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The U.S. Census Bureau: An Overview

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The U.S. Census Bureau: An Overview

The U.S. Census Bureau is a federal statistical agency housed within the Department of Commerce. It is tasked with producing statistics on demographic and economic characteristics across the United States through more than 130 different surveys, including the agency's largest surveys, the decennial census and the American Community Survey (ACS). Data gathered by the Census Bureau inform federal funding for programs across all levels of government.

The requirement for a national census is derived from the Constitution, which mandates a decennial count of the total population in the United States. The first was conducted in 1790. To help meet this requirement, Congress established the U.S. Census Bureau over a century later. The Census Bureau's authority is codified in Title 13 of the *U.S. Code*, which includes authorization of and requirements for surveys, privacy protections of respondents' data, and penalties for not responding to certain Census Bureau surveys. Congress maintains oversight of the Census Bureau through its authorizing committees—the Senate Committee on Homeland Security and Governmental Affairs and the House Committee on Oversight and Accountability. The House and Senate Committees on Appropriations' respective Commerce, Justice, Science, and Related Agencies subcommittees provide funding for the Census Bureau.

The Census Bureau is the largest of the 13 principal federal statistical agencies. It produces the most statistical products, and has the largest budget and most personnel among statistical agencies. As a federal statistical agency, the Census Bureau follows statistical policy directives issued by the Office of Management and Budget (OMB) and works with the chief statistician of the United States.

Data from Census Bureau products inform federal funding for programs across all levels of government. In addition to informing the allocation of funding, decennial census data determine the apportionment of seats in the House of Representatives among the 50 states and are used in the redistricting of congressional seats within states, as well as seats in state legislatures.

A key Census Bureau initiative is the decennial census, which attempts to effectively count every individual in the nation. The Census Bureau prepares for a decennial census over the course of a decade to enable this effort. Outside of the decennial census, the Census Bureau releases a variety of statistical products on yearly and monthly bases. Data collected by Census Bureau surveys can serve a variety of entities, including federal, state, and local governments; researchers; businesses; and private citizens.

Congressional interest in the Census Bureau has typically focused on a variety of issues, including Census Bureau funding, oversight, data collection, and data usage. The 2020 decennial census faced unprecedented issues, including impacts caused by the COVID-19 pandemic. With preparation for the 2030 decennial census underway, there is increasing interest in a 2030 count of the U.S. population.

A combination of long-standing and emerging Census-related issues may be of interest to Congress. These include revisions of how government agencies collect race and ethnicity data led by OMB, historic declines in survey response, use of administrative records to support Census Bureau statistical products, recurring issues of survey under- and overcounting of certain demographic groups, and Census Bureau innovations for protecting survey respondents' privacy.

The Census Bureau includes the District of Columbia, Puerto Rico, American Samoa, Guam, the Northern Mariana Islands, and the U.S. Virgin Islands in the decennial census. The American Community Survey does not gather data in American Samoa, Guam, the Northern Mariana Islands, or the U.S. Virgin Islands.

Contents

Introduction	1
History and Legal Authority	1
Title 13	2
Title 26	3
Governing Legislation.....	3
Congressional Committees.....	3
Institutional Aspects	4
Director	4
Directorates	4
The Federal Statistical System	5
Funding	6
Census Bureau Funding Over Time	6
Census Data.....	7
Federal Programs Spending	7
Reapportionment and Redistricting.....	8
Geographic Delineations	8
Major Products	9
Current Surveys and Programs.....	9
Current Economic Statistics.....	10
Current Demographic Statistics	10
Periodic Censuses and Programs.....	11
Decennial Census of Population and Housing.....	11
American Community Survey	12
Economic Census.....	13
Census of Governments	13
Other Products.....	14
2020 Decennial Census	14
Selected Innovations	14
Self-Response	15
Address Canvassing.....	15
Outreach.....	15
Data Protection and Confidentiality.....	15
Administrative Records	16
Technology Used During Fieldwork.....	16
Selected Issues	16
Cancelled Field Tests	16
Citizenship Question.....	17
COVID-19	17
Under- and Overcounting.....	17
GAO High-Risk Series	17
2030 Decennial Census	18
Selected Ongoing and Emerging Issues	19
Survey Nonresponse Bias	19
Under- and Overcounting.....	20
Use of Administrative Records for Statistical Purposes.....	22

Revisions to Race and Ethnicity Data Collection	23
Confidentiality and its Impact on Data Quality.....	23
Use of Artificial Intelligence	24

Figures

Figure 1. Census Bureau Funding from FY2011 through FY2023 Broken Down by Selected Programs	7
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Tables

Table 1. U.S. Census Bureau Authorities in Title 13 U.S.C.	2
Table 2. FY2023 and FY2024 Census Bureau Funding	6
Table 3. Top 10 Federal Assistance Programs Distribution Using Census Program Data in FY2021	8
Table A-1. Recent Committee Hearings	26

Appendixes

Appendix. Relevant Committee Hearings from Senate HSGAC and House Oversight during the 114 th through the 118 th Congresses	26
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Contacts

Author Information.....	27
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Introduction

The U.S. Census Bureau is a federal agency that provides statistical data about the nation's people and economy. Every 10 years, the Census Bureau conducts a constitutionally mandated count of every person residing in the United States. Planning for each decennial census can last over a decade, with the process beginning shortly before the prior decennial census concludes. Data from the decennial census are used for the reapportionment of seats in the U.S. House of Representatives and the redrawing of legislative boundaries in a process called redistricting. Additionally, census data are used to determine allocation of funding for numerous federal programs, which according to Census Bureau estimates amounted to more than \$2.8 trillion in FY2021.¹

Beyond the decennial census, the Census Bureau collects and publishes data on numerous other population and economic characteristics, and it produces statistical products including data tables, interactive visualizations, and reports. The bureau releases analyses throughout the year on the surveys it conducts.

Congress historically has been interested in Census Bureau funding, oversight, data collection, and data usage. The impacts of the COVID-19 pandemic on the 2020 decennial census, as well as other issues related to the decennial census, were matters of recent congressional interest. With preparation for the 2030 decennial census underway, Congress has shown increasing interest in a coming count of the U.S. population.

The Census Bureau includes the District of Columbia, Puerto Rico, American Samoa, Guam, the Northern Mariana Islands, and the U.S. Virgin Islands in the decennial census.² The American Community Survey does not gather data in American Samoa, Guam, the Northern Mariana Islands, or the U.S. Virgin Islands.³

History and Legal Authority

The mandate to count the U.S. population in a decennial census is found in Article I, Section 2, clause 3 of the U.S. Constitution:

Representatives and direct Taxes shall be apportioned among the several States which may be included within this Union, according to their respective Numbers.... The actual enumeration shall be made within three Years after the first Meeting of the Congress of the United States, and within every subsequent Term of ten Years, in such Manner as they shall by Law direct.⁴

The first count was conducted in 1790, pursuant to the First Census Act of 1790, and carried out by U.S. Marshals.

The Census Bureau was established as an agency in 1902, when it was housed in the Department of the Interior, and was shortly moved to the newly established Department of Commerce and

¹ Ceci Villa Ross, U.S. Census Bureau, *Uses of Decennial Census Programs Data in Federal Funds Distribution: Fiscal Year 2021*, June 2023, p. 2.

² U.S. Census Bureau, "The U.S. Census Bureau Begins to Count U.S. Island Areas Populations," press release, March 2, 2020, <https://www.census.gov/newsroom/press-releases/2020/2020-island-areas-populations.html>.

³ "Areas Published," U.S. Census Bureau, <https://www.census.gov/programs-surveys/acs/geography-acs/areas-published.html>

⁴ Article I, Section 2, clause 3, of the U.S. Constitution, <https://constitution.congress.gov/browse/article-1/section-2/clause-3/>.

Labor in 1903. Subsequently, in 1913, the Census Bureau moved to the Department of Commerce. In 1954, the existing laws governing the Census Bureau's statistical programs were codified in Title 13 of the *U.S. Code* (U.S.C.) through legislation.⁵

Title 13

Title 13 U.S.C. contains six nonconsecutive chapters covering general administration, the type of statistical work conducted, mandates, penalties, and information exchange policies.

Table 1. U.S. Census Bureau Authorities in Title 13 U.S.C.

13 U.S.C. Chapter	Summary
Chapter 1—Administration §§1-26	This chapter covers the basis of the Census Bureau's authority, such as authority of the Census Bureau director, permanent and temporary employment policies, and information confidentiality. These sections aim to ensure confidentiality of data collected during surveys, and that data will be used solely for statistical purposes. Use of administrative records from other federal departments, agencies, or establishments is authorized in this chapter.
Chapter 3—Collection and Publication of Statistics §§41-103	This chapter authorizes the collection and publication of statistics in several areas such as agriculture, commerce, apparel and textiles, business finances, crime, and religious bodies. ^a
Chapter 5—Censuses §§131-196	Various surveys conducted by the Census Bureau are authorized in this chapter, such as the decennial census, the American Community Survey (ACS), the Economic Census, and the Census of Governments.
Chapter 7—Offenses and Penalties §§211-225	This chapter covers the prohibition of officers and employees of the Department of Commerce (DOC) or the Census Bureau from receiving compensation for appointing an employee, making false statements, and wrongfully disclosing information obtained during service with the agency. The chapter also mandates response to a Census Bureau "survey provided for by subchapters I, II, IV, and V of chapter 5 of this title (13 U.S.C.)," such as the decennial census and the ACS. Also, intentionally providing inaccurate information to employees or officers of the DOC or Census Bureau or refusing to assist census employees in enumerating group living quarters is prohibited.^b It also prohibits false answers from owners of companies or other establishments in census surveys.^c As amended by 18 U.S.C. §3571 and §3559, failing to respond to a required Census Bureau survey carries a penalty of up to \$5,000.^d
Chapter 9—Collection and Publication of Foreign Commerce and Trade Statistics §§301-307	This chapter provides capacity, regulations, and penalties regarding foreign commerce and trade statistics.
Chapter 10—Exchange of Census Information §§401-402	The Census Bureau, the Bureau of Economic Analysis (BEA), and the Bureau of Labor Statistics (BLS) are authorized to exchange data to be used for statistical activities under this chapter.

Source: 13 U.S.C. §§1-402.

- a. The Census Bureau cannot require responses on individuals' religious affiliations in household surveys.
- b. 13 U.S.C. §223
- c. 13 U.S.C. §224
- d. P.L. 94-521 eliminated prison penalties for failing to respond to surveys.

⁵ P.L. 83-740, <https://uscode.house.gov/statviewer.htm?volume=68&page=1012>.

Title 26

The *Internal Revenue Code* (U.S.C. Title 26) applies to the Census Bureau’s statistical work on the collection of Internal Revenue Service (IRS) data about households and businesses. The IRS is permitted to disclose federal tax return information to the Census Bureau, among other agencies. In particular, 26 U.S.C. §6103 (j)(1) permits the IRS to share federal tax return information with the Census Bureau for statistical purposes. Title 26 also specifies fines and imprisonment as penalties for the unlawful disclosure of tax information.⁶ Census Bureau personnel are required to take annual training in how to safeguard tax information per this title.⁷

Governing Legislation

The Census Bureau is governed by statutes that apply to most government agencies, such as the Paperwork Reduction Act of 1995 (PRA, P.L. 104-13) and the Foundations for Evidence-Based Policymaking Act of 2018 (FEBPA, P.L. 115-435) as they pertain to federal statistics.

Through the PRA, the Census Bureau, among other federal agencies, must publish notices to inform the public of its collection of information and other activities in the *Federal Register*.

As specified by the PRA, the federal statistical system is coordinated by the chief statistician of the United States. The chief statistician oversees implementation of government-wide principles, policies, standards, and guidelines that impact the Census Bureau’s development, presentation, and dissemination of statistical information.

OMB has issued several action items, with guidance from the Department of Commerce, for the Census Bureau to implement FEBPA.⁸ They include creating a web portal for discovering and requesting restricted federal statistical agency microdata;⁹ establishing a Census Data Governance Board; and developing a data maturity model and skills assessment.

Congressional Committees

The Census Bureau falls under the jurisdiction of the Senate Committee on Homeland Security and Governmental Affairs (Senate HSGAC) and the House Committee on Oversight and Accountability (hereinafter referred to as “House Oversight”). Both committees have broad responsibility for conducting oversight on government operations, which includes the Census Bureau. Funding for the Census Bureau is under the jurisdiction of the House and Senate Committees on Appropriations’ respective Commerce, Justice, Science, and Related Agencies subcommittees.

In the years leading up to and following the 2020 decennial census, both the House and Senate committees held hearings relating to the Census Bureau, particularly discussing funding and the outcomes of the 2020 decennial census.¹⁰

⁶ 26 U.S.C. §7213(a)(1)

⁷ “Ds017—Data Stewardship Awareness Training,” U.S. Census Bureau, https://www2.census.gov/foia/ds_policies/ds017.pdf.

⁸ “How is the Census Bureau Implementing the Evidence Act?” U.S. Census Bureau, <https://www.census.gov/about/what/evidence-act/how-is-the-census-bureau-implementing-the-evidence-act.html>.

⁹ “About Us,” Inter-university Consortium for Political and Social Research at the University of Michigan, [ResearchDataGov.org](https://researchdata.gov).

¹⁰ A full list of hearings can be found in the **Appendix**.

Illustrative examples of recent bills that would have impacted Census Bureau operations and data collection and that advanced beyond introduction from the 115th Congress to the present are the LGBTQI+ Data Inclusion Act¹¹ and the Ensuring a Fair and Accurate Census Act.¹² Both bills passed the House but did not pass the Senate. In the 115th Congress, the Foundations for Evidence-Based Policymaking Act of 2018 passed the House and the Senate and was signed into law.¹³

Institutional Aspects

Director¹⁴

Title 13 of the *U.S. Code* Section 21(a)(1) provides that the Census Bureau “shall be headed by a Director of the Census, appointed by the President, by and with the advice and consent of the Senate, without regard to political affiliation.” A term for the director lasts five years, and directors can serve a maximum of two full terms. The director as of this writing is Robert L. Santos, who was sworn in on January 5, 2022, under the Biden Administration. He is the 26th director of the Census Bureau.

The responsibilities of the Census Bureau director are delegated by the Secretary of Commerce and include conducting oversight of the numerous surveys produced by the Census Bureau, providing testimony before relevant congressional committees as needed, and participating in the federal statistical system as a member of the Interagency Council on Statistical Policy (ICSP). The director also appoints members of the Bureau of the Census Scientific Advisory Committee (CSAC) and the National Advisory Committee (NAC) on Racial, Ethnic, and Other Populations. CSAC advises the director on statistical data collection; survey methodology; geospatial and statistical analysis; and other relevant statistical topics as they pertain to Census Bureau operations or policies.¹⁵ NAC advises the director on hard-to-reach populations; race and ethnicity; language; aging populations; and other related topics.¹⁶

Directorates

The Census Bureau encompasses several directorates that are responsible for different aspects of the agency. Those directorates are as follows:

- **Communications:** carries out the bureau’s internal and external communications. The communications directorate conducts oversight of marketing, public affairs, congressional and intergovernmental affairs, customer service, stakeholder engagement, and media relations.¹⁷

¹¹ H.R. 4176, 117th Congress.

¹² H.R. 8326, 117th Congress.

¹³ H.R. 4174, 115th Congress.

¹⁴ For a more thorough explanation, see CRS In Focus IF11845, *The Census Bureau Director*, by Karen L. Shanton and Sarah J. Eckman.

¹⁵ “Census Scientific Advisory Committee (CSAC),” U.S. Census Bureau, <https://www.census.gov/about/cac/sac.html>.

¹⁶ “National Advisory Committee (NAC),” U.S. Census Bureau, <https://www.census.gov/about/cac/nac.html>.

¹⁷ “Associate Director for Communications,” U.S. Census Bureau, <https://www.census.gov/about/leadership/communications.html>.

- **Field Operations:** collects and processes data obtained by Census Bureau surveys and censuses. The field operations directorate also consists of a nationwide network of offices and home-based field staff.¹⁸
- **Economic Programs:** conducts the Economic Census and the Census of Governments among 60 other monthly, quarterly, and annual surveys and 12 economic indicators. The directorate also conducts reimbursable surveys for other government agencies, including the National Science Foundation, the Department of Transportation, the Energy Information Administration, the Department of Education, the Department of Justice, and the Department of Housing and Urban Development.¹⁹
- **Demographic Programs:** provides demographic information relating to the size, distribution, and characteristics of the nation's population, income, poverty, and housing. The directorate also gathers international demographic data, providing survey and statistical services to other government agencies, including survey design, data collection, and data processing. It also maintains sponsor and stakeholder partnerships and designs and markets new products intended to meet both national and international information needs.²⁰
- **Decennial Census Programs:** undertakes decennial census programs, the American Community Survey, and other geographic programs by the Census Bureau.²¹
- **Research and Methodology:** develops research and methodology processes through collaboration with Census Bureau personnel and other researchers both nationally and internationally.²²

The Federal Statistical System²³

The Census Bureau is one of 13 principal federal statistical agencies within the decentralized federal statistical system. Federal statistical agencies produce statistics in various focus areas, often associated with the agency within which they are housed.

The federal statistical system is coordinated by the chief statistician of the United States, who is located within the Statistical and Science Policy (SSP) office of the Office of Information and Regulatory Affairs (OIRA) at OMB. The chief statistician is appointed by the director of OMB as specified by the PRA.²⁴

¹⁸ "Associate Director for Field Operations," U.S. Census Bureau, <https://www.census.gov/about/leadership/field-operations.html>.

¹⁹ "Associate Director for Economic Programs," U.S. Census Bureau, <https://www.census.gov/about/leadership/economic-programs.html>.

²⁰ "Associate Director for Demographic Programs," U.S. Census Bureau, <https://www.census.gov/about/leadership/demographic-programs.html>.

²¹ "Associate Director for Decennial Census Programs," U.S. Census Bureau, <https://www.census.gov/about/leadership/decennial-programs.html>.

²² "Associate Director for Research and Methodology," U.S. Census Bureau, <https://www.census.gov/about/leadership/research-and-methodology.html>.

²³ For more details, see CRS Insight IN12197, *The Federal Statistical System: A Primer*, by Taylor R. Knoedl.

²⁴ 44 U.S.C. §3504(e)(7).

Funding

The Commerce, Justice, Science, and Related Agencies appropriations bills provide annual funding for the Census Bureau.

The Census Bureau was appropriated a total of \$1.485 billion in FY2023.²⁵ This funding was divided between the bureau's two major accounts: the "Current Surveys and Programs" account, which was appropriated \$330 million, and the "Periodic Censuses and Programs" account, which was appropriated \$1.155 billion. The Census Bureau had sought to combine these accounts into a new account called "Censuses and Survey Programs" as of FY2022,²⁶ but appropriations bills from FY2022²⁷ and onward have maintained the previous account names and structure.

Table 2. FY2023 and FY2024 Census Bureau Funding

Current Surveys and Programs		
Line Item	FY2023 Actual	FY2024 Requested
Current Economic Statistics	\$220.6	\$248.6
Current Demographic Statistics	\$109.4	\$127.0
Total	\$330.0	\$375.7
Periodic Censuses and Programs		
2020 Census	\$142.8	\$0.0
2030 Census	\$248.8	\$409.0
American Community Survey	\$250.8	\$260.0
Economic Census	\$167.0	\$152.0
Census of Governments	\$17.0	\$14.0
Geographic Support Program	\$112.2	\$115.6
Enterprise Data Collection and Dissemination Systems	\$216.2	\$280.2
Total	\$1,155.0	\$1,230.3

Source: "U.S. Census Bureau's Budget Fiscal Year 2024," U.S. Census Bureau.

Note: Amounts in millions of dollars.

Census Bureau Funding Over Time

As illustrated in **Figure 1**, below, overall funding for the Census Bureau has varied over time, with notable increases in the years leading up to the decennial census.

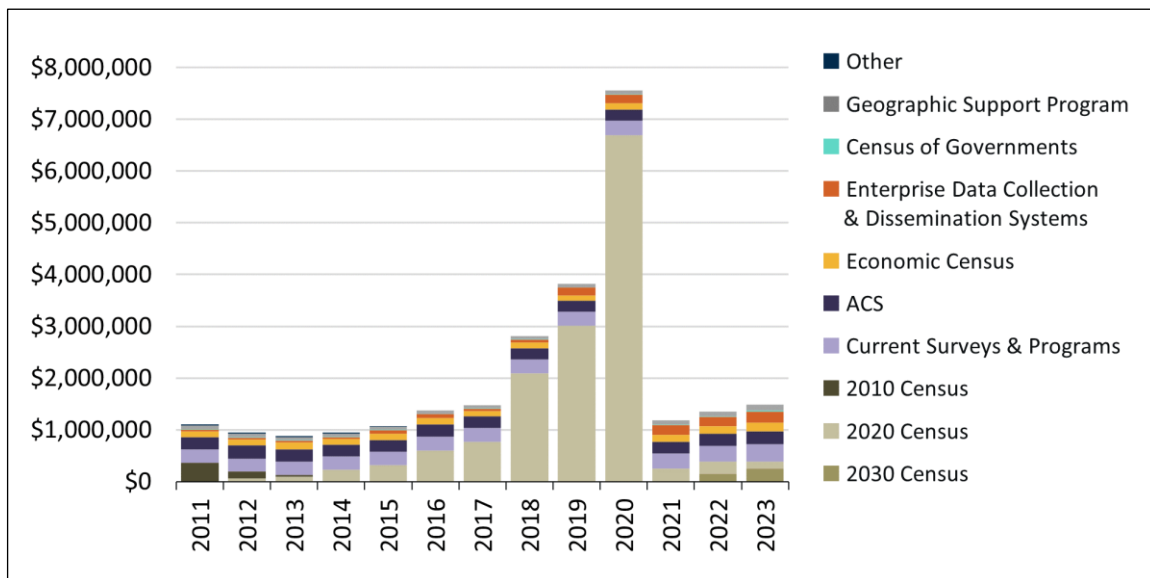
²⁵ P.L. 117-328, Consolidated Appropriations Act, 2023.

²⁶ "U.S. Census Bureau's Budget Fiscal Year 2022," U.S. Census Bureau, https://www.commerce.gov/sites/default/files/2021-06/fy2022_census_congressional_budget_justification.pdf.

²⁷ H.R. 2471, Consolidated Appropriations Act, 2022.

Figure I. Census Bureau Funding from FY2011 through FY2023 Broken Down by Selected Programs

Figure is interactive in the HTML version of this report.



Sources: U.S. Census Bureau budget documents for FY2013-FY2024 and relevant appropriations acts for FY2011-FY2023.

Notes: Totals reflect combined line items and do not include any adjustments or transfers; some line items had slight changes in name over different fiscal years.

Census Data

Data collected during the several surveys conducted by the Census Bureau have many uses in different levels of government.

Federal Programs Spending

Data from surveys conducted by the Census Bureau are used by federal programs to distribute funds in several avenues. Census Bureau data guide distribution of funds for federal financial assistance programs by defining recipient eligibility, defining variables in fund allocation formulas, and establishing program applicant selection criteria.²⁸ Some examples of census-derived data that determine eligibility or fund allocation include population thresholds and population, demographic, or housing characteristics.

Census Bureau data are also used to monitor and assess whether federal programs are functioning as designed, to encourage effective administration of federal programs, and to explore alternative approaches to distributing the funds as necessary. According to a working paper published in June

²⁸ Federal financial assistance programs include formula grants, project grants, direct payments for specified use, direct payments with unrestricted use, direct loans, guaranteed/insured loans, and insurance as determined by the *Annual Publication of Assisted Listings*, <https://sam.gov/content/assistance-listings>.

2023, the Census Bureau estimates that its data were used to distribute more than \$2.8 trillion in federal funding to states, communities, tribal governments, and other recipients in FY2021.²⁹

Table 3. Top 10 Federal Assistance Programs Distribution Using Census Program Data in FY2021

Program Name	Federal Executive Department or Agency	FY2021 Funds
Medical Assistance Program	HHS	\$568,115,846,349
Medicare Part B—Medicare Supplementary Medical Insurance	HHS	\$395,915,112,082
Coronavirus State and Local Fiscal Recovery Funds	USDT	\$350,824,555,169
Medicare Part A—Medicare Hospital Insurance	HHS	\$326,389,294,515
Education Stabilization Fund	ED	\$231,827,196,664
Supplemental Nutrition Assistance Program (SNAP)	USDA	\$135,746,808,179
Medicare Part D—Prescription Drug Coverage	HHS	\$98,097,289,508
Provider Relief Fund	HHS	\$79,480,343,511
Highway Planning and Construction	DOT	\$60,451,795,865
Supplemental Security Income	SSA	\$55,717,174,587

Source: Ceci Villa Ross, *Uses of Decennial Census Programs Data in Federal Funds Distribution: Fiscal Year 2021*, U.S. Census Bureau.

Note: Table is not an exhaustive list of all federal assistance programs.

Reapportionment and Redistricting³⁰

Following the decennial census, seats in the U.S. House of Representatives are reapportioned among the 50 states to reflect the population change found in the survey. Redistricting is a related activity in which states create new congressional districts or redraw existing district boundaries to adjust for changes in both population and the number of House seats in the state. State legislature districts are also impacted during the redistricting process.

Geographic Delineations

After each decennial census, the Census Bureau delineates geographic area standards to determine urban or rural designation criteria. These geographic delineations are determined to tabulate and present data for the urban and rural population within the United States, Puerto Rico, and other territories. Census Bureau urban and rural designations are used as the basis for similar designations by various federal and state agencies. Other government agencies use the designations in their funding formulas to determine program eligibility.³¹

²⁹ Ceci Villa Ross, U.S. Census Bureau, *Uses of Decennial Census Programs Data in Federal Funds Distribution: Fiscal Year 2021*, June 2023, p. 2

³⁰ For a thorough explanation, see CRS Report R45951, *Apportionment and Redistricting Process for the U.S. House of Representatives*, by Sarah J. Eckman.

³¹ “2020 Census Urban Areas FAQs,” U.S. Census Bureau, https://www2.census.gov/geo/pdfs/reference/ua/Census_UA_2020FAQs_Feb2023.pdf.

The Census Bureau delineates urban and rural areas for statistical purposes and to provide a baseline used to analyze changes in the distribution and characteristics of urban and rural populations.

Following the 2020 decennial census, the Census Bureau announced changes to its rural and urban definitions.³² Under the new criteria, a densely developed territory which encompasses residential, commercial, and other nonresidential land uses is determined urban if it has a minimum population of 5,000 people or 2,000 housing units. An urban area is primarily defined by referring to housing unit density measured at the census-block level. A rural designation essentially means that the area is not urban. The delineation process applies three housing-unit criteria:

- Initial urban core: 425 housing units per square mile minimum.
- Remainder of urban area: 200 housing units per square mile minimum.
- At least one high-density nucleus which contains 1,275 housing units per square mile at minimum.

These delineations were a change from the 2010 standards.³³ Under the 2010 standards, an area qualified as urban if it encompassed at least 2,500 people, at least 1,500 of which resided outside of institutional group quarters. This delineation also considered urbanized areas which consisted of 50,000 or more people and urban clusters with a minimum population of 2,500 and not exceeding 50,000 people.

Census Bureau urban and rural designations are not synonymous with the OMB-defined metropolitan and micropolitan delineations. Metropolitan and micropolitan areas consist of entire counties or groups of counties. According to the 2020 decennial census, 51,271,470 people lived in rural areas within metropolitan and micropolitan statistical areas. Meanwhile, 262,207,553 people lived in urban areas that were within metropolitan or micropolitan statistical areas.³⁴

Major Products

Two broad accounts encompass the various surveys and programs the Census Bureau conducts: (1) Current Surveys and Programs, and (2) Periodic Censuses and Programs. This section describes some notable products, but it is not an exhaustive list of surveys produced by the Census Bureau.

Current Surveys and Programs

This account includes the Current Economic Statistics (CES) and Current Demographic Statistics programs.

³² U.S. Census Bureau, “Urban Area Criteria for the 2020 Census-Final Criteria,” 87 *Federal Register* 16706, March 24, 2022, <https://www.federalregister.gov/documents/2022/03/24/2022-06180/urban-area-criteria-for-the-2020-census-final-criteria>.

³³ U.S. Census Bureau, “Proposed Urban Area Criteria for the 2010 Census,” 75 *Federal Register*, 52174, August 24, 2010, <https://www.federalregister.gov/documents/2010/08/24/2010-20808/proposed-urban-area-criteria-for-the-2010-census#>.

³⁴ “2020 Decennial Census of Population and Housing, Table P1: Total Population,” U.S. Census Bureau, https://data.census.gov/table/DECENNIALDHC2020.P1?t=Resident+Population&g=010XX00US_010XXA0US_010XXA3US_010XXA6US_010XXG0US_010XXG1US_010XXG4US.

Current Economic Statistics

The CES programs produce statistics on various U.S. economic sectors, including manufacturing, minerals, construction, service, transportation, and retail and wholesale trade. CES influences financial markets and serves as an input to several U.S. economic indicators, including gross domestic product (GDP) measures.³⁵

Current Demographic Statistics

The Current Demographic Statistics programs include several surveys covering population demographics and other related information. These include the Population Estimates Program (PEP), which produces population estimates in the United States (including Puerto Rico); the Survey of Income and Program Participation (SIPP), which provides data on income, employment, and household dynamics;³⁶ and the Current Population Survey (CPS), cosponsored with the Bureau of Labor Statistics (BLS), which provides labor force statistics.³⁷

Population Estimates Program (PEP)

The PEP creates estimates of the U.S. (including Puerto Rican) population by annually utilizing current birth, death, and migration data back to the most recent decennial census to calculate population change. These estimates are conducted at the state, county, city, and town levels.

Estimates produced from the PEP are used for federal funding allocations, as survey controls, as denominators for vital rates and per capita series, and as indicators of recent demographic changes.³⁸

Survey of Income and Program Participation (SIPP)

Respondents to SIPP are households that are surveyed multiple times over a four-year period. These households are generally from a large sample that makes up a national panel. The ongoing nature of this survey helps demonstrate changes in household and family composition as well as economic circumstances over time.

SIPP data help policymakers assess the distribution of income and impact of government assistance programs. SIPP collects government assistance data on both direct money transfers and indirect in-kind benefits.³⁹

Current Population Survey (CPS)

The CPS collects data on respondents' work, earnings, and education. Approximately 59,000 households are surveyed each month. Additional data on specified topics are collected through the

³⁵ Office of Management and Budget, *Statistical Programs of the United States Government: Fiscal Years 2019/2020*, December 11, 2020, at <https://www.whitehouse.gov/wp-content/uploads/2020/12/statistical-programs-20192020.pdf#page20>.

³⁶ "Survey of Income and Program Participation (SIPP)," U.S. Census Bureau, <https://www.census.gov/programs-surveys/sipp.html>.

³⁷ "Current Population Survey (CPS)," U.S. Census Bureau, <https://www.census.gov/programs-surveys/cps.html>.

³⁸ "Population and Housing Unit Estimates," U.S. Census Bureau, <https://www.census.gov/programs-surveys/popest.html>.

³⁹ "Survey of Income and Program Participation (SIPP)," U.S. Census Bureau, <https://www.census.gov/programs-surveys/sipp.html>.

several CPS supplements, which are conducted at varying frequencies depending on the sponsor of each supplement.⁴⁰

Periodic Censuses and Programs

This account includes the decennial census, conducted every 10 years; the American Community Survey (ACS), which produces annual statistics; the Economic Census, conducted every 5 years; and the Census of Governments, also conducted every 5 years.

Decennial Census of Population and Housing

The decennial census is the largest of the Census Bureau's surveys. It aims to count every resident where they lived in the country on April 1 during the given decennial census year. A decennial census is planned over the course of a decade with annual funding that ramps up as the April 1 "census day" draws near. Decennial census planning activities include research, design, testing, and other related efforts. According to the Government Accountability Office (GAO), the 2020 decennial census received funding beginning in FY2012, with an estimated total cost of \$13.7 billion through 2024.⁴¹ The 2030 decennial census was first allocated \$400.3 million for FY2022.⁴² With the large scope of the decennial census, data collected every 10 years continue to be processed years later and released as new data products.⁴³ As already noted, the data gathered during the decennial census are used for multiple government functions and programs, as well as the redistricting and reapportionment processes.

During the years leading up to a decennial census, the Census Bureau conducts content research. These content tests seek to ensure that census questionnaires are easily understood and reflect the population accurately.⁴⁴

Response to the decennial census is initially conducted through self-response from respondents through an online portal, by phone, or by mail.⁴⁵ To count those who did not self-respond, the Census Bureau conducts a nonresponse follow-up operation where enumerators are sent out to addresses that have not yet responded to the survey in an effort to complete the decennial census. During the 2020 decennial census, the self-response rate was 67%, while the nonresponse follow-up rate was 32.9%.⁴⁶

Following a decennial census, the Census Bureau conducts a post-enumeration survey (PES) to assess the quality of the count of the population. The PES surveys a sample of households but does not cover people living in group quarters. Findings from the PES cannot be used to change final decennial census results; rather, the PES is intended to both provide assessment of the

⁴⁰ "Supplemental Surveys," U.S. Census Bureau, <https://www.census.gov/programs-surveys/cps/about/supplemental-surveys.html>.

⁴¹ U.S. Government Accountability Office, *2020 Census: A More Complete Lessons Learned Process for Cost and Schedule Would Help the Next Decennial*, GAO-23-105819, March 2, 2023.

⁴² "U.S. Census Bureau's Budget Fiscal Year 2024," U.S. Census Bureau, <https://www2.census.gov/about/budget/congressional-budget-justification-fy-2024.pdf>.

⁴³ U.S. Census Bureau, "Next 2020 Census Data Products to be Released in 2023," press release, April 27, 2022, <https://www.census.gov/newsroom/press-releases/2022/2020-census-data-products-schedule-2023.html>.

⁴⁴ "Content Research," U.S. Census Bureau, <https://www.census.gov/programs-surveys/decennial-census/decade/2020/planning-management/plan/content-research.html>.

⁴⁵ "Decennial Census Response Rates (2020, 2010)," U.S. Census Bureau, <https://www.census.gov/data/developers/data-sets/decennial-response-rates.html>.

⁴⁶ "2020 Census: Tracking Self-Response and Nonresponse Followup for Housing Units by State," U.S. Census Bureau, <https://www.census.gov/library/visualizations/interactive/2020-census-total-response-rates-by-state.html>.

current census and determine how best to estimate the population between the present and the upcoming decennial census.

Issues particularly relevant to the “2020 Decennial Census” and upcoming “2030 Decennial Census” are discussed below.

American Community Survey

The ACS is intended to measure the changing demographic, social, economic, and housing characteristics of the U.S. population. The ACS is sent to sample addresses across the nation on a rolling basis, with about 3.5 million surveys completed annually. Data collected from the ACS are used to produce one-year and five-year population estimates. Five-year estimates increase the reliability of statistics for less-populated areas and small population subgroups because they involve larger sample sizes.

The Census Bureau also produces a customized version of the ACS, the Puerto Rico Community Survey.⁴⁷ The Puerto Rico Community Survey is part of the ACS with differences in phrasing and terminology.⁴⁸

ACS data are used by several stakeholders, including businesses, local governments, the federal government, and private users for economic development, government decisionmaking, and research purposes.⁴⁹

Several federal laws require ACS data to be used as a basis for establishing program or grant eligibility as well as for allocating federal program funds. For example, veteran status and military service data collected from the ACS are used to allocate funds intended to support veteran job training and employment programs. Other federal programs rely on ACS income data to allocate formula grants.

Local governments are able to use ACS data as a guide for planning projects or programs to prioritize by evaluating community needs and identifying subgroups that may most benefit from project or program implementation. In turn, ACS data are also used to evaluate projects or programs that have been implemented, by allowing local governments to see any change experienced by subgroups following implementation of a given project or program. Additionally, ACS data may be helpful for first responders to use in emergency management situations.⁵⁰

ACS data on social and economic, housing, and demographic characteristics can provide a resource for businesses to select a location to operate and to evaluate existing locations. Other characteristics from ACS data that can help businesses understand a local working-age population are labor force status, means of transportation, income, occupation, and education attainment levels. Additionally, the Census Bureau maintains State Data Centers that can provide support for

⁴⁷ “About the Puerto Rico Community Survey,” U.S. Census Bureau, <https://www.census.gov/programs-surveys/acs/about/puerto-rico-community-survey.html>.

⁴⁸ “A Comparison of the American Community Survey and the Puerto Rico Community Survey,” U.S. Census Bureau, <https://www.census.gov/content/dam/Census/programs-surveys/acs/Library/OutreachMaterials/ACSFlyers/A%20Comparison%20of%20the%20ACS%20and%20the%20PRCS.pdf>

⁴⁹ “Handbooks for Data Users,” U.S. Census Bureau, <https://www.census.gov/programs-surveys/acs/library/handbooks.html>.

⁵⁰ “Understanding and Using American Community Survey Data: What State and Local Government Users Need to Know,” U.S. Census Bureau, <https://www.census.gov/programs-surveys/acs/library/handbooks/state-local.html>.

businesses in accessing ACS and other data.⁵¹ The Census Bureau also offers the Census Business Builder, a product designed to provide data for users looking to start or grow a business.⁵²

The Census Bureau additionally releases annual ACS data on the 435 congressional districts. Members of Congress and their staff can use these data to understand their districts' current and historical population characteristics. This tool, called "My Congressional District," provides access to the most recent ACS one-year estimates of a given congressional district. Data on the District of Columbia and Puerto Rico are also available through this tool.⁵³

Adding a question to the ACS involves a five-year, multipart process. This process begins with an initial proposal by a federal agency. In the first year, OMB and the Census Bureau determine the merit of this question and test wording options. Within this first year and into the second year, the Census Bureau tests different ways to ask this question through cognitive interviews. Once wording is finalized, the Census Bureau develops and conducts field tests to evaluate the question's performance through the fourth year. Following field testing, the Census Bureau solicits public comment through a *Federal Register* notice by year five. The bureau makes final decisions on implementation in consultation with OMB and the Interagency Council on Statistical Policy's subcommittee on the ACS.⁵⁴

Economic Census

The Economic Census provides a five-year measure of U.S. businesses and the economy through national-, state-, and local-level statistics, representing most industries and geographic areas in the United States, or one of the five island areas or associated offshore areas.⁵⁵ It provides a statistical benchmark for current economic activity by informing the calculation of gross domestic product (GDP) and the producer price index. Some data provided by the Economic Census include business locations, workforce, and amount of sales by product and service type. The survey is completed electronically by selected businesses in the United States.

Various stakeholders use data from the Economic Census. Businesses can utilize Economic Census data to decide where to locate their operations, determine how much they should produce, and compare their performance to other businesses within their industries or communities. Communities can use the Economic Census to attract new businesses, understand the economics of their localities, understand the characteristics of the businesses in the community, and make comparisons to other communities or areas. Individuals can use the Economic Census to find emerging job markets and growing industries.⁵⁶

Census of Governments

Data obtained from the Census of Governments describe how state and local governments are organized and tabulate those governments' numbers of employees, payroll amounts, and

⁵¹ "State Data Center (SDC) Program," U.S. Census Bureau, <https://www.census.gov/about/partners/sdc.html>.

⁵² "Census Business Builder (CBB)," U.S. Census Bureau, <https://www.census.gov/data/data-tools/cbb.html>.

⁵³ "My Congressional District," U.S. Census Bureau, <https://www.census.gov/mycd/>. Further information on congressional districts, see CRS Report R47716, *Current Federal Civilian Employment by State and Congressional District*, by Ben Leubsdorf and Carol Wilson.

⁵⁴ "How a Question Becomes Part of the American Community Survey," U.S. Census Bureau, <https://www.census.gov/library/visualizations/2017/comm/acs-questions.html>.

⁵⁵ "Economic Census," U.S. Census Bureau, <https://www.census.gov/programs-surveys/economic-census.html>.

⁵⁶ "Purposes and Uses of Economic Census Statistics," U.S. Census Bureau, <https://www.census.gov/programs-surveys/economic-census/year/2022/guidance/data-uses.html>.

finances.⁵⁷ The levels of government covered under the survey are counties, cities, townships, special districts, and school districts.⁵⁸ Government organization data include the location, type, and characteristics of local governments. Finance data include topics on revenues, expenditures, debt, assets, number of full- and part-time employees, payroll, and employee benefits. The survey is conducted every five years during years ending in “2” and “7.”

Data collected from the Census of Governments are used by both government and private users. The Bureau of Economic Analysis (BEA) and the Federal Reserve Board use Census of Governments data to help measure U.S. economic and financial performance. State and local governments use data obtained from the survey for program and budget development, financial condition assessment, and comparative analyses. The Census Bureau uses data from this survey as a benchmark for all non-census year samples. Private users may use the data to conduct research on the changing characteristics of the government sector of the economy and for public policy research needs.

Other Products

In all, the Census Bureau conducts over 130 surveys and programs annually.⁵⁹ These surveys cover a wide range of topics and are released with varying frequencies. The Census Bureau continues to develop new products and has begun to produce experimental data products.⁶⁰ For example, the bureau designed the Household Pulse Survey to quickly produce data on COVID-19’s impacts on individuals and households,⁶¹ and the Community Resilience Estimates (CRE) measure neighborhoods that are at risk from the impacts of various disasters.⁶²

2020 Decennial Census⁶³

The most recent decennial count of every person whose usual residence is in the United States concluded in October 2020. The Census Bureau conducted the count with several innovations while experiencing both unprecedented and recurring challenges.

Selected Innovations

To promote respondent participation, the Census Bureau implemented innovations in the areas of operations, outreach, and data protection. Operations for the 2020 decennial census included the use of geographic information systems (GIS) for address location accuracy, web-based self-

⁵⁷ “Census of Governments,” U.S. Census Bureau, <https://www.census.gov/programs-surveys/cog.html>.

⁵⁸ Types of special districts include water districts, fire districts, library districts, mosquito abatement districts, etc.

⁵⁹ “List of All Surveys and Programs,” U.S. Census Bureau, <https://www.census.gov/programs-surveys/surveys-programs.html>.

⁶⁰ “Experimental Data Products,” U.S. Census Bureau, <https://www.census.gov/data/experimental-data-products.html>.

⁶¹ “Household Pulse Survey,” U.S. Census Bureau, <https://www.census.gov/data/experimental-data-products/household-pulse-survey.html>.

⁶² “Community Resilience Estimates,” U.S. Census Bureau, <https://www.census.gov/programs-surveys/community-resilience-estimates.html>.

⁶³ For additional information, see CRS In Focus IF11015, *The 2020 Decennial Census: Overview and Issues*, by Jennifer D. Williams. For further inquiries, congressional offices may contact Taylor R. Knoedl.

response, and a streamlined nonresponse follow-up (NRFU) program that enabled enumerators to collect respondents' data using mobile devices.⁶⁴

Self-Response

Respondents were able to complete their surveys through internet or phone during an extended self-response window. The Census Bureau found a self-response rate of 63.4% by mid-August, with 50.6% of households self-responding using the internet-based survey prior to NRFU operations.⁶⁵

Address Canvassing

The Census Bureau expanded efforts to update its Master Address File (MAF), which is a file that is intended to maintain an up-to-date inventory of all known living quarters in the United States and Puerto Rico.⁶⁶ For the 2020 decennial census, the bureau made numerous efforts to update the MAF. These efforts included receiving U.S. Postal Service updates to establish a baseline for MAF refinements; conducting a geographic support program in collaboration with state, local, and tribal governments; and implementing a required Local Update of Census Addresses (LUCA),⁶⁷ which allows tribal, state, and local governments to review and comment on the MAF for their jurisdiction on a once-per-decade basis.⁶⁸

Outreach

The Census Bureau approached outreach efforts by addressing hard-to-reach populations, engaging with higher-education institutions, utilizing a system for tracking partners, and digital advertising. The Census Bureau also maintained a 2020 Partnership Program that took best practices and lessons from the previous decennial census program.⁶⁹ The program continued to connect with tribal, state, and local governments as well as other community-based groups. New innovations included a partner web page, additional audience initiatives, partnership specialist personnel to focus on national partnerships, local partnership kickoff events, workshops for partners to support 2020 decennial census operations, and a more robust evergreen Partnership Program to maintain relationships throughout the decade.

Data Protection and Confidentiality

Data protection and confidentiality, or “disclosure avoidance,” remains a long-standing Census Bureau priority. For the 2020 decennial census, the bureau implemented a newer protection framework called “differential privacy” in which statistical noise was applied to respondents’

⁶⁴ U.S. Census Bureau, *Four Ways New Technology Is Revolutionizing the 2020 Census*, May 19, 2020, <https://www.census.gov/library/stories/2020/05/four-ways-new-technology-is-revolutionizing-the-2020-census.html>.

⁶⁵ U.S. Government Accountability Office, *2020 Census: Innovations Helped with Implementation, but Bureau can do More to Realize Future Benefits*, GAO-21-478, June 14, 2021.

⁶⁶ “Master Address File (MAF),” U.S. Census Bureau, <https://www2.census.gov/programs-surveys/research/guidance/nlms/maf-description.pdf>.

⁶⁷ “Local Update of Census Addresses (LUCA) Operation,” U.S. Census Bureau, <https://www.census.gov/programs-surveys/decennial-census/about/luca.html>.

⁶⁸ U.S. Government Accountability Office, *2020 Census: Innovations Helped with Implementation, but Bureau can do More to Realize Future Benefits*, GAO-21-478, p. 9, June 14, 2021.

⁶⁹ U.S. Census Bureau, *2020 Census Partnership Plan*, <https://www2.census.gov/programs-surveys/decennial/2020/partners/2020-partnership-plan.pdf>.

data.⁷⁰ Further discussion on this topic can be found in the “Confidentiality and its Impact on Data Quality” section of this report.

Administrative Records

The bureau implemented use of administrative records during the 2020 decennial census to serve as a failsafe when survey responses could not be obtained, while limiting the burden on respondents.⁷¹ When a household failed to respond during nonresponse follow up, or gathering household data was otherwise impossible, the Census Bureau enumerated the household by relying on records from the Internal Revenue Service, the Centers for Medicare and Medicaid Services, the Indian Health Service, and the Social Security Administration, as well as information the bureau already possessed and commercial data. Further discussion on this topic can be found in the “Use of Administrative Records for Statistical Purposes” section of this report.

Technology Used During Fieldwork

During nonresponse follow up, the bureau provided enumerators and supervisors with mobile devices for data collection and communication. This enabled temporary staff to work remotely, reducing costs for physical office space needed to accommodate fieldwork operations.⁷²

Selected Issues

Both long-standing and novel issues impacted the 2020 decennial census. These issues included cancelled field tests as a result of uncertain funding allocations, a proposed citizenship question, disruptions caused by the COVID-19 pandemic, and under- and overcounting of certain states and demographic groups.

Cancelled Field Tests

Some planned field operation tests were cancelled as a result of funding uncertainty.⁷³ Census Bureau funding was less than requested during the ramping-up period for the decennial census. The FY2016 budget request for the census was \$1.5 billion, with \$1.37 billion enacted.⁷⁴ The following FY2017 request was \$1.63 billion, with \$1.47 billion enacted.⁷⁵

⁷⁰ “Understanding Differential Privacy,” U.S. Census Bureau, <https://www.census.gov/programs-surveys/decennial-census/decade/2020/planning-management/process/disclosure-avoidance/differential-privacy.html>.

⁷¹ Thomas Mule, *Administrative Records and the 2020 Census*, U.S. Census Bureau, April 1, 2021, https://www.census.gov/newsroom/blogs/random-samplings/2021/04/administrative_recor.html.

⁷² America Counts Staff, *Smartphones, Online Responses Among Census Technological Innovations*, U.S. Census Bureau, October 7, 2019, <https://www.census.gov/library/stories/2019/10/smartphones-online-responses-among-census-technological-innovations.html>.

⁷³ U.S. Government Accountability Office, *High-Risk Series: Progress on Many High-Risk Areas, While Substantial Efforts Needed on Others*, GAO-17-317, p. 225, February 15, 2017.

⁷⁴ See CRS Report R44141, *FY2016 Appropriations for the Census Bureau and Bureau of Economic Analysis*, by Jennifer D. Williams. For further inquiries, congressional offices may contact Taylor R. Knoedl.

⁷⁵ See CRS Report R44567, *FY2017 Appropriations for the Census Bureau and Bureau of Economic Analysis*, by Jennifer D. Williams. For further inquiries, congressional offices may contact Taylor R. Knoedl.

Citizenship Question

The Trump Administration sought to add a question requiring respondents to indicate their citizenship to the decennial census. Opponents of the provision feared this would dissuade immigrant communities from responding accurately or at all to the decennial census survey. The Supreme Court blocked the citizenship question, and it did not appear on the 2020 census survey.⁷⁶

COVID-19

The COVID-19 pandemic caused unexpected disruptions to the NRFU field work for the 2020 census.⁷⁷ The NRFU process was scheduled to begin April 9, 2020, but was delayed following the COVID-19 emergency declaration on March 13. Nationwide NRFU resumed August 9 and concluded after a shorter-than-scheduled period on October 15, prior to any COVID-19 vaccine rollout. These operational timeline shifts in the decennial census led to delayed delivery of apportionment and redistricting data.⁷⁸

Under- and Overcounting

The post-enumeration survey released in 2022 found under- and overcounts across racial and ethnic groups as well as in different states.⁷⁹ The PES was unable to indicate the reasons behind under- and overcounts. According to the PES, there was not statistically significant undercounting or overcounting in the total population.⁸⁰ Further detail on “Under- and Overcounting” can be found below.

GAO High-Risk Series

GAO placed the 2020 decennial census on its High-Risk Series list on February 15, 2017.⁸¹ GAO made this determination primarily because the Census Bureau was using innovations that were

⁷⁶ 5 U.S.C. §551-559. For information on the Supreme Court’s consideration of the citizenship issue, see CRS Legal Sidebar LSB10319, *The Supreme Court Temporarily Blocks Citizenship Question on the 2020 Census*, by Mainon A. Schwartz and Benjamin Hayes.

⁷⁷ “2020 Census Operational Timeline and Adjustments Due to COVID-19,” U.S. Census Bureau, <https://www.census.gov/programs-surveys/decennial-census/decade/2020/planning-management/operational-adjustments.html>.

⁷⁸ For further information on delays caused by COVID-19, see CRS In Focus IF11486, *2020 Census Fieldwork Delayed by COVID-19*, by Jennifer D. Williams. For further inquiries, congressional offices may contact Taylor R. Knoedl.

⁷⁹ U.S. Census Bureau, “Census Bureau Releases Estimates of Undercount and Overcount in the 2020 Census,” press release, March 10, 2022, at <https://www.census.gov/newsroom/press-releases/2022/2020-census-estimates-of-undercount-and-overcount.html>. For further discussion of the undercounting and overcounting issues, as well as additional discussion of other issues related to the 2020 Census, see Teresa A. Sullivan and Daniel L. Cork, *Assessing the 2020 Census: Final Report*, National Academies of Sciences, Engineering, and Medicine, October 2023, <https://doi.org/10.17226/27150>.

⁸⁰ America Counts Staff, *Census Bureau Today Releases 2020 Census Undercount, Overcount Rates by State*, U.S. Census Bureau, May 19, 2022, <https://www.census.gov/library/stories/2022/05/2020-census-undercount-overcount-rates-by-state.html>.

⁸¹ U.S. Government Accountability Office, *High-Risk Series: Progress on Many High-Risk Areas, While Substantial Efforts Needed on Others*, GAO-17-317, pp. 223-230, February 15, 2017.

not expected to be fully tested, facing continuing challenges in implementing IT systems, and facing significant cybersecurity risks to its systems and data.⁸²

GAO on April 20, 2023, removed the 2020 decennial census from the High-Risk List, noting the following:

The 2020 Decennial Census is being removed because the Census Bureau made progress in addressing data quality concerns, chartered a high-level governance group, and implemented priority recommendations.⁸³

GAO identified the following criteria that initially needed improvement and were subsequently met:

- **Leadership commitment:** GAO indicated this item had been met by the thematic assessment of census data quality of the Census Bureau’s initial COVID-19 response and efforts to modernize operations to address challenges including declining survey response rates.
- **Capacity:** GAO indicated this item had been met because of actions the Census Bureau took to combat misinformation and disinformation threats to the 2020 Census’s integrity and the bureau’s collaboration with the Department of Homeland Security (DHS) to protect 2020 census systems and data.
- **Action plan:** GAO indicated this item had been met through developing action plans in response to GAO recommendations, improving coordination between field office staff and their partnership programs, and soliciting public comments for the 2030 decennial census.
- **Monitoring:** GAO indicated this item had been met through regular monitoring of GAO recommendations and communication of status in meeting goals.
- **Demonstrated progress:** GAO indicated this item had been met by curbing steadily increasing costs of past decades’ decennial censuses and acting on GAO recommendations.

GAO also indicated that it would monitor 2030 census preparations for any emerging risks.

2030 Decennial Census

Early planning for the 2030 decennial census began in 2019.⁸⁴ During this period, the Census Bureau analyzed operational metrics for conducting the survey, assessed early lessons from the 2020 decennial census process, reviewed feedback from stakeholders, and began exploring potential enhancements to operations. The early planning phase ended in September 2021.

The design selection phase, which began in October 2021, entails initial design research, soliciting public feedback, and initial design selection. During the initial design research period, the Census Bureau identifies high-priority research areas and conducts intensive research and testing on potential enhancements to the survey. The bureau posted a *Federal Register* notice in

⁸² Testimony of GAO Director of Strategic Issues Robert Goldenkoff and GAO Director of Information Technology and Cybersecurity Nick Marinos, in U.S. Congress, Senate Committee on Homeland Security and Governmental Affairs, *2020 Census: Actions Needed to Address Key Risks to a Successful Enumeration*, 116th Cong., July 16, 2019.

⁸³ U.S. Government Accountability Office, *High-Risk Series: Efforts Made to Achieve Progress Need to Be Maintained and Expanded to Fully Address All Areas*, GAO-23-106203, April 20, 2023.

⁸⁴ “2030 Census,” U.S. Census Bureau, <https://www.census.gov/programs-surveys/decennial-census/decade/2030/2030-census-main.html>.

August 2022 that allowed for public comments until November 2022.⁸⁵ Public comments were released in March 2023 to CSAC, NAC, and the public. Following this, the Census Bureau publishes final recommendations and additional design enhancement recommendations, which guide the initial design selection for the survey. After publishing final recommendations, the Census Bureau is to test the new design features and develop operational plans, including a 2026 census test and a 2028 dress rehearsal. The Census Bureau has developed a visual timeline to illustrate this process.⁸⁶

In August 2023, the Census Bureau announced the establishment of a new federal advisory committee.⁸⁷ According to the Census Bureau, this committee is to be made up of members of the public who represent stakeholder organizations, groups, interests, and viewpoints. Committee members are to be nominated by the public. The new federal advisory committee is intended to support the 2030 decennial census by advising on census planning and execution; considering implications of enumeration strategies; advising on public outreach strategies; and providing feedback on employee recruitment strategies, among other things.

Funding for the 2030 decennial census began in FY2022 with an appropriation of \$151.5 million,⁸⁸ followed by a \$248.7 million appropriation for FY2023.⁸⁹ The Census Bureau has requested \$408.9 million for FY2024.

Selected Ongoing and Emerging Issues

Several issues related to the Census Bureau may be of interest to Congress. Some of these issues are long-standing, whereas others have recently emerged with the advent of new technology in data collection practices.

Survey Nonresponse Bias

The Census Bureau, among other federal statistical agencies, is experiencing an ongoing downward trend in survey response rates, an issue that was exacerbated by the COVID-19 pandemic. This is evident in ACS response rates for housing units and group quarters, where the overall response rates have steadily declined since 2010, with a large dip in 2020.⁹⁰

COVID-19 limited the Census Bureau's ability to collect 2020 ACS one-year estimate data, which led the bureau not to initially release these data. Restrictions imposed to limit the spread of COVID-19 prevented the Census Bureau from collecting in-person data and holding NRFU operations for the ACS. These restrictions also prevented data collection in group quarters. As a result, households that responded to the 2020 ACS were those more likely to do so without prompting or follow-up from the Census Bureau. Nonresponse bias during 2020 ACS one-year estimate data collection was found in Medicaid users, noncitizens, and individuals with an

⁸⁵ U.S. Census Bureau, "Soliciting Input or Suggestions on 2030 Census Preliminary Research," 87 *Federal Register* 50599, August 17, 2022, <https://www.federalregister.gov/documents/2022/08/17/2022-17647/soliciting-input-or-suggestions-on-2030-census-preliminary-research>.

⁸⁶ "2030 Census Planning Timeline," U.S. Census Bureau, <https://www.census.gov/content/dam/Census/programs-surveys/decennial/2030-census/2030-census-timeline.pdf>.

⁸⁷ U.S. Census Bureau, "2030 Census Advisory Committee," 88 *Federal Register* 58236, August 25, 2023, <https://www.federalregister.gov/documents/2023/08/25/2023-18341/2030-census-advisory-committee>.

⁸⁸ P.L. 117-103

⁸⁹ P.L. 117-328

⁹⁰ "American Community Response Rates," U.S. Census Bureau, <https://www.census.gov/acs/www/methodology/sample-size-and-data-quality/response-rates/>.

educational attainment below a bachelor's degree.⁹¹ Given these limitations, the bureau released these 2020 ACS one-year estimate data as experimental data.⁹² Response rates for subsequent years of the ACS in 2021 and 2022 have increased to approximately 85% for each year.⁹³

Census Bureau research on response rates to the CPS showed similar declining trends in response rates, with major dips during peak COVID-19 months.⁹⁴

Under- and Overcounting

The Census Bureau has historically experienced challenges with under- and overcounting in certain populations and demographics. The COVID-19 pandemic exacerbated these challenges, particularly among individuals living in group quarters, such as college dormitories.

Some Members of Congress expressed concerns with the 2020 PES findings of under- and overcounting in several states.⁹⁵

The following states had undercounts, according to the 2020 post-enumeration survey:

- Arkansas (-5.04%),
- Florida (-3.48%),
- Illinois (-1.97%),
- Mississippi (-4.11%),
- Tennessee (-4.78%), and
- Texas (-1.92%).

The following states had overcounts, according to the 2020 post-enumeration survey:

- Delaware (+5.45%),
- Hawaii (+6.79%),
- Massachusetts (+2.24%),
- Minnesota (+3.84%),
- Ohio (+1.49%),
- Rhode Island (+5.05%), and
- Utah (+2.59%).

Additionally, the Census Bureau undercounted Hispanic or Latino (-4.99%), American Indian or Alaska Native (-0.91%), and Black or African American (-3.3%) populations during the decennial

⁹¹ Hyon B. Shin et al., *An Assessment of the COVID-19 Pandemic's Impact on the 2020 ACS 1-Year Data*, U.S. Census Bureau, ACS Research and Evaluation Report Memorandum Series #ACS21-RER-04, October 27, 2021, https://www.census.gov/content/dam/Census/library/working-papers/2021/acs/2021_CensusBureau_01.pdf.

⁹² "2020 ACS 1-year Estimates," U.S. Census Bureau, <https://www.census.gov/programs-surveys/acs/technical-documentation/table-and-geography-changes/2020/1-year.html>.

⁹³ "ACS Response Rates," U.S. Census Bureau, <https://www.census.gov/acs/www/methodology/sample-size-and-data-quality/response-rates/>.

⁹⁴ Jonathan Rothbaum and Adam Bee, *How Has the Pandemic Continued to Affect Survey Response? Using Administrative Data to Evaluate Nonresponse in the 2022 Current Population Survey Annual Social and Economic Supplement*, U.S. Census Bureau, September 13, 2022, <https://www.census.gov/newsroom/blogs/research-matters/2022/09/how-did-the-pandemic-affect-survey-response.html>.

⁹⁵ America Counts Staff, *Census Bureau Today Releases 2020 Census Undercount, Overcount Rates by State*, U.S. Census Bureau, May 19, 2022, <https://www.census.gov/library/stories/2022/05/2020-census-undercount-overcount-rates-by-state.html>.

census. The non-Hispanic White population was overcounted by 1.64%. The Census Bureau's analysis of the PES further found that these under- and overcounts were not outside the range of variability found in past decades. While some under- and overcounts across demographics were statistically significant, the PES did not find a statistically significant overcount or undercount of the total population.⁹⁶

Past decennial censuses had similar issues with under- and overcounting.⁹⁷ The non-Hispanic white population was overcounted in 2010 and 2000 by 0.8% and 1.1%, respectively. The Black population was undercounted in 2010 and 2000 by -2.1% and -1.8%, respectively; the Hispanic population was also undercounted in those years by -1.5% and -0.7%, respectively. The American Indian or Alaska Native population on reservations was undercounted by 4.9% in 2010 and overcounted by 0.9% in 2000; the American Indian and Alaska Native population off reservations was overcounted by 3.9% and undercounted by 0.6% in 2010 and 2000, respectively.

In the event of potential inaccurate counting of the population of geographical units during a decennial census, the Census Bureau offers the Census Count Question Resolution (CQR) operation.⁹⁸ This operation, originally initiated following the 2000 decennial census, provides eligible tribal, state, and local government units an opportunity to submit a CQR case for the Census Bureau to review.⁹⁹ A CQR case reviews data collected and processed during the decennial census; it does not conduct a recount. If errors are found during a review, housing and population counts are corrected, followed by redistribution of revised counts. Apportionment counts, redistricting data, and other decennial census products are not changed following a CQR case review. The deadline to submit CQR cases in response to the 2020 decennial census was June 30, 2023.

With unprecedented challenges in counting group quarters during the 2020 decennial census because of the COVID-19 pandemic, the Census Bureau introduced the new Post-Census Group Quarters Review (PCGQR).¹⁰⁰ The PCGQR allowed government units to request review of group quarters that they believed were not accurately counted. The PCGQR follows the same general standards as the CQR.

Though not a route to address under- or overcounting, a special census can be conducted at the request of a government unit if local officials find there has been considerable change in population size or demographic composition following a decennial census.¹⁰¹ The special census program is initiated and funded by the requesting governmental unit. The results from the special census will update Census Bureau population estimates, which are conducted annually beginning with the most recent decennial census. The purpose of the population estimates program is to

⁹⁶ U.S. Census Bureau, "Census Bureau Releases Estimates of Undercount and Overcount in the 2020 Census," press release, March 10, 2022, <https://www.census.gov/newsroom/press-releases/2022/2020-census-estimates-of-undercount-and-overcount.html>.

⁹⁷ U.S. Census Bureau, "Census Bureau Releases Estimates of Undercount and Overcount in the 2010 Census," press release, May 22, 2012, https://www.census.gov/newsroom/releases/archives/2010_census/cb12-95.html.

⁹⁸ "Count Question Resolution Operation (CQR)," U.S. Census Bureau, <https://www.census.gov/about/policies/quality/corrections/cqr.html>.

⁹⁹ U.S. Census Bureau, "The Census 2000 Count Question Resolution Program," 66 *Federal Register* 35588, July 6, 2001, <https://www.federalregister.gov/documents/2001/07/06/01-16868/the-census-2000-count-question-resolution-program>.

¹⁰⁰ "2020 Post-Census Group Quarters Review (PCGQR)," U.S. Census Bureau, <https://www.census.gov/programs-surveys/decennial-census/decade/2020/planning-management/evaluate/pcgqr.html>.

¹⁰¹ "Special Census Program," U.S. Census Bureau, <https://www.census.gov/programs-surveys/specialcensus.html>.

update population estimates in the years following a decennial census for use in allocation of funds to state, county, and local governments.

Use of Administrative Records for Statistical Purposes

Administrative records are microdata records, or information from the individual level of respondents, collected and maintained by a public or private entity to carry out the basic administrative processes of a program. Administrative records are not necessarily collected for statistical purposes. The Census Bureau considers using administrative records to be advantageous because doing so reduces respondent burden and data-collection costs, creates new data products, and increases the research potential of census data.¹⁰²

Examples of administrative records include individual data, such as social security numbers and income tax return data; business identifying information, such as descriptions of operating, financial, ownership, and other characteristics; and address data, such as latitude or longitude points, telephone numbers, and address information. The Census Bureau is increasingly incorporating administrative records to supplement survey responses to relieve respondent burden, support more complete data, and reduce enumeration costs.

The Census Bureau has regularly used administrative records from other government agencies to improve the accuracy of bureau statistics, and did so in the 2020 decennial census.¹⁰³

Authorization for the Census Bureau to use administrative records is granted in statute.¹⁰⁴

During preparation for 2020 decennial census operations, the bureau used administrative records to determine methods of initial contact for respondents and advertising strategies by evaluating demographic characteristics to determine which methods of initial contact or advertising were most likely to elicit survey completion.¹⁰⁵

The bureau also used administrative records to support NRFU operations when it was not possible to obtain survey responses directly from households. If a household did not provide an initial response online, by phone, or by mail and an enumerator attempted a NRFU—or if the household provided incomplete information—the Census Bureau attempted to utilize administrative records to supplement any missing information.

The Census Bureau used a variety of records, including prior census survey data, such as data from the 2010 decennial census or the most recent ACS; federal tax return information from the IRS; the Medicare enrollment database; Indian Health Service data; U.S. Postal Service records; and Social Security Administration records. These records were only used if the Census Bureau had high confidence in the accuracy of the data, which often meant corroborating the data with multiple source agencies.

¹⁰² Dave McClure, Robert Santos, and Shiva Kooragayala, *Administrative Records in the 2020 U.S. Census*, Urban Institute, May 2017, https://www.urban.org/sites/default/files/publication/90446/census_ar_report.pdf.

¹⁰³ Thomas Mule, *Administrative Records and the 2020 Census*, U.S. Census Bureau, April 1, 2021, https://www.census.gov/newsroom/blogs/random-samplings/2021/04/administrative_recor.html.

¹⁰⁴ 13 U.S.C. §6

¹⁰⁵ Karen D. Deaver, *Administrative Data Used in the 2020 Census*, U.S. Census Bureau, August 11, 2021, <https://www2.census.gov/programs-surveys/decennial/2020/program-management/planning-docs/administrative-data-used-in-the-2020-census.pdf>.

Revisions to Race and Ethnicity Data Collection

On January 27, 2023, OMB introduced proposed revisions to the 1997 Statistical Policy Directive (SPD) No. 15: Standards for Maintaining, Collecting, and Presenting Federal Data on Race and Ethnicity.¹⁰⁶ The proposed revisions would combine race and ethnicity categories into a single question, include a new racial designation for Middle Eastern or North African (MENA), and require detailed racial data collection to be the default in federal surveys. The proposal was published in the *Federal Register* and opened for public comments in compliance with the PRA of 1995. These standards would be implemented in Census Bureau surveys following final approval from OMB.

OMB cited the reasoning behind this proposal to revise SPD 15 as increasing racial and ethnic diversity, a growing number of people who identify as more than one race or ethnicity, and changing immigration and migration patterns. OMB will make the final decision regarding changes to SPD 15, which is expected to be completed in summer 2024.

Confidentiality and its Impact on Data Quality

Maintaining the privacy of survey respondents' data remains a concern for many Members of Congress and the general public. Although several privacy-preserving data sharing analytic methods exist, they have varying attributes, which include impacts on data quality.

To manage large amounts of identifiable data collected during the 2020 decennial census, the Census Bureau developed a disclosure avoidance framework using differential privacy.¹⁰⁷ The Census Bureau sought to reduce the likelihood of reconstruction of identifiable data from census products by using *differentially private noise infusion*. This process increases the difficulty of determining if an individual's data were part of the original dataset or not by adding made-up information (i.e., noise) into the data product, complicating reconstruction efforts.

Data products released from the Census Bureau utilize this *differentially private noise infusion*, which differs from the master records collected during surveys. The Census Bureau uses a governance structure of discretionarily budgeting levels of noise injected into data sets. If too much noise is introduced, the data set will be of no use; if there is too little noise, the data are unprotected. Perfectly accurate data exist and are retained as a master data set by the Census Bureau; publication of these data is prohibited under statute.¹⁰⁸

After the Census Bureau announced that it would use differential privacy for anonymizing 2020 decennial census data, the State of Alabama initiated a lawsuit challenging this decision in March 2021.¹⁰⁹ In this complaint, Alabama alleged that the Census Bureau would “provide the States with purposefully flawed population tabulations” by using differential privacy. An additional 16

¹⁰⁶ Office of Management and Budget, “Initial Proposals for Updating OMB’s Race and Ethnicity Statistical Standards,” 88 *Federal Register* 5375, January 27, 2023, <https://www.federalregister.gov/documents/2023/01/27/2023-01635/initial-proposals-for-updating-ombs-race-and-ethnicity-statistical-standards>.

¹⁰⁷ “2020 Decennial Census: Processing the Count: Disclosure Avoidance Modernization,” U.S. Census Bureau, <https://www.census.gov/programs-surveys/decennial-census/decade/2020/planning-management/process/disclosure-avoidance.html>; and U.S. Census Bureau, *Disclosure Avoidance for the 2020 Census: An Introduction*, November 2021, <https://www2.census.gov/library/publications/decennial/2020/2020-census-disclosure-avoidance-handbook.pdf>.

¹⁰⁸ 13 U.S.C. §9 and §214.

¹⁰⁹ See *Alabama v. U.S. Dep’t of Com.*, No. 21-CV-211, 2021 WL 2668810 (M.D. Ala. June 29, 2021).

states joined this lawsuit as *amici curiae* in support of Alabama.¹¹⁰ In September 2021, Alabama dropped the lawsuit.¹¹¹

While using differential privacy is new, the Census Bureau has used a disclosure avoidance system since the 1930 decennial census.¹¹² The bureau introduced differential privacy in 2020, when it determined that advances in computers combined with the use of commercially available databases can reconstruct previously disassociated, sensitive individual data.¹¹³

The old system for data privacy was a data-swapping system that was introduced in 1990. It involved swapping the record of one census tract with another to mask individual data in the product. A Census Bureau experiment that used published 2010 census data tables to reconstruct the dataset of respondents further indicated that a new disclosure avoidance system was needed to keep up with modern privacy protection needs.

The Census Bureau finds the advantages of differential privacy are as follows:

- Disclosure risk can be assessed and quantified prior to a product's creation.
- Disclosure risk can be budgeted across all products.
- Disclosure risk can be tracked across successive data releases.
- Data can be published, analyzed, and combined with other data without increasing risk of disclosure.
- Differential privacy is more conducive to transparency with public access to governance decisions, programing code, settings, and summaries of noise and bias.¹¹⁴

The Census Bureau has also identified limitations and challenges to the differential privacy system.¹¹⁵

- Data collected from small demographic groups may contain too much noise for particular use.
- Infusion of statistical noise may lead to implausible results, such as a block with more housing units than people occupying those units.

Use of Artificial Intelligence

The Census Bureau has started using artificial intelligence (AI) to help computers discover patterns in data without using explicit programing, as a means of improving efficiency in working with large sets of data from several sources.¹¹⁶

¹¹⁰ Alaska, Arkansas, Florida, Kentucky, Louisiana, Maine, Mississippi, Montana, Nebraska, New Mexico, Ohio, Oklahoma, South Carolina, Texas, Utah, and West Virginia

¹¹¹ See *Alabama V. U.S. Dep't of Com.*, No. 3:21-CV-211-RAHECM-KCN (MD. Ala. September 9, 2021).

¹¹² Laura McKenna, *Disclosure Avoidance Techniques Used for the 1970 through 2010 Decennial Censuses of Population and Housing*, U.S. Census Bureau, November 2018, <https://www.census.gov/content/dam/Census/library/working-papers/2018/adrm/Disclosure%20Avoidance%20Techniques%20for%20the%201970-2010%20Censuses.pdf>.

¹¹³ "The Census Bureau's Simulated Reconstruction-Abetted Re-identification Attack on the 2010 Census," U.S. Census Bureau, May 7, 2021, <https://www.census.gov/data/academy/webinars/2021/disclosure-avoidance-series/simulated-reconstruction-abetted-re-identification-attack-on-the-2010-census.html>.

¹¹⁴ Code base is available from <https://github.com/usensusbureau>.

¹¹⁵ U.S. Census Bureau, *Disclosure Avoidance for the 2020 Census: An Introduction*, November 2021, p. 2.

¹¹⁶ "Machine Learning," U.S. Census Bureau, <https://www.census.gov/topics/research/data-science/about-machine-learning.html>.

For example, AI is being used to support the Economic Census by assisting in ensuring respondents receive appropriate questions for their businesses with the North American Industry Classification System and by providing a smart search function for the North American Product Classification System.¹¹⁷

The Census Bureau has set some short-term (FY2021-FY2023) and longer-term (FY2023 and beyond) goals for implementing machine learning for data processing.¹¹⁸

¹¹⁷ Tandace Wilson, *2022 Economic Census: Keeping Up with the Times*, U.S. Census Bureau, August 15, 2023, <https://www.census.gov/library/stories/2023/08/2022-econ-census-whats-new.html>.

¹¹⁸ “Record Linkage & Machine Learning,” U.S. Census Bureau, <https://www.census.gov/topics/research/stat-research/expertise/record-linkage.html>.

Appendix. Relevant Committee Hearings from Senate HSGAC and House Oversight during the 114th through the 118th Congresses

Table A-1. Recent Committee Hearings

Committee	Date	Title
Senate HSGAC	July 25, 2022	Reviewing the 2020 Census: Local Perspectives in Michigan
Senate HSGAC	July 15, 2021	Nominations of Robert L. Santos and Ed Gonzales
Senate HSGAC	Mar. 23, 2021	The 2020 Census and Current Activities of the U.S. Census Bureau
House Oversight	Dec. 3, 2020	Ensuring the 2020 Census Count is Complete and Accurate
House Oversight	Sep. 10, 2020	Providing the Census Bureau with the Time to Produce a Complete and Accurate Census
House Oversight	July 29, 2020	Counting Every Person: Safeguarding the 2020 Census Against the Trump Administration's Unconstitutional Attacks
House Oversight	Feb. 12, 2020	With Census Bureau Director, Dr. Steven Dillingham
House Oversight	Jan. 9, 2020	Reaching Hard-to-Count Communities in the 2020 Census
Senate HSGAC	July 16, 2019	2020 Census: Conducting a Secure and Accurate Count
House Oversight	May 28, 2019	Getting Counted: The Importance of the Census to State and Local Communities Field Hearing
Senate HSGAC	Oct. 31, 2017	2020 Census: Examining Cost Overruns, Information Security, and Accuracy
House Oversight	Oct. 12, 2017	Hearing on the 2020 Census
House Oversight	June 9, 2016	Census 2020: Examining the Readiness of Key Aspects of the Census Bureau's 2020 Census Preparation

Source: CRS search of "Congressional Hearings," GovInfo, U.S. Government Publishing Office, <https://www.govinfo.gov/app/collection/chrq>.

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