Lecture 15: Missing Data

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March 21 2024

Pset II

- Due next Thusrday 3/28 midnight
- Late submission on Sunday midnight.
- Coding task only.

Multiple imputation

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4. The missing values for "var" are then replaced with predictions (imputations) from the regression model.
5. Steps 2–4 are then repeated for each variable that has missing data.
6. Steps 2–4 are repeated for a number of cycles, with the imputations being updated at each cycle.

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  What if the person answered the questions?

  - Imputation: find similar observed group to approximate the outcome for missing group.
  - Causal inference is a missing data problem!

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  - Missing data covers more than just causal inference.

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- Whether voters express favorability towards the party / candidate, and vote intention.

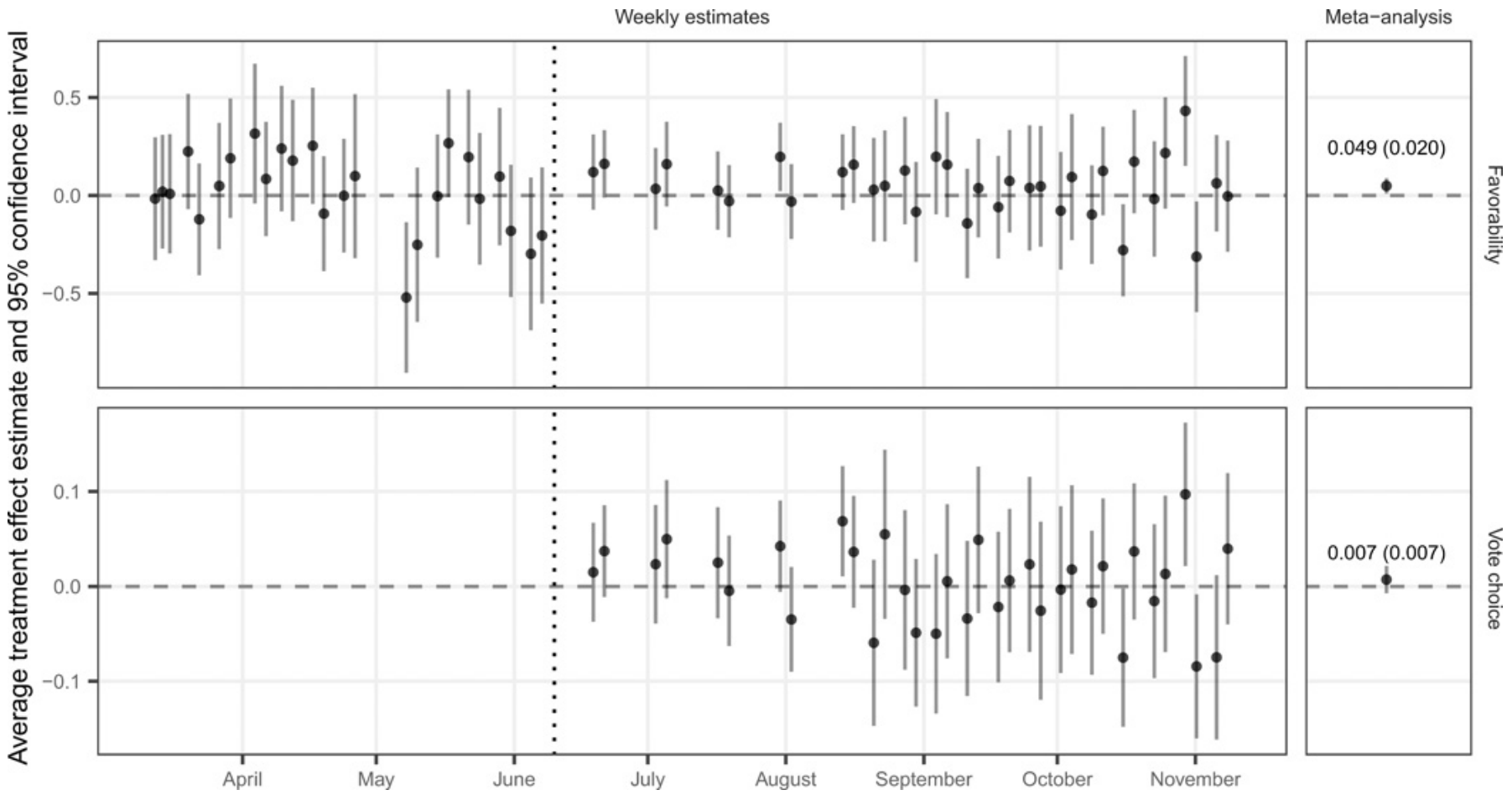
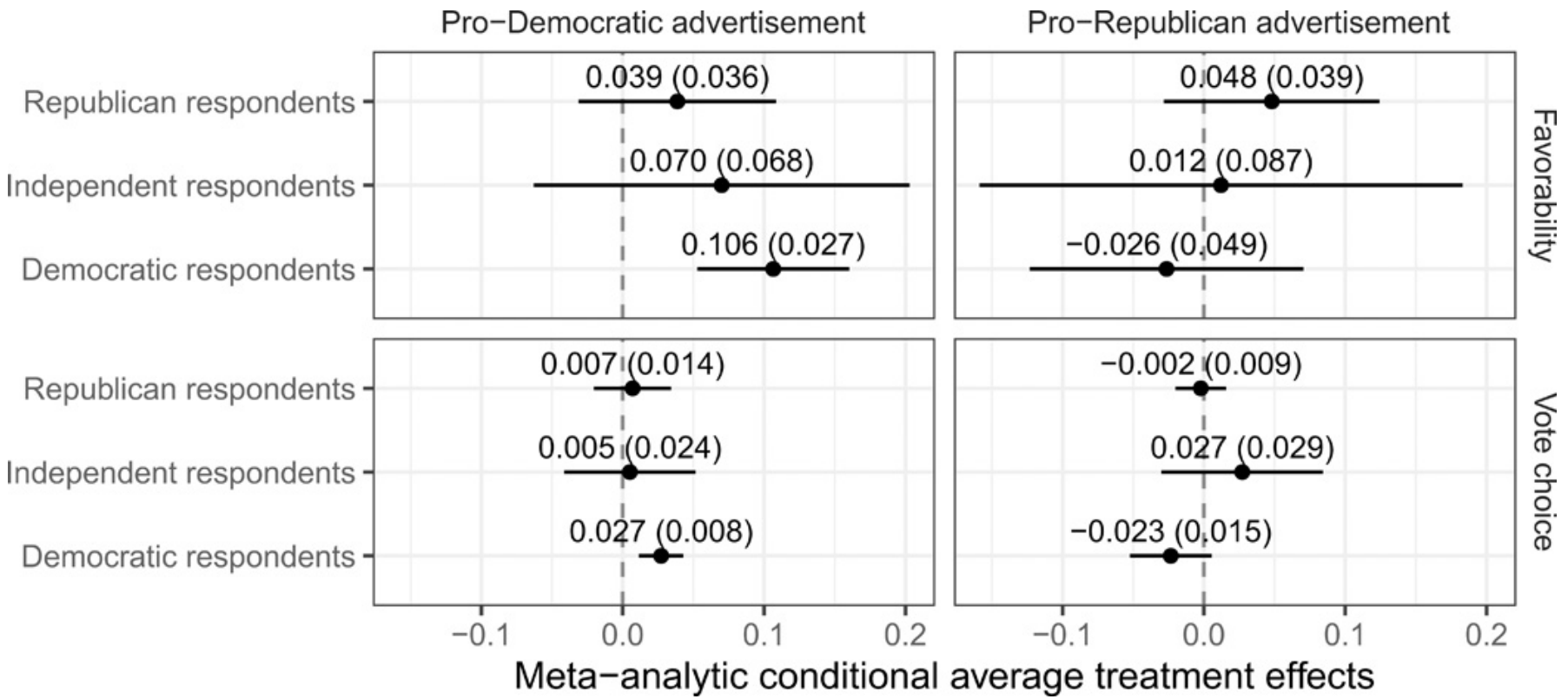

Weekly estimates
Meta−analysis
Average treatment effect estimate and 95% confidence interval
0.5
0.0
−0.5
0.049 (0.020)
Favorability
0.1
0.0
−0.1
0.007 (0.007)
Vote choice
April
May
June
July
August
September
October
November

Figure: Democratic respondents show more significant effects.



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- Test potential attrition bias by respondent partisanship:
  - Full set of respondents who began each survey
  - Partial set of respondents who finished each survey