Who gets it right? Using survey and administrative data to evaluate characteristics associated with accurate reports of health insurance coverage

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Setting the stage

- Survey data are critical to monitoring health reform and access
- Reports of health insurance known to have measurement error

Goals of this study

- Describe correlates of accurate reports of insurance coverage in two commonly used census surveys:
  - Current Population Survey ASEC (CPS)
  - American Community Survey (ACS)
- Identify variation in correlates of accurate reporting of coverage by
  - type of insurance (public or private) and
  - survey (ACS and CPS)

Why do correlates of accuracy matter?

Results can inform

- Survey design
- Editing or imputation routines
- Adjustments to population estimates of coverage type for policy simulation and evaluation

What do we know about who gets it right?

- What is known is limited to **Medicaid** reporting
  - Most accurate:
    - Adults reporting for children vs adults
    - Low income, unemployed, low education
    - Shared coverage
    - Received medical care
    - Recency, intensity of coverage

Reverse Record Check Study

- Start with phone numbers of enrollees from US-based private health plan that offers multiple coverage types
- Use records as sample and randomly assign to different survey treatments
  - Current Population Survey ASEC (CPS)
  - American Community Survey (ACS)
- Compare estimates/indicators of coverage type:
  - Survey estimates versus enrollment records
  - Difference in surveys and records across CPS and ACS

Methods

- 15-minute split-panel phone survey conducted in Spring, 2015
- Content:
  - Demographics
  - Labor force
  - Government program participation (food stamps, WIC, etc.)
  - Health insurance randomization

- Stratified sample: oversampled public, undersampled ESI → weighted to the health plan population; adjusted for non-response
- 22% response rate (AAPOR RR4)
- Data collected on all household members
- Individuals in surveys matched to enrollment records: at least one person matched in 87% of households
- Final matched dataset: 3,800 people
  - **2,000 received CPS**
  - **1,800 received ACS**

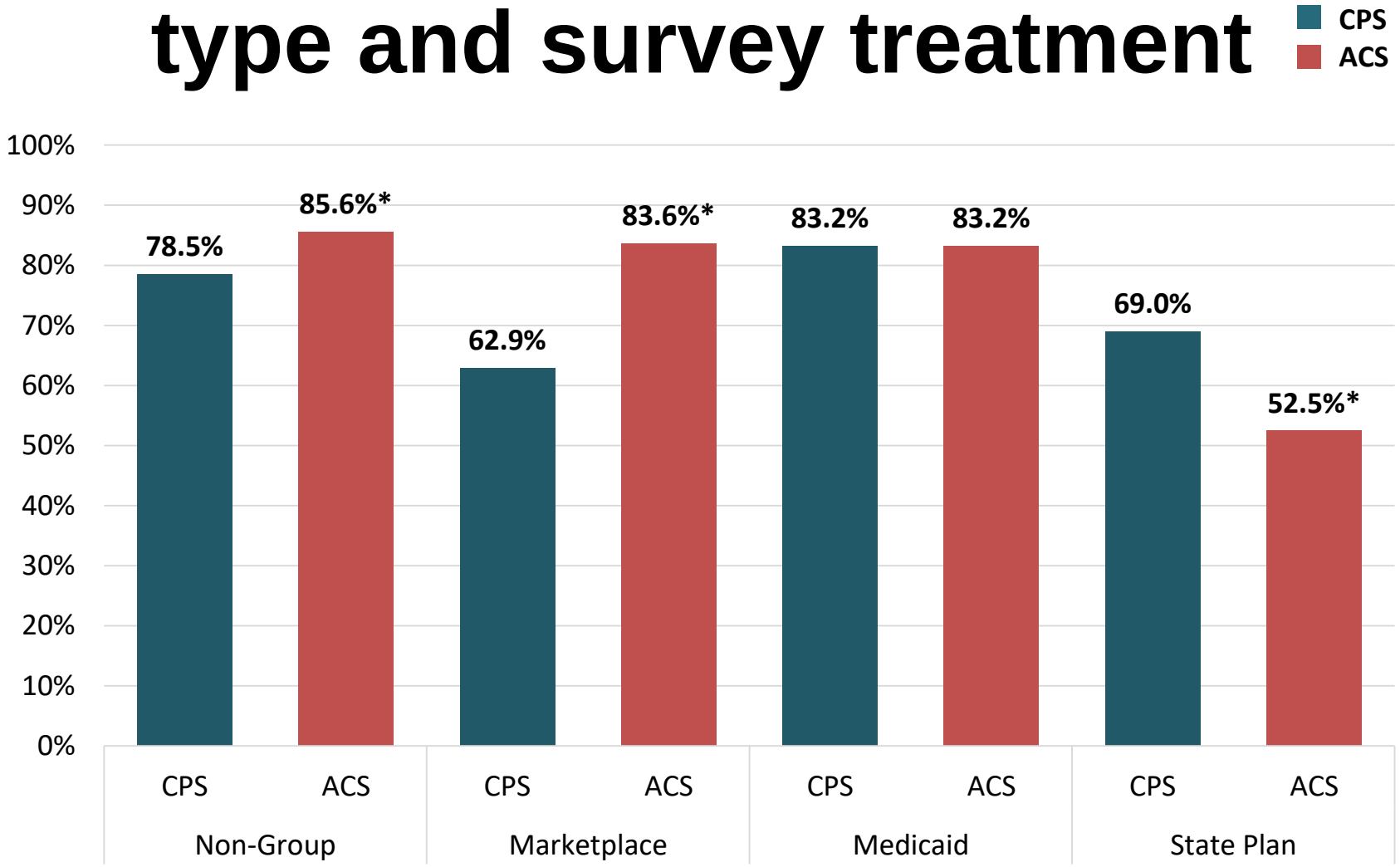
Measures: Potential correlates of accurate reporting

- Covered individual characteristics
  - Age, health status (survey)
  - Any services in past 6 months (claims: public only)
- Respondent characteristics
  - Gender, race/ethnicity, education and employment status, employer size (survey)
  - Policy holder status (claims)
- Family/HH characteristics
  - Income as % poverty (survey)

Measures: Potential correlates continued

- Insurance coverage characteristics
  - Shared coverage (survey and claims)
    - Proxy-report in multi-person HH w/ different coverage
    - Proxy-report in multi-person HH w/ same coverage
    - Self-report in multi-person HH
    - Self-report in one-person HH
  - Recency/intensity of coverage (claims)
    - Now and up to past 6 months, 7-17 months, 18 months or more
  - Receipt of subsidy (claims)
    - Marketplace only

Reporting accuracy by insurance type and survey treatment



* Indicates a significant difference between CPS and ACS p < .05 or better.

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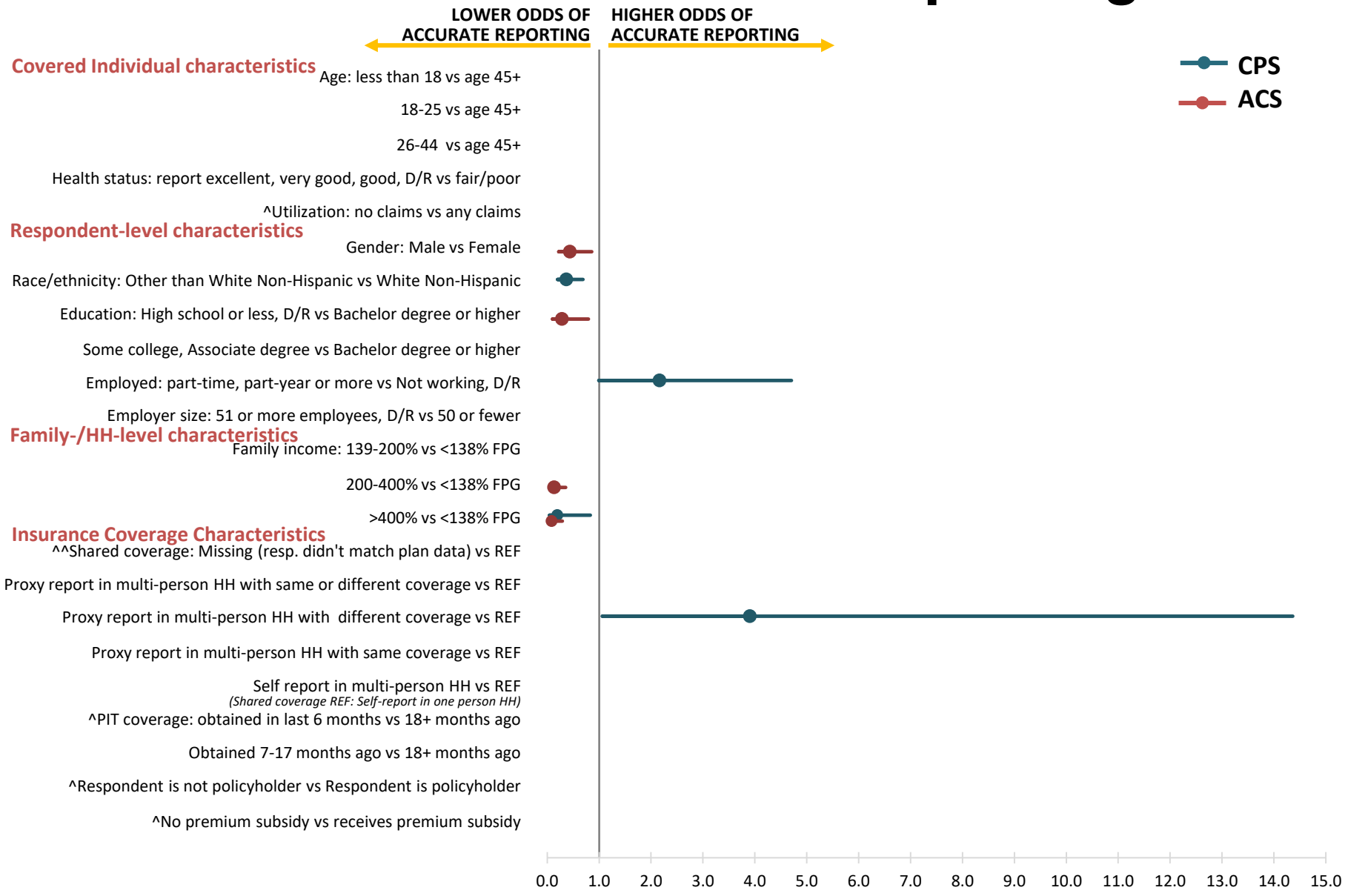
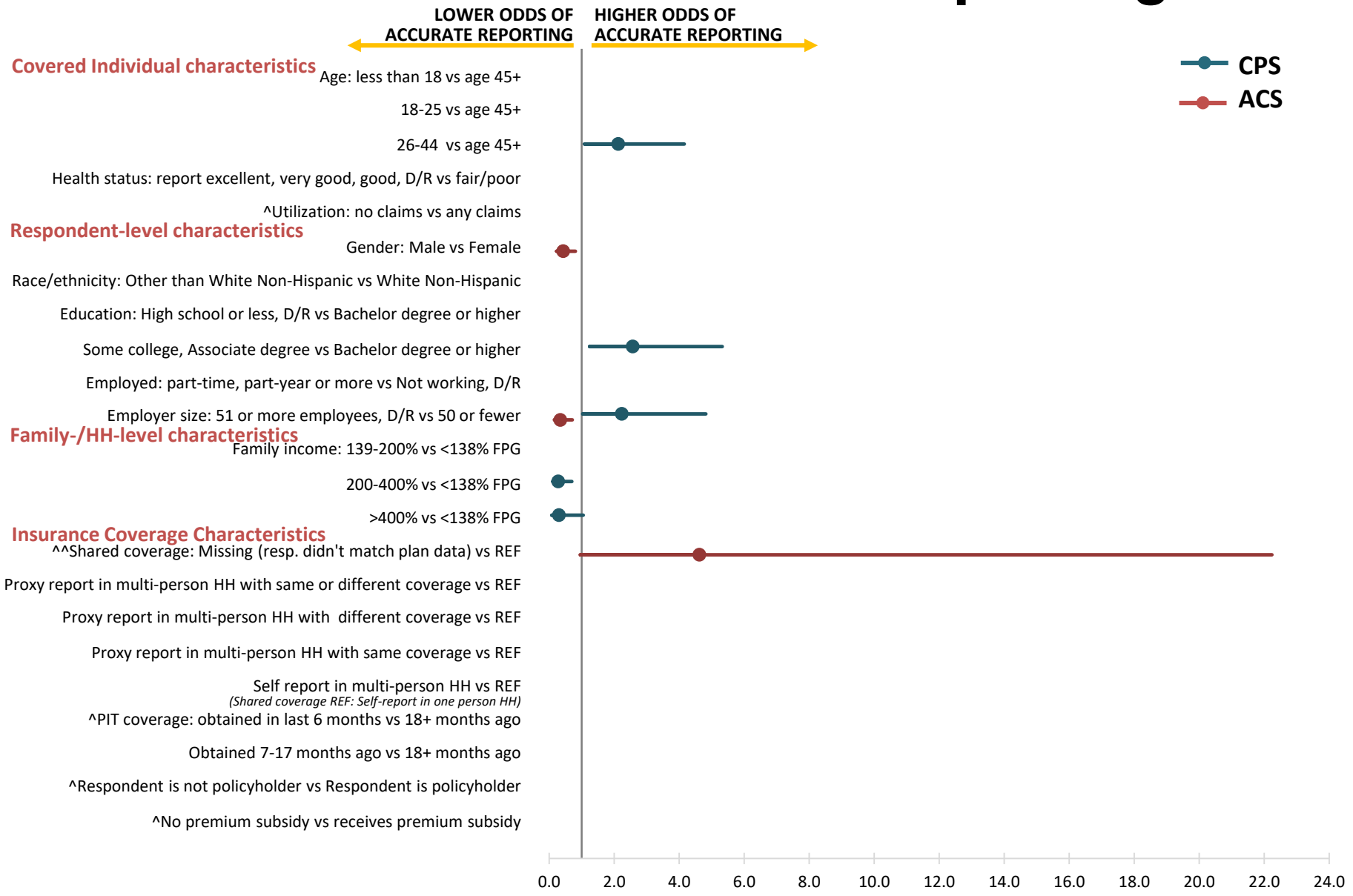
Odds of accurate Medicaid reporting



REF=Proxy report in multi-person HH with different coverage

^ Based on administrative records data; all other indicators are from survey data.

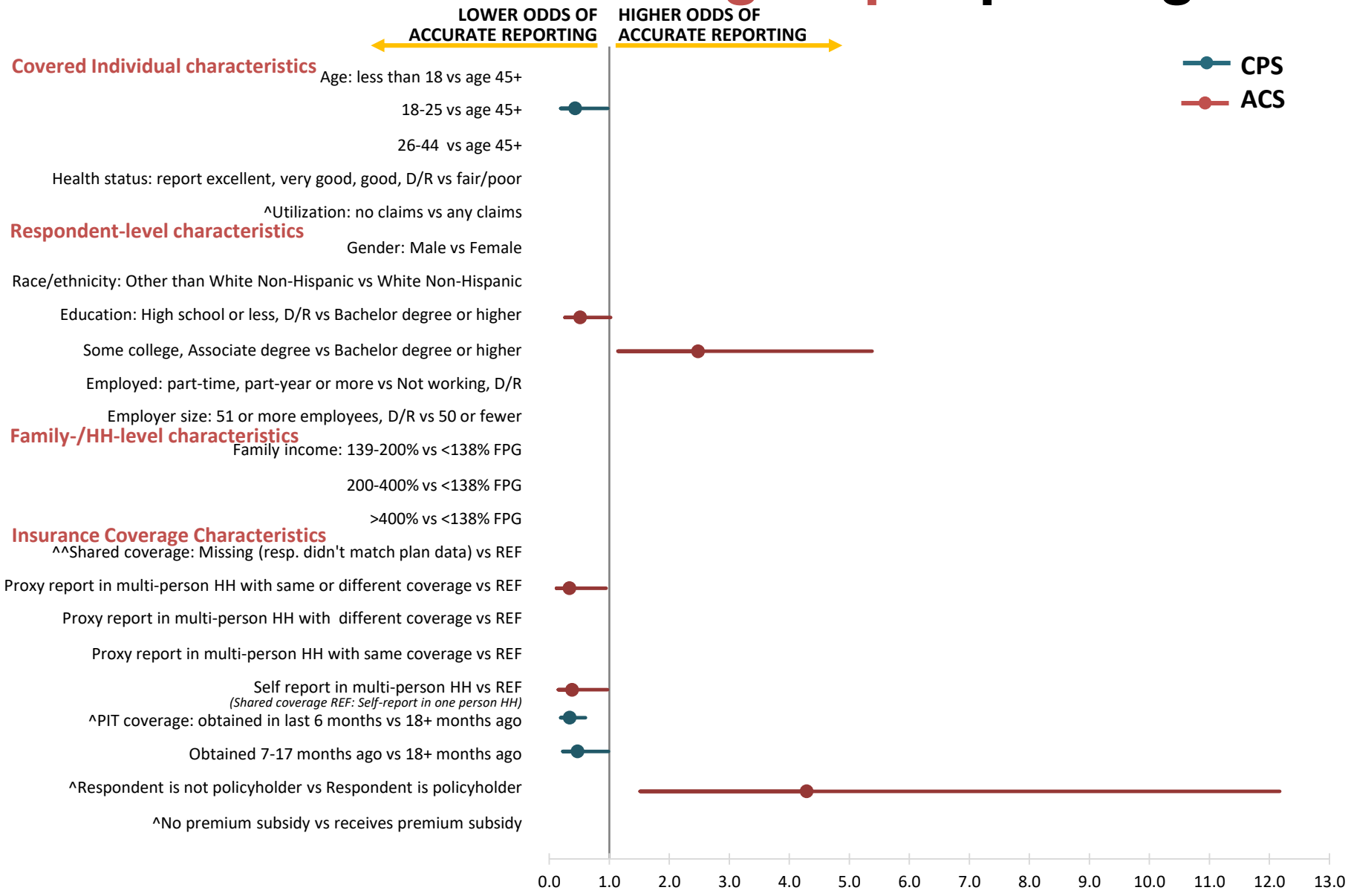
Odds of accurate State Plan reporting



REF=Proxy report in multi-person HH with different coverage and missing (respondent didn't match)

^ Based on administrative records data; all other indicators are from survey data.

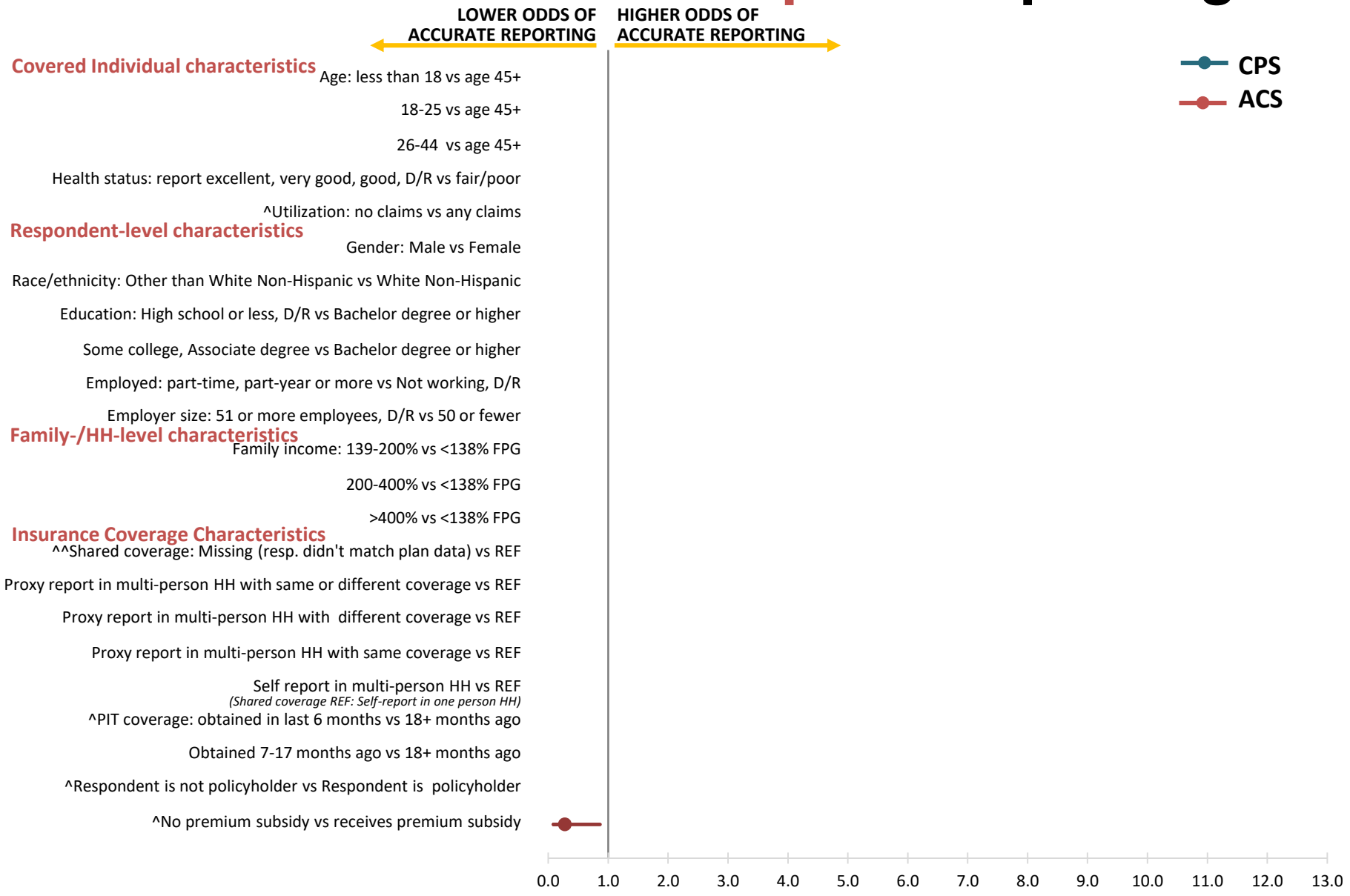
Odds of accurate Non-group reporting



REF=Proxy report in multi-person HH with different coverage and missing (respondent didn't match)

^ Based on administrative records data; all other indicators are from survey data.

Odds of accurate Marketplace reporting



REF=Proxy report in multi-person HH with different coverage and missing (respondent didn't match)

^ Based on administrative records data; all other indicators are from survey data.

Summary of key results

- Variation across public and private programs
  - For public programs family-level and respondent-level characteristics matter
    - Those in low income families (ACS, CPS) and females are more accurate
  - For private insurance education of respondents and coverage characteristics matter
    - Living alone and reporting for self (ACS)
    - Longer duration of same coverage (CPS)
    - Those receiving a subsidy in Marketplace plan
- Some results make intuitive sense, some do not

Conclusions

- CHIME is first look at correlates of accurate reporting for ACS, CPS redesign, direct purchase and marketplace
- Although significant correlates are sparse, there patterns that have potential for imputation/editing
  - CHIME results for **public** insurance are consistent with past research in terms of income, but not health status or use of health care
    - Good: income is typically included in surveys; linking to claims is challenging
  - Correlates of **private** reporting accuracy vary by survey
    - For **ACS**, more significant correlates (age, reporting coverage for self)
    - For **CPS**, fewer significant correlates (duration of coverage)

Next steps

- Adjust for respondents reporting for multiple people in survey
- Restrict sample to those reporting for themselves vs proxy reports
- Understanding importance of who is reporting for whom is understudied

Suggestions? Questions?

Thank you!

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