

Using a Demographic Frame to Enhance the American Community Survey

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The American Community Survey

The Foundation

The American Community Survey is on the leading edge of survey design, continuous improvement, and data quality

- The nation's most current, reliable, and accessible data source for local statistics on critical planning topics such as age, children, veterans, commuting, education, income, and employment
- Surveys **3.5 million** addresses and helps inform the distribution of hundreds of billions in federal funds each year
- Covers **40+ topics**, supports over **300** evidence-based federal government uses
- Three key annual data releases:
 - 1-year Estimates (for large populations, geographies of 65,000+ population)
 - 1-year Supplemental Estimates (for small populations, geographies of 20,000+ population)
 - 5-year Estimates (for very small populations, geographies down to Census Tracts and Block Groups)


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 United States[®]
Census
Bureau


The American Community Survey

Start Here


You have two ways to respond:

 Respond online today at:
<https://respond.census.gov/acs>

OR

 Complete this form and mail it back as soon as possible.

Your response is required by law.
The American Community Survey is conducted by the U.S. Census Bureau. This survey is one of only a few surveys for which all recipients are required by law to respond. The U.S. Census Bureau is required by law to protect your information.

 **If you need help or have questions about completing this form, please call 1-800-354-7271.**

Text Telephone (TTY):
Call 1-800-582-8330.

¿NECESITA AYUDA? Llame sin cargo alguno al 1-877-833-5625.

For more information about the American Community Survey, visit our website at:
<https://www.census.gov/acs>

Please print the name and telephone number of the person who is filling out this form. We will only contact you if needed for official Census Bureau business.

Last Name

First Name MI

Area Code + Number -

How many people are living or staying at this address?


- **INCLUDE** everyone who is living or staying here for more than 2 months.
- **INCLUDE** yourself if you are living here for more than 2 months.
- **INCLUDE** anyone else staying here who does not have another place to stay, even if they are here for 2 months or less.
- **DO NOT INCLUDE** anyone who is living somewhere else for more than 2 months, such as a college student living away or someone in the Armed Forces on deployment.

Number of people

Fill out pages 2 – 7 for everyone, including yourself, who is living or staying at this address for more than 2 months. Then complete the rest of the form.

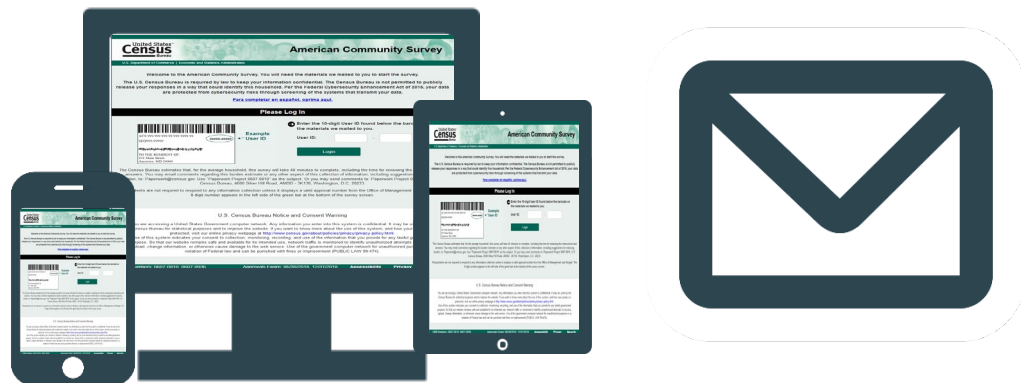
FORM **ACS-1(2023)**
09-16-2023

OMB No. 0607-0810
OMB No. 0607-0836



The American Community Survey Data Collection Process

SELF-RESPONSE



NONRESPONSE FOLLOWUP



The American Community Survey

Why is the ACS Important?

POPULATION		HOUSING
SOCIAL Ancestry Citizenship Citizen Voting Age Population Disability Educational Attainment Fertility Grandparents Language Marital Status Migration School Enrollment Veterans	DEMOGRAPHIC Age Hispanic Origin Race Relationship Sex ECONOMIC Class of Worker Commuting Employment Status Food Stamps (SNAP) Health Insurance Hours/Week, Weeks/Year Income Industry & Occupation	Computer & Internet Use Costs (Mortgage, Rent, Taxes, Insurance) Heating Fuel Home Value Occupancy Plumbing/Kitchen Facilities Structure Tenure (Own/Rent) Utilities Vehicles Year Built/Year Moved In

American Community Survey

A Benchmark for the Nation and Its Communities

Decennial Census

- Purpose
 - Enumeration of Every Person
- Collected
 - Every 10 years
- Produces
 - Population, demographic, and housing counts
- Used for:
 - Congressional Apportionment and Redistricting

ACS

- Purpose
 - Sample Estimates
- Collected
 - Continuously / Released Yearly
- Produces
 - Detailed social, economic, and housing estimates
- Used for:
 - Federal Funding

Demographic Frame

A Benchmark for Benchmarks

- The Demographic Frame provides the opportunity to:
 - Compare counts of people in ACS publication areas and provides demographics.
 - Compare household counts by demographics to better understand households that are in sample.
 - Analyze individual characteristics to better understand the individuals in our sample.

ACS Versus Demographic Frame

What is “Truth”?

- ACS ≠ Absolute Truth
- Demographic Frame ≠ Absolute Truth
- Some examples of this:
 - Children
 - Housing Records
 - Program Participants

*Trust those who seek
truth, but doubt those
who say they have
found it.*

-Andre Gide

Demographic Frame Allow ACS to Monitor the Quality of Returns

Do Household Counts Match Between ACS and Frame?

- Why is this important?
 - Understanding how many people the ACS and Frame count at a housing unit may help ACS with possible quick quality checks.
 - Even if results aren't perfect, the overall results allow us to understand data quality issues and concerns.

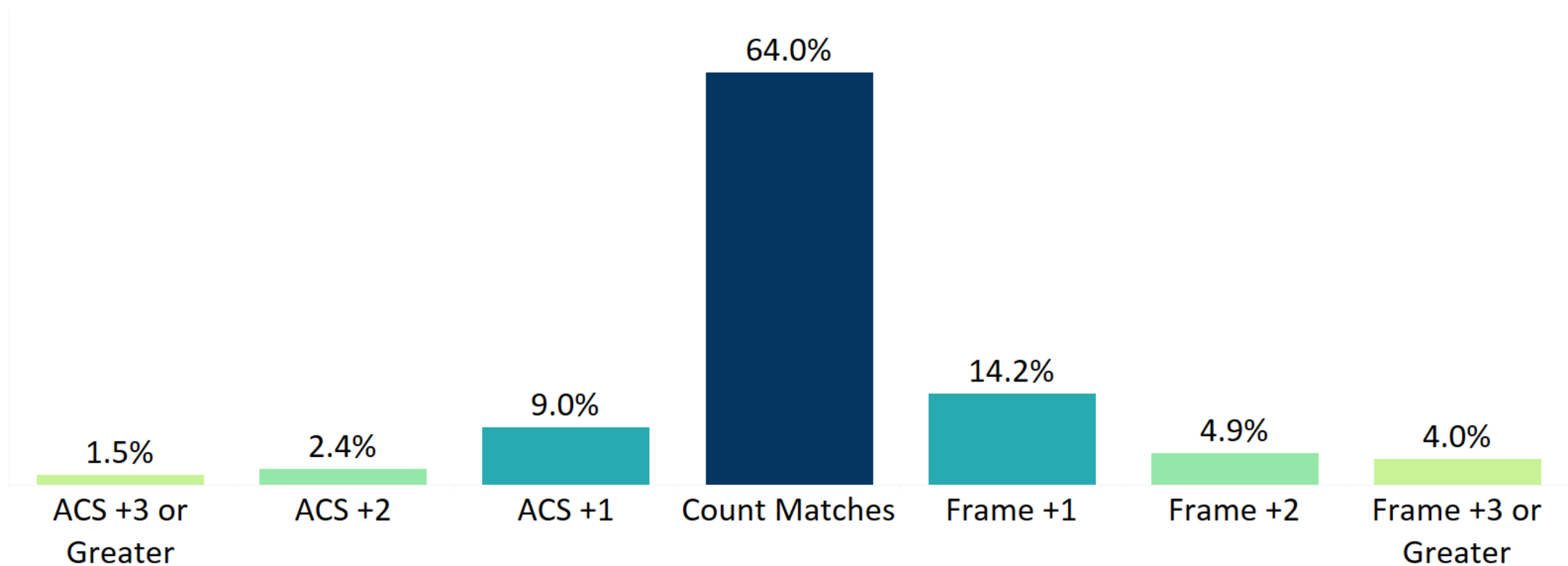
Demographic Frame Allow ACS to Monitor the Quality of Returns

Do Household Counts Match Between ACS and Frame?

- What caveats do we need to be aware of?
 - Person/Place Model uses April 1st, 2020 as a reference date.
 - ACS response takes place over the course of the year
 - Ongoing evaluation of the model
 - Sub-setting only for housing units in the ACS and Frame that appear to be occupied.

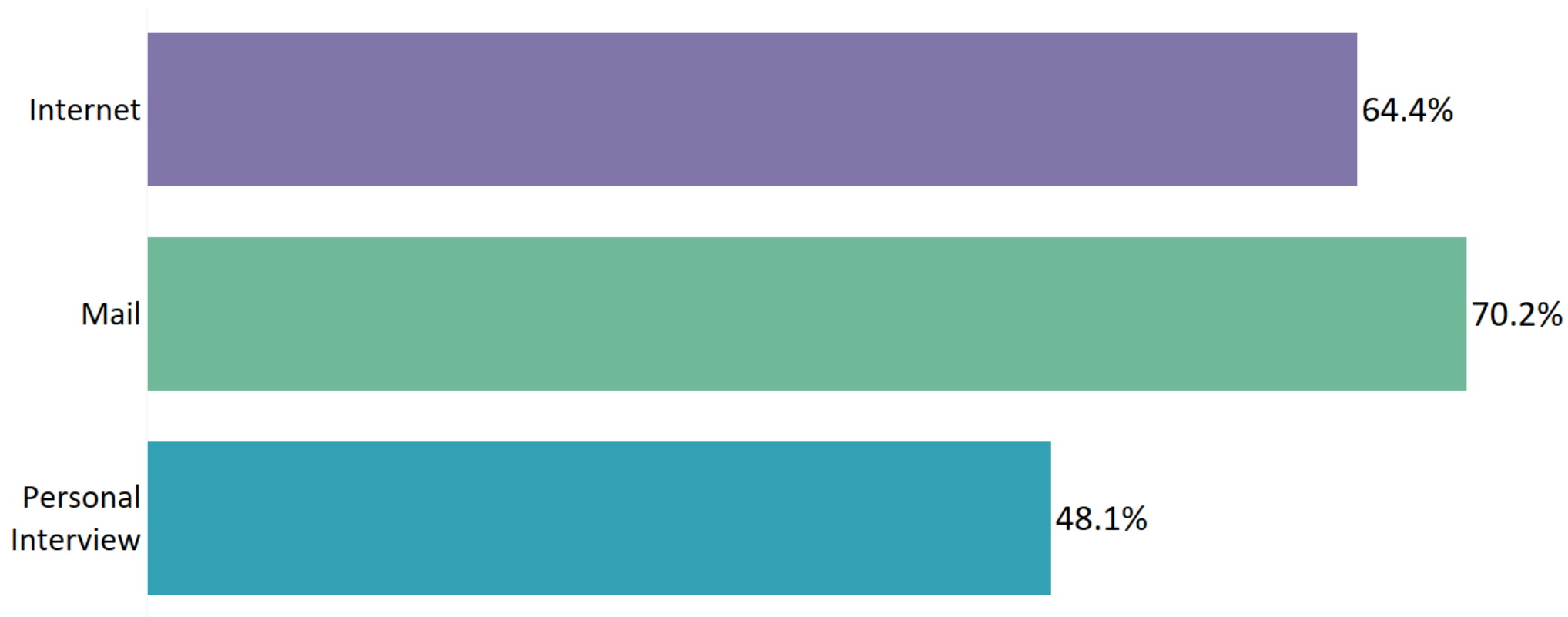
Demographic Frame Allow ACS to Monitor the Quality of Returns

Do Household Counts Match Between ACS and Frame?



Demographic Frame Allow ACS to Monitor the Quality of Returns

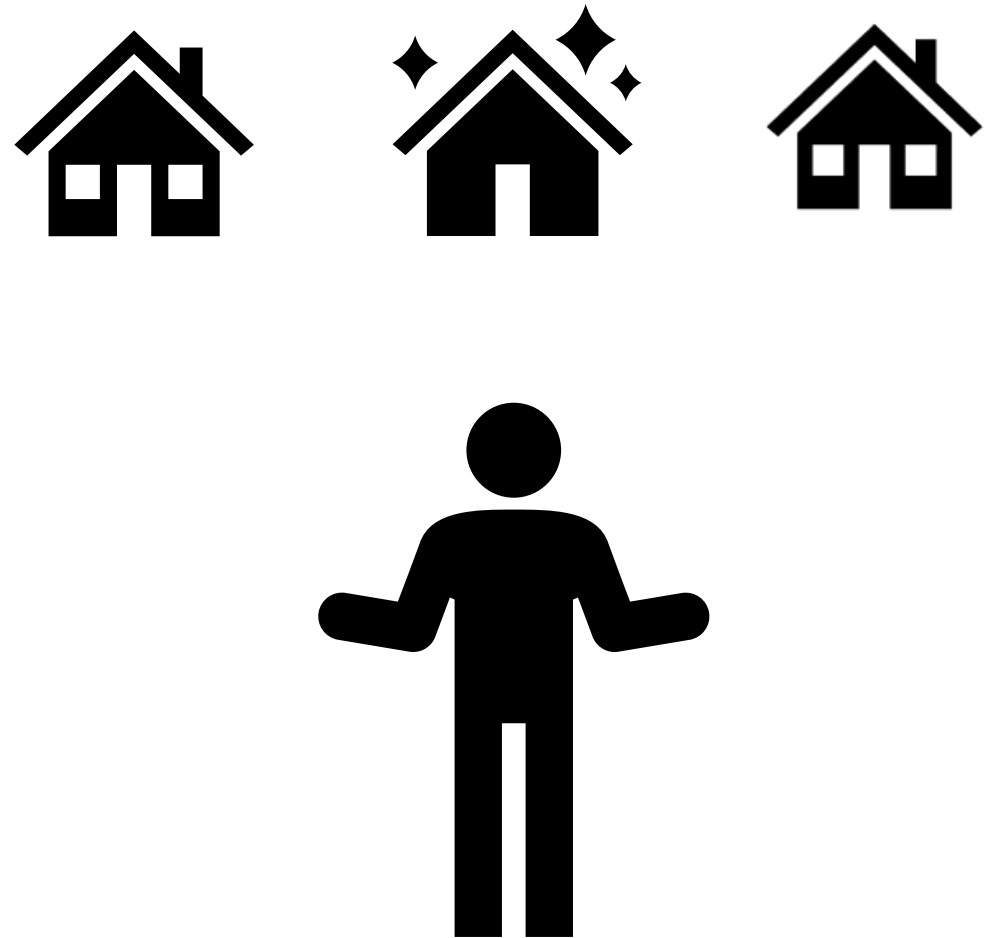
Do Household Counts Match Between ACS and Frame?



Demographic Frame Allow ACS to Perform Checks on Respondent Data

Does Person Location Match Between ACS and Demographic Frame?

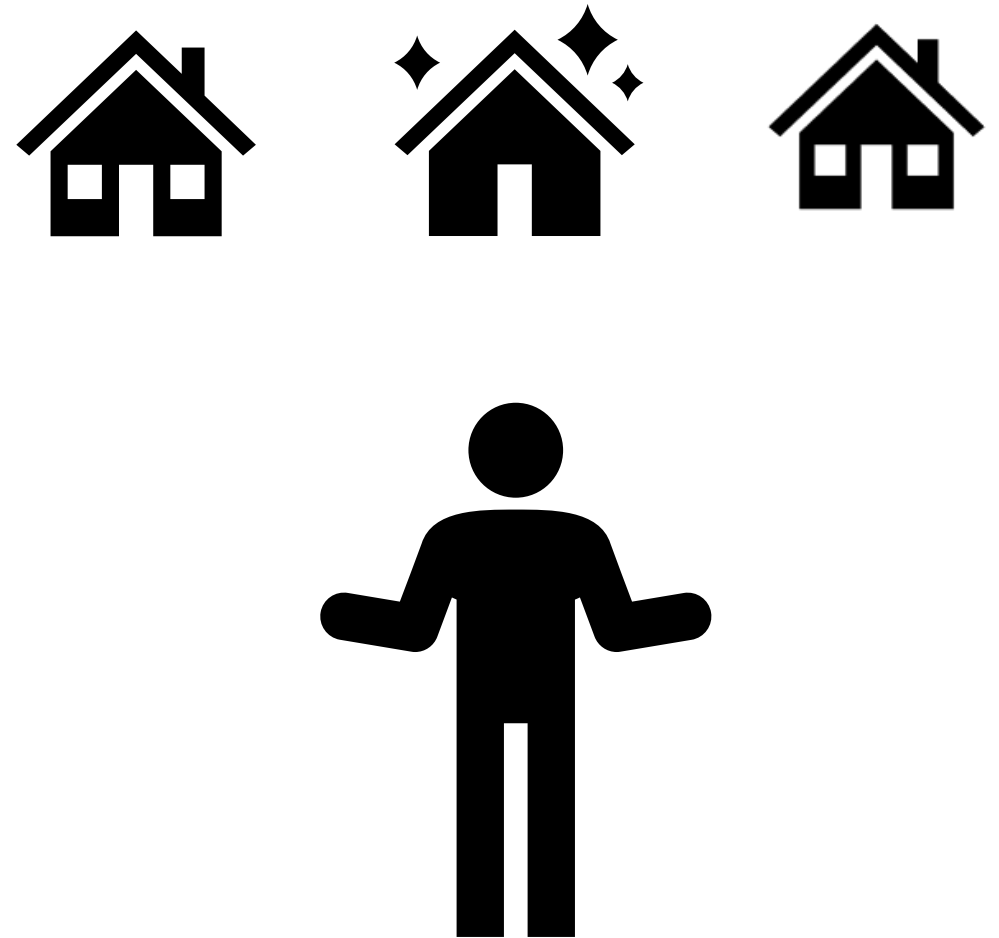
- Why is this important?
 - Understanding how often people are at the same address in ACS and Frame.
 - It also helps us to understand how often the ACS would like to see updates to the person/place model.



Demographic Frame Allow ACS to Perform Checks on Respondent Data

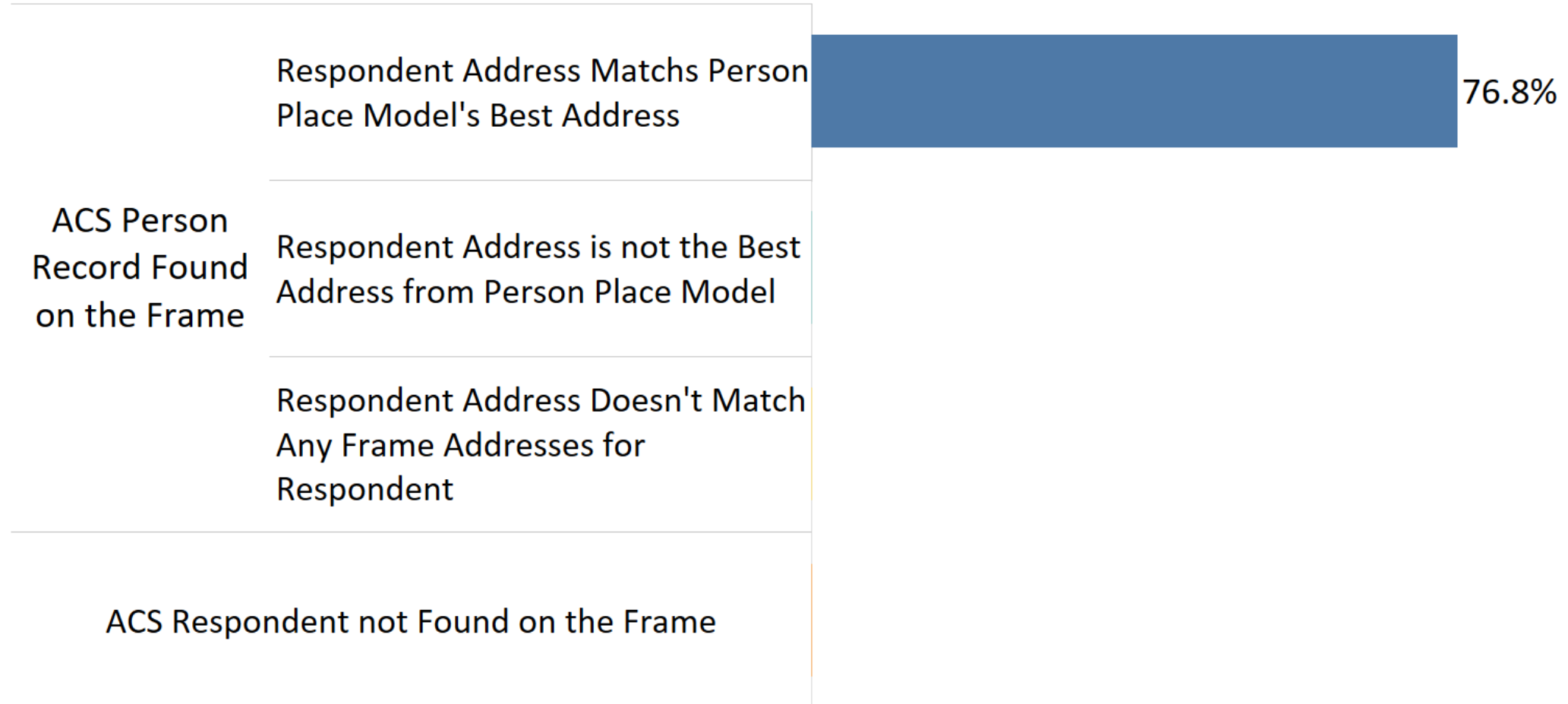
Does Person Location Match Between ACS and Demographic Frame?

- What caveats do we need to be aware of?
 - Person/Place Model uses April 1st, 2020 as a reference date
 - ~5% of person records could not be linked to the administrative record crosswalk



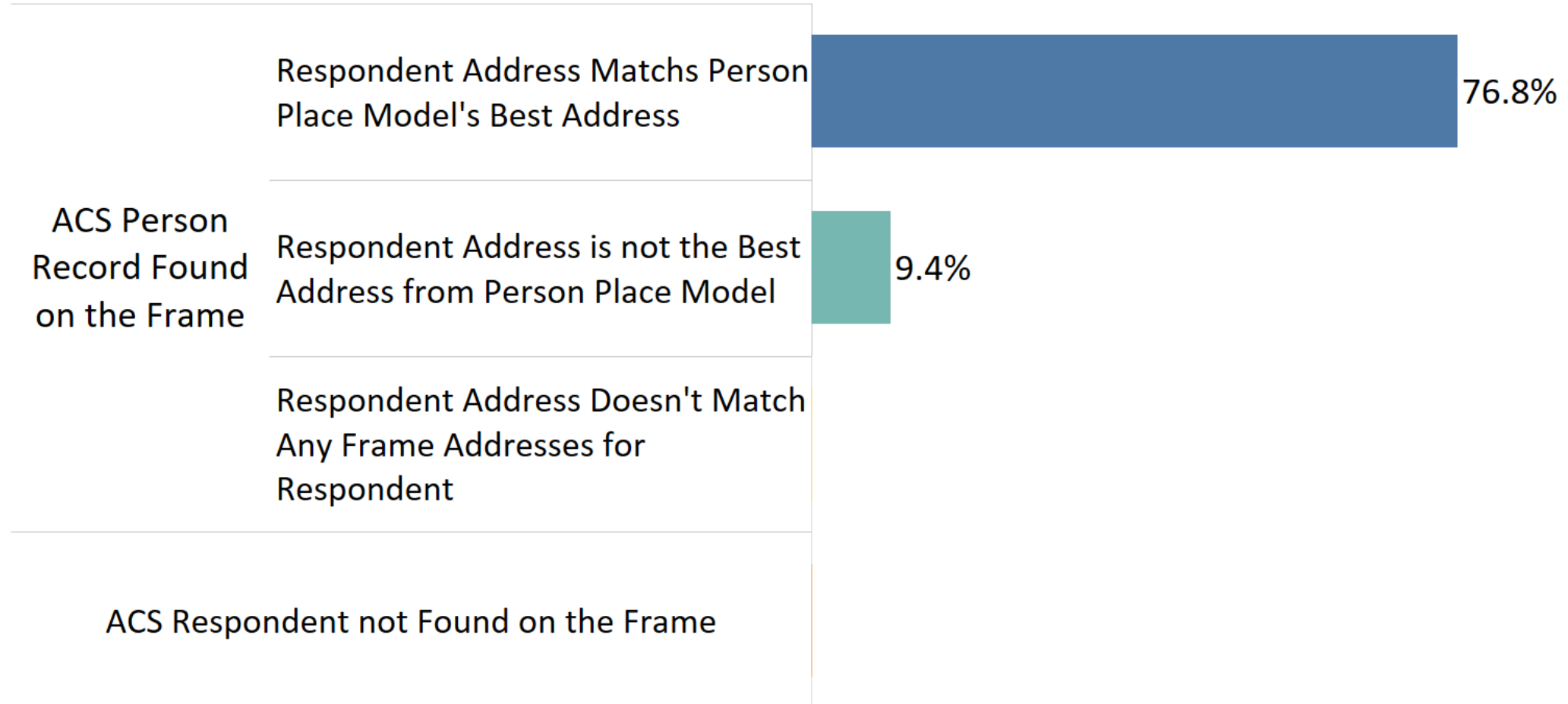
Demographic Frame Allow ACS to Perform Checks on Respondent Data

Does Person Location Match Between 2019 ACS and Demographic Frame?



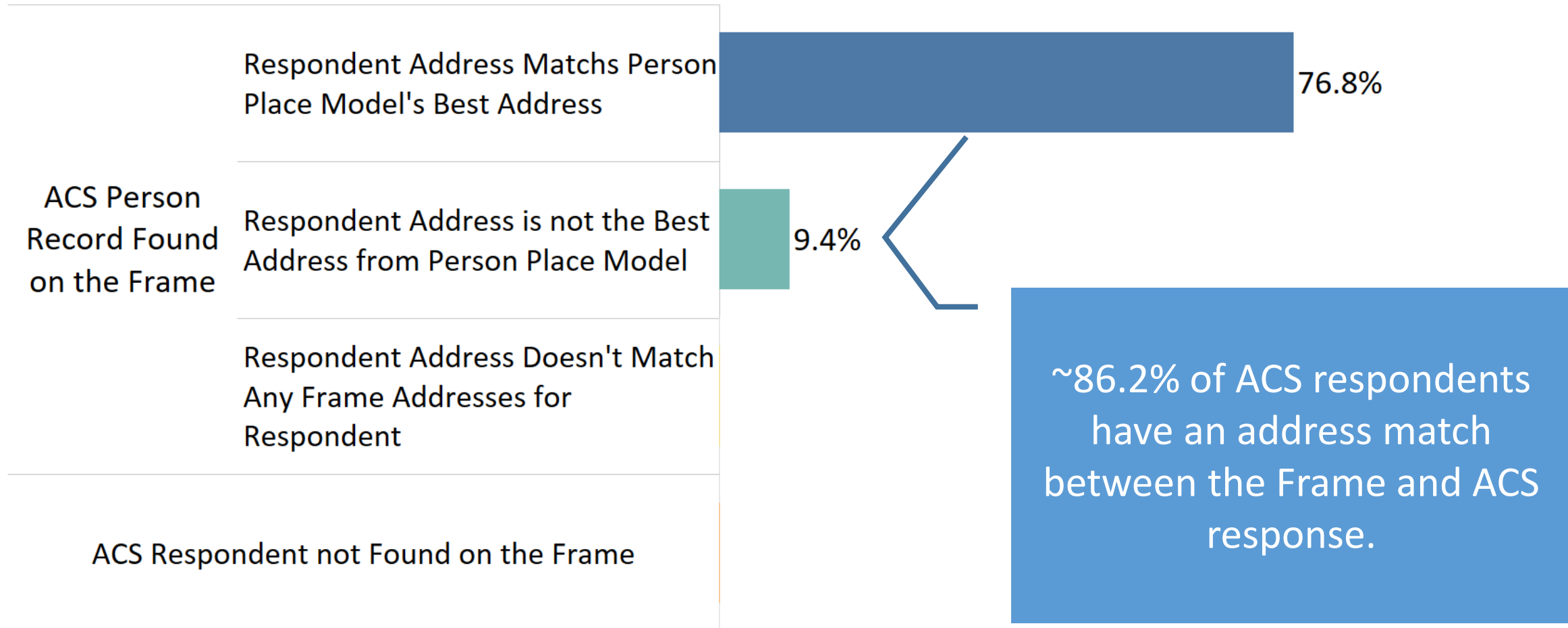
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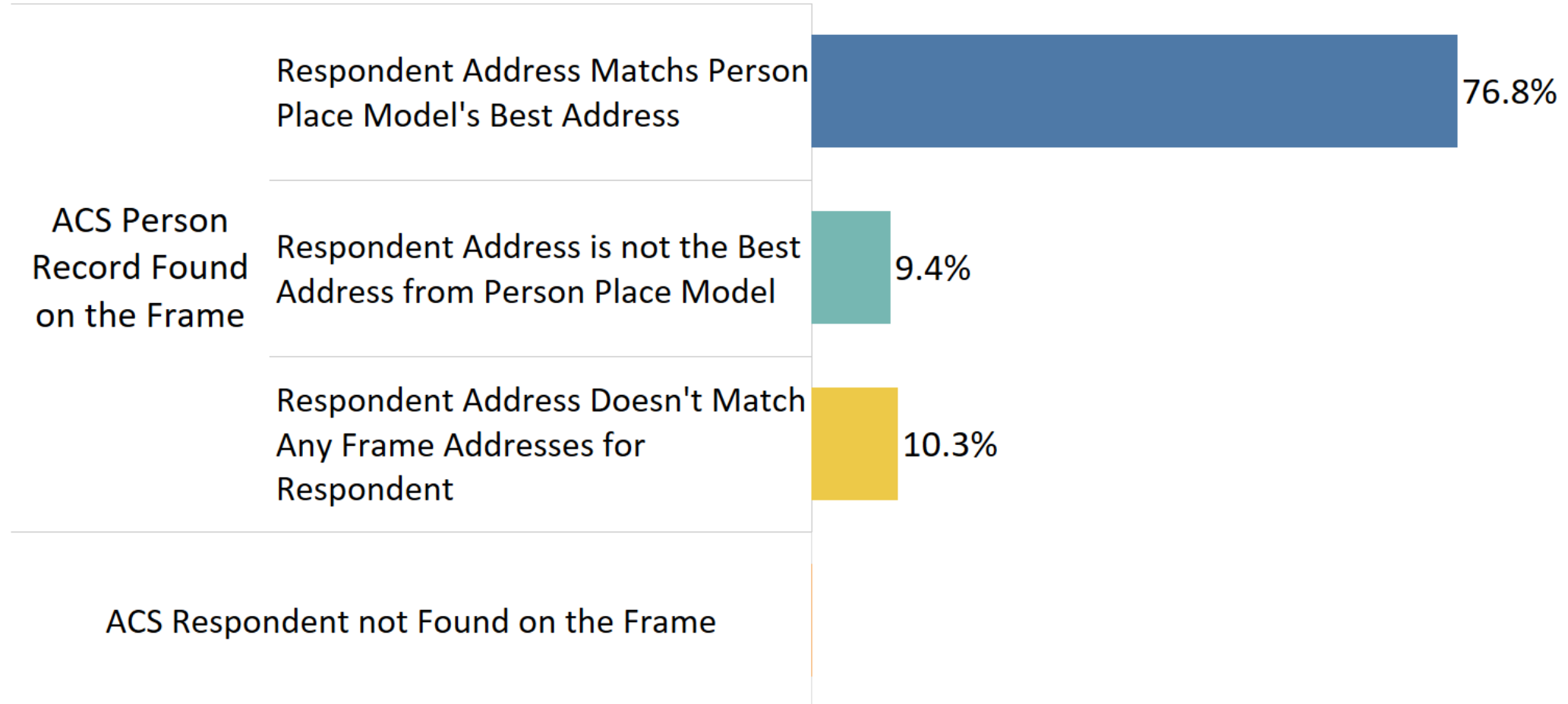
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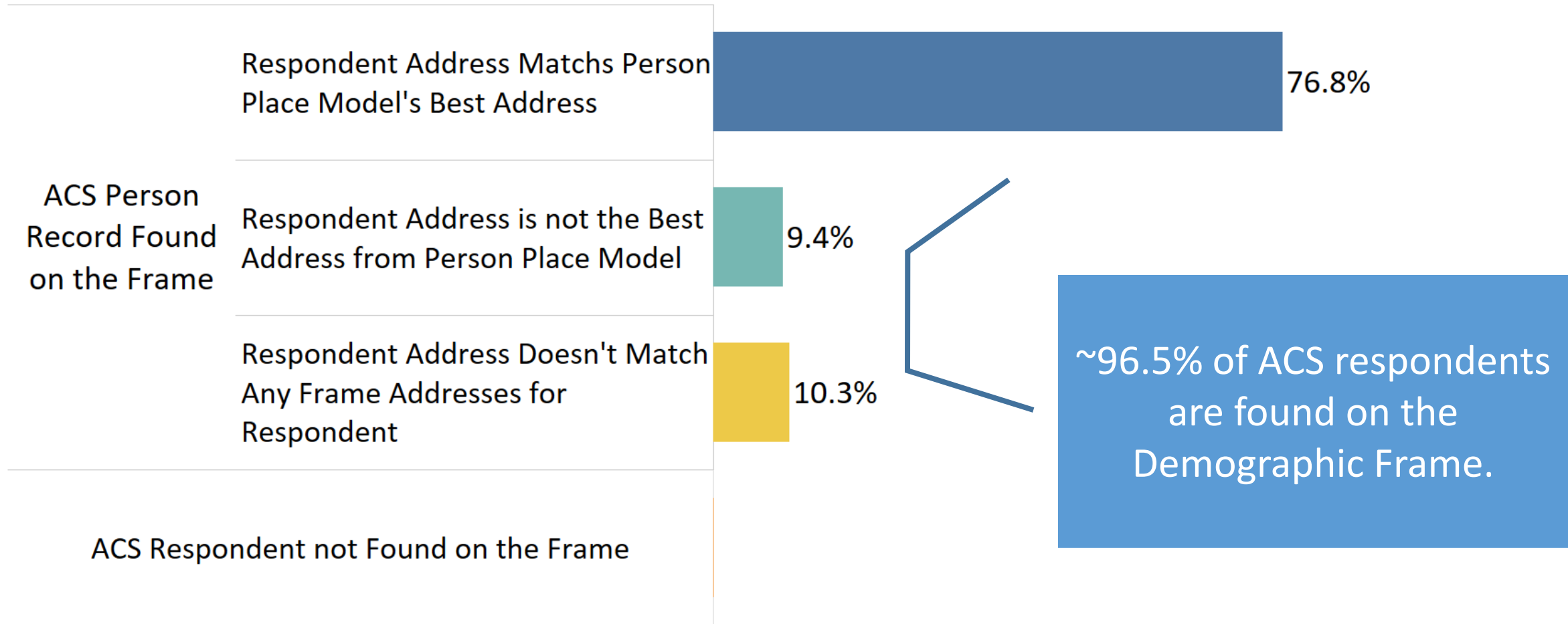
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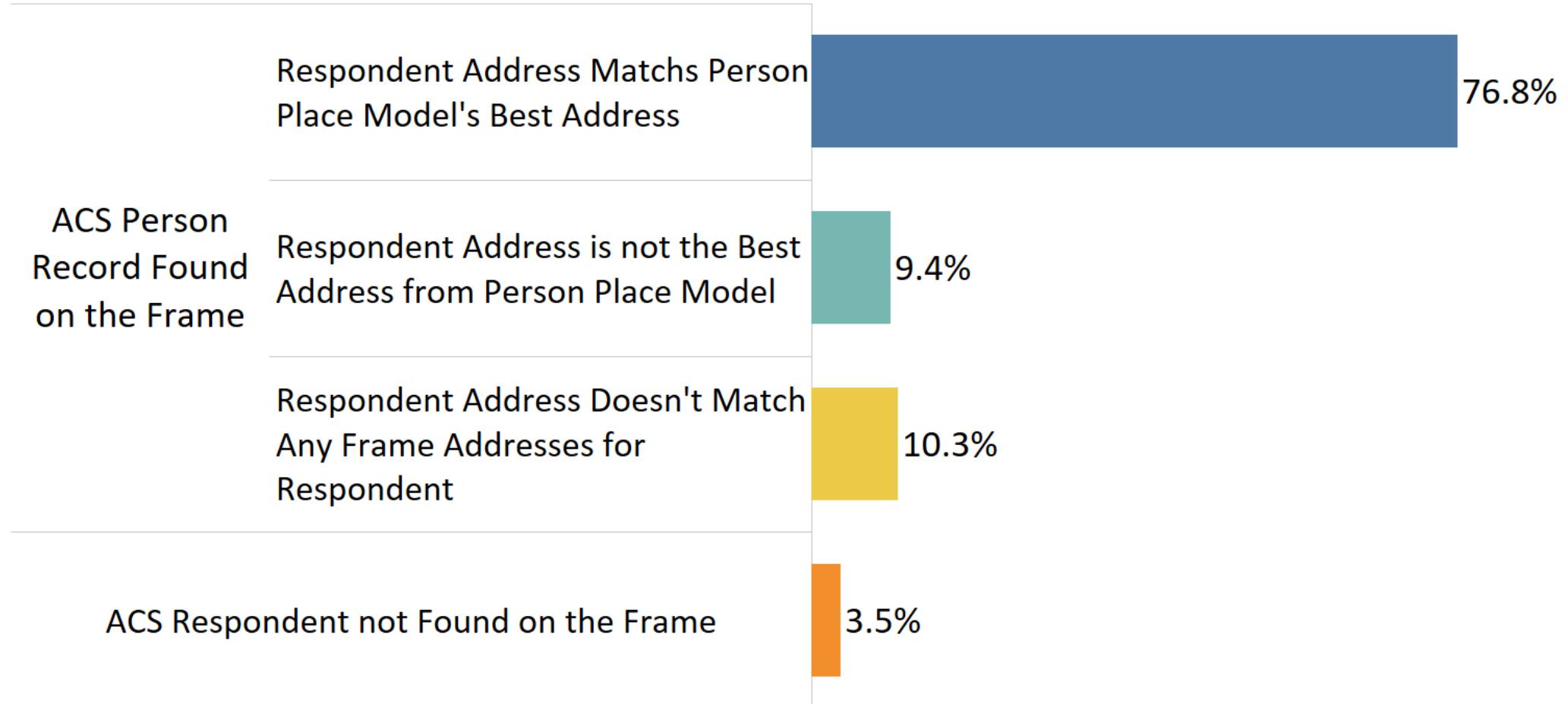
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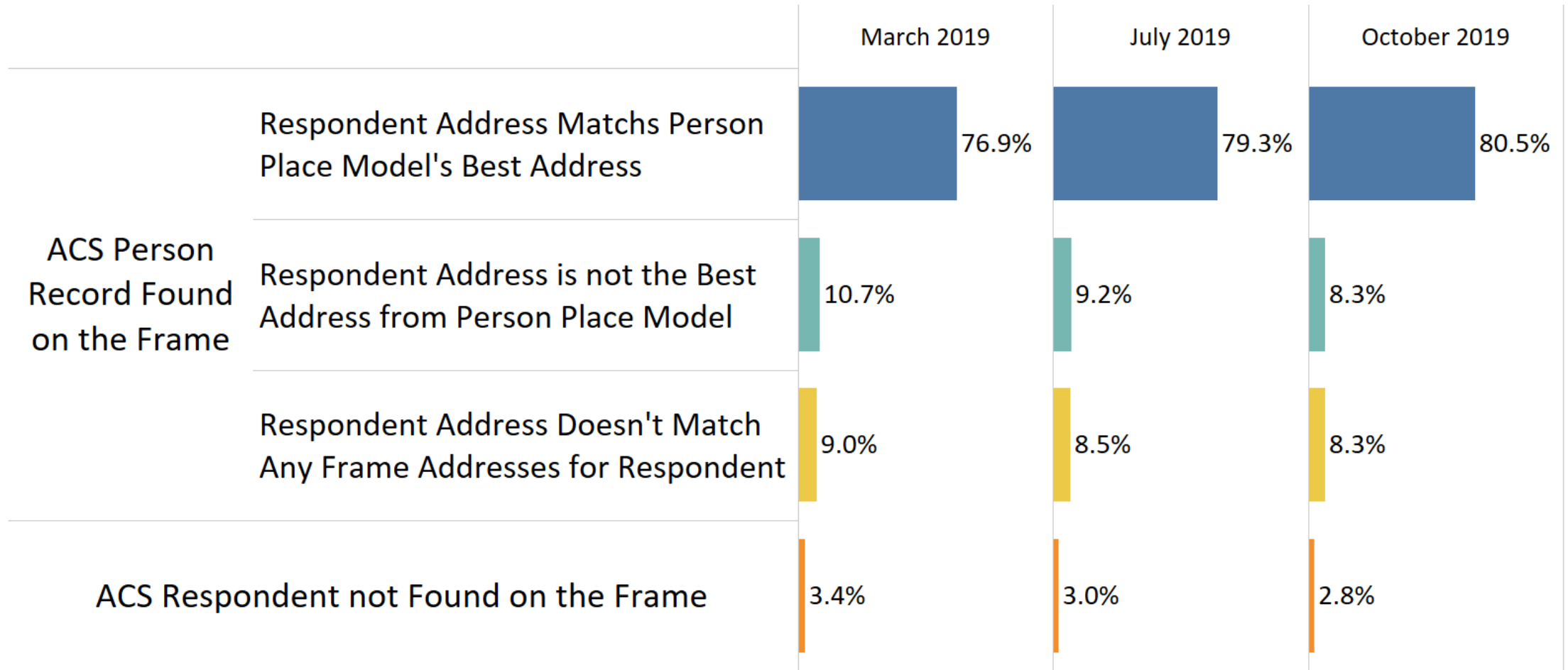
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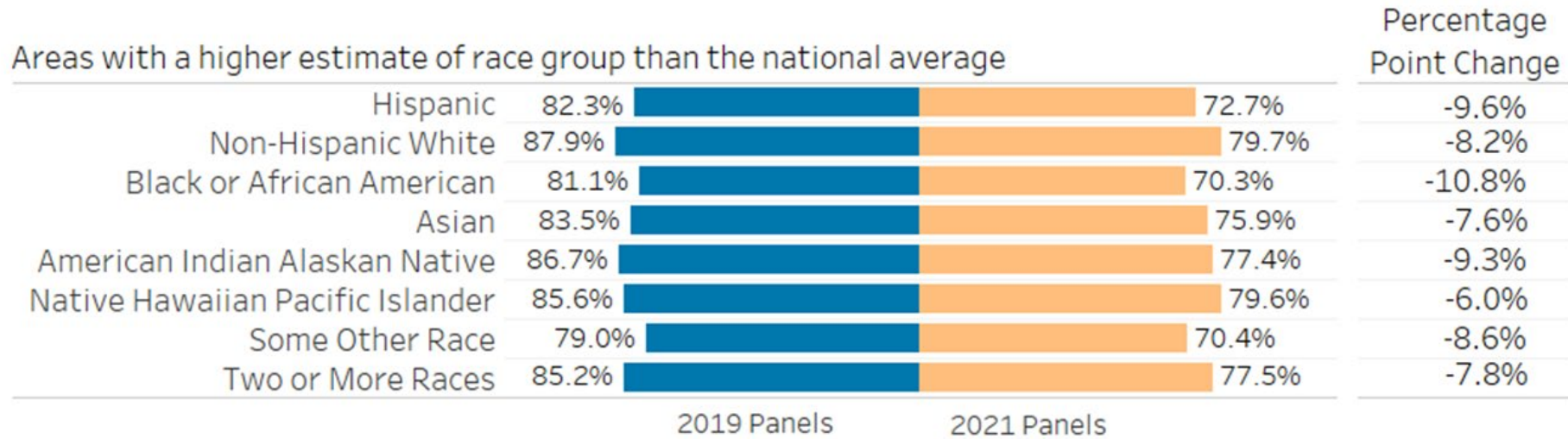
Does Person Location Match Between 2019 ACS and Demographic Frame?



Demographic Frame Allow ACS to Perform Checks on Respondent Data

Does Person Location Match Between 2019 ACS and Demographic Frame by Data Collection Panel for Occupied Households?





Demographic Frame Allow ACS to Analyze Response Patterns

Response Rates by Demographics

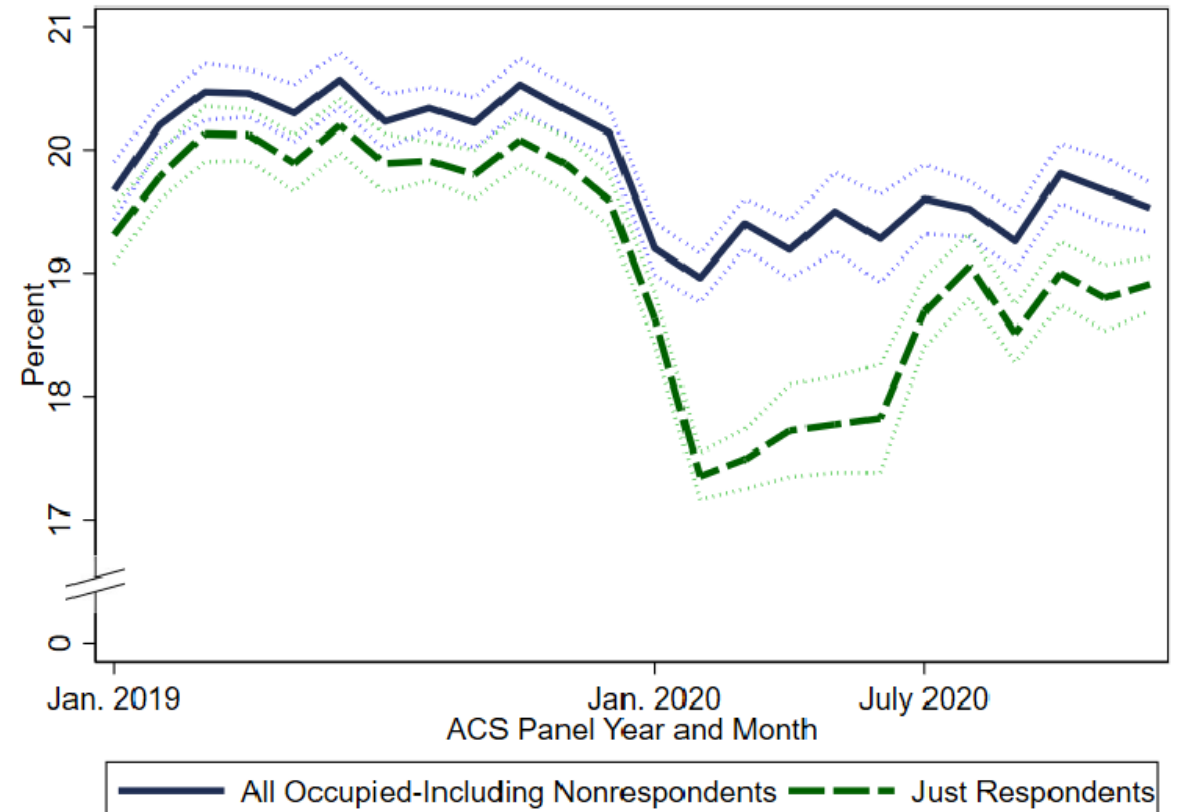
- The American Community Survey Office often receives requests for response rates by demographic characteristics.
- Such tabulations have not been possible in the past, but area statistics have been used as a proxy.
- The Demographic Frame may allow us to fulfill this request in the future.

Demographic Frame Allow ACS to Analyze Response Patterns

Non-response Bias Analysis

- As response rates have decreased, monitoring non-response bias has become more important.
- Analysis completed during the pandemic showed that non-response bias was prevalent in the 2020 ACS 1-year estimates
- The Demographic Frame provides the opportunity to access some of this data from one already standardized source.

Figure 7: Nonresponse Analysis of Presence of Household Member Aged Under 10 Years



Using a Demographic Frame to Potentially Enhance the ACS

Where do we go from here?

Quality Assurance

- Work to understand difference with household counts and response modes
 - Is it the mode or characteristics of respondents?
- Look into household indicators for us to monitor
 - Household count discrepancies
 - Children in household

Explore Uses in ACS Production

- Updates to reference date on the Frame for ACS Production
- Use in Demographic Frame for ACS edits and imputation
- ACS feeds information to the Demographic Frame

The American Community Survey

Continue the Conversation

Website

census.gov/acs

ACS User Support

acso.users.support@census.gov

Census Customer Service Center

800-923-8282

Email Alerts

<https://public.govdelivery.com/accounts/USCENSUS/signup/12426>

Social Media

@uscensusbureau
#ACSdata

Source Us

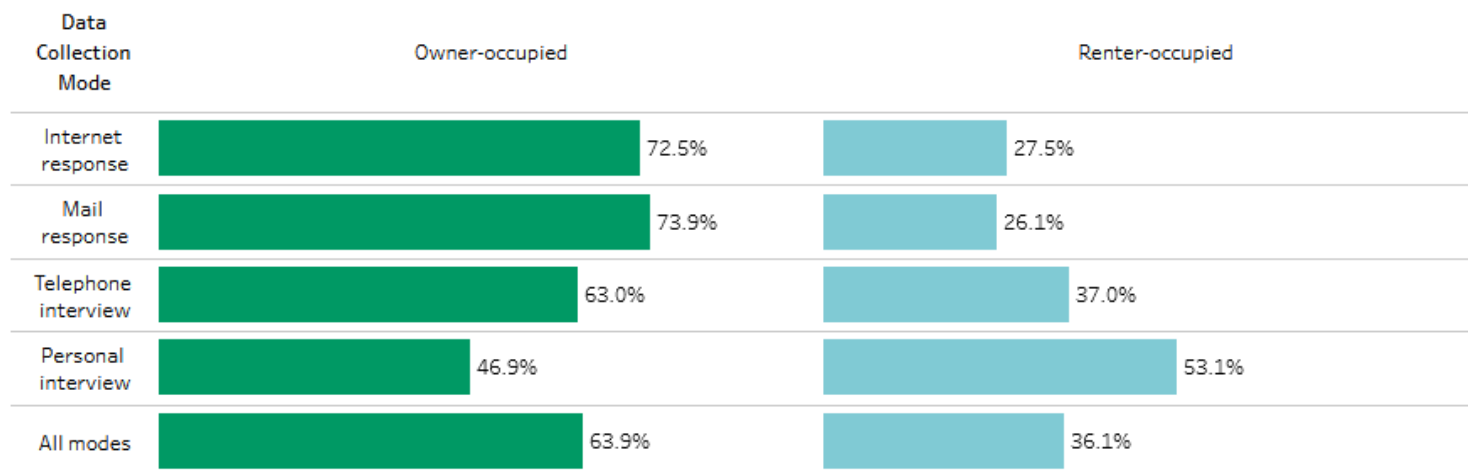
U.S. Census Bureau, [YYYY – YYYY] American Community Survey
[1/5]-year [estimates/statistics/data release]

Appendix

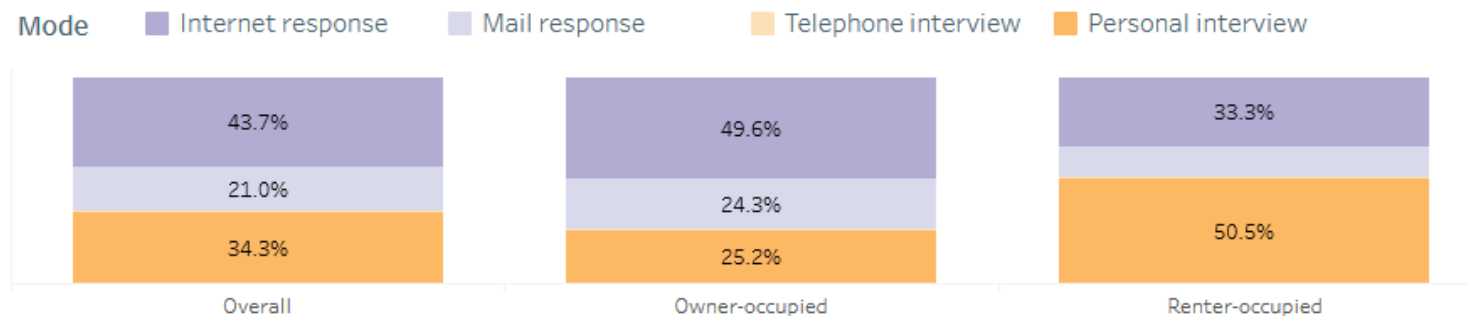
People and Households Represented in Each ACS Data Collection Mode

Tenure - 2018 ACS 1-year Estimates

How Does Tenure Vary by Response Mode?



What Response Mode Is Used by Each of the Tenure Categories?

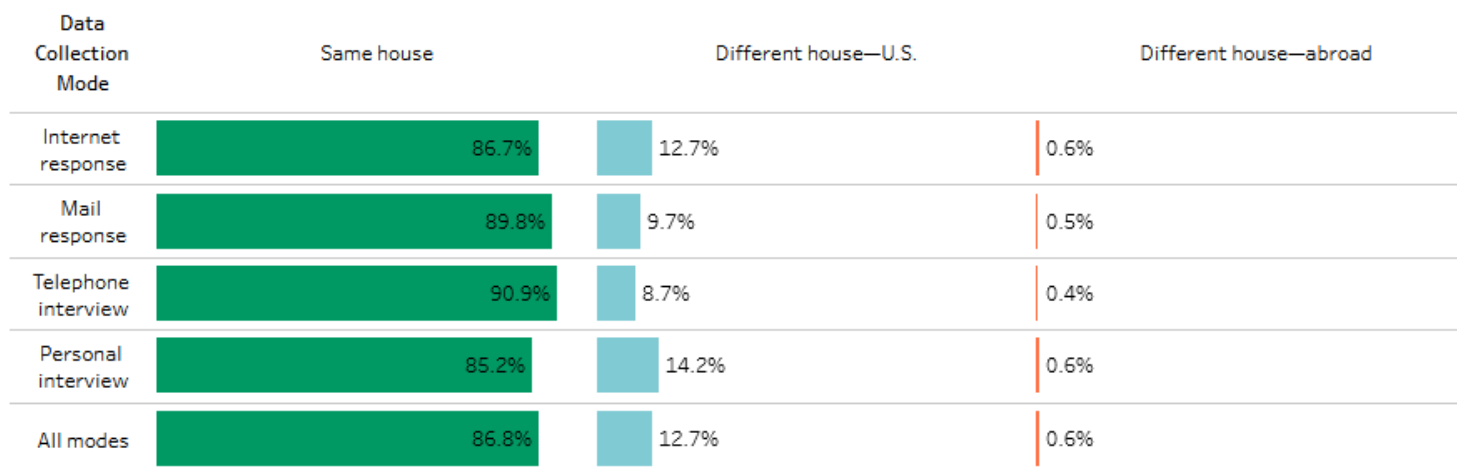


<https://www.census.gov/library/visualizations/interactive/acs-collection.html>

People and Households Represented in Each ACS Data Collection Mode

Residence 1 Year Ago - 2018 ACS 1-year Estimates

How Does Residence 1 Year Ago Vary by Response Mode?



What Response Mode Is Used by Each of the Residence 1 Year Ago Categories?

