



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

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The Honorable Jeanne Shaheen
Chair
The Honorable Jerry Moran
Ranking Member
Subcommittee on Commerce, Justice, Science, and Related Agencies
Committee on Appropriations
United States Senate

The Honorable Hal Rogers
Chairman
The Honorable Matt Cartwright
Ranking Member
Subcommittee on Commerce, Justice, Science, and Related Agencies
Committee on Appropriations
House of Representatives

Population Estimates: Results of the Census Bureau’s Challenge Program

Between decennial censuses, the Census Bureau’s Population Estimates Program (PEP) annually disseminates population and housing unit estimates for the country at various levels of geography.¹ These annual population estimates are used by state, local, and tribal governments to allocate federal funds, among other purposes. The Bureau refers to each population estimate series as a “vintage.” For example, Vintage 2022 covers April 1, 2020, through July 1, 2022.

The Population Estimates Challenge Program (PECP) provides state and local governments the ability to challenge annual population estimates. The Bureau paused the PECP to support the 2020 Census (as it usually does) and reinstated it in November 2022. The Bureau released the first set of results from the PECP for Vintage 2022 on February 28, 2024. State or local governments (governmental units) may challenge their population estimate by submitting data to the Bureau for evaluation or by identifying a technical error in processing input data or in producing the estimates.

A House Report that accompanied the Commerce, Justice, Science, and Related Agencies Appropriations Bill 2023 includes a provision for us to review the Census Bureau’s efforts and provide a briefing within 180 days of the Bureau completing its related work on the PECP.² This report summarizes the briefing and (1) describes changes that were made to the PEP and the

¹Annual population estimates are authorized by 13 U.S.C. §181, which requires, to the extent feasible, the production of “current data on total population and population characteristics” for each state, county, and local unit of general-purpose government which has a population of 50,000 or more. The Bureau produces population estimates of the United States, its states, metropolitan and micropolitan statistical areas, counties, cities, and towns, as well as for the Commonwealth of Puerto Rico and its municipios. Additionally, the Bureau produces demographic components of population change (births, deaths, and migration) and housing unit estimates at the national, state, and county levels of geography.

²Committee on Appropriations, H.R. Rep. No. 117-395, at 19 (2022).

PECP following the release of 2020 Census data, as well as other changes being considered; and (2) describes the first set of PECP results that were released in February 2024.

To address the first objective, we reviewed the Bureau's documentation of key components of the PEP and PECP methodology changes following the 2020 Census, including the use of flexible methodologies and administrative records. We also reviewed the *Federal Register* notice that addressed public comments received for making changes to the PECP, and we interviewed Bureau officials about relevant information contained in the *Federal Register* notice.³ Additionally, we interviewed Bureau officials about ongoing research and testing for the PEP and PECP. To address the second objective, we reviewed Bureau guidance to understand the process for submitting a challenge and analyzed the Vintage 2022 PECP results. We interviewed Bureau officials to understand the rationale for accepting some challenges but not others.

Our review is limited to Vintage 2022, which was the first series of population estimates governmental units could challenge following the 2020 Census. We conducted this performance audit from April 2024 to October 2024 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.

On August 26, 2024, we briefed your staff on the preliminary results of this study. This report formally conveys the information provided during this briefing, as summarized below (see enclosure I for the briefing slides).

PEP and PECP changes. The Bureau revised its methodology for producing annual population estimates to address challenges with 2020 Census data. Typically, the Bureau develops the estimates using a long-standing methodology that relies on the latest decennial census results as the population base or starting point. However, several challenges limited the Bureau's ability to use 2020 Census results as the population base for annual estimates. These challenges included delays in the availability of 2020 Census data due to the COVID-19 pandemic and additional procedures to protect the confidentiality of data. In response to those challenges, the Bureau developed a "blended" base for the annual population estimates. This blended base contained 2020 Census national, state, and county population counts, national 2020 Demographic Analysis estimates by age and sex, and Vintage 2020 population estimates by age, sex, race, and Hispanic origin.⁴

According to Bureau officials, there are about 10 ongoing research projects to improve the annual population and housing unit estimates, some of which are multiyear projects. For example, in January 2024, the Bureau prioritized research into improving the estimates of the foreign-born population. The research relies on assessing and monitoring administrative data sources that may enable the Bureau to adjust for large fluctuations in the inflow of migrants. Some sources of administrative data being examined are from, for example, the Departments of Justice and Homeland Security. Moreover, in March 2022 the Bureau convened a team to monitor and improve the blended base methodology. Prior to each vintage, this team's

³See 88 Fed. Reg. 17696 (Mar. 24, 2023).

⁴Demographic Analysis (DA) estimates are developed from current and historical vital records, estimates of international migration, and Medicare records. The DA estimates are independent from the 2020 Census.

recommendations on the blended base are provided to the public as part of a PEP webinar on annual methodology updates.

The Bureau solicited and incorporated feedback from the public to improve the PECP. The Bureau announced in the *Federal Register* how it was incorporating the feedback it received in public comments. The notice addressed the feedback in the following ways:

- Governmental units are not limited to submitting a challenge digitally. They may still submit a physical copy of the challenge paperwork to the Bureau.
- The notice encourages the appropriate Federal-State Cooperative for Population Estimates (FSCPE) members to work with local governments while the FSCPE members review prerelease estimates.⁵

According to the public comments, governmental units want the Bureau to accept more data sources when a challenge is submitted. Bureau officials said they are open to accepting more data sources for challenges that are supported by research. They stated research must be conducted before any changes are made to the PECP and they are conducting research that could expand the scope of the PECP.

Challenge results. The Bureau revised population estimates in response to seven challenges made through the PECP. For Vintage 2022, governmental units submitted 12 challenges, according to the Bureau. These included two county-level challenges and 10 subcounty-level challenges.⁶ The Bureau did not accept the two county-level challenges because they were incomplete.⁷ Feedback was given to the two counties that did not meet Bureau requirements. In both cases, the Bureau received a revised submission, but the counties still did not meet the Bureau's guidelines.

Bureau officials said that three of the 10 challenges submitted by subcounty areas were not accepted.⁸ Two of the 10 governmental units decided their challenges did not contain significant changes and withdrew them. The third subcounty submission did not meet the Bureau's challenge requirements and therefore the challenge was not accepted. For Vintage 2022, population estimates as of July 1, 2022, of the seven challenges accepted, all localities saw their population change in the direction they expected, Bureau officials said. Five saw their populations increase and two saw their populations decrease.

Agency Comments

We provided a draft of this report to the Department of Commerce for its review and comment. The Bureau provided technical comments, which we incorporated as appropriate.

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⁵Federal-State Cooperative for Population Estimates members, designated by their respective governors, work in cooperation with PEP to produce population and housing unit estimates. Any prerelease data shared with governmental units must adhere to data confidentiality requirements.

⁶There are 3,144 county or county-equivalents and there are over 78,000 subcounty areas in the United States.

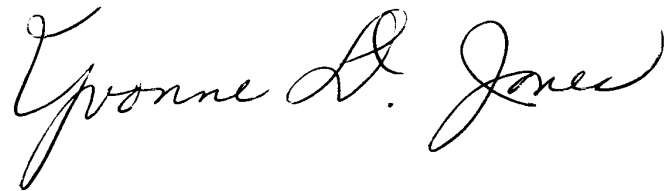
⁷Counties can challenge components of the annual population estimate including births, deaths, migration, and changes in the group quarters population.

⁸Subcounty areas, including cities and towns, can challenge population estimates based on changes in an area's housing stock. This can be measured by building permits, nonpermitted construction, certificates of occupancy, housing conversions, demolitions and housing loss, mobile home placements, and the group quarters population.

We are sending copies of this report to the Secretary of Commerce, the Director of the U.S. Census Bureau, and the appropriate 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 Yvonne D. Jones at (202) 512-6806 or by email at jonesy@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 II.

Sincerely yours,

A handwritten signature in black ink that reads "Yvonne D. Jones". The signature is written in a cursive style with a large initial "Y" and a long, sweeping underline.

Yvonne D. Jones
Director, Strategic Issues

Enclosures – 2

Enclosure I -

(BRIEF SLIDES)

Enclosure II -

GAO Contact and Staff Acknowledgments

GAO Contact:

Yvonne D. Jones, Director, Strategic Issues, (202) 512-6806 or jonesy@gao.gov.

Staff Acknowledgments:

In addition to the contact named above, Lisa Pearson (Assistant Director), Erik Shive (Analyst-in-Charge), Mark Abraham, Mike Bechetti, Virginia Chanley, Robert Gebhart, Jyoti Gupta, Sheila R. McCoy, Emily Tucker, Tim Wexler, and Peter Verchinski assisted with this engagement.