Outline

1. Post-Enumeration Survey Overview
2. Update
3. COVID-19 Impacts
# Components of Census Coverage for the 2010 United States Household Population (in Thousands)

<table>
<thead>
<tr>
<th>Component of Census Coverage</th>
<th>Estimate</th>
<th>Standard Error</th>
<th>Percent</th>
<th>Standard Error</th>
</tr>
</thead>
<tbody>
<tr>
<td>Census Count</td>
<td>300,700</td>
<td>0</td>
<td>100.0</td>
<td></td>
</tr>
<tr>
<td>Correct enumerations</td>
<td>284,700</td>
<td>199</td>
<td>94.7</td>
<td>0.07</td>
</tr>
<tr>
<td>Erroneous enumerations</td>
<td>10,040</td>
<td>199</td>
<td>3.3</td>
<td>0.07</td>
</tr>
<tr>
<td>Due to duplication</td>
<td>8,521</td>
<td>194</td>
<td>2.8</td>
<td>0.06</td>
</tr>
<tr>
<td>For other reasons</td>
<td>1,520</td>
<td>45</td>
<td>0.5</td>
<td>0.01</td>
</tr>
<tr>
<td>Whole-Person Census Imputations</td>
<td>5,993</td>
<td>0</td>
<td>2.0</td>
<td>0</td>
</tr>
<tr>
<td>Estimate of Population</td>
<td>300,700</td>
<td>429</td>
<td>100.0</td>
<td></td>
</tr>
<tr>
<td>Correct enumerations</td>
<td>284,700</td>
<td>199</td>
<td>94.7</td>
<td>0.1</td>
</tr>
<tr>
<td>Omissions</td>
<td>16,000</td>
<td>440</td>
<td>5.3</td>
<td>0.1</td>
</tr>
<tr>
<td>Net Coverage Error</td>
<td>36</td>
<td>429</td>
<td>0.01</td>
<td>0.14</td>
</tr>
</tbody>
</table>
What is the Post-Enumeration Survey?

Goal

- Measure coverage of people and housing units in the decennial census
- Measure net coverage error and components of coverage

How are the data used?

- To assess the success of the current census
- To provide information to improve the coverage of future censuses

How is coverage estimated?

- Conduct a survey in sample blocks
- Match people in the PES independent survey with enumerations in the census to determine who was missed or counted in error

History

- Used in the United States census since 1950
Update
2020 PES Activities

Initial Housing Unit Operations
1. Select PES Basic Collection Units
2. PES Independent HU Listing
3. PES Initial HU Matching
4. PES Initial HU Followup

Person Operations
5. Identify PES Person Interview Sample
6. PES Person Interview
7. PES Person Matching
8. PES Person Followup
9. PES Person Estimation

Final Housing Unit Operations
10. PES Final HU Matching
11. PES Final HU Followup
12. PES HU and Person State Estimation

Sampling and Estimation - Pink
Field Operations - Yellow
Matching Operations - Blue
Sample Results

First sample (Basic Collection Units)

- Selected 9,800 Basic Collection Units in 50 states and District of Columbia
- Selected 400 Basic Collection Units in Puerto Rico

After subsampling (expected)

- 180,000 housing units in 50 states and District of Columbia
- 8,000 housing units in Puerto Rico
Independent Listing Results

PES listing
• 510,000 housing units in 50 states and District of Columbia
• 18,000 housing units in Puerto Rico

• Using automated instrument improved standardization of addresses and computer matching of addresses
COVID-19 Impacts
Revised field milestone schedule

<table>
<thead>
<tr>
<th>Operation</th>
<th>Original Dates</th>
<th></th>
<th>New Dates</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Start</td>
<td>Finish</td>
<td>Start</td>
<td>Finish</td>
</tr>
<tr>
<td>Independent Listing</td>
<td>1/16/2020</td>
<td>3/13/2020</td>
<td>1/16/2020</td>
<td>3/20/2020</td>
</tr>
<tr>
<td>Initial HU Followup</td>
<td>5/6/2020</td>
<td>6/19/2020</td>
<td>7/30/2020</td>
<td>9/21/2020</td>
</tr>
</tbody>
</table>

Operations in **blue** are complete.
Impact of delays on field interviews

Increased recall error. People misreport where they were living on Census Day.

Item nonresponse. People don’t remember where they were living on Census Day, so they give incomplete information. Or, they leave some people off of the Census Day roster. Or they don’t report all of the addresses where the household could have been counted on Census Day. Delays result in more movers without knowledge of the Census Day household.

Unit nonresponse. Fewer people respond to the Person Interview because impact of Census campaigns diminishes and because people don’t want to open their doors to talk to a stranger during a pandemic.
PES Changes

- Continuing to focus on quality
- Modifying PES field procedures to promote social distancing
- Providing event history calendars to field operations
- Adding year reference to all Person Followup questions with dates
- Adding additional review of PES data and tabulations
- Adding a source and accuracy statement to PES reports in addition to methodological reports and assessments
Schedule to Release Reports and Tables

November 2021
- National demographic estimates of net coverage of people
- National demographic estimates of components of coverage for people
- Tables can be downloaded on Census Bureau website

February 2022
- State estimates for people
- More detailed national estimates for people
- All housing unit coverage estimates
QUESTIONS?
Backup Slides
# How PES Estimates are Created

<table>
<thead>
<tr>
<th>Enumerated in PES?</th>
<th>YES</th>
<th>NO</th>
</tr>
</thead>
</table>
| Enumerated in Census? | YES | **Found in Both** | **Missing in PES**
| | NO | **Missing in Census** | **Found in Census** |
| | | **Missing in Census** | **Found in PES** |
| | | | **Missing in Both** |