

Use of Administrative Records to Reduce Burden and Improve Quality

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CNSTAT Workshop on Respondent Burden
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Using administrative records in household surveys

- Reduce burden
 - American Housing Survey (AHS)
 - American Community Survey (ACS)
 - National Survey of College Graduates (NSCG)
- Improve efficiency
- Improve quality

Research topics

- AHS

- Tax amount
- Unit size
- Lot size
- Year built
- Year acquired
- Stories
- Bathroom
- Bedrooms
- Total rooms

- NSCG

- Earnings
- Degree
- Field of study
- Employer
- Industry
- Occupation

Using administrative records in household surveys

- Reduce burden
- Improve efficiency
 - best time of day
 - best mode
 - frame (National Survey of Children's Health, National Teacher and Principal Survey (NTPS))
 - tracing
- Improve quality

Using administrative records in household surveys

- Reduce burden
- Improve efficiency
- Improve quality
 - AHS, NSCG
 - Survey of Income and Program Participation
 - Consumer Expenditure Survey

Authority

- Authority to access records

§6. Information from other Federal departments and agencies; acquisition of reports from other governmental and private sources

- (a) The Secretary, whenever he considers it advisable, may call upon any other department, agency, or establishment of the Federal Government, or of the government of the District of Columbia, for information pertinent to the work provided for in this title.
- (b) The Secretary may acquire, by purchase or otherwise, from States, counties, cities, or other units of government, or their instrumentalities, or from private persons and agencies, such copies of records, reports, and other material as may be required for the efficient and economical conduct of the censuses and surveys provided for in this title.
- (c) To the maximum extent possible and consistent with the kind, timeliness, quality and scope of the statistics required, the Secretary shall acquire and use information available from any source referred to in subsection (a) or (b) of this section **instead of conducting direct inquiries**.

Data sources

- Examples of data sources
 - IRS, SSA, HUD, CMS, HHS
 - SNAP, WIC, TANF
 - Property value, taxes, deeds
- Previously collected information
 - Demographic characteristics
 - Housing structure characteristics

Methods

- Modeling (SIPP)
- Substitution (AHS, NTPS)
- Hybrid approaches

Research with the ACS

Variable	Question Number
Phone Service	H8g
Year Built	H2
Part of Condominium	H16
Tenure	H17
Property Value	H19
Real Estate Taxes	H20
Have mortgage/mortgage amount	H22a and H22b
Second mortgage/HELOC and payment	H23a and H23b
Sale of Agricultural Products	H5
Social Security	P47d
Supplemental Security Income (SSI)	P47e
Wages	P47a
Self Employment Income	P47b
Interest/dividends	P47c
Pensions	P47g
Residence 1 year ago and Address	P15a
Number of Rooms and Bedrooms	H7a and H7b
Facilities	H8a, H8b, H8c, H8d, H8e, H8f
Fuel type	H13
Acreage	H4

Source: Agility in Action: A Snapshot of Enhancements to the American Community Survey, 2015

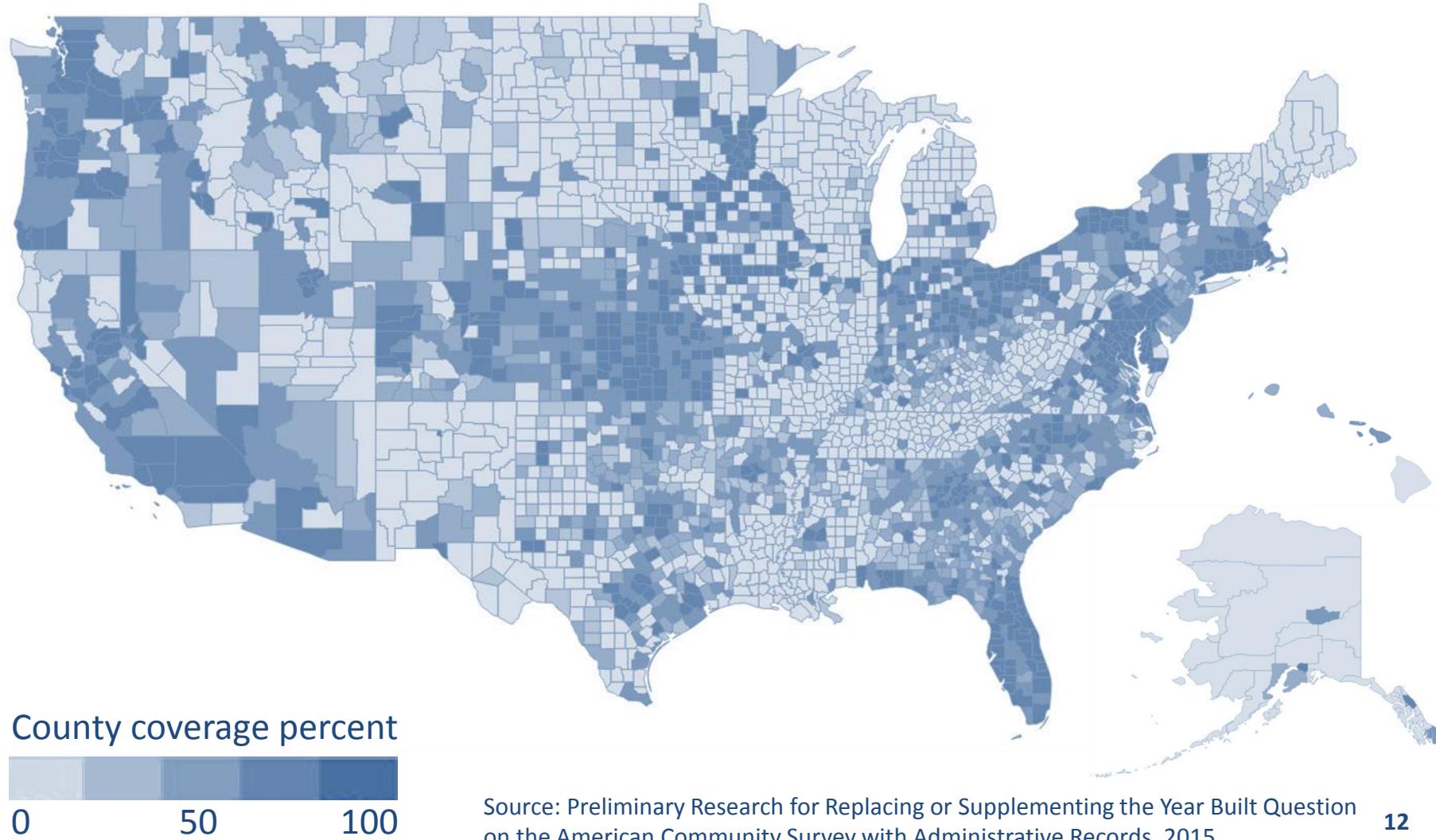
Burden for ACS questions in study

Variable	Seconds	Variable	Seconds
Wages	41	Real Estate Taxes	9
Interest/dividends	20	Supplemental Security Income	8
Residence 1 year ago and Address	18	Self Employment Income	8
Fuel type	14	Pensions	8
Number of Rooms and Bedrooms	13	Facilities	6
Year Built	11	Second mortgage/HELOC and payment	5
Tenure	11	Acreage	5
Property Value	11	Part of Condominium	4
Have mortgage/mortgage amount	11	Phone Service	1
Social Security	10	Sale of Agricultural Products	1

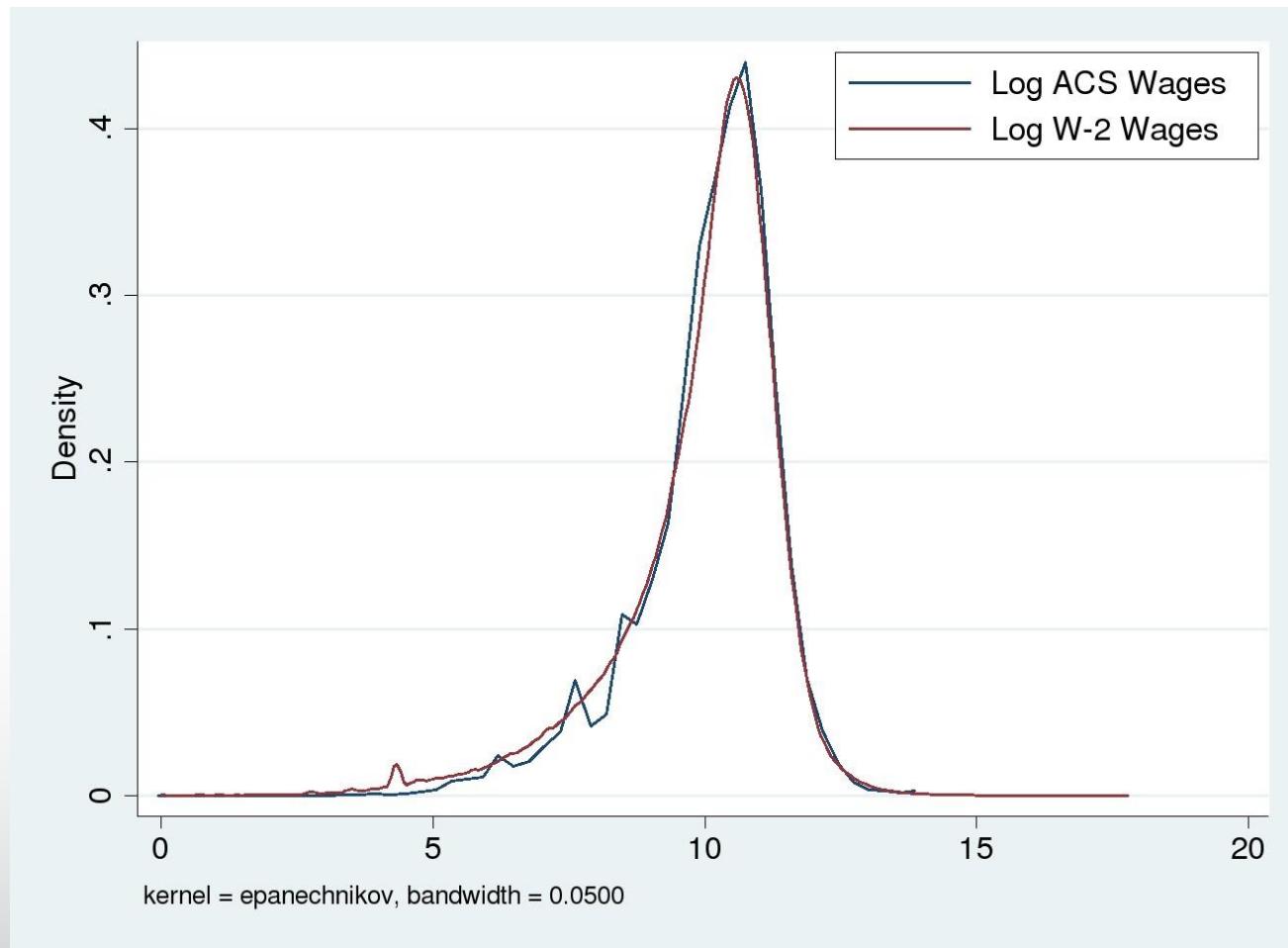
Difficulty/sensitivity of ACS questions in study

Difficult or Sensitive Variables		Additional Variables in Study
Number of Rooms and Bedrooms	Difficult	Acreage
Property Value	Difficult	Fuel type
Real Estate Taxes	Difficult	Have mortgage/mortgage amount
Year Built	Difficult	Part of Condominium
Facilities	Sensitive	Phone Service
Interest/dividends	Sensitive	Residence 1 year ago and Address
Pensions	Sensitive	Sale of Agricultural Products
Social Security	Sensitive	Second mortgage/HELOC and payment
Supplemental Security Income	Sensitive	Self Employment Income
Wages	Sensitive	Tenure

Year built coverage by county ACS 2012-Corelogic BSA match



Income



Very preliminary FY2016 work

- Housing variables
 - Acreage present for 91%
 - Total Property Value present for 85%
 - Real Estate Tax present for 83%
 - Number of Bedrooms present for 61%
 - Number of Rooms present for 44%

(Source: 2014 ACS housing units matched to TPD)

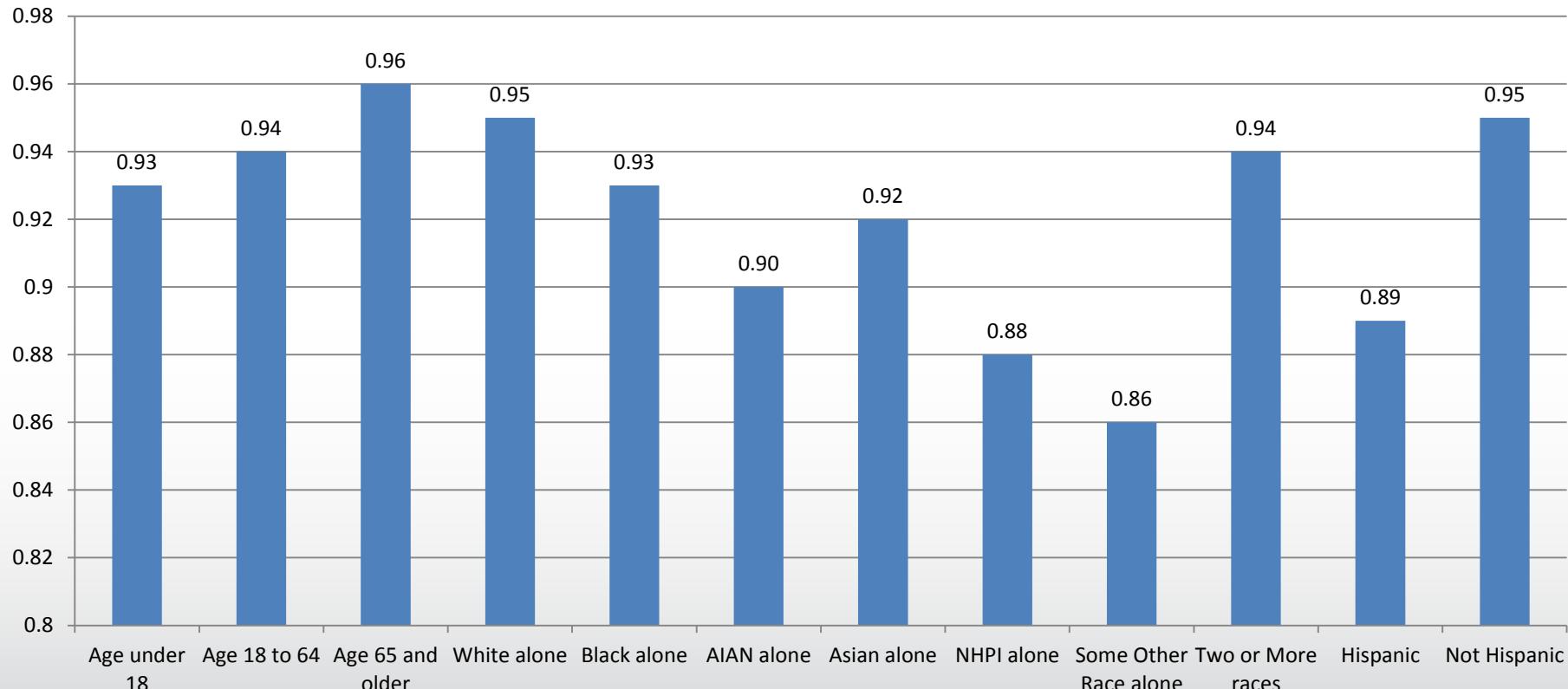
Challenges

- Data quality
 - How to assess (what is “truth”)
 - Coverage (use matrix sampling where lacking)
 - Concept alignment (last year’s income vs. last 12 month income)
- Matching
- Access and use issues

Challenges

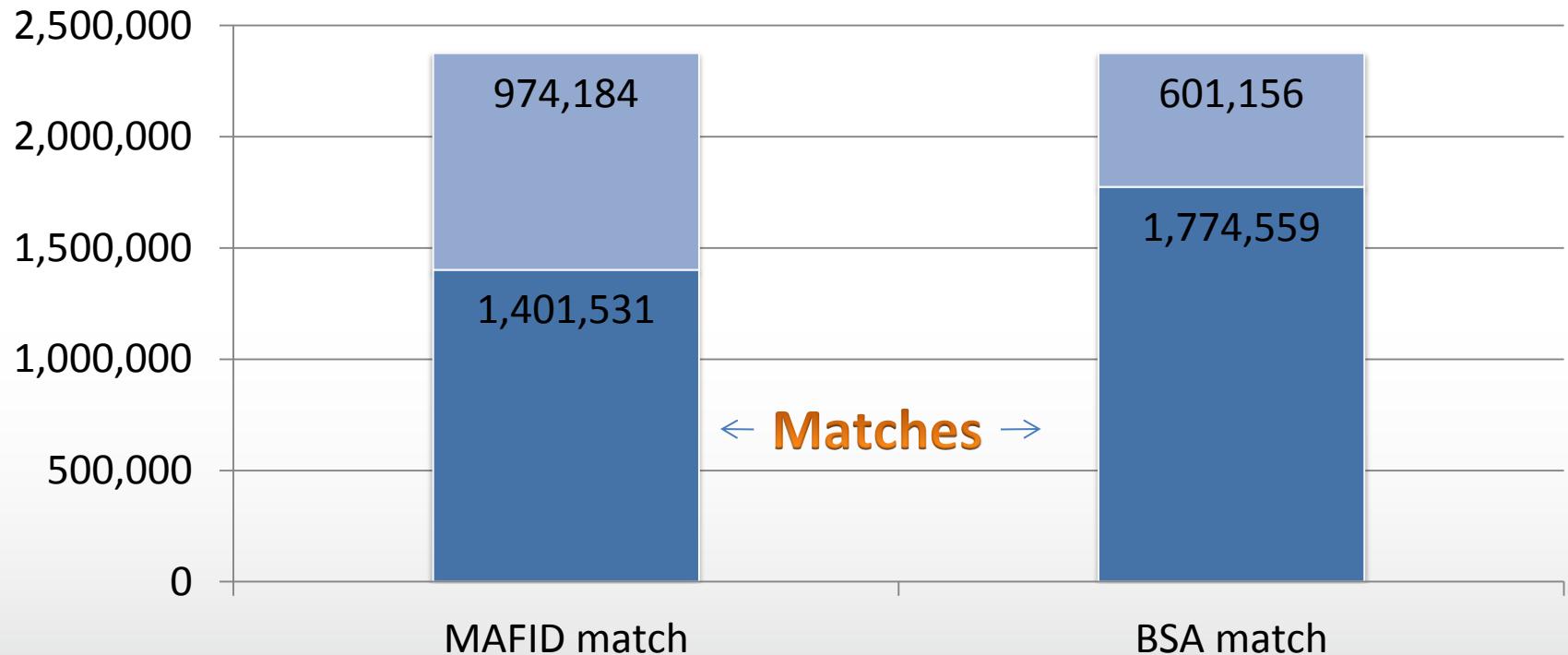
- Data quality
- Matching
 - Mismatches and missed matches
 - Person and address matching
- Access and use issues

ACS 2011 PIK rates



Source: Preliminary Research for Replacing or Supplementing the Income Question on the American Community Survey with Administrative Records, 2016

ACS 2012-Corelogic MAF and BSA matching

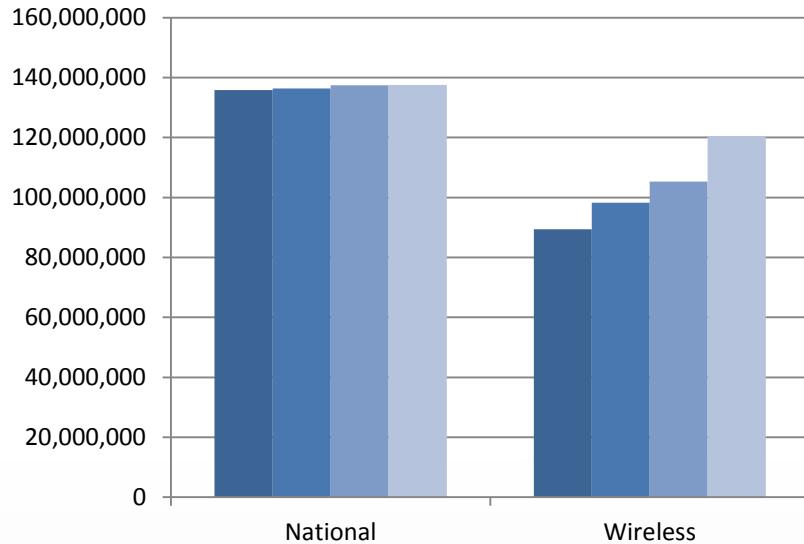


Source: Preliminary Research for Replacing or Supplementing the Year Built Question on the American Community Survey with Administrative Records, 2015

Challenges

- Data quality
- Matching
- Access and use issues
 - Source volatility and reliability
 - Alignment of reference periods

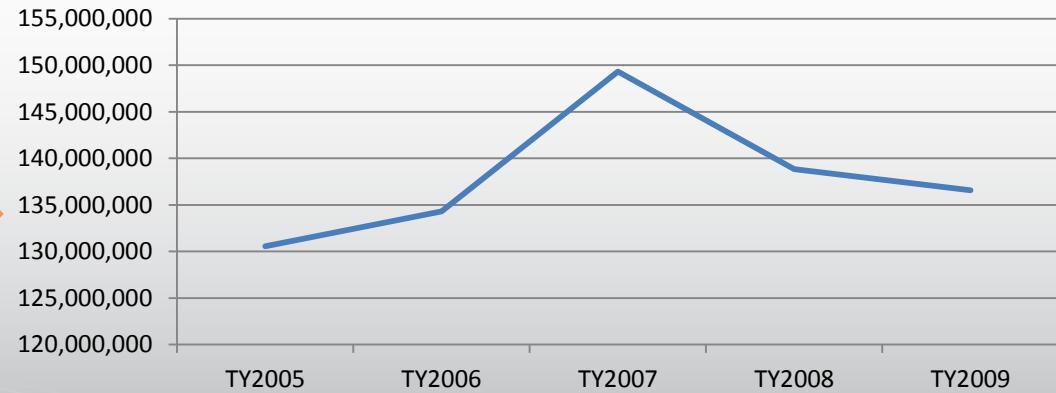
Volatility



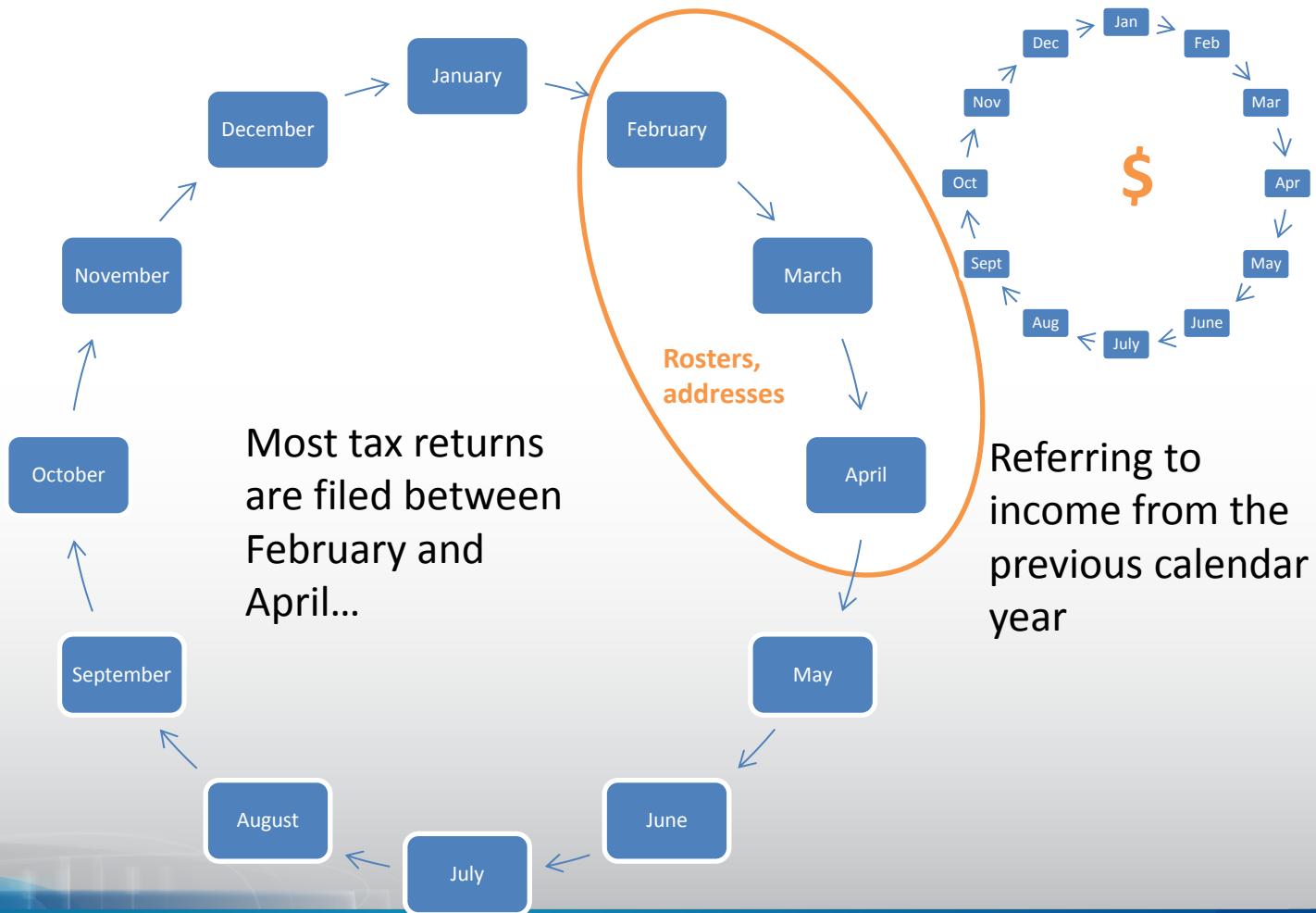
■ 2011
■ 2012
■ 2013
■ 2014

National person file from third party vendor stable, but wireless file is growing over time.

Spike in TY2007 individual income tax returns due to economic stimulus rebate



Reference periods



Are we trading burden reduction for lower data quality

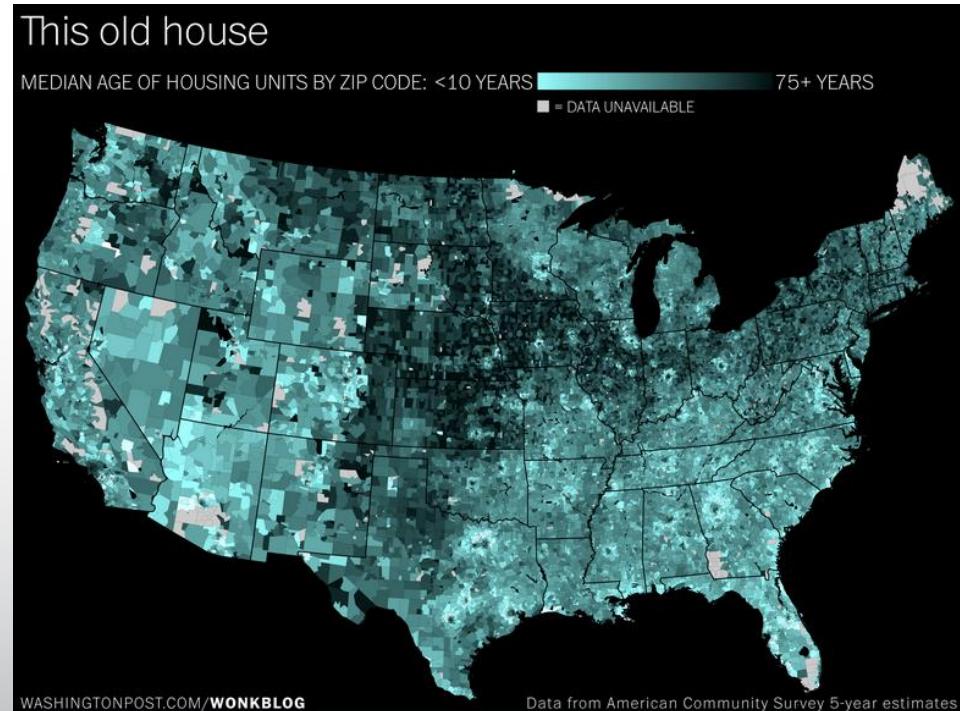
- How are we assessing this?
- What else could we do? – study data quality
 - Example - income issues
 - Income not reported to IRS
 - Previous twelve months, annual, or quarterly
 - Do we need eight components or could we use AGI
 - Blended data vs. substitution vs. as-is

Thought experiment: Could we implement records in January 2018?

- What needs to happen if we wanted to use **year built** from external source?
 - Prepare data for operational uses
 - Obtain OMB approval for the questionnaire changes
 - Federal register notice before the end of 2016, given our development and print contract schedules
 - Revise ACS edit and imputation processes
 - Simulate impact on 1/5 year products
 - Ensure federal agency buy-in

Thought experiment: Impact of implementing records

- Impact on releases and products
- Impact on users
 - PUMS users →
 - HUD reports, buy-in
(85% match rate for AHS
single family homes to
vendor data)



Questions?