### Why GAO Did This Study

The Department of Commerce’s U.S. Census Bureau plans to significantly change the methods and technology it uses to count the population with the 2020 Decennial Census. The Bureau’s redesign of the census relies on the acquisition and development of many new and modified systems. Several of the key systems are to be provided by an enterprise-wide initiative called CEDCAP, which is a large and complex modernization program intended to deliver a system-of-systems for all survey data collection and processing functions.

GAO’s objectives for this review included (1) evaluating the extent to which the Bureau is implementing best practices in monitoring and controlling three selected CEDCAP projects, (2) determining the extent to which the Bureau is adequately managing the interdependencies between the CEDCAP and 2020 Census programs, and (3) describing key information security challenges the Bureau faces in implementing the 2020 Census design. GAO selected the three high-priority projects planned for the 2020 design; reviewed Bureau documentation such as project plans and schedules and compared them against relevant guidance; and analyzed information security reports and documents.

### What GAO Found

The three selected Census Enterprise Data Collection and Processing (CEDCAP) projects (of 12 total) in GAO’s review partially met best practices for monitoring and controlling. For example, the projects fully met the best practice of establishing a process for taking corrective actions if issues are identified, but they did not fully meet the practice of identifying significant performance deviations. Until project officials implement missing practices, they will be limited in their abilities to monitor and control costs, schedules, and performance.

The 2020 Census program is heavily dependent upon CEDCAP to deliver the key systems needed to support the 2020 Census redesign. However, while the two programs have taken steps to coordinate their schedules, risks, and requirements, they lacked effective processes for managing their interdependencies. Specifically:

- Among tens of thousands of schedule activities, the two programs are expected to manually identify activities that are dependent on each other, and rather than establishing one integrated dependency schedule, the programs maintain two separate dependency schedules. This has contributed to misalignment in milestones between the programs.

- The programs do not have an integrated list of interdependent program risks, and thus they do not always recognize the same risks that impact both programs.

- Among other things, key requirements have not been defined for validating responses from individuals who respond to the census using an address instead of a Bureau-assigned identification number, because of the Bureau’s limited knowledge and experience in this area. The lack of knowledge and specific requirements related to this critical function is concerning, given that there is about a year remaining before the Census end-to-end test begins in August 2017 (which is intended to test all key systems and operations to ensure readiness for the 2020 Census).

Officials have acknowledged these weaknesses and reported that they are taking, or plan to take, steps to address the issues. However, until these interdependencies are managed more effectively, the Bureau will be limited in understanding the work needed by both programs to meet milestones, mitigate major risks, and ensure that requirements are appropriately identified.

While the large-scale technological changes for the 2020 Decennial Census introduce great potential for efficiency and effectiveness gains, they also introduce many information security challenges. For example, the introduction of an option for households to respond using the Internet puts respondents at greater risk for phishing attacks (requests for information from authentic-looking, but fake, e-mails and websites). In addition, because the Bureau plans to allow its enumerators to use mobile devices to collect information from households that did not self-respond to the survey, it is important that the Bureau ensures that these devices are adequately protected. The Bureau has begun efforts to address many of these challenges; as it begins implementing the 2020 Census design, continued focus on these considerable security challenges will be critical.