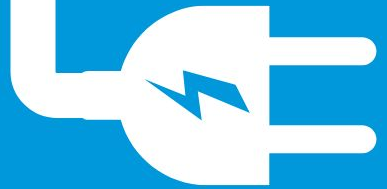
THE BEHAVIORAL INSIGHTS TEAM

TESTING MESSAGING STRATEGIES TO BOOST SELF-EFFICACY AND INTEREST TO ELECTRIFY

Data insights and recommendations

August 2024



Project summary

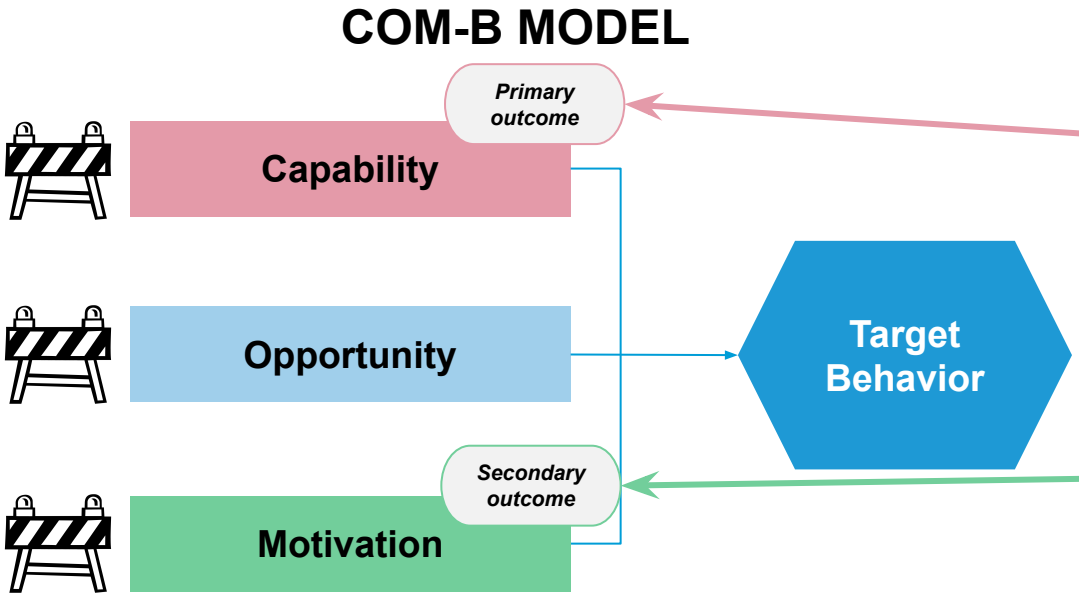
THE
BEHAVIORAL
INSIGHTS
TEAM

Project overview

Project Background	The Behavioral Insights Team (BIT) set out to support Rewiring America to **optimize their messaging strategies to a climate-concerned audience**.
Approach	BIT explored if Rewiring America's **messages could boost *self-efficacy* and *interest* to electrify** among climate-concerned Americans.
Experiment	BIT used our online platform, Predictiv, to **test two messages** against a control (no message) and evaluated whether the messages impacted **self-efficacy, motivation, and knowledge about electrification actions.**

We tested messages that target two barriers to behavior change

The COM-B model is a theoretical model which aids understanding of the **barriers and facilitators of behavior**. If one or more of these three main factors are not present, then it is less likely behavior change will occur. “Capability” and “motivation” are the two main “internal” variables we can impact with communications. “Opportunity” is harder to shift without changing the choices available or a person’s resources.



Outcomes tested in the trial:

Capability (Self-efficacy):
How capable do you feel of researching and selecting the following in your household within the next 10 years?”

Motivation (Interest):
How interested are you in purchasing the following items for your household within the next 10 years?

Source: Michie, S., van Stralen, M. M., & West, R. (2011). The behavior change wheel: a new method for characterising and designing behavior change interventions.

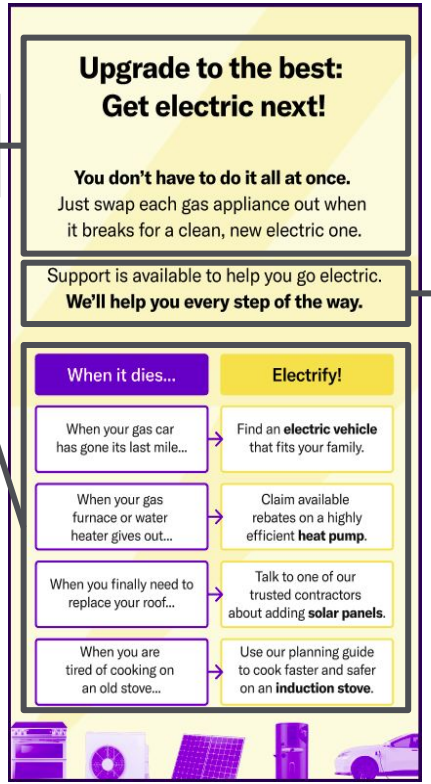
The messages aimed to promote self-efficacy and interest in climate actions

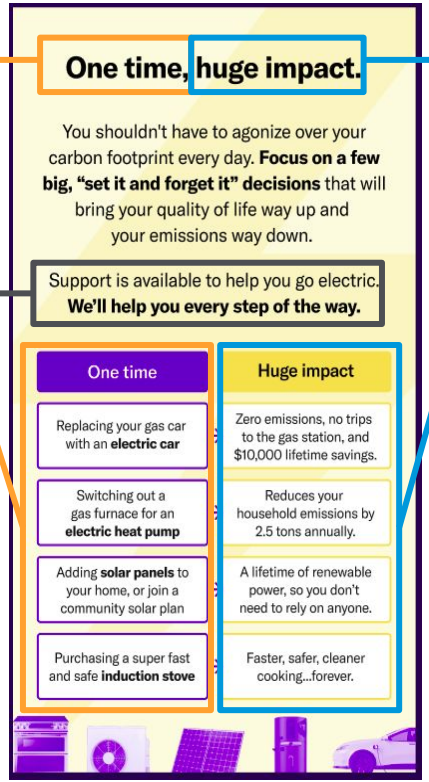
Emphasizes **ease** of adoption

Emphasizes **reduced cognitive burden**

Emphasizes **high impact of climate actions**

Emphasizes **ease** of adoption





Message 1 "Get electric next" targeted **self-efficacy**

Message 2 "One time, huge impact" targeted **interest**

Key Findings

Both messages increased self-efficacy and motivation to purchase electric technologies for climate-concerned Americans, compared to seeing no message.

The message focused on increasing self-efficacy was descriptively the slightly more effective message for **boosting self-efficacy** among **high income participants**

The message focused on increasing interest was descriptively the slightly more effective message for **boosting interest** among **non-high income participants**

The messages increased self-efficacy and interest in adopting **heat pumps and inductions stoves** more than solar panels and electric vehicles

The messages also correct misperceptions about climate actions.

Participants are more willing do to the actions that they **believe are high impact**

But they are **often inaccurate** about which actions are truly high impact

Both messages improved the perceived impact and participants' willingness to do the high-impact actions listed in the messages

Across technologies, participants' **sense of capability was higher than their interest** in electrifying.

Recommendations

1. **Use both messages with Rewiring America's engaged readers – they are effective!**

2. **Tailor messages based on people's income** rather than their beliefs about their ability to impact climate change. Our findings indicate income groups have more differentiated reactions to the messages.

3. **When space is limited, prioritize messages designed to promote interest** over messages designed to promote self-efficacy messages. On average, people already have a higher sense of capability than of interest.

4. **Continue conducting research to understand the barriers and mechanisms** driving people's responses to the messages. See next slide for some specific areas for future research.

Areas for future research

Our findings point to areas where additional research could help Rewiring America produce impactful messaging for climate-concerned Americans:

- **Confirm that motivation and interest are primary barriers:** This trial indicates that Rewiring America's messages are able to increase motivation and interest among participants. However, a ground-up approach to mapping barriers and ranking which are most important to people would help ensure that messages are targeting the right barriers to action.
- **Understand why certain messages were more effective for certain groups**. Throughout this deck, we offer hypotheses for why we see certain trends (e.g., why "One time, huge impact" is the more motivating message for those without high incomes). User-testing the messages with those groups would draw out what aspects of the messages are impactful, and help Rewiring America emphasize those aspects in future messaging.
- **Test messages that build familiarity and comfort with heat pumps and induction stoves**. Participants felt less capable and willing to adopt these technologies compared with EVs and solar panels, but our messages helped. Future solutions to test could include messages that increase people's feelings of familiarity and comfort with these technologies (e.g., showing photos, providing timelines or checklists for adoption).
- **Understand the barriers to action** that affect very motivated people (i.e. "extremely interested" in electric technologies) through qualitative research. These people may be "low hanging fruit" and represent an opportunity to rapidly electrify a small segment of Americans.

Experiment Design & Results

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Experiment design

Messaging strategies to boost
self-efficacy and interest to electrify

Trial design

Experiment design: Online survey experiment with 2 comparison groups

Research question: Do Rewiring America's messaging strategies improve climate-concerned Americans' self-efficacy, motivation, and knowledge about taking recommended climate actions?

Assignments: Participants were randomly assigned to one of three groups using a randomization algorithm.

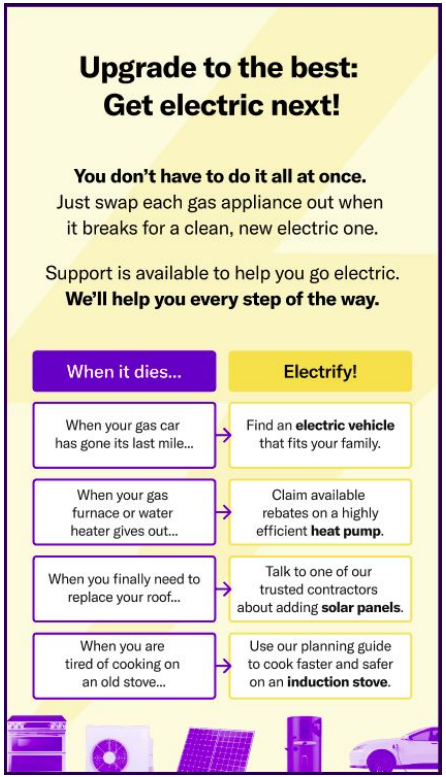
Implementation: The experiment and data collection were conducted on Predictv, BIT's online platform for conducting surveys experiments. We collected responses between June 29 and August 8, 2024.

Conditions - Messages highlighting different aspects of electrification

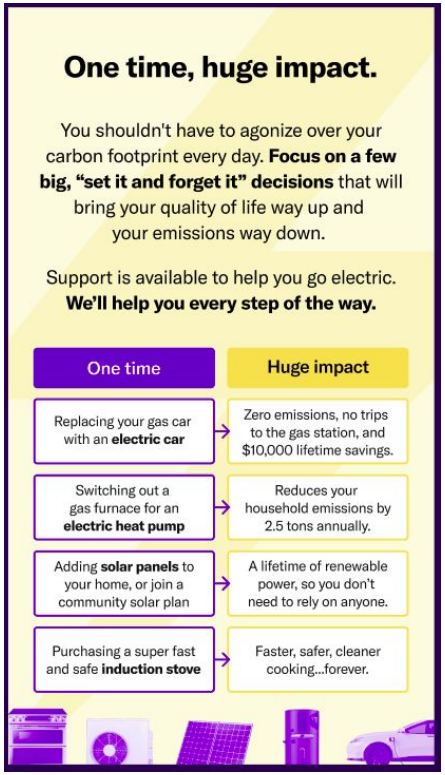
Control

No message

T1. “Get Electric Next” targeted **self-efficacy**



T2. “One time, huge impact” targeted **interest**



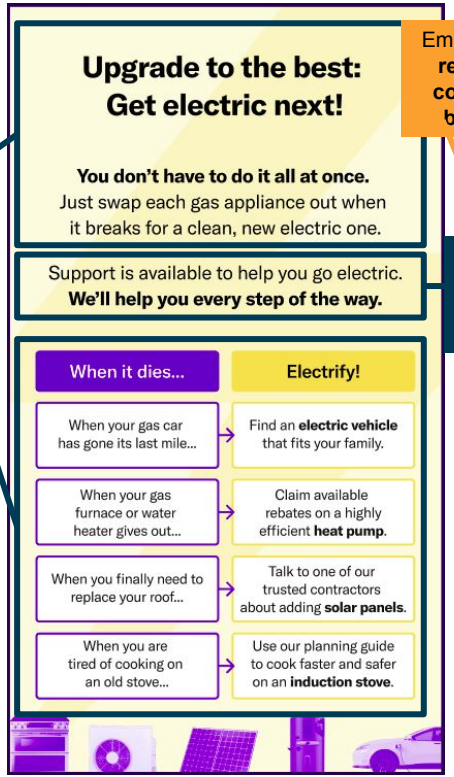
Conditions - Messages highlighting different aspects of electrification

Control

No message

T1. "Get Electric Next" targeted **self-efficacy**

Emphasizes **ease** of adoption

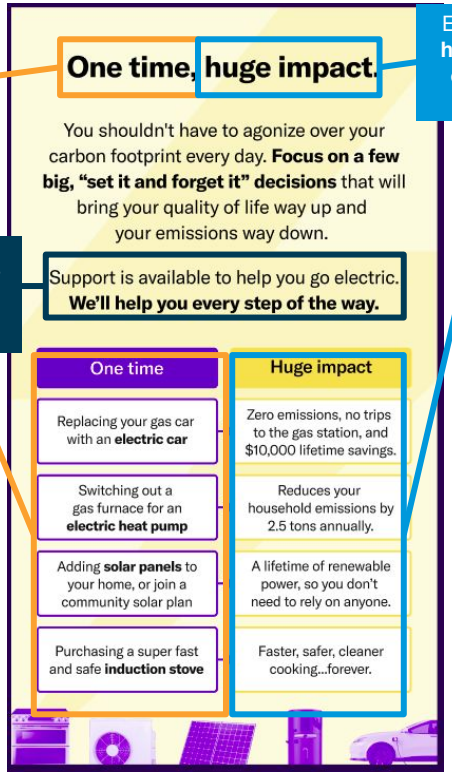


T2. "One time, huge impact" targeted **interest**

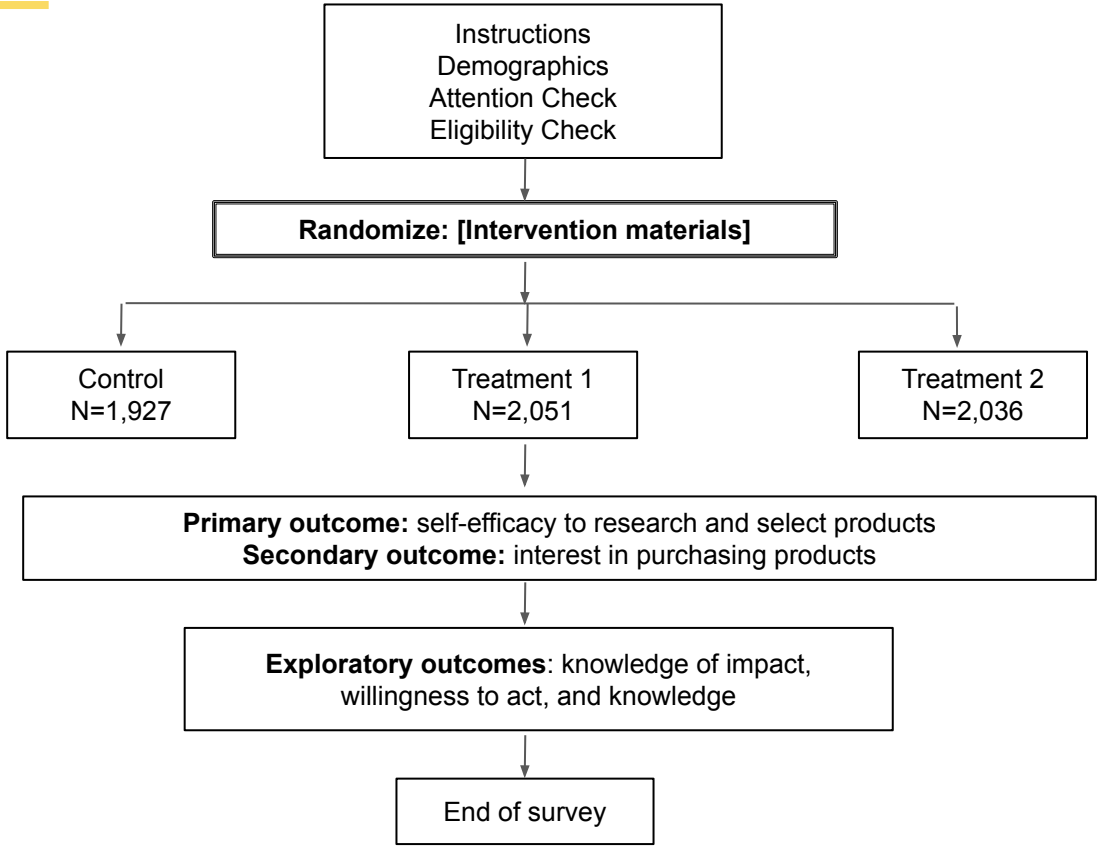
Emphasizes **reduced cognitive burden**

Emphasizes **high impact of climate actions**

Emphasizes **ease** of adoption



Survey flow


Instructions
Demographics
Attention Check
Eligibility Check
Randomize: [Intervention materials]
Control
N=1,927
Treatment 1
N=2,051
Treatment 2
N=2,036
Primary outcome: self-efficacy to research and select products
Secondary outcome: interest in purchasing products
Exploratory outcomes: knowledge of impact, willingness to act, and knowledge
End of survey

Trial strengths and limitations

Strengths

Ability to target our population of interest: The Predictiv online environment allowed us to filter out those who are not concerned about climate change, focusing on only the audience that Rewiring America regularly reaches.

Confidence in causal results: Testing different versions of the message within one randomized experiment allowed us to understand whether there was a causal relationship between the messages and outcomes.

Efficient trial implementation: The Predictiv online environment allowed us recruit a large sample quickly and at low cost.

Limitations

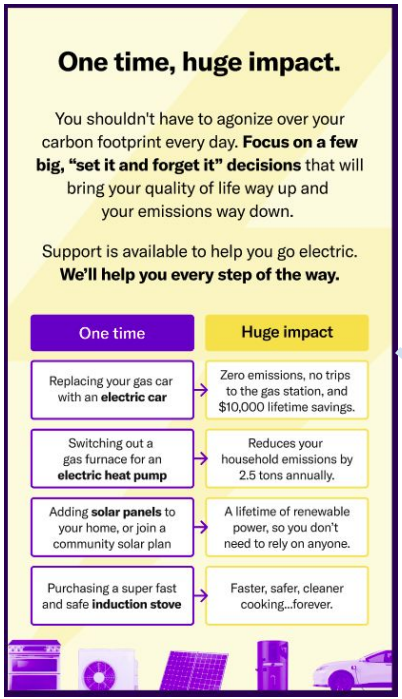
Measuring behavior: We measured outcomes that are important prerequisites to behavior change (self-efficacy and interest), but did not measure behavior change itself.

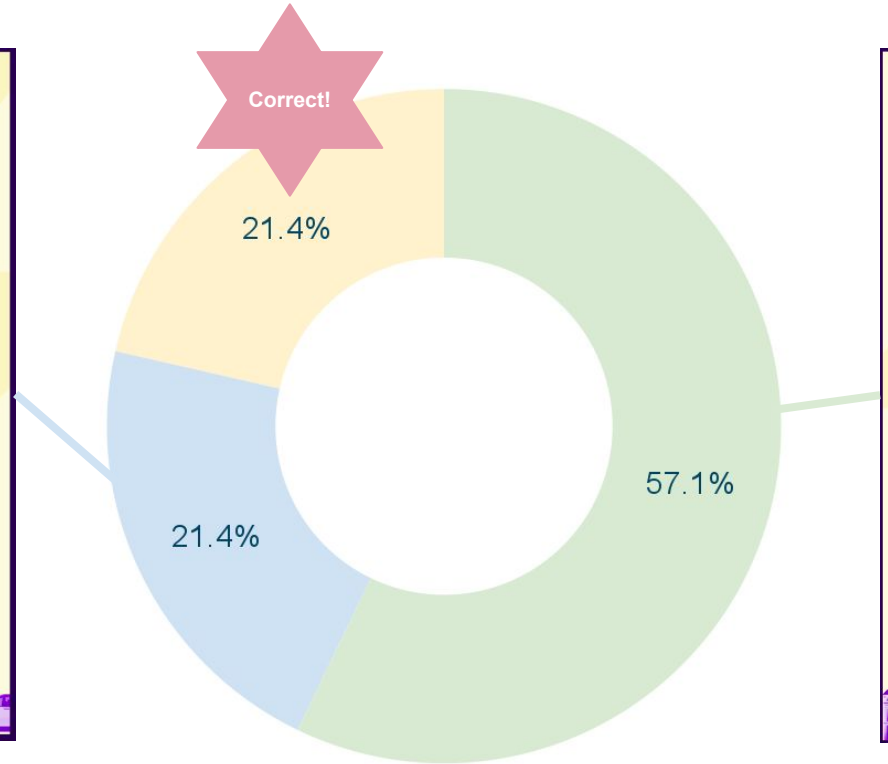
Sample considerations: The sample didn't capture the digitally excluded, or people not inclined to complete online surveys.

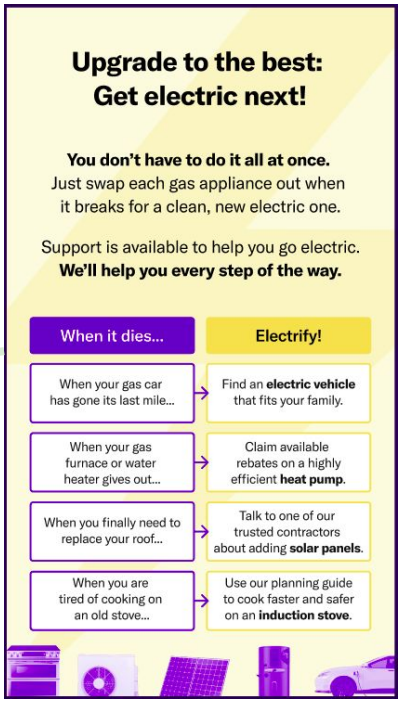
Staff Predictions

Messaging strategies to boost self-efficacy and interest to electrify

Which message will increase self-efficacy to go electric?

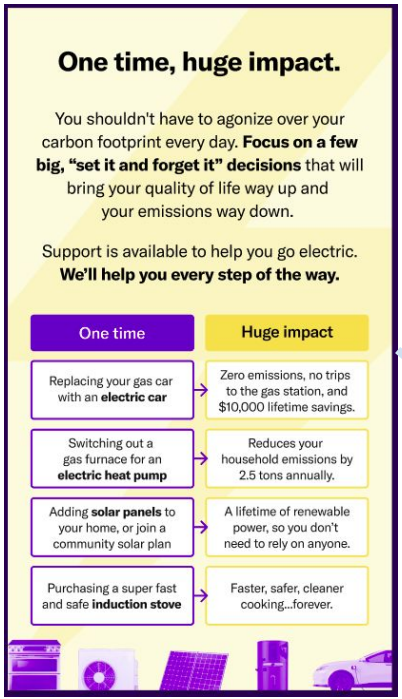


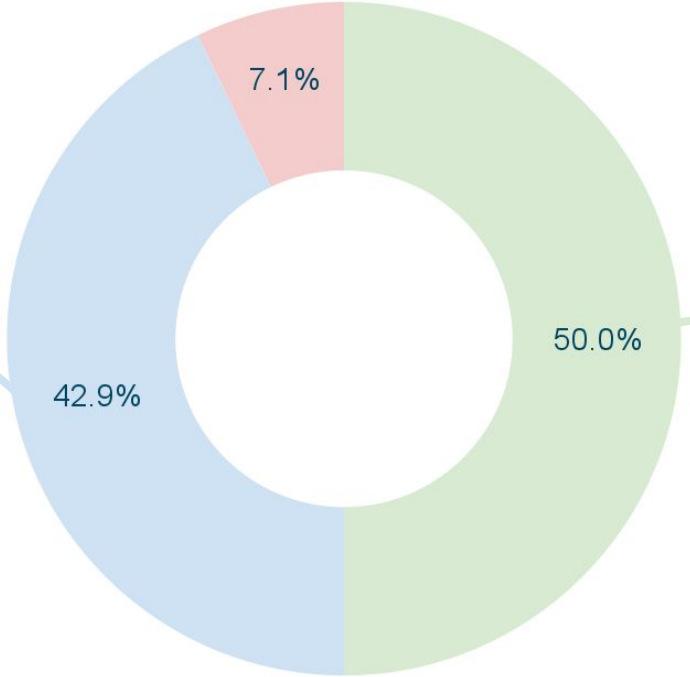


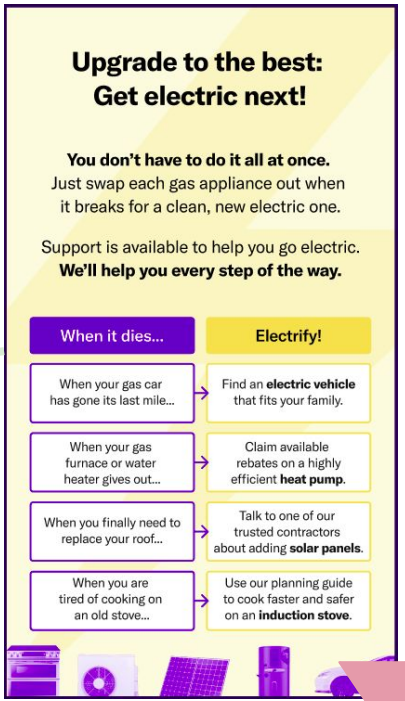


n=14

Which message will increase interest in going electric?







Correct!

n=14

Sample description

Messaging strategies to boost
self-efficacy and motivation to electrify

Sample description

We recruited a sample of climate-concerned 6,014 US adults

Climate concerned*	Percent
Climate-concerned	100%
Impact CC belief**	**Percent**
Disagree	20%
Agree	80%
Income***	**Percent**
High income	19%
Not high-income	81%

Region	Percent
Northeast	28%
Midwest	15%
South	35%
West	22%
Neighborhood	**Percent**
Urban	28%
Suburban	51%
Rural	21%

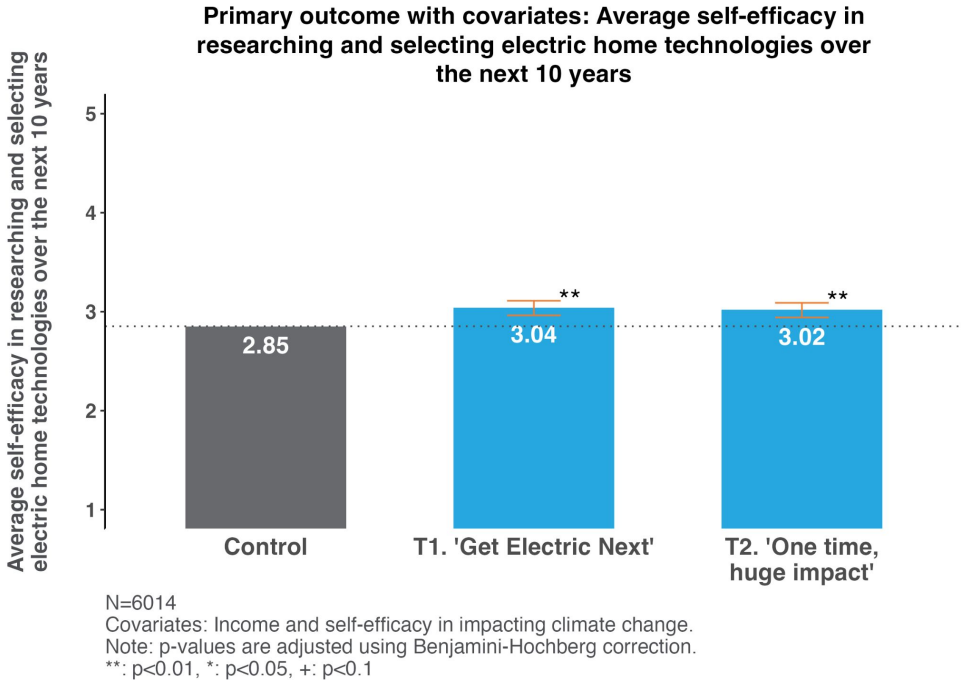
Gender	Percent
Female	58%
Male	42%
Race	**Percent**
White	75%
Black	15%
Other race	9.8%
Age	**Percent**
18-34	22%
35-54	31%
55+	47%

* "How worried are you about climate change?" *("Somewhat worried" and "Very worried" were included.)*
** "I believe my actions have an influence on global warming and climate change."
***Based on household size and income thresholds set by Rewiring America.

Results: Primary outcome

Messaging strategies to boost
self-efficacy and interest to electrify

Both messages increased self-efficacy to electrify compared to seeing no message



N=6014
Covariates: Income and self-efficacy in impacting climate change.
Note: p-values are adjusted using Benjamini-Hochberg correction.
**: p<0.01, *: p<0.05, +: p<0.1

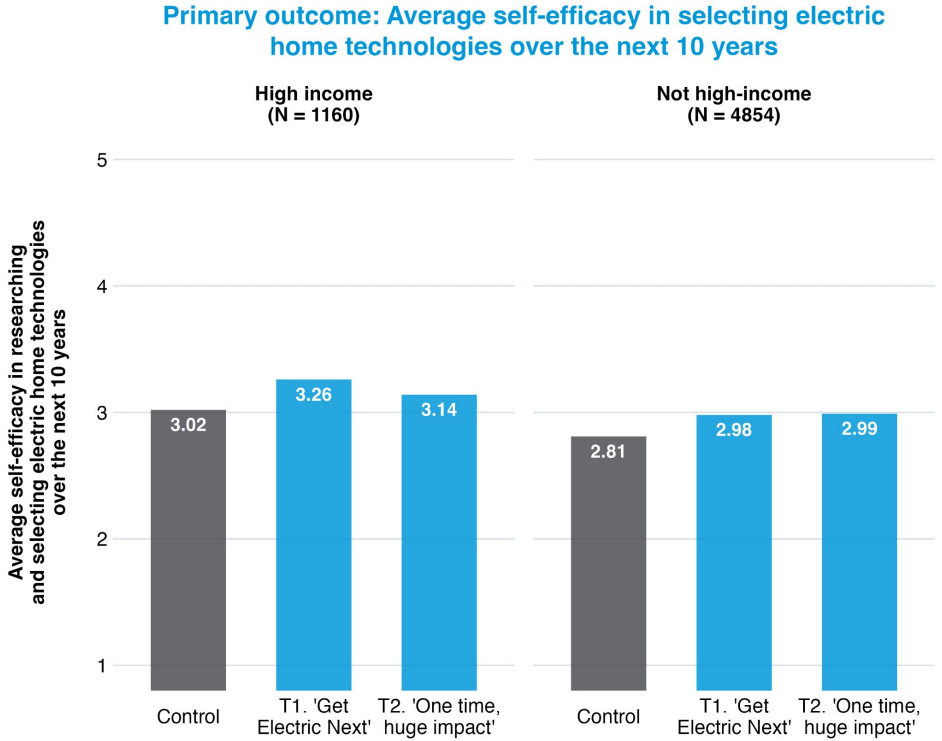
- The consistent improvement across both interventions suggests that both messages, in combination with clear and actionable guidance on electrification, can improve participants' self-efficacy.
- On average, participants reported neutral self-efficacy ("somewhat capable") across all arms.

The primary outcome was measured through the following question:

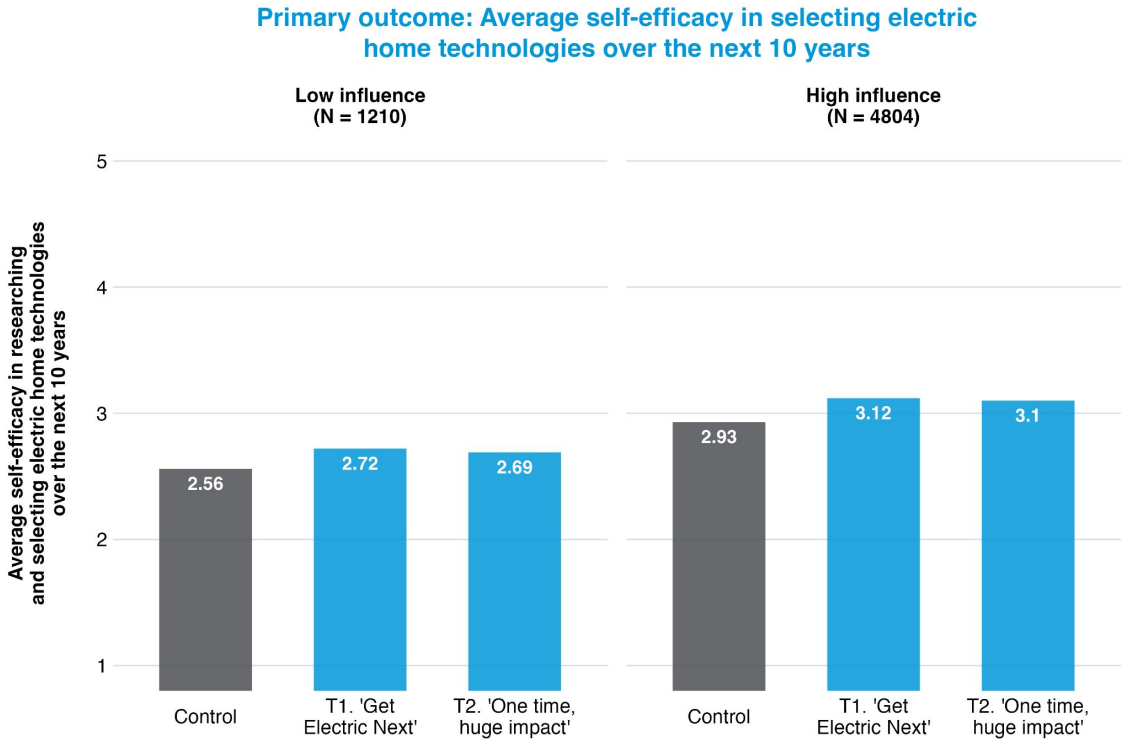
How capable do you feel in researching and selecting the following items for your household within the next 10 years?
[1 = not at all capable, 2 = a little capable, 3 = somewhat capable, 4 = mostly capable, 5 = very capable]

“Get electric next!” may be the more effective message for boosting self-efficacy in high income participants

- Overall, non-high income participants reported lower self-efficacy than high-income participants, likely signaling the added barriers associated with affordability of electric products.
- Descriptively, “Get electric next!” increased self-efficacy slightly more among the high-income group. This finding suggests that a key barrier for those with disposable income could be complexity or burdens around decision making and prioritization.
- For non-high income participants, both messages were equally effective.



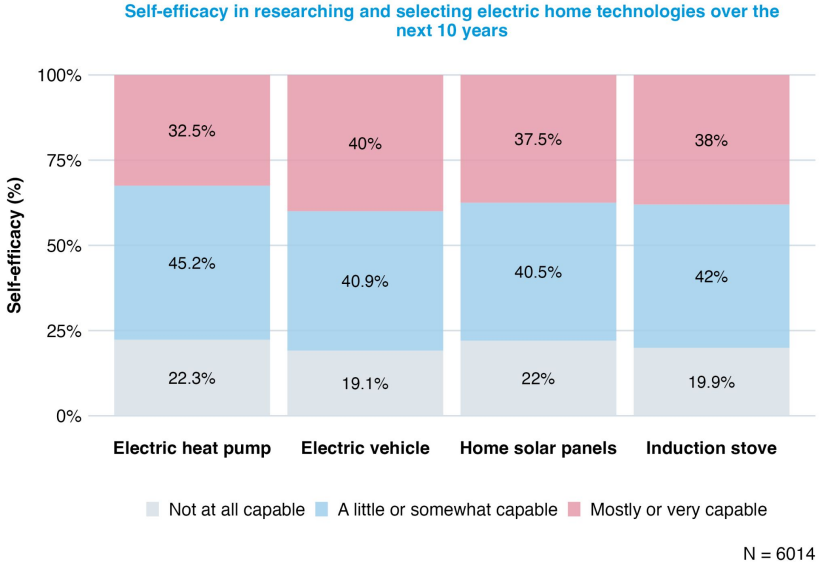
Both messages increase self-efficacy, regardless of whether participants believe their individual actions impact climate change

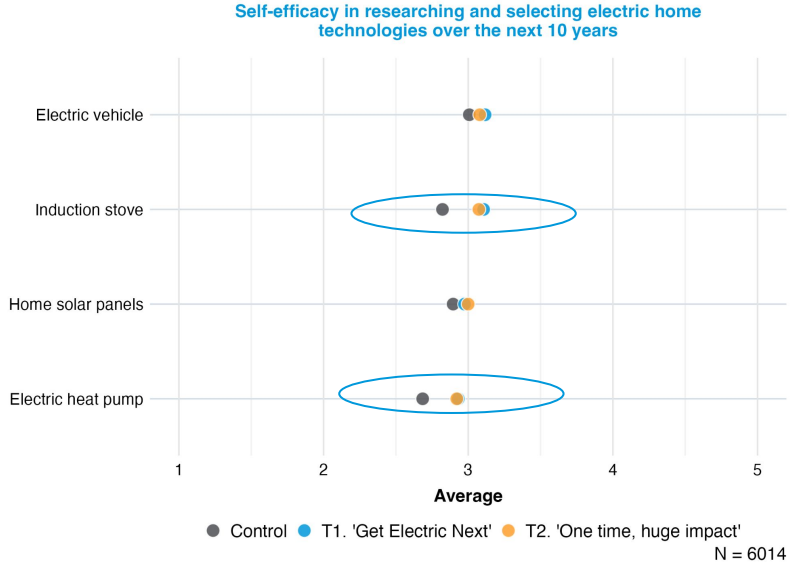


- People who believe their individual actions impact climate change had higher self-efficacy (whether they believed they can complete the action) overall than those who do not believe their actions have impact.
- Both messages descriptively increased self-efficacy for people who do and do not believe their actions impact climate change.

Induction stoves and heat pumps see larger increases in self-efficacy with both messages

- Overall, participants report the highest levels of self-efficacy for EVs, perhaps due to their ubiquity in the market, or because purchasing an EV seems similar to purchasing other vehicles. Participants report the lowest levels of self-efficacy for heat pumps.
- Both messages descriptively increased self-efficacy for heat pumps and induction stoves more than for other appliances, possibly because participants started with a lower baseline of self-efficacy, they are less familiar with these technologies, or their views are more easily influenced about these technologies.

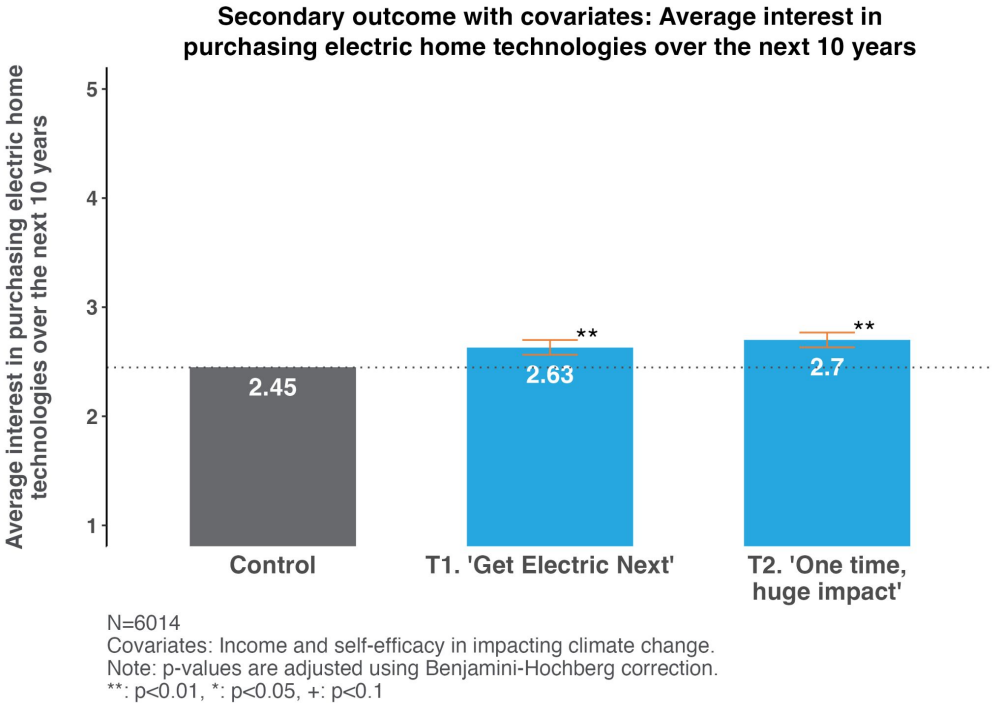




Results: Secondary outcome

Messaging strategies to boost self-efficacy and interest to electrify

Both messages increase interest in electrifying compared to seeing no message



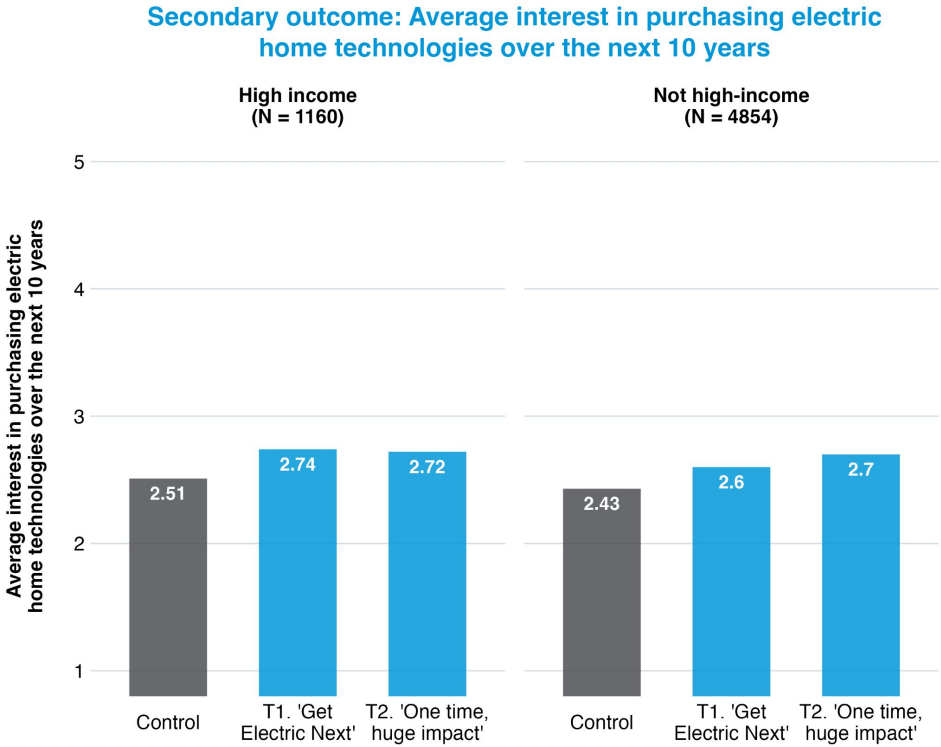
- "One time, huge impact" and "Get electric next" performed similarly at increasing interest in electric technologies.
- On average, participants reported that they were between "slightly interested" and "moderately interested" across all arms.

The secondary outcome is measured through the following question:

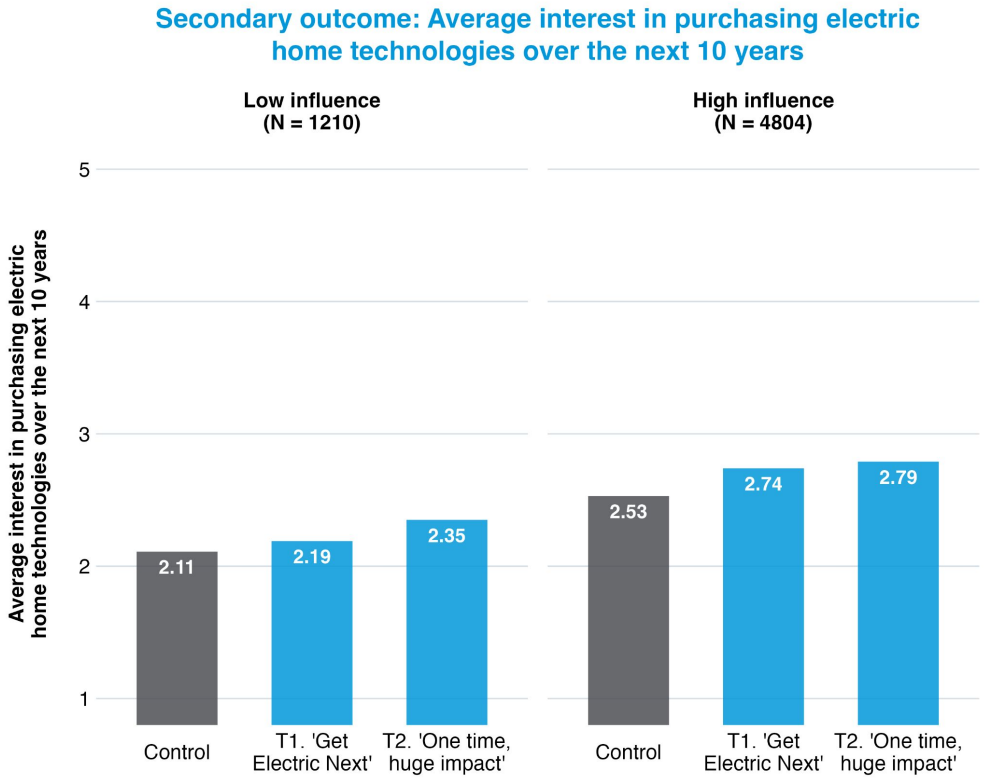
How interested are you in purchasing the following items for your household within the next 10 years?
[1 = Not at all interested, 2 = slightly interested,
3 = moderately interested, 4 = very interested,
5 = extremely interested]

“One time, huge impact” may be the more effective message for boosting interest in non-high income participants

- “One time, huge impact” is descriptively the slightly more motivating message for those without high incomes. Possible explanations for this trend may include:
    - Non-high income participants are more motivated to reduce the cognitive load (i.e., effort) they expend on a daily basis.
    - Non-high income participants are more interested in making a big investment if they think it will really matter.
- For those with high incomes, both messages performed similarly at increasing interest.



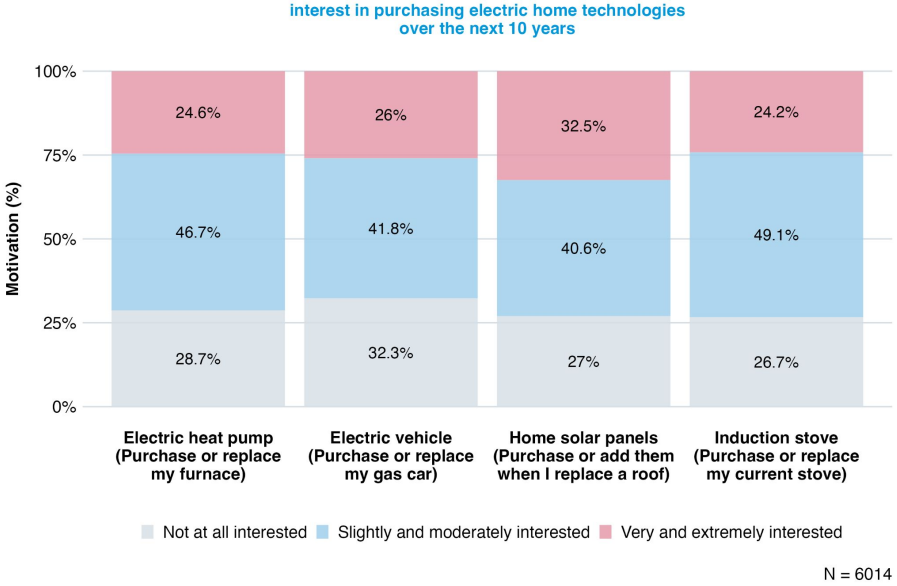
The messages boosted interest for all participants, including those who don't believe individual actions impact climate change

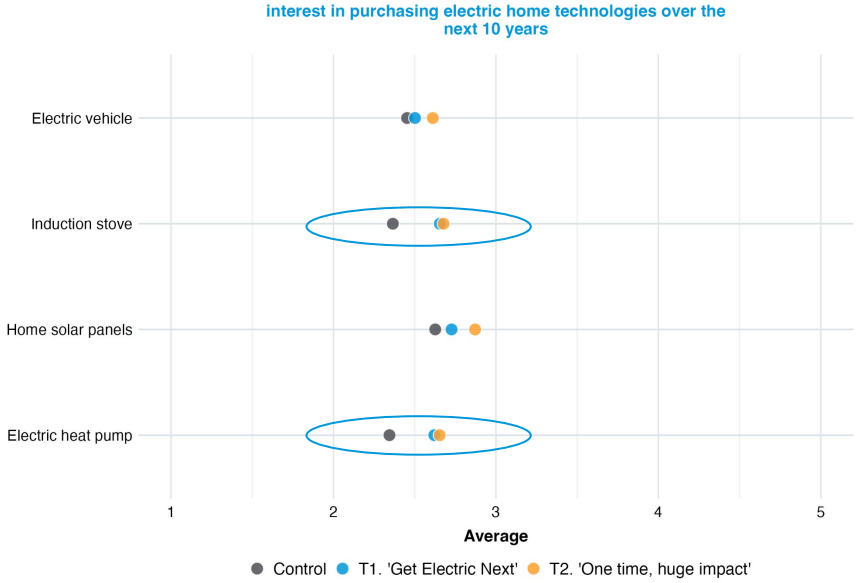


- The messages descriptively increased interest across all participants, including those who don't generally believe their individual actions impact climate change.
- Participants who generally think individual actions don't influence climate change had lower interest at baseline – but our findings indicate that **messaging can influence this group.**

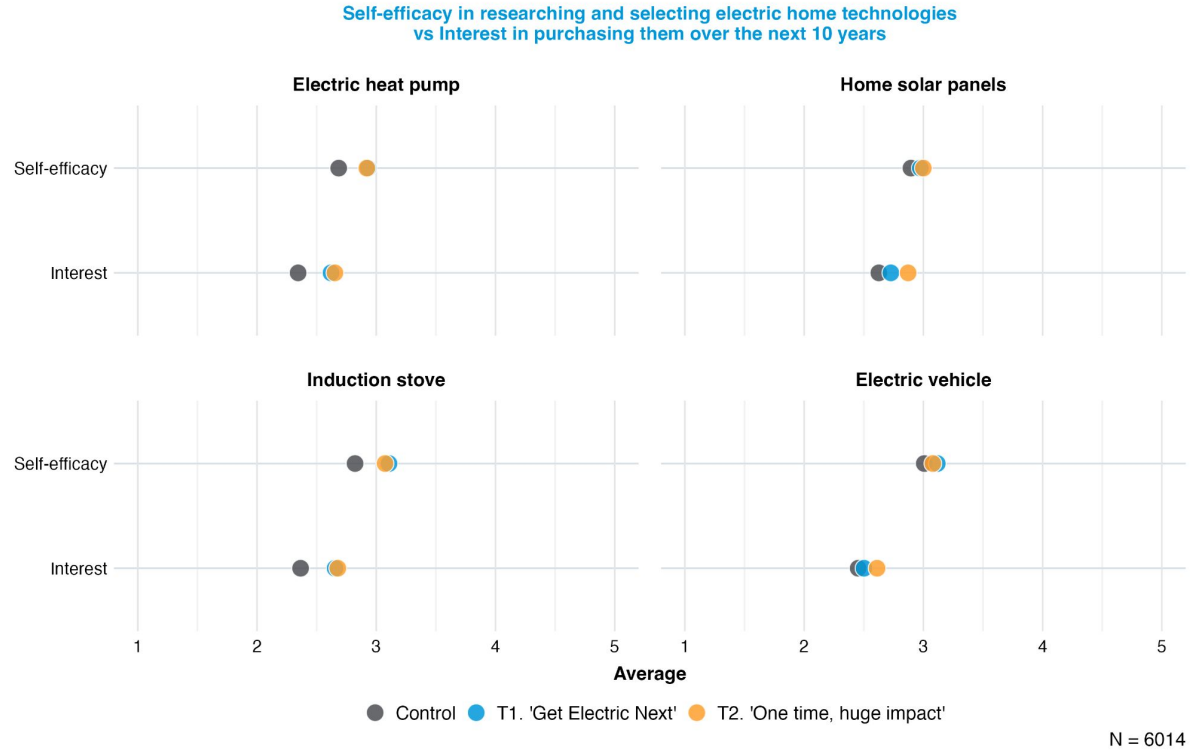
Both messages increase interest in induction stoves and heat pumps more than other technologies

- Descriptively, participants report the highest level of interest in home solar panels, and the lowest level of interest in EVs.
- Both messages descriptively increased interest for heat pumps and induction stoves more than for other appliances, possibly because participants started with a lower baseline interest in these technologies, they are less familiar with these technologies, or their views are more easily influenced about these technologies.





Overall, participants feel more capable than interested in electrifying



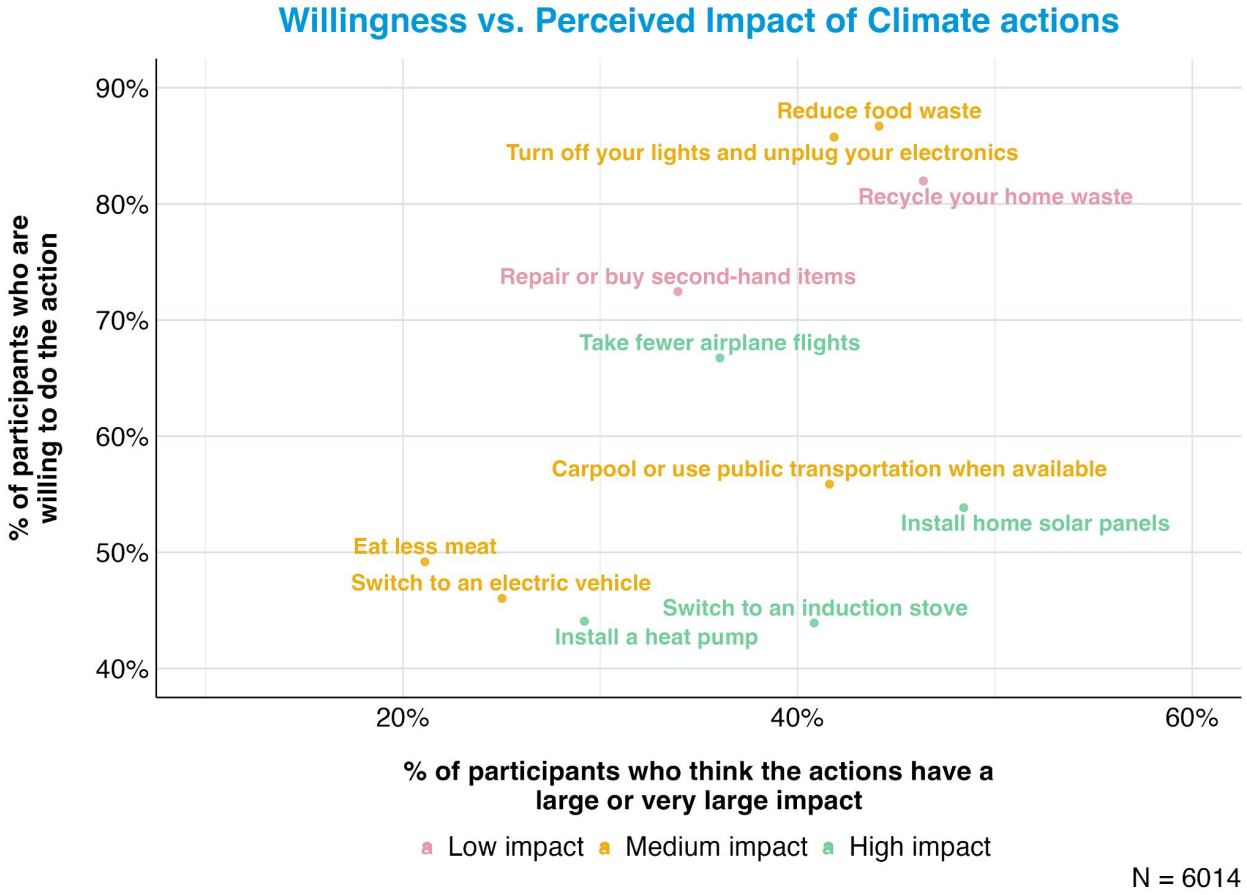
- Across treatments, participants rate their level of self-efficacy higher than their level of interest. This suggests that people do feel able to take the actions needed to electrify, but they may **need more motivation to move forward**.
  - This implies the existence of other barriers that are diminishing motivation (e.g., hassle, perceived impact).

Results: Exploratory Analyses

Messaging strategies to boost self-efficacy and interest to electrify

Participants are misdirecting their climate efforts

- Participants are more willing do to the actions that they believe are high impact
- However they are misdirecting their efforts because they are often inaccurate about which actions are truly high impact
    - Two exceptions are actions participants saw in the messaging (induction stoves and solar panels)



N = 6014

Participants are misdirecting their climate efforts

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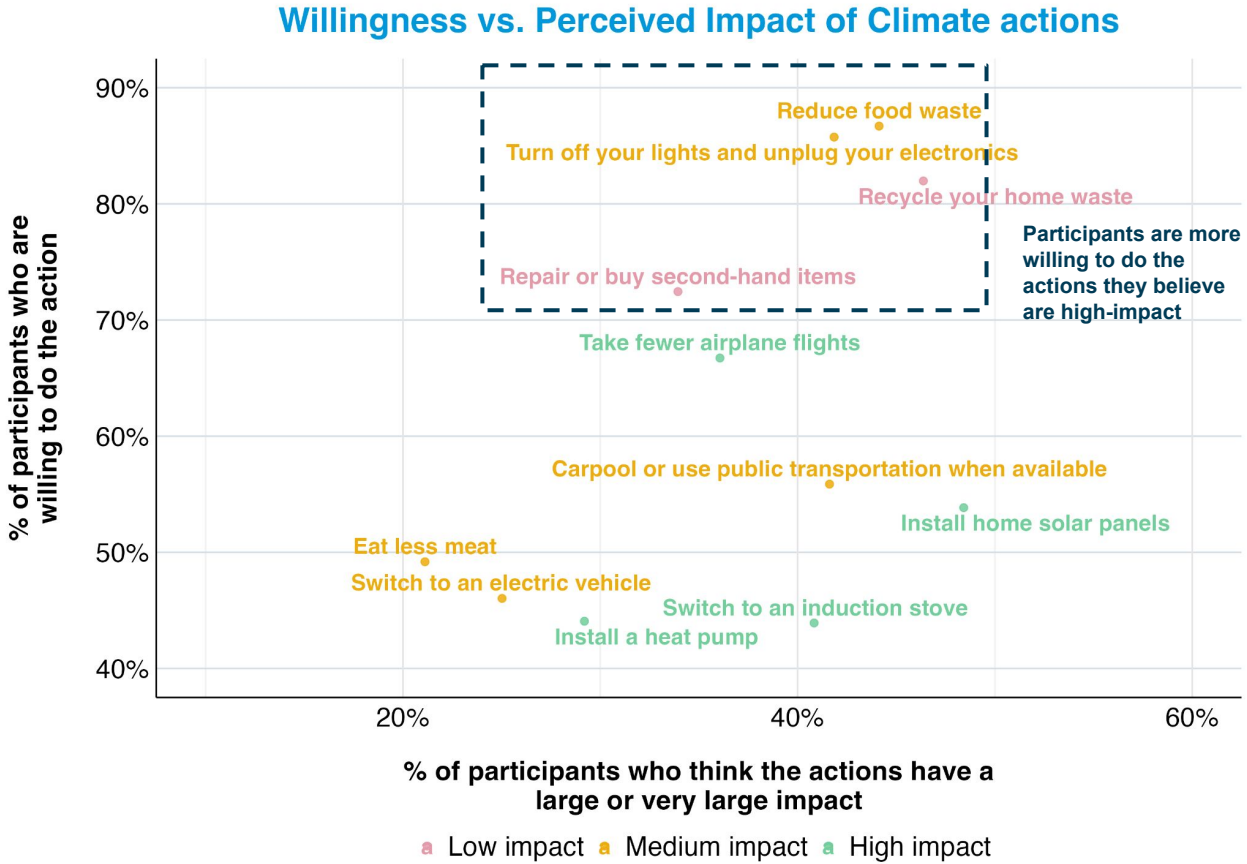

N = 6014

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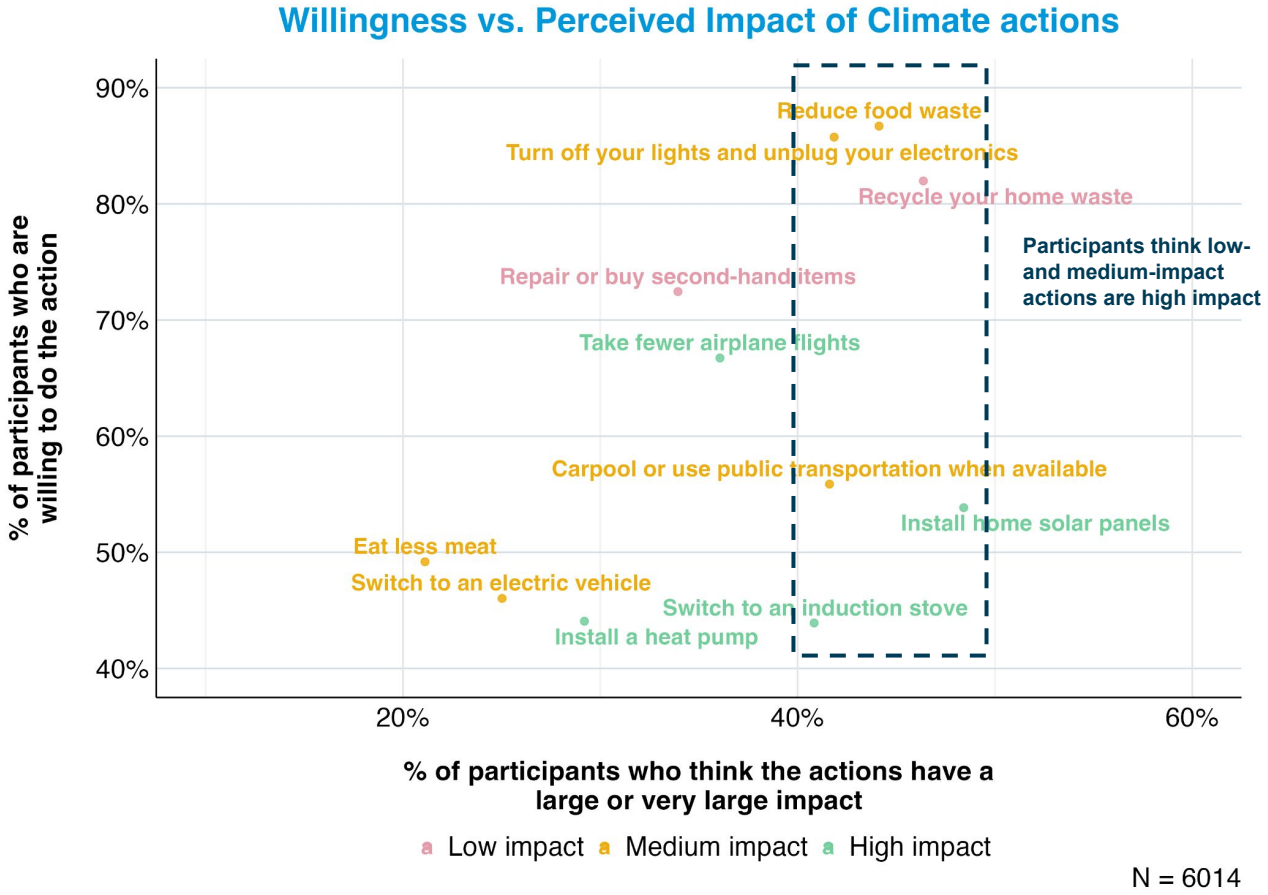
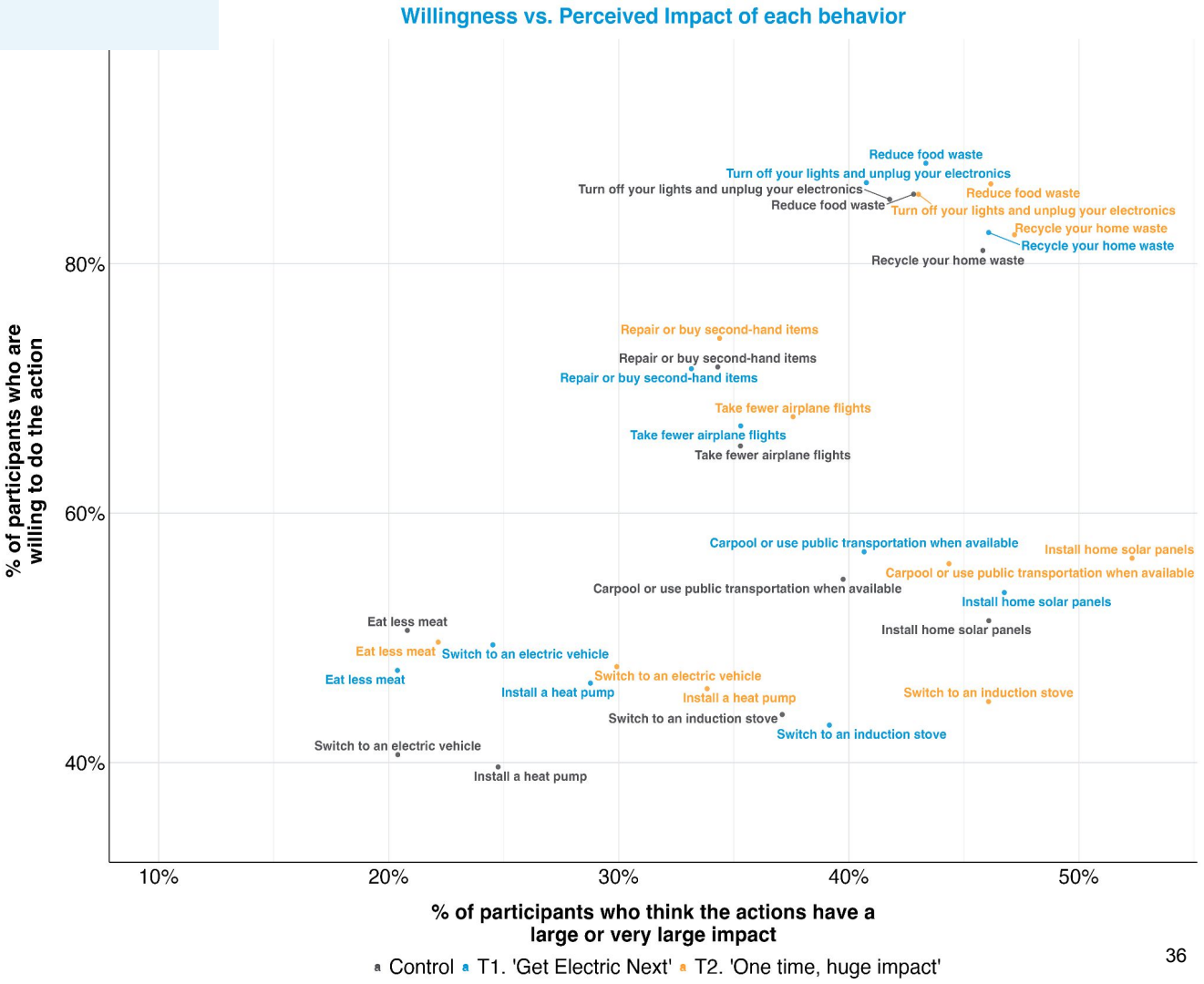


N = 6014

The messages helped educate participants

- Both messages increased the impact participants thought that electric technologies would have, and increased their willingness to adopt them.
- “One time, huge impact” had a descriptively bigger effect on participants’ perception of impact on all products mentioned in the message.
- Both messages were more effective at shifting willingness to adopt EVs and heat pumps compared with induction stoves and solar panels.



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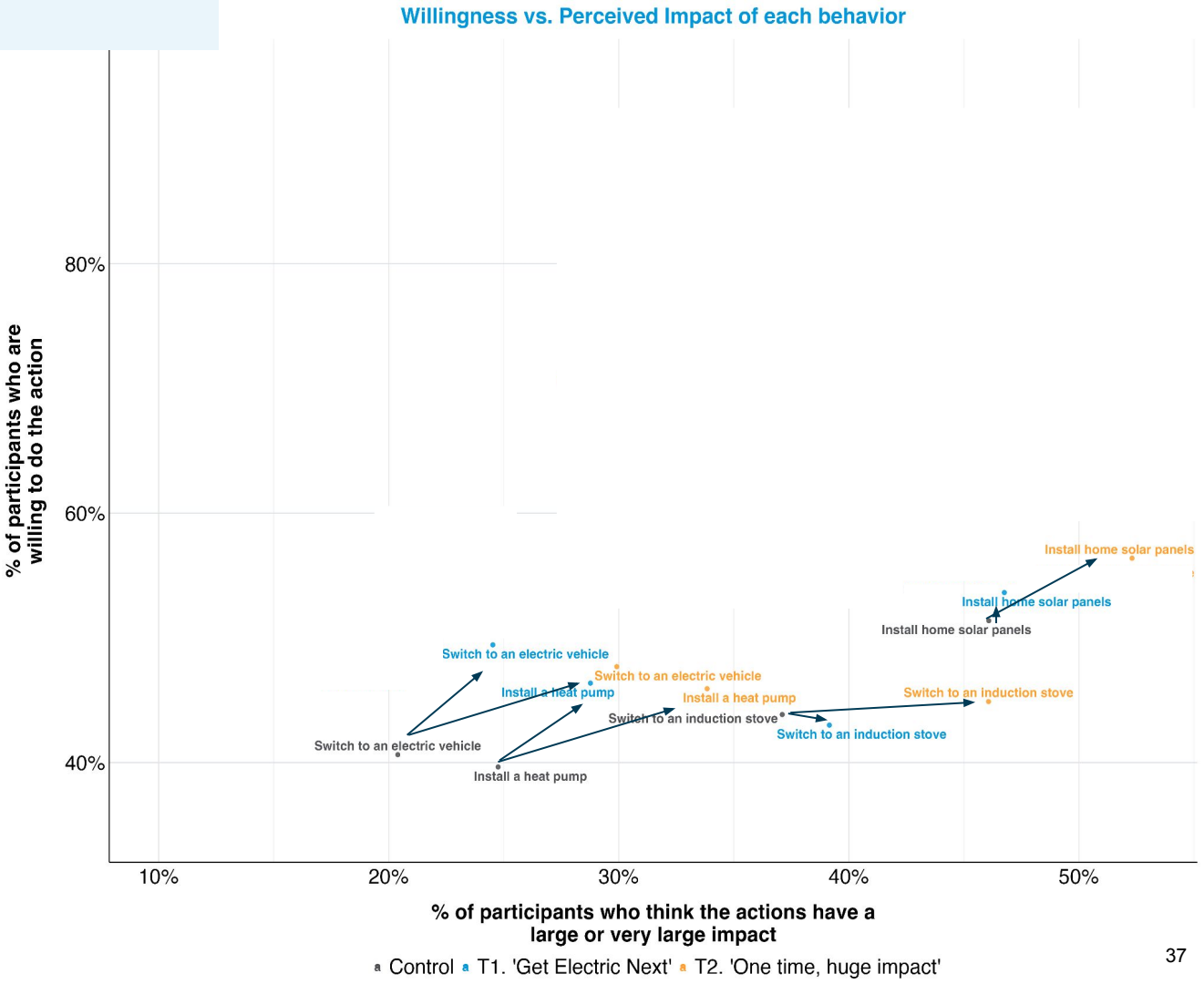

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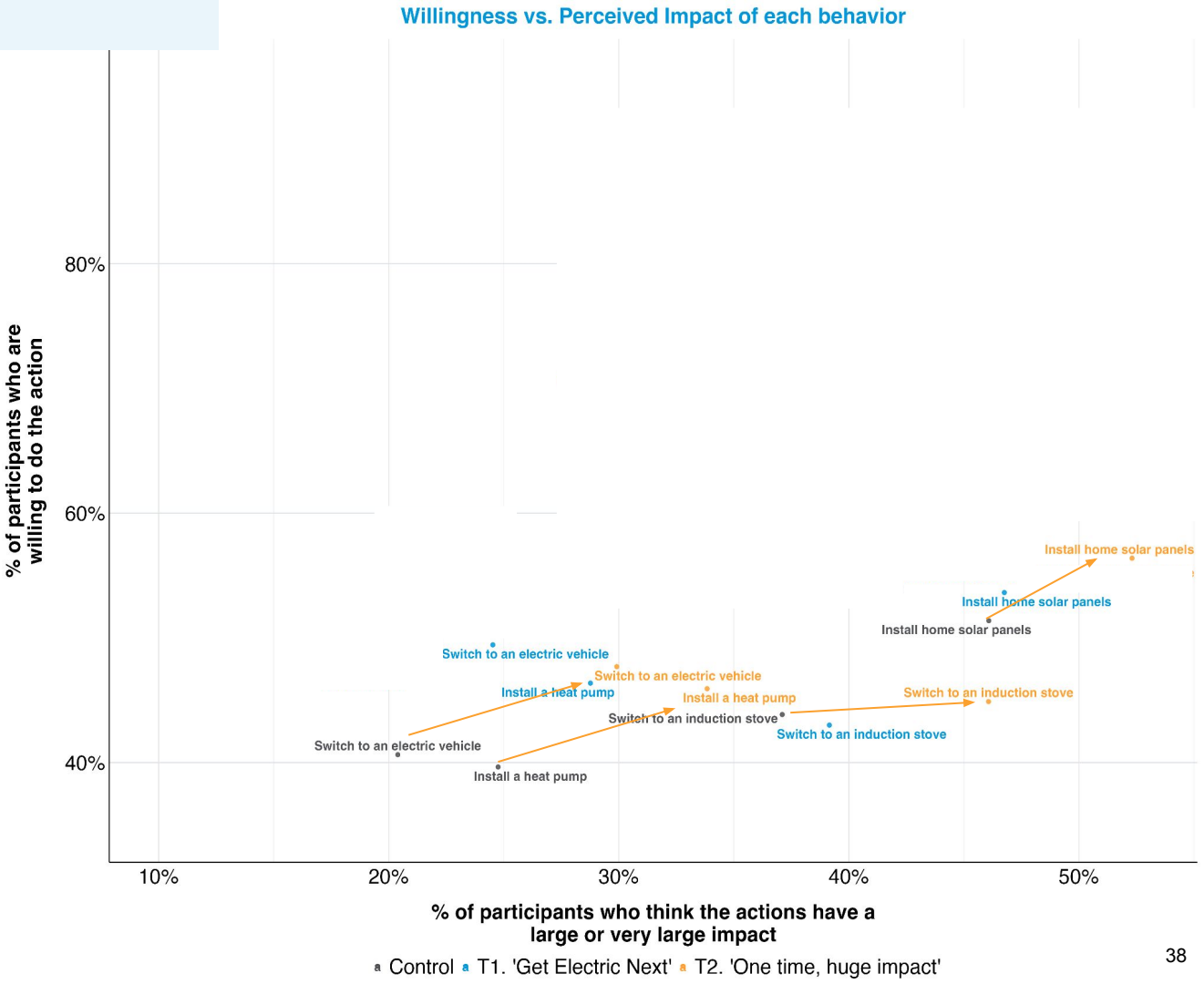

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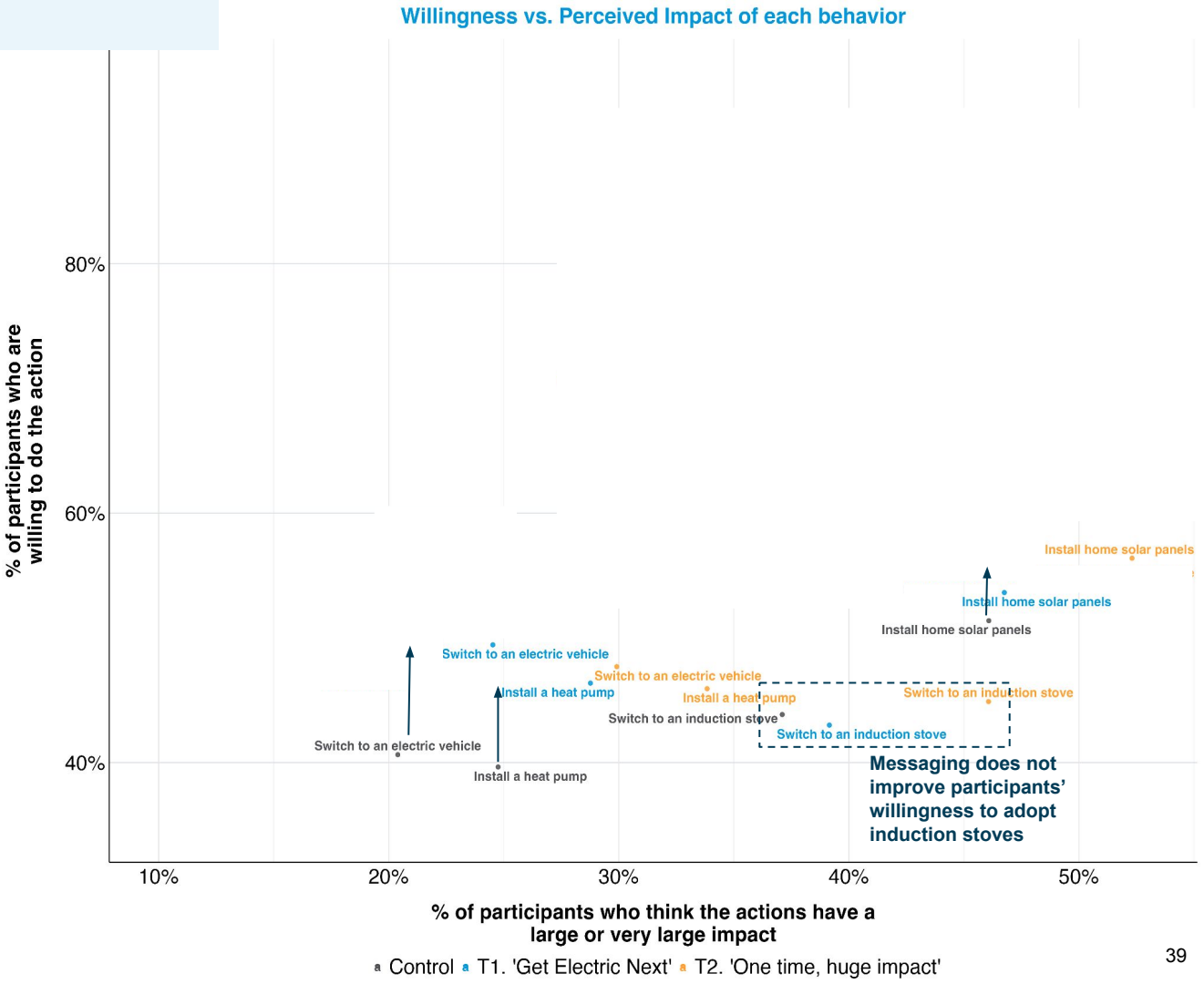
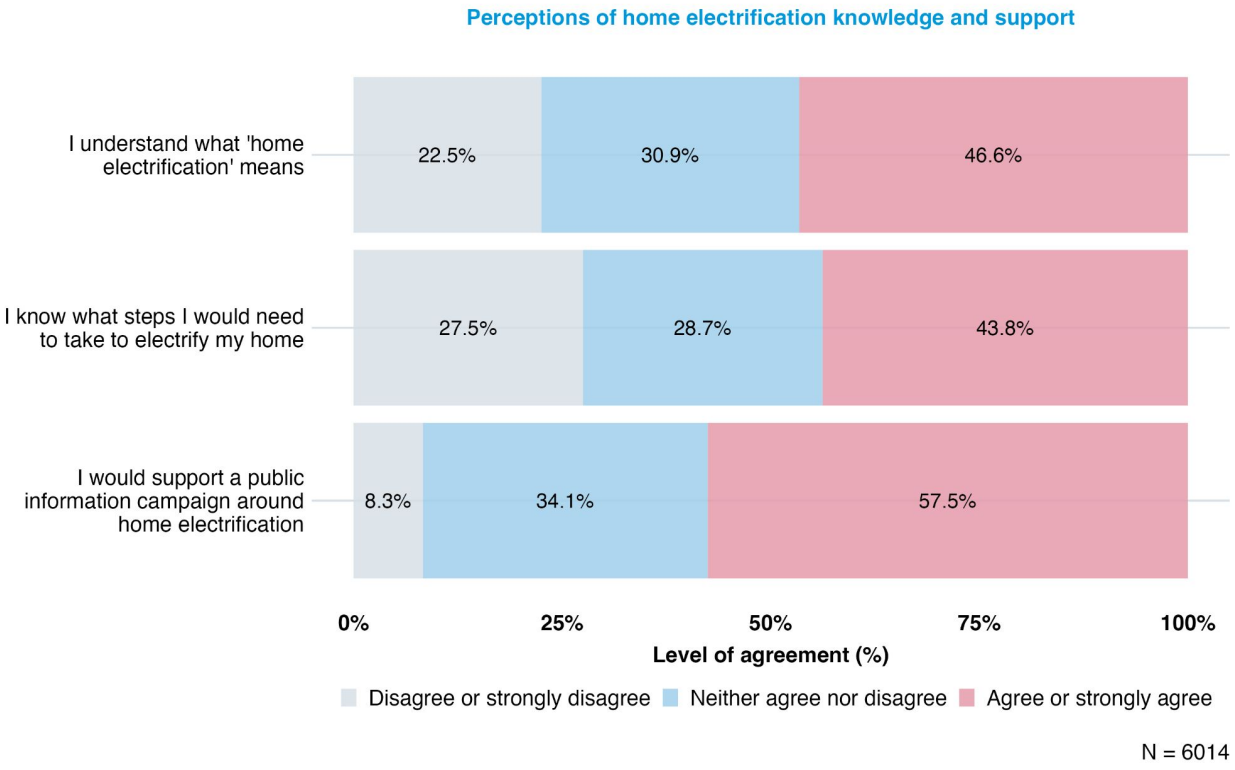


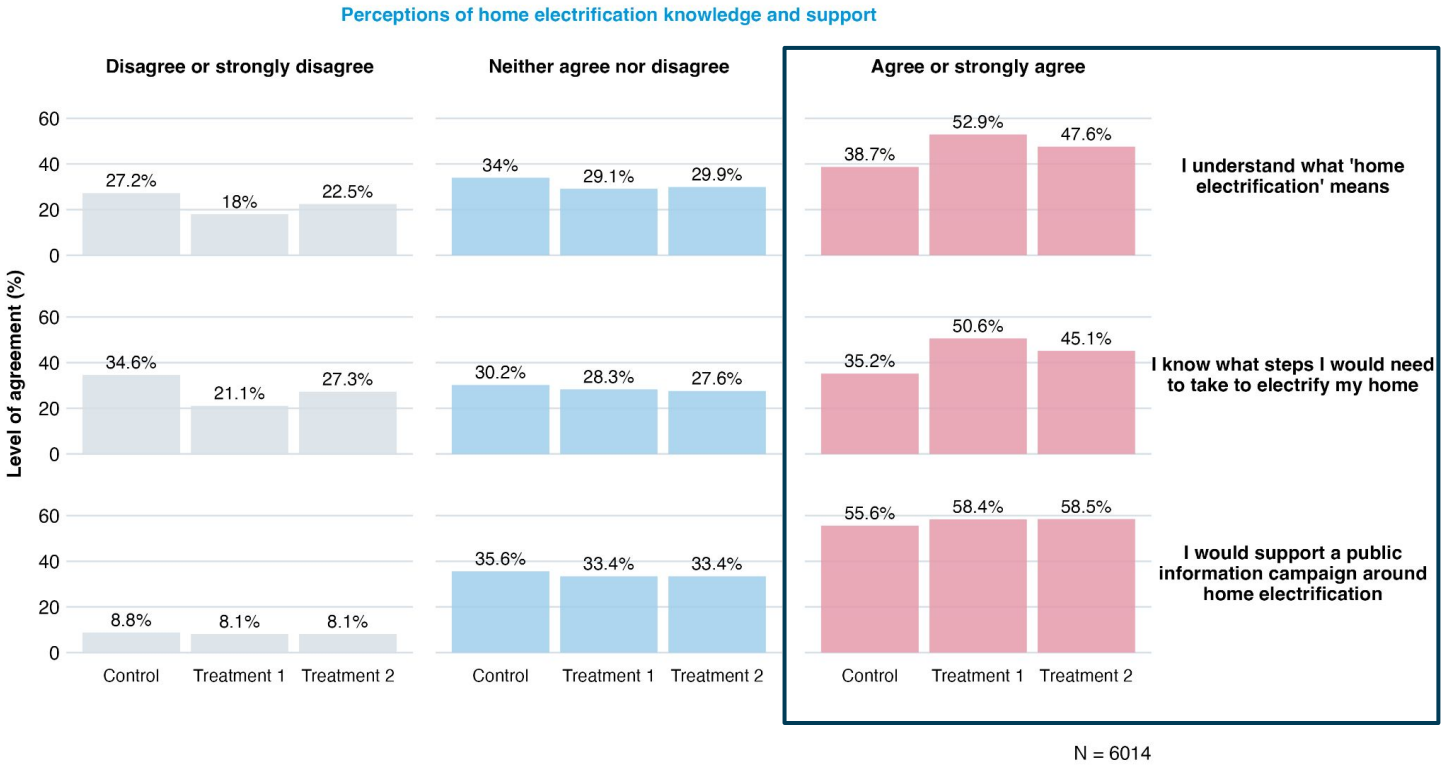
Climate-concerned participants need, and welcome, information about home electrification



N = 6014

- Less than half of participants understand what “home electriciation” means, or know what steps they would need to take – this is stark, considering that participants are all “climate-concerned.”
- Only 8% of participants would not support a public campaign around home electrification.

Both messages increased knowledge of home electrification and next steps



Both messages increased reported understanding of how to electrify homes, with the “Get Electric Next” message showing the largest descriptive effect.

THE
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Get in touch:

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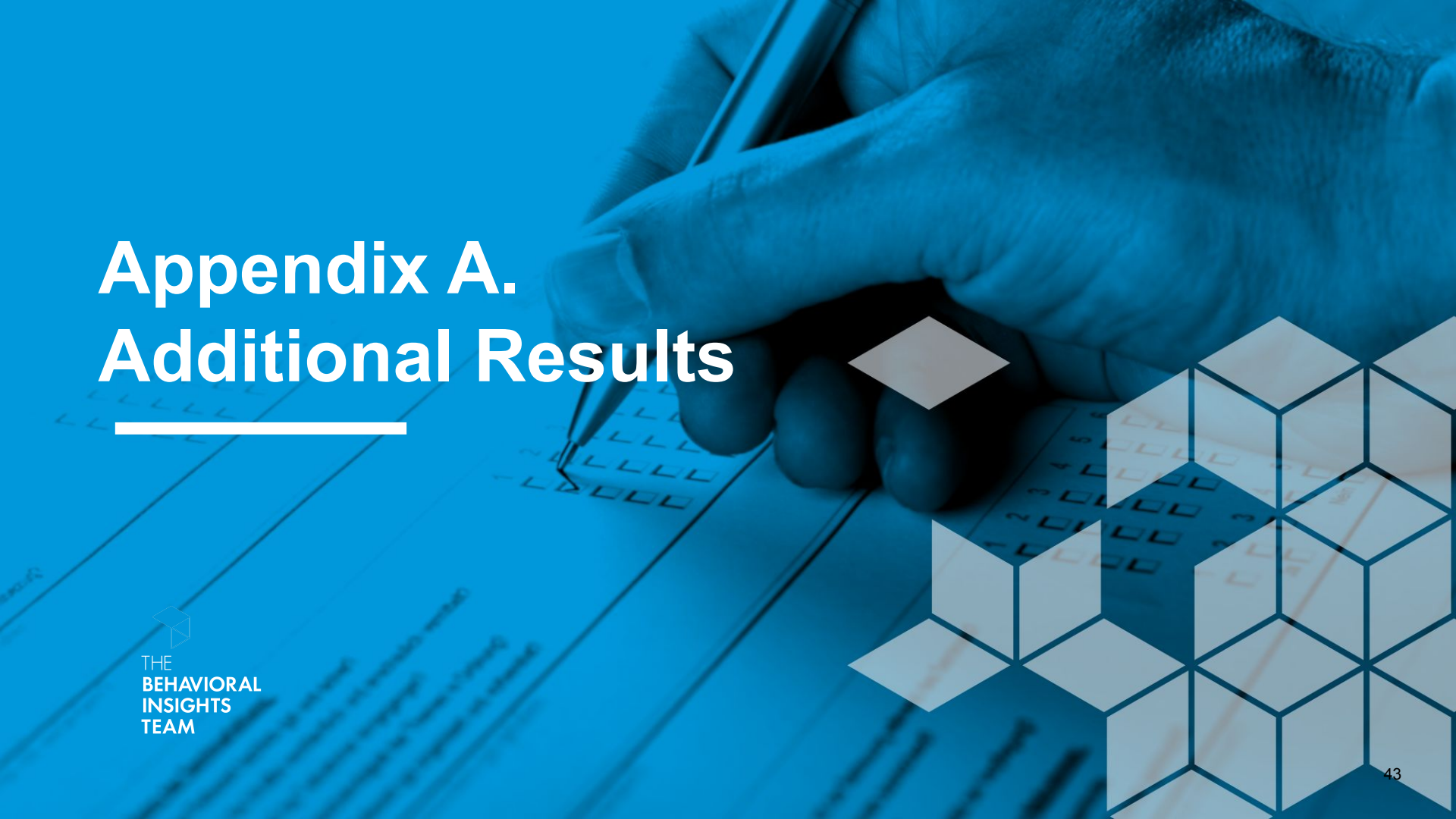
Appendix A. Additional Results



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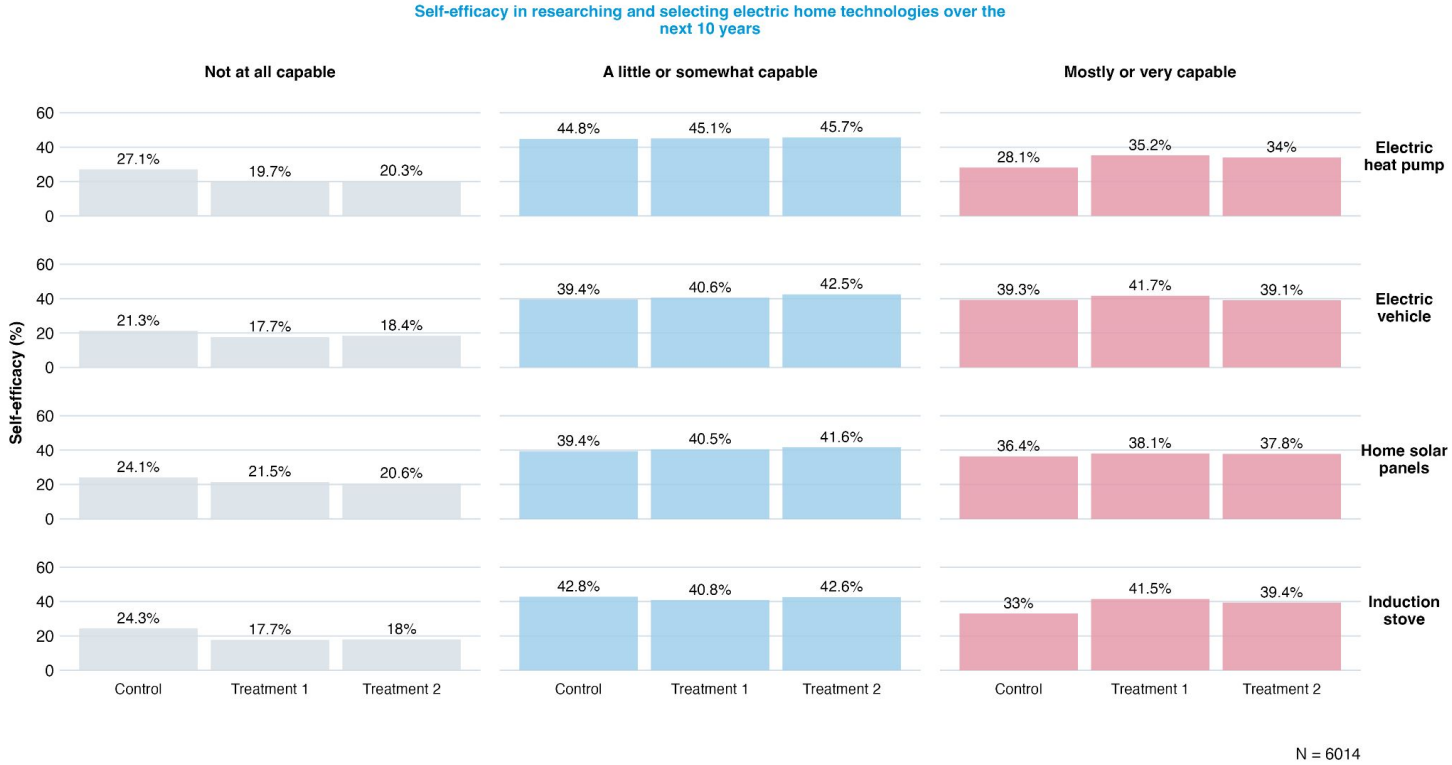
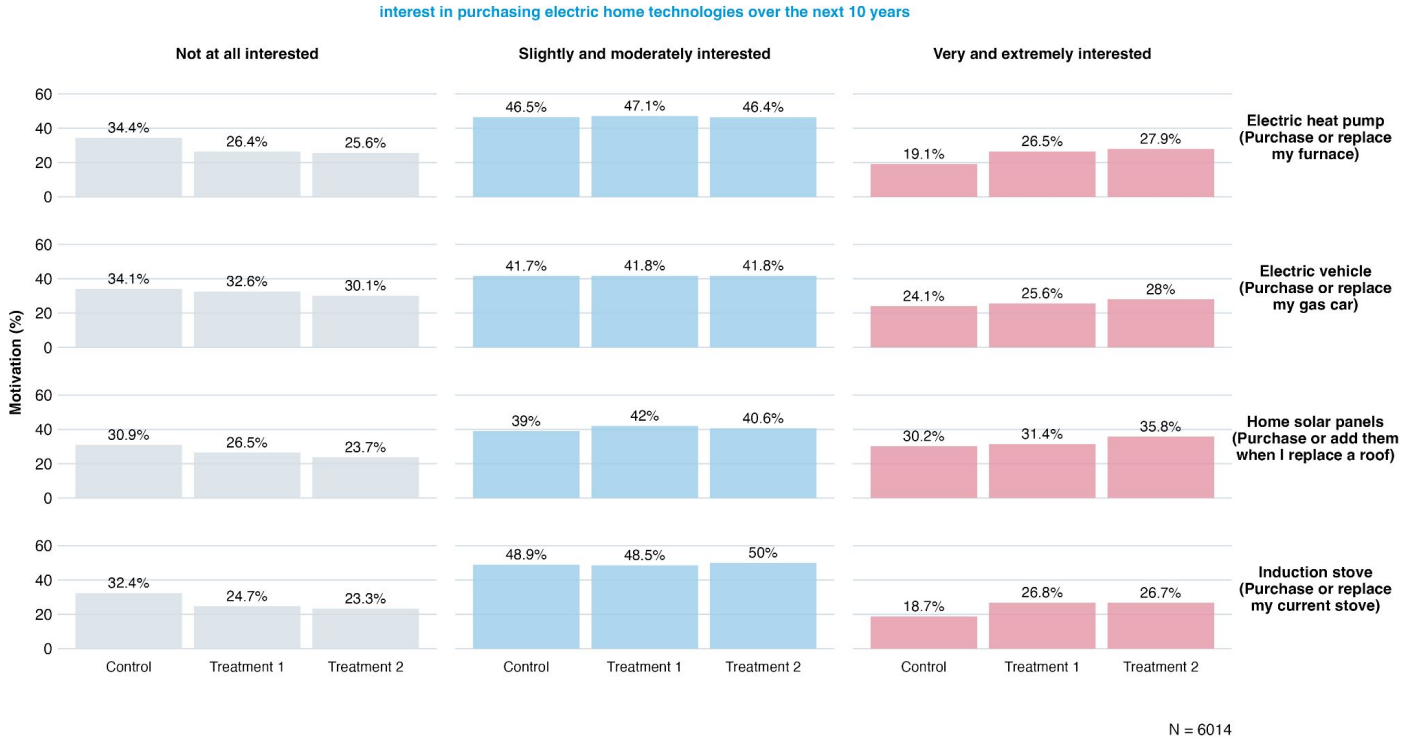
Induction stoves and heat pumps see larger increase in self-efficacy with both messages

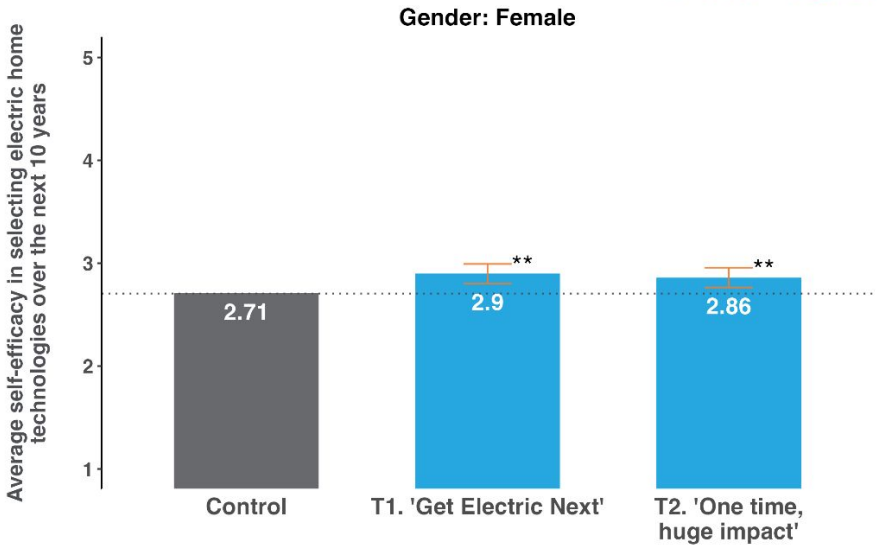


Induction stoves and heat pumps see larger increase in interest with both messages

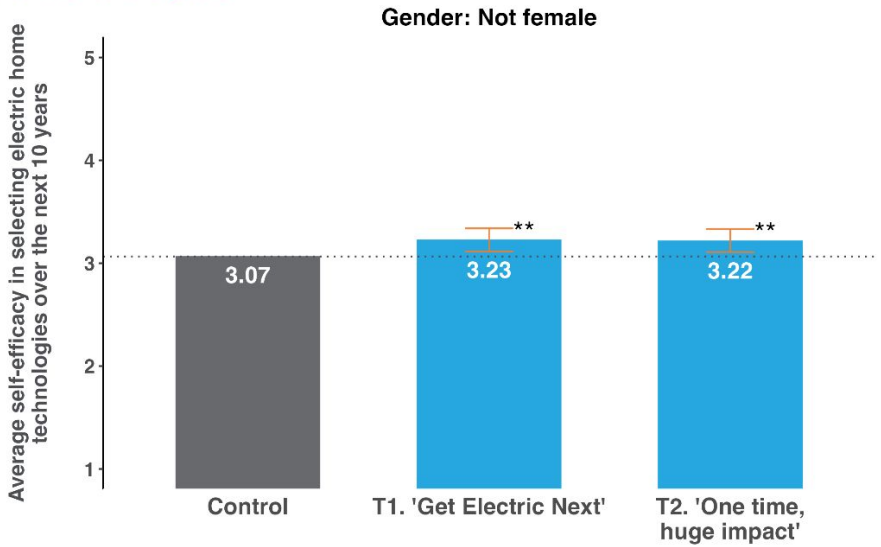


Females had lower average self-efficacy across treatment groups

Primary outcome: Average self-efficacy in selecting electric home technologies over the next 10 years



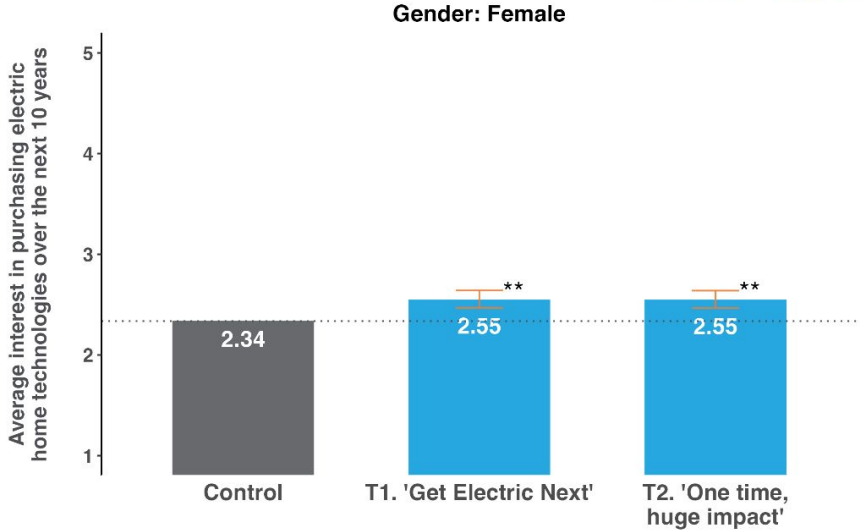
N=3483
Covariate: Income and self-efficacy in impacting climate change.
Note: p-values are adjusted using Benjamini-Hochberg correction.
**: p<0.01, *: p<0.05, +: p<0.1



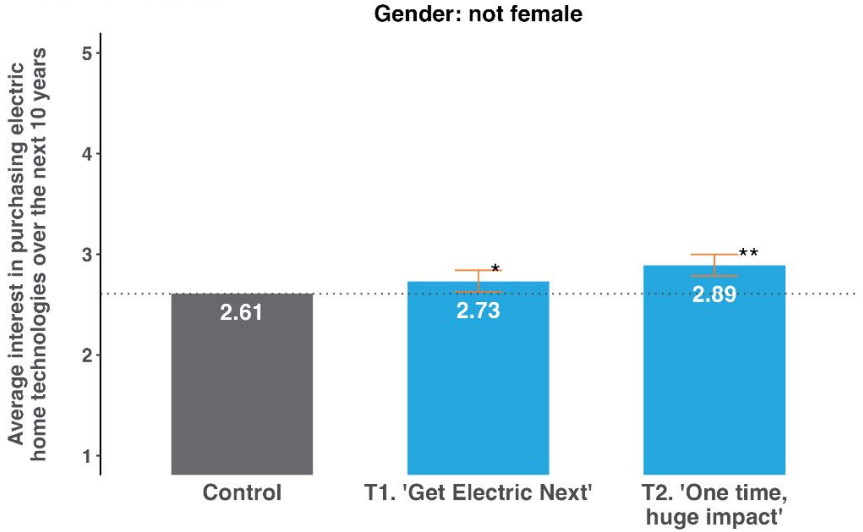
N=2531
Covariate: Income and self-efficacy in impacting climate change.
Note: p-values are adjusted using Benjamini-Hochberg correction.
**: p<0.01, *: p<0.05, +: p<0.1

Females had lower interest in electrification across treatment groups

Secondary outcome: Average interest in purchasing electric home technologies over the next 10 years

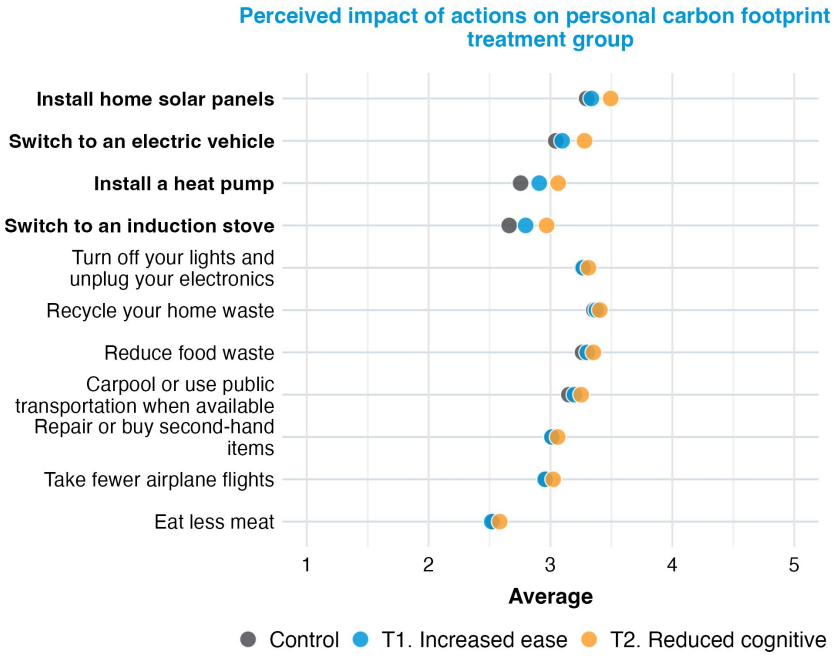


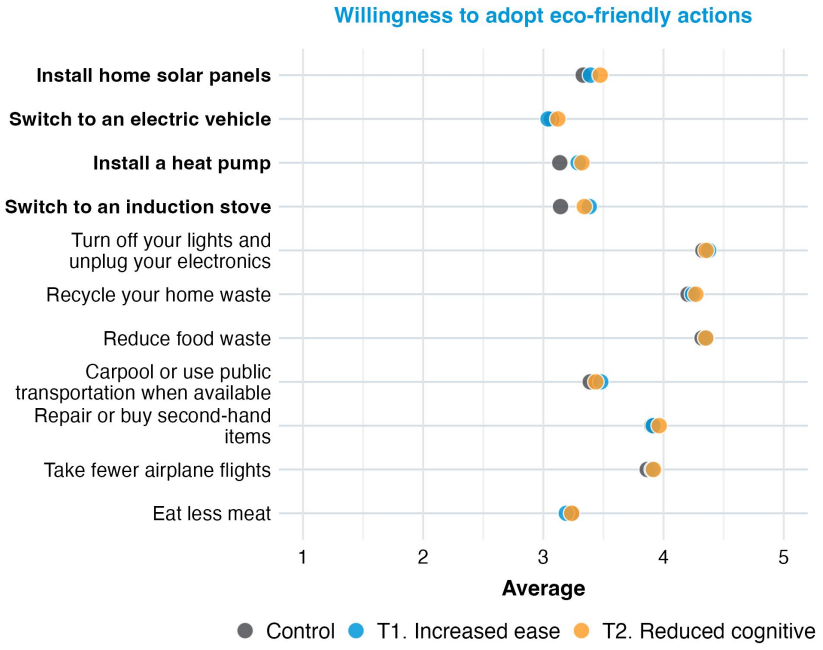
N=3483
Covariate: Income and self-efficacy in impacting climate change.
Note: p-values are adjusted using Benjamini-Hochberg correction.
**: p<0.01, *: p<0.05, +: p<0.1



N=2531
Covariate: Income and self-efficacy in impacting climate change.
Note: p-values are adjusted using Benjamini-Hochberg correction.
**: p<0.01, *: p<0.05, +: p<0.1

Impact of actions on personal carbon footprint, by treatment group



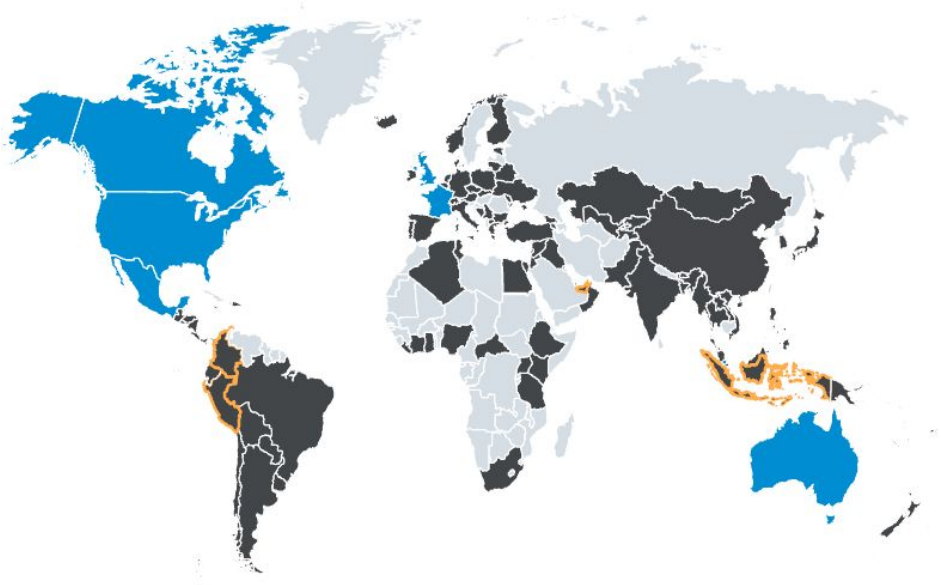


Appendix B. About BIT

THE BEHAVIORAL INSIGHTS TEAM

From world's first government "nudge unit" to global social impact company

- We are a **global social purpose company** that was born inside the UK government to apply behavioral science.
- We have more than **200 dedicated behavioral science professionals,** with offices in seven countries. Our BIT Americas team has offices in DC, NYC, Mexico City and Toronto.
- We have run more than **1,000 behavioral insights projects** and have special expertise in sustainability and energy.



Where we've worked | Where we're based

Our 250+ employees are based around the world

The behavioral insights approach creates practical solutions that are based on a realistic model of behavior

Realistic Understanding

BI creates a **realistic understanding** of how people process information, make decisions and behave

Understanding the Context

We use **methods** like **document reviews, interviews** and **focus groups** to understand the context and identify barriers and enablers to a particular behavior

BI Solutions

We use this insight to develop interventions ranging from **low-cost** “**nudges**” to larger **structural changes**

Predictiv gives you evidence-based answers, quickly and at low cost

Predictiv is a one-stop-shop for running online experiments and surveys.

In collaboration with our clients, we design, run, and analyse the results of experiments tailored to address your needs.

We specialize in running online randomized controlled trials (RCTs, also called A/B tests) - the gold standard methodology for generating reliable evidence you can confidently use.

Predictiv works **quickly and at low cost - with turnaround times in days or weeks**, depending on the experiment.

BENEFITS OF PREDICTIV

LARGE PARTICIPANT POOL
allowing rapid recruitment of 1,000s of participants

TAILORED TEST ENVIRONMENTS
can test text, graphic, audio, and video materials

RAPID RESULTS
in days or weeks (depending on the ask)

LOW COST
typically much lower than field experiments