



# **(Thinking Through) Tradeoffs Associated with Nonresponse Followup Designs in the Decennial Census**

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The views expressed on statistical, methodological, technical, or operational issues are those of the author and not necessarily those of the U.S. Census Bureau.

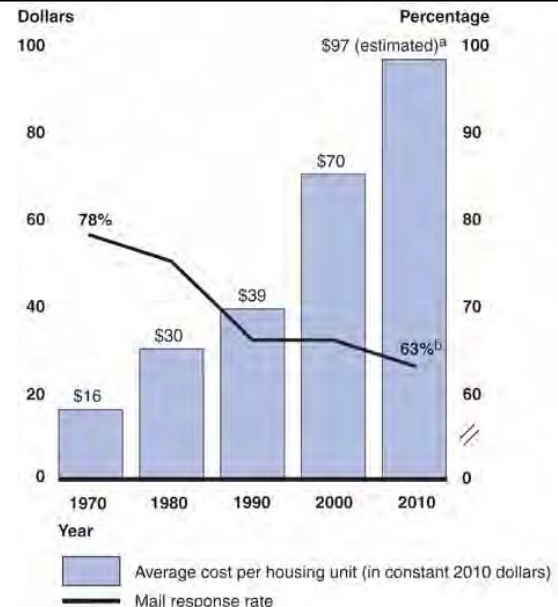
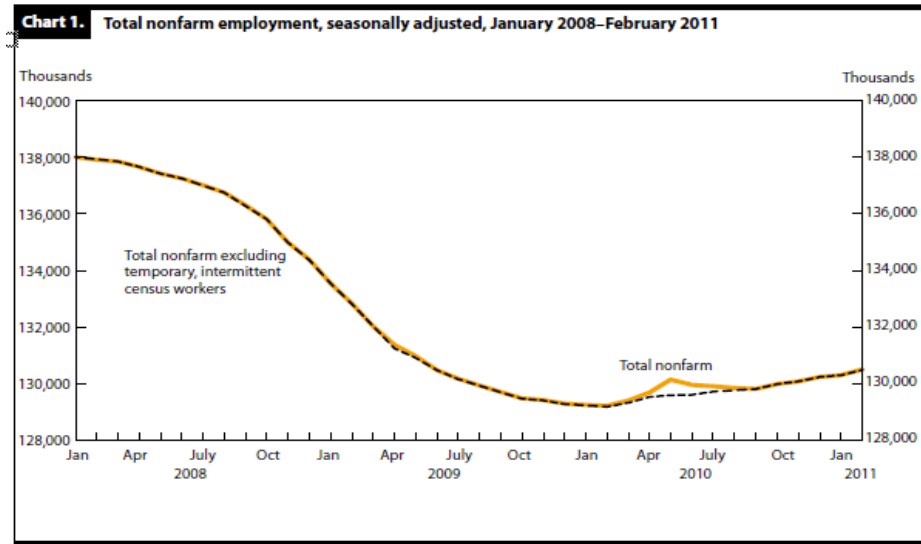
# Outline

- Census Nonresponse Follow-Up
- Field Procedures to Cut Costs
- Relationship Between Data Source, Data Quality, and Cost
- 2013 Census Test Example
- Challenges

# Census Nonresponse Follow-up

In 2010:

- May 1 – beginning July
- 47M housing units
- 564,000 temps
- 494 offices
- \$1.6B (71% of budget)



Source: GAO analysis of U.S. Census Bureau data.



# Innovating NRFU Field Procedures

- Recent NRFU experiments have tested:
  1. Using administrative records and mail paradata to determine status and enumerate addresses
  2. Decreasing and targeting level-of-effort (i.e. number of contact attempts) to addresses
  3. Calling addresses that have phone numbers first
  4. Prioritizing cases or contacts based on models

# Data Quality & Tradeoffs

Source	Issues			
	Differential Coverage or Response	Accuracy	Coverage	Cost
Self-Response	X			
Interviewer-Administered	X	X		X
Proxy	X	X		X
Administrative Records	X	X	X	
Imputation	X	X		

# 2013 Census Test Tradeoffs

Treatment	Total	Administrative Records		Self-Response/Proxy			Not Complete
		Before Field	After Field	HH, Phone	HH, PV	TQA	No Data
Fixed, Reduced	511	200	N/A	7	241	5	58
Fixed, Full	510	N/A	42	7	373	8	80
Adaptive, Reduced	528	208	N/A	7	257	2	54
Adaptive, Full	528	N/A	58	20	395	2	53
<b>Total</b>	<b>2077</b>	<b>408</b>	<b>100</b>	<b>41</b>	<b>1266</b>	<b>17</b>	<b>245</b>



# Challenges

1. Can't measure every unit with every source.
  - e.g. administrative records don't cover everyone
2. Difficulty and undercoverage are correlated.
  - e.g. relationship between address having a phone number and showing up in records
  - e.g. NRFU universe has worse records coverage than responding universe
3. Focus on survey error-related designs, may distract from operational efficiencies.

# Questions?

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