

The Use of Administrative Records to Reduce Cost in the 2020 Decennial Census Nonresponse Follow-Up Operation

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Outline

- 2010 Nonresponse Followup (NRFU) overview
- NRFU contact strategy with administrative records (AR) reduction
- Quality evaluation
 - Micro-level
 - Macro-level
- Summary

2010 Census NRFU

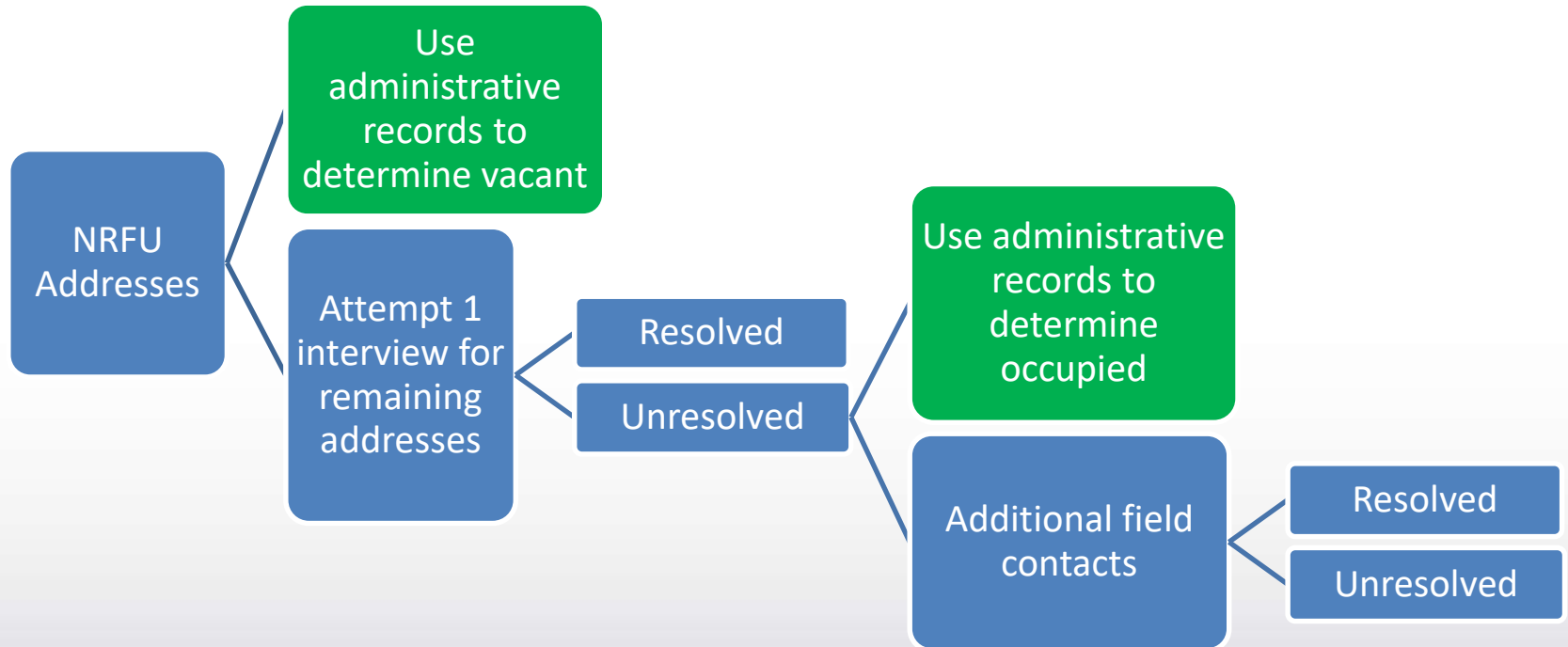
- In 2010, most addresses received a census form and were asked to fill it out and mail it back to the Census Bureau
- If no response was received, enumerators attempted to interview and verify status of the nonresponding units
- 50 million addresses
- Cost over \$2 billion

Goals of Administrative Records Modeling for NRFU

- Reduce cost of the NRFU operation while maintaining data quality
- Use administrative records to resolve cases instead of in-person contact attempts
- Identify vacant and occupied units with rosters and characteristics and remove these cases from the field workload

Note: We are not replacing the NRFU operation with administrative records. We will use administrative records for the cases in which we have the greatest confidence.

Hybrid Contact Strategy



Quality Evaluation

2010 Census research scenario

- What if we did the following?
 - Administrative record vacant: 10 percent 5.0 million
 - Administrative record occupied: 15 percent 7.5 million
 - Full contact strategy: 75 percent 37.5 million

- 40 percent of 7.5 million AR occupied first visits are resolved
 - 3.0 million resolved by fieldwork
 - 4.5 million use AR roster and information

Quality Evaluation

Micro-Level Examples

- Comparisons at housing unit-level
- Summaries of Characteristic Availability

For both micro-level and macro-level comparisons, we utilize 2010 Census Coverage Measurement and analysis of other Census Bureau surveys to assess

Micro-Level Examples

Occupancy Status of 5 million AR Vacant Cases

- Occupied 10 percent
- Vacant 80 percent
- Not a housing unit 10 percent

Cresce (2012) documented that the gross vacancy rate from the Housing Vacancy Survey was higher than those in the Decennial Census in 1990, 2000 and 2010.

Micro-Level Examples

Occupancy Status of 7.5 million AR Occupied Cases

- Occupied 90 percent
- Vacant 8 percent
- Not a housing unit 2 percent

Micro-Level Examples

Count Agreement of 7.5 million AR Occupied Cases

- AR count higher 22 percent
- Same count 62 percent
- AR count lower 16 percent

Micro-Level Examples

Characteristic Availability of 7.5 million AR occupied

- Age 100 percent
- Sex 100 percent
- Combined 2010 Race and Hispanic 90 percent

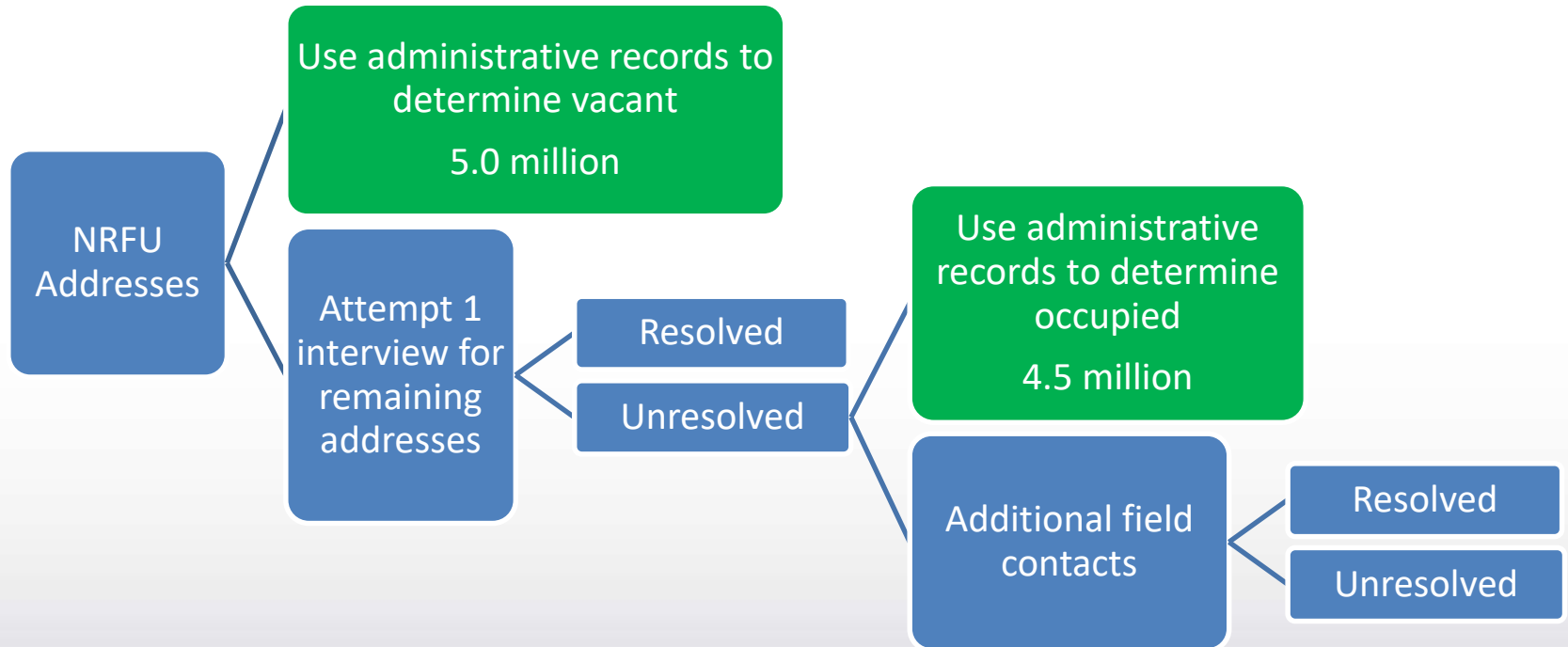
Quality Evaluation

Macro-Level Examples

- Keeping the other parts of the 2010 Census fixed,
 - what are the aggregate household population counts due to reducing contacts for AR vacant and AR occupied?
 - How do they compare to 2010 Census?

For both micro-level and macro-level comparisons, we utilize 2010 Census Coverage Measurement and analysis of other Census Bureau surveys to assess

Hybrid Contact Strategy



Macro-Level Examples

Household Population Count

	Household Population Count	Net Coverage
2010 Census	300,758,000	0.01% Overcount (0.14%)
Research Scenario	300,294,000	0.14% Undercount (0.14%)
Difference	464,000	

Household population count does not include group quarters population

Macro-Level Examples

Household Population Age Distribution

	HH Population	0 to 4	5 to 9	10 to 17	18 to 29	30 to 49	50+
Scenario	300,294,000	6.7%	6.8%	11.2%	15.9%	27.3%	32.2%
2010 Census	300,758,000	6.7%	6.8%	11.1%	15.9%	27.3%	32.2%

Due to rounding, percentages may not sum to 100 percent.

Macro-Level Examples

Household Population Combined Race and Hispanic Origin Distribution

	Household Population	Non-Hispanic							Hispanic
		White Alone	Black Alone	AIAN Alone	Asian Alone	NHPI Alone	SOR Alone	2+ Races	
Scenario	300,294,000	63.8%	11.9%	0.7%	4.7%	0.2%	0.2%	1.9%	16.5%
2010 Census	300,758,000	63.8%	11.9%	0.7%	4.7%	0.2%	0.2%	1.9%	16.5%

Due to rounding, percentages may not sum to 100 percent

AIAN = American Indian or Alaskan Native

NHPI = Native Hawaiian or Pacific Islander

SOR = Some Other Race

Summary

- Challenge of accessing the multiple dimensions of quality implications of using administrative record and third-party sources.
- Showed some examples of micro-level and macro-level quality assessments used in our research.
- Future work is assessing the impact on quality combining these changes with other 2020 design changes.

Thank you!

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Additional Slides

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NRFU Contact Strategy with Additional Mailings

