Tailored approaches to data collection to reduce field collection costs

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Outline

■ Background

■ Development of Cost Cutting Measures

■ (Very) Early Results

■ Plans/Next steps

Consumer Expenditure Survey

- Collects spending data on the U.S. Population
- Provide expenditure weights for the U.S. Consumer Price Index (CPI)
- Sponsored by the Bureau of Labor Statistics, collected by the Census Bureau
- Survey participants report dollar amounts for all non-investment purchases. Business expenses and reimbursements are excluded.
- Two independent surveys:
  - ▶ Interview Survey: 4 waves, 3-month recall of large and regular expenses
  - ▶ Diary Survey: Household characteristic survey and two consecutive one-week expenditure diaries
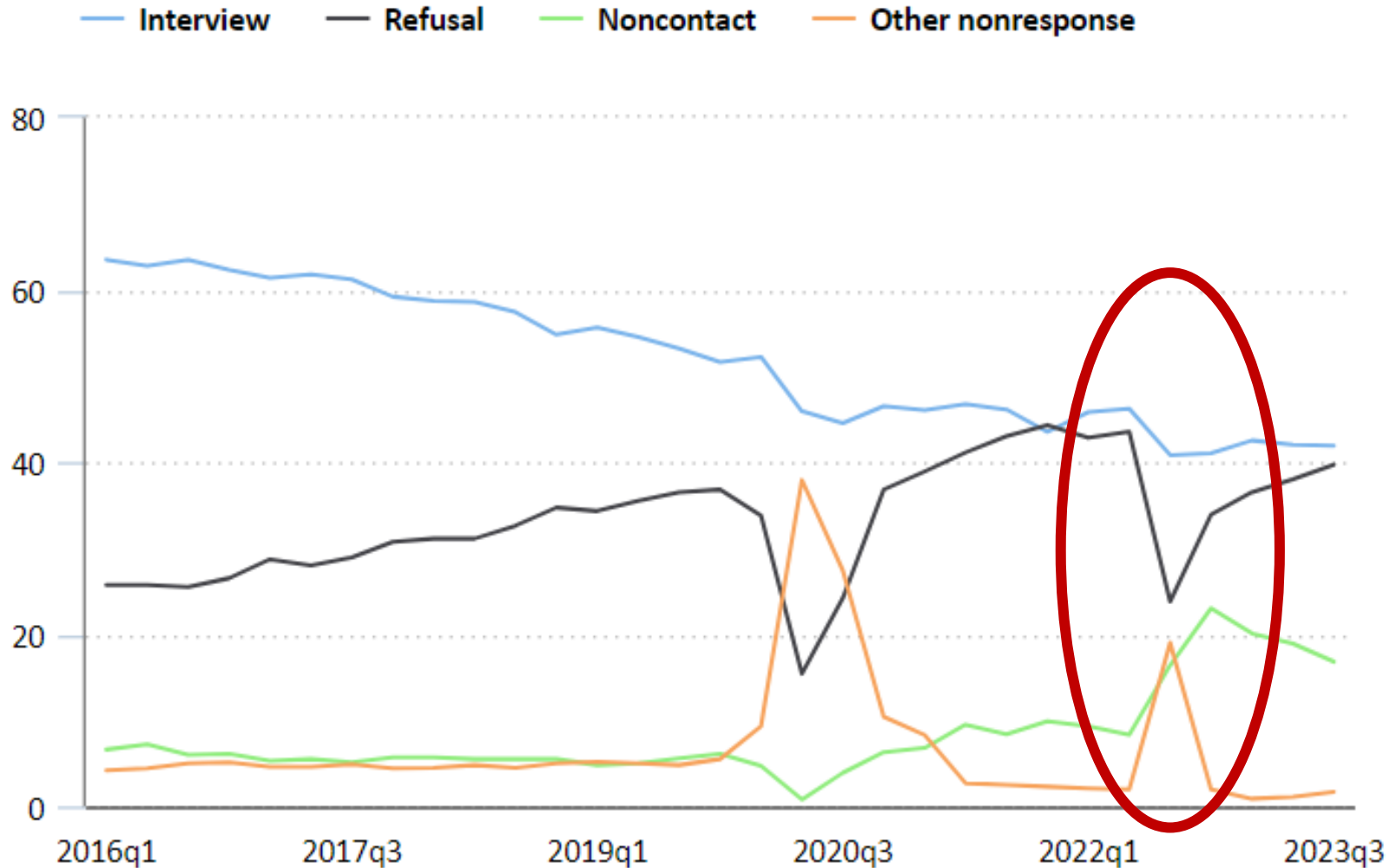
Background

- 2022 – at risk of budget shortfall

  - Mileage rates increased from 58.5¢ to 62.5¢ midyear

  - Before the pandemic, cost-of-living adjustments (COLAs) were relatively low and stable.

  - COLAs increased by (to?) 5.9% in 2021 and 8.7% in 2022

- BLS and Census needed to identify an easy to implement method for reducing sample to cut costs

  - Flat rule: For wave 4 interviews, don't attempt cases that were prior Type A non-interviews.

  - Emphasis on tightly monitoring interviewer hours and miles used per case

Interview Survey: distribution of final dispositions for eligible sample units (unweighted) Rates

Source: Consumer Expenditure Surveys Data Quality Profile.

Background: FY2024 Budget Development

- Cost estimates for collection much higher than previous years (primarily due to increased costs for collection – FR salaries, mileage, etc)

- No increase to BLS's Operational Authority (budget)

- Limited impact from typical cost-cutting measures (e.g., virtual vs. in-person meetings and training)

- Concerns over cutting sample (normal approach to lack of funding)

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Approach to cutting costs

■ Reduce the *total number of cases worked* with…

▶ Minimal impact on response rate and effective sample size

▶ An easy to implement solution

– Constrained by available apriori data

– Limited time to implement on a monthly collection cycle

– Managed by Census Headquarters, not managed by the Field Offices

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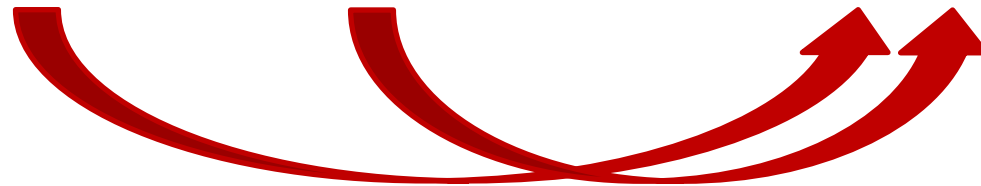# Approach to cutting costs, cont'd

- Find identifiers that have:

Minimal impact on total number of complete interviews (numerator)

(i.e., identifiers that are predictive of Refusals and Noncontacts)

Goal (AAPOR RR2):

$$\frac{(Interviews + Partials)}{(Interviews + Partials + Refusals + Noncontacts + Other\ Nonresponse)}$$
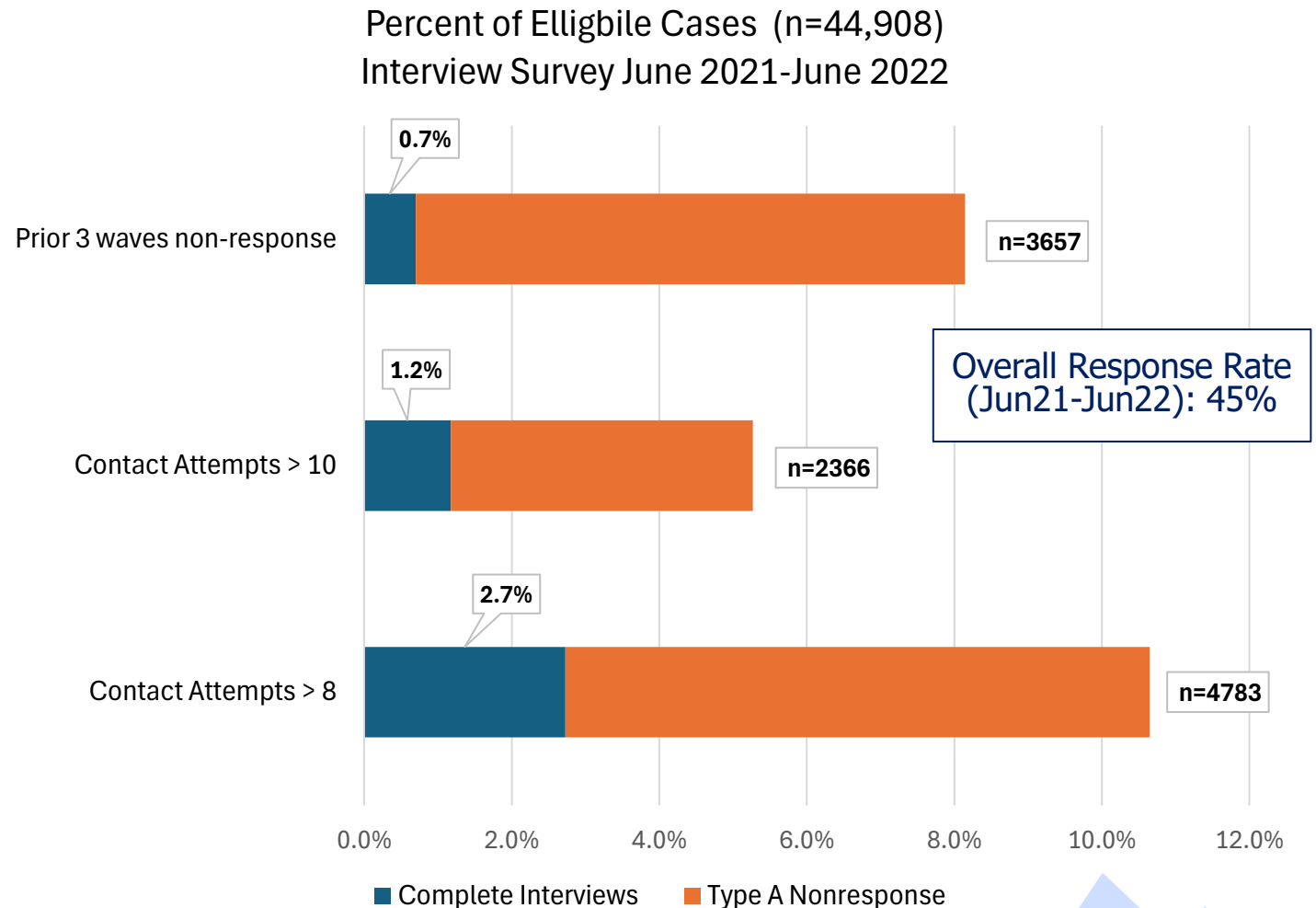
Variables considered – Interview Survey

■ Interview Survey (up to 3 prior waves)

Variables Considered:

- Number of contact attempts

- Prior wave outcomes (refusals, noncontacts, other)

- Prior wave doorstep concerns (anti-government, health, too busy, etc)
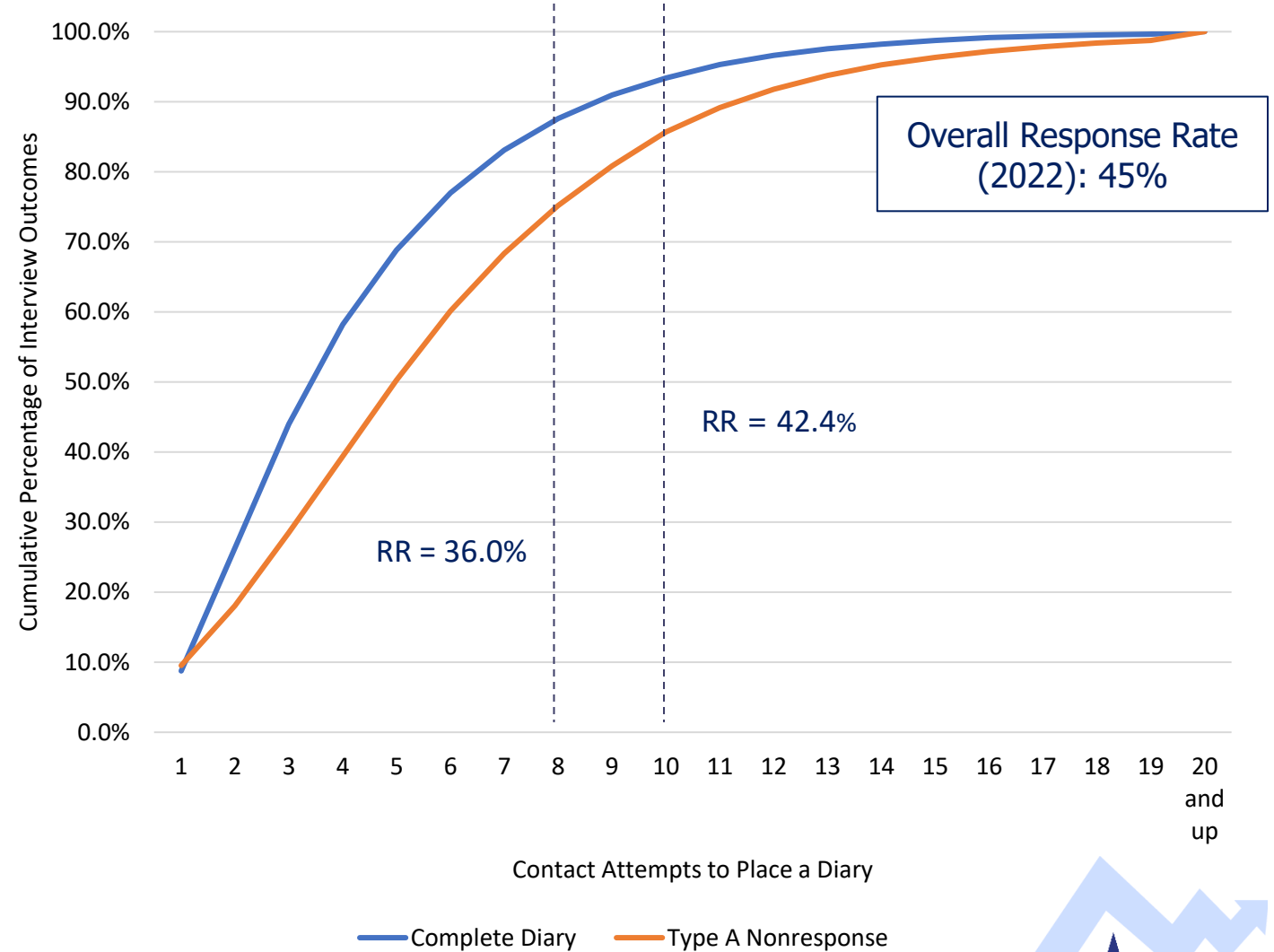
Percent of Elligbile Cases (n=44,908)
Interview Survey June 2021-June 2022

Overall Response Rate (Jun21-Jun22): 45%

Prior 3 waves non-response — 0.7% — n=3657

Contact Attempts > 10 — 1.2% — n=2366

Contact Attempts > 8 — 2.7% — n=4783

0.0% 2.0% 4.0% 6.0% 8.0% 10.0% 12.0%

■ Complete Interviews ■ Type A Nonresponse

Variables considered – Diary Survey

■ Diary Survey (one shot)

Variables Considered:
- Number of contact attempts

Contacts to Final Diary Survey Outcome in 2022

Overall Response Rate (2022): 45%

RR = 42.4%

RR = 36.0%

Cumulative Percentage of Interview Outcomes

Contact Attempts to Place a Diary

— Complete Diary   — Type A Nonresponse

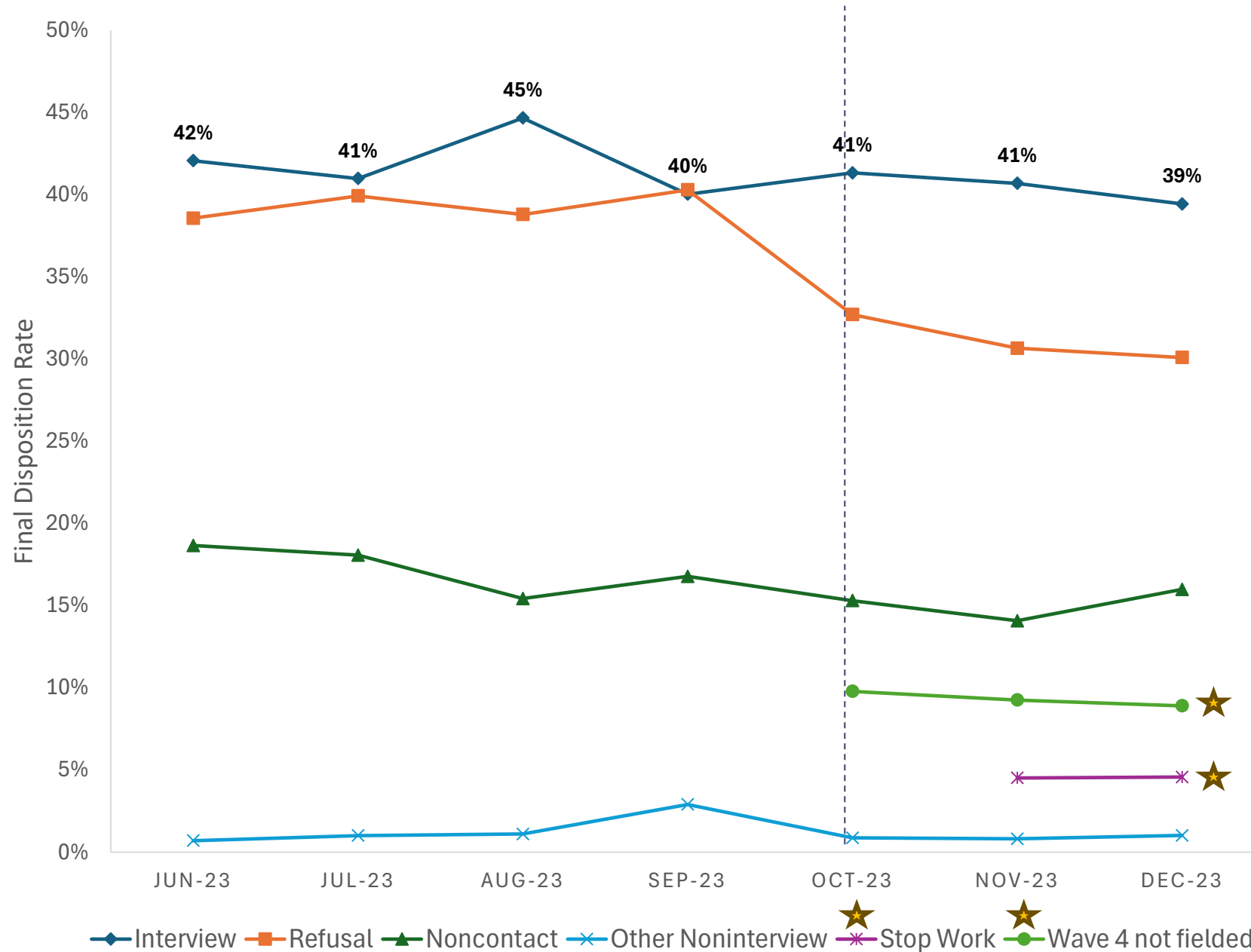# Final Cost Reduction Measures

■Tailored approach to reducing costs:

Diary and Interview Surveys:

1) Caps on mileage and hours (*based on previous averages…no expected impact)

2) Maximum number of contact attempts (>8)

Interview Survey only:

3) Don't return to wave 4 cases where wave 1-3 were non-interviews

Interview data collection outcomes Jun-Dec 2023

Impact So Far?

☑ Cost within budget (so far)

☑ Lower than expected impact on Response Rates

☑ Positive Feedback from Field Staff

Future research/plans

- Further evaluation of impact based on historic data
  - If we had implemented this earlier and reweighted accordingly, would the estimates have differed?
  - How did the sample composition of cut cases compare?

- Evaluate new data collected
  - Regular evaluation of nonresponse bias existence
  - Impact on estimates/sample composition
  - Evaluation of Fielding strategies (time of contact attempts, etc)

- Consider more sophisticated models in the future for targeting cases to cut?

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