



The Post Enumeration Survey

What is the Post Enumeration Survey (PES)?

The PES is a statistically representative survey that the Census Bureau uses to check census accuracy. The 2020 Census PES includes 180,000 housing units. The PES is independent of the census itself and is conducted after major census operations are finished.

How does the PES work?

Results for each PES sample household are matched with that household's original census results. This allows the Census Bureau to determine how many people were missed (omissions), counted twice (duplications), or included by mistake or counted in the wrong place (other erroneous enumerations).

These findings are then applied to demographically similar census areas across the country to derive broader estimates of undercounts and overcounts for selected population characteristics.

What does the PES measure?

The PES produces accuracy estimates — that is, national net undercounts and net overcounts (called "coverage estimates" by the bureau) — for the following demographic characteristics: all major race groups and Hispanic origin (including American Indians living on reservations, off-reservations on tribal lands, and in all other settings), age cohorts, sex, and homeowners and renters. The PES also produces estimates of net undercounts and overcounts for each state.

The PES also produces accuracy estimates on components of the census count (known as "components of coverage"): omissions, duplications, and other incorrect counts and whole-person [imputations](#) (people counted using statistical methods because they did not respond through any other census method).

What do the first set of PES results tell us about the accuracy of the 2020 Census?

Population overcounts and undercounts:

[National PES results](#) released in March 2022 showed no net overcount or undercount for the nation's total population.¹ However, net undercount rates for several historically undercounted groups persisted or increased compared to the 2010 Census:

- The net undercount of Hispanics/Latinos tripled compared to 2010.
- The net undercount of people identifying as "Some Other Race" more than doubled.

¹US Census Bureau (2022). "Census Bureau Releases Estimates of Undercount and Overcount in the 2020 Census." <https://www.census.gov/newsroom/press-releases/2022/2020-census-estimates-of-undercount-and-overcount.html>. March 10, 2022.



- The undercount of young children (ages 0 - 4) got worse, as measured by both the PES and [Demographic Analysis](#) (considered more accurate for this age cohort).
- Net undercounts of Black or African Americans, American Indian or Alaska Natives living on reservations, and renters remained high (although there were no statistically significant differences from 2010).

On the other hand, PES results showed net overcounts for the Non-Hispanic White population and homeowners. Asian Americans were also overcounted for the first time, although without more detailed assessments for this highly diverse population, it is not possible to gauge the extent of likely undercounting for some Asian subgroups in different geographic areas.

Components of Coverage:

The PES estimates that of the 323.2 million people who were living in housing units on April 1, 2020, 94.4 percent were counted correctly, 2.2 percent were counted erroneously (duplications or other errors), and 3.4 percent required imputation of their census information. The PES also showed an estimated 18.8 million omissions in the 2020 Census (some of which may have been accounted for by whole-person imputations).

When will the Census Bureau release the next PES estimates?

May 19, 2022: PES results (net over- and undercount) for all 50 states and the District of Columbia (not broken down by demographic characteristics or geographic areas within states), along with confidence intervals (statistical significance defined as within the 90 percent confidence interval²). This release will also include undercount and overcount rates by census operation (for example, self-response modes and nonresponse follow-up modes).

Summer 2022: Remaining PES estimates, including results for housing units and net undercount and overcount rates for Puerto Rico

² Marra, Elisabeth and Kennel, Timothy. "Source and Accuracy of the 2020 Post-Enumeration Survey Person Estimates." 2020 Post-Enumeration Survey Methodology Report. <https://www2.census.gov/programs-surveys/decennial/coverage-measurement/pes/2020-source-and-accuracy-pes-estimates.pdf>. Issued March 2022.