Operational Agility in the ACS: The Promise of Administrative Records

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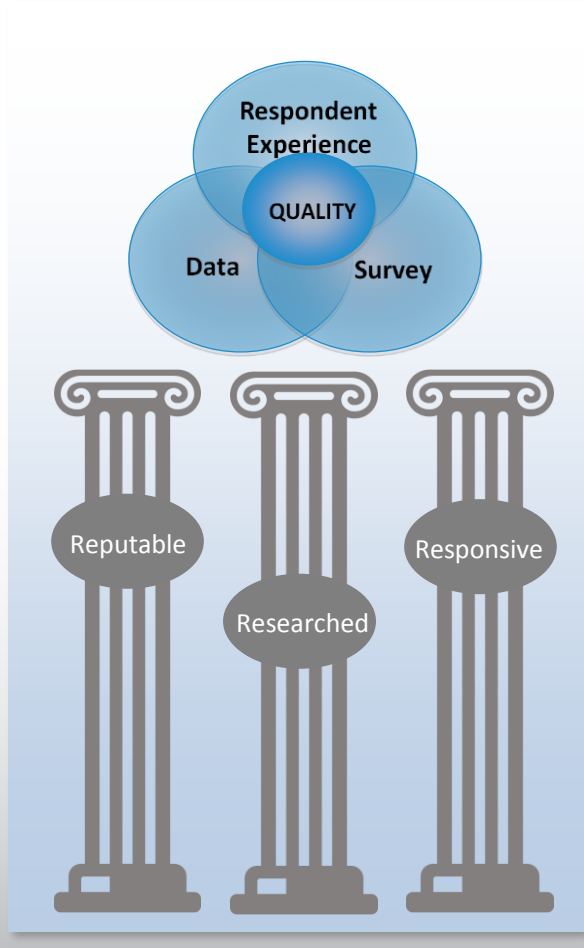
ACS Program Priorities

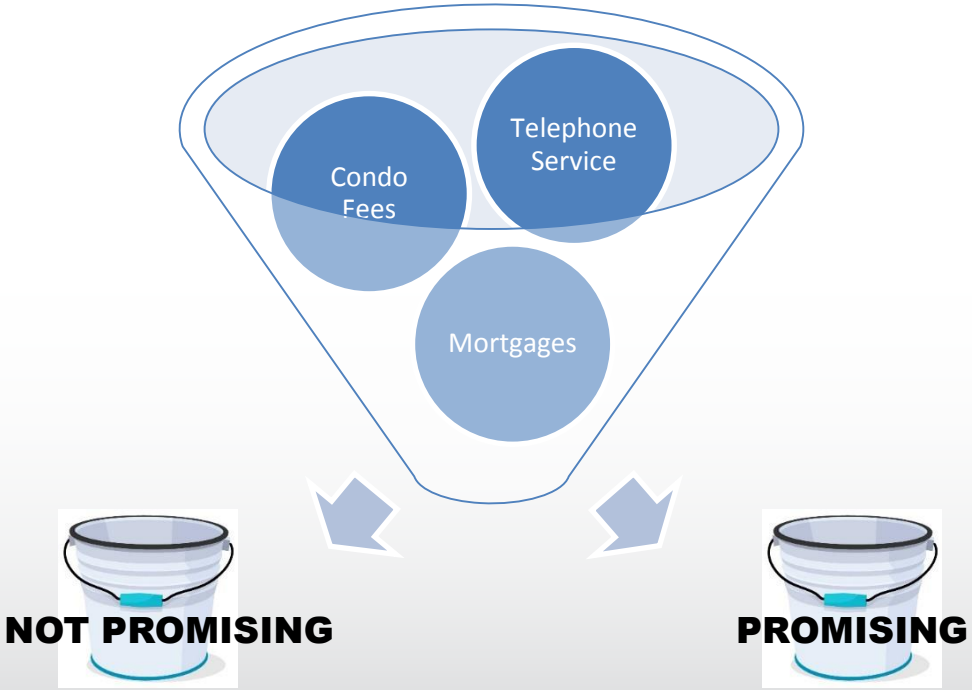
REPUTABLE	RESEARCHED	RESPONSIVE

Research to Ensure Success

- We are all in agreement that we can use administrative records to reduce respondent burden
- What is the best way to do so? We are considering:
  - *Reliability*
  - *Accuracy*
  - *Consistency*
  - *Quality*
  - *Timeliness*



Evaluating Data Sources



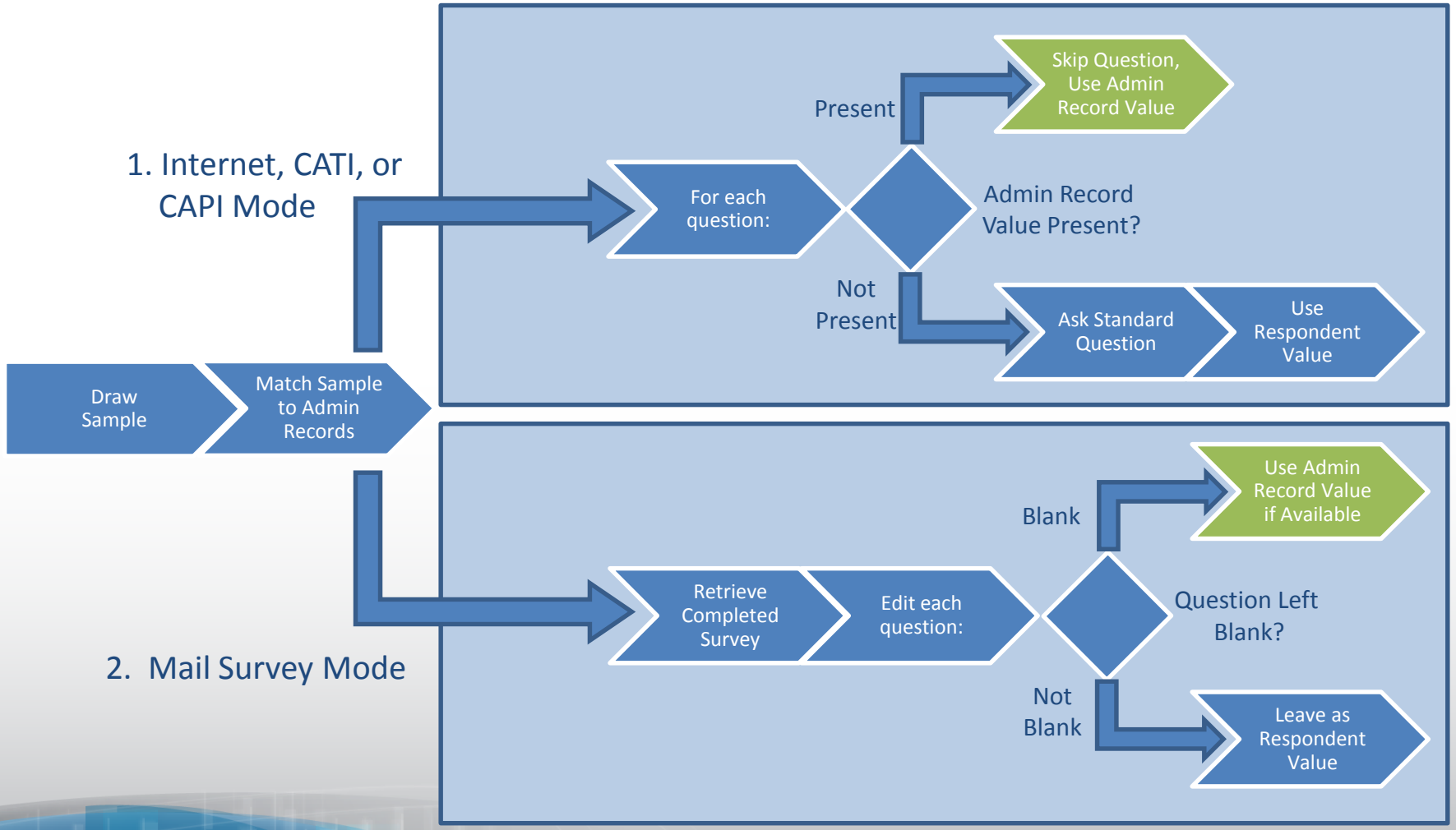
Using Administrative Records to Simulate Housing Estimates

Preliminary Research Findings

Background

- Previous research shows:
  - Good match rate
  - Promise for some housing items
- ACS perfect platform for simulating the use of Administrative Records (ARs)
  - Huge sample
  - Spans multiple geographic areas
  - Covers many topics
  - High profile
- Satisfy ACS program goals to be reputable, researched, and responsive

Adaptive Design



Simulating this Process

- Used 2015 ACS Responses
- Direct substitution of the four most promising housing items:
  - Year Built
  - Acreage
  - Property Value
  - Real Estate Taxes
- For housing units that have:
  - ACS Internet, CATI, or CAPI return
  - ACS mail return and ACS response is missing

Test vs. Control Estimates

Calculated summary metrics and key measures

- Approximately **79%** of 575 national-level estimates statistically different
- Direction of differences varied, but for many items Test (w/AR) was lower than Control
- Test item allocation rates significantly lower than Control by:

  Acreage - 2.4% pts. **Property Value - 6.8% pts.**

  Year Built - 5.2% pts. **Real Estate Tax - 12.5% pts.**

- Impacts other survey items besides 4 test items

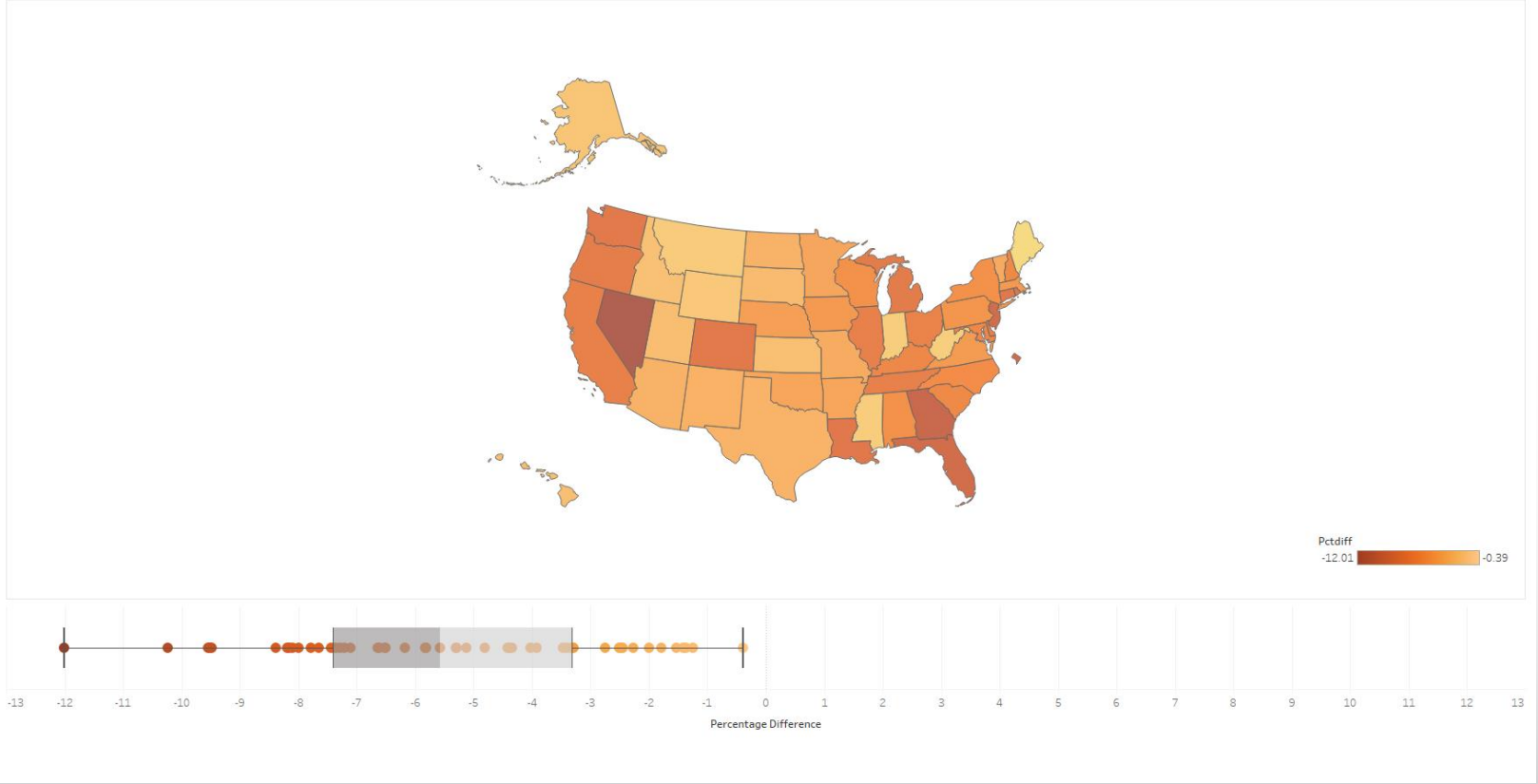
Burden Reduction

Burden defined as receiving the survey question

- Using ARs greatly reduces respondent burden for all 4 items
- Able to skip question for the following percentage of ACS responders:
  - Acreage - 52.0%
  - Property Value - 47.2%.
  - Year Built - 37.5%
  - Real Estate Tax - 53.5%

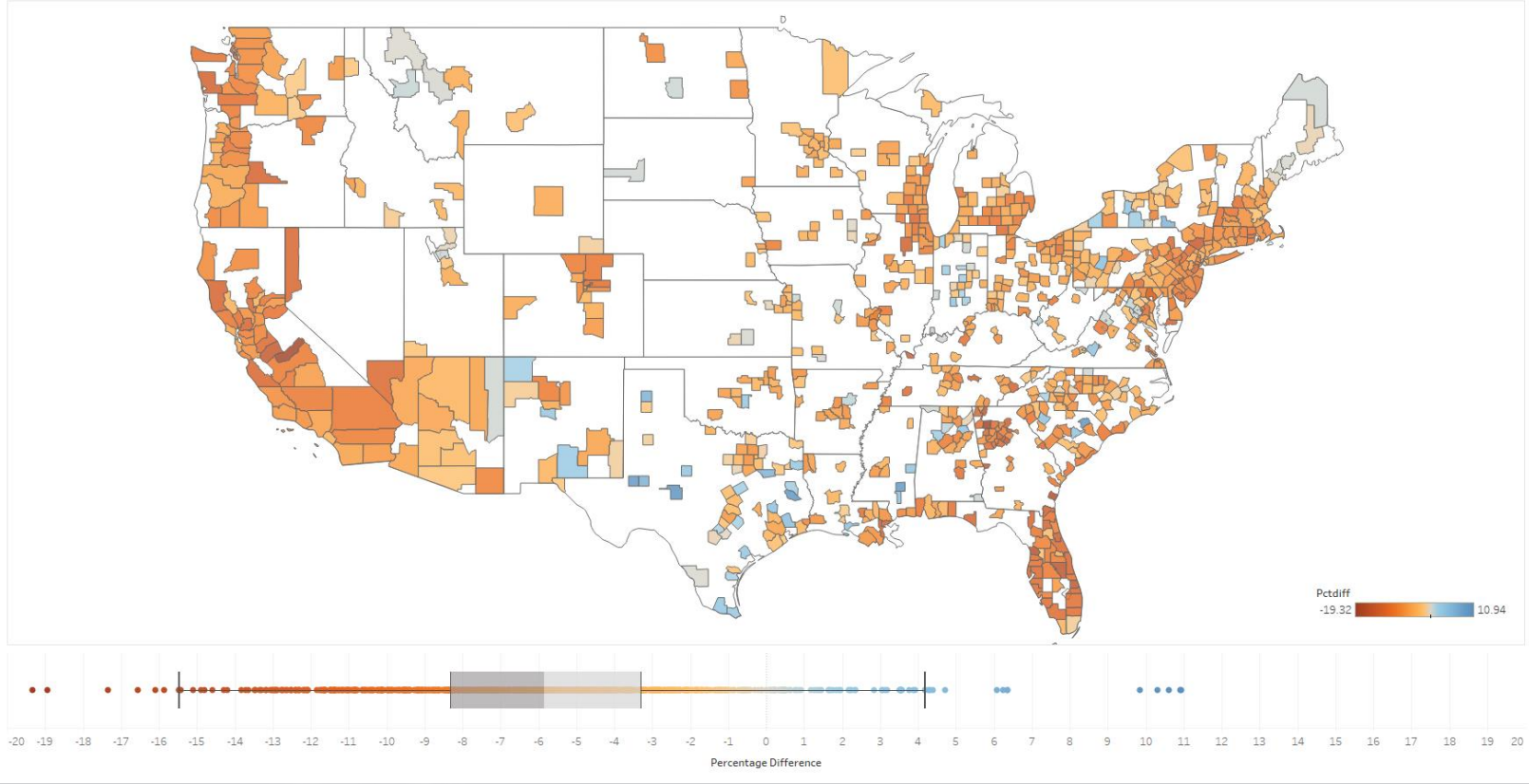
Percent Difference in Median Property Value: Test minus Control

State



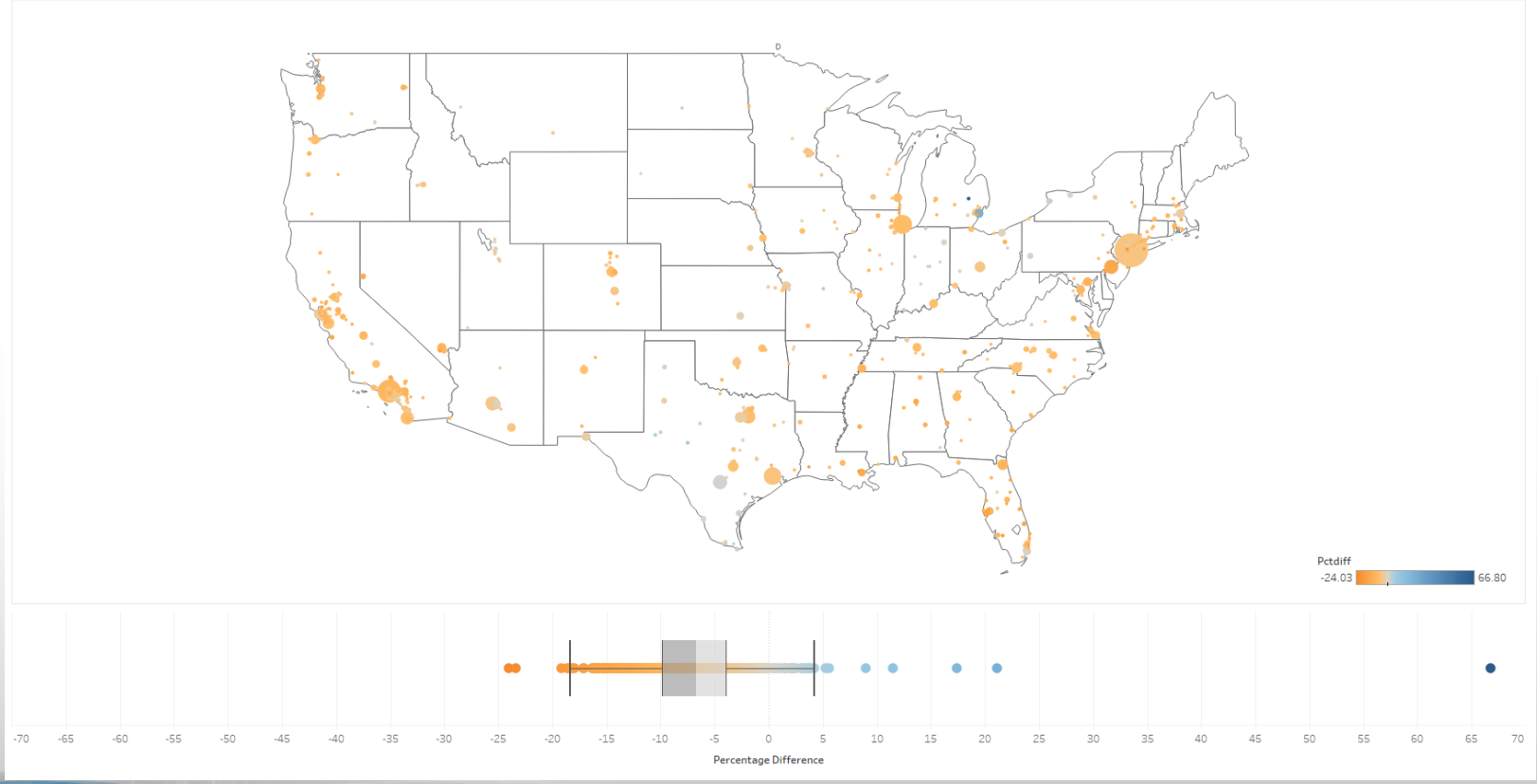
Percent Difference in Median Property Value: Test minus Control

County



Percent Difference in Median Property Value: Test minus Control

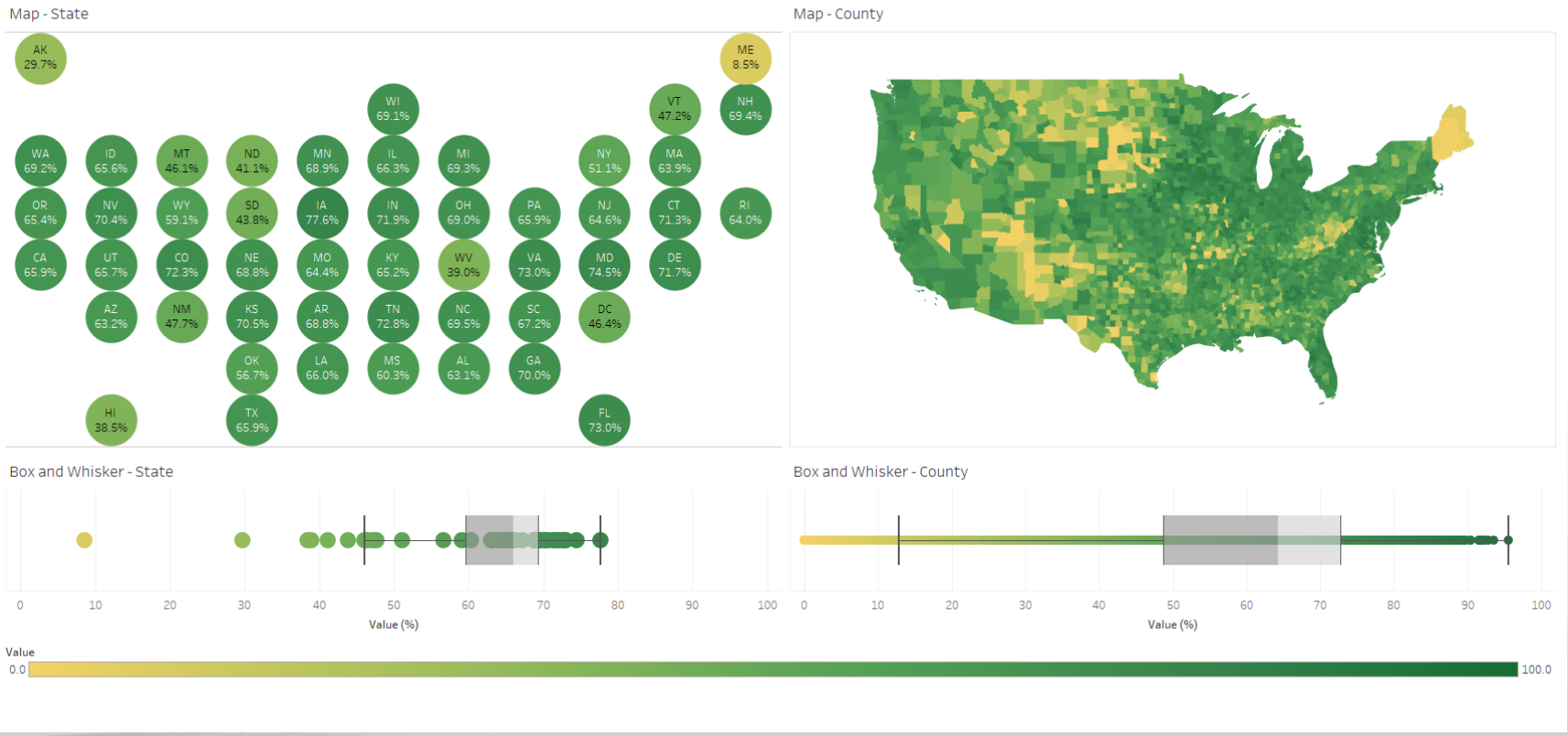
Place



Burden Reduction Visualized

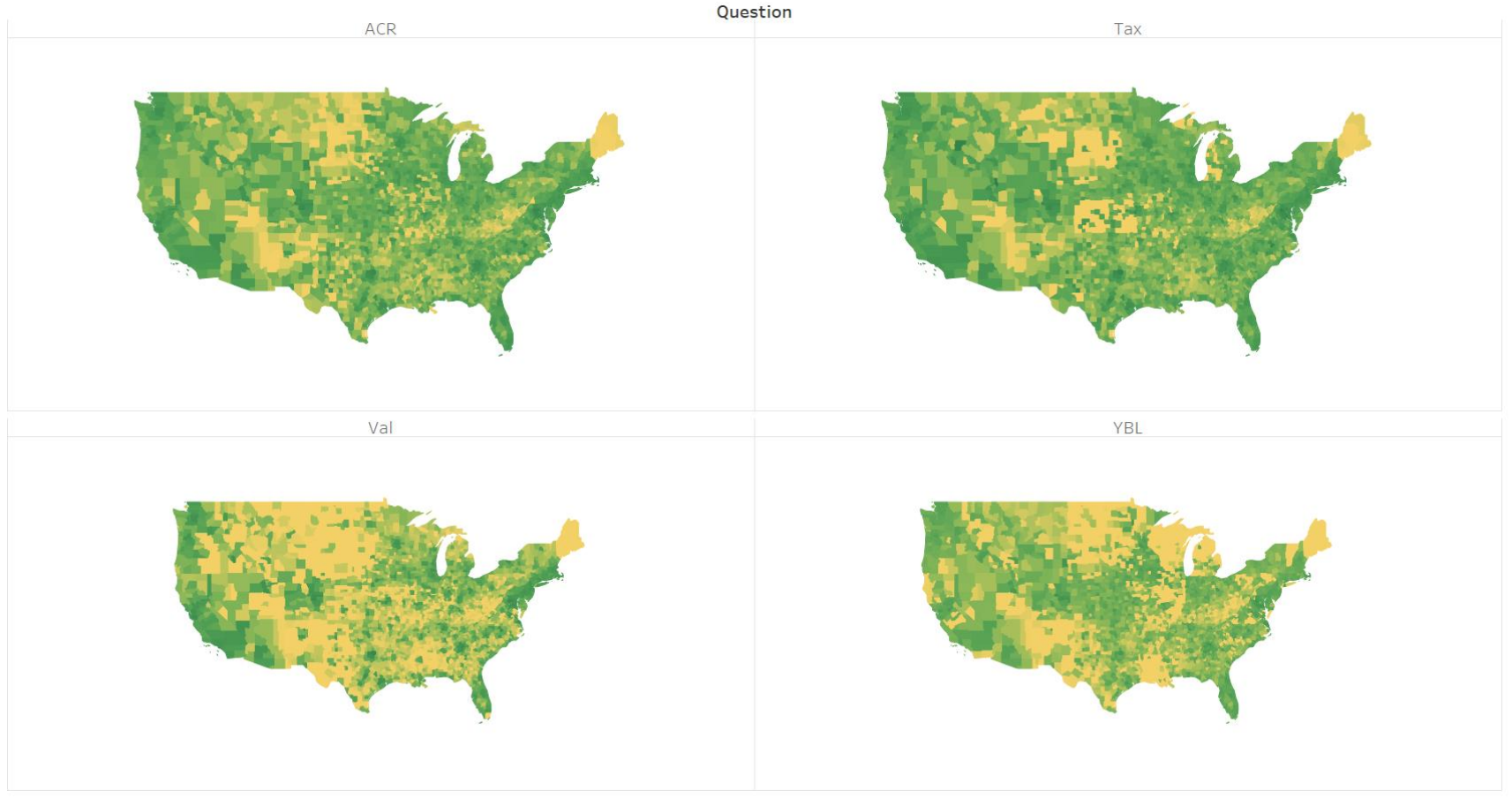
Overall Match Rate

What percentage of ACS households have an admin record match?



Burden Reduction Visualized

By County and Variable – Geographic View



Challenges: Source of ARs

- Rely on outside vendor, CoreLogic (CL)
- Best source of property value data comes from CL's Automated Valuation Model (AVM) and the methodology is unknown
- Collection of AR data differs among jurisdictions
- Data not available for some areas and types of housing units
- Often a time lag between survey year and AR

Challenges: Incorporating AR in the ACS

- Sometime unable to match AR to ACS
- Adapting all modes – difficult for mail mode
- Involves changes to entire survey life cycle
  - Significant resources
  - Risky without thorough testing
- Using AR may complicate data disclosure avoidance

Preliminary Conclusions

- Significantly reduces respondent burden in terms of asking survey items
- Significant improvement in item allocation rates
- Must overcome several challenges
  - Source of AR
  - Incorporating in ACS
- Admin data is different from ACS response data
  - Break-in series
  - Using two estimate sources - that are different and potentially unfairly represent some geographies
  - Impacts other survey items (e.g., income)

Questions for CSAC

- What criteria should we use to determine what ARs are fit for use?
- What is the best way to introduce ARs into the ACS in production? Run in parallel for a few years?
- How do we communicate the change in estimates, if we use ARs?