2020 Census Post-Enumeration Survey in Puerto Rico

The data in this presentation have been cleared for release.
DRB Numbers: CBDRB-FY21-DSSD007-0006, CBDRB-FY22-350 and CBDRB-FY22-351.

Outline

1. Introduction to the Post-Enumeration Survey

2. Census Coverage of People in Puerto Rico

3. Census Coverage of Housing Units in Puerto Rico

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2020 Post-Enumeration Survey

Introduction to the Post-Enumeration Survey

September 2022

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What is the PES?

Goal

- To measure coverage of people and housing units in the decennial census

- To measure net coverage error and components of coverage

- No intent to adjust the census counts

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 10,000 sample blocks—independently of the census

- Match people in the PES independent survey to enumerations in the census to determine who was missed or counted in error

Estimated Net Coverage Error Rate
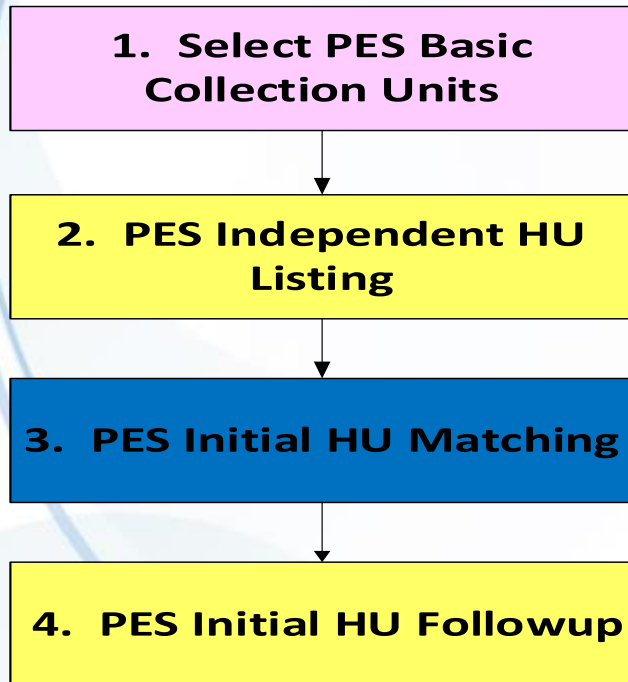
Estimated Net Coverage Error   =

(Census Count – PES Estimate) / PES Estimate * 100

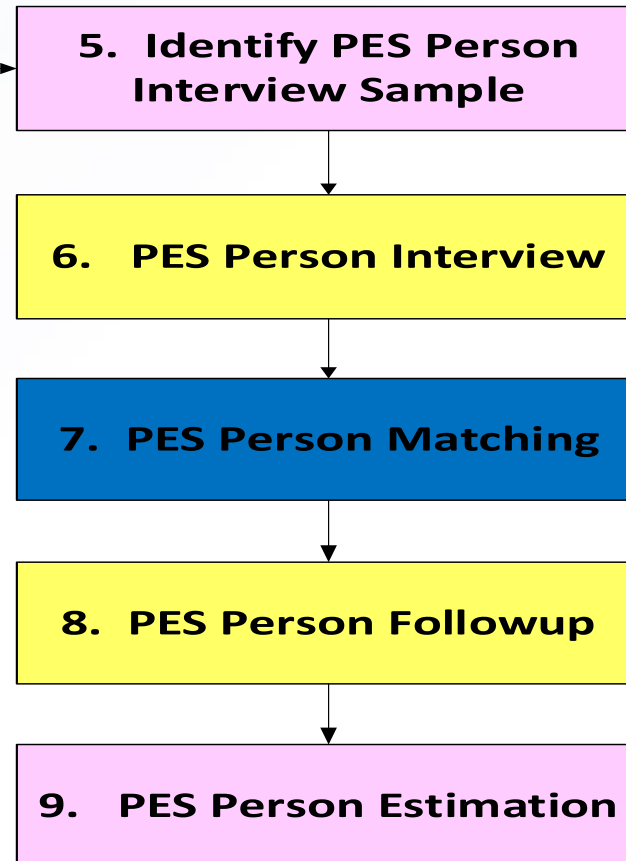- The PES estimates are treated as the benchmark when estimating net coverage error.

2020 PES Activities

Sampling and Estimation - `Pink`
Field Operations - `Yellow`
Matching Operations - `Blue`

Initial Housing Unit Operations

Person Operations

Final Housing Unit Operations

Initial Housing Unit Operations	Person Operations	Final Housing Unit Operations
1. Select PES Basic Collection Units	5. Identify PES Person Interview Sample	10. PES Final HU Matching
2. PES Independent HU Listing	6. PES Person Interview	11. PES Final HU Followup
3. PES Initial HU Matching	7. PES Person Matching	12. PES HU and Person State Estimation
4. PES Initial HU Followup	8. PES Person Followup	
	9. PES Person Estimation	

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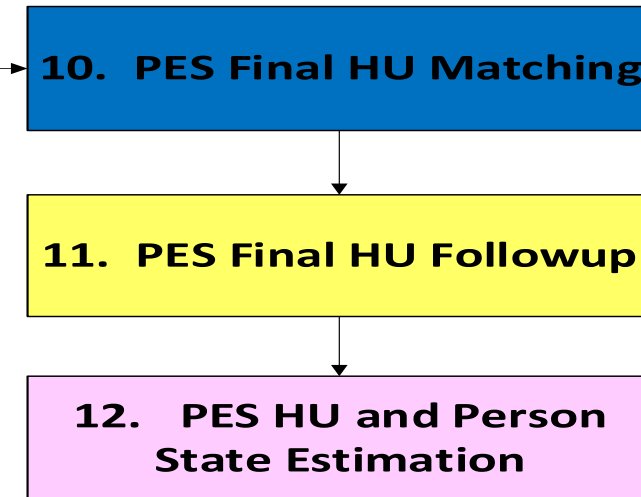
Revised Field Milestone Schedule

Operation	Actual Dates	
	Start	Finish
Independent Listing	1/16/2020	3/20/2020
Initial HU Followup	7/30/2020	9/21/2020
Person Interview	9/23/2020	12/18/2020
Person Followup	6/14/2021	9/17/2021
Final HU Followup	12/06/2021	3/17/2022

Dates include reinterview.

Sample Results in Puerto Rico

Initial Sample

- **Selected 400 Basic Collection Units in Puerto Rico**
- **Listed 18,000 housing units in Puerto Rico**

After subsampling

- **7,100 housing units in Puerto Rico**
  - **5,100 occupied housing units in Puerto Rico**
    - **4,500 interviews**
    - **600 noninterviews**

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Census Coverage of **People** in **Puerto Rico**

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Highlights of 2020 Census Coverage of People in Puerto Rico

- The PES estimated that the 2020 Census **overcounted** the population of Puerto Rico by 174,000. This represents a net coverage error rate of 5.7 percent.

- The PES estimated that the 2020 Census **overcounted** the number of people in **owned** housing units in Puerto Rico.

- The PES estimated statistically significant **overcounts** in Puerto Rico for people **aged 30 years and older**.

- The estimated rate of erroneous person enumerations was 9.8 percent.

Note: More graphs and tables can be found in the PES report.

Puerto Rico Person Coverage Results: Components of Coverage

Component of Census Coverage	Estimate	Standard Error	Percent	Standard Error
Census Count	3,248,000	X	100.0	X
Correct enumerations	2,858,000	18,000	88.0	0.6
Erroneous enumerations	319,000	18,000	9.8	0.6
Due to duplication	294,000	18,000	9.1	0.5
For other reasons	25,000	4,000	0.8	0.1
Whole-Person Census Imputations	71,000	X	2.2	X
Estimate of Housing from the PES	3,075,000	45,000	100.0	X
Correct enumerations	2,858,000	18,000	92.9	1.3
Omissions	217,000	44,000	7.1	1.3
Net Coverage Error	174,000	45,000	5.7	1.5

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Puerto Rico Person Coverage Results: Net Coverage Error by Tenure

Owner* — 8.6%

Renter — -1.0%

-15%   -10%   -5%   0%   5%   10%   15%

*Net coverage error is statistically significantly different from 0.

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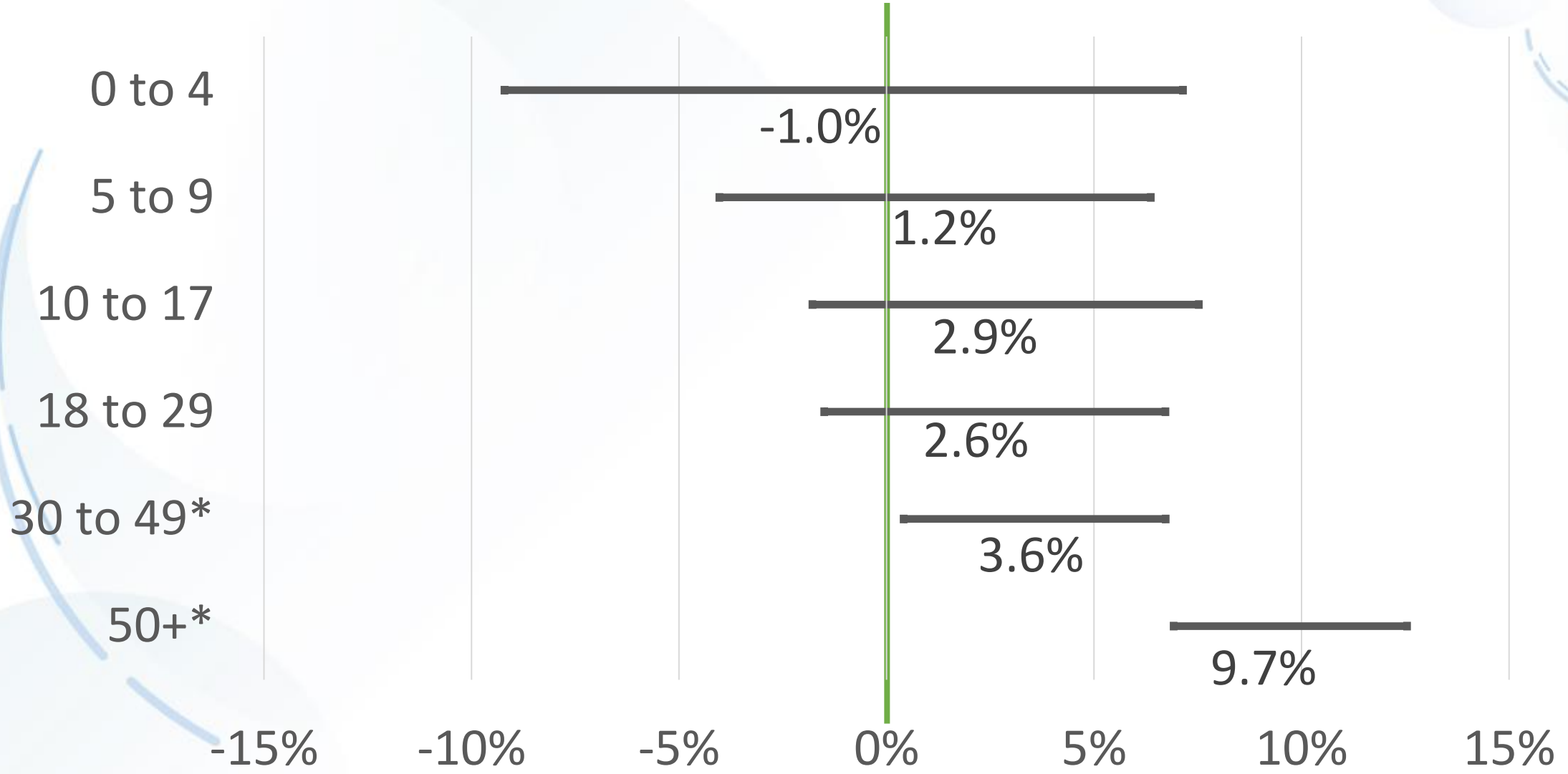
Age Group	Net Coverage Error
0 to 4	-1.0%
5 to 9	1.2%
10 to 17	2.9%
18 to 29	2.6%
30 to 49*	3.6%
50+*	9.7%

*Net coverage error is statistically significantly different from 0.

Census Coverage of **Housing Units** in **Puerto Rico**

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2020 Census Housing Unit Coverage Highlights in Puerto Rico

- **The PES estimated that the 2020 Census housing unit count in Puerto Rico did not have a statistically significant net coverage error.**

Note: More graphs and tables can be found in the PES report.

Puerto Rico Housing Unit Coverage Results

Component of Census Coverage	Estimate	Standard Error	Percent	Standard Error
Census Count	1,598,000	X	100.0	X
Correct enumerations	1,476,000	12,000	92.4	0.8
Erroneous enumerations	122,000	12,000	7.6	0.8
Due to duplication	77,000	11,000	4.8	0.7
For other reasons	45,000	5,000	2.8	0.3
Estimate of Housing from the PES	1,631,000	30,000	100.0	X
Correct enumerations	1,476,000	12,000	92.4	1.5
Omissions	155,000	28,000	9.5	1.5
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Puerto Rico Housing Unit Coverage Results: Percent Net Coverage Error by Occupancy

Occupied Unit
-1.3%

Vacant Unit*
-5.8%

-15%   -10%   -5%   0%   5%   10%   15%

*Net coverage error is statistically significantly different from 0.

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Highlights of the third PES release

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Questions