

# Preliminary Research Investigating the Use of Administrative Records in the American Community Survey

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Joint Statistical Meetings of the American Statistical Association

July 27-August 1, 2019

*Disclaimer: The results and conclusions in this presentation are those of the author and do not necessarily reflect the views of the United States Census Bureau. All results have been reviewed to ensure that no confidential information is disclosed.*

# Purpose

- The Census Bureau is mandated, to the extent possible, to use administrative records (AR) for the efficient and economical conduct of censuses and surveys (Title 13 U.S.C § 6)
- Evaluate AR sources for item supplementation or replacement within the American Community Survey (ACS)
- This presentation summarizes strengths and limitations of AR sources for several ACS housing questions

# Administrative Records at the Census Bureau

## Federal data

- U.S. Census Bureau
- Internal Revenue Service
- Housing and Urban Development
- Childcare Development Fund
- Medicaid and Medicare
- Social Security Administration
- Veteran's Affairs
- U.S. Postal Service
- Selective Service

## State and Local data

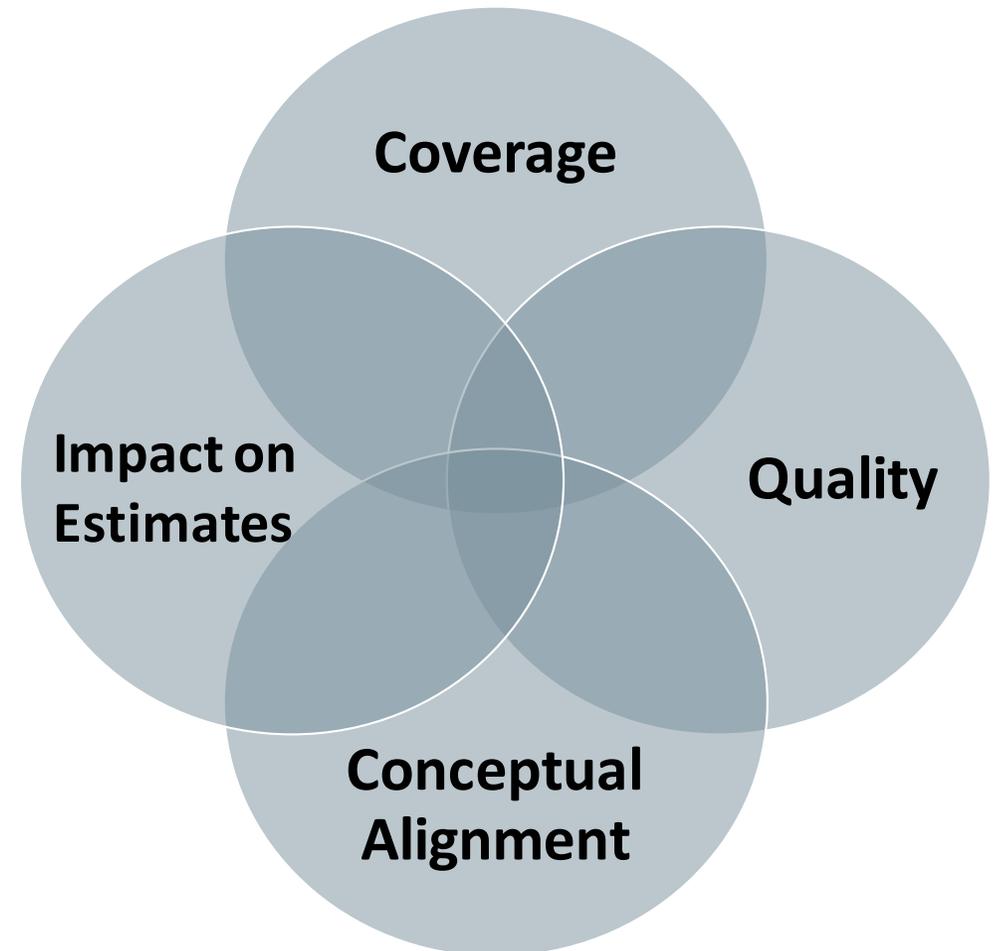
- Women, Infants, and Children
- Temporary Assistance for Needy Families
- Supplemental Nutrition Assistance Program
- Child Care Subsidy
- Public school districts

## Third Party data

- Corelogic property and tax foreclosure
- VSGI consumer households

# Evaluating the Potential of an AR Source

- Several factors are used to assess the potential of AR sources
- Maximum benefit of AR depends on:
  - Respondent knowledge of subject
  - Conceptual alignment between AR and survey data
  - Data availability and quality



# ACS Housing Topics Evaluated

Less Promising

- Part of Condominium
- Phone Service
- Facilities (Kitchen/Bathroom)
- Fuel Type
- Tenure
- Have a Mortgage
- First/Secondary Mortgage Payment
- Number of (Bed)rooms
- Agricultural Sales

Most Promising

- Property Value
- Real Estate Tax
- Year Built
- Acreage

# Less Promising ACS Housing Topics

- ***Part of condominium***

- Unit vs. association level data
- Opt-in households
- Varying definitions

- ***Phone service, Facilities***

- Low agreement for rare responses

- ***Heating fuel type***

- Coverage limited to recent sales and certain markets
- AR does not specify primary fuel type

# Less Promising ACS Housing Topics

- ***Tenure, Primary and secondary mortgage payment, (Bed)rooms, Agricultural sales***
  - Insufficient detail
  - Highest agreement among missing values

# Most Promising ACS Housing Topics

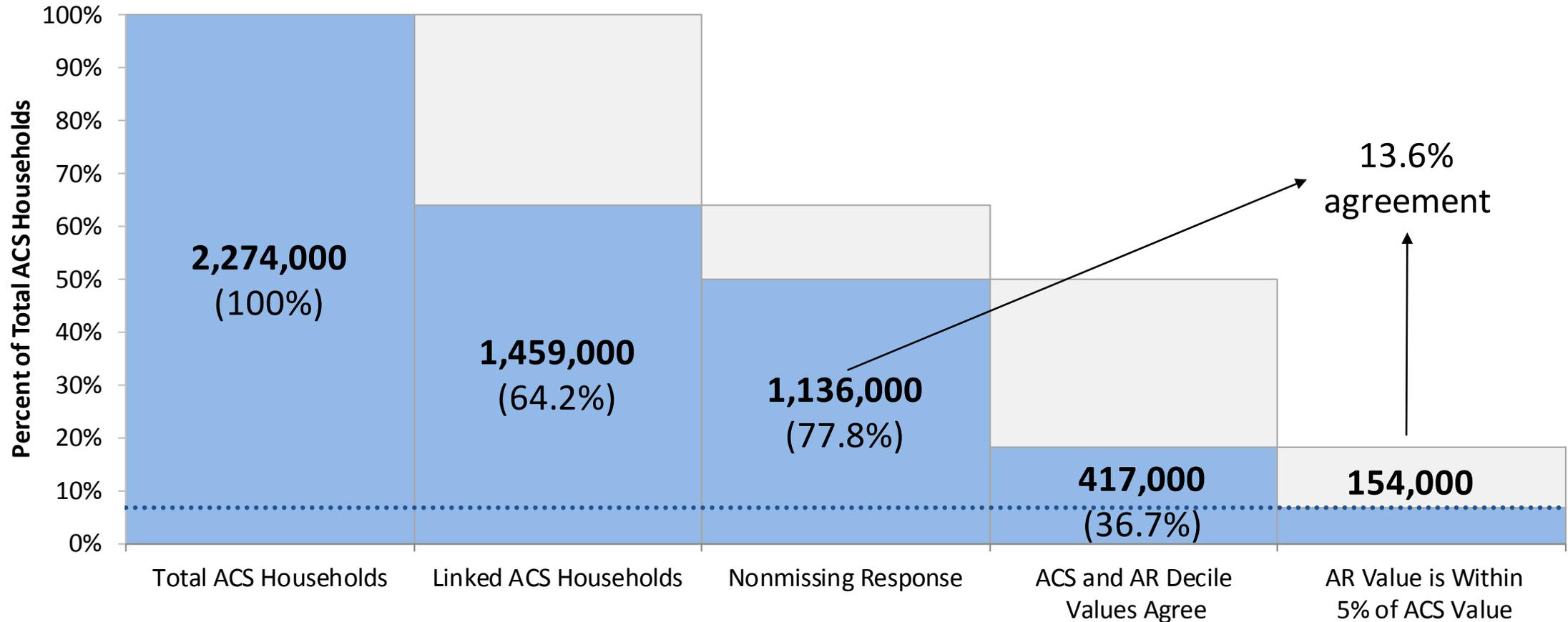
Property Value

Real Estate Tax

Year Built

Acreage

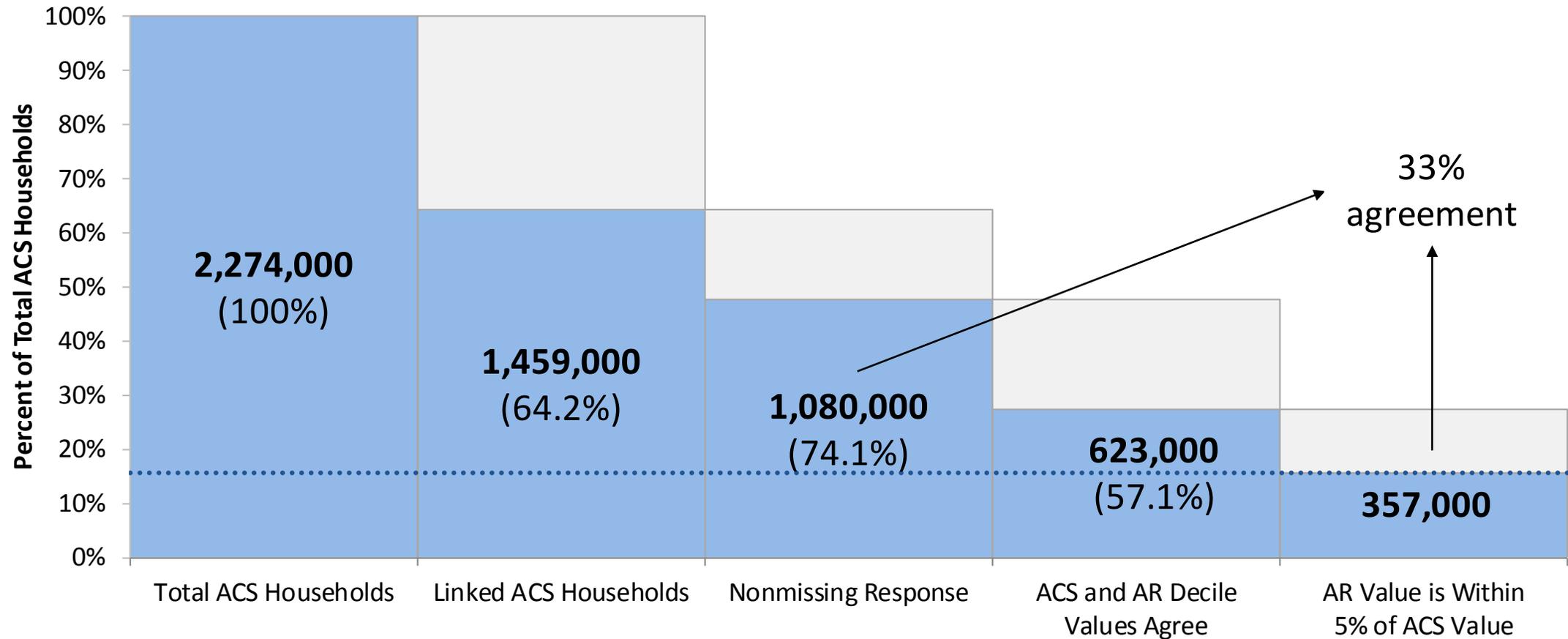
# Property Value



Source: 2014 ACS and 2014 third party property tax data

Note: Counts have been rounded to comply with Census Bureau disclosure requirements.

# Real Estate Tax



Source: 2014 ACS and 2014 third party property tax data

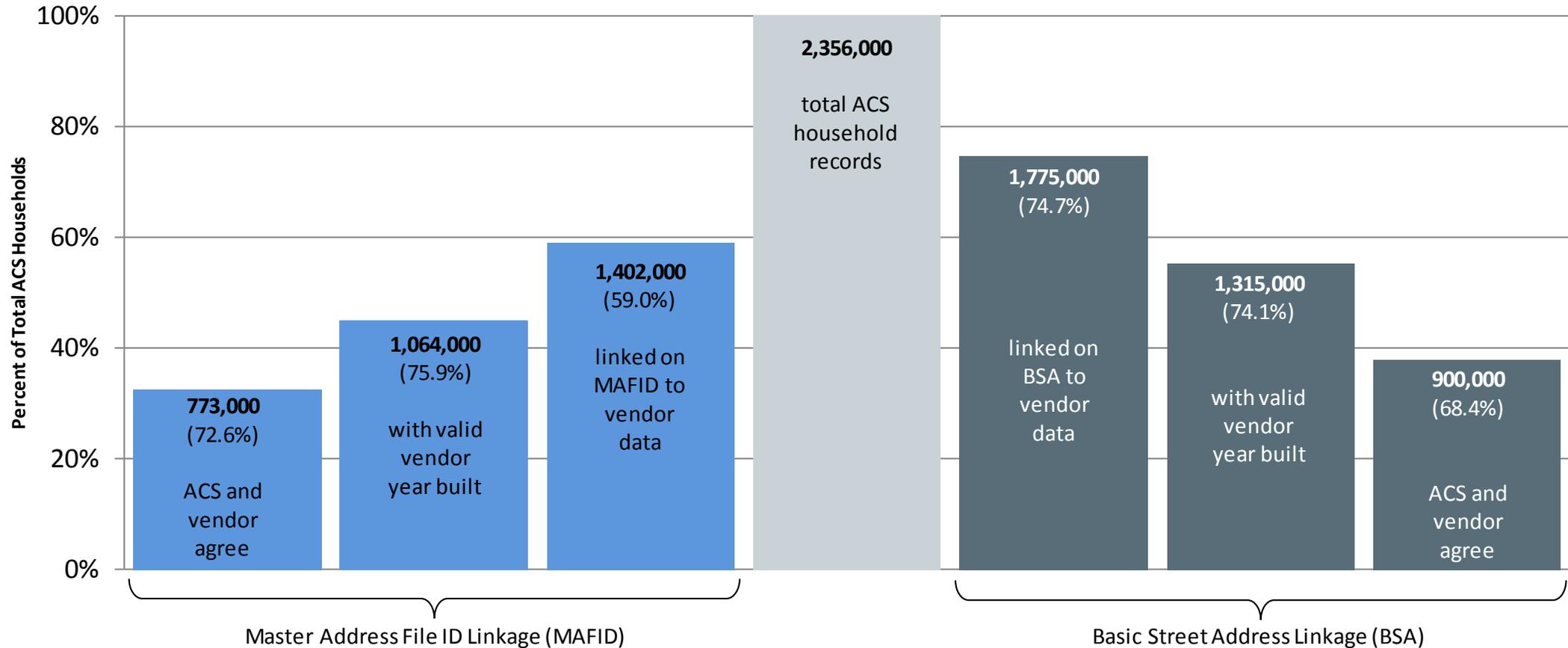
Note: Counts have been rounded to comply with Census Bureau disclosure requirements.

# Property Value & Real Estate Tax, cont.

- AR links to 64.2% of ACS Households
- Coverage for the linked sample:
  - AR can provide information for ACS households
    - 99.6% of the time for property value
    - 97.0% of the time for real estate tax
  - AR can replace 99.4% of missing (unedited) property value responses
  - AR can replace 96.7% of missing (unedited) real estate tax responses

# Year Built

## Linkage and Agreement Between Unedited 2012 ACS Records and Vendor Data

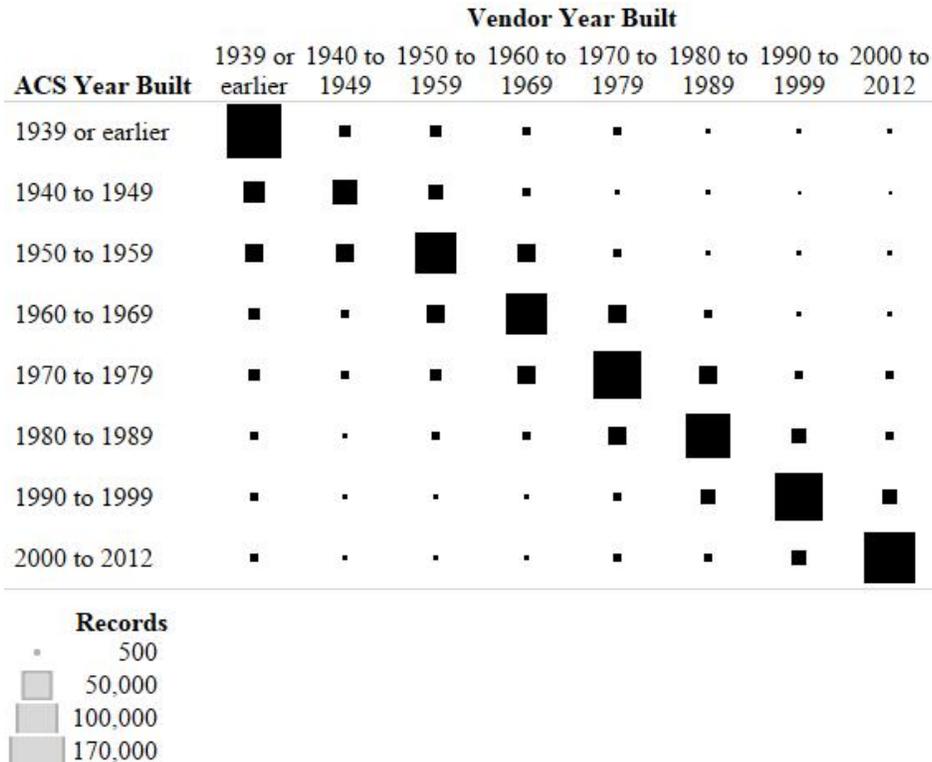


Source: 2012 ACS and 2006-2010 third party data

Note: Counts have been rounded to comply with Census Bureau disclosure requirements.

# Year Built, cont.

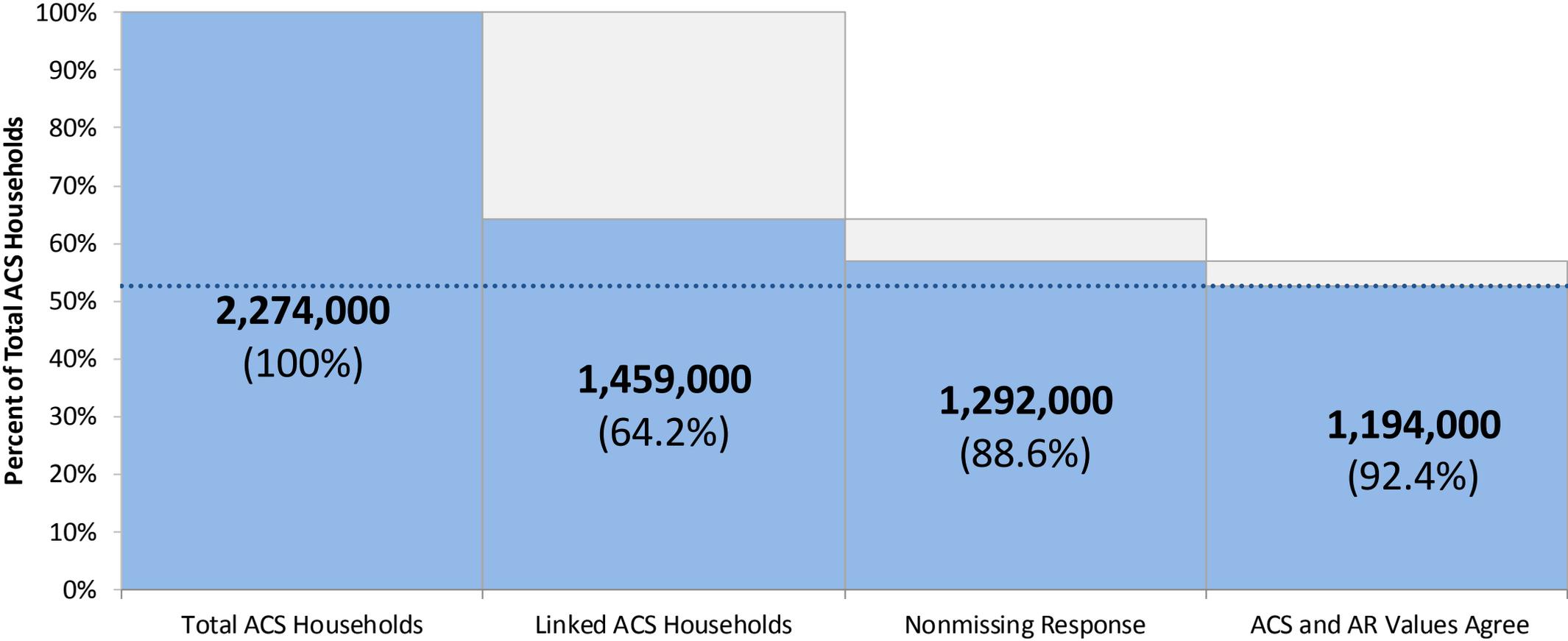
## Year Built Category Agreement Between Edited 2012 ACS and Vendor Data



Source: 2012 ACS and 2006-2010 third party data

- Agreement is high within ten year span
  - 78% for MAFID; 76% for BSA
- Lower agreement in rental housing units
- AR linkage to ACS households:
  - 59% for MAFID; 75% for BSA
- Greater coverage among owned, occupied, single-family, and metropolitan households
- AR replacement of missing (unedited) year built responses in ACS:
  - 26% for MAFID; 44% for BSA

# Acreage



Source: 2014 ACS and 2014 third party property tax data

Note: Counts have been rounded to comply with Census Bureau disclosure requirements.



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# Acreage, cont.

## ACS Acreage (2014, Unedited) by Vendor Data

ACS Acreage	Matched ACS Count	Vendor Acreage			Vendor data on acreage not available
		Less than 1 acre	1 to 9.99 acres	10 or more acres	
Less than 1 acre	1,030,000	92.8	2.4	0.3	4.5
1 to 9.99 acres	259,000	20.4	74.8	2.0	2.8
10 or more acres	56,500	3.3	16.9	77.3	2.5
ACS data on acreage not available	112,000	64.2	11.4	2.6	21.8
Column total	1,459,000	1,083,000	241,000	55,500	79,000

- AR links to 64.2% of ACS households
- Coverage for the linked sample:
  - AR can provide information for 95% of ACS households
  - AR can replace 78% of missing (unedited) ACS responses

Source: 2014 ACS and 2014 third party property tax data

Note: Counts have been rounded to comply with Census Bureau disclosure requirements.

# Summary & Conclusion

- Property value, real estate tax, year built, and acreage are good candidates for supplementation by AR
- High levels of coverage and agreement do not guarantee the utility of AR
- AR must perform well across the guiding principles for evaluation
  - Conceptual alignment
  - Confidence in data source (e.g., availability, reliability, quality)
- Among less promising topics, coverage (i.e., missing data in AR) and conceptual alignment are big factors

# Thank you!

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