

# INCREASING THE TAKE-UP OF ANTIPOVERTY TAX CREDITS IN CALIFORNIA

## Results from four outreach campaigns

Elizabeth Linos, Jessica Lasky-Fink, Vince Dorie, and Jesse Rothstein



### SUMMARY

In 2021 and 2022, [The People Lab](#) and the [California Policy Lab](#) collaborated with the [California Department of Social Services](#) (CDSS) and [Code for America](#) (CfA) to conduct and evaluate four statewide outreach campaigns aimed at encouraging low-income Californians to claim available antipoverty tax credits, including state and federal Child Tax Credits (CTCs) (for households with children) and pandemic-era stimulus payments. All four outreach campaigns were targeted at households enrolled in either California’s Supplemental Nutrition Assistance Program (CalFresh) or the Temporary Assistance for Needy Families program (CalWORKs). We also used data from the Franchise Tax Board to identify “nonfilers”—individuals who had not filed or been claimed on a tax return in 2018 or 2019 and were thus more likely to miss out on antipoverty tax credits.

Each outreach campaign was conducted as part of a randomized evaluation. These evaluations ( $n = 542,804$ ) were designed to answer a series of iterative research questions aimed at deepening our understanding of the effects—and limitations—of behaviorally informed outreach on take-up of tax-based benefits. Specifically, we examined whether more proactive communication, variations in message framing, and more precise targeting increased claiming of the CTC and other tax-based stimulus payments among low-income families in California. We find the following:

- All forms of light-touch outreach—recorded voice messages, emails, and text messages—have modest but significant impacts on filing behavior and are highly cost-effective.
  - For every \$1 spent on recorded voice messages and emails, roughly \$58 and \$8,882 in benefits, respectively, were disbursed to low-income families.
- Higher-touch outreach in the form of proactive phone calls from navigators may slightly increase filing compared to light-touch outreach alone, but not enough to offset its high cost.
  - Offering passive assistance—a hotline that beneficiaries could call of their own accord—cost approximately \$142 per additional return submitted, while offering opt-out assistance (proactive calls) cost \$1,062 per additional return submitted.
- Light-touch outreach appears to have a larger impact for likely nonfilers, though it is unclear whether more precise targeting is cost-effective in this context.

Overall, we find light-touch outreach to be an efficient, cost-effective way of delivering this important information. Conservatively, we estimate that sending light-touch outreach to the full eligible population in each study would have yielded about \$4.3 million in additional benefits disbursed to low-income households—and likely much more.

## THE POLICY PROBLEM

In response to the Covid-19 pandemic, the U.S. government disbursed a range of income-based stimulus payments, including an expanded CTC and three rounds of Economic Impact Payments (EIPs), to provide economic aid quickly to middle- and low-income Americans. For the first time, eligibility for these credits was expanded to include Americans with little to no income. Combined, these payments lifted **11.7 million Americans** out of poverty in 2020 and reduced child poverty rates to a record low. But because these credits were disbursed automatically through the tax system, families needed to file tax returns to receive them. As such, families whose income fell below the tax-filing threshold—so-called nonfilers—were at risk of missing out on these critical benefits. Research suggests that **25 percent of Californians** enrolled in safety-net programs were at risk of missing out on the third round of pandemic-related stimulus payments because they had not filed returns.

Moreover, because of the expanded eligibility criteria, many of these families were newly eligible for the CTC; they had not previously had any reason to file tax returns but now stood to gain thousands of dollars if they did. As such, they faced higher informational barriers to knowing about and potentially claiming benefits as compared to other long-standing tax-based benefits such as the Earned Income Tax Credit.

Recognizing this challenge, the Internal Revenue Service created a “nonfiler tool” that offered a way for families to claim the CTC or EIPs without completing full returns, thus also reducing compliance hurdles associated with accessing benefits. Additionally, CfA partnered with the White House and the U.S. Treasury Department to create a separate nonfiler tool, GetCTC.org, that could be used for the same purpose. CfA also developed and runs a separate platform, GetYourRefund.org, that offers a streamlined way to file regular taxes for low-income individuals. These tools were available during specific claiming periods each year, loosely aligned with the Internal Revenue Service’s annual tax-filing and extended tax-filing deadlines.

## WHAT WE DID

From fall 2021 to fall 2022, The People Lab and California Policy Lab supported CDSS in conducting four targeted outreach campaigns, each of which was run as part of a randomized evaluation. In all four studies, CDSS sent outreach to low-income Californians to encourage them to use a nonfiler tool such as GetCTC.org or GetYourRefund.org or to file full tax returns to claim the CTC or other available EIPs.<sup>1</sup> The sample for each study was drawn from CDSS program enrollment data for CalFresh and CalWORKs and includes households that were likely income eligible to claim the expanded CTC and EIPs. These data were merged with state tax-filing data from the California Franchise Tax Board to identify adults and children who were at risk of not receiving the CTC or EIPs due to their past state tax return filing history—so-called previous nonfilers.

Across all four studies, we aimed to answer four research questions:

1. Does receiving information about available antipoverty tax credits increase claiming?
2. What type of message framing is most effective?
3. Is informational outreach more effective among a better-targeted sample?
4. Is higher-touch outreach (e.g., proactive calling) more effective than lighter-touch outreach?

<sup>1</sup> The CTC and EIPs also could be claimed directly through an Internal Revenue Service portal. Tax returns could be filed directly or through typical channels (e.g., certified preparers).

To answer these questions, **study 1** ( $n = 144,125$ ) and **study 2** ( $n = 47,693$ ) focused on previous nonfilers only and tested the impact of light-touch outreach through recorded voice messages (“robocalls”) and emails, respectively. In each study, we also tested different message framings. In study 1, households were randomly assigned to receive a *standard* recorded voice message that provided basic information about the CTC or EIPs or a *salient assistance* message that provided the same information as well as the phone number for a CfA-run national hotline that individuals could call to receive filing assistance from a live person. In study 2, households were randomly assigned to receive a *psychological ownership* message, which emphasized that available tax credits “belonged” to recipients or a *simplified process* message, which emphasized that the process of claiming available tax credits had been simplified. The Appendix shows full message text for every study.

In **study 3** ( $n = 292,984$ ), we expanded the sample to include previous filers in addition to nonfilers to test the impact of more precise targeting through text message outreach. As in study 2, households were randomly assigned to receive text messages that emphasized *psychological ownership* or a *simplified process*, or they were assigned to a no-communication control group (20%). Because benefits were distributed automatically to individuals who had filed tax returns in previous years, our hypothesis was that previous nonfilers were more likely to need to take action—and thus should be more “movable”—in this context.

In **study 4** ( $n = 58,002$ ), our sample focused only on previous nonfilers (as in studies 1 and 2) and included higher-touch outreach by leveraging a CDSS hotline that was staffed by approximately 35 workers who were trained to answer questions about the tax-filing process and the simplified filing tool and could connect callers to other resources such as Volunteer Income Tax Assistance sites. Households were randomly assigned to a *passive assistance* group, which was sent a text message with the phone number for the tax-filing assistance hotline; an *opt-in assistance* group, which was sent a text message that asked recipients to reply “yes” if they wanted to receive a call from the assistance hotline; or an *opt-out assistance* group, which was sent a text message that informed recipients that they would also receive a call from the assistance hotline—but could opt-out via text. The *passive assistance* group in this study resembles the salient assistance condition in study 1 and reflects one of the most common approaches governments use to connect residents with navigation assistance. We conceptualize proactive opt-out calls as higher-touch outreach.

Across studies, our primary outcomes are tax return initiations and submissions. For studies 1, 2, and 4, we measure returns via [GetCTC.org](https://www.getctc.org). In study 3, which was conducted during the regular tax-filing season, we measure initiations and submissions via [GetYourRefund.org](https://www.getyourrefund.org) as well as California state tax return filing.



## OUR FINDINGS

Across four studies, we estimate the effect of various modes, framings, and intensities of outreach on initiated and submitted claims. We identify five major findings:

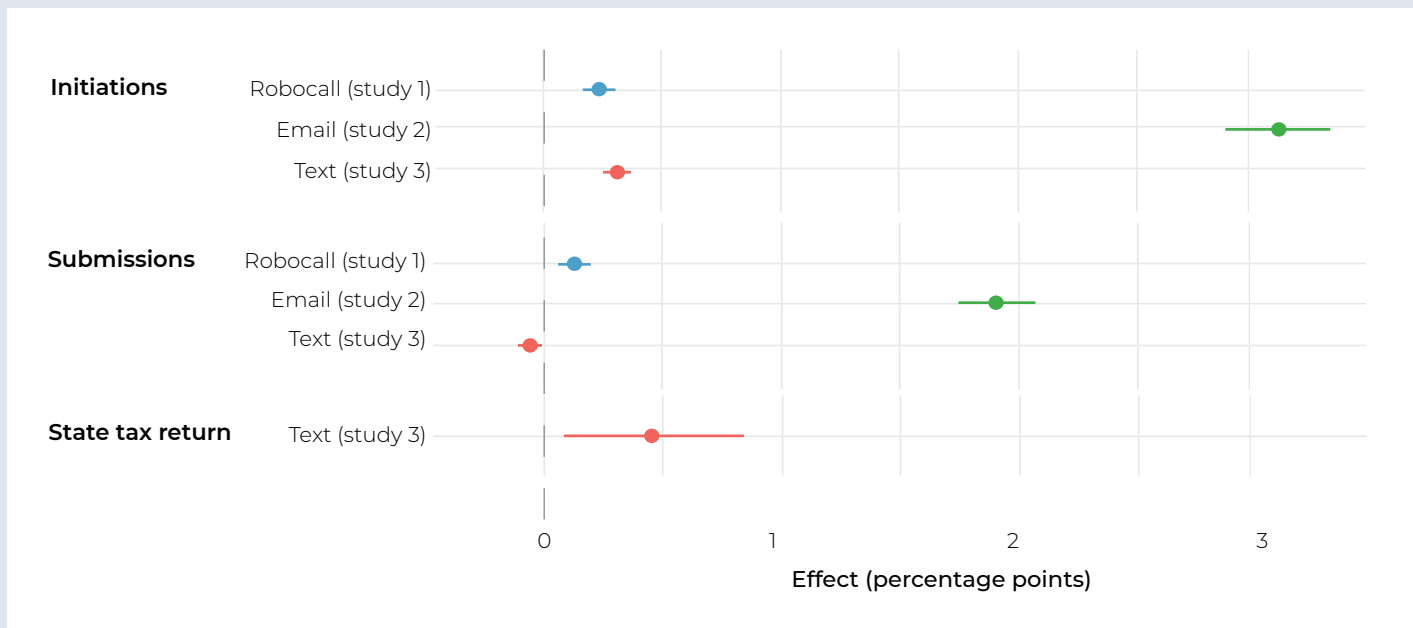
### Finding 1: All forms of light-touch outreach—recorded voice messages, emails, and text messages—have modest but significant impacts on filing behavior.

Recorded voice messages, emails, and text messages all had significant and positive impacts on filing behavior relative to no outreach (see Figure 1). In study 1, individuals who received recorded voice messages were 0.1 percentage points (pp) more likely to submit returns than individuals who did not receive outreach—a 156% increase beyond the baseline. In study 2, individuals who received an email were 1.9 pp more likely to submit a return—a 451% increase in submission rates compared to those who did not receive emails. And in study 3, individuals who received a text message were 0.5 pp more likely to submit a state tax return than those who did not receive outreach—a 0.7% increase (note that the baseline filing rate in this study was much higher, at 68.9%, because it was conducted during traditional tax filing season).

Although the effect of emails was an order of magnitude larger than the effect of recorded voice messages and text messages, it is important to note that the study populations, outcomes, baseline filing rates, and timing were different across studies. The effects of each outreach modality thus are not directly comparable. Despite this, in each study, we consistently find that light-touch outreach has a small but positive effect on filing behavior, with effect sizes in line with related meta-analyses of the [impact of light-touch government outreach](#) and some [studies on tax-based benefits take-up](#).

FIGURE 1

Effects of light-touch outreach on initiation and submission of returns



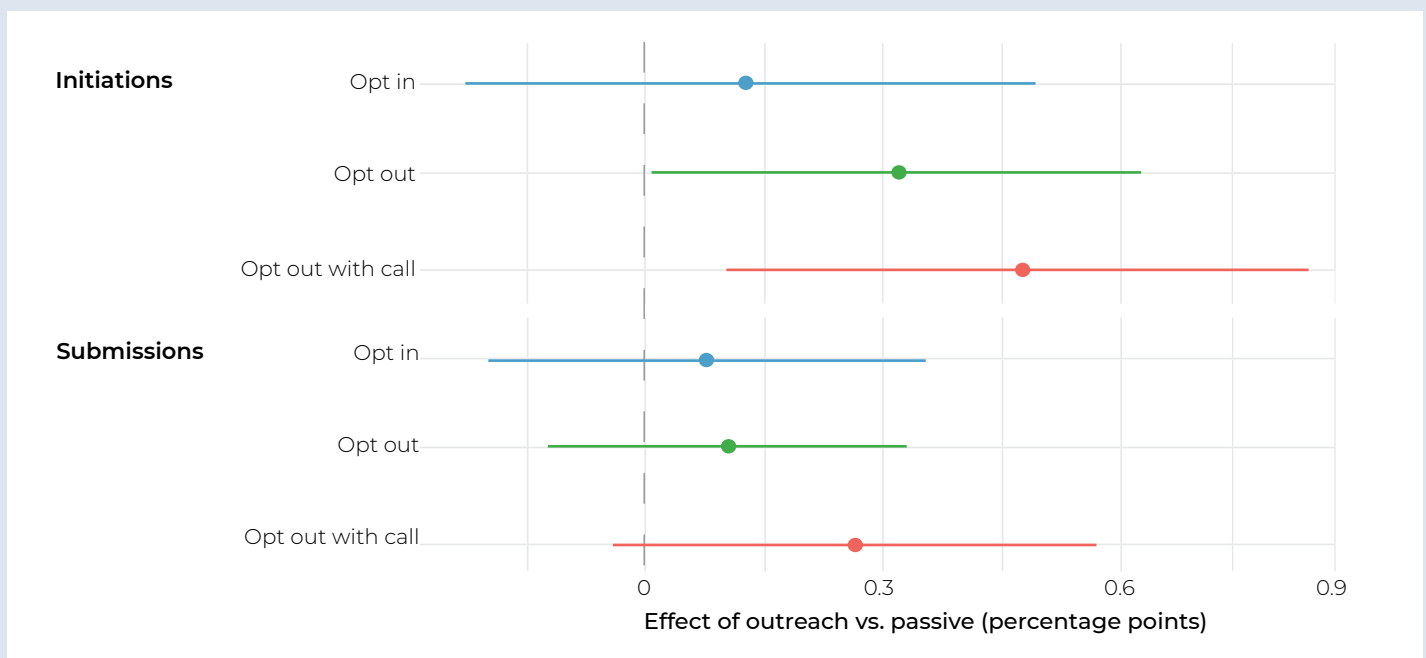
Notes: Estimates of the effect of light-touch outreach, relative to no communication. Outcomes for studies 1 and 2 are [GetCTC.org](#) return initiations and submissions in the one week following outreach for the primary contact; outcomes for study 3 are return initiations and submissions through [GetYourRefund.org](#) in the four weeks following outreach for the primary contact and 2021 state tax return filing. Study 3 results are among filers and nonfilers. All models control for randomization strata.

## Finding 2: Higher-touch outreach (proactive calls) slightly increases filing compared to light-touch outreach alone.

In study 4, we examined the impact of two higher-touch approaches to navigation assistance—*opt-in assistance* and *opt-out assistance*—compared to light-touch outreach. We found that the method of offering higher-touch assistance significantly affects engagement. Among households assigned to the *opt-in assistance* group, just 72 (0.6%) responded affirmatively, indicating that they wished to receive a call from the tax-filing assistance hotline. Of households assigned to the *opt-out assistance* group, just 172 (0.7%) opted out. However, only a randomly selected 52% of those who did not opt out ( $n = 12,171$ ) ultimately received a live phone call from the tax-filing assistance hotline due to time and capacity constraints; the remainder received a recorded voice message. Of the 12,171 live outbound calls made, hotline workers were able to reach and speak to people in 1,072 households (8.8%). This is consistent with other [research that documents the power of default approaches](#) to enrollment.

When it comes to filing behavior, we find that individuals assigned to the *opt-in assistance* group were directionally—but not statistically significantly—more likely to submit returns through GetCTC.org than were individuals assigned to the *passive assistance* group, which received a text message with the phone number for the tax-filing assistance hotline (see Figure 2). Meanwhile, individuals assigned to the *opt-out assistance* group—the highest-touch outreach group—were 0.3 pp more likely to initiate a return (25% increase over 1.2% baseline) but no more likely to submit a return than those in the *passive assistance* group. However, since not all households in the *opt-out assistance* group received a live call as intended, we also examined effects just among the subset that did: individuals who received an outreach phone call were 0.5 pp (39% increase on 1.2% baseline) more likely to initiate a return and 0.3 pp (35% increase on 0.8% baseline) more likely to submit a return than households in the *passive assistance* group, at statistical and marginal significance, respectively.

**FIGURE 2**  
Effect of higher-touch outreach on initiation and submission of returns

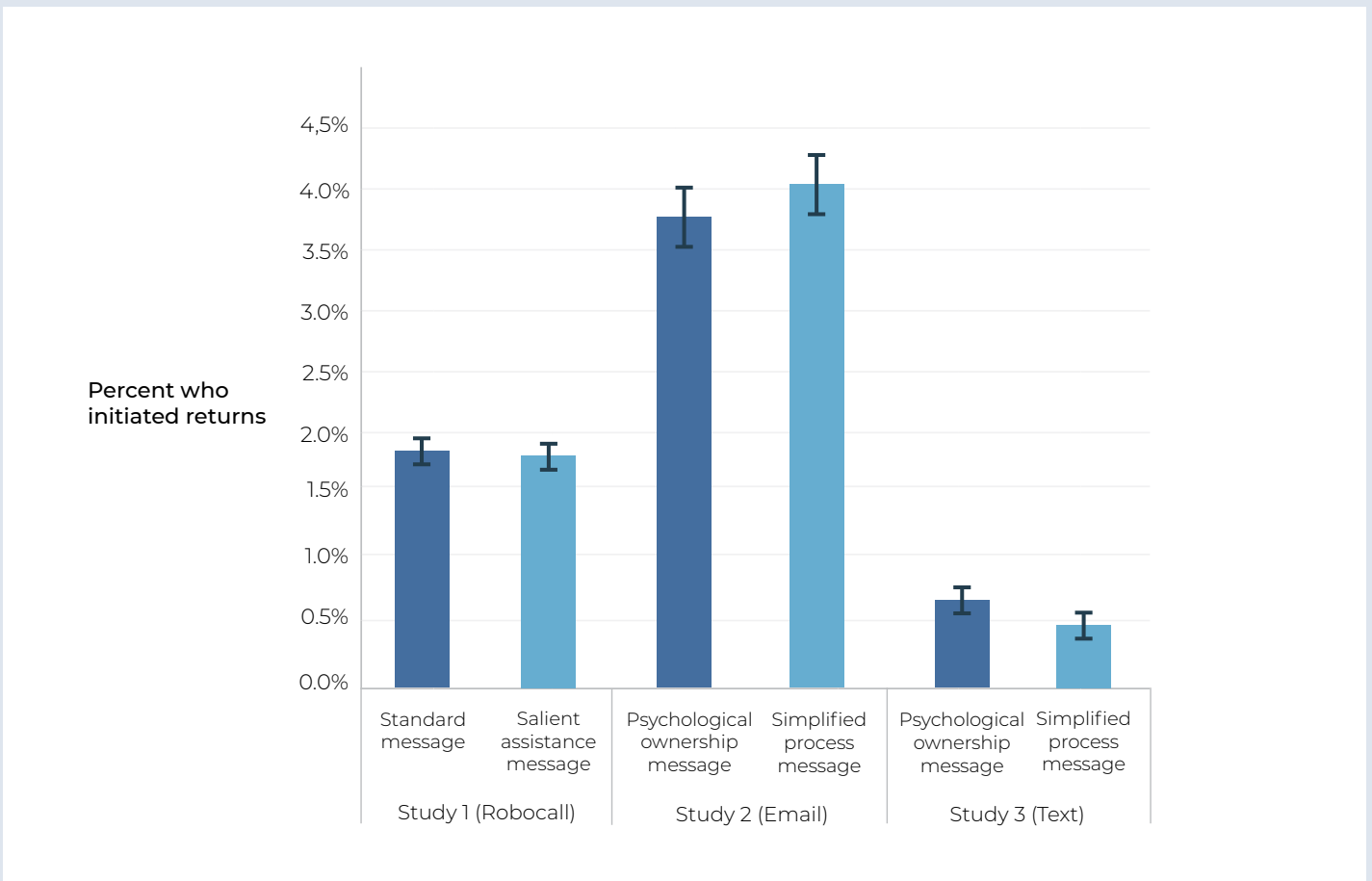


Notes: Estimates of the effect of opt-in and opt-out outreach, relative to passive assistance (a text message with the phone number for the tax-filing assistance hotline). Outcomes are [GetCTC.org](#) return initiations and submissions in the two weeks following outreach for the primary contact in study 4. All models control for randomization strata.

### Finding 3: Message content does not have a clear or consistent impact on filing behavior.

Across all studies in which we varied message framing (studies 1–3), we do not see a clear or consistent impact of framing on filing behavior (see Figure 3). In study 1, the *salient assistance message*, which included the phone number for the CfA tax-filing assistance hotline, increased engagement relative to baseline but not compared to a *standard message*. In study 2, individuals who received the *psychological ownership* email were 0.3 pp less likely to initiate a return than those who received the *simplified process* email (7% decrease from 4.0% baseline), but this difference is not statistically significant. On the other hand, individuals in study 3 who received a *psychological ownership* text were 0.2 pp more likely to initiate a return (36% increase over 0.5% baseline) than those who received the *simplified process* text message, a statistically significant difference. We see similar patterns for return submissions.

**FIGURE 3**  
Effect of message framing on return initiations



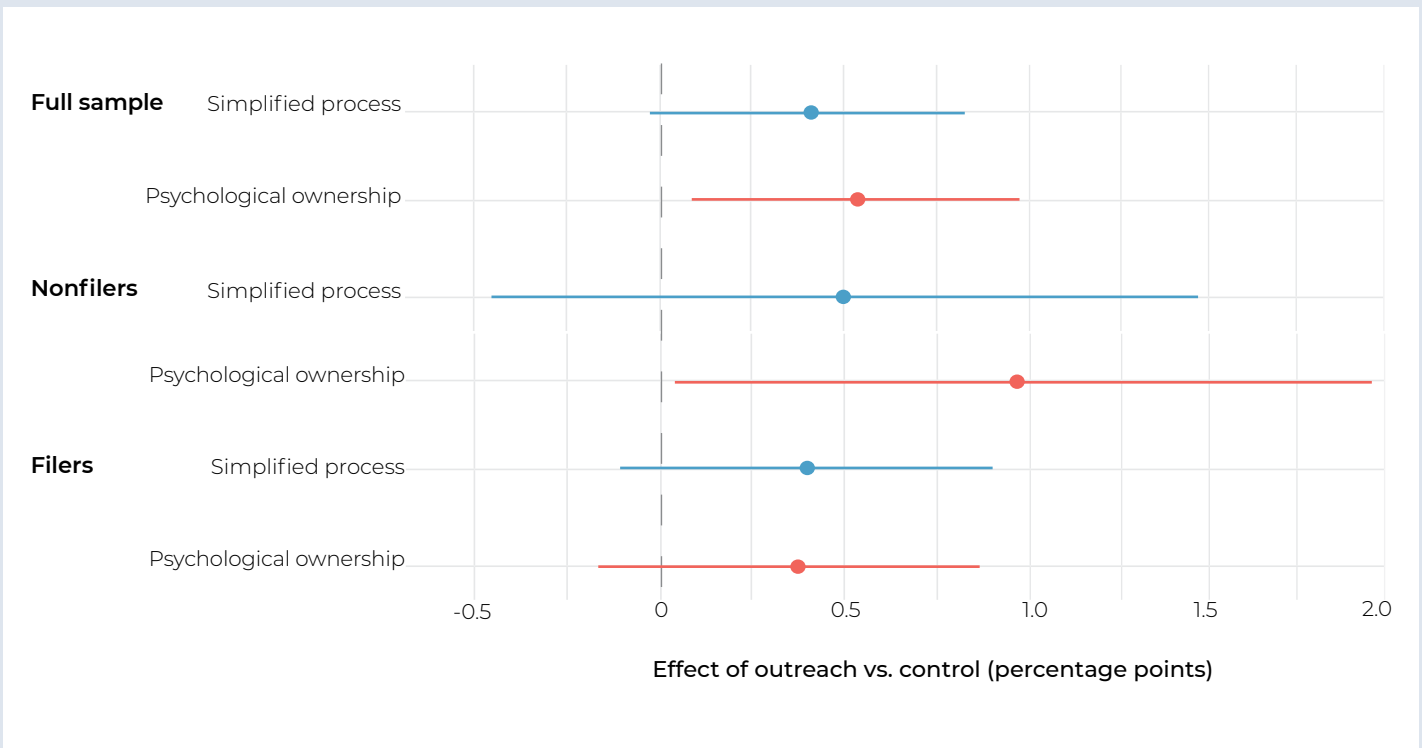
Notes: Regression-adjusted percentage of people who initiated a return in each message group, by study. Return initiations are via [GetCTC.org](https://www.getctc.org) in studies 1 and 2 and via [GetYourRefund.org](https://www.getyourrefund.org) in study 3. All models control for randomization strata.

**Finding 4: Light-touch outreach appears to have a larger impact for likely nonfilers, though it is unclear whether more precise targeting is cost-effective in this context.**

We measured whether the impact of light-touch outreach is larger among a better-targeted—and presumably more movable—sample of previous nonfilers. In study 3, 73.8% of the individuals we identified as previous filers (based on past state tax return filing data) filed a state tax return in 2021, the year of the study. Comparatively, only 55.1% of those identified as previous nonfilers filed a 2021 state tax return. While this is a descriptive finding, it suggests that we were able to correctly identify individuals who were less likely to file taxes and for whom outreach thus should have been more relevant.

In study 3, the effect of text message outreach on state tax return filing was nearly twice as large for previous nonfilers (0.75 pp) than for previous filers (0.40 pp), although this difference was not statistically significant (see Figure 4). This suggests that there may be limited additional benefit from more precise targeting in the specific conditions present in our studies, wherein the benefits are significant and the marginal cost of outreach is low. The time, effort, and cost required to implement more precise targeting should be weighed against the potential benefits.

**FIGURE 4**  
Effect of outreach and message content on state tax return filing, by filing history



Notes: Estimates of the effect of each message, relative to no communication, for the full sample, previous nonfilers only (the better-targeted sample), and previous filers only (the less well-targeted sample) in study 3. Outcome is 2021 California state tax return filing for the primary contact. All models control for randomization strata and county of residence.

**Finding 5: Light-touch outreach was remarkably cost-effective. Higher-touch approaches may be slightly more effective but not enough to offset their high costs.**

Light-touch outreach significantly increased tax filing at a very low cost. In study 1, recorded voice messages cost about \$26 per additional return submitted; in Study 2, emails cost about \$0.15 per additional return submitted; and in Study 3, text messages cost just over \$4 per additional return submitted. Because benefits were large in our setting, this also translates into a high return on investment: For every \$1 spent on recorded voice messages and emails in Studies 1 and 2, respectively, roughly \$58 and \$8,882 in benefits were disbursed to low-income families. In contrast, higher-touch outreach—which involved staffing a tax-filing assistance hotline—led to only modest improvements in engagement and was substantially more expensive than light-touch outreach. In study 4, offering passive opt-in assistance cost an estimated \$142 per additional return submitted, while proactive opt-out calls cost approximately \$1,062 per additional return submitted. In addition, once fixed costs (e.g., setting up the text message platform) were factored in, the benefit-cost ratio of higher-touch outreach generally did not exceed 1, yielding a negative return on investment.

**LEARNINGS AND NEXT STEPS**

Across four large-scale experiments, we found that light-touch interventions can effectively reduce take-up gaps at the margins and, when benefits are large, bring millions of dollars to low-income households at a very low cost. Effect sizes are modest in absolute terms, ranging from 0.1 pp to 2 pp on return submissions, but large in relative terms: These effects represent 150% to more than 500% increases in baseline return submission rates during the outcome period. Higher-touch outreach, refined messaging, and precise targeting yielded minimal additional benefits, with proactive outreach delivering a negative return on investment.

We cannot rule out that other high-touch interventions would have been more effective or that something specific about our sample makes this population more or less movable than other vulnerable populations. This research took place against a backdrop of unprecedented efforts to expand and increase take-up of the CTC. This may limit the generalizability of our findings to other programs and populations. Additionally, overall utilization of GetCTC.org and GetYourRefund.org was very low, suggesting that other channels (e.g., filing directly or through tax-preparation agencies) must have been used to submit claims. We are unable to measure the claims from these other channels, which means our findings may be over- or underestimates of the true effect of outreach.

Overall, this work connected thousands of low-income families to essential benefits, demonstrating the power of low-cost, behaviorally informed interventions. Yet there is still a long way to go to close the take-up gap for disadvantaged households; future research should build on these findings to better understand how to reach and support those who face obstacles to accessing valuable benefits for which they may be eligible.

## APPENDIX. OUTREACH MATERIALS FOR EACH EVALUATION

### Evaluation 1

#### Recorded Voice Messages

##### **1. Standard Message**

###### **For adults with children:**

Hello. This is a prerecorded message from the California Department of Social Services. We are calling to inform you that the federal stimulus payments provide more than \$3,000 for each child under your care, no matter your income. These payments will not affect your ability to receive other public benefits. You can claim your payments online. Go to [GetCTC.org/XXX](https://www.getctc.org/XXX) to claim your payments today. Again that's [GetCTC.org/XXX](https://www.getctc.org/XXX) to claim your payments today. Thank you for listening to this message from the California Department of Social Services. Press 0 to replay this message.

###### **For adults without children:**

Hello. This is a prerecorded message from the California Department of Social Services. We are calling to inform you that you can receive more than \$3,000 in combined federal stimulus payments, no matter your income. These payments will not affect your ability to receive other public benefits. You can claim your payments online. Go to [GetCTC.org/XXX](https://www.getctc.org/XXX) to claim your payments today. Again that's [GetCTC.org/XXX](https://www.getctc.org/XXX) to claim your payments today. Thank you for listening to this message from the California Department of Social Services. Press 0 to replay this message.

##### **2. Salient Assistance Message**

###### **For adults with children:**

Hello. This is a prerecorded message from the California Department of Social Services. We are calling to inform you that the federal stimulus payments provide more than \$3,000 for each child under your care, no matter your income. These payments will not affect your ability to receive other public benefits. Qualified tax preparers are available to help you claim your payments. Go to [GetCTC.org/XXX](https://www.getctc.org/XXX) to claim your payments today. Again that's [GetCTC.org/XXX](https://www.getctc.org/XXX). For direct assistance from a real person, call 1-877-XXX-XXXX. Again that number is 1-877-XXX-XXXX. Thank you for listening to this message from the California Department of Social Services. Press 0 to replay this message.

###### **For adults without children:**

Hello. This is a prerecorded message from the California Department of Social Services. We are calling to inform you that you can receive more than \$3,000 in combined federal stimulus payments, no matter your income. These payments will not affect your ability to receive other public benefits. Qualified tax preparers are available to help you claim your payments. Go to [GetCTC.org/XXX](https://www.getctc.org/XXX) to claim your payments today. Again that's [GetCTC.org/XXX](https://www.getctc.org/XXX). For direct assistance from a real person, call 1-877-XXX-XXXX. Again that number is 1-877-XXX-XXXX. Thank you for listening to this message from the California Department of Social Services. Press 0 to replay this message.

#### Emails

##### **1. Psychological Ownership Message**

###### **For adults with children:**

Hello,

No matter what your income is, federal stimulus payments provide \$3000+ for each child under your care. We are contacting you because you may be eligible for these payments. It will not affect your ability to receive other public benefits.

The California Department of Social Services wants to help everyone get the money that belongs to them. Go to <https://www.getctc.org/XXX> to check your eligibility and claim your payments today. This tool is available at no cost.

###### **For adults without children:**

Hello,

No matter what your income is, you can receive \$3000+ from the combined federal stimulus payments. We are contacting you because you may be eligible for these payments. It will not affect your ability to receive other public benefits.

The California Department of Social Services wants to help everyone get the money that belongs to them. Go to <https://www.getctc.org/XXX> to check your eligibility and claim your payments today. This tool is available at no cost.

## APPENDIX. OUTREACH MATERIALS FOR EACH EVALUATION cont.

### 2. Simplified Process Message

#### For adults with children:

Hello,

No matter what your income is, federal stimulus payments provide \$3000+ for each child under your care. We are contacting you because you may be eligible for these payments. It will not affect your ability to receive other public benefits.

Your time is valuable. We have simplified the filing process to make it easier for you to claim your payments online. You can complete it in one sitting. Go to <https://www.getctc.org/XXX> to check your eligibility and claim your payments today. This tool is available at no cost.

#### For adults without children:

Hello,

No matter what your income is, you can receive \$3000+ from the combined federal stimulus payments. We are contacting you because you may be eligible for these payments. It will not affect your ability to receive other public benefits.

Your time is valuable. We have simplified the filing process to make it easier for you to claim your payments online. You can complete it in one sitting. Go to <https://www.getctc.org/XXX> to check your eligibility and claim your payments today. This tool is available at no cost.

## Evaluation 2

### 1. Psychological Ownership Message

#### For adults with children:

FREE MSG: This is the CA Department of Social Services. File your taxes this year to receive \$1500+ through the Child Tax Credit.

This money already belongs to you. Go to <url> to claim it today! Data rates may apply. Reply STOP to opt out.

#### For adults without children:

FREE MSG: This is the CA Department of Social Services. File your taxes this year to receive up to \$1500 through the Earned Income Tax Credit.

This money already belongs to you. Go to <url> to claim it today! Data rates may apply. Reply STOP to opt out.

### 2. Simplified Process Message

#### For adults with children:

FREE MSG: This is the CA Department of Social Services. File your taxes this year to receive \$1500+ through the Child Tax Credit.

We've made it easier to get started. Go to <url> today! Data rates may apply. Reply STOP to opt out.

#### For adults without children:

FREE MSG: This is the CA Department of Social Services. File your taxes this year to receive up to \$1500 through the Earned Income Tax Credit.

We've made it easier to get started. Go to <url> today! Data rates may apply. Reply STOP to opt out.

## Evaluation 3

### 1. Passive Assistance Message

This is the CA Department of Social Services. File your taxes to get \$X+ in tax credits. Go to [getctc.org/XXX](https://www.getctc.org/XXX) to check your eligibility and claim your money today!

If you need help, just call XXX-XXX-XXXX to talk to a trained staff member. Data rates may apply. Text STOP to opt out.

### 2. On-Demand Assistance Message

This is the CA Department of Social Services. File your taxes to get \$X+ in tax credits. Go to [getctc.org/XXX](https://www.getctc.org/XXX) to check your eligibility and claim your money today!

If you would like to receive a call from a trained staff member who can help, reply Y. Data rates may apply. Text STOP to opt out.

### 3. Opt-Out Assistance Message

This is the CA Department of Social Services. File your taxes to get \$X+ in tax credits. Go to [getctc.org/XXX](https://www.getctc.org/XXX) to check your eligibility and claim your money today!

A trained staff member will call you to offer help. If you do not want a call, reply N. Data rates may apply. Text STOP to opt out.



### About The People Lab

The People Lab aims to empower the public sector by producing cutting-edge research on the people of government and the communities they serve. Using evidence from public management and insights from behavioral science, we study, design, and test strategies for solving urgent public sector challenges in three core areas: strengthening the government workforce; improving resident-government interactions; and reimagining the production and use of evidence.



#### Contact Us

- ✉ [peoplelab@hks.harvard.edu](mailto:peoplelab@hks.harvard.edu)
- 🐦 [@thepeoplelab.bsky.social](https://twitter.com/thepeoplelab)

### About The California Policy Lab

The California Policy Lab generates research insights for government impact. Through hands-on partnerships with government agencies, CPL performs rigorous research across issue silos and builds the data infrastructure necessary to improve programs and policies that millions of Californians rely on every day. We focus our work in six policy areas: education, criminal justice reform, poverty and the social safety net, labor and employment, health, and homelessness and high needs populations.

**Acknowledgments.** We are especially grateful to the California Department of Social Services (CDSS), and Code for America for their partnership on this research. The findings reported herein were performed with the permission of the California Department of Social Services. The opinions and conclusions expressed herein are solely those of the authors and should not be considered as representing the policy of the collaborating department, agency, or any department or agency of the California government.