AmeriSpeak

CELEBRATING 10 YEARS

Targeting Panelists Who Are Chronically Providing Suboptimal Responses

Interventions Leveraging Auxiliary Data

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The issue of inattentive respondents

- **Online panels often face potential data quality issues due to satisficers or inattentive respondents**
  - Leads to measurement errors that are disproportionately larger within key subgroups
  - Less of an issue in probability-based panels than opt-in panels, but still a concern
- **No widely accepted industry standards for removing suboptimal responses from the data, or retiring respondents who chronically provide suboptimal responses**

Methodology

A randomized experimental intervention

- Probability of satisficing is correlated with respondent motivation
  - Is it possible to reduce suboptimal behavior by boosting respondent motivation?
- **Conducted randomized experiments via NORC's AmeriSpeak panel**
- **Study objectives:**

1. Identify panelists who are **chronically providing suboptimal responses**
2. Experiment with various interventions to encourage them to **more consistently provide higher-quality responses**
   - Do interventions overall improve data quality?
   - Which interventions are the most impactful?

Krosnick J. A. (1991). Response strategies for coping with the cognitive demands of attitude measures in surveys. Applied Cognitive Psychology, 5, 213-236. doi: 10.1002/acp.2350050305

Identifying suboptimal responses

- **Mostly identified using paradata**
- **Types of suboptimal responses that this study focuses on:**
  - **Straightlining: Providing the same answer** to each question in a grid
  - **Skipping: Failing to answer** a sufficient number of survey questions
  - **Speeding: Taking an implausibly short time** to complete a survey
  - **Other types of suboptimal responses include:** failing consistency checks, failing trap questions, or giving gibberish responses to open-ended questions

Sample for intervention

- **We identified panelists who have chronically exhibited suboptimal behavior since joining the panel**
  - Defined as **straightlining, skipping, or speeding (SSS)** on surveys
  - The rate of each panelist's SSS behavior was calculated based on all surveys they have taken; ~2,000 panelists were identified for intervention
  - Random sample was drawn, balanced on age, education level, and gender

Experimental approach

- We experimented with various interventions to encourage them toward more consistently high-quality behavior:
  - **1 – A no intervention control group**
  - **2 – An email contact** describing the importance of good data, how as a panelist they can help, and how much we value them as panelists
  - **3 – A short questionnaire** subtly asking about their behavior/seeking to learn more about their survey-taking behaviors
- Examine the change in **suboptimal responses (SSS)** before and after interventions
  - Mean SSS DIFF = Mean SSS (6 Months Before Intervention) – Mean SSS (6 Months After Intervention)

Initial Findings

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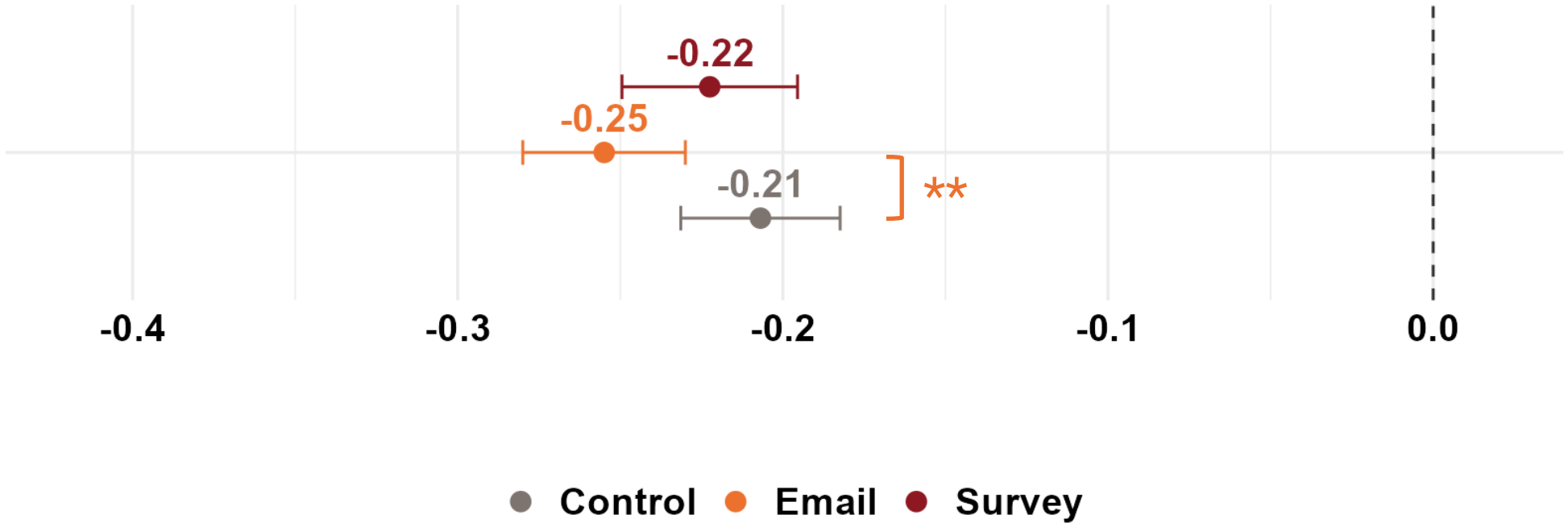
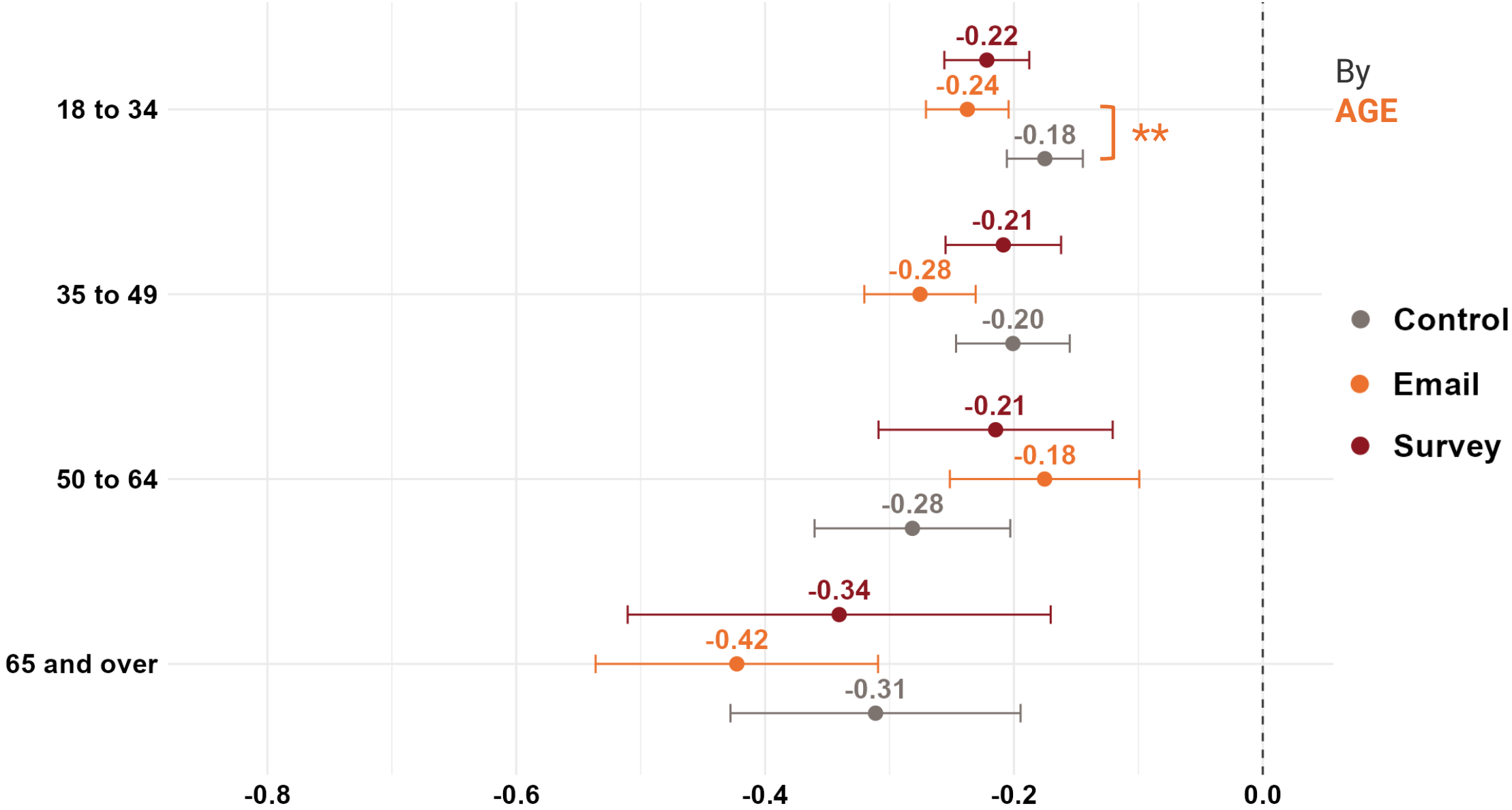
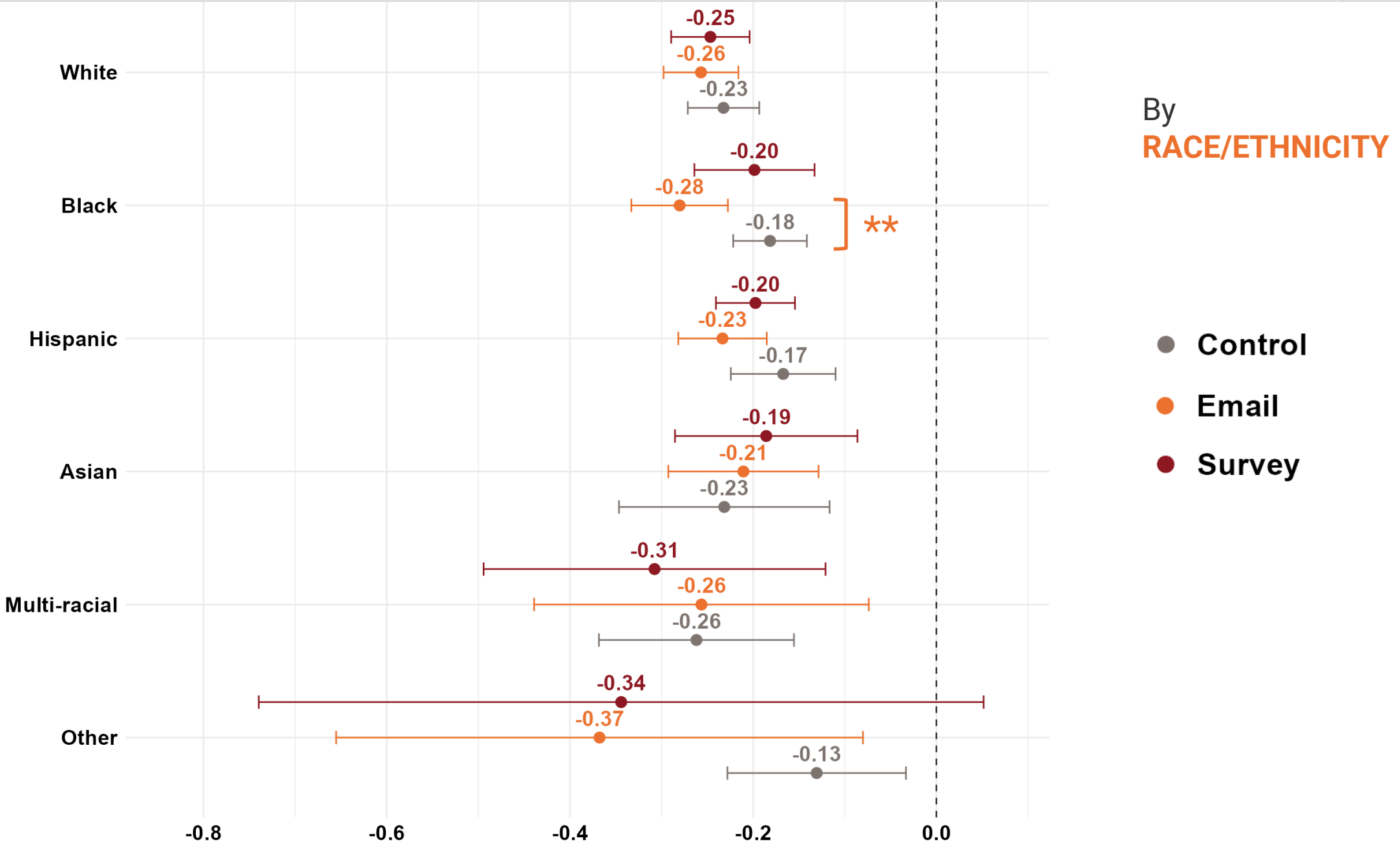
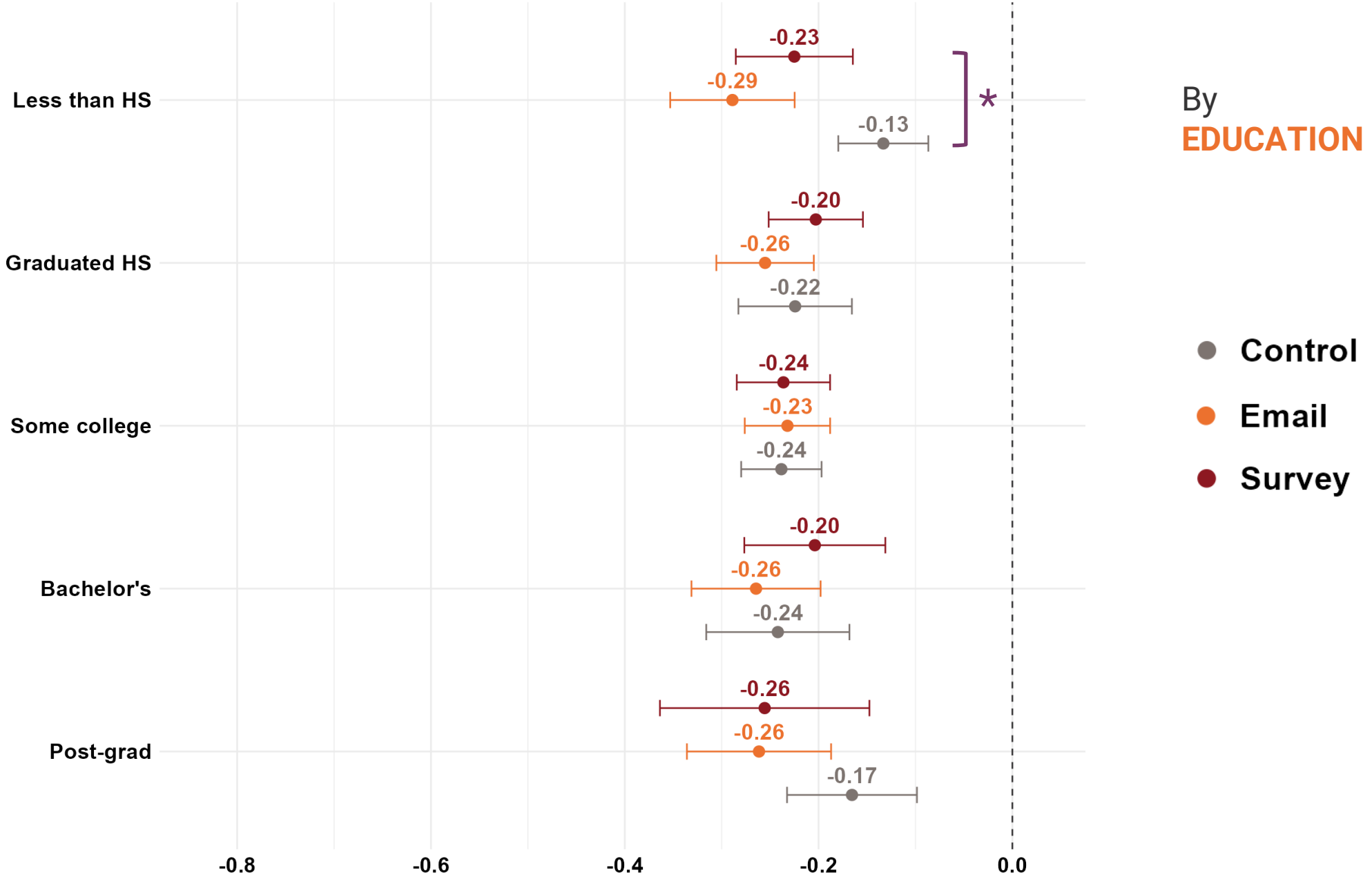
DIFFERENCE IN MEANS:
Mean SSS (6 months Before Intervention) – Mean SSS (6 months After Intervention)

OVERALL




By
AGE
18 to 34
35 to 49
50 to 64
65 and over
-0.22
-0.24
-0.18
**
-0.21
-0.28
-0.20
-0.21
-0.18
-0.28
-0.34
-0.42
-0.31
Control
Email
Survey
-0.8
-0.6
-0.4
-0.2
0.0


White
-0.25
-0.26
-0.23
Black
-0.20
-0.28
-0.18
**
Hispanic
-0.20
-0.23
-0.17
Asian
-0.19
-0.21
-0.23
Multi-racial
-0.31
-0.26
-0.26
Other
-0.34
-0.37
-0.13
-0.8
-0.6
-0.4
-0.2
0.0
By
RACE/ETHNICITY
Control
Email
Survey


Less than HS
-0.23
-0.29
-0.13
*
Graduated HS
-0.20
-0.26
-0.22
Some college
-0.24
-0.23
-0.24
Bachelor's
-0.20
-0.26
-0.24
Post-grad
-0.26
-0.26
-0.17
-0.8
-0.6
-0.4
-0.2
0.0
By
EDUCATION
Control
Email
Survey

Summary

- **We found that:**
  - Overall, the **email intervention** significantly improved data quality
  - Effect was especially pronounced for subjects who were: **aged 18-34, Black, or had less than a high school level of education**
  - There was **no significant difference in survey completion rate**, indicating that the interventions did not cause attrition

Follow-Up

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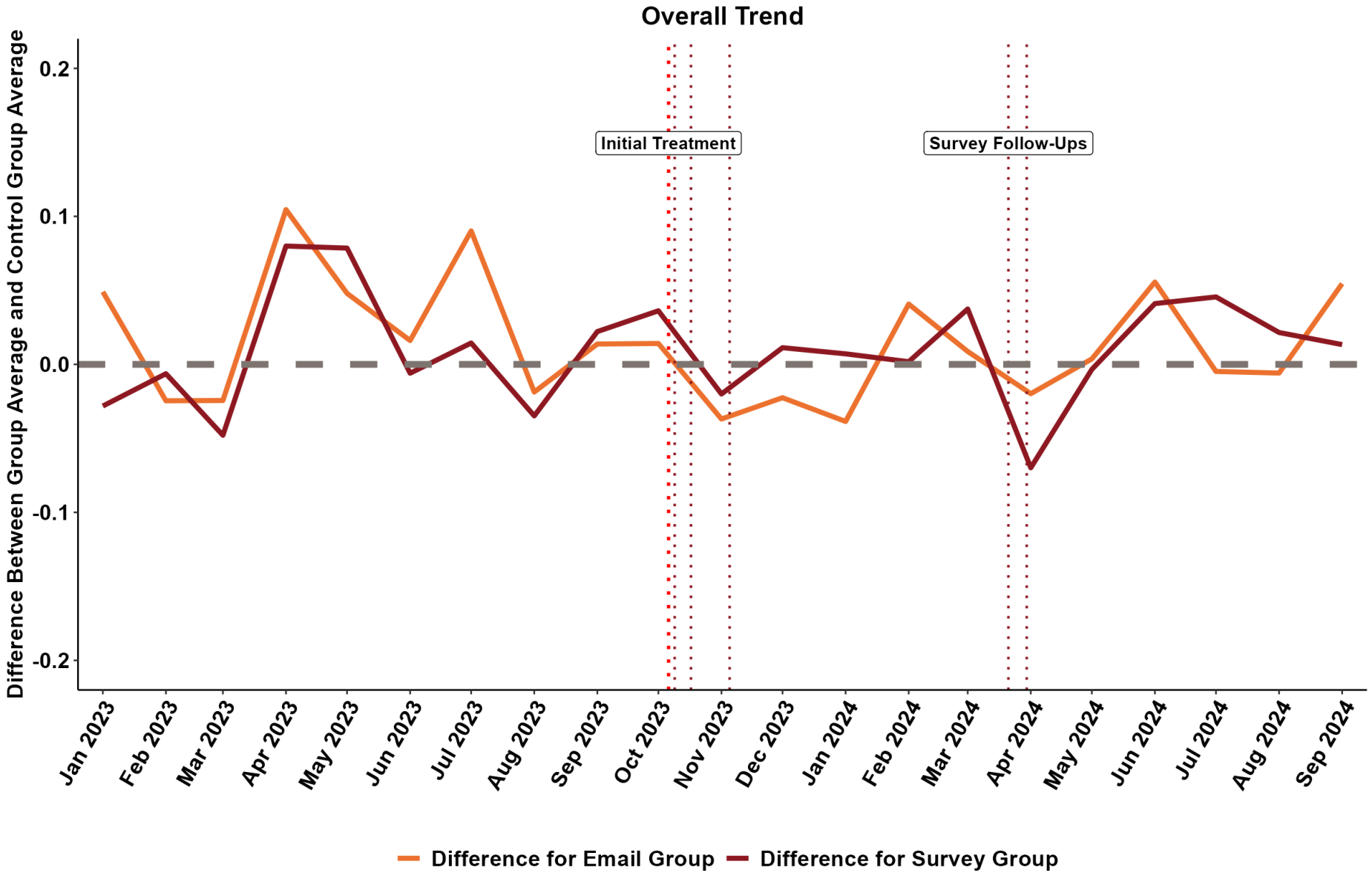
New directions

- Following up on our earlier aggregate findings, we explore:
  - How does the impact of these interventions **vary over time**?
  - How does impact **vary according to respondent's primary device type**?


Overall Trend
Difference Between Group Average and Control Group Average
0.2
0.1
0.0
-0.1
-0.2
Initial Treatment
Survey Follow-Ups
Jan 2023
Feb 2023
Mar 2023
Apr 2023
May 2023
Jun 2023
Jul 2023
Aug 2023
Sep 2023
Oct 2023
Nov 2023
Dec 2023
Jan 2024
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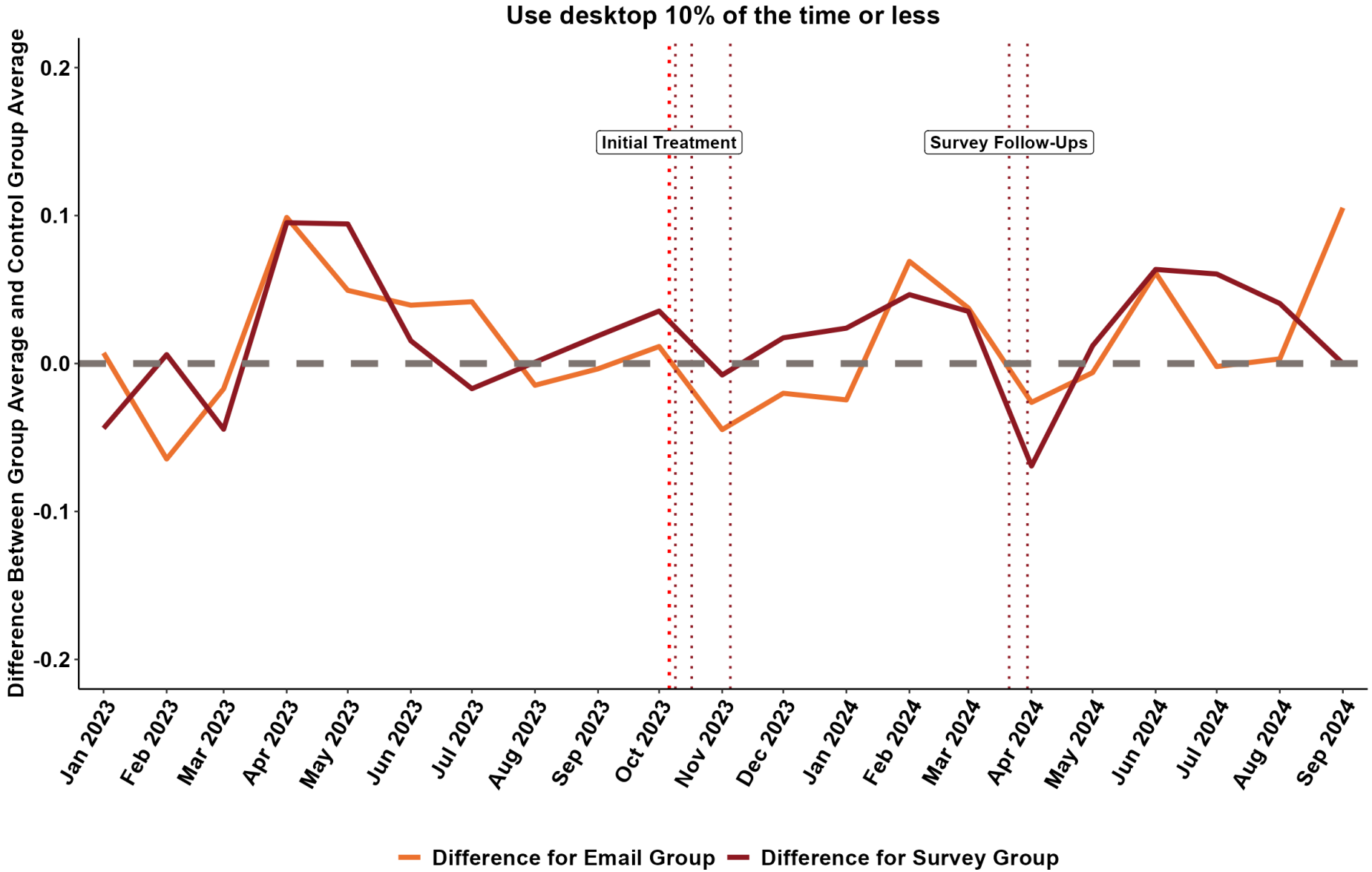
Apr 2024
May 2024
Jun 2024
Jul 2024
Aug 2024
Sep 2024
Difference for Email Group
Difference for Survey Group


Use desktop 10% of the time or less
Difference Between Group Average and Control Group Average
0.2
0.1
0.0
-0.1
-0.2
Initial Treatment
Survey Follow-Ups
Jan 2023
Feb 2023
Mar 2023
Apr 2023
May 2023
Jun 2023
Jul 2023
Aug 2023
Sep 2023
Oct 2023
Nov 2023
Dec 2023
Jan 2024
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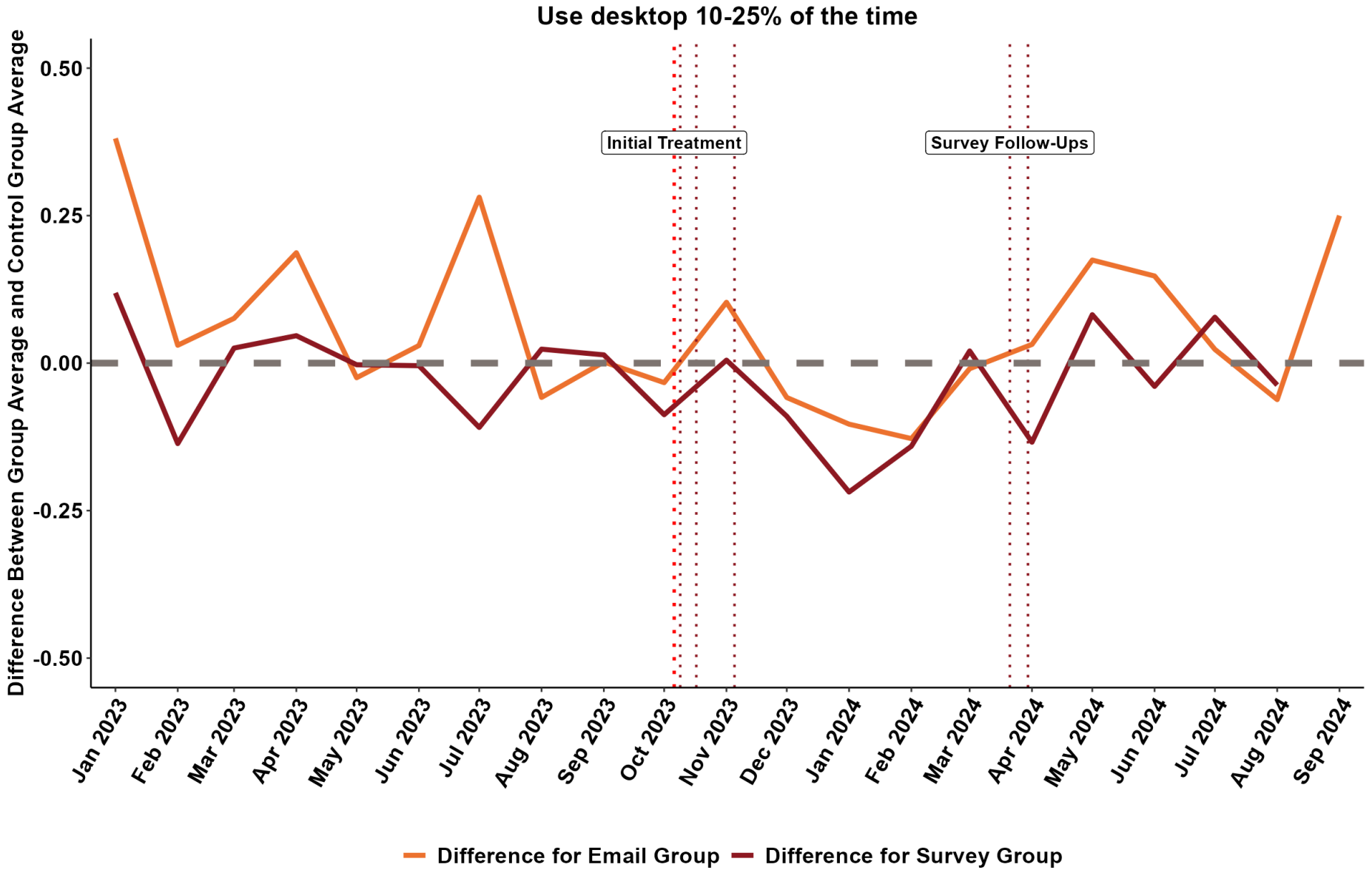
May 2024
Jun 2024
Jul 2024
Aug 2024
Sep 2024
Difference for Email Group
Difference for Survey Group


Use desktop 10-25% of the time
Difference Between Group Average and Control Group Average
0.50
0.25
0.00
-0.25
-0.50
Initial Treatment
Survey Follow-Ups
Jan 2023
Feb 2023
Mar 2023
Apr 2023
May 2023
Jun 2023
Jul 2023
Aug 2023
Sep 2023
Oct 2023
Nov 2023
Dec 2023
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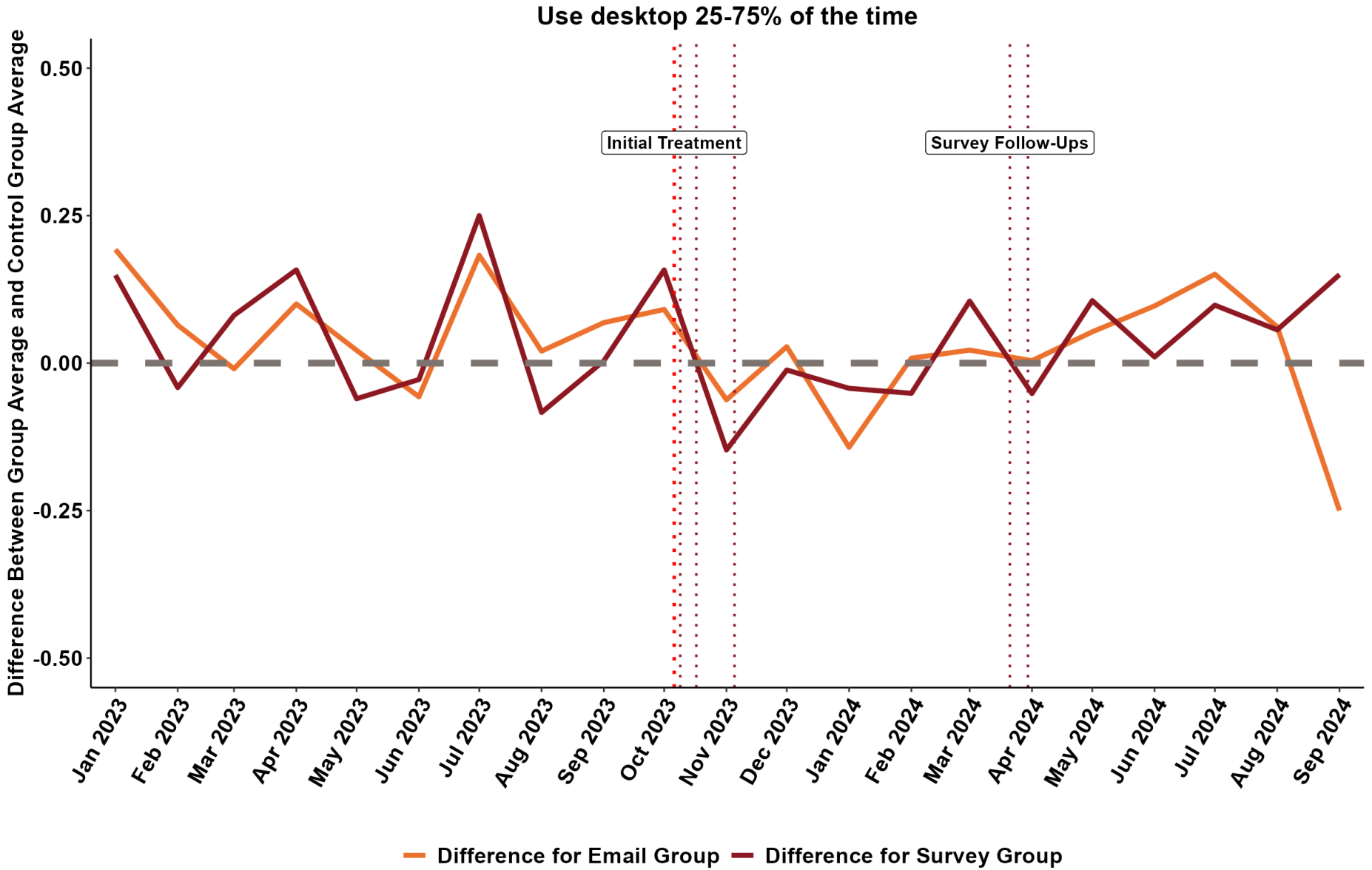
Jun 2024
Jul 2024
Aug 2024
Sep 2024
Difference for Email Group
Difference for Survey Group


Use desktop 25-75% of the time
Difference Between Group Average and Control Group Average
0.50
0.25
0.00
-0.25
-0.50
Initial Treatment
Survey Follow-Ups
Jan 2023
Feb 2023
Mar 2023
Apr 2023
May 2023
Jun 2023
Jul 2023
Aug 2023
Sep 2023
Oct 2023
Nov 2023
Dec 2023
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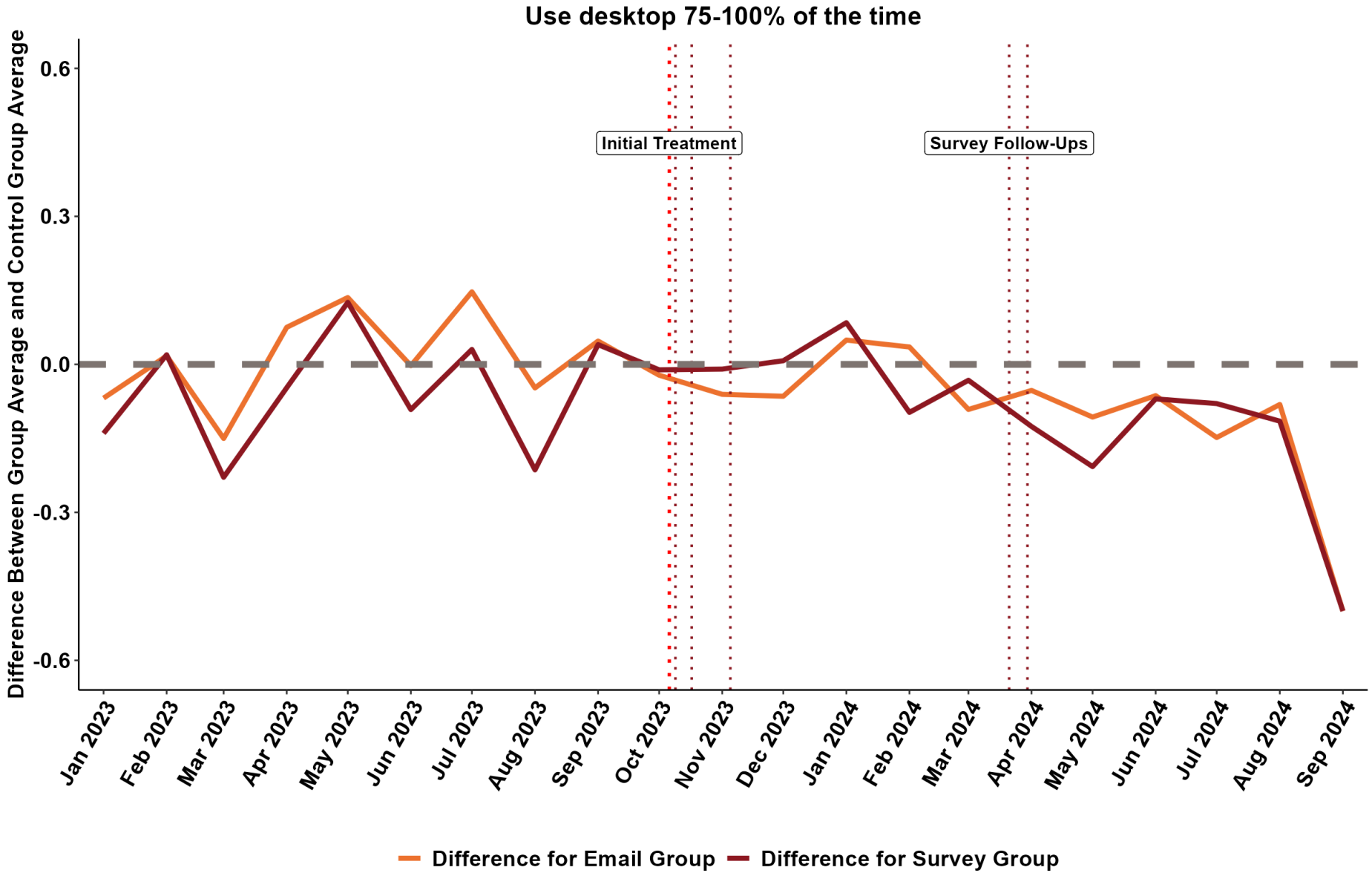
Aug 2024
Sep 2024
Difference for Email Group
Difference for Survey Group


Use desktop 75-100% of the time
Difference Between Group Average and Control Group Average
0.6
0.3
0.0
-0.3
-0.6
Initial Treatment
Survey Follow-Ups
Jan 2023
Feb 2023
Mar 2023
Apr 2023
May 2023
Jun 2023
Jul 2023
Aug 2023
Sep 2023
Oct 2023
Nov 2023
Dec 2023
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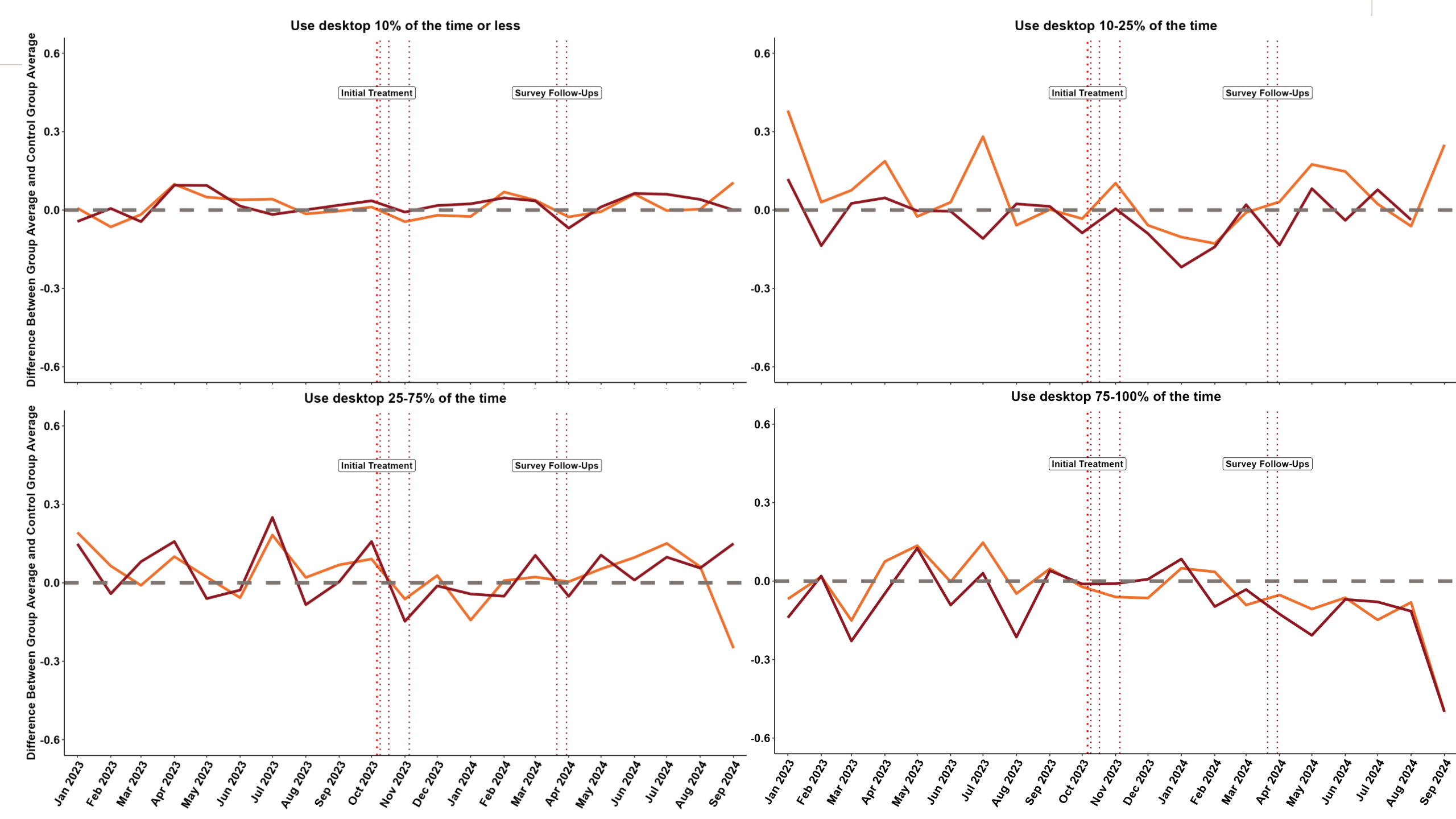
Jul 2024
Aug 2024
Sep 2024
Difference for Email Group
Difference for Survey Group


Use desktop 10% of the time or less
Use desktop 10-25% of the time
Use desktop 25-75% of the time
Use desktop 75-100% of the time
Difference Between Group Average and Control Group Average
0.6
0.3
0.0
-0.3
-0.6
Initial Treatment
Survey Follow-Ups
Jan 2023
Feb 2023
Mar 2023
Apr 2023
May 2023
Jun 2023
Jul 2023
Aug 2023
Sep 2023
Oct 2023
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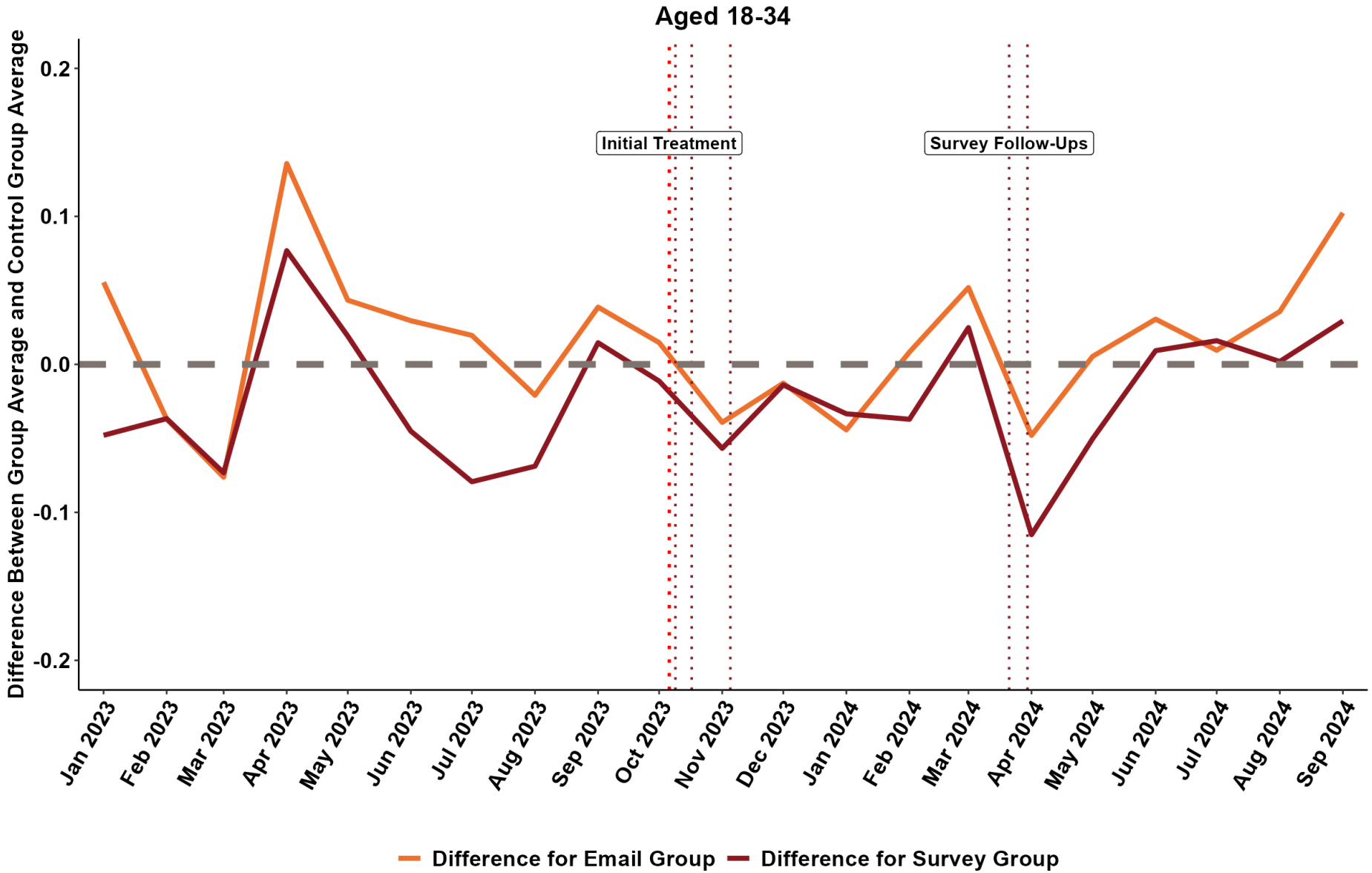
Aged 18-34
Difference Between Group Average and Control Group Average
0.2
0.1
0.0
-0.1
-0.2
Initial Treatment
Survey Follow-Ups
Jan 2023
Feb 2023
Mar 2023
Apr 2023
May 2023
Jun 2023
Jul 2023
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Oct 2023
Nov 2023
Dec 2023
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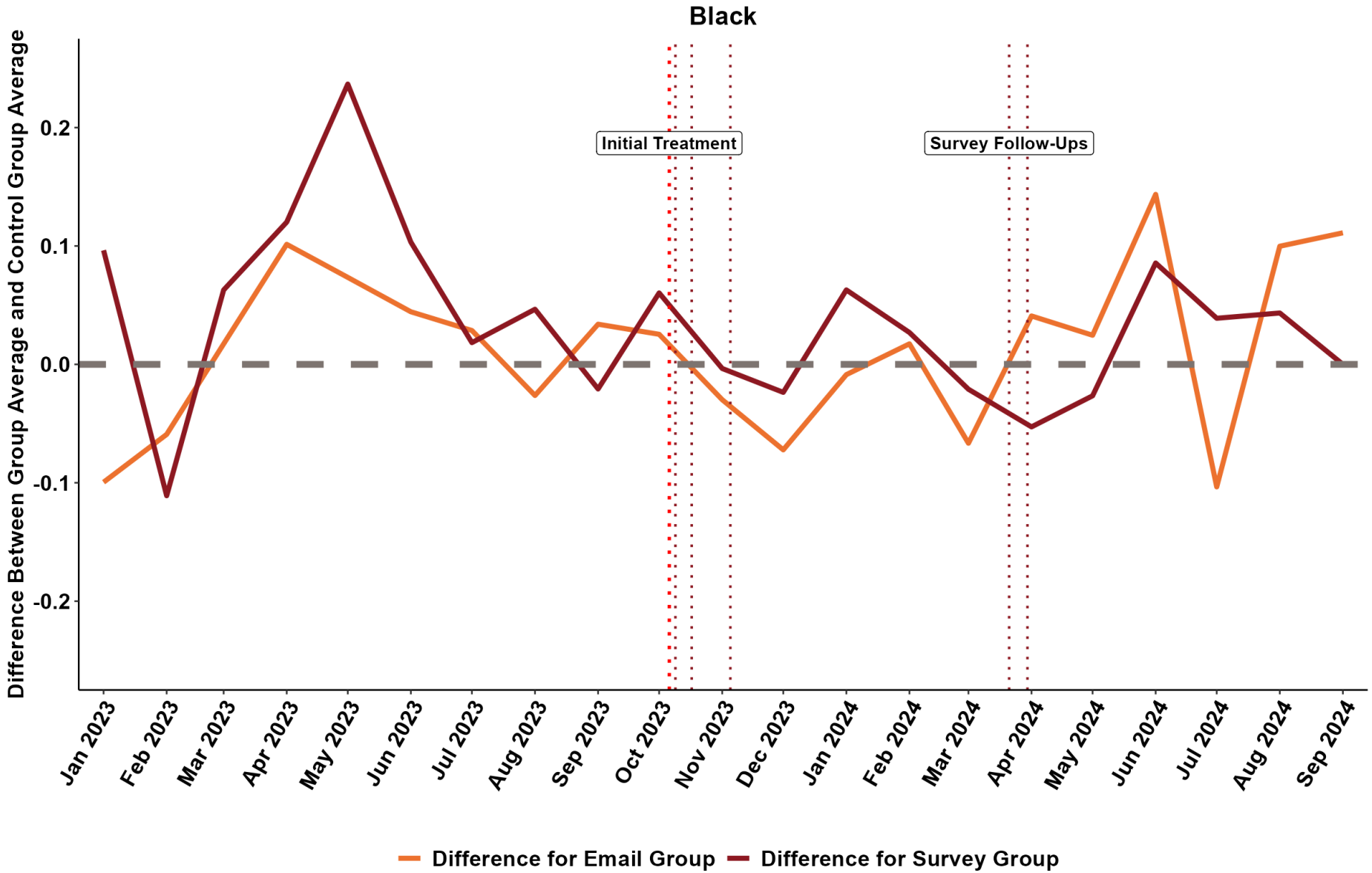
Sep 2024
Difference for Email Group
Difference for Survey Group


Black
Difference Between Group Average and Control Group Average
0.2
0.1
0.0
-0.1
-0.2
Initial Treatment
Survey Follow-Ups
Jan 2023
Feb 2023
Mar 2023
Apr 2023
May 2023
Jun 2023
Jul 2023
Aug 2023
Sep 2023
Oct 2023
Nov 2023
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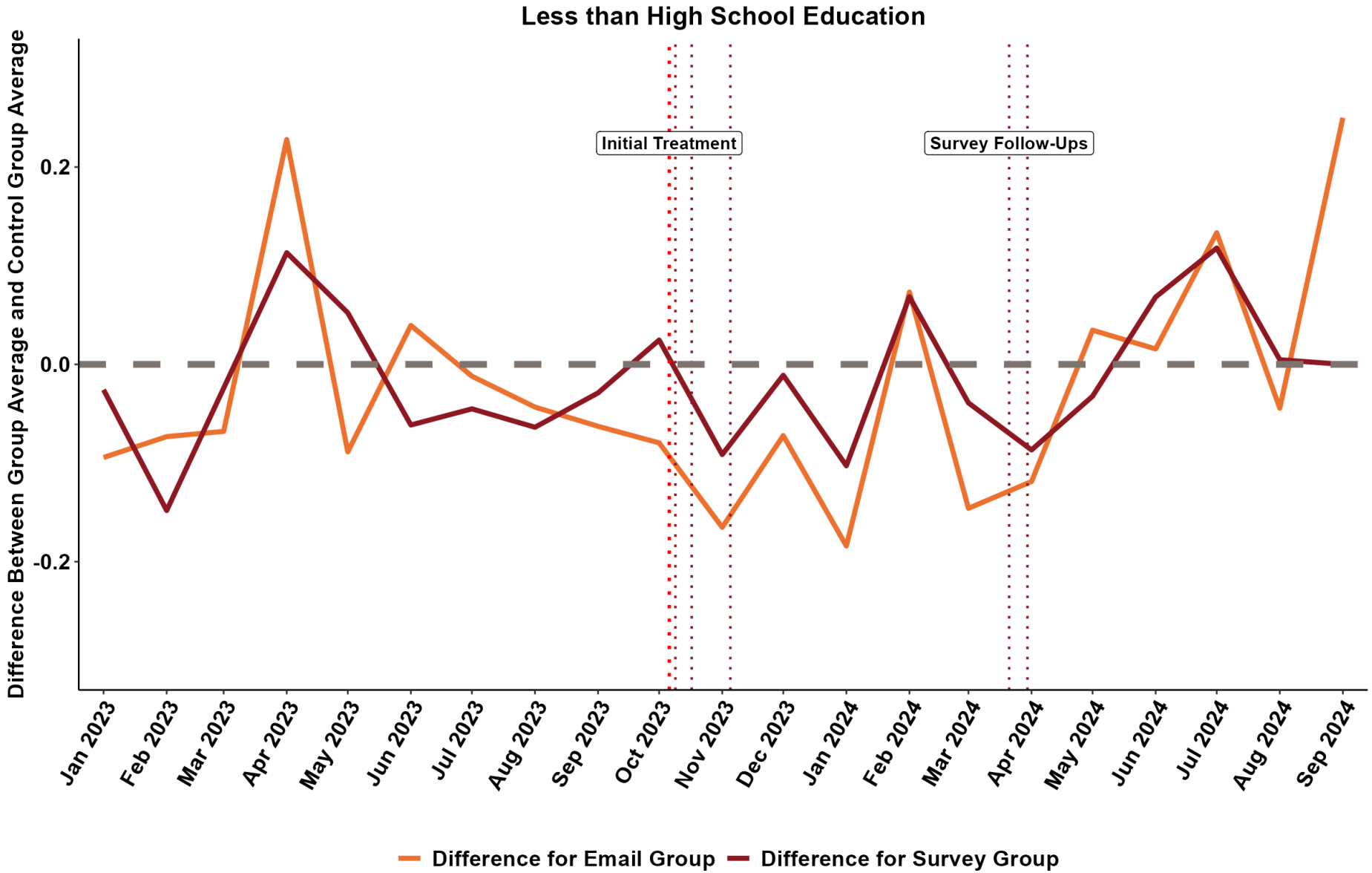
Sep 2024
Difference for Email Group
Difference for Survey Group


Less than High School Education
Difference Between Group Average and Control Group Average
0.2
0.0
-0.2
Initial Treatment
Survey Follow-Ups
Jan 2023
Feb 2023
Mar 2023
Apr 2023
May 2023
Jun 2023
Jul 2023
Aug 2023
Sep 2023
Oct 2023
Nov 2023
Dec 2023
Jan 2024
Feb 2024
Mar 2024
Apr 2024
May 2024
Jun 2024
Jul 2024
Aug 2024
Sep 2024
Difference for Email Group
Difference for Survey Group

Discussion

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Key Takeaways

- Suboptimal behavior has a **strong seasonal/temporal element** across all groups
- The previously identified statistically significant treatment effects are not always visible **on a month-by-month basis**
- Treatment effect **fades over time**
- Treatment effect varies by **primary device type**

Recommendations

- Treatment effect **fades over time:**
  - **Follow-up treatments**, both in the form of survey reminders and additional emails
  - However, with more follow-ups, we must **exercise greater caution to avoid attrition**
- Treatment effect varies by **primary device type:**
  - Indicates that primary device type is a **salient respondent characteristic for exploration**
  - Consider **tailored interventions that take advantage of device-specific features**
  - e.g. administering the survey intervention through a chatbot interface may be easier on desktop

Thank you!

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Get Your Research Right

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