary information will be kept on file to be a part of the final Project Record. A summary of public involvement activities will be provided in the project's environmental document. The team will continually monitor the volume and content of feedback received, to determine trends, key issues, FAQ material, and other information that may materially impact the direction of the project.

Information and comments that are gathered from public input will be given to the project team or the appropriate state agency for their review. Comments may be tracked in a geographic-based comment tracking system to generate reports based on location and input type.

APPENDIX A—LIST OF ELECTED OFFICIALS *(sample)*

- State of Wisconsin – Senate
  - Senator Dale Kooyenga, 5th Senate District
  - Senator Tim Carpenter, 3rd Senate District
  - Senator LaToya Johnson, 6th Senate District
- State of Wisconsin – Assembly
  - Representative Rob Hutton, 13th Assembly District
  - Representative Daniel Riemer, 7th Assembly District
  - Representative Evan Goyke, 18th Assembly District
  - Representative Marisabel Cabrera, 9th Assembly District
- Milwaukee County
  - County Executive David Crowley
  - County Board Chair Marcelia Nicholson
  - Supervisor Eddie Cullen
  - Supervisor Sylvia Ortiz-Velez
- City of Milwaukee
  - Mayor Tom Barrett
  - Alderman Michael Murphy
  - Alderman Robert Bauman
  - Alderwoman JoCasta Zamarripa
- City of West Allis
  - Mayor Dan Devine
- City of Wauwatosa
  - Mayor Dennis McBride
- Village of West Milwaukee
  - Village President John Stalewski

APPENDIX B—LIST OF PROBABLE SPECIAL INTEREST GROUPS, BUSINESSES, GOVERNMENTS AND COMMUNITY ORGANIZATIONS

(sample)

- Veterans Affairs
- Zablocki VA Medical Center
- SE Wisconsin Baseball District/Milwaukee Brewers
- Menomonee Valley Partners
- Near West Side Partners
- NAACP, MICAH, Milwaukee Urban League
- Molson-Coors, Harley Davidson
- Local BID's
- ATC, WE Energies
- Beth Hamedrosh Hagodel Cemetery, Calvary Cemetery, Spring Hill Cemetery, Wood National Cemetery, Anshai Lebowitz Cemetery
- CP Railroad
- Marquette University, MATC West Campus
- Neighborhood Associations near corridor
- Milwaukee County Department of Public Works, Parks Department, Transit Services
- Milwaukee Metropolitan Sewerage District
- Metropolitan Milwaukee Association of Commerce, Hispanic Chamber of Commerce, African American Chamber of Commerce
- Forest County Potawatomi
- Girl Scouts
- Summerfest, Wisconsin State Fair
- ACLU Wisconsin
- Sierra Club
- Milwaukee Riverkeeper
- Bike Federation
- Labor union interests

APPENDIX C— GROUPS TO ENGAGE TO REACH MINORITY AND LOW-INCOME POPULATIONS *(sample)*

The initial categories include:

- Grass roots
- CBO
- Businesses
- Neighborhoods
- Churches and faith-based organizations
- Education institutions
- State/County/City elected officials
- Unions and workforce development agencies

The initial list includes:

- NAACP
- African American Chamber of Commerce
- Hispanic Chamber of Commerce
- The Milwaukee Urban League
- Milwaukee Inner City Congregations Allied for Hope (MICAH)
- Black Heath Coalition of Wisconsin
- 30th Street Corridor
- Near West Side Partners
- VIA
- United Community Center (UCC)
- National Association of Minority Contractors (NAMC)
- Forest County Potawatomi
- Veteran's organizations
- Organizations serving people experiencing homelessness

APPENDIX D – ACRONYMS

BAC	Business Advisory Committee
CAC	Community Advisory Committee
CBO	Community Based Organizations
DBE	Disadvantaged Business Enterprise
EIS	Environmental Impact Statement
FHWA	Federal Highway Administration
GIS	Geographic Information Systems
I-94	Interstate 94
MICAH	Milwaukee Inner-city Congregations Allied for Hope
MVP	Menomonee Valley Partners
NAACP	National Association for the Advancement of Colored People
NAMC	National Association of Minority Contractors
NWSP	Near West Side Partners
PH	Public Hearing
PI	Public Involvement
PIP	Public Involvement Plan
SEWRPC	Southeast Wisconsin Regional Planning Commission
TAC	Technical Advisory Committee
TTAC	Transit Technical Advisory Committee
UCC	United Community Center
WisDOT	Wisconsin Department of Transportation