2020 Census

Status Update on Early Operations

The 2020 Census includes many activities and operations that need to be successfully carried out on schedule for a cost-effective head-count, as well as to meet legally required deadlines. If these efforts are not completed on schedule, or fail to function as planned, they could adversely impact downstream operations, the ability to control costs, and the overall quality of the count.

Over the past decade, GAO has made 107 recommendations specific to the 2020 Census to help address issues. The Department of Commerce has generally agreed with the recommendations. As of October 2019, 26 of the recommendations had not been fully implemented.

GAO was asked to provide regular updates on the 2020 Census. This report examines:

1. cost and progress of key 2020 census operations critical to a cost-effective enumeration, and
2. major trends or early warnings that may require Census Bureau or congressional attention.

GAO also provides an enclosure with background information on the cost, scope, and methods of the Census.

The Bureau provided technical comments that were incorporated as appropriate.

This correspondence is the first in a series of updates meant to provide timely reporting on 2020 Census activities and operations. This update includes information from GAO's ongoing work on in-field address canvassing, hiring for early operations, information technology (IT) systems development and testing, and cybersecurity.

In recent years, GAO has identified challenges that raise serious concerns about the Census Bureau's (Bureau's) ability to conduct a cost-effective count of the nation, including new innovations, acquisition and development of IT systems, and other challenges. In 2017, these challenges led us to place the 2020 Census on GAO's High Risk list.

Early Operations for the 2020 Census Are Generally on Track

The Bureau is generally on track to meet upcoming selected key dates. In August 2019, the Bureau began in-field address canvassing, which helps ensure a complete and accurate list of addressees that the Bureau uses to invite residents to participate in the Census. As shown below, the Bureau experienced high levels of productivity for the in-field address canvassing operation, which finished in early October 2019.

Weekly In-Field Address Canvassing Productivity

Address Canvassing Productivity Blocks (in thousands)

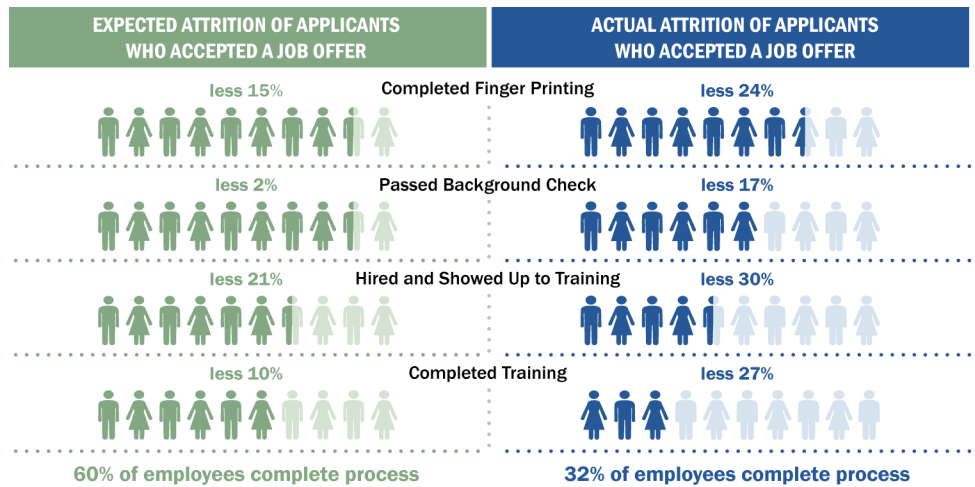■ Expected Blocks Completed   —○— Blocks Completed
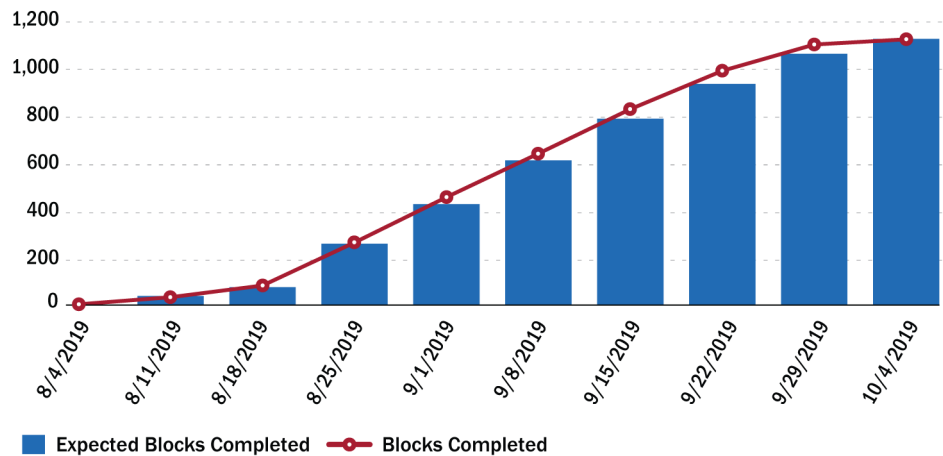
Source: GAO analysis of data from the Bureau's Unified Tracking System. | GAO-20-111R

The Bureau Is Taking Actions to Address Key Identified Risks and Challenges, but Significant Work Remains

The Bureau is experiencing delays in hiring for early operations, citing delays in processing background clearances and greater than expected attrition, as shown below. The Bureau plans to address these challenges by adapting its hiring and onboarding process for peak operations in May 2020, including recruiting more applicants, expanding the number of locations for selected applicants to get fingerprinted, and providing additional training for replacement hires.

United States Government Accountability Office

Expected and Actual Attrition in Hiring, 2020 Census

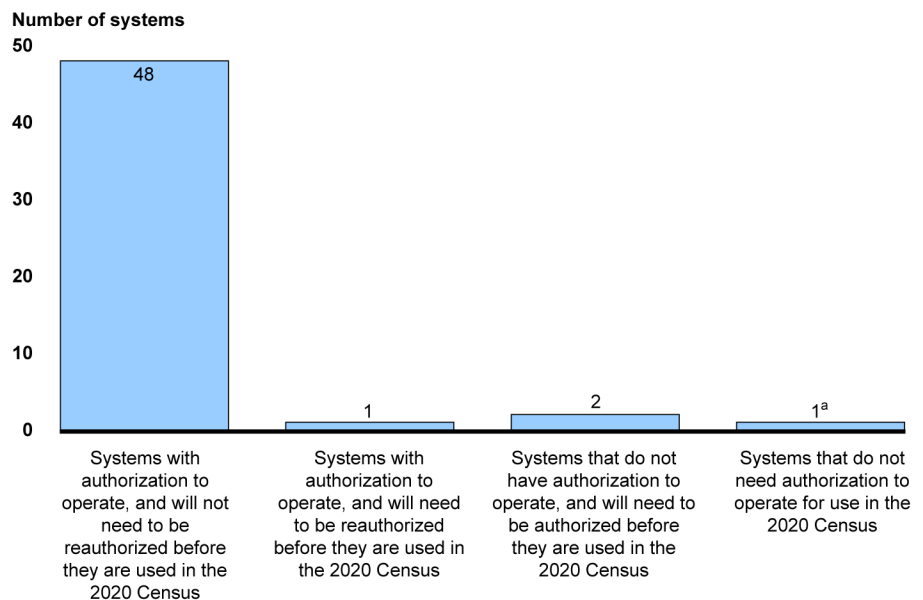| EXPECTED ATTRITION OF APPLICANTS WHO ACCEPTED A JOB OFFER		ACTUAL ATTRITION OF APPLICANTS WHO ACCEPTED A JOB OFFER
less 15%	Completed Finger Printing	less 24%
less 2%	Passed Background Check	less 17%
less 21%	Hired and Showed Up to Training	less 30%
less 10%	Completed Training	less 27%
60% of employees complete process		**32% of employees complete process**

Source: GAO analysis of Census Bureau data. | GAO-20-111R

The Bureau has made progress in executing work against its development and testing schedule for its 52 information technology (IT) systems expected to be used during the 2020 Census. For example, in August 2019, the Bureau completed and deployed the systems needed for address canvassing. However, as of August 2019, the Bureau was at risk of not meeting key near-term IT system development and testing schedule milestones for 15 systems needed for six upcoming 2020 Census operational deliveries, including self-response (e.g., the ability to respond to the 2020 Census through the internet). These 15 at-risk systems add uncertainty to a highly compressed time frame for completing system development and testing work over the next 7 months.

The IT systems expected to be used to conduct the 2020 Census will also need to undergo a full security assessment and receive an approved authorization to operate from the authorizing official prior to their use. The Bureau has made significant progress in completing security assessments as a majority of the 52 systems had approved authorizations to operate as of October 2019.

Authorization to Operate Status for 52 Systems Being Used in the 2020 Census, as Reported by the Bureau in October 2019

Number of systems

Category	Number
Systems with authorization to operate, and will not need to be reauthorized before they are used in the 2020 Census	48
Systems with authorization to operate, and will need to be reauthorized before they are used in the 2020 Census	1
Systems that do not have authorization to operate, and will need to be authorized before they are used in the 2020 Census	2
Systems that do not need authorization to operate for use in the 2020 Census	1[a]

Source: GAO analysis of Census Bureau data. | GAO-20-111R

[a]According to the Bureau's information security policy, one system that is expected to be used during the 2020 Census primarily as a desktop tool for generating fillable forms does not require authorization to operate.

441 G St. N.W.
Washington, DC 20548

October 31, 2019

Congressional Requesters

2020 Census: Status Update on Early Operations

The 2020 Census includes many activities and operations that need to be successfully carried out on schedule for a cost-effective head-count, as well as to meet legally required deadlines.[1] If these efforts are not completed on schedule, or fail to function as planned, they could adversely impact downstream operations, the ability to control costs, and the overall quality of the count.

You asked us to provide regular updates on the implementation of the 2020 Census. For these updates, we will review (1) the cost and progress of key 2020 Census operations critical to a cost-effective enumeration, and (2) major trends or early warnings that may require Census Bureau or congressional attention. For this correspondence—the first in a series of products meant to provide timely reporting on activities and operations while they are being implemented—we focused on in-field address canvassing, hiring, information technology (IT) systems development and testing, and cybersecurity.

To describe the status of the Census Bureau's (Bureau) execution of key operations for the 2020 Census, we reviewed Bureau-provided data on cost and progress of key operations and compared that data with Bureau-determined target dates and metrics. We determined those data were sufficiently reliable for the purposes of our reporting objectives by interviewing Bureau staff about the IT systems used. We also incorporated our observations in the field observing Bureau staff conduct census operations. We interviewed Bureau officials to gather additional information on the status and progress of these key operations.

To describe major trends and early warning signs, we compared bureau-provided data against goals outlined in Bureau plans. We assessed Bureau-provided performance data on individual operations and efforts to make determinations of Bureau performance and progress.[2] We also included information from our ongoing work on the readiness of the Bureau's IT systems for the 2020 Census. We collected and reviewed documentation on the status of systems development and testing and for addressing cybersecurity risks, such as executive-level system status reports and dashboards. We also interviewed relevant agency officials.

Further, we provide an enclosure with background information on the cost, scope and methods of the 2020 Census. This information is based on Bureau management and cost reports, our

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[1]For example, under the Census Act, the decennial census date is April 1, 2020. 13 U.S.C. § 141(a). Likewise, the population counts used to apportion Congress are to be provided to the President within 9 months of the census date. 13 U.S.C §141(b).

[2]These independent determinations, based on progress and milestone dates, were "on target," "likely to miss target – needs attention," or "target missed – needs attention."

earlier work on logistics for preparation of the 2020 Census, and a *Federal Register* notice on outreach methods to be used in the 2020 Census.[3]

We conducted this performance audit from May 2019 to October 2019 in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

Background

The United States Census is mandated by the Constitution and provides vital data for the nation. Census data are used, among other purposes, to apportion the seats of the U.S. House of Representatives; redraw congressional districts in each state; and allocate billions of dollars each year in federal financial assistance.

The cost of the decennial census has steadily increased over the past several decades, with enumeration costs rising from about $16 per household in 1970 to around $92 in 2010 (all in constant 2020 dollars). While the 2010 Census cost approximately $12.3 billion (in 2020 dollars), the 2020 Census is expected to cost $15.6 billion (in current decennial timeframe costs).[4]

In 2017, we designated the 2020 Census as a high-risk area and added it to our High-Risk list.[5] The 2020 Census remains high risk, as new innovations, and acquisition and development of IT systems for the 2020 Census, along with other challenges we have identified in recent years, such as the reliability of the cost estimate, raise serious concerns about the Bureau's ability to conduct a cost-effective enumeration.[6] Further, over the past decade, we have made 107 recommendations specific to the 2020 Census to help address these risks and other concerns. The Department of Commerce has generally agreed with these recommendations and has taken action to address them. However, as of October 2019, 26 of the recommendations have not been fully implemented.

Early Operations for the 2020 Census Are Generally On Track

The Bureau Continues to Manage to Key Dates for 2020 Census

To date, the Bureau has identified and met most of its initial milestones.[7] As shown in figure 1 below, the Bureau is generally on track to meet upcoming selected key dates, but has missed or

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[3]GAO, *2020 Census: Bureau is Making Progress Opening Offices and Recruiting, but Could Improve Its Ability to Evaluate Training*. GAO-19-602 (Washington, D.C.: July 19, 2019) and *Proposed Information Collection; Comment Request; 2020 Census*, 83 Fed. Reg. 26643 (June 8, 2018).

[4]According to the Bureau, these figures rely on fiscal year 2020 constant dollar factors derived from the Chained Price Index from "Gross Domestic Product and Deflators Used in the Historical Tables: 1940–2020" table from the Fiscal Year 2016 Budget of the United States Government. According to Commerce documents, the more recently reported figures for the 2020 Census are "inflated to the current 2020 Census time frame (fiscal years 2012 to 2023)" rather than to 2020 constant dollars.
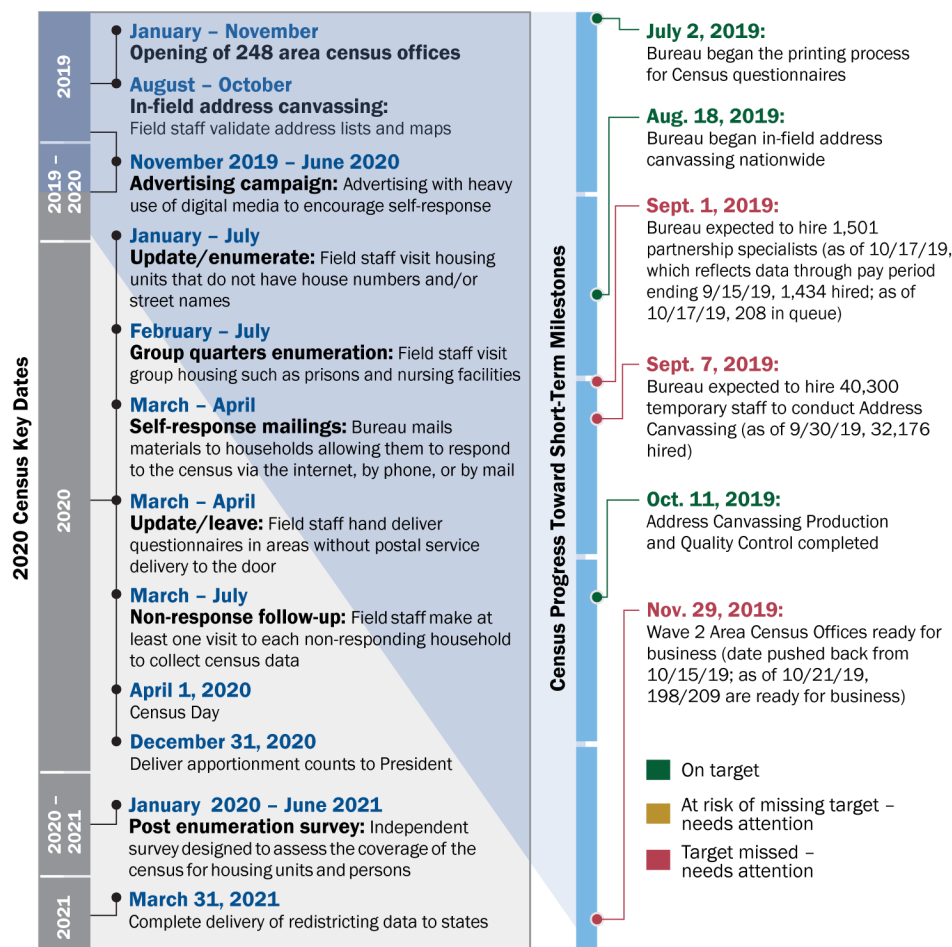
[5]GAO's high-risk program identifies government operations with vulnerabilities to fraud, waste, abuse, and mismanagement, or in need of transformation to address economy, efficiency, or effectiveness challenges.

[6]GAO, *High-Risk Series: Substantial Efforts Needed to Achieve Greater Progress on High-Risk Areas*. GAO-19-157SP (Washington, D.C.: March 2019) and *High-Risk Series: Progress on Many High-Risk Areas, While Substantial Efforts Needed on Others*. GAO-17-317 (Washington, D.C.: Feb. 15, 2017).

[7]GAO-19-602.

may miss certain targets, such as those for hiring certain positions and opening certain Area Census Offices.

Figure 1: Key Dates for 2020 Census Operations

2020 Census Key Dates

2019

January – November
Opening of 248 area census offices

August – October
In-field address canvassing:
Field staff validate address lists and maps

2019 – 2020

November 2019 – June 2020
Advertising campaign: Advertising with heavy use of digital media to encourage self-response

2020

January – July
Update/enumerate: Field staff visit housing units that do not have house numbers and/or street names

February – July
Group quarters enumeration: Field staff visit group housing such as prisons and nursing facilities

March – April
Self-response mailings: Bureau mails materials to households allowing them to respond to the census via the internet, by phone, or by mail

March – April
Update/leave: Field staff hand deliver questionnaires in areas without postal service delivery to the door

March – July
Non-response follow-up: Field staff make at least one visit to each non-responding household to collect census data

April 1, 2020
Census Day

December 31, 2020
Deliver apportionment counts to President

2020 – 2021

January 2020 – June 2021
Post enumeration survey: Independent survey designed to assess the coverage of the census for housing units and persons

2021

March 31, 2021
Complete delivery of redistricting data to states

Census Progress Toward Short-Term Milestones

July 2, 2019:
Bureau began the printing process for Census questionnaires

Aug. 18, 2019:
Bureau began in-field address canvassing nationwide

Sept. 1, 2019:
Bureau expected to hire 1,501 partnership specialists (as of 10/17/19, which reflects data through pay period ending 9/15/19, 1,434 hired; as of 10/17/19, 208 in queue)

Sept. 7, 2019:
Bureau expected to hire 40,300 temporary staff to conduct Address Canvassing (as of 9/30/19, 32,176 hired)

Oct. 11, 2019:
Address Canvassing Production and Quality Control completed

Nov. 29, 2019:
Wave 2 Area Census Offices ready for business (date pushed back from 10/15/19; as of 10/21/19, 198/209 are ready for business)

■ On target

■ At risk of missing target – needs attention

■ Target missed – needs attention

Source: GAO analysis of Census Bureau timelines and management reports. | GAO-20-111R

Address Canvassing Operation Was Slightly More Productive Than Anticipated

In August 2019, the Bureau began "in-field" address canvassing, where temporary staff called listers began updating address lists and maps for approximately 35 percent of the housing units across the country.[8] The Bureau determined in 2019 that the other 65 percent of addresses were part of "stable" blocks that the Bureau had verified "in-office" using geographic imagery and administrative records. In in-field address canvassing, listers use laptop computers to

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[8]An accurate address list both identifies all households that are to receive a notice by mail requesting participation in the census (by Internet, phone, or mailed-in questionnaire) and serves as the control mechanism for following up with households that fail to respond to the initial request. See GAO, *2020 Census: Actions Needed to Improve In-Field Address Canvassing Operation*, GAO-18-414 (Washington, D.C.: June 14, 2018).

compare what they see on the ground to what is on the Bureau's address list and map.[9] The Bureau began the in-field address canvassing operation at seven of its Area Census Offices on August 4, 2019. Address canvassing began at the remaining 32 Area Census Offices on August 18, 2019. As shown in figure 2, weekly productivity for in-field address canvassing was generally higher than the Bureau expected. The operation finished in early October.

Figure 2: In-field Address Canvassing Weekly Productivity Generally Exceeded Expected Productivity

Address Canvassing Productivity Blocks (in thousands)
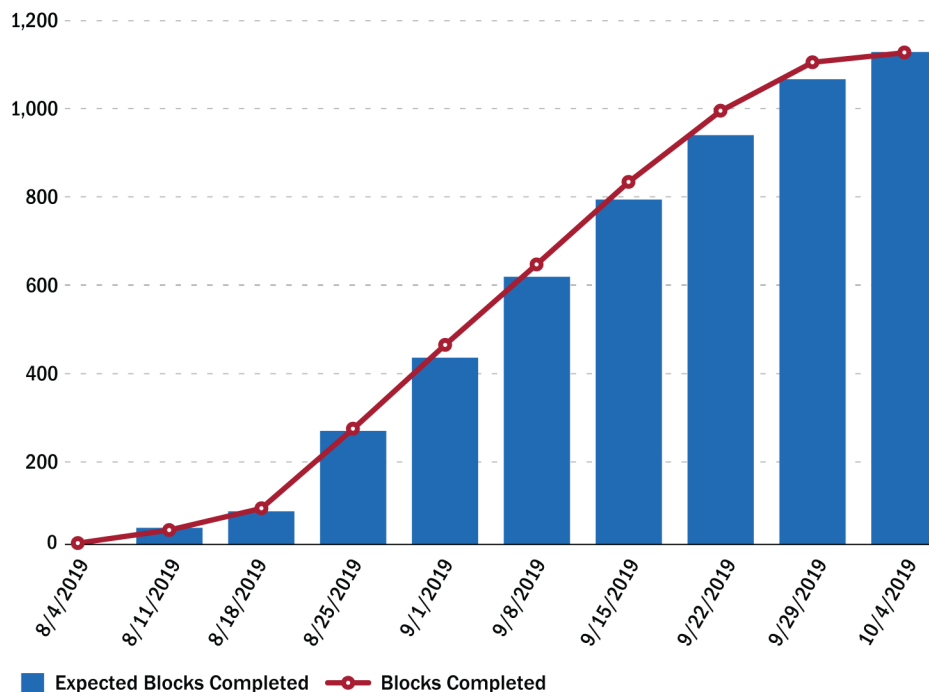
Source: GAO analysis of data from the Census Bureau's Unified Tracking System | GAO-20-111R

In 2018, after observing testing in the field, we made seven recommendations to improve the implementation of in-field address canvassing, all of which the Bureau implemented.[10] For example, in 2018, we recommended and the Bureau took action to finalize procedures for reassigning work from one lister to another to prevent unnecessary duplication of work assignments. However, in our early observations in 2019, we found that listers did not always follow the Bureau's procedures. For example, listers did not consistently knock on every door as required to confirm the address and inquire about hidden housing units. Further, not all listers we observed provided the required confidentiality notices to occupants. Occupants may be more willing to provide accurate information if they know their responses will not be shared with any other agency, such as law enforcement. We relayed the information to the Bureau and on

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[9]Listers confirm, add, delete, or move addresses to their correct map positions. At each housing unit, listers are trained to speak with a knowledgeable resident to confirm or update address data, ask about "hidden" housing units, such as converted basements or attics, confirm the housing unit location on the map, (known as the map spot) and collect a map spot using global positioning systems (GPS). If no one is available, listers are to use house numbers and street signs to verify the address data. The data are transmitted electronically to the Bureau.

[10]GAO-18-414.

August 26, 2019 the Bureau notified its field offices to remind listers of the appropriate procedures.

The Bureau Is Taking Actions to Address Identified Risks and Challenges, but Significant Work Remains

<u>The Bureau Experienced Problems in Hiring and Onboarding Staff in Early Peak Operations</u>

The Bureau experienced delays in hiring for its early operations, raising concerns about hiring for peak operations. The Bureau missed its target for hiring listers. The Bureau's target was to hire 40,300 listers by September 7, 2019, but as of September 9, 2019, the Bureau had hired 31,151 listers. Though address canvassing productivity was higher than expected, based on our observations, in some parts of the country the operation was at risk of falling behind because of a shortage of listers. The Bureau told us it had to fill the gap with listers who lived well outside of the area they were supposed to work—in some cases from a different state. The problems the Bureau faced in these early operations with its ability to hire are an early warning for what may occur later in the census during non-response follow-up (NRFU), when the Bureau intends to hire about 250,000 enumerators to follow up with households that did not initially respond to the census.

The Bureau also missed its initial and revised target for hiring for partnership specialists despite having a sufficient number of applicants in its hiring queue. In March 2019, the Bureau set a goal of hiring 1,501 partnership specialists by June 30, 2019. The Bureau did not meet this goal and pushed the date out to September 1, 2019. As of September 1, 2019, the Bureau had 1,316 partnership specialists on board, still 185 specialists short of its goal. Partnership specialists focus on establishing and securing relationships with government, private sector, nonprofit, and faith-based organizations to encourage participation in the 2020 Census. Late hiring of partnership specialists may result in missed opportunities to build early relationships with organizations about the 2020 Census and promote the census, especially in hard-to-count areas such as those with lack of Internet access or language barriers.

The Bureau cites delays in processing background clearances and greater than expected attrition as contributing factors to delays in hiring for early operations. As of October 13, 2019, the Bureau is not meeting its goals for the number of resolved background clearances for positions including partnership specialists and area census office managers.

According to the Bureau, the delays in processing background clearances arose, in part, due to early shortages of staff to review clearances and because a significant number of applicants did not completely or accurately fill out the forms needed to complete the background clearance process. In February 2019, the Bureau began to bring on about 130 temporary staff to review forms for accuracy and completeness prior to submission for investigation and to help investigators conduct the pre-employment background checks. Nevertheless, a backlog of background clearances continues.

Delays in processing background clearances, in part, caused subsequent delays in getting listers for address canvassing onboard. For example, according to Bureau officials, delays in early hiring for Area Census Office staff impacted the hiring of listers because some offices did not have enough clerks in place to process the paperwork or make the required reminder phone calls necessary to hire and onboard listers.
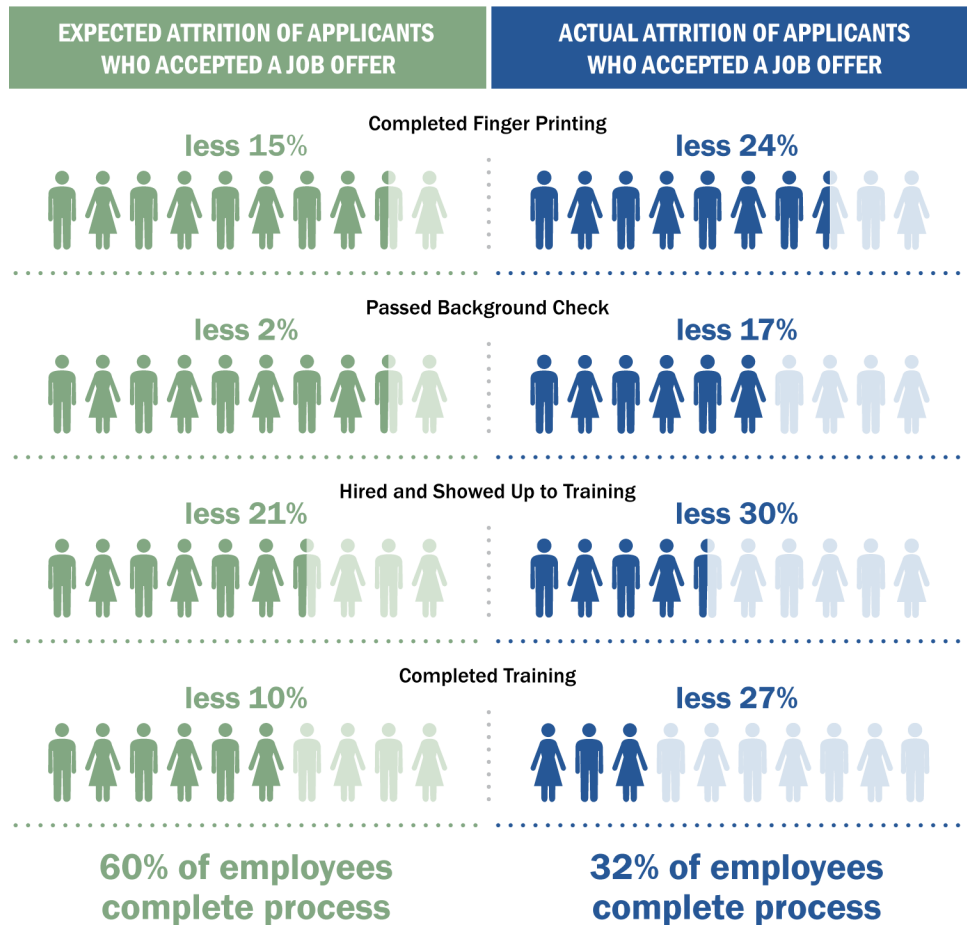
The Bureau also experienced greater attrition than expected for listers at two steps of the hiring process:

- **Fingerprinting:** The Bureau expected about 15 percent of applicants would leave the hiring process after being selected and before submitting fingerprints. However, the attrition rate

was closer to 25 percent. Bureau officials told us they attributed this to selected applicants, in some cases, having to travel long distances to be fingerprinted.

- **Training:** The Bureau found that fewer selected and cleared applicants attended training than anticipated. Bureau officials attributed this to fewer clerks being available to call trainees with reminders to attend training due to delays in clerks receiving their own clearances.

Figure 3: Expected and Actual Attrition

EXPECTED ATTRITION OF APPLICANTS WHO ACCEPTED A JOB OFFER	ACTUAL ATTRITION OF APPLICANTS WHO ACCEPTED A JOB OFFER

Completed Finger Printing
less 15%   less 24%

Passed Background Check
less 2%   less 17%

Hired and Showed Up to Training
less 21%   less 30%

Completed Training
less 10%   less 27%

60% of employees complete process   **32% of employees complete process**

Source: GAO analysis of Census Bureau data. | GAO-20-111R

Notes: The population for these calculations includes individuals who already accepted a job offer from the Bureau. Attrition rates for each phase represent the percentage of individuals lost between completing the prior phase and the current phase. The final percentage of employees completing the process is the cumulative attrition throughout the process. All numbers are rounded to the nearest percent. Icons are approximate representations.

Bureau officials also attributed some of this attrition to the 60-day period between the selection of applicants and their training. This new timeframe was put in place for the 2020 Census to provide adequate time for adjudication of background checks.[11]

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[11]This new procedure was instituted in response to concerns raised after the 2010 Census about bias in hiring. The Bureau settled a court case and as part of that settlement instituted a new hiring procedure for the 2020 Census. *Gonzalez v. Pritzker*, No. 10-CV-3105 (S.D.N.Y. dismissed Sept. 20, 2016).

The Bureau plans to address these challenges by adapting its hiring and onboarding processes for peak operations such as non-response follow-up, which is to begin May 2020. The Bureau's preparations include:

- Attempting to get more resources for background clearance staff,

- Increasing its ratios of applicants to the number of staff it wants to onboard in response to higher than anticipated attrition,

- Expanding the number of locations where applicants can get fingerprinted,

- Assessing wage rates across the country to meet targets for peak operations,

- Including additional training for replacement hires in the training schedules, and

- Revisiting protocols for the onboarding process, including establishing clearer timelines for hiring, making reminder phone calls to applicants, and ensuring applicants remain interested at key points in the process.

<u>The Bureau Has Made Progress against Its Revised Systems Development and Testing Schedule, but Risks Missing Near-term Milestones</u>

In October 2018, to help improve its implementation of IT for the 2020 Census, the Bureau revised its systems development and testing schedule. Specifically, the Bureau organized the development and testing schedule for its 52 systems across 16 operational deliveries.[12] Each of the 16 operational deliveries has milestone dates for, among other things, development, performance and scalability testing, and system deployment.

The Bureau has made progress in executing work against its revised schedule by deploying the systems for three of the 16 operational deliveries. Specifically, the Bureau deployed the systems for the first operational delivery—2020 Census early operations preparations—in October 2018. More recently, in August 2019, the Bureau deployed the systems for two additional operational deliveries—address canvassing and peak recruiting and hiring.

However, as of August 2019, 15 systems that the Bureau expects to use in six of the remaining operational deliveries were at risk of not meeting key near-term milestones planned for completing system development, performance and scalability testing, and/or integration testing by April 2020.[13] These 15 systems are necessary for, among other things, data collection for operations, business and support automation, customer support during self-response, and support field operations. Figure 4 presents an overview of the status for all 16 operational deliveries, as of August 2019.

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[12]The Bureau will deploy the 52 systems being used in the 2020 Census multiple times in a series of operational deliveries, which includes operations such as address canvassing or self-response (e.g., the ability to respond to the 2020 Census through the internet). That is, the Bureau may deploy a system for one operation in the 2020 Census (such as address canvassing), and again for a subsequent operation (such as self-response). As such, additional development and testing may occur each time a system is deployed.

[13]As of August 2019, the 15 systems were 2020 Website; Concurrent Analysis and Estimation; Enterprise Census and Survey Enabling Platform-Operational Control System; Enterprise Census and Survey Enabling Platform-Field Operational Control System; Census Questionnaire Assistance; Automated Tracking and Control; Enterprise Census and Survey Enabling Platform–Internet Self-Response; Integrated Computer Assisted Data Entry; Listing and Mapping Application; Matching and Coding Software; Census Data Lake; MOJO Field Processing; Production Environment for Administrative Records Staging, Integration, and Storage; Self-Response Quality Assurance; and Unified Tracking System.

Figure 4: Status of 16 Operational Deliveries for the 2020 Census, as of August 2019

2020 Census operational deliveries

Operation	Systems
Early operations preparation	20 systems
Integrated partnership and communications	7 systems
Post enumeration survey	25 systems
Address canvassing	23 systems
Peak recruiting and hiring	18 systems
Self-response	25 systems
Count review/remote Alaska	28 systems
Group quarters advance contact	25 systems
Group quarters enumeration	27 systems
Update enumerate/update leave	31 systems
Non response follow-up	23 systems
Island areas census	19 systems
Response processing	10 systems
Archiving and count question resolution	22 systems
Data products/dissemination	9 systems
Redistricting	8 systems

Calendar year: 2018, 2019, 2020, 2021

Current date >

Legend:
- **(hatched)** All systems needed for the operational delivery have been deployed
- **(teal)** Not at risk of missing key milestones for completing system development, performance and scalability testing, and/or integration testing
- **(red outline)** At risk of not meeting key milestones for completing system development, performance and scalability testing, and/or integration testing
- **(square)** Start of integration testing and end-to-end performance and scalability testing
- **(star)** Final system deployment

Source: GAO analysis of Census Bureau data. | GAO-20-111R

Note: The 52 systems being used in the 2020 Census are to be deployed multiple times in a series of operational deliveries (which include operations such as address canvassing or self-response). That is, a system may be deployed for one operation in the 2020 Census (such as address canvassing), and be deployed again for a subsequent operation in the test (such as self-response). As such, additional development and testing may occur each time a system is deployed.

These 15 at-risk systems add uncertainty to a highly compressed time frame over the next 7 months. Importantly, between October 2019 and April 2020, the Bureau anticipates conducting systems integration testing for 11 operational deliveries. Going forward, it will be important that the Bureau effectively manages these system risks to better ensure that it meets near-term milestones for system development and testing, and is ready for the major operations of the 2020 Census.

GAO-20-111R 2020 Census

<u>The Bureau Has Made Significant Progress in Completing Security Assessments, but Critical Work Remains</u>

In accordance with the Federal Information Security Modernization Act of 2014 (FISMA),[14] National Institute of Standards and Technology guidance, and Office of Management and Budget guidance, the Bureau's Office of the Chief Information Officer established a risk management framework. This framework requires system developers to ensure that each of the Bureau's systems undergoes a full security assessment and that system developers remediate critical deficiencies.

According to the Bureau's risk management framework, each of the systems expected to be used to conduct the 2020 Census will need to undergo a full security assessment and receive an approved authorization to operate by the authorizing officials prior to its use.[15]

The Bureau has made significant progress in completing security assessments. Specifically, as of October 2019, Bureau officials had reported that 48 of the 52 systems had approved authorizations to operate.[16] Nevertheless, more work remained to be completed as of October 2019. Specifically, two of the 52 systems did not have authorization to operate but needed to be authorized before they are used in the 2020 Census. In addition, one of the 52 systems needed to be reauthorized before its use in the 2020 Census.[17]

Figure 5 summarizes the authorization to operate status for the systems being used in the 2020 Census, as reported by the Bureau in October 2019.

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[14]Federal law specifies requirements for protecting federal information and information systems, such as those systems to be used in the 2020 Census. Specifically, the Federal Information Security Management Act of 2002 and the Federal Information Security Modernization Act of 2014 require executive branch agencies to develop, document, and implement agency-wide programs to provide security for the information and information systems that support operations and assets of the agency. The Federal Information Security Modernization Act of 2014, Pub. L. No. 113-283, 128 Stat. 3073 (Dec. 18, 2014) largely superseded the Federal Information Security Management Act of 2002, enacted as Title III, E-Government Act of 2002, Pub. L. No. 107-347, 116 Stat. 2899, 2946 (Dec. 17, 2002).

[15]According to the Bureau's information technology security program policy, the issuance of an authorization to operate for a system requires support of both the technical authorizing official (i.e., the Chief Information Officer) and the business authorizing official responsible for funding and managing the system (i.e., the Associate Director for Decennial Census Programs).

[16]According to a June 2019 Bureau memorandum, one system—OneForm Designer Plus—is expected to primarily be used during the 2020 Census as a desktop tool for generating fillable forms. The memorandum further states that, because this system is considered a desktop tool, the Bureau's information security policy does not require it to obtain an authorization to operate.

[17]According to the Bureau's risk management framework, once a system obtains an authorization, it will need to be reauthorized if the system's authorizing official determines that the risk posture of the system needs to change. This could occur, for example, if the system undergoes significant new development.

Figure 5: Authorization to Operate Status for the 52 Systems Being Used for the 2020 Census, as Reported by the Bureau in October 2019
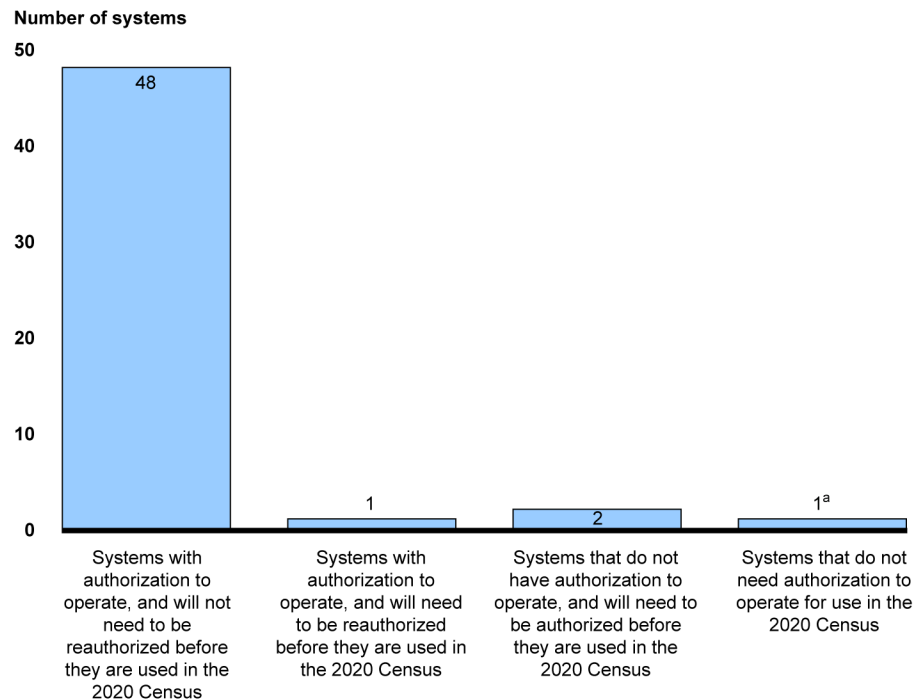
Source: GAO analysis of Census Bureau data. | GAO-20-111R

[a]According to the Bureau's information security policy, one system is expected to be used during the 2020 Census primarily as a desktop tool for generating fillable forms, and does not require authorization to operate.

As we have previously reported, while large-scale technological changes (such as internet self-response) increase the likelihood of efficiency and effectiveness gains, they also introduce many cybersecurity challenges. The 2020 Census also involves collecting personally identifiable information on more than 100 million households across the country, which further increases the need to properly secure these systems. Thus, it will be important that the Bureau provides adequate time to perform these security assessments; completes them in a timely manner; and, if deficiencies are identified, determines the corrective actions needed to remediate those deficiencies. Accordingly, we recently made recommendations aimed at improving the Bureau's processes for taking corrective actions in response to the security assessments and we have ongoing work that will evaluate the Bureau's progress in addressing those recommendations.[18]

Agency Comments

We provided a copy of this draft report to the Department of Commerce. The Census Bureau provided technical comments, reprinted in enclosure II, that were incorporated as appropriate.

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[18]GAO, *2020 Census: Further Actions Needed to Reduce Key Risks to a Successful Enumeration,* GAO-19-431T (Washington, D.C.: Apr. 30, 2019)

We are sending copies of this report to the Secretary of the Department of Commerce, the Under Secretary of Economic Affairs, the Director of the U.S. Census Bureau, and interested congressional committees. In addition, the report is available at no charge on the GAO website at http://www.gao.gov.

If you or your staff have any questions about this report, please contact Robert Goldenkoff at (202) 512-2757 or by email at goldenkoffr@gao.gov or Nick Marinos at (202) 512-9342 or by email at marinosn@gao.gov. Contact points for our Offices of Congressional Relations and Public Affairs may be found on the last page of this report. GAO staff who made key contributions to this report are listed in enclosure III.

Robert Goldenkoff
Director, Strategic Issues

Nick Marinos
Director, Information Technology and Cybersecurity

List of Requesters

The Honorable Ron Johnson
Chairman
The Honorable Gary C. Peters
Ranking Member
Committee on Homeland Security and Governmental Affairs
United States Senate

The Honorable Jim Jordan
Ranking Member
Committee on Oversight and Reform
House of Representatives

The Honorable Jamie Raskin
Chairman
The Honorable Chip Roy
Ranking Member
Subcommittee on Civil Rights and Civil Liberties
Committee on Oversight and Reform
House of Representatives

The Honorable Gerald E. Connolly
Chairman
The Honorable Mark Meadows
Ranking Member
Subcommittee on Government Operations
Committee on Oversight and Reform
House of Representatives

INSIDE THE 2020 CENSUS

The Census Bureau (Bureau) estimates the 2020 Decennial Census could cost as much as $15.6 billion dollars after adjusting for inflation to the current 2020 Census time frame (fiscal years 2012 to 2023), which would be the most expensive decennial census to date. The cost of counting the nation's population has escalated each decade, with the average cost of counting a housing unit increasing from about $16 in 1970 to around $92 in 2010 (in 2020 constant dollars).

2020 CURRENT COST ESTIMATE
$15.6 Billion
In current 2020 Census time frame dollars

2010 CENSUS ACTUAL COST
$12.3 Billion
In 2020 constant dollars

The census involves many activities and operations that need to be successfully carried out for a cost-effective head count, as well as to meet legally required deadlines. If these efforts are not completed on schedule, or fail to function as planned, they could negatively impact other operations and the overall quality of the count.

2019
January – November
Opening of 248 area census offices

August – October
In-field address canvassing:
Field staff validate address lists and maps

2019 – 2020
November 2019 – June 2020
Advertising campaign: Advertising with heavy use of digital media to encourage self-response

2020
January – July
Update/enumerate: Field staff visit housing units that do not have house numbers and/or street names

February – July
Group quarters enumeration: Field staff visit group housing such as prisons and nursing facilities

March – April
Self-response mailings: Bureau mails materials to households allowing them to respond to the census via the internet, by phone, or by mail

March – April
Update/leave: Field staff hand deliver questionnaires in areas without postal service delivery to the door

March – July
Non-response follow-up: Field staff make at least one visit to each non-responding household to collect census data

April 1, 2020
Census Day

December 31, 2020
Deliver apportionment counts to President

2020 – 2021
January 2020 – June 2021
Post enumeration survey: Independent survey designed to assess the coverage of the census for housing units and persons

2021
March 31, 2021
Complete delivery of redistricting data to states

The Bureau hires a large temporary workforce to carry out two key operations:

- First, its address canvassing operation—where staff make updates to the Bureau's address list
- Second, the non-response follow-up operation—where staff follow up with households that did not self-respond using in-person visits.

Positions Required for Address Canvassing and Non-Response Follow-up

1,369
Census Field Managers

15,323
Census Field Supervisors

274,538
Enumerators (including Listers)
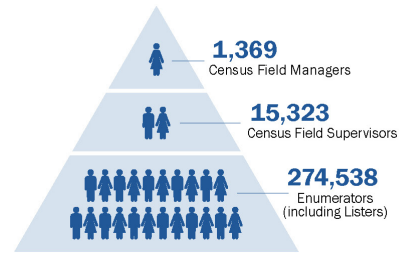
Note: These are numbers of positions. Some workers will be hired for multiple operations.

For the 2020 Census, households will be invited to respond to the census by mail or in person with an enumerator. Those invited by mail will receive either an invitation to respond online or a paper census form, depending on internet availability in their area. Regardless of which they receive, individuals have the option to self-respond online, by phone, or using a paper form.

Self-response: 95%

80% of these households will receive a letter for an invitation to respond on the internet

20% of these households in areas with low internet or connectivity will receive a questionnaire with a letter with the internet option

Reminder letter

Reminder postcard

Questionnaire with letter with internet option

"It's not too late" postcard

Non-response Follow-up is implemented to determine housing unit occupancy for non-responding addresses, and enumerates housing units for which a 2020 Census response was not received

Almost 5%
of households, often in areas where the majority of households may not receive mail at their home's physical location, such as those that use P.O. boxes, will receive a questionnaire with a letter with the internet option from an enumerator that visits their home (Update/Leave)

Non-response Follow-up

Less than 1%
of households, often in remote areas, will receive a visit from an enumerator to fill out their census form (Update/Enumerate)

WAYS TO RESPOND

PAPER QUESTIONNAIRE   ONLINE   BY PHONE   IN-PERSON WITH A CENSUS FIELD WORKER   MAIL TARGETED AT NON-RESPONDERS

Enclosure II:

October 21, 2019

Mr. Robert Goldenkoff
Director, Strategic Issues
U.S. Government Accountability Office
441 G Street, NW
Washington, DC 20548

Dear Mr. Goldenkoff:

The U.S. Census Bureau appreciates the opportunity to comment on the United States Government Accountability Office's draft report titled: "2020 Census: Status Update on Early Operations" (GAO-20-111R). Below are some editorial suggestions that might increase clarity and more recent status information that could be used to update some of your figures.

- **Page 3:** Consider updating the number of open recommendations. The Census Bureau was notified that recommendation 4 from the GAO-12-626 report was closed in early October, reducing the number of open recommendations to 26. The report indicates there are 27 currently open recommendations. We appreciate GAO noting the Census Bureau's commitment to address each recommendation, and we note that Census meets regularly with GAO to discuss open recommendations and has provided documentation to GAO for all open recommendations for which we have completed our planned actions.

- **Page 4:** We currently have 207 ACO's out of 209 ACOs that are finished construction. The draft report references 180 ACO's out of 209 ACO's.

- **Page 9**: Consider updating the statement on footnote 13, that CQA is one of the 15 remaining systems that are at risk of not meeting near-term milestones for completing system development, performance and scalability testing, and/or integration testing by April 2020. Census has planned activities scheduled to take place after August 2019 that include the last sprint of development and Performance and Scalability integration testing. We do not believe there is anything that indicates a significant risk of not meeting Census's schedule targets for these CQA activities.

- **Pages 11-12:** Consider updating the status of ATOs on pages 11 and 12 of the draft report to reflect the most recent progress. The August 2019 figures in your report show 43 Authorized, 3 Reauthorized, 5 New Authorizations, and 1 Does not require Authorization. We request updates to reflect October 2019 numbers that show 48 Authorized, 1 Reauthorized, 2 New Authorizations, and 1 Does not require Authorization.

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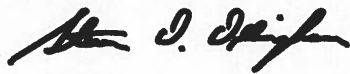
census.gov

Mr. Robert Goldenkoff   2

Additionally, as we have discussed with GAO, the Census Bureau is constantly monitoring our
ability to recruit and hire the staff necessary to fulfill our mandate.   As part of this process, we
evaluate the wage rates geographically to determine where increases could help meet our
targets and, if it is deemed effective, the Bureau has the ability to increase wage rates in these
areas. This tool is one piece of the Census Bureau's overall strategy to manage hiring risk.

Sincerely,

Stephen D. Dillingham

2

Enclosure III: GAO Contacts and Staff Acknowledgments

GAO Contacts: Robert Goldenkoff, 202- 512-2757 or goldenkoffr@gao.gov
Nick Marinos, (202) 512-2342 or marinosn@gao.gov

Staff Acknowledgments: In addition to the contacts named above, Lisa Pearson (Assistant Director), Alexandra Edwards (Analyst-in-Charge), Kerstin Hudon, Jon Ticehurst, Kate Sharkey, Andrea Starosciak, Umesh Thakkar, Stephen Duraiswamy, Sejal Sheth, Keith Kim, Peter Verchinski, and Cynthia Saunders made significant contributions to this report.

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