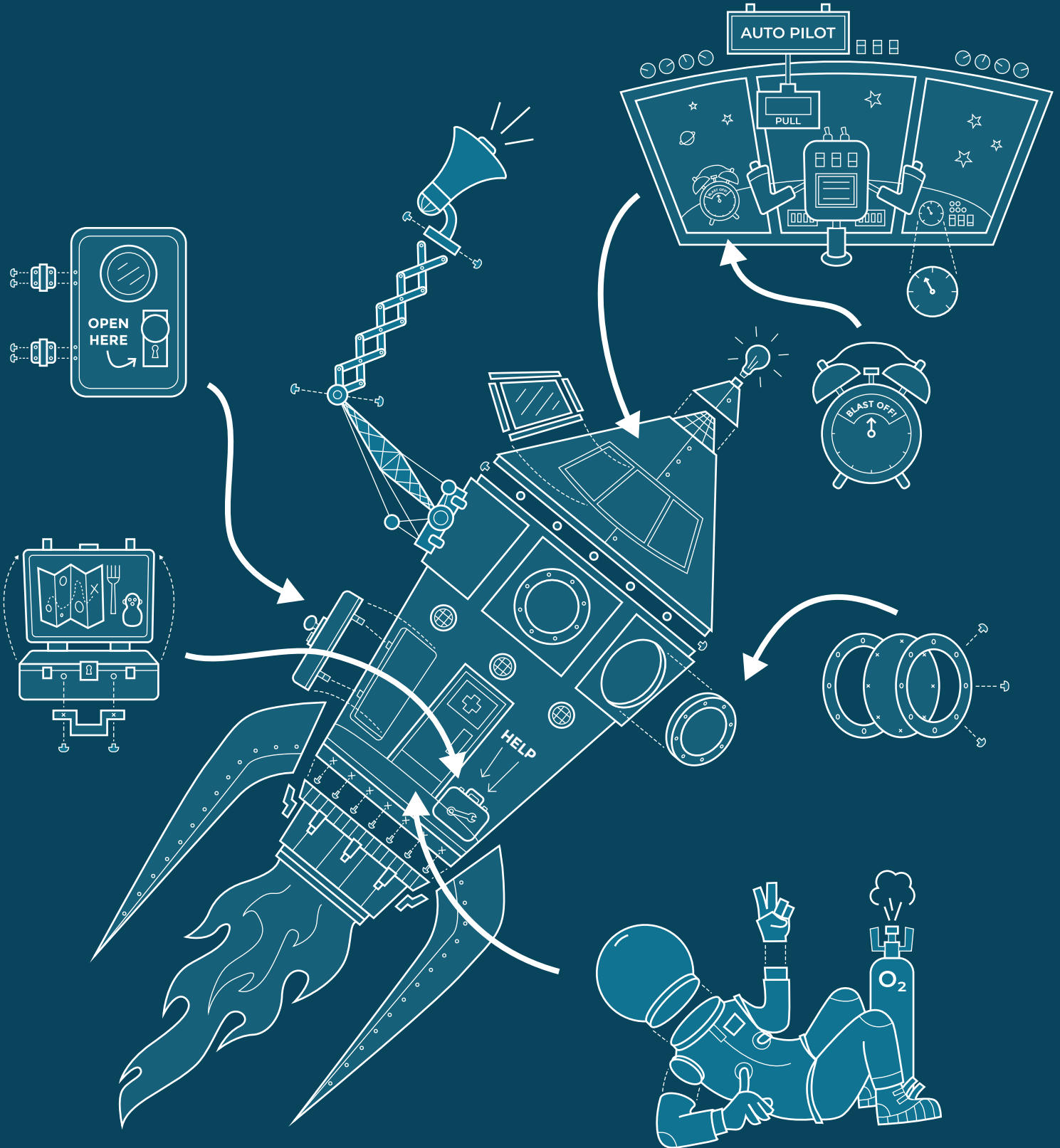


2019

ANNUAL REPORT
COMMON CENTS LAB

Duke



ABOUT US



Common Cents Lab is a financial research lab at Duke University that creates and tests interventions to help low-to-moderate income households increase their financial well-being. Common Cents leverages research gleaned from behavioral economics to create interventions that lead to positive financial behaviors. The Common Cents Lab is part of the Center for Advanced Hindsight at Duke University. The Common Cents Lab is comprised of researchers and experts in product design, economics, psychology, public policy, advertising, business administration, and more.

To fulfill its mission, Common Cents partners with organizations, including fintech companies, credit unions, banks and non-profits, that believe their work could be improved through insights gained from behavioral economics. To learn more about Common Cents Lab visit advanced-hindsight.com/commoncents-lab.



At **MetLife Foundation**, we believe financial health belongs to everyone. We bring together bold solutions, deep financial expertise, and meaningful grants to build financial health for people and communities that are underserved and aspire for more. We partner with organizations around the world to create financial health solutions and build stronger communities, engaging with MetLife employees to help drive impact. To date, our financial health work has reached more than 6 million low-income individuals in 42 countries. To learn more about MetLife Foundation visit www.metlife.org.

BlackRock

BlackRock helps investors build better financial futures. As a fiduciary to investors and a leading provider of financial technology, our clients turn to us for the solutions they need when planning for their most important goals. As of December 31, 2018, the firm managed approximately \$5.98 trillion in assets on behalf of investors worldwide.

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READING THIS REPORT

HELLO!

The following pages represent short case studies of all the projects that we worked on over the course of this last year. For the most part, the case studies are broken into four sections.

- » The **background section** is where we introduce the problem, as well as our partner.
- » The **hypothesis and key insights section** is where we explain why we designed the intervention the way that we did.
- » The **experiment** section gives an overview of the intervention and an example of what it looked liked.
- » The **results** section summarizes whether the intervention worked or didn't (with, sometimes, a little theorizing about why).

While we hope some of you sit with a glass of wine (or two) and go from beginning to end in one sitting, we do realize that some of you may skim.

If you skim, here are three recommendations from the authors:

- » **Read the section summaries.** These give you headlines.
- » **Pick one or two studies to dive into deeply.** Ask yourself how you could apply the findings to your work (and personal life).
- » **As you're reading, think about everything that went into writing this report.** It will surely make reading it feel more productive and valuable.



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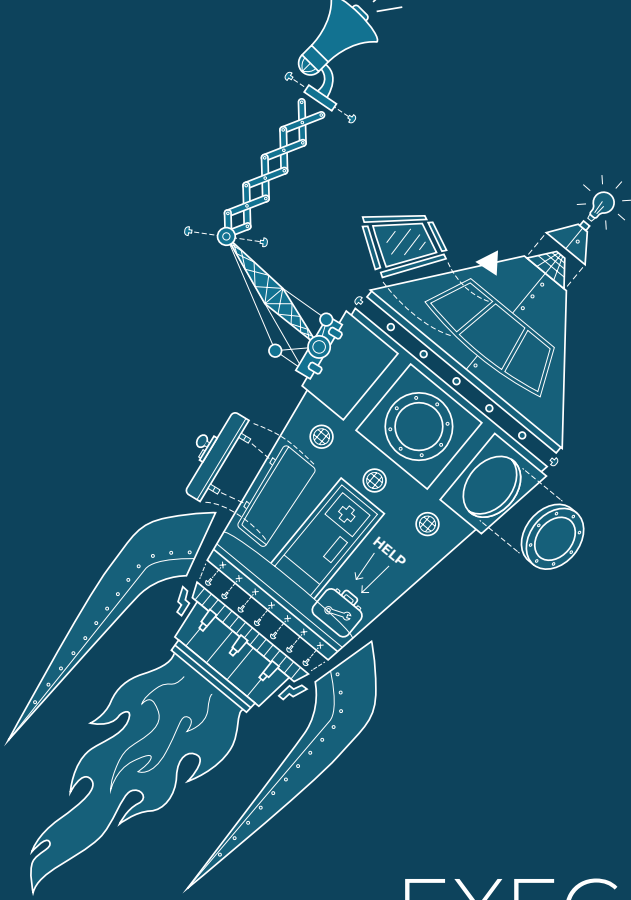
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If the deck is stacked against you, reshuffle the deck.

– John D. MacDonald, American Author

EXECUTIVE SUMMARY

The average family in the United States is playing a financial game in which the odds are decidedly stacked in favor of the house.

The house we are referring to is, of course, not just in Vegas. It's in every shopping mall, car dealership, internet browser, smart phone, Instagram account, restaurant, court room, and retail store in every community across the country.

Much of what defines this golden era of technology, convenience, and on-demand wish fulfillment is leveraged to get more people to give money, time, and attention to maximize profit. [Experts estimate](#) that the average American sees between 4,000 and 10,000 ads per day. This onslaught of savvy offers combined with ever-easier, mindless ways to pay fuels consumption, often at the expense of savings and paid on credit.

At the same time, the financial services industry has become more diverse and complex than ever before, forcing consumers to navigate a wide and often confusing variety of

financial products: bank accounts, digital payments, credit cards, auto loans, mortgages, personal loans, insurance, investments, debt consolidation, and so on and so forth.

But it's more than just products. We must also decide between an increasingly diverse set of providers, like Apple, Uber, and a [growing set of fintech firms](#). As this complexity grows, sorting out bad actors from good and bad products from good becomes impossible.

Ultimately, this combustible mix of temptation, products, and providers is costing people and making it harder to get by. Consider:

- » In 2018, [1.4 million Americans](#) reported more than \$1.48 billion lost to fraud;
- » An estimated [12 million Americans](#) take out payday loans each year – paying over \$9 billion in fees;
- » Consumers pay [\\$11-\\$15 billion in overdraft fees](#) each year;
- » Consumers spent [\\$615 billion more](#) in Q3 of 2019 than just two years ago;
- » Auto, credit card, and personal loan debt reached [\\$2.63 trillion dollars](#) in Q3 of 2019.

While good products and services do exist in this complex ecosystem, uptake and meaningful use to improve our financial health remains low: [more than half of US households](#) spent more than what they brought in over the last year; nearly 40% of households couldn't easily cover a \$400 emergency expense; roughly 1 in 3 households have debt in collections, and the average household has more than \$8,000 in credit card debt.

At Common Cents Lab, we partner with mission-aligned financial institutions, non-profits, governments, and technology companies to use behavioral science to reshuffle the deck, giving millions of people an improved shot at achieving financial stability and reaching their goals. This year, we worked with 39 different organizations on 45 projects. We fully completed 18 experiments, already reaching over 1.3 million people, have 9 more still in the field, and another 10 poised to launch in 2020.

With our partners, we fostered this improvement in three ways:

1. Creating environments that support financial health;
2. Building effective tools to accelerate financial well-being; and
3. Developing and testing strategies to increase uptake of effective tools.

Here is a snapshot of the things we learned along the way:

1. NORMS, ANCHORS, AND AUTOMATION CAN CREATE ENVIRONMENTS THAT SUPPORT FINANCIAL HEALTH.

Many low- and moderate-income households feel like financial stability is an uphill battle because their challenges are both deeply structural, ingrained into the policies and systems that shape our communities, and contextual, exacerbated by superficial design elements. This year, we specifically looked for ways to change three existing systems that undermine financial well-being:

Unpredictable, last-minute scheduling is hard on low-wage workers

Erratic work schedules make it difficult to schedule non-work activities, such as health appointments, socializing, classes, or pick up a second job. It also makes it more difficult to meet work commitments, like scheduling child care or finding transportation. [Research suggests](#) unpredictable work schedules create additional psychological stress, perhaps even over and above low wages.

We partnered with Homebase, a scheduling platform, to get employers to post schedules earlier. We found that telling employers that companies like theirs typically publish schedules two weeks in advance and then providing them an “overdue notice” if they were less than two weeks away increased the number of employers who first publish their schedules at least one week in advance from 32.7% to 37.3%, a 14% relative increase. When scaled, about 34,000 employees on the Homebase platform will receive earlier notice. Read more about this project on [page 46](#).

Prohibitive fines and fees further destabilize vulnerable populations

No country in the world has a [higher rate of incarceration](#) than the United States. The financial cost for an interaction with the criminal justice system can be staggering, especially for low-income individuals. Many people begin facing these costs even before they are convicted or sentenced in the form of bail, which is frequently set [at a prohibitively high amount](#) that perpetuates their detention. Individuals must either find a way to post bail – often resorting to predatory options with long-term consequences – or to sit in jail before they are convicted of any crime simply because they cannot afford to post bail.

We partnered with the Vera Institute of Justice to design a financial capability calculator that recommends a bail amount and type based on the defendant’s financial situation. The recommendation was presented to the judge, providing them timely and relevant information as they set bail. The tool was piloted with 190 defendants; approximately two-thirds of them made bail – markedly higher than average rates. Read more about this project on [page 25](#).

Mismatched timing of income and expenses exacerbates insecurity

When income and bills are not aligned chronologically, it is harder to accurately budget and make the math work. First, research from [Arna Olafsson and Michaela Pagel](#) finds we tend to spend more when we get paid. This spending is extra problematic when bills are not looming and accounted for in our minds. [Researchers Brian Baugh and Jialan Wang](#) found that people turn to payday loans and incur fees more frequently when there is a greater mismatch between when they are paid and when their bills come due.

We worked with Beneficial State Bank to encourage new auto loan borrowers to set up an automatic loan payment that matches the date and frequency that they get paid. We found that this led to 16.9% of borrowers setting up automatic payments, compared to only 9% in the control group, an 88% relative increase. We are continuing to track and measure whether this decreases the likelihood of incurring fees or defaulting on the loan. Read more about this project on [page 93](#).

2. EFFECTIVE TOOLS REDUCE COMPLEXITY, LEVERAGE MENTAL ACCOUNTING, AND LIMIT CHOICE.

It is well understood that we have physical limitations – we cannot fly, we cannot hold our breath forever, and we cannot survive in sub-zero temperatures for long. The history of humankind has been one of inventing tools to overcome our physical limitations. We have hot air balloons and airplanes, submarines and scuba tanks, down jackets and furnaces.

Just like our physical limitations, we have cognitive limitations, such as limited attention, present bias, emotional decision-making, which demand the same approach – we need to develop better tools that guide our mental short-cuts toward better decisions. This year, we explored the following tools:

Decision-aids are helpful for new, unfamiliar products

When we encounter a new product or new service, we look for cues to connect it to past experiences and to intuitively weigh costs and benefits. The problem is we often [focus on just a few bits of salient information](#). For example, price is almost certainly the most salient comparison point when viewing a few similar products – which is one explanation for why [many people](#) opt for low premium but high deductible medical insurance plans, even when that ends up being a more expensive option for them.

We worked with OregonSaves, a state-sponsored retirement program facilitated by the Oregon State Treasury, to explore how we might use a simple decision-aid to encourage enrollment in the program. We showed multiple participant profiles, explaining why each should enroll – this was an implicit recommendation to enroll. The most effective version of the decision-aid increased participation by 3%, which, at scale, would lead to

nearly 180,000 more people saving for retirement. Read more about this project on [page 112](#).

Mental accounting can be leveraged at the right moment: setting up automatic transfers to actually save the savings from a loan refinance

Some of the best innovations are merely bringing existing tools together in new ways and connecting people with them at the right moment – like refinancing a loan. [Research from Katherine Milkman and John Beshears](#) shows that we think of “found money” – like the savings from a loan refinancing – differently because it exists outside of our traditional mental accounts. Taking advantage of this mental account might make it easier for us to save.

In partnership with Digital Federal Credit Union, a large credit union based in Massachusetts, we focused on turning the refinancing of a loan into a pathway to build savings. When a member refinances a loan, this creates a slack in their budget. We helped direct that slack by prompting borrowers to redirect some of that savings directly and automatically into their savings account. We found that 16% agreed to set up the savings transfer, wanting to save 6%-100% of their newfound slack each month. Read more about this project on [page 70](#).

Make the desired outcome an embedded requirement: forcing savings with a short-term loan

Sometimes, the most effective choice is no choice. This was clear from our partnership with Redstone Federal Credit Union in Alabama. We compared the long-term effects on financial health between a standard payday alternative loan and a similar, larger loan that requires borrowers to overpay their loan a little bit so that they have savings once it is paid off. Unsurprisingly, we found that members who took out the standard loan had lower average savings compared to similar non-borrowers. However, borrowers who took out the forced savings loan had 80% higher savings balances compared to other, similar non-borrowers.

Rationally, people who were not taking out any loans but with similar finances as borrowers should certainly be able to save as much as borrowers, but when saving was baked-in as part of the process, they were much more likely to do so. This is true in many instances: we find that our interventions are most effective when they are embedded as part of the tool or service instead of as something complementary or tangential. Read more about this project on [page 90](#).

3. REDUCED FRICTION AND SMART INCENTIVES INCREASE UPTAKE OF EFFECTIVE TOOLS.

While we work on creating better environments and better tools, we recognize that there are a lot of great tools already developed. Unfortunately, even the best tool will sit unused if there hasn't been a deliberate design to maximize uptake and use. This year, we partnered with a variety of organizations with great tools, designing to optimize uptake and use:

Reduce friction by changing the choice architecture

Many processes are made difficult by a thousand small frictions along the way, like potholes in an old road. Often, just removing those frictions will increase enrollment. However, sometimes the biggest friction point is also an essential step. For many financial technology tools, that step is getting users to link bank accounts.

We partnered with Steady, a fintech provider helping gig employees to maximize their earnings, to redesign parts of their signup flow, getting users to link their bank accounts and maximize Steady's benefits. Rather than asking users to link their accounts if they wanted access to Steady's Income Tracker, we designed an "active choice" – users had to pick whether they wanted the Income Tracker or not. [Research](#) has found that simply forcing people to make a decision one way or another can significantly increase uptake. Similarly, we found that linked bank accounts jumped by a relative 71% increase when we forced the choice. Read more about this project on [page 41](#).

Our partner, SaverLife, had a similar challenge: new users were abandoning the app when they were prompted to link their bank accounts. Users were being asked to link their bank account at the end of a long process filled with demographic and financial health-related questions, which likely drained their motivation before reaching the most onerous step. We worked with SaverLife to simply switch the order: complete the difficult task of linking first, when their motivation is highest. This small change had an outsized impact: bank account linking during onboarding jumped from 26% to 84%, a 223% relative increase! Moreover, nearly 99% of users continued on to provide demographic and financial health data. Read more about this project on [page 61](#).

Design incentives for long-term payoffs

Over the last four years, we've worked a lot on College Savings Accounts (CSA), but with marginal success. Getting people to save for their child's future education has been harder than we ever imagined. The far-off intangibility and uncertainty take a backseat to immediate needs. We continued working with St. Louis Office of Financial Empowerment to see if redesigning the incentives to encourage long-term outcomes by alleviating immediate needs would move the needle. St. Louis's CSA program, like many, already had cash incentives, all of which were deposited into the account, where they would sit and grow for the next 12 years.

Together, we redesigned their existing incentive structure: 1) we rewarded the behavior of signing up for recurring transfers rather than making a deposit; 2) we gave them half of the incentive in the form of a cashback reward that they could use and spend today; and 3) we moved to a larger, lottery-style reward for active savers. We found that this new incentive structure did not get more people to start saving, but the cashback reward did increase how much and how often people saved. Parents in our treatment group had saved over 2x more than the control group over the 10 months of the pilot. Read more about this project on [page 104](#).

LEARNING WHAT DOESN'T WORK

We also tried some things that didn't work this year. We partnered with the City of St. Louis's Housing Authority to increase the number of Section 8 housing voucher recipients moving to neighborhoods with better economic opportunity. We thought we could make the moving process easier and less complex with a text message service that would breakdown moving into the necessary steps of finding another place, filing paperwork, and moving.

This was inspired by [researchers](#) who found that segmenting complex tasks into smaller, more achievable steps helps people accomplish bigger goals. However, the texting program did not increase the number of people who actually moved. Interestingly, it did help them complete the process more quickly. We hypothesize that our tool only made one half of the equation easier – for the demand side. Unfortunately, we did not address the very real barriers related to the supply side – the landlords. Read more about this project on [page 44](#).

In another project with Steady, we tried to get more users to follow recommendations for income-generating gig jobs by increasing trust. Previous research has found that trust can be built by [sacrificing](#) personal gains for someone else's best interests. Trust can also be built by [demonstrating aligned, long-term interests](#). We tried framing an incentive in both ways: Steady giving up referral revenue and Steady sharing referral revenue. Neither framing showed significant improvements in uptake. Read more about this project on [page 49](#).

In another project with SaverLife, our intervention backfired. We tried to encourage users to set up automatic transfers into savings. Some people are hesitant to automate savings because of the loss of control and the fear of overdrafting. We redesigned an email to users that offered "overdraft protection" to offset any reservations they may have. Offering overdraft protection did not encourage more people to set up automatic savings transfers – in fact, the overdraft protection may have made the downsides more salient, potentially decreasing the number of users signing up for automatic savings. Read more about this project on [page 81](#).

LOOKING AHEAD TO 2020

We are proud and excited by the work and learnings with our partners over the last year. But we are equally excited by the year ahead of us – as we continue exploring and testing new ways behavioral science can be leveraged to improve and sustain financial well-being.

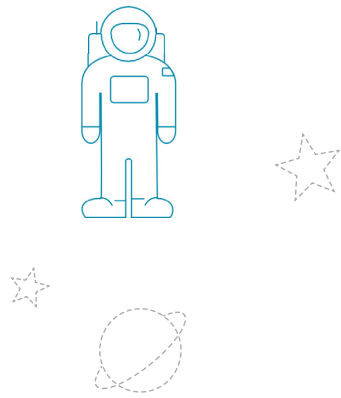
We have also undertaken two new initiatives that we will further expand in 2020:

1. The new Common Cents Global Project. With support from the MetLife Foundation, we have launched a “train-the-trainer” program, in which the Common Cents Lab will cultivate and develop relationships with organizations interested in applying behavioral science to improve the financial well-being of communities in Mexico, Turkey, and China. We completed our first Global Fellows training program with our partners at [BUBA Ventures](#), [CARF](#), [CIRKLO](#), [FODER](#), [New Ventures](#), and the [National Autonomous University of Mexico](#), and established a co-learning network of like-minded academics working in China.
2. BlackRock’s new Emergency Savings Initiative. Working in collaboration with the [Financial Health Network](#) and [Commonwealth](#), as well as large-scale companies and employers, we are redefining the systems and tools that meaningfully build emergency savings. In 2019, the Emergency Savings Initiative launched with its first seven partners: UPS, Mastercard, Etsy, Brightside, Arizona State University, Acorns, and Uber. The upcoming year will feature exciting developments from all of these partners, as well as new partners joining the initiative. Read more at <https://savingsproject.org/>.

As with everything we do, we’re sure to learn a lot along the way. We encourage you to keep in touch, subscribe to our newsletter, and stay tuned for more results.

Please reach out to info@commoncentslab.org

Sign up to our mailing list on CommonCentsLab.org to stay up to date on our latest findings and upcoming events.



INITIATIVES

We are thrilled by the impact we have made with our partners this past year, and the lessons we've learned and disseminated along the way. With that expertise under our belts, we are excited to expand our reach through two new initiatives that will continue in 2020.

We are proud to be increasing our reach internationally through the Common Cents Lab's Global Project, in which we will be testing new ways to implement behavioral science and rigorous testing in Turkey, Mexico, and China. We'll be using new organizational and teaching models, such as train-the-trainer, to increase behavioral science capacity throughout these countries.

We are equally proud to be increasing our reach through the Emergency Savings Initiative, in which we have partnered with large organizations that can reach huge swaths of Americans. This year alone, we have worked with Uber, Mastercard, and Etsy, and are inspired by the idea of encouraging savings among so many low- and moderate-income households.

Below are descriptions and details of the two initiatives, and we look forward to further updates in the future!

COMMON CENTS LAB'S GLOBAL INITIATIVE

BACKGROUND

Through our Global Project at the Common Cents Lab (CCL) we're expanding our work to Turkey, Mexico, and China. This initiative, which follows a train-the-trainer model, aims to:

- » create a deeper capacity within trainer organizations to continue providing behavioral science-based technical assistance in their countries, and
- » make meaningful and measurable improvements in the financial health of low- to moderate-income (LMI) users.

To achieve these goals, the project will rely on the efforts of three different types of actors to design, implement, and test financial interventions informed by behavioral science.

- » **Trainers:** Academic research groups; non-profits providing technical assistance; and consulting organizations, all of whom have an existing network of financial partners, a strong social impact mission, and that have the capacity to adapt a behavioral science approach in their work.
- » **Financial Services Providers (FSPs):** Credit unions; fintech companies; and other financial service providers with a strong social impact mission, a large base of LMI users, and that are willing to research and develop these interventions to improve their products and services.
- » **Academics:** Academics in each country who advise in key stages of the project and that could partner with CCL to develop academic publications resulting from these research studies.

The Global Initiative began with thorough field scan within each country to better understand the financial ecosystem and to identify organizations that have potential to be Global Fellows. The field scan surfaced specific areas of

CCL GLOBAL FELLOWS

China



Turkey



Mexico



focus for our collaborations, such as the prevalence of informal debt in Mexico and gendered inequalities in Turkey. The scan also brought to light avenues for our work to tie into existing efforts. For example, even though the contexts in Mexico and Turkey are different, they share a strong focus on financial literacy and education coming from national strategies put in place to increase financial health.

In China, we have partnered with Duke Kunshan University to establish a co-learning research network that brings together leading academic institutions better understand financial decision-making in China. The co-learning network fosters collaboration in implementing and testing behaviorally-informed interventions to improve financial well-being of low-income individuals in China.

From both Turkey and Mexico, we selected three organizations from each country as CCL Global Fellows and our partners in this initiative. The CCL Global Fellows were from different industries but were similarly well-positioned, with expertise and experience working in the financial sector.

The six organizations came for an intensive training that CCL hosted from October 1st to 22nd in our offices in Durham, NC. During this time, participants learned about our behavioral intervention framework, key behavioral principles, experimentation methodologies, and how to manage partnerships with financial organizations. In total, trainer organizations sent 14 participants who will now embed their knowledge and capacity within their respective organizations and lead the studies for the following three years.

The co-learning network in China and the training we designed and held in Durham is just the beginning. We are excited to continue to deepen and strengthen our engagement and collaboration with each of our Global Fellows. We look forward to sharing learnings and impact from our Global Initiative for years to come.

THE EMERGENCY SAVINGS INITIATIVE

BACKGROUND

Unexpected expenses happen inevitably. Cars need repairs, phones break and need to be replaced, health emergencies arise, and jobs are lost. These expenses become emergencies when someone does not have savings as a cushion. Evidence increasingly shows that having even small amounts set aside can significantly reduce the probability of financial hardship. Put simply, when someone has savings to fall back on, day-to-day financial decisions are easier, they have fewer worries, and they have more freedom to make choices that allow them to enjoy life.

Unfortunately, this is not the case for many households in the United States. The Federal Reserve recently found that 46% of Americans would need to sell something or borrow to cover an unexpected expense of \$400. Additionally, households face variable expenses. Most low-income households will experience three or more months each year with higher-than-normal expenses, varying by more than 25% above their usual monthly budget. With these expense shocks and very little access to savings, it's fair to say that we have a savings crisis in the United States.

There are many reasons people struggle to save. Certainly, wages have not risen in decades and many people simply have less to stretch from one paycheck to the next. At the same time, people in difficult situations can and do save. Doing so is not easy — low- and moderate-income households have less slack in their budgets and are more likely to have volatile incomes.

In addition to income equality, what people lack are tools and services that make saving easier. With that as a guiding principle, the Common Cents Lab has partnered together with the Financial Health Network and Commonwealth to jointly identify, test, and scale savings strategies and tools that help people living on low- to moderate-incomes to achieve greater financial health.

As part of our work within the [Emergency Savings Initiative](#), we partner and deploy savings-focused interventions within institutions with large reach across society, such as financial institutions, national nonprofits, employers, and technology firms. Through this work, we aim to demonstrate how it is possible to build financial health when we commit to designing environments that encourage savings for low and moderate income households.

In our first year, we partnered with the following organizations:

Uber

With Uber, we are designing new functionality that makes it easy and convenient for drivers to build savings. These strategies leverage simple rules of thumb and defaults to encourage drivers to put some portion of their earnings towards saving for emergencies.



Through Mastercard, we are partnering with multiple organizations within their payment network to design innovative products that promote savings, particularly with prepaid cards.

Etsy

Supporting the Financial Health Network, we are working with Etsy to design strategies to drive uptake and utilization of a savings tool offered to sellers across the marketplace.



DECREASING EXPENSES

In the last year, more than half of US households spent more than what they brought in. For many of these households, this is an income sufficiency issue. They do not earn enough money to cover their basic needs and income is not keeping pace with rising costs. Many others are living on razor-thin margins, threatening their financial stability with one unexpected fee, one moment of temptation, or one timing mismatch between a bill and a check. These households are expected to be impossibly perfect in their financial lives.

This impossible task is challenged every moment of everyday by companies, brands, and people asking for time, attention, and money to maximize profits. Experts estimate that the average American sees between 4,000 and 10,000 ads per day. This onslaught of savvy offers combined with ever-easier, mindless ways to pay fuels consumption, often at the expense of savings and paid on credit.

And while everyone makes mistakes – buys things they later regret, forgets to pay a bill, spends more on something than they should have – for some

households these mistakes are significantly costlier. Without any financial cushion or slack in one's budget, a small mistake can lead to high-cost debt, forgoing meals, skipping medical care, and increased financial stress.

For other households, while they can absorb these occasional fees or regret-purchases here and there, their expenses are preventing them from reaching their financial goals. For most households, expense reduction is the fastest way forward to making progress on savings and debt repayment goals. It is often easier to cut expenses than to find additional income. However, keeping a low spend-to-income ratio is not easy. Research shows that we [spend more when we get paid](#), and we tend to [spend more when we earn more](#). In other words, we budget to the paycheck – which can lead to spending all of the paycheck.

This year, we partnered with fintechs, credit unions, and non-profits to better understand how we might help people avoid or reduce expenses. In this work, we explored a two basic strategies:

1. **Provide clear & timely instructions that they feel can make a difference:**

- » In partnership with Charlie, a chatbot that simplifies and automates financial behavior, we found that a simple text message that made it easier for people to opt-out entirely from overdraft fees reduced incurred fees by \$23 during our study. This difference is likely to grow overtime because it was a one-time decision that further prevents future expenses. Read more on [page 34](#).
- » In preparation for a field study with Washington State Employees Credit Union (WSECU), we tested different ways to display feedback on a financial health survey to prompt someone to take the very next step to reaching their financial goal. While we found no difference in whether they received a numeric score, a bucket categorization, or just a sad/happy face in the likelihood of taking the next step, we found some evidence that including a sub-score that more concretely called out a focus area marginally increased action. Most interestingly, we found that people who were classified in the middle, not quite “vulnerable” but also not quite “healthy,” were significantly more likely to take action. Read more on [page 28](#).

2. **Provide meaningful anchors for regular expense decisions:**

- » In 2016, we worked with Propel, an app that tracks spend and balance for SNAP recipients, to add a “weekly budget” to help users think about how much they can spend in a shopping trip, rather than how much they can spend in the whole month. We found that by simply giving them a more meaningful anchor (their monthly benefit divided by four), they spent their benefits a little bit slower. Read the full case study in our 2016 Annual Report, which is available on our website: commoncentslab.org.
- » This year, we partnered with Vera Institute for Justice, a non-profit that is working to improve justice systems, to test whether we could help judges use a more meaningful anchor when they set bail. We piloted a “Financial Capability Calculator” that provided the Judge with a defendant’s ability to pay. We found that the majority of defendants actually had no ability to pay any bail amount set, and for the remaining, the median amount they could pay was a 10% deposit on a bail of \$1,213. The goal was that by getting judges to anchor on how much a defendant would be able to pay would ultimately decrease the amount of bail set and encourage judges to offer existing alternative forms of bail. Read more on [page 25](#).

However, we also had studies that did not work. In an email study with Self-Help Credit Union employees, we were unable to increase financial health survey completion, even when we added a deadline or emphasized how the survey would also help their co-workers. Read the full case study on [page 31](#). With Grameen, we tested just-in-time messages to encourage recent loan recipients to use their debit card for purchases rather than pull out the loan in cash. The hypothesis is that the fungibility of cash could get mixed in with the rest of the household finances rather than only used on small-business expenses. We found that the reminder messages were not effective, but we noticed an interesting pattern in the data. We found that borrowers who had received loans from Grameen before were more likely to use the card directly for purchases. This suggests that the barriers to card use were deeper than simply forgetting and that the light-touch method of a text was likely insufficient to overcome challenges like institutional trust. Read the full case study on [page 22](#).

In 2020, we will be diving deep into better understanding expense reduction through budgeting or other strategies.

GRAMEEN AMERICA

PROJECT TYPE

PARTNER COHORT

PROJECT STATUS

Field study

2017

Complete

LEAVING CASH BEHIND: CAN WE BUILD SWIPE BEHAVIOR FOR SMALL BUSINESS LOANS?

BACKGROUND

According to a [2016 Gallup survey](#), 24% of Americans still make most, if not all, of their purchases with cash. However, operating in the cash economy has many drawbacks. Not only are cash users more vulnerable to theft, but they are also locked out of beneficial financial services such as expense tracking, budgeting, or automatic savings.

To understand how to help consumers shift from cash to cards, we partnered with [Grameen America](#), an organization dedicated to helping women who live in poverty build small businesses to create better lives for their families.

HYPOTHESIS AND KEY INSIGHTS


Grameen America offers low-income women microloans to help them build businesses, achieve higher family incomes, and develop entrepreneurial skills. The Grameen lending model fosters accountability among its members – the women entrepreneurs it lends to – for their loan repayments. Members must repay their loans in person during a weekly “Center Meeting.” Requests for membership, loans, and loan increases must be approved by all members in the group at the Center Meeting. Grameen reports over 99% repayment rates.

Recently, Grameen has started to disburse loans using a card. Their goal is for members to use the disbursement card to buy goods directly from vendors. Although the disbursement card is a much safer and more se-

cure option for members, most members are not using the cards as intended. Instead, over 90% of members take out the full amount on the card as cash.

In order to understand the barriers to card usage, we observed nine Center Meetings in Brooklyn and the Bronx. Additionally, our team visited four different Grameen branches to observe the loans being disbursed to members. During these visits, we had the opportunity to talk to Grameen staff, members, and branch managers, and get their insights on barriers to using the card to pay directly. From these conversations, we've gathered the following insights:

- » There are no rules around using cash versus the card. There are no clear guidelines around how and when cash should and should not be used. This makes it easy for members to continue using cash.
- » Choosing a payment method for loan purchases (whether using the card or using cash to buy goods) is not a visible or social behavior. A great deal of the success of the Grameen model (repayment in particular) is around social forces and accountability to others. There are no real opportunities for members to “see” the payment methods other members use when buying goods and services for their businesses.
- » Members do not feel that they know how to use the card, even if they have been given instructions. Members may not have knowledge of or familiarity with digital banking and card usage. Some members resort to asking family members to help them use the card to withdraw cash from an ATM because they can then interact with the loan without further assistance. As a result, members don't use the card because cash is a readily available and familiar alternative.



During our diagnosis, we found that 90% of members withdraw the full amount in cash from an ATM.

EXPERIMENT

We sent a text message to members that was intended to deliver a “just-in-time” reminder of loan disbursement card a few days after they received the loan. We felt that the reminder would be more effective if we sent it closer to the time that the member would likely be using their loan funds to buy goods or services. The weekly Center meetings are at the forefront of the Grameen program; however, the behavior in question (spending on loan items) doesn't take place during the meeting.

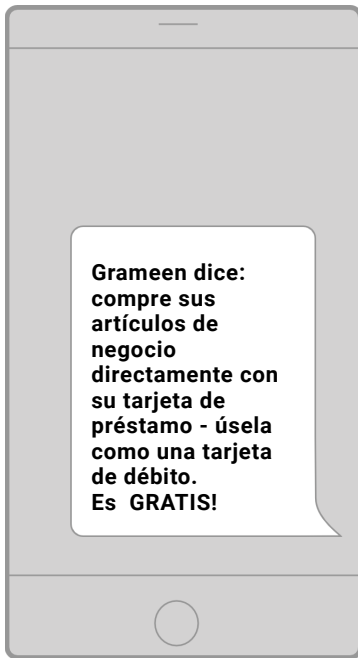
The experiment was conducted in the New York market, and reminders were sent between August and November in 2019. During this time loans were disbursed to 1,700 members. These members were randomly assigned

Text reminders

Grameen members in the experimental group were sent a text message intended to increase utilization of the Grameen disbursement card.

Translation

“Grameen says: buy your business supplies directly with your loan card - use it like a debit card. It's FREE!”



either to a control group (no text message) or treatment group that received a reminder.

RESULTS

The just-in-time reminders did not appear to change spending behavior. There was no significant difference in the likelihood of using the disbursement card between the control group (no text message) and the treatment group (got a text message).

However, the analysis suggested that repeated exposure to Grameen and the card did affect how likely members were to use the disbursement card instead of cash. If the loan was the first loan with Grameen, the likelihood of using the card decreased. If the member had previously been issued a Grameen disbursement card, they were more likely to use it to buy goods and services directly.

Ultimately, the text message was a fairly light-touch nudge. The analysis suggested that that barriers to card usage, particularly concerns about institutional trust, run deeper than what the nudge was likely to impact.

VERA INSTITUTE OF JUSTICE

PROJECT TYPE

PARTNER COHORT

PROJECT STATUS

Field study

2018

Complete

CAN WE SHIFT HOW JUDGES SET BAIL?

BACKGROUND


Across the United States, 70% of the those under arrest are awaiting trial. Many of these people are in jail simply because they could not afford to post bail. In New York State alone, over 16,000 people are incarcerated due to their inability to post bail, costing taxpayers over \$350 million a year. The average bail for a misdemeanor in New York City is \$1,000, yet, we have seen that most people don't have enough saved to cover even a \$400 unexpected expense.

To understand this problem, we partnered with Vera Institute of Justice. Vera focuses on building and improving justice systems that ensure fairness, promote safety, and strengthen communities.

HYPOTHESIS AND KEY INSIGHTS

We began by first sitting in on arraignment hearings in New York City and interviewing public defenders, judges, and policy experts. Our experience led to the following high-level insights:

- » Judges do not focus on the defendant's ability to pay when they set bail. At arraignment hearings, judges can decide to proceed with a defendant in one of three ways. If they believe the defendant will show up for their court date, they can release a defendant on their "own recognizance." They can also choose to detain the defendant without bail, or they can set a bail amount. In deciding how to proceed, a judge will take into account several factors, but they do not formally consider a defendant's financial capability.



Over 16,000 are incarcerated due to their inability to post bail, costing taxpayers over \$350 million a year.

- » Judges usually only set a “cash bail.” The full amount of a cash bail must be paid to the court, which is then returned to the defendant if they show up to court. However, most people are unable to cover the full amount, and, instead, families usually have to go to a bail bondsman. Typically, bail bondsmen charge families 10% of the total bail amount, which is never returned to the defendant. Judges are allowed to set other types of bail. A partially secured bail, for example, allows the defendant to pay the court only a certain percentage of the total bail. This type of bail allows more families to avoid using bail bondsmen, but most judges do not utilize this option.
- » There is limited time. The courtrooms are usually very busy, allowing for just a few minutes per defendant. This environment creates feelings of scarcity and does not promote a closer consideration of personal finances.



Financial Capability Calculator

Individuals in the treatment group had access to a quick and simple financial capability calculator, which aimed to provide judges with information about their financial circumstances prior to setting bail.

EXPERIMENT

With these insights in mind, we decided to build a financial capability calculator that quickly records a defendant’s income and expenses before their arraignment hearing. The results of the calculator are then presented to a judge, including a recommended bail amount and bail form. Public defenders could request a financial assessment for their client. The financial assessment takes on average five-to-seven minutes and is conducted by a trained professional who then presents recommendations to the Judge.

The financial assessments were only conducted on Tuesdays and Thursdays, and no financial assessments were conducted on Mondays, Wednesdays, or Fridays. These different days allowed for comparisons, which helped us to assess the impact of our recommendations quasi-experimentally. In each case, the judge’s final bail decision was recorded, and we were able to measure how judges set bail with and without a financial assessment recommendation.

RESULTS

In April 2019, New York State passed legislation to reform bail. The bill eliminated money bail and mandated release for 90% of all arrests statewide. In the past, the median bail amount for a misdemeanor in New York City was \$1,000. Now, judges cannot set bail for misdemeanor offenses, except in specific sex-related or domestic violence charges. The changes in policy obviated the need for the financial capability calculator and the project was discontinued.

Additionally, if bail is set, judges must now consider a person's ability to pay and offer bail in an unsecured or partially secured form. Thus, the law accomplished much of what our bail calculator was hoping to accomplish.

However, in the short time that the bail calculator was in place, Vera assessed the ability to pay for 190 defendants. Of those, roughly 60% had no ability to pay anything. For the 40% that could afford to pay some bail, the calculator recommended a median bail of \$1,213 with a 10% deposit (effectively just \$121).

When bail was set, about two-thirds of people made bail. However, the form of bail set had a significant impact on the likelihood of making bail. People given the option paying bail with a partially secured bond – 82% made bail. However, only 62% of people who had the option of paying cash or insurance co-bail bond made bail.

WSECU

PROJECT TYPE

PARTNER COHORT

PROJECT STATUS

Field study

2019

Complete

WHAT'S THE BEST WAY TO GIVE FEEDBACK THAT PROMPTS ACTION?

BACKGROUND

Many financial institutions and service providers have drawn on the increasing availability of financial health metrics such as the Financial Health Network's (FHN) Financial Health Assessment to benchmark their members and clients.

While these metrics can be useful as a way of summarizing past behavior and comparing someone's circumstances to others, they often lack the opportunity to take action based on that feedback. Even worse, sharing these results in the wrong way could have negative consequences: sharing negative feedback at the wrong time potentially could demotivate individuals from engaging in behaviors that would improve their situation.

We partnered with Washington State Employees Credit Union (WSECU) to better understand how we might display the results of a financial health survey in a way that is meaningful and provide targeted recommendations for actions that members can immediately take based on their responses.

HYPOTHESIS AND KEY INSIGHTS

In early 2020, WSECU offered members the chance to take the Financial Health Network's Financial Health Assessment. The assessment worked as follows: after completing a survey, members were given an overall score based on their responses. In addition to the overall score, members are also given four sub-scores based on specific questions related to spending, savings, borrowing, and planning. A member's circumstances across these categories are further categorized as "vulnerable," "coping," and "healthy."

In addition to allowing a credit union to have a better understanding of their members and their financial needs, the individualized survey assessment results had the potential to increase a member's motivation to change their behavior. However, there are several reasons that the survey's current design might actually discourage members from seeking strategies for improving their financial health:

- » The survey currently offers little to no context for the overall financial health score. Without contextual cues as to how to interpret their responses, members may struggle to understand what the score means for them.
- » Relatedly, the results of the survey are presented in categories that may be unfamiliar to the member. This could further exacerbate the tendency to shut down and avoid undesirable information.
- » The survey may also provide members with too much information. Past research has found that "information overload" can increase the likelihood someone shuts down as well.

EXPERIMENT

We hypothesized that communicating the results of the survey in ways that showed less information and presented the results in a more familiar form would increase the likelihood that the survey increases motivation.

In order to learn more about how to design the feedback for WSECU's financial health survey, we designed a survey-based experiment where respondents received feedback about their overall scores or both overall scores and subscores using numbers, faces or words.

Feedback conditions

Respondents were randomly assigned into 6 different conditions. Respondents were shown 1 of 3 different types of feedback: number, faces, or words. Respondents were further split to either see just the overall score or see the subscores in addition to the overall score.



RESULTS

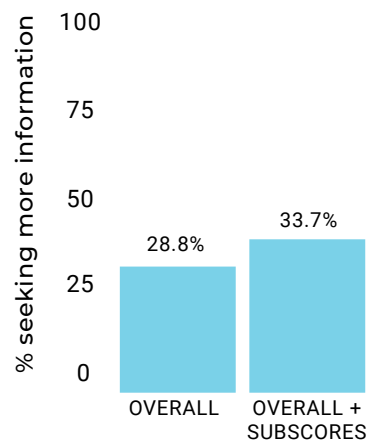
We found that presenting the score using social cues of acceptability like faces or terms was not any more effective than the numeric score ($p=0.27$ & $p=0.36$). The analysis found that including sub-scores slightly increased likelihood to take action ($p=0.12$). We believe that the sub-scores might provide respondents more concrete ways to imagine taking action compared to just the overall score, which feels more abstract.

More generally, the results also show an interesting insight into who is more likely to be responsive to the results of a financial health assessment. Respondents that were classified as “healthy” and respondents classified as “vulnerable” were significantly less likely than people with “coping” profiles to seek additional information ($p=0.07$ & $p<0.001$). These results reinforce the idea that financially vulnerable individuals may be overwhelmed and may tend to avoid confronting the problem.

These findings will inform an intervention we are currently designing with WSECU focused on the financial health score that will launch with their members in 2020.

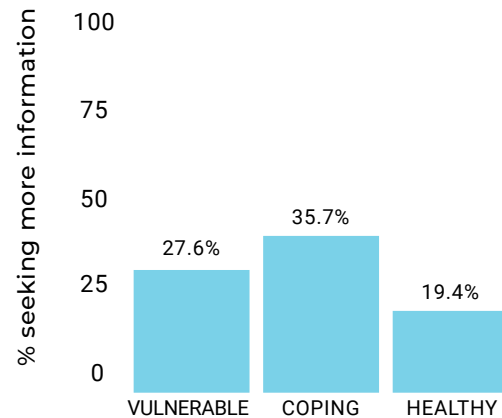
Average rate of information seeking condition

Respondents who were shown their overall score with subscores were marginally more likely to seek additional information ($p=0.12$)



Average rate of information seeking by financial health level

Respondents classified as “vulnerable” or as “healthy” were significantly less likely to seek additional information compared to respondents classified as “coping” ($p=0.07$; $p<0.002$).



Self-Help Credit Union

PROJECT TYPE

PARTNER COHORT

PROJECT STATUS

Field study

2019

Complete

CAN CREDIT UNIONS USE A FINANCIAL HEALTH SURVEY TO LEARN ABOUT EMPLOYEES' FINANCIAL WELL-BEING?

BACKGROUND

Credit unions have long understood the value of “doing well by doing good” – that is, finding ways to bolster financial well-being of their members can help ensure the health of the institution itself. Increasingly, this understanding has reached inwardly with many credit unions now recognizing the importance of their employees’ financial health. However, understanding how their employees are doing and what might be undermining their financial well-being is a critical first step to take before trying to improve it.

We partnered with Self-Help Credit Union to help them learn more about their employees’ current financial well-being. The first step to learning about their employees was to encourage them to complete the Consumer Financial Protection Bureau’s (CFPB) Financial Well-being Scale. Understanding what motivates people to provide insight into their financial lives helps the credit union to identify gaps where financial health can be improved, and what resources to provide to address those gaps.

HYPOTHESIS AND KEY INSIGHTS

To collect the critical information about employees’ financial lives that would help Self-Help provide resources for improving financial well-being, we needed to motivate employees to complete the survey and provide this information. While self-help credit unions provide employee benefits, these

benefits may not be apparent to every employee. Understanding what benefits are available and how to access them may be overwhelming and/or confusing. Moreover, assessing and learning about these benefits are likely longer-term and may be outweighed by the time, effort, and privacy concerns employees may have when completing the survey.

To motivate employees to complete the survey, we utilized principles from behavioral science to understand what encourages survey completion, including:

- » Tapping into the idea of time scarcity by identifying and highlighting a deadline for completion;
- » Indicating the importance of everyone taking the survey for the benefit of their colleagues and fellow employees' financial wellness (social reward and reciprocity);
- » Clearly stating the call to action (survey completion) and the associated details (answers are completely anonymous) and requirements (the survey would take 5-7 minutes).

EXPERIMENT

Emails encouraging survey completion were sent to 789 Self-Help employees. Employees were randomly assigned to receive one of three different types of emails.

Control email

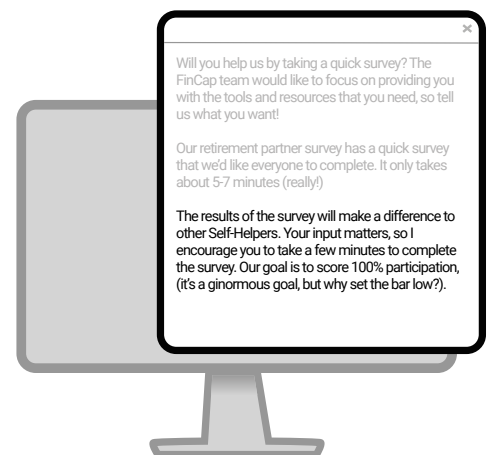
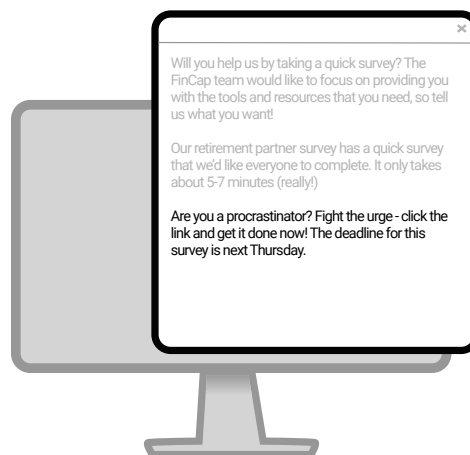
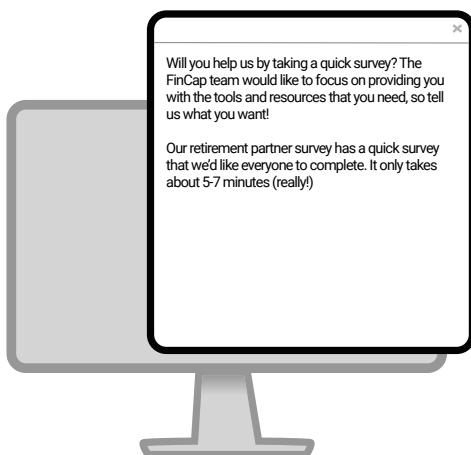
A description of the survey and how long it would take.

Deadline email

A description of the survey and how long it will take, with a sentence emphasizing the deadline to complete the survey

Self-Other email

A description of the survey and how long it will take, with additional language about how the results of the survey will help their fellow employees



RESULTS

Employees were sent an initial email according to their random assignment and a follow-up reminder email one week later that mirrored their initial email. Email open and click-through rates, and survey completion rates were collected for all three groups.

Self-Help reported relatively high email open and click-through rates for a first-time survey campaign (one that had never been offered before). Across the entire company, 51% of employees opened the initial email; of those who opened the initial email, 67% clicked through to the survey.

Of those who opened the reminder email, 44% clicked through to the survey. Finally, across all employees who received the email, 45% completed the survey. However, there were no significant differences between open rates, click-through rates, or survey completion rates across the three email conditions.

Self-Help is planning on making this an annual survey at their credit union to not only address the current status of their employees' financial well-being, but also examine how changes within their credit union affect these survey results over time. In future years, increased familiarity with the survey may increase survey completion rates and provide greater insights into the needs of their employees.

CHARLIE

PROJECT TYPE

PARTNER COHORT

PROJECT STATUS

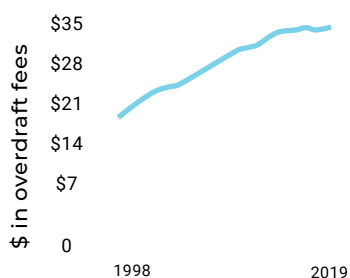
Field study

2019

Complete

CAN REDUCING FRICTION HELP PEOPLE AVOID OVERDRAFT FEES?

CHANGE IN AVERAGE OVERDRAFT FEES, 1998-2019



Average overdraft fees have steadily risen from \$22 to \$34 per overdraft in the last 20 years.

BACKGROUND

Almost all overdrafts (90%) are unintentional. Worse yet, they're rarely a one-time mistake – 54% of Americans overdraft 2-5 times and 14% overdraft 6-10 times. And, it's not getting any better. Americans paid over \$34 billion in overdraft fees in 2017. Average overdraft fees have steadily risen from \$22 to \$34 per overdraft in the last 20 years.

If given the option, most people (75%) would want their overdraft transactions declined. We partnered with the financial technology app Charlie, which focuses on helping people better manage and improve their finances in order to find effective ways to help users reduce or avoid overdraft fees.

HYPOTHESIS AND KEY INSIGHTS

There are only a few ways that people can avoid overdrafts:

- » **Link savings account:** Have a different account automatically cover the overdrafting account. However, this necessitates a non-zero balance in the covering account and may result in an overdraft transfer fee.
- » **Monitor account balance:** Monitor your account balance. However, this requires timely information often not processed quickly enough by banks.
- » **Change banks:** Change banks to an institution that doesn't charge overdraft fees.
- » **Opt out of overdraft protection:** When you opt out of overdraft protections, your overdrafting transactions will be declined.

Our team focused on the last two options. These options are both one-time decisions a user can make that will have long-term effects on reducing their total fees. Ultimately, we prioritized “opting out” as the recommended path for most Charlie users because doing so is a simpler action than changing banks.

To better understand the process, we investigated the opt-out process at a variety of popular banks. We found that opting out may be simpler than changing banks, but it isn't inherently easy. We identified several behavioral barriers a user would face, including:

- » **Confusing language:** “Opting out of overdraft protection” is intuitively difficult to understand. Terms like “overdraft protection” and “overdraft coverage” are often conflated but mean different things.
- » **Opt-out is framed as a loss:** Banks say things like, “[You may] still face returned item fees.” “we will void your ATM privilege.” or “you lose free checks.” One bank told us we were about to “downgrade” our account.
- » **It's just hard to do:** Banks use logistical friction to make it hard to opt out, requiring multiple clicks and, in some cases, even a phone call.

EXPERIMENTS

To make it easier for people to reduce overdrafts, Charlie and The Common Cents Lab tested sending Charlie users overdraft opt-out messages. An initial message and a reminder were sent to the users that incurred an overdraft fee and included an opt-out button that linked to the appropriate page of the user's bank.

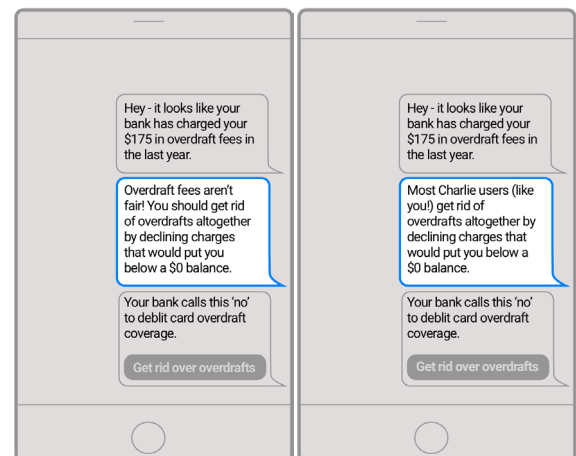
About 4,000 Charlie users were randomized to receive messages that drew on one of two different frameworks. Users that were part of the control received no message.

Condition 1

“Users received messages emphasizing fairness and injunctive social norms: Overdraft fees aren't fair! You should get rid of overdrafts altogether...”

Condition 2

“Users received messages emphasizing descriptive norms: Most Charlie users (like you!) get rid of overdrafts altogether...”

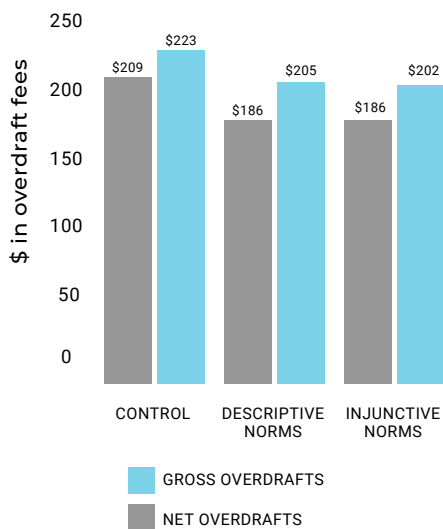


RESULTS

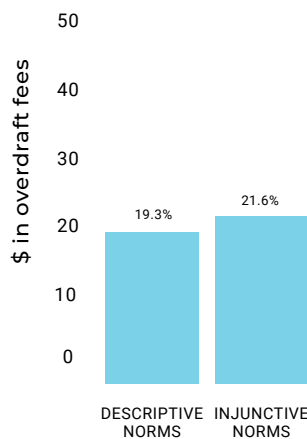
We found that intervening with opt-out messages was successful. The experimental conditions resulted in a net overdraft reduction of ~\$23 per person ($p < 0.05$). A \$23 reduction in overdraft fees equates to a 9% reduction in people’s total annual overdraft fees. The experimental intervention reduced gross overdrafts by ~\$20. ($p < 0.067$). While both experimental conditions reduced overdrafts, there was no statistically significant difference in the success of the two messages. Around ~20% of users in both conditions clicked the initial message. For reminder messages, however, the fairness-and-injunctive-norms condition was significantly more successful, resulting in more clicks.

This overall effect was primarily driven by the treated group. People who clicked on the opt-out button had lower gross overdrafts by ~\$36 ($p < 0.011$). However, we also found a benefit for those who didn’t click through opt-out messages. While this group did not lower gross overdrafts, they did pursue refunds more frequently, resulting in an average of \$5 more in refunds than the control group.

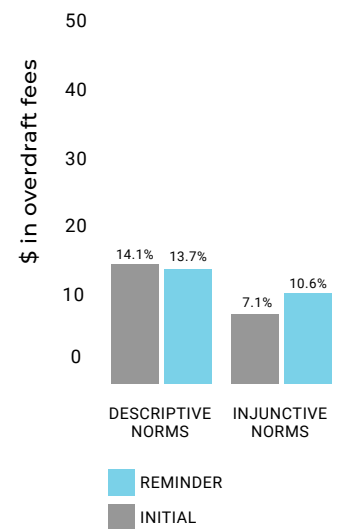
NET AND GROSS OVERDRAFTS BETWEEN CONDITIONS



PERCENTAGE OF PEOPLE WHO CLICKED EITHER PUSH



BREAKOUT OF THOSE WHO CLICKED THE INITIAL PUSH AND THE REMINDER PUSH





INCREASING EARNINGS

Throughout 2019, the economy continued to grow at a rate of about 2.1%, unemployment stayed low – reaching some of the lowest rates on record for households of color, and after adjusting for inflation, real wages grew by 0.6%. While all these numbers are moving in the right direction, there is still not a single state in the U.S. where a minimum-wage earner can reasonably afford a modest 1-bedroom. For some LMI households, reducing expenses is not enough – any headway on their financial goals will need to come through increasing income.

Simply put, there are

basic strategies for increasing income:

1. Receive a raise
2. Pick up more hours at a current job
3. Pick up a second job or income stream
4. Get a better paying job

In 2018, we launched two projects with Homebase, an online scheduling platform for small to mid-sized businesses, to begin exploring intermediate steps for increasing hours and getting a second job. You can read about our project on increasing hours in our [2018 annual report](#).

This year, we completed two projects that were launched in 2018: increasing scheduling notice with Homebase and encouraging Section 8 housing voucher recipients to move into better neighborhoods, which researchers [Raj Chetty & Nathaniel Hendren](#) have shown to significantly increase the eventual earnings of children in the household.

We also kicked off a new partnership with Steady, an app that matches gig workers to opportunities in their area. This year we ran three field experiments with them focused on getting gig workers to maximize their earnings. The gig economy is growing as it becomes easier and easier for workers to pick up jobs on a variety of platforms. Today, an estimated [24% of Americans](#) earn money through gig jobs, and about 44% of those workers earn most of their money through gig work.

In our first year of more deliberately focusing on increasing earnings, we learned some important lessons:

1. **Similar to other domains, Active Choice is effective at combatting procrastination**

Defaults are probably the most well-known tool of the behavioral scientist. Companies and policy-makers everywhere debate whether enrollment should be opt-in or opt-out. Often, they overlook a third way, Active Choice. [Research by Gabriel Carroll and others](#) show that removing a default and simply forcing people to make a decision one way or another can significantly increase uptake.

In our partnership with Steady, we believed it was important for gig workers to link their bank accounts in order to better track their

earnings and get smarter recommendations. However, like many seemingly small steps at the beginning of a journey to increase income, it was a hassle. It was a hassle that could be done later. But for many Steady users, later never came. With Steady, we changed linking bank accounts from an opt-in process to an active choice within enrollment. This change led to a 71% relative increase in bank accounts linked. Read the full case study on [page 41](#).

2. **Segment complex tasks – but that won't solve logistical barriers**

[Research by Jessica Markowitz et al.](#) and [Benjamin York and Susanna Loeb](#) demonstrate that when a task is sufficiently complex, like management of a chronic disease or preparing your child for Kindergarten, segmenting the larger goal into smaller, simple steps helps people complete reach that goal.

In our partnership with St. Louis Housing Authority, we saw an opportunity to breakdown the complexity of moving with a Section 8 voucher into smaller, timely steps through a series of text messages. While the intervention did help people complete the full process faster, it did not increase the number of people who actually moved. We think that our tool only made one half of the equation easier – for the demand side. Unfortunately, we did not address the very real barriers related to the supply side – the landlords. Read the full case study on [page 44](#).

3. **Add pressure to companies – both socially and temporally**

In behavioral science, social proof is the concept that we look to others for guidance on what is the right thing to do – and when we pair that social proof to our desires to conform to group norms – social proof can become social pressure. Similarly, research by [Meng Zhu, Yang Yang, and Christopher Hsee](#) show that we also feel pressure to act or complete tasks when we feel like time is running out. They refer to this as the Mere Urgency Effect.

In our partnership with Homebase, we wanted to get employers to post schedules earlier. We tested a combination of strategies that would both make it easier to post a schedule, emphasize a norm of early posting, and increase the pressure by treating the two-week mark as a deadline. We found that the combination of leveraging a social norm

and dialing up the sense of urgency was the most effective. Telling employers that companies like theirs typically publish schedules two weeks in advance and then providing them an “overdue notice” if they were less than two weeks away increased the number of employers who first publish their schedules at least one week in advance from 32.7% to 37.3%, a 14% relative increase. Read the full case study on [page 46](#).

4. **Subtle differences in text often won't capture attention or be enough to overcome friction**

There are countless research papers that demonstrate the power of language in influencing a decision, whether it's through framing a burger as 80% fat versus 20% lean, or making certain characteristics or features more salient, like our study about Certificates of Deposit vs. Locked Savings Account (read that study on [page 75](#)).

Also in partnership with Steady, we tried to use a variety of small language tweaks to increase motivation of gig workers to take advantage of Steady's Income Boosters, formerly called Deals, across two different field experiments. In the first experiment, we emailed workers to encourage them to sign up for the Income Boosters. We framed Steady's decision to share their commission bonus of signing up new workers as either a demonstration of partnership (“we're in this together”) or as a demonstration of sacrifice (“we do right by our users even when it costs us”). We found no difference between the messages on either the click-through rate or on the likelihood of signing up for an Income Boost. Read the full case study on [page 49](#).

In the second experiment, we tried to make the differences bigger, because we worried that the difference between the two messages was so subtle that users would have had to have been paying close attention to actually get the treatment. So in the second experiment, we moved the experience to inside the app, rather than via email, added more conditions, and added large eye-catching icons that related to the language differences. This time, we did see that adding language about a deadline increased the likelihood of users clicking the CTA, while messages around becoming a Steady VIP backfired. However, the motivation died there. There was no difference between conditions on actually completing the rest of the steps to Income Booster completion. Read the full case study on [page 52](#).

STEADY

PROJECT TYPE

PARTNER COHORT

PROJECT STATUS

Field study

2019

Complete

HOW CAN WE ENCOURAGE MORE PEOPLE TO LINK THEIR BANK ACCOUNTS?

BACKGROUND


Today an estimated [24% of Americans](#) earn money through gig jobs. For about half ([44%](#)) of them, the money they earn through gig work represents their primary source of income. Steady developed an app to assist gig employees in maximizing their earnings given a variety of different factors inherent in gig jobs, including hourly wage, hours, flexibility of schedule, location, and access to property (e.g. computers, cars, homes, etc.).

[Steady](#) users get the most benefit when they link their accounts. One of Steady's core features is a free Income Tracker, which allows users to easily view their earnings from disparate sources together in one place, but only if a user links one or more bank accounts.

Linking a bank account allows Steady to make algorithmic improvements to job recommendations based on the jobs that users actually take and the earnings they make. Steady can also use linked accounts to pay bonuses for taking certain jobs directly into users' accounts rather than through prepaid cards. Additionally, deeper user investment in the platform also provides the possibility of higher numbers of user job applications and more earnings.

Together with Steady, we designed an experiment to increase bank account linking and access to the free Income Tracker.

Today, about a quarter of Americans earn money through gig jobs, so that needs new tools and support to help manage irregular and volatile income.



HYPOTHESIS AND KEY INSIGHTS

There are a number of reasons that people may not link their bank accounts:

- » The status quo is to do nothing. Skipping linking an account is the easiest option, and the cost of not having access to the income tracker is invisible.
- » In addition to avoiding the hassle of linking to a bank account, we typically avoid difficult choices.
- » Users may procrastinate making a decision, and a “maybe later” ultimately becomes a “no.”
- » Users may simply not recognize that they have not finished the process. We like to see things completed, to avoid errors, and we are driven to seek order and fix what’s broken.

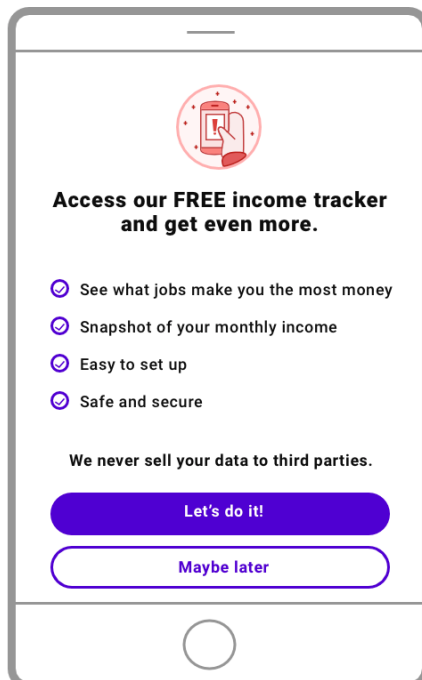
EXPERIMENT

To encourage account linking, we designed an in-app pop-up that was delivered to over 15,000 unique Steady users that had created an account in the last 7 days and had not linked their bank accounts during onboarding.

Users were randomly shown one of three conditions:

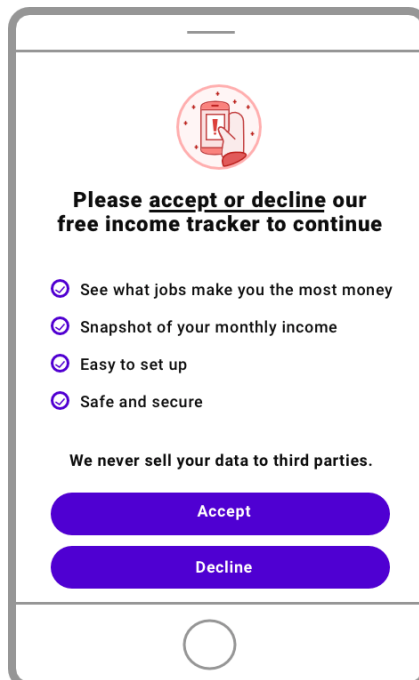
Control

Users saw the usual screen.



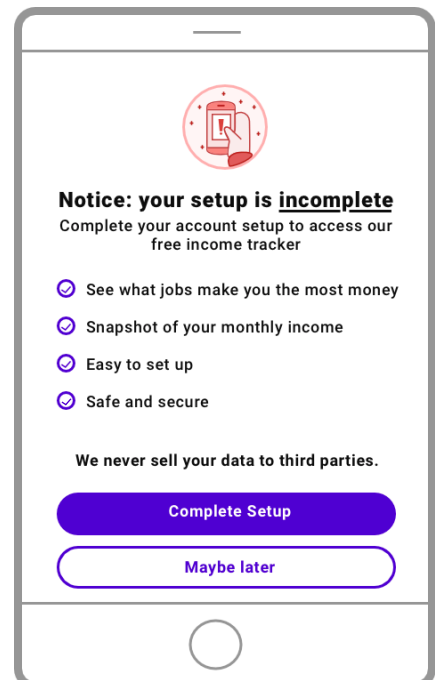
Forced Choice

Users were forced to either accept or decline the income tracker.



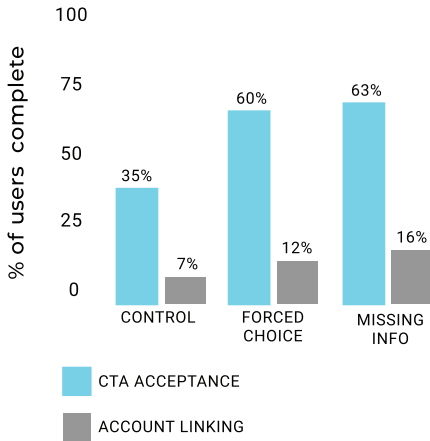
Missing Information

Users were told their account setup was not completed.



CTA Acceptance and Account Linking Rates by Condition

Super Locked Savings with 2.5% interest was rated most attractive for people to put money into ($p=0.037$, $p<0.001$). There were no differences in the amount that people would expect to save between the different accounts.



RESULTS

Once users accepted the initial CTA, they were sent to a terms and conditions page. Once they accepted the terms and conditions, they would then see a Plaid integration page. We tracked both initial CTA acceptance and ultimate bank account links.

We found that both experimental conditions substantially outperformed the control in CTA acceptance (forced choice +71% and missing info +80%). The effect size of the forced choice (60%) and missing information (63%) conditions were similar but still statistically significantly different from the control.

Again, both experimental conditions substantially outperformed the control in bank account link rate (forced choice +63% and missing info +125%), but the effect size of the missing information condition was more effective in encouraging people to link their account than the forced choice condition. The reason for this is unclear, but we hypothesize it could be because the condition had clearer expectations about entering information or the power of completion bias generating a strong desire to enter information. In total our experiment resulted in just under 2,000 new bank account links.

ST. LOUIS
HOUSING AUTHORITY

PROJECT TYPE

PARTNER COHORT

PROJECT STATUS

Field study

2018

Complete

CAN REMINDERS HELP PEOPLE PLAN TO MOVE?

BACKGROUND

Housing vouchers are a powerful way to transition families out of high poverty, high crime neighborhoods, particularly compared to traditional public housing approaches. However, even the landmark 1994 “Moving to Opportunity” study found that positive effects of vouchers — including better physical and mental health — only accrued to recipients who actually used their voucher to move.

We partnered with the St. Louis Housing Authority (SLHA) to help housing voucher recipients make the most of their desire to move. A baseline analysis of SLHA data indicated that only around 41% of recipients who stated an intention to move two months before their leases expired actually successfully moved on time. The remainder either did not move or moved more than 7 days after their leases expired, often at great financial cost. Our goal was to help voucher recipients who expressed the intention to move to do so on time and to a lower poverty area.

HYPOTHESIS AND KEY INSIGHTS

To better understand the barriers facing housing voucher recipients, we interviewed voucher recipients and housing authority staff. We also reviewed case files for a randomly drawn sample of 367 voucher recipients to understand rates of missed appointments and estimate the move rate. We found that:

- » Voucher recipients are really only prompted to start thinking of moving during their recertification appointment, which occurs around 2-3 months (60 - 90 days) before their current lease end date. While that may sound like a lot of time, 81 days was actually the median amount of time most successful movers needed to find a home and complete housing authority paperwork.

Of the families who moved, more than a third were unable to do so within seven days of their lease expiration, resulting in an extended and potentially costly period between leases.

- » Voucher recipients face many costs when trying to move, including paying application fees, security deposits, and paying for moving services. Especially given the tight two-month timeline, many families lean on family, friends, or debt to overcome these financial challenges.
- » Voucher recipients who had tried to move either successfully or unsuccessfully in the past were the most likely to successfully move in the future. These recipients deeply understood the idiosyncrasies of moving with a voucher in a way first time movers likely did not.
- » Only about 50% of those that did successfully move to areas with 5-10% lower poverty rates. Many were unaware that their voucher would be worth more – meaning they could move to a more expensive home – in lower poverty areas of St. Louis.

We hypothesized that creating a two-month-long text message program to give recipients weekly reminders of what they must do that week to successfully move on time would both remind recipients to start working on their move early and give them much needed insight into the housing authority's process.

EXPERIMENT

To test our hypothesis, we identified all housing voucher recipients who stated that they planned to move at their recertification appointment during a four-month period. We then randomly assigned half of these recipients to get our two-month-long series of moving tips via text. The other half got no communication.

RESULTS

The experiment launched in December 2018 and ran for about four months with 426 voucher recipients. We found that, overall, the text message program did not have a significant effect on helping people to move.

Interestingly, the analysis indicates that the text message program may have helped to reduce the days between a voucher recipient's lease end date and the actual move date. This suggests that while the text messages likely were insufficient in helping people to move, they may have had a complementary effect for those who were going to move anyways.

HOMEBASE

PROJECT TYPE

PARTNER COHORT

PROJECT STATUS

Field study

2019

Complete


CAN WE PROMPT MANAGERS TO PUBLISH SCHEDULES SOONER?

BACKGROUND

Managing finances and planning for the future is difficult for people working jobs with schedules – and income – that regularly change from one week to the next. A 2016 survey found that more than a third of LMI households experienced some degree of income volatility over the last six-month period. While variable schedules are hard enough to manage, this task is made even more difficult because people often receive their new schedules on short notice.

In fact, past research found that around 40% of hourly and early-career workers received their work schedules less than a week in advance. Such short notice makes consistently meeting work commitments challenging because workers must scramble to find childcare and transportation, further affecting their income. Unpredictable schedules also increase stress and impose other, indirect costs as well, for example when workers are unable to schedule health appointments.

We partnered with Homebase to find ways to increase notice time, making planning for the future a little easier. Homebase works with thousands of businesses, particularly in industries where most workers are hourly and have variable schedules. Homebase helps businesses manage scheduling and allows workers to view their hours, trade shifts, and request covers. By making changes to the scheduling software, Homebase potentially can influence when managers publish schedules and, therefore, how much advanced notice employees have before their next shifts.



Keeping up with irregular, erratic schedules can pose great cost and significantly increase how volatile someone's income can be from one month to the next. [Read more here.](#)

HYPOTHESIS AND KEY INSIGHTS

We started by analyzing existing administrative data and by examining the platform from the perspective of the employers, detailing the process that they go through to set and publish schedules. Our initial analyses confirmed that employees generally receive less than one week in advance notice of their work schedules. We also identified two barriers that we believe particularly inform how employers set up new schedules:

- » The process of setting up a new schedule is burdensome for a lot of employers. When a process is complicated or has lots of friction, people generally put off completing the task.
- » Employers do not have any cues or established norms about the right amount of notice to give employees in advance notice. In addition to reducing the friction of creating a new schedule, we felt that employers would publish schedules with more lead time if they had timely cues and more salient norms around schedule publishing.

EXPERIMENT

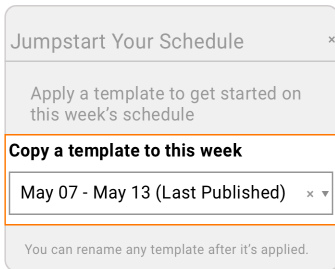
To overcome these barriers, we worked with Homebase to design a schedule “template” and incorporated several types of context cues. We hypothesized that schedule templates make it easier for employers to set schedules, increasing how many were published with one or more weeks’ notice. We also believed that giving employers cues around setting schedules would strengthen that effect.

A sample of companies at Homebase were randomly split into four groups. All four treatment conditions received a message to copy an existing schedule to a new work week. In Condition 2, companies were also recommended to publish schedules two weeks in advance. In Conditions 3 and 4, companies were told that similar companies typically publish schedules two weeks in advance. Companies in Condition 4 were also told if they had unpublished work schedules that were overdue with respect to the two-week deadline.

Condition 1:

Basic template

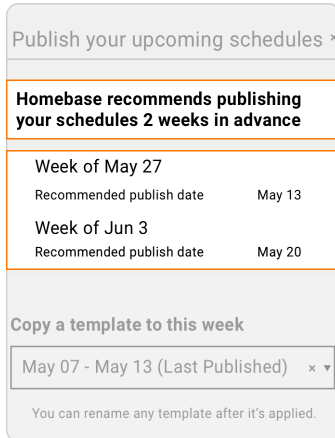
The basic template allowed employers to easily copy previous schedules.



Condition 2:

Recommended cue

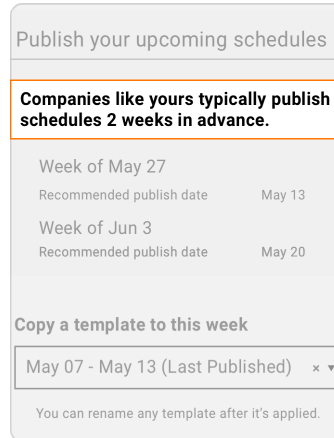
Employers were told Homebase's recommended length of time to publish.



Condition 3:

Social proof cue

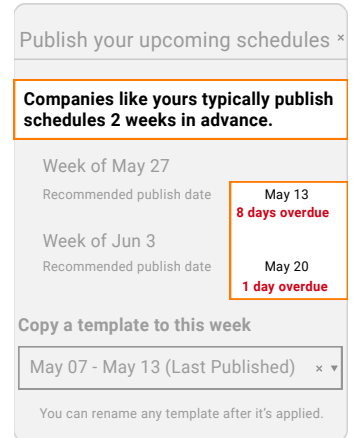
Employers were told how other companies typically publish their schedules.



Condition 4:

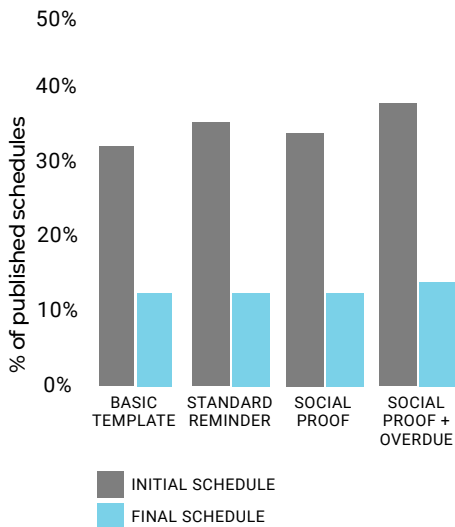
Social proof + overdue cue

Employers were told when companies typically publish their schedules and shown overdue schedules.



PERCENTAGE OF SCHEDULES PUBLISHED WITH ADVANCED NOTICE

The Social Proof + Overdue messaging performed significantly better than all the other conditions for both initial schedules and final schedules $p < 0.001$.



RESULTS

From May through July, 5,963 locations across 3,645 companies participated in the study. Just having access to a schedule template led to 33% of schedules being initially published with at least a week's notice.

The template, a new Homebase feature, may have improved publishing times, but confirming its effect was not possible due to seasonality and existing trends showing that employers have increasingly been publishing work schedules with more notice time anyways.

However, adding cues or social proof messaging significantly increased the percentages of schedules that were initially published with at least a week's notice compared to employers that just had access to the basic template. After adjusting for schedules that were published more than once because changes were made to the schedule, the Social Proof + Overdue messaging performed better than all the other conditions.

Using the template plus the additional messaging meant that about 1,300 more employees were given a week or more notice for the scheduled shifts.

STEADY

PROJECT TYPE

PARTNER COHORT

PROJECT STATUS

Field study

2019

Complete

IS FAIRNESS OR PARTNERSHIP A MORE EFFECTIVE FRAME TO CONVEY TRUSTWORTHINESS?

BACKGROUND

For [a little less than half of individuals \(44%\)](#) currently working in the gig economy, the money they earn through gig work represents their primary source of income. [Steady](#) helps gig workers to maximize their earnings in a number of different ways, one of which is by connecting them to new opportunities.

Steady developed Deals (later renamed Income Boosters) as a way to share the earnings that employers and other affiliate partners pay for conversions with Steady users. This provides users with even more short-term earnings (in addition to job wages), and Steady believes that revenue sharing will ultimately drive user engagement and user acquisition.

To increase the usage of these revenue sharing programs, Steady partnered with Common Cents Lab (CCL) to leverage and test behavioral interventions.

HYPOTHESIS AND KEY INSIGHTS

Certainly, the added financial incentives would encourage some people to make use of the Deals. However, some people may see them as “too good to be true.” Thus, in designing how to best present these programs to users, Steady and CCL weighed how to frame the programs in a way that would maximize trustworthiness.

People's perceptions of trustworthiness are related to three things:

- > Competency and consistency;
- > Benevolence and the degree to which goals are shared; and
- > Fairness and integrity.

- » One way to present the programs is to highlight fairness and reciprocity. Previous research has found that trust is built when a person or organization establishes that they are willing to sacrifice their own personal interests for the best interests of another.
- » Another potential way to increase trustworthiness would be to illustrate the mutual incentive alignment between Steady and its users. Steady benefits as users apply to Deals and earn money and shares those benefits which further benefit the user.

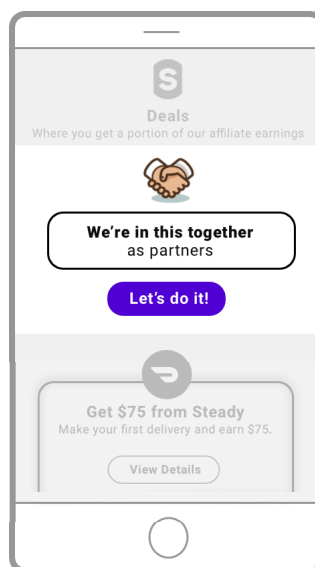
EXPERIMENT

CCL and Steady used these two concepts to develop two similar but distinct coordination-type framings for how to deliver Steady's Deals. We then tested them against one another to determine which would be more effective in terms of user uptake.

Approximately 10,000 unique and active Steady users received an email that described the Deals in one of two ways. These two conditions feature the same handshake graphic and only vary the text associated with the graphic.

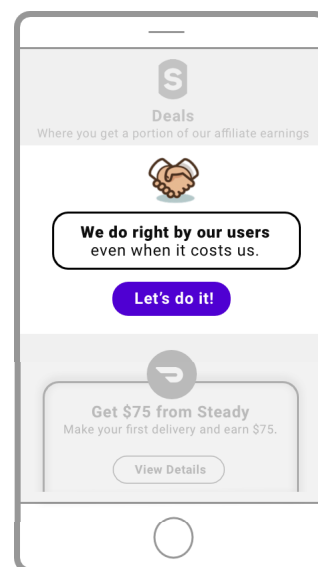
Partnership

The text highlighted benevolence, emphasizing that "we're in this together."



Fairness and integrity

The text emphasized fairness and integrity.



RESULTS

We found that both conditions performed equally well and there was no statistically significant difference in terms of the number of average Deal Applications initiated per user. Nor did we find any statistically significant differences between the two conditions in terms of the percentage of people initiating at least one Deals application. Additionally, we found no statistically significant differences between the two conditions in terms of email click-through rate.

We did find that those who opened the emails applied to on average one additional Deal (~2.5/person) than those who didn't (~1.5/person). This could be either attributable to the email campaign or selection effects.

STEADY

PROJECT TYPE

PARTNER COHORT

PROJECT STATUS

Field study

2019

Complete

CAN WE NUDGE PEOPLE TO EARN EXTRA INCOME?

BACKGROUND

For those currently working in the gig economy, [nearly half](#) (44%) depend on gig work as their primary source of income. Steady is an app that helps these workers maximize their income. They do this by matching people with opportunities to make extra money and providing an income tracker to monitor earnings.

One of the ways people can earn extra money is via bonuses (or Income Boosters) that Steady gives out when their users sign up for new jobs or services. For example, a Steady user could earn \$20 when they sign up to be a delivery driver for Postmates. However, not all Steady users take advantage of the Income Boosters program. Steady partnered with Common Cents Lab to explore ways that we might encourage greater adoption of these bonus programs.

HYPOTHESIS AND KEY INSIGHTS

To better understand what might keep Steady users from pursuing these bonus programs, we conducted a detailed diagnosis of the Steady app flow. We identified several barriers that we believe influence people's decisions to act on income boosters.

- » The Income Boosters lack a clear deadline. We know that people find procrastinating much easier when tasks are left open. Adding a deadline also creates a degree of scarcity, which focuses attention and increases the likelihood someone will act.
- » The Income Boosters feel like a generic part of Steady's offerings. Services that are widely available and that don't feel tailored are easily undervalued and ignored.

- » There were no clear signals for whether or not other Steady users use Income Boosters. People often look for cues about what others are doing to guide their own decision-making.

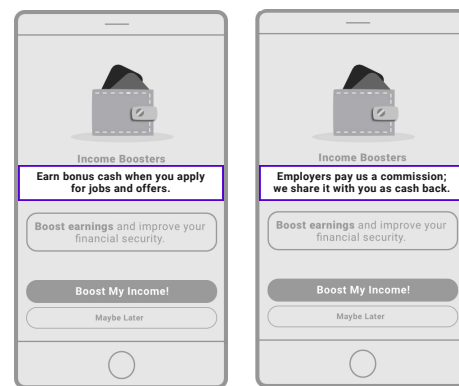
EXPERIMENT

In order to increase the number of users who pursue income boosting opportunities, we identified and leveraged key behavioral principles that could drive decision making. CCL and Steady designed a 4x2 experiment to test which approach would be the most effective in maximizing user engagement with Income Boosters. Approximately 36,000 unique Steady users received one of the eight randomized experimental conditions the first time they reopened the app after their initial registration with Steady.

Overarching conditions

When respondents reopened the app, the Income Boosters feature was described in one of two different ways:

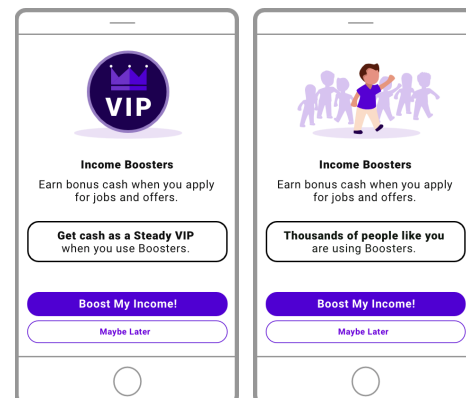
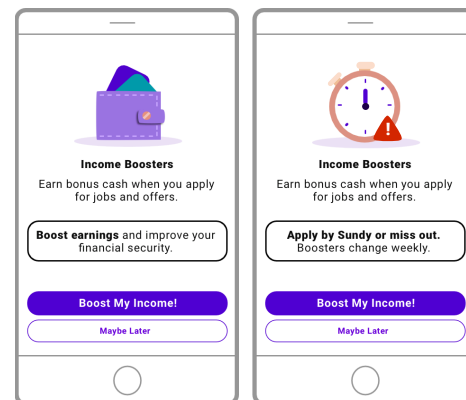
- » **Bonus cash:** “Earn bonus cash when you apply to jobs & offers.”
- » **Transparency:** “Employers pay us a commission; we share it with you as cash back.”



Sub-conditions

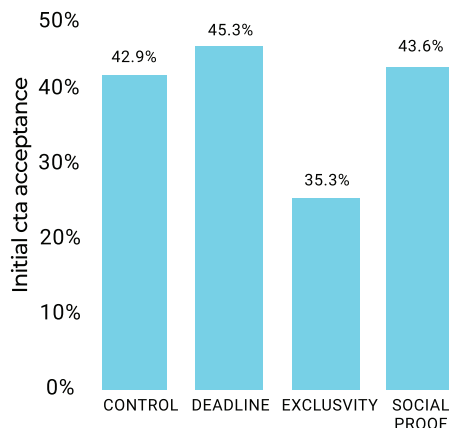
Both versions of the Income Booster description was enhanced by four different framings, each drawing on a different behavioral principle:

- » **Control:** “Boost earnings and improve your financial security.”
- » **Deadline:** “Apply by Sunday or miss out. Boosters change weekly.”
- » **Exclusivity:** “Get cash as a Steady VIP when you use Boosters.”
- » **Social norms:** “Thousands of people like you are using Boosters.”



INITIAL CTA ACCEPTANCE BY SUB-CONDITION

Across both "Bonus Cash" and "Transparency," the deadline approach resulted in the highest CTA acceptance rates. The exclusivity framework resulted in the lowest.



RESULTS

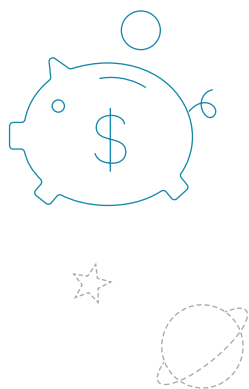
We measured the difference between the initial acceptance rate (clicking: "Boost my Income!") and the "click out" rate. The "click out" rate was the next step for users to claim their money.

With regards to the initial acceptance rate, there was no statistically significant difference in the two overarching frameworks, "Transparency" and "Bonus Cash." Both conditions averaged a 42% initial acceptance.

However, across both "Bonus Cash" and "Transparency," the deadline approach resulted in the highest CTA acceptance rates (45.3%). The exclusivity framework resulted in the lowest (35.3%).

We found no statistically significant difference in click-outs across all conditions. Despite a variance in CTA acceptance rates, none of the conditions resulted in an increased Income Booster completion. Why no difference? There are a few possible explanations:

- » Almost one-third of Steady users took advantage of the income boosting opportunity. By most mobile app standards, this is considered very high engagement. It's possible there just wasn't an opportunity to move this number even higher, even with the compelling deadline.
- » More likely, the ask ("sign up for a new service!") could be perceived as very difficult, requiring a lot of work. The deadline nudge simply may not have been strong enough to overcome the perception of friction that was implicit in this ask.



INCREASING SHORT-TERM SAVINGS

We began this year in the middle of the longest government shutdown in history. Starting at midnight on December 22nd, 2018, nine federal departments either fully or partially closed, impacting roughly 800,000 workers. For 35 days, hundreds of thousands of people did not know when they would get their next paycheck. These 35 days exposed serious cracks in America’s financial stability – illuminating that hundreds of thousands of working Americans were living paycheck-to-paycheck.

Indeed, research suggests that as many as 78% of households are living paycheck-to-paycheck. The Federal Reserve found that [39% of Americans](#) could not easily cover a \$400 unexpected expense. Short-term savings are the foundation of financial stability and well-being—and we are in a short-term savings crisis.

Short-term and emergency savings are essential, but difficult. And while each product and experience is different, the process is almost always complex:

1. Have a secure place to save. This can be in a bank or credit union, with a fintech app, in a savings wallet on a payroll, or prepaid card. Research on mental accounting suggests that we treat money differently based on how it has been tagged or separated. This means that the best place to keep savings is separate from our normal spending money. Yet, an estimated [27.8 million households](#) do not have a savings account.
2. Have a source of income that you could allocate toward savings (see our section on Increasing Earnings for more details [here](#)).
3. Decide how much money you need to spend out of each paycheck. This is a difficult math problem filled with uncertainty. [Restraint Bias](#), combined with [Optimism Bias](#), leads people to consistently underestimate how much they spend when they are trying to predict it.
4. Decide what day you want to move the money. Do you move money at the beginning of the pay cycle, right when you get paid and run the risk of overdrafting due to unexpected expenses? Or do you move money at the end of the pay cycle, before your next check hits and run the risk of caving to small temptations and having nothing left over? Research from [Arna Olafsson and Michaela Page](#) suggests that we do have a tendency to overspend when we get paid.
5. Go to your financial institution or log in to your mobile banking.
6. Navigate to the page that allows you to transfer between accounts.
7. Select the accounts you are moving money between.
8. Select the amount and date.
9. Decide if you want it to be once or recurring. Automatic savings is one of the easiest and fastest ways to build savings, but it requires an incredible consistency in amount and timing of income, as well as expenses. And yet [over half of Americans](#) experience significant income fluctuations month to month.
10. Confirm your savings transfer.
11. Control your spending to ensure you are not subsidizing your savings through consumer debt (see our section on reducing expenses for more details here).
12. Repeat steps 2-12.

Building savings is a complex process. When we are faced with complexity, our natural instinct is to avoid making a decision and stick with the default path ahead of us – which for millions of households means not saving.

This year, we have doubled down on our work to get more households through steps 1-12 and building emergency savings. Notably, we worked with credit unions and fintech providers to increase our own understanding of savings motivations and develop and test solutions to barriers to savings. Here is what we learned:

1. People are motivated to save, but motivation wanes

- » This year, one of our partners was SaverLife, a fintech non-profit that makes saving safe, simple, and rewarding. SaverLife had a common challenge: new users, who were excited about getting incentives for saving, were abandoning the app when they were prompted to link their bank accounts. Users were being asked to link their bank account at the end of a long process filled with demographic and financial health-related questions, which likely drained their motivation before reaching the most onerous step. We worked with SaverLife to simply switch the order: complete the difficult task of linking first, when their motivation is highest. This small change had an outsized impact: bank account linking during onboarding jumped to 84% from 26%, a 223% relative increase! Moreover, nearly 99% of users continued on to provide demographic and financial health data. Read the full case study on [page 61](#).
- » We also partnered with Qapital, a clever, goal-based automatic savings app. With Qapital, we were interested to dive deep into their existing data to learn more about the goals people set, for how much, and how successful they are. We found out that most people's savings goal was just to save, which was closely followed by travel and vacation. Other goals, like emergency savings were much less popular, which came in 7th place. However, the label may matter! Users who set emergency goals saved more than those who set a generic goal and they saved faster, about \$0.55/day, than all of the 6 more popular goals. Read the full case study on [page 64](#).

2. **Make it easier to save off of various incomes (and think broadly about what income might be)**

- » In a field test with Digital Federal Credit Union (DCU), we took the idea of saving your change literally. DCU noticed that they had members regularly deposit coins in their branch coin machines, take the receipt to a teller, and either get the amount in cash or deposit it into one of their accounts. These coin deposits were another source of income that could potentially be directed toward savings. We wanted to know whether an active suggestion to save the change would be more effective than a passive one. Across branches, we posted signs on coin machines, encouraging members to save their coins. In some branches, we also had tellers directly ask members: “Can I go ahead and deposit this into your primary savings account today?” Across both conditions, we saw an increase from 20% to 26% of people depositing some of their coin receipts into savings, as compared to the baseline. And we found that the active recommendation with an implied default by the teller increased the percent of members that directed a portion of their coin slip into savings from 23.1% to 26.5%. Even with this simple intervention, the savings does add up. Just by actually collecting coins, DCU is helping members add over \$63,000 to their savings account each year. Read the full case study on [page 67](#).
- » Also in partnership with DCU, we looked at another moment when members might feel like they have more money to send to savings: refinancing a loan. We were particularly interested in whether members whose new payment was at least \$20 less than their previous payment would be interested in setting up an automatic transfer of some of that savings into their savings account. And we wanted to know if that motivation would stick, by measuring their savings behavior for three months. We found that 16% of members in the treatment condition did want to actually save and set up automatic transfers. The transfers ranged anywhere from 6% - 100% of their reduction in monthly loan payment. We are still analyzing the savings rates for both groups over three months after the loan refinance. Read the full case study on [page 70](#).

- » In partnership with Inclusiv, we are continuing to test ways to make it easier for people to save from their income. Specifically, we have designed a user-flow that prompts half of the people to set up a fixed amount for a recurring automatic savings and the other half to set up an automatic savings as a proportion of their paycheck. We anticipate launching this pilot in mid-2020. We look forward to learning which option works best for whom. We will be tracking take-up, persistence, and growth of savings among a diversity of members from their network of credit unions. Read the full case study on [page 73](#).

3. **Salient features can further motivate – but they may also de-motivate**

- » In a lab study that we worked on with Simple, we offered study participants one of four accounts: 1) Certificate of Deposit (CD) Account at 2%; 2) CD at 3% interest; 3) Locked Box Savings Account at 2%; or 4) Locked Box Savings Account at 3% interest. In the study, which replicated 3 times, we found that highlighting the saliency of the withdrawal restrictions by calling the CD a Locked Box Savings Account had the same impact on motivation to open the account as increasing the interest rate on a CD from 2% to 3%. Read the full case study on [page 75](#).

- » In a field study with Guadalupe Credit Union (GCU), we are further trying to understand the power of round numbers in loan payments as a motivation for savings. Building upon our prior work with [LCCU and EarnUp](#), we partnered with GCU to encourage auto loan borrowers to also contribute to their Pay Yourself First CD. Borrowers can only deposit up to 10% of their monthly payment, but they earn the same interest rate on the CD as the interest rate they are paying on the auto loan. In the study, loan officers are encouraging some borrowers to round-up their payments to get close to the 10% but still have the total contribution between the loan & savings end in a 0 or 5. They are encouraging two other groups of borrowers to do 10% or 9.4%, even though neither of those will be a round number. We hope to learn just how powerful a round number is, as compared to just adding any specific number, to motivate savings. Read the full case study on [page 78](#).

- » In another study with SaverLife, we tried to highlight a new feature for automatic savers – overdraft coverage. In this field test, we

randomly selected some new users to receive an email explaining that if they incurred any overdrafts because of their automatic savings, SaverLife would reimburse the fees. We thought that this would help reduce the fear and encourage people to try automatic savings. However, we found that by making the overdraft coverage more salient, we may have also made salient that possibility, and we saw a marginal decrease in signing up for automatic savings transfers. Read the full case study on [page 81](#).

Read on for a deeper dive into case studies for each of these projects.

SAVERLIFE

PROJECT TYPE

PARTNER COHORT

PROJECT STATUS

Field study

2018

Complete

DOES THE ORDER OF SIGNUP FLOW MATTER?

BACKGROUND

SaverLife (formerly EARN) aims to create a savings habit by rewarding people who save and to reduce the close to 40% of Americans who can't come up with \$400 in case of an emergency. SaverLife uses a variety of incentives, both financial and non-financial, to promote short-term emergency savings.

To track savings and receive the financial reward, a SaverLife user (or "member") must link their bank account. SaverLife faced an extremely low bank account link rate of ~26% when their engagement with Common Cents Lab began. SaverLife had previously largely attributed this to people interested in their offerings not possessing either a bank account or online login credentials.

HYPOTHESIS AND KEY INSIGHTS

SaverLife's signup flow featured a challenging 24-question questionnaire before asking a user to link a bank account. This questionnaire contained a number of difficult psychological barriers to overcome:

- » hassles
- » friction
- » complexity
- » information aversion
- » cognitive overload

Upon completing the questionnaire after facing those cognitive barriers, we hypothesize that many people gave up instead of linking their bank accounts; motivation to complete account setup had been eroded.

We questioned the assumption that the vast majority of SaverLife's users lacked bank accounts and/or login information and instead strongly encouraged SaverLife to rework the product signup flow to reverse the order of bank account linking and the financial questionnaire. We also recommended the simplification of the financial questionnaire.

EXPERIMENT

SaverLife decided to test whether presenting either the bank account linking or the questionnaire first would impact their bank account link rate and ultimately the number of savers using their product.

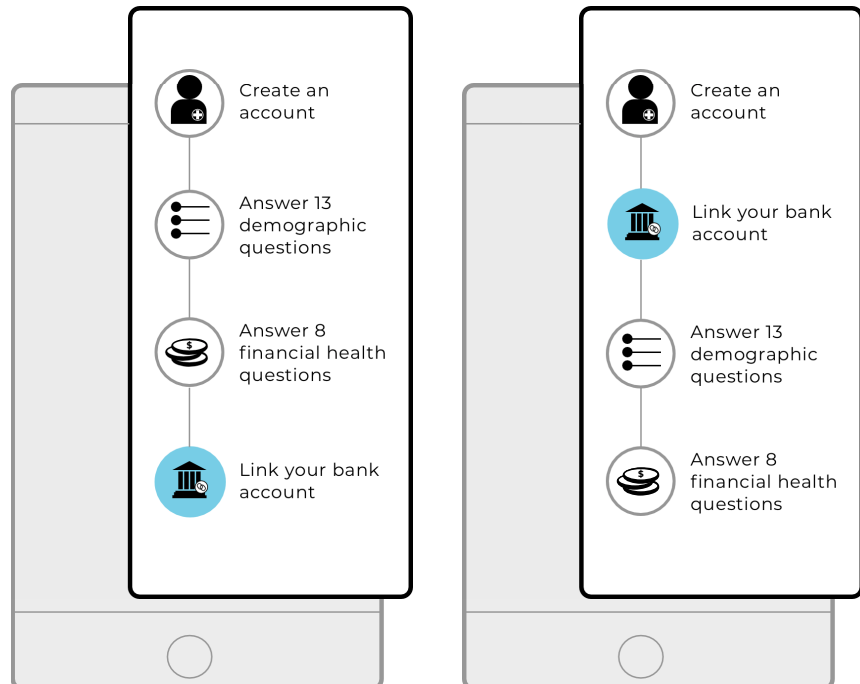
SaverLife randomized 396 prospective users into two groups:

Control signup flow

Half of prospective users completed the signup flow as it had been — linking their bank account at the end.

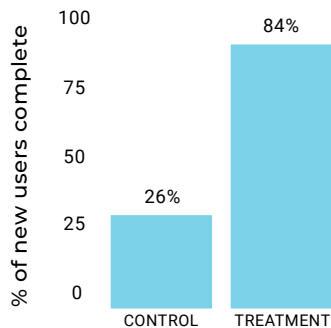
Treatment signup flow

Half of prospective users instead completed a signup flow that asked them to link their bank immediately after creating an account.



SaverLife Signup Funnel

Moving the account linking portion of the signup flow more than tripled the number of users who completed this essential step.



RESULTS

The control condition had 61 successful bank account links, while the treatment condition had 168 successful links. This represents a statistically significant increase in bank account link rate ($p < 0.01$) from **26%** up to **84%**, an impressive **323%** increase overall.

Moreover, 98.8% of users continued on to provide demographic and financial health data. We hypothesize that having completed the linking up-front generated investment in the registration process, and the demographics seeming like a standard part of registration maintained extremely high levels of completion.

Following the success of this experiment, SaverLife has kept the bank account linking first in their flow and has continued to see higher bank account link rates than before the experiment, consistently in the 50% range after marketing mix modifications. As a result of the account linking flow change, SaverLife estimates that their linked members likely increased by 12,000 in 2019. Based on SaverLife's assumptions for product success, this generated an estimated \$5 million in savings in 2019 alone.

QAPITAL

PROJECT TYPE

PARTNER COHORT

PROJECT STATUS

Exploratory

2018

Complete

CAN DIFFERENT TYPES OF SAVINGS GOALS RESULT IN DIFFERENT SAVING PATTERNS?

BACKGROUND

Qapital is a personal finance mobile app that lets users set up rules to automatically transfer money towards a savings goal. When users set their savings goals, not only do they define how much they want to save and when they want to reach their goal, users are encouraged to create a title or label for their goal. Earmarking savings is one way to make it less fungible in our minds. Setting our savings aside for a specific purpose helps bolster our self-control because it provides us with a guideline for what we should use the money for, limiting our spending for other purposes.

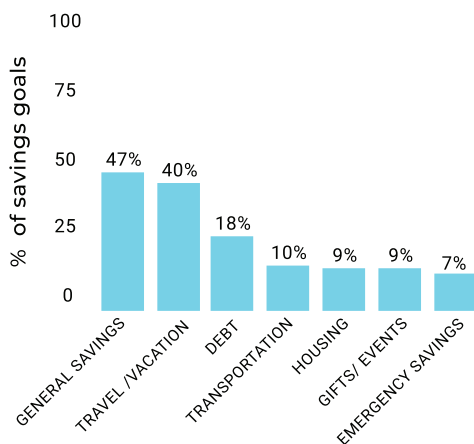
We wanted to explore how different types of earmarking impact people's savings behaviors. Qapital users can label their goals anything they like and, given the infinite possibilities of goals that users might enter, summarizing the reasons for which people are saving is difficult. We used a text classification algorithm from machine learning to categorize users' savings goals. We started by manually classifying a subset of goals and then used a supervised learning algorithm to predict the categories of all the users' savings goals in Qapital. We used the predicted categories for analysis of the different types of goals.

RESULTS

Using this approach, we analyzed the goals of nearly 800,000 Qapital users to identify the top categories for which people save using the app. The most common savings goal was just a general savings bucket, followed by closely by savings for travel or vacation. Other goals were less common – just 7% of Qapital users create an emergency savings goal, for example.

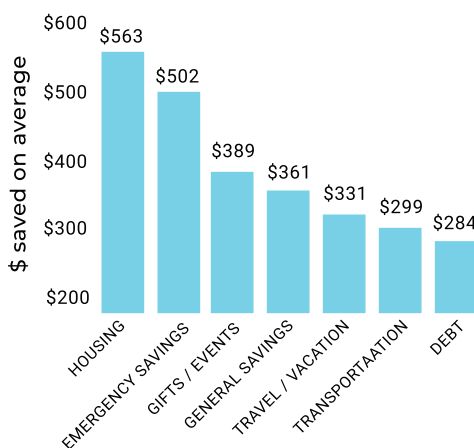
PERCENTAGE OF GOALS EARMARKED FOR SPECIFIC PURPOSES

Of the 800K Qapital users we analyzed, the most common savings goal was just a general savings bucket, followed by closely by savings for travel or vacation. Only 7% set emergency savings as a goal.



AMOUNT SAVED BY GOAL TYPE

Of the 800K Qapital users we analyzed, people tend to save more and faster for emergency savings goals than other more common savings goals.



None of the labels preclude users from using their savings for a different purpose—general savings or a vacation fund could be used to cover an emergency. What is interesting, though, is that the labels that users apply to goals not only impact how the money might be ultimately used but also how it is saved from the beginning.

The analysis showed that while general savings and travel/vacation-related goals are much more common, they don't necessarily lead to more savings. Users save about \$140 more, on average, for goals labeled for emergency savings vs. general savings. This difference may partially be driven by the fact that users who set an emergency savings goal were also more likely to set a goal target amount. Only 67% of general savings goals have a target amount, while 88% of emergency savings goals set a target amount. Even still, the median target amount that users set for emergency savings goals almost a \$125 higher than the median target amount that users set for general savings goals.

Qapital users also save for emergency savings at a faster rate than they do for general savings goals. Users saved at a median rate of 55¢ per day for specific emergency savings goals, compared to only 47¢ per day for general savings goals. In fact, people tended to save faster for emergency savings goals than than all six of the more common savings goals.

KEY INSIGHTS

Most of the emphasis on earmarking focused on the backend, as a self-control measure to guide appropriate uses of savings. Interestingly, this analysis potentially suggests that the circumstances that inform how individuals label goals also guide their initial savings behavior.

Most people don't have a defined emergency savings goal. However, this analysis suggests that once people realize they need to have emergency savings, they tend to make a more concerted effort to fund it. An emergency savings goal can focus savers more than a general savings goal by making them think about what target they might need in an emergency and to provide motivation to save quickly to avoid a financial emergency. We are looking for new ways to increase the number of savers with savings goals ear-marked for emergencies.

DIGITAL FEDERAL CREDIT UNION

PROJECT TYPE

PARTNER COHORT

PROJECT STATUS

Field Study

2019

Complete

CAN WE BUILD SAVINGS THROUGH COIN DEPOSITS?

BACKGROUND

Consumers have a number of options for converting loose change into bills. Like many retail stores and other financial institutions, Digital Federal Credit Union (DCU) offers access to coin machines in many of their branches.

The coin machines that DCU offers remain popular among members. Collected baseline data shows that the average coin deposit amount was \$91, with a median of \$45. While 3% of members split their slip amounts between cash, savings, and their checking accounts, more than 80% of members either cash the entire amount or deposit it directly into their checking account. Only a handful of members save their coin deposits.

HYPOTHESIS AND KEY INSIGHTS

Our baseline data collection indicated that a large portion of members cashed their coin machine slip, likely in order to spend the money from the coin deposit. This makes sense – spare change is rarely taken into account when creating budgets.

Similar to [tax refunds and other kinds of windfalls](#), people think of the money from spare change as extra money that exists outside of someone's normal mental accounting. The money can be spent without the same constraints that people place on income from other sources, but that also means coin deposits represent an interesting opportunity to nudge individuals to deposit all or a portion of the coin slip amounts into savings. We felt that a few small nudges could increase the number of members who saved their coin deposit windfalls.

To determine how we might go about developing an intervention, we started by understanding the process in detail. We quickly identified a few touch points with members. The machines convert spare change into a slip with the total amount printed on it. Members then take the slip directly to a teller, at which point they must decide whether to cash the slip or deposit the amount into one of their accounts.

EXPERIMENT

Together with DCU, we worked to change the choice architecture around the coin deposit process. The new process included a salient reminder to save, as well as an active choice with implied default that encouraged members to deposit their coin amounts into a savings account.

We randomly assigned DCU branches into two conditions. In the first set of branches, we posted a behaviorally-designed sign by the coin machines. The sign was intended to be a reminder for members using the machines to consider saving when they may not have previously.

In the second set of branches, the savings message communicated by the sign was reinforced by tellers. When a member took their coin machine slip to the teller, the tellers said, "Can I go ahead and deposit this into your primary savings account today?" This script was designed to imply that saving a portion of the slip was the expected behavior.

Control Behavioral signage

Behaviorally-designed signs were posted by the coin machines in some DCU branches.



Treatment Signage + implied default prompt

In addition to the sign, tellers were prompted to ask if they could deposit the slip in the member's savings account.



RESULTS

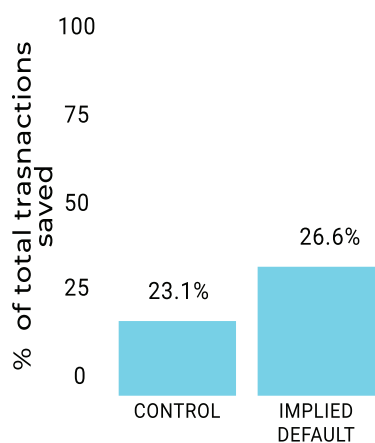
The study was launched in December of 2019. In total, DCU tellers tracked 3,302 coin machine transactions—those in the treatment group were more likely to agree to save a portion of their coin slip into their DCU primary savings account (23.1% in control, 26.6% in treatment, $p = 0.006$).

Interestingly, when we look at just those who decided to save, those in the control group saved a higher percentage of their coin slip (62% vs. 54%, $p = 0.049$). So, while the implied default appears to have led to more people in the treatment to agree to save, those who agreed to save tended to save a smaller percentage of their slip, on average. We think that this is because the implied default convinced members to at least save a portion, bringing down the average amount saved. Indeed, while an equal number of members in both groups saved their whole slip, members in the treatment group were more likely to save a portion of their slip compared to the control ($p = 0.001$).

Taken together, we believe that this suggests the implied default in the treatment group successfully nudged members who otherwise would not have saved at all to save, even if it was just a small portion of their coin slip.

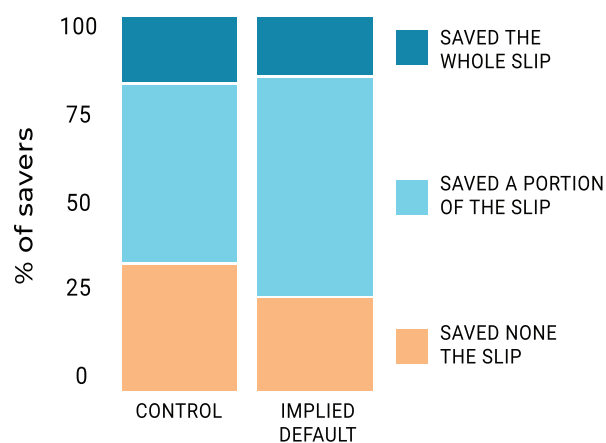
PERCENTAGE OF COIN DEPOSITS SAVED BY CONDITION

Members in the treatment group were significantly more likely to agree to save a portion of their coin slip in their primary savings account (23.1% in control, 26.6% in treatment, $p = 0.006$).



BREAKDOWN OF SAVERS SAVING NONE, SOME PORTION, AND ALL OF THEIR COIN DEPOSIT

Members in the treatment condition were significantly more likely to at least save a portion of their coin deposit ($p = 0.001$).



DIGITAL FEDERAL CREDIT UNION

PROJECT TYPE

PARTNER COHORT

PROJECT STATUS

Field study

2019

In the field

CAN REFINANCING BE A REFRAMED AS A SAVINGS MOMENT?

BACKGROUND

Although most people refinance their loan in order to get a better interest rate, they may end up with a smaller monthly payment as well. They might use this additional money to help manage other expenses, but this is also could be an opportune time to begin building their savings.

In our mental accounting, we [tend to treat windfalls](#) like bonus money, not giving much thought to where this extra money will be the most effective. The refinancing process might present a kind of “golden moment,” particularly for people who may not have already accounted for this surplus of money and therefore would find it easier to save a portion.

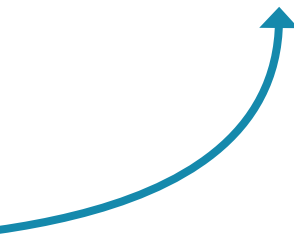
We partnered with [Digital Federal Credit Union](#) (DCU) to test whether or not we could nudge members to set up a recurring savings transfer as part of the refinancing process. Members with reduced monthly loan payments were encouraged to earmark a portion of the difference in monthly payments to be automatically transferred into a DCU savings account.

HYPOTHESIS AND KEY INSIGHTS

There are many reasons why someone might not save some or all of the difference in their monthly loan payment.

- » Transferring a portion of this difference into their savings simply may not have occurred to members.
- » Going through the process of setting up an automatic transfer is not necessarily easy and represents another step in the process at the moment of refinancing.

Many people have looked for “golden moments” as promising times throughout the year to encourage saving, as well as other healthy financial behaviors.



- » The member may need or would prefer to have the difference in payment in cash, rather than direct it to a savings account.

We sought to address these concerns by prompting members to set up an automatic transfer into savings. We predict that people refinancing an auto loan with DCU will be more likely to set up automatic transfers to savings when prompted with an active choice to save. We also predict that being prompted to save during the loan refinance process will result in increased savings behavior in the months following the intervention. Lastly, we predict that having loan officers prompt members to save via an automatic transfer during their conversation with DCU members would lead to more members agreeing to set up automatic transfers and saving more money.

EXPERIMENT

To test these hypotheses, we worked with DCU to develop a system to prompt members to save during the refinance process. Half of DCU's loan agents were randomly assigned to ask members whether or not they would like to set up an automatic transfer of either 25% or 50% of their monthly loan payment savings (treatment group) while the other half of the loan agents did not provide this offer (control group).

Note that if a member was randomized into the treatment group, they received the savings prompt from the loan agent only if they were saving \$20 or more on their new monthly loan payment.

We expected that a significant number of people in the treatment group would agree to set up an automatic transfer of a portion of their monthly loan payment savings due to the active choice nature of the offer provided, and that this automatic transfer would be maintained for at least three months following the set-up.

Savings prompts

We designed a data tracking form that was used by loan agents for members in the experimental condition. The new form automatically prompted the loan agent to ask about setting up an automatic transfer to savings.

×

Savings Choice

Congrats on saving an extra **\$133** per month by refinancing with DCU! You can start saving a regular portion of that into your DCU primary savings account so that you can earn 6.17% APY on the first \$1000.

Any amount would be a great start toward building your savings. Would you like to start by automatically transferring **\$67**, which is about half of your savings, or **\$33**, which is about a quarter?

Half: \$67

Quarter: \$33

Other value: \$

Chose not to save

RESULTS

This experiment concluded active data collection from DCU loan agents on October 31st, 2019. Preliminary analysis indicates that 16% of members in the treatment condition set up automatic transfers, and the transfers ranged anywhere from 6% - 100% of their savings in monthly loan payment (mean of 55% and median of 50%).

Subsequent savings data is still being collected by DCU to measure differences in long-term savings rates between the control and treatment conditions. We will continue tracking these data through the end of January 2020.

In the final analysis, which we plan to share out in mid-2020, we will compare the change in average savings rates before and after the loan refinance between members in the control and treatment groups.

INCLUSIV

PROJECT TYPE

PARTNER COHORT

PROJECT STATUS

Field study

2019

In design

CAN WE ENCOURAGE AUTOMATIC SAVINGS FOR PAYCHECKS AND TAX RETURNS?

BACKGROUND

Saving is often more effective when we can do so without even noticing. So-called ‘set it and forget it’ automatic contribution rules work well because they operate in the backgrounds of our lives – savings quietly accumulate without the need to make difficult subsequent decisions to save. However, people are often hesitant to make the initial effort required to set up automatic savings.

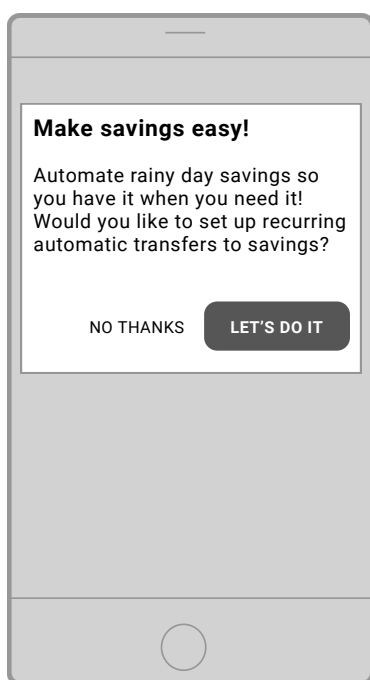
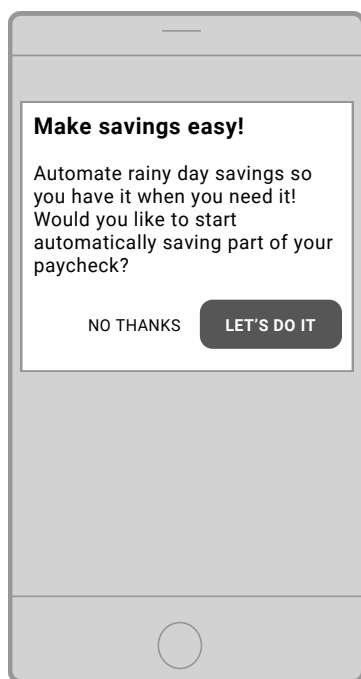
To better understand how to more effectively promote uptake of automatic contribution rules, we partnered with Inclusiv, an institution that organizes, supports, and invests in community development credit unions (CDCUs) serving low- and moderate-income consumers.

HYPOTHESIS AND KEY INSIGHTS

While automatic contributions can be an effective way of saving, many people are resistant to the initial decision to sign up. There are a number of reasons that potentially underlie their hesitance, but the relationship between automatic savings and someone’s sense of control seems to be particularly important. For example, someone may prefer to manage their savings manually compared to using an automatic savings option because they believe that this manual approach allows them to save only at times of the month when they are sure they feel comfortable putting money aside. People may feel uncomfortable giving up some amount of control to a fixed contribution, especially when their income and expenses vary throughout the month.

Savings prompts

Members at different credit unions will be randomly shown targeted prompts that ask them to set up automatic, recurring transfers to savings.



To test this hypothesis further, we worked with Inclusiv to design a survey that prompted individuals to enable percent-based automatic contributions to their savings account within a hypothetical mobile banking interface. We were specifically interested in understanding why participants decided not to save and if there were differences in decisions between automatic transfers related to different channels of income—specifically, a paycheck compared to a tax refund.

We asked approximately 200 individuals to respond to the automatic savings prompt as if it had appeared in their mobile banking application. We found that nearly half our respondents were interested in setting up a rule to transfer a percent of their paycheck and/or tax refund into a savings account. However, the other half of respondents were resistant to setting up any type of automatic contribution rule, most commonly because they preferred to have more control over their money by managing their savings manually. We also found that variable income was a large barrier to setting up contributions based on paychecks – nearly one third of respondents who didn't set up paycheck savings stated that they just weren't sure how much they would have to save from paycheck to paycheck.

EXPERIMENT

Based on the results of our first survey, we are developing targeted prompts that ask mobile users at different Inclusiv credit unions to set up automatic contribution rules for their savings accounts. We are interested in whether increasing the level of control and flexibility will increase the percentage of users who opt-in to an automatic contribution rule, and which type of contribution rule will lead to more savings.

Half the users will be asked to designate a percentage of each paycheck to save. The other half will be asked to set up a recurring transfer to savings on a custom basis, like once a week or once a month.

RESULTS

This experiment is currently in development and we expect it to launch by the end of Q3 of 2020.

SIMPLE

PROJECT TYPE

PARTNER COHORT

PROJECT STATUS

Exploratory

2018

Complete

CAN WE FRAME CDS TO BETTER ALIGN WITH OUR MENTAL MODELS?

BACKGROUND

Locked savings products have shown [impressive results](#) outside of the US in not only increasing savings, but also investment and income when money saved in a locked account serves as inputs for a productive activity. Simple, a Common Cents Lab partner, wanted to explore developing a time-locked savings product.

In the US, most time-locked savings products are called certificates of deposit (CDs). We hypothesized that locked savings products are less successful in the US than they could be mainly because people have certain mental models around what CDs are used for and who are the kinds of people that make use of them. We designed and launched two separate survey experiments to test this hypothesis.

KEY INSIGHTS

- » There are a number of ways that we believe mental models shape how CDs are thought of and used by people. First, CDs are seen as antiquated products which were popular in past generations. The perception of CDs as a non-modern financial products limits both their utility in a modern market but also shapes perceptions of whose needs a CD is intended to meet.
- » Secondly, CDs are seen as a bad investments. In some ways, CDs are mentally categorized closer to investment accounts than as a savings account. CDs have low interest rates and, as such, people view CDs as having limited upside value.

EXPERIMENTS

In the first experiment, a panel of 290 Americans were shown one of two accounts: one named a fictitious “Super Locked Savings Goal product,” which would have no negative mental models attached to it, and a traditional “Certificate of Deposit (CD).” We also wanted to test the impact of an explicitly declared 2.5% interest rate compared to the value proposition of being able to “lock money away from yourself.”

In the second experiment, we continued testing our fictitious “Super Locked Savings Goal product” compared to a “Certificate of Deposit (CD)” with 344 Simple users. In the second round, we tested the impact of a meaningful, but feasible, interest rate change for both products (2.0% vs. 3.0%).

In both experiments, we were interested in how likely the respondents were to put money into the product and, if they used it, how much they would expect to save with the product.

Experiment 1

Condition 1: An online bank is offering a Certificate of Deposit (CD) in which you can earn a 2.5% interest rate if you keep money in it for 6 months.

Condition 2: An online bank is offering a Super Locked Savings Goal product in which you can earn a 2.5% interest rate if you keep money in it for 6 months.

Condition 3: An online bank is offering a Super Locked Savings Goal product in which you can lock money away from yourself for 6 months.

Experiment 2

Condition 1: Simple is offering a Certificate of Deposit (CD) in which you can earn a 2.0% interest rate if you keep money in it for 6 months.

Condition 2: Simple is offering a Certificate of Deposit (CD) in which you can earn a 3.0% interest rate if you keep money in it for 6 months.

Condition 3: Simple is offering a Super Locked Savings Goal product in which you can earn a 2.0% interest rate if you keep money in it for 6 months.

Condition 4: Simple is offering a Super Locked Savings Goal product in which you can earn a 3.0% interest rate if you keep money in it for 6 months.

RESULTS

The results in both experiments indicated that people rated the Super Locked Savings Goal products as more likely for them to put their money into compared to the same account labeled as a CD. Overall, we found that the results affirmed our hypothesis that negative mental models unfavorably impact CDs.

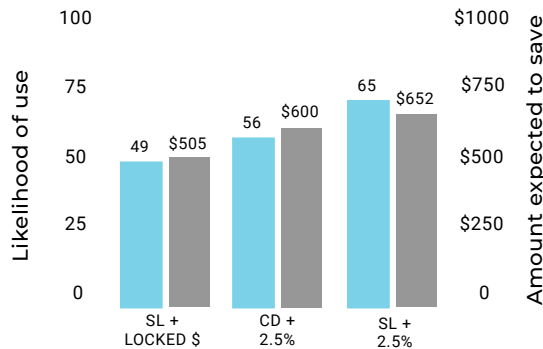
We found that there was no statistically significant difference between conditions in terms of how much money people said they would put into the products, but savings account balance was predictive of how much money people say they would be willing to put into a product.

Both experiments indicated that how willing someone was to put money into the offered account was sensitive to interest rates. In the first experiment, the advertising a 2.5% interest rate outperformed simply saying “lock money away from yourself.” The second experiment found that changing from a 2.0% to a 3.0% interest rate significantly increased how likely someone was to put money into the product.

Interestingly, switching from a CD to a “Super Locked Savings Account” had the same positive effect as offering 3% interest compared to 2%. Overall, both experiments support our hypothesis that CDs have negative mental models associated with them that may be negatively impacting the potential of locked savings in the US.

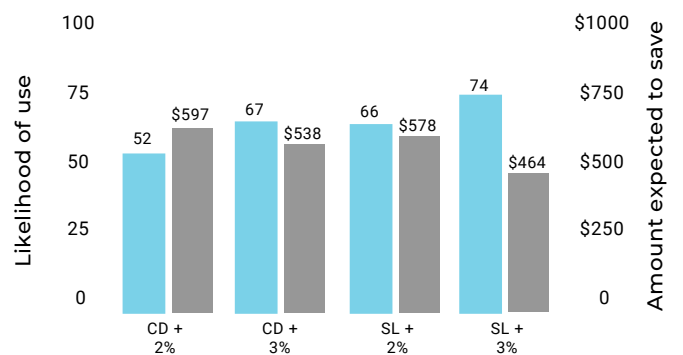
Experiment 1 results

Super Locked Savings with 2.5% interest was rated most attractive for people to put money into ($p=0.037$, $p<0.001$). There were no differences in the amount that people would expect to save between the different accounts.



Experiment 2 Results

People described being significantly more likely to put money into any product other than a CD with 2% interest ($p=0.004$). There was no difference in the amount of money someone would put into each product by condition.



GUADALUPE CREDIT UNION

PROJECT TYPE

PARTNER COHORT

PROJECT STATUS

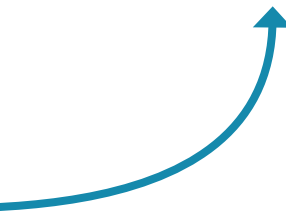
Field study

2019

In the field

CAN WE DECREASE THE PAIN OF SAVING WHILE PAYING OFF DEBT?

People often struggle to balance their efforts and desires to pursue multiple goals, especially when they feel like they compete with one another.



BACKGROUND

Many individuals struggle to juggle the multiple, seemingly competing financial goals of paying down debt, saving, and building assets, often treating them as consecutive steps towards financial well-being. In reality, though, individuals have complicated and fragile financial circumstances – often all it takes is one unexpected expense or emergency to fall off track and deeper into debt. Having a cushion of savings can make it more likely for someone to successfully pay off debt and to build assets and savings.

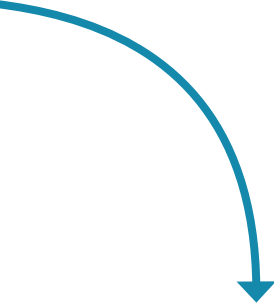
Building savings is a difficult, especially when it's treated as a separate goal to tackle and when individuals are operating scarcity. We partnered with Guadalupe Credit Union (GCU) to help members who take out a loan to open and save by contributing to a Pay Yourself First CD (PYFCD) while paying off their loan. The PYFCD is unique to other savings accounts in that it matches the interest rate of the member's loan, meaning their savings will grow at the same percentage as their loan. Contributions to this CD cap at a maximum of 10% of each loan transfer, including both the loan principal and interest.

HYPOTHESIS AND KEY INSIGHTS

To collect information specific to this context at Guadalupe Credit union, we conducted a behavioral diagnosis of their PYFCD product. This diagnosis included building a detailed process map by analyzing administrative data and conducting qualitative interviews with frontline staff.

The following barriers emerged as especially relevant:

- » Members view a savings contribution equally as painful as a loan payment. Every time an individual parts with hard-earned money, even if this money is for their future selves, it inflicts psychological pain. Members who are asked to sign up for another recurring payment into their savings immediately after a discussing the recurring payment for their new loan, feel a second instance of psychological pain.
- » Members commonly budget in round numbers and lean towards them in both general use and during times of cognitive overload.
- » Members do not consider the benefits of opening a PYFCD in the moment of decision making. There is a general tendency to be present biased and have disproportionately higher valuations of present benefits and extremely low valuations of future benefits.
- » Members often choose the path of least resistance, which currently, is not opening the PYFCD account.
- » Loan officers and MSR's forget to offer the PYFCD to members because they are very busy and have limited attention.



We've found round-up savings products to be successful ways to encourage savings. [Read more here.](#)

EXPERIMENT

We hypothesize that presenting the PYFCD simply as a default component of the loan members take out would increase the likelihood of enrollment and contribution to the PYFCD. Tying savings to existing payments decreases the psychological pain of saving, but we wanted to test whether rounding the payments to a round number would make the product more attractive because it aligns with members' existing mental budgeting strategies.

We went one step further, too, by re-designing in the debt ratio calculator that GCU staff use for loans. Embedding the intervention within the systems that staff use further engrains offering the PYFCD into employee workflows and decreases the likelihood of employees forgetting to offer it.

To test this hypothesis, we designed a new form to present the PYFCD payments embedded within the introduction of a members' term loan payment. Along with this form, we also designed new scripts and trained MSR's and loan officers at Guadalupe Credit Union on how to verbally present the PYFCD as a component of the member's loan.

As members took out new auto loans with GCU, they were randomized into three different versions of the loan forms that showed the terms and conditions of the loan. Each included the round-up transfer to the PYFCD, but each calculated and presented the amount of savings slightly differently.

Specific 9.4% condition

The loan + PYFCD payments are presented as a specific number, calculated at 9.4% of the member's loan and interest.

Specific 10% condition

The loan + PYFCD payments are presented as a specific number, calculated at 10% of the member's loan and interest.

Round number condition

The loan + PYFCD payments are presented as 10% of the member's loan and interest and rounded down to the nearest \$5.00.

Loan Payment Schedule
(Plan de Pagos Préstamo)

Member's name: Jane Doe Account number: 123456789
(Nombre del socio) (Número del cuenta)

Monthly Transfer Amount		
Monthly Transfer Amount (Transferencia mensual)	\$ 280.06	
= Loan principal & Interest (Principal e Interés)	\$ 256.00	+ Savings (Ahorros) \$ 24.06

I do not want to have No deseo tener \$ 661.55 in savings by the end of my loan payment period. en ahorros al término de mi préstamo.

* This saving estimation includes your contributions, interest, and dividends. This estimation only holds true if all monthly transfers are paid in full and at the time they are due.

1st Payment Date (1ra Fecha de Pago) 15-Jul-2019

Number of Payments (Total de Transferencias) 24 at 13.10% APR for CD

Upon loan approval, I hereby authorize the Credit Union to transfer funds from my account(s) to the designated account(s) on the specified date(s) for the specified amount(s) as listed above.
(Autorizo a la Cooperativa a transferir fondos de mi cuenta de origen a las cuentas designadas, en la(s) fecha(s) especificada(s) y por el monto establecido aquí)

Member signature (Firma del socio) _____ Date (Fecha) _____
Employee signature (Firma del empleado) _____ Date (Fecha) _____

Loan Payment Schedule
(Plan de Pagos Préstamo)

Member's name: Jane Doe Account number: 123456789
(Nombre del socio) (Número del cuenta)

Monthly Transfer Amount		
Monthly Transfer Amount (Transferencia mensual)	\$ 281.60	
= Loan principal & Interest (Principal e Interés)	\$ 256.00	+ Savings (Ahorros) \$ 25.60

I do not want to have No deseo tener \$ 661.55 in savings by the end of my loan payment period. en ahorros al término de mi préstamo.

* This saving estimation includes your contributions, interest, and dividends. This estimation only holds true if all monthly transfers are paid in full and at the time they are due.

1st Payment Date (1ra Fecha de Pago) 15-Jul-2019

Number of Payments (Total de Transferencias) 24 at 13.10% APR for CD

Upon loan approval, I hereby authorize the Credit Union to transfer funds from my account(s) to the designated account(s) on the specified date(s) for the specified amount(s) as listed above.
(Autorizo a la Cooperativa a transferir fondos de mi cuenta de origen a las cuentas designadas, en la(s) fecha(s) especificada(s) y por el monto establecido aquí)

Member signature (Firma del socio) _____ Date (Fecha) _____
Employee signature (Firma del empleado) _____ Date (Fecha) _____

Loan Payment Schedule
(Plan de Pagos Préstamo)

Member's name: Jane Doe Account number: 123456789
(Nombre del socio) (Número del cuenta)

Monthly Transfer Amount		
Monthly Transfer Amount (Transferencia mensual)	\$ 280	
= Loan principal & Interest (Principal e Interés)	\$ 256.00	+ Savings (Ahorros) \$ 24.00

I do not want to have No deseo tener \$ 661.55 in savings by the end of my loan payment period. en ahorros al término de mi préstamo.

* This saving estimation includes your contributions, interest, and dividends. This estimation only holds true if all monthly transfers are paid in full and at the time they are due.

1st Payment Date (1ra Fecha de Pago) 15-Jul-2019

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(Autorizo a la Cooperativa a transferir fondos de mi cuenta de origen a las cuentas designadas, en la(s) fecha(s) especificada(s) y por el monto establecido aquí)

Member signature (Firma del socio) _____ Date (Fecha) _____
Employee signature (Firma del empleado) _____ Date (Fecha) _____

RESULTS

This study is currently in the field and we expect results by Q3 of 2020.

SAVERLIFE

PROJECT TYPE

PARTNER COHORT

PROJECT STATUS

Field study

2018

Complete

DOES OFFERING OVERDRAFT PROTECTION ENCOURAGE PEOPLE TO SET UP AUTOMATIC TRANSFERS?

BACKGROUND

Having a small cushion of savings to fall back on is critical to someone's financial well-being and security, yet far too many people struggle to build sufficient savings. There are many reasons why we find saving difficult, but one important reason is that saving feels painful. Building savings requires sustaining motivation over time and regularly making contributions to savings, effectively giving up some amount of spending in the short-term.

To explore how we might make saving a little easier, we partnered with a non-profit organization called SaverLife (formerly EARN). SaverLife adopts the philosophy that small savings can make a big difference and has a variety of interventions such as matched savings programs, prize-linked savings games, and other fun challenges aimed at making saving easier.

While the financial incentive increases savings behavior, some evidence suggests that making incentives contingent upon ongoing performance – such as paying people for successfully saving – can “crowd out” people's willingness to continue the behavior after the incentive is taken away. In this instance, we worked with SaverLife members engaging with a 6-month matched savings program. We wanted to both increase the number of users who reached their monthly savings goals but also the number who continued to do so after the program ended.

HYPOTHESIS AND KEY INSIGHTS

One of the most effective ways to help people save regularly is to have them set up an automatic transfer to their savings. Automatic transfers work because setting one up is a decision someone only has to make once, but doing so locks them into a behavior that is good for them in the long-term. While automatic transfers make sense in theory, they are practically difficult for several reasons:

- » Setting up automatic transfers is more difficult if someone has irregular or variable income.
- » When people set up automated payments, they tend to set them up for smaller amounts. This is problematic because people feel a sense of achievement: they are making consistent progress. In reality, they are slower to achieve their longer-term savings goals.
- » Low-income individuals are at greater risk of overdraft fees. Since the consequences can be high, many fear automated transfers for savings.

EXPERIMENT

We tested our hypothesis that reducing the consequences of overdraft will increase uptake of automated savings transfers by sending SaverLife users two different emails:

Standard automatic transfer messaging

This email encourages SaverLife users to sign up for an automatic transfer to ensure they receive the additional \$10 monthly savings bonus.

Overdraft protection messaging

This email notes that SaverLife will cover any possible overdrafts that occur because of an automatic transfer as their participate in the program.

Action Required: Finalize your savings method

We want all SaverLife members to get their \$60 in rewards. The easiest way to make sure this happens is to set up automatic transfers.



2 easy steps to make sure you get your \$60 in rewards:

- 1 Click the "Yes, let's save!" button above. Under "Transfer & Pay," select "Transfer Money."
- 2 We recommend setting the date of the transfer to a day or two after payday. Select "Continue" and watch your savings grow!

Action Required: Finalize your savings method

We want all SaverLife members to get their \$60 in rewards. The easiest way to make sure this happens is to set up automatic transfers.

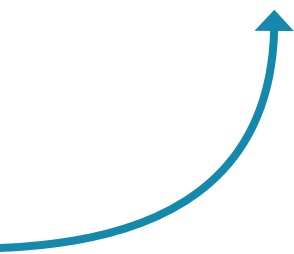


Overdraft fees are a common concern when it comes to setting up automatic transfers. Don't worry! We have you covered. If you get an overdraft fee because of your automatic transfer, we'll reimburse you.

2 easy steps to make sure you get your \$60 in rewards:

- 1 Click the "Yes, let's save!" button above. Under "Transfer & Pay," select "Transfer Money."
- 2 We recommend setting the date of the transfer to a day or two after payday. Select "Continue" and watch your savings grow!

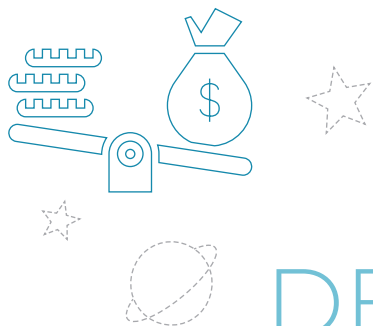
Offering overdraft protection may have prompted people to think about overdrafts if they weren't already top-of-mind.



RESULTS

We found that users who were offered overdraft protection messaging were not more interested in setting up an automatic transfer, as measured by email click rate, and were not more likely to set up an automatic transfer. In the longer term, both conditions saved about the same amount. The analysis also suggests that simply mentioning the possibility of “overdraft” in an email scared people away if overdrafts were not already top-of-mind.

However, regardless of condition assignment, users who opened the email were more than twice as likely to set up an automatic transfer. Users who clicked in the email, were three times more likely to set up an auto transfer. This can be attributed to self-selection bias (there is something different about people who opened an email vs. those who didn't open an email), but regardless, this indicates that there is latent demand for automatic transfers and that simply reminding people can make a difference.



DECREASING (BAD) DEBT

The early 2000's saw a remarkable increase in household debt, and in particular housing debt, which ultimately fueled the Great Recession as millions of households struggled to stay current on their payments. The household balance sheets of today resemble those from 20 years ago. Although the composition of debt is markedly different, American debt has steadily grown over the past 5 years.

This growth in debt is particularly driven by increasing student loans and auto loans, which reached \$16 billion and \$10 billion respectively. The growing amount of student loans is particularly notable, as it has more than doubled as the share of non-housing related debt. Both have also seen delinquencies rise each year for the last 5 years.

Together with credit cards, medical debt, mortgages, and all other sources, American household debt grew to more than \$14 trillion dollars. Our current debt burden well exceeds the amounts from the height of 2008. Debt strains household balance sheets and significantly increases the likelihood that someone will face a financial emergency. Less noticeably, debt also decreases the capability to make productive investments and to save for the futures.

Tackling this problem requires thoughtfully intervening at key moments throughout the process that someone must navigate in order to successfully manage their debt:

1. Seek out available loans or sources of credit. Individuals with bad or no credit histories often have few alternatives, but even people with access to good credit resort to what is readily available and quick, [especially in moments of crisis](#). These tend to be the most pernicious sources of credit and people can quickly find themselves stuck in a cycle of debt.
2. Decide how much they need (and can afford). Whether it's mortgages, auto loans, or student loans, people consistently make imperfect decisions about how much debt to take out.
3. Compare and contrast different terms and features of similar debt products. Interest rates do inform people's decisions, but they are just one factor. Instead, people rely on a range of factors to decide between products that often look and feel very similar, even if the underlying terms vary dramatically.
4. Complete the application loan or apply for credit. Even small hassles can deter people from completing these processes, often falling back to simpler and more convenient sources of debt like payday loans.
5. Pick a payment schedule. In reality, people rarely "pick" their payment schedule. Payment dates are often just defaulted to when they took out the loan, which is often when they are least likely to have the money to repay it. Even when they can change the date, people rarely do so.
6. Pick which debt to focus on. The reality that many people face is that they are not making payments towards just a single debt. People regularly have multiple credit cards, student loans, auto loans, and a mortgage all at the same time. People consistently make suboptimal decisions when deciding how to prioritize and pay down multiple debts simultaneously.
7. Consistently make payments. There has been plenty of research that has shown the value of a well-timed reminder in increasing the likelihood of making a payment.
8. Overcome financial emergencies that come up. Research shows that people encounter unexpected expenses or a financial emergencies much more frequently than they anticipate, especially if their income fluctuates from month to month. A high debt burden

makes it harder to overcome these bumps in the road and perpetuates taking on more debt.

9. Switch to less harmful debts or consolidate loans. People often forgo potential benefits, paying unnecessary costs to stay with their loan when they could refinance or find a less expensive alternative.

This year, we led four field experiments that intended to help people move through this process. And we conducted two exploratory projects around loan types and repayment.

Across these projects, we saw two themes emerge as particularly important:

1. **Get people to get the right product.**

- » Be prescriptive & paternalistic in your design. In a data review with Redstone Federal Credit Union, we found that small-dollar loans with a forced savings component end up with savings balances that are 80% greater than similar members who did not have the forced savings element. Read the case study on [page 89](#).
- » Reduce friction & force focus. In a study with Accion, we found that when we added a link to more information, we may have inadvertently increased friction to completing a small-dollar loan application. Read the full case study on [page 86](#).

2. **Make it easier to repay.**

- » Align to moment of income. When we encouraged borrowers to set up automatic loan payments that align with their payday, borrowers were more than twice as likely to set up automatic payments. Read the full case study on [page 92](#).
- » Remind them to be prepared. With a redesigned loan payment reminder letter at Redstone Federal Credit Union, we saw a 4 percentage point increase in members making on-time payments compared to baseline. Read the full case study on [page 95](#).

Read on for a deeper dive into our projects focus on decreasing bad debt.

ACCION

PROJECT TYPE

PARTNER COHORT

PROJECT STATUS

Field study

2017

Completed

CAN DEADLINES AND JUST-IN-TIME INFORMATION MOTIVATE SMALL BUSINESS OWNERS TO COMPLETE LOAN APPLICATIONS?

BACKGROUND

Small businesses need access to credit, but many banks will not provide business loans to owners who have less than two years of business history or who have low (or no) credit scores. Facing limited access to capital, many small businesses turn to one of an increasing number of “alternative” lending options. The problem is many of these options are unregulated and offer predatory lending options – the Opportunity Fund estimated that “alternative” business loans had an average annual percentage rate (APR) as high as 94%, and many had even higher rates.

To help these small business owners, we partnered with [Accion](#), a fair and flexible lender with approximately 6,000 active borrowers. Accion also facilitates connections to business experts and access to resources and opportunities tailored to each business owner’s unique needs and goals.

HYPOTHESIS AND KEY INSIGHTS

To better understand the process, we reviewed and analyzed Accion’s application data and applicant funnel. We also interviewed over 20 people, including applicants, borrowers, employees, and vendors across four regional offices.

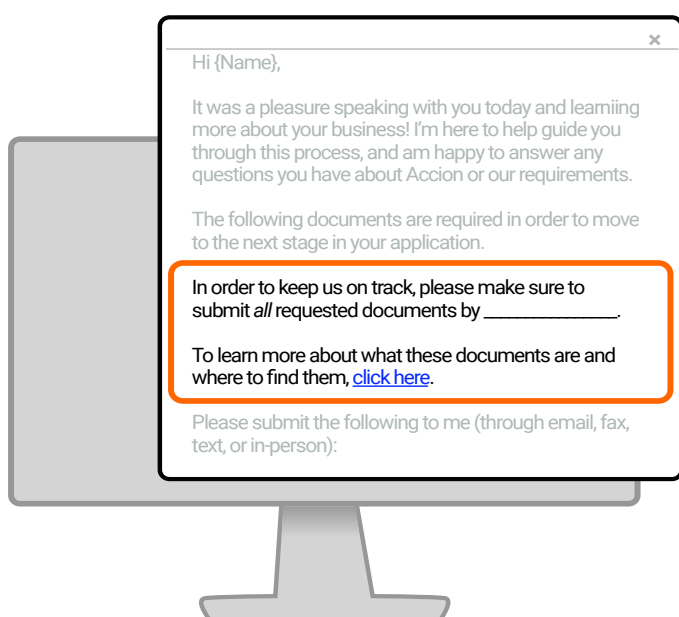
This analysis led us to a couple of key insights:

- » There is a high drop-off rate in the document collection phase. Before Accion grants a loan, they request some background information and documents, such as bank statements, business plans, or a profit-and-loss statement. Gathering these documents may be cumbersome or overwhelming. Approximately 26% percent of all the people who completed the initial application withdrew before making it to underwriting (where the loan application is officially reviewed).
- » Loan Officers and applicants specifically noted the document collection process as the most daunting and difficult. Most applicants were pleased with Accion's responsiveness but were intimidated or frustrated with the time and effort the document collection required on their part.

Certainly, some applicants who drop out before completing the process just do not receive the loan to grow their business. However, a worse option would be that they instead turn to a predatory lending option.

EXPERIMENT

We designed an email experiment to increase the number of applicants who complete the application. We chose our four conditions from past research on the effectiveness of deadlines and just-in-time information. After an applicant speaks with a Loan Officer about their desired loan, the applicant received an email that is randomly selected from four possible email templates.



Control

An email including generic language with instructions for submitting the documents.

Treatment A

An email including a deadline (1 week out) when the documents should be received.

Treatment B


An email including a link to more information about the requested documents.

Treatment A & B (featured)

An email including both the deadline and the link to more information about the documents.

We did not see an effect of the deadline, but the intervention was fairly light touch.

Previous research has found that deadlines are effective ways to curb procrastination, but they are less effective when they are not “binding” or consequential.



RESULTS

Our sample size was smaller than we had expected (about 400 instead of 850). We decided not to include data from a regional office that had to drop out early on due to questions around test execution. Across the other regional offices, we did not find significant differences between the control and the deadline condition or the link to info condition. We did, however, find a trend that the condition with both a deadline and a link to more information actually had a lower percentage of applicants that eventually submitted all of their required documents—at 47%, a 12% decline from the control ($p=0.054$).

Why the intervention may have decreased completion rates is not entirely clear, especially considering a prior study with [Kiva](#) found that adding a deadline to their standard email did increase completed applications by about 3%. It's possible that having both elements in the email led to information overload and avoidance, driving to lower completion rates. The intervention was also fairly light-touch – the only mention of the deadline was in one email and there were no follow-ups that reinforced any of the treatment conditions.

Importantly, the test also asked a lot of loan officers. While we tried to minimize the demands on the Loan Officer, it was still an additional work outside of their typical process and there were times when they simply forgot to include it. Thus, it's possible that the decrease was a result of noisy data. If we had developed a way to fully automate the randomization and data collection without involving the Loan Officers, we might have had a larger sample and seen a clearer effect.

REDSTONE FEDERAL
CREDIT UNION

PROJECT TYPE

PARTNER COHORT

PROJECT STATUS

Exploratory

2018

Completed

ARE PEOPLE BETTER OFF TAKING PAYDAY ALTERNATIVE LOANS?

BACKGROUND

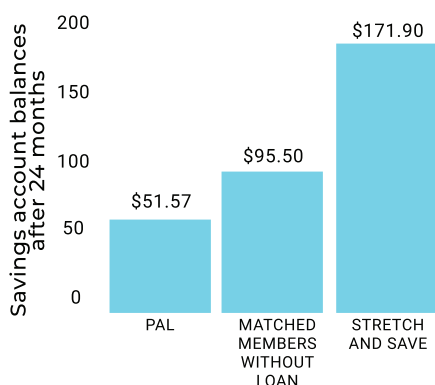
Around 12 million Americans take out payday loans each year. Payday loans are generally small amount, short-term loans. The loan amount is determined by one's paycheck and is intended to be repaid within two weeks. Although lending companies claim that payday loans offer a valuable solution to cash-flow emergencies, their actual usage is cyclical and expensive. [The average borrower](#) takes 8 loans a year, and while the average loan is \$375, the borrower pays an additional \$520 in fees and interest.

To help address the need for emergency funding, some federal credit unions offer short-term, small dollar loans called Payday Alternative Loans (PALs). These loans have lower interest rates compared to true payday loans and give borrowers more time to repay the loan. In addition to PALs, some credit unions have created savings loans, a small-dollar loan product that includes a forced savings component—an additional loan amount is held in a savings account and upon successful repayment of the full amount, the loan recipient gains access to their new savings.

However, these loan products are relatively new and only [8% of credit unions reported](#) issuing PALs in Q4 2017. There is little research on the impact of these loans for consumer financial well-being. In partnership with [Redstone Federal Credit Union](#), we examined the effect of short-term, small-dollar loan products (both payday alternative and forced savings loans) on the financial well-being of members. We analyzed two years of archival savings and loan data and compared the savings balances of members who did and did not take out these loans.

SAVINGS BALANCES BY LOAN TYPE

Taking a PAL is associated with a decrease in savings balances, while members taking a Stretch and Save loan had higher savings balances.



ANALYSIS

To account for the correlational nature of these data, we employed a series of propensity score matching models and compared savings account balances at Month 24. The sample was matched based on member age, credit union tenure, and Month 1 savings balance.

The differential effects of payday alternative vs. forced savings loans

Using propensity score matching to compare members who take one of the two loan types against similar members who do not take out a small-dollar loan, the data suggest that, for members with similar loan likelihoods, taking a PAL is associated with significant decrease in one's savings balance of 46%, while taking a Stretch & Save (Redstone's forced savings loan product) is associated with an increase in one's savings balance of 80%. Those who do not take a loan end the sample period with an average savings balance of \$95.50, while those who take out a PAL end with \$51.57, and those who take a Stretch end with \$171.90.

A positive bump from forced savings loans

While the propensity score models suggest that a Stretch loan is associated with a higher savings balance over time, the granularity of the data allowed us to examine savings balances just before and after a member successfully repaid a Stretch loan. It could be that members repay their loan and gain access to the 20% savings only to immediately withdraw or spend it.

We ran a multilevel regression to examine the change in savings balances two months before and two months after Stretch repayment. Although balances do tend to be slightly lower than one's average as the loan term ends, repaying one's Stretch loan is associated with a jump in end-of-month savings balance of 169%, moving from \$43.35 to \$116.72, even when controlling for one's general tendency to save. This suggests that members are keeping some portion of their newly accessible funds in savings.

In this dataset, we are unable to measure any potential crowding out effect of these payday alternative loans on actual payday loans, but it is possible that members are taking these loans instead of more predatory external loans and thus still benefiting from their offering, even if this is not reflected in savings balances. Additional archival analysis or novel prospective data collection could

address this question more definitively and should be examined in future work.

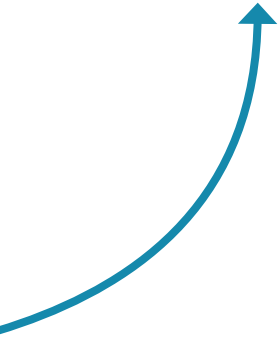
RESULTS

We found that basic PALs had no effect on financial well-being but that an alternative small-dollar loan product with a forced savings component did seem to increase final savings account balances.

- » Consistent with national data, these loans tend to be cyclical; 58% of members who take a small-dollar loan take out a second; 33% take out 3 or more.
- » Loan recipients have lower savings balances and lower credit scores than their non-loan taking peers. PAL loan recipients are more likely to have lower or no credit score and have lower savings balances at baseline compared to savings loan recipients at baseline.
- » Accounting for these differences between loan recipients using a propensity score matching analysis, we find that PAL recipients have final savings balances that are 49% lower (\$51.57) than matched members who do not take a small-dollar loan (\$95.50).
- » Using a propensity score model, members who take a savings loan have final savings balances that are 80% greater (\$171.90) than their matched counterparts.

Although the correlational nature of this data and the preexisting differences between PAL and Stretch loan recipients mean that we cannot rule out alternative explanations for these differences in savings outcomes, these results suggest that short-term, small-dollar loans with a forced savings component work as intended, increasing subsequent savings balances for members. This increase in savings is most noticeable in the months immediately after repayment but is still detectable even after several months to a year may have passed. Credit unions should continue to design and offer small-dollar loan products with a forced savings component for qualified members.

Building a forced savings component into a small-dollar loan product seems to be a more effective way to increase loan recipients' financial well-being.



BENEFICIAL STATE BANK

PROJECT TYPE

PARTNER COHORT

PROJECT STATUS

Field study

2017

Completed

CAN AUTOMATIC PAYMENTS TIMED WITH INCOME IMPROVE LOAN PERFORMANCE?


BACKGROUND

There are many reasons someone may default on an auto loan: job loss, health emergency, an expensive car repair, or [income and expense volatility](#). [Brian Baugh and Jialan Wang](#) found that financial shortfalls – particularly payday loans and bank overdrafts – are more common when there is a greater mismatch between the timing of someone's income and the bills they owe.

We partnered with [Beneficial State Bank](#), a California-based community development bank beginning in 2017 to design solutions that help make repaying car loans easier. We developed a recurring payments form designed to encourage borrowers to repay their loans automatically when they are paid.

HYPOTHESIS AND KEY INSIGHTS

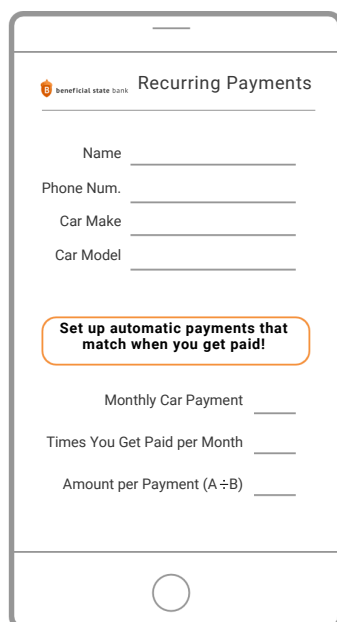
We began with a behavioral diagnosis that detailed each step in the entire auto lending process to better understand that process from the perspective of both the borrower and the loan issuer. Our behavioral analysis revealed a number of insights specific to Beneficial State Bank's internal processes and barriers to repayment, as well as insights relevant to auto loan repayments broadly.



Financial shortfalls are more common when there is a greater mismatch between the timing of someone's income and the bills they owe.

Recurring Payments Form

Customers in the experimental group were texted a “recurring payments form” that allowed them to set up automatic payments that align with payday.



beneficial state bank Recurring Payments

Name _____

Phone Num. _____

Car Make _____

Car Model _____

Set up automatic payments that match when you get paid!

Monthly Car Payment _____

Times You Get Paid per Month _____

Amount per Payment (A ÷ B) _____



Paid when paychecks enter your account

1. THE SAME DAY OF THE WEEK

Weekly on _____

Bi-Weekly on _____

Monthly on the _____

OR

2. ON SPECIFIC DATES

1x Monthly on the _____

2x Monthly on the _____ and _____

I completed a welcome call & changed my monthly due date to match when I get paid.

This analysis led us to a couple of key insights:

- » Monthly loan repayments are almost universally due on the day that a borrower bought their car. In some cases, this arbitrary choice does not cause any problems. If their repayment due date falls far from a payday, though, this creates disconnect between someone’s expenses and income, making it more difficult to consistently make payments on their car loan.
- » While a loan payment is due on a specific date (e.g. the 15th), many people are not paid on specific dates (e.g. every other Friday). In these cases, simply changing the date their payment is due is not sufficient and borrowers still run the risk of having income come just after their due date some months.

EXPERIMENT

We randomized over 700 new Beneficial State Bank indirect auto loan customers into either a control or an experimental group. Beneficial State Bank conducts a welcome call that is required for all new loans or loan refinancings to confirm borrower information and to offer repayment information.

During the welcome call, the experimental group was texted a Recurring Payments form designed to establish automatic loan repayment timed with when customers were paid. The control condition did not receive the form.

RESULTS

Over 50% customers in both the control and experimental group expressed high levels of interest in automatic, recurring payments timed with income. However, people who were texted an automatic recurring payments form were twice as likely to enroll in automatic payments (16.9% compared to only 9.3%).

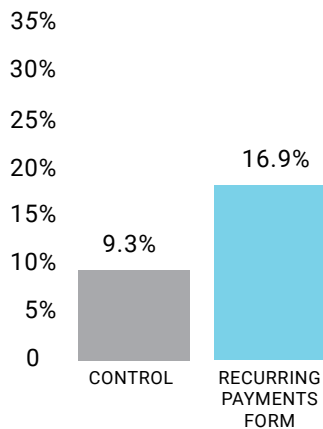
There was good evidence suggesting the form was successfully encouraging individuals to time their payment with their paydays. Compared to customers in the control without automatic payments, the 68 automatic payers in the experimental condition were significantly more likely to make more than one payment per month ($p < 0.001$). Of this sub-group, 60% are making two or more payments per month of 25% or 50% of their monthly amount.

We hypothesized that timing loan payments with paydays would improve loan performance. The portfolio of loans in the experiment are still relatively young, and we expect that any differences are likely to appear over time, especially with those who have selected payment cycles that would benefit from additional payments in months with five Fridays. Even still, we are able to look at loan performance after approximately six months. That analysis found that customers receiving the Recurring Payments forms paid slightly more each month by due date, but this difference is not statistically significant ($p = 0.155$).

There were only two loan defaults during the six month period, both were in the control group. This is not a statistically significant difference, but again we would expect any differences between conditions to grow as loans mature.

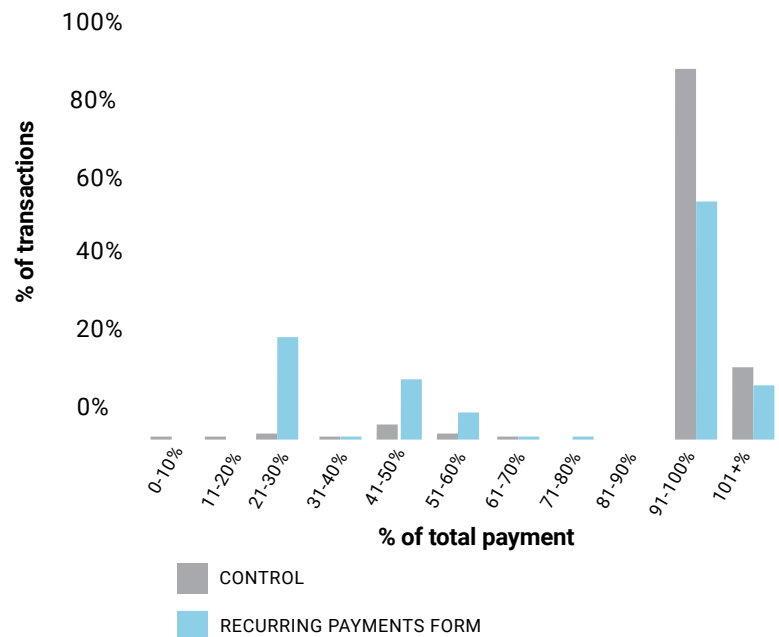
LIKELIHOOD OF ENROLLING IN AUTOMATIC PAYMENTS

Individuals who were texted the recurring payments form were twice as likely to set up automatic payments.



PROPORTION OF TOTAL LOAN PAYMENT PAID PER PAYMENT BY CONDITION

Individuals who were texted the recurring payments form were significantly more likely to make more than 1 payment per month, suggesting that they were matching payments to their payment cycles.



REDSTONE FEDERAL

PROJECT TYPE

PARTNER COHORT

PROJECT STATUS

CREDIT UNION

Exploratory

2018

Completed

CAN A STREAMLINED LETTER INCREASE ON-TIME LOAN PAYMENTS?

BACKGROUND

[Redstone Federal Credit Union](#) is Alabama's largest credit union, serving almost 400,000 members across the state and in the Tennessee Valley. Redstone issues roughly 3,000 new loans to members each month, and many of those loans are repaid on-time starting with the first payment. However, around 25% of loans are not paid by the due date, and 7% of loans result in a first payment default.

Loan defaults harm the member's credit and result in additional expenses via late payment fees and interest. Loan defaults or late payments also are damaging at a broader level because they increase the cost of offering credit to other members. Increasing on-time first loan payments would benefit members and lower costs for Redstone.

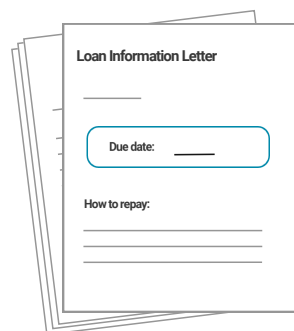
HYPOTHESIS AND KEY INSIGHTS

There are several reasons why members may not make their first loan payment on-time.

- » The process of taking out a loan in itself can be difficult and overwhelming, leaving members confused as to when their payment is actually due.
- » This confusion can be exacerbated by the official documentation that accompanies a credit union loan, which sometimes can be too dense and may confuse loan recipients.

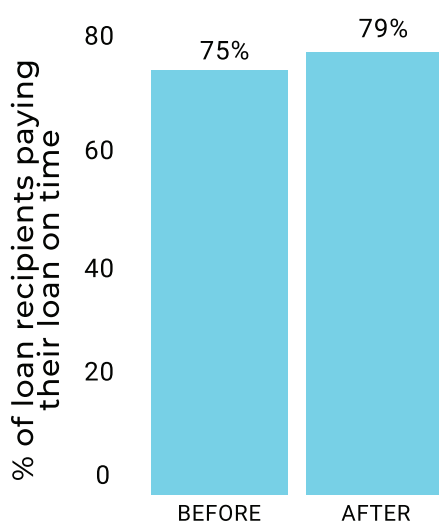
Loan Information Letter

Starting in Q2, Redstone sent out a Loan Information letter that highlighted the payment day and how to repay the loan.



PERCENTAGE OF ON TIME LOAN PAYMENTS

A higher percentage of members made on-time payments after Redstone started sending out the new Loan Information Letter.



EXPERIMENT

The Common Cents Lab worked with Redstone to create a Loan Information Letter to accompany the official loan note and disclosure form that clearly highlighted a new loan recipient's payment date and how to repay their loan with the goal of decreasing friction and reducing cognitive load. Although technical limitations precluded an experiment, the updated letter was sent out starting in Q2 of 2019.

RESULTS

We compared the post-letter data to the same four months of the baseline 2016 data to account for possible seasonality. The updated letter is associated with an average decrease of about 1.5 days in time to pay across all loans (from about three days prior to the due date to little less than five days prior).

These faster payment times across all loans translate into a greater proportion of the sample paying their loan on time. Redstone had an 16% reduction in late payments (from 25% to 21%). Fewer members required the five-day grace period or the reminder phone call. In an average month at Redstone, about 3,675 loans enter repayment. Before the updated letter, staffers called about 437 loan-holders (11.9%) each month to remind them of an outstanding first loan payment. With the updated letter, this number decreases to 386 calls (10.5%) per month. If an average call requires even five minutes of a staffer's time, Redstone effectively gains 4.5 hours each month.

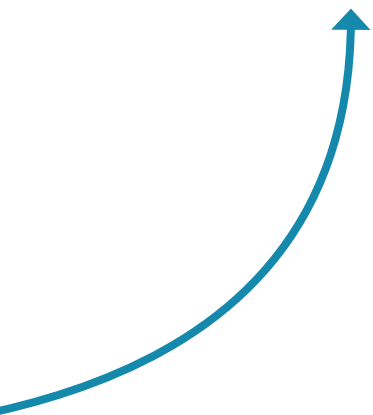
However, the letter seemed more effective for some types of loans. For example, those in the "other personal loan" category paid their loan 11.2 days before the due date when receiving the letter. Similarly, while the letter did not affect default rates for car loans or small-dollar loans, the letter was associated with a reduction in defaults for this same "other" loan category. While default rates for this group were low overall, people with "other" loan types are about half as likely to default on their loan when they receive the updated letter (2.4% default rate) compared to the baseline group (4.5% default rate).

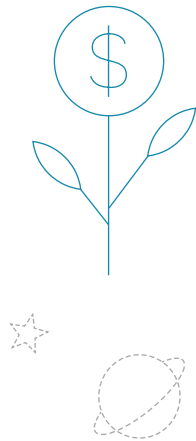
Of note, this was a cross-sectional study conducting a pre/post analysis. As a result, we cannot rule out all alternative explanations, nor can we attribute all of these differences to the letter. It is possible that other programs happening at the credit union or other macro-level influences could also have impacted repayment rates over the same time period.

That said, the analysis does seem to suggest that Redstone was able to increase the proportion of loan recipients making early or on-time payments by adding a user-friendly, streamlined letter to their loan paperwork. On-time payments improve member financial well-being and reduce the burden on branch staff.

The letter seems to be an effective communication channel and further optimization should be tested. As Redstone and others continue to focus on repayment rates and reduced defaults, the effectiveness of just the letter could be increased by adding personalization or email reminders, helping members make a plan for repayment, or innovating ways that borrowers can better plan for repayment and align their payments with fluctuating income. We also recommend adding channels for reminders and communication, such as text messages, and innovating ways that borrowers can better plan for repayment and align their payments with fluctuating income.

We always recommend rolling out interventions with a comparison group in a controlled, randomized way. That is the easiest way to test if something we do is actually effective.





INCREASING LONG-TERM SAVINGS

Research from Richard Netemeyer, Dee Warmath, Daniel Fernandes, and John Lynch shows that people's perception of their financial well-being can be broken down into two concepts: 1) how stressed they feel about meeting their current financial needs; and 2) how optimistic they are about their future financial security. In other words, equally important to their ability to handle today is their preparation for the future. The impact on one's perceived financial well-being is also crucial to overall well-being – in fact, their research shows that it is as important as job satisfaction, how physically healthy they feel, and how supported they feel in their relationships **combined**.

And yet, people are woefully unprepared for their future-self – 70% of pre-retirees feel unprepared. And they are right! Almost half of working adults who are less than 10 years from retirement have less than \$100,000 saved; 28% have less than \$25,000 saved.

Retirement savings isn't the only long-term savings we should be concerned about. Research shows that post-secondary education or training dramatically increases the lifetime earnings of an individual. But college is prohibitively expensive and 30% of students drop out in their first year. However, having some money saved for college, even small amounts, improves socio-emotional development. Kids with some money saved for college also are four times more likely to complete college, when compared to similar peers without any college savings.

Long-term savings is a classic example of the intention-action gap. Over 70% of people think you should start saving for retirement before you turn 30, and yet only 40% of 18-34 year olds are actually saving. Similar story with college savings – everyone knows it is a good idea, but it is hard to follow through.

There are three key barriers that are especially heightened for long-term savings:

1. **Present-Bias:** We have a hard time thinking about and prioritizing the future – we are naturally focused on our immediate needs and wants. We tend to be more motivated by what we can get right now, not what we can potentially have in the future. In the same way benefits rapidly lose their power the further they get from today, future consequences are also much less scary. Long-term savings is an even greater exaggeration of giving up something today for a far-off benefit.
2. **Procrastination:** Related to present-bias, we put off doing actions that don't have a sense of urgency. Research from Meng Zhu, Yang Yang, and Christopher Hsee shows that we are more likely to prioritize urgency over importance. We all have a million other things that feel more urgent – like what to make for dinner tonight, figuring out childcare for an added shift, completing a work project, dealing with an upset family member. Long-term savings never feels urgent – which means it regularly gets postponed and forgotten.
3. **Likelihood of Failure:** Richard Bagozzi theorizes that expectations of success or failure are important predictors of likelihood to do something. In other words, we don't even try to do things that we don't think we'll be able to do. And when it comes to retirement and college savings, most LMI households are likely to fail. It is almost impossible for an LMI household to save enough to cover the entire cost of their

retirement. And with the rising costs of tuition, a median household would need to save \$100 every month from their child's birth to cover just one year at Duke University – assuming there are no tuition increases for the next 18 years.

The good news is that there are behavioral principals that we can use to address these barriers:

1. **Reward Substitution:** When the benefits of doing an action, like starting to save for retirement or college, come so much later, behavioral science suggests adding an immediate reward. A classic example of this is toothbrushing. Daily brushing has huge long-term benefits for your health – but it wasn't until Pepsident added mint to their toothpaste that the habit really took off. The tingle and fresh feeling were immediate rewards for taking care of your dental health.

We partnered with St. Louis' Office of Financial Empowerment to see if we could encourage college savings by making the benefits more immediate. St. Louis's program, like many, already had cash incentives, all of which were deposited into the account, where they would sit and grow for the next 12 years. Together, we redesigned their existing incentive structure: 1) we rewarded the behavior of signing up for recurring transfers rather than making a deposit; 2) we gave them half of the incentive in the form of a cashback reward that they could use and spend today; and 3) we moved to a larger, lottery-style reward for active savers. We found that this new incentive structure did not get more people to start saving, but the cashback reward did increase how much and how often people saved. Parents in our treatment group had saved over 2x more than the control group over the 10 months of the pilot. Read the full case study on [page 103](#).

We partnered with Ascensus, a record-keeper that partners with states to administer retirement and college savings programs, to see if we could get employers to register their employees for a State Facilitated Retirement Plan. We tried a variety of messages but found that the most effective was a formal compliance email that increased the sense of immediate consequences. The email increased the percent of employers registering their employees by 11.6 percentage points, compared to the control. Read the full case study on [page 106](#).

2. **Goal-Gradient Theory:** Showing progress on goals can give us the illusion of greater urgency to complete the goal. In the same way that coffee punch cards can accelerate coffee purchases and our punch card with Community Empowerment Fund help savers who were homeless or in transitional housing reach their savings goals, we wanted to see if a tangible and durable reminder of our progress would be effective for longer-term savings goals.

In partnership with San Francisco's Kindergarten2College program, we created a progress tracker to be included in the K2C welcome packet received by over 23,000 parents. The tracker had some dots already filled in to demonstrate progress and instructions to place it on the fridge and continue tracking their deposits. The team is still analyzing the data. Read the full case study on [page 109](#).

3. **Implicit Recommendations:** There are potentially many ways to reduce the sense of doomed failure on building long-term savings. One way is to change the target from "save for retirement" to "sign up for your State Facilitated Retirement Program," or from "save for your child's college" to "claim the \$100 seed deposit by opening your account." The achievability of the newly framed goal can then be emphasized through implicit and explicit recommendations. The two most powerful implicit recommendations in the behavioral scientist's toolkit are defaults and social proof. Social proof is the concept that we take cues from others on what is the right thing to do – i.e. implicit recommendation.

We worked with OregonSaves, a state-sponsored retirement program facilitated by the Oregon State Treasury, to explore how we might use a simple decision-aid with implicit recommendations to encourage enrollment in the program. We showed multiple participant profiles, explaining that each enrolled and why. The most effective version of the decision-aid increased participation by 3%, which, at scale, would lead to nearly 180,000 more people saving for retirement. Read the full case study on [page 111](#).

To understand how recommendations might increase college savings, we worked with Pennsylvania Treasury and Propel, a fintech company that operates Fresh EBT, a free financial services tool to help low-income individuals manage their EBT SNAP benefits. We tested

a combination of source of recommendation, Propel vs. another SNAP recipient, and logo, PA Treasury plus Keystone Scholar vs. just Keystone Scholar. We found that the trusted authority (Propel) paired with the less formal logo (Keystone Scholar) was the most effective combination at getting PA residents to take the first step in saving for their child's college. Read the full case study on [page 118](#).

Read on for a deeper dive into case studies for each of these projects.

ST. LOUIS OFE

PROJECT TYPE

PARTNER COHORT

PROJECT STATUS

Field study

2018

Completed

IS THERE A BETTER WAY TO OFFER INCENTIVES FOR COLLEGE SAVINGS?

BACKGROUND

Financing a child's college education is increasingly difficult, especially for low- and moderate-income families. The [rising cost of attending college has outpaced inflation](#) for the past three decades, meaning college has never been more expensive. Child Savings Accounts (CSAs) offer families a vehicle for families to start saving for their future education and, perhaps more importantly, set expectations and foster a college-bound identity.

While effective, encouraging parents to save for their child's future college is notoriously hard. Enrollment rates and account usage tend to be quite low, despite how many people for whom they would be beneficial. This year, we continued our partnership with [St. Louis Office of Financial Empowerment \(OFE\)](#) to explore how we might encourage greater numbers of families to open and save in a CSA.

HYPOTHESIS AND KEY INSIGHTS

Encouraging families to save with a child savings account poses several particularly challenging issues to grapple with:

- » People often struggle to think about and save for their future selves – there is high psychological distance to our future selves. In child savings, this disconnect between now and our futures is even greater because the future savings are for another person (the child).

- » People are particularly unmotivated to engage in activities where the future benefits are ambiguous. This is especially relevant for college savings, where individual deposits have such a limited impact on the future. A child attending college is the collection of multiple actions in concert and not solely dependent on savings.
- » Making multiple, one-off payments is a difficult process. A person either needs to go into branch or they have to navigate often complicated online interfaces; both of these methods require non-trivial amounts of logistical and cognitive effort.

EXPERIMENT

While our previous work focused on smaller tweaks to communication, we wanted to focus on larger, more structural changes. Most CSAs offer some amount of a match as an incentive to encourage deposits. We thought that the incentives of the match could be designed to be more behaviorally effective and worked with the St. Louis OFE to re-design the incentive structure for the CSA accounts.

The new system emphasized recurring contributions, since automated savings is less onerous than making large lump sum deposits and will continue beyond the initial set-up behavior. If someone sets up a recurring transfer under the new incentives, they received \$50 cashback immediately to spend on personal expenses. After they have completed six direct deposits, or an equal number of individual deposits, another \$50 would be contributed to their child's college savings account.

On top of the cash reward, the system utilized a "regret-lottery" rewards program, where the winner is drawn at random but only individuals who have already signed up for an automatic deposit or have contributed a one-time deposit can claim the prize. The prize for individuals who have automatic deposits set up is larger than the prize for one-time depositors. When a person won, but had not set up a direct deposit or made any deposit, they were given two months to do so in order to claim half of the prize.

We tested the new incentive structure through a randomized controlled trial where participants were evenly and randomly assigned into one of the three groups shown to the left.

Control condition

Participants continued with last year's incentive scheme (a direct match for everything they save up to \$100).

Liquid reward incentive

Participants were offered \$50 cashback immediately to set up a recurring contribution to the account and got another \$50 in match after six deposits.



Incentive with an added lottery

In addition to the new incentive scheme, all participants were entered into a "regret" lottery where a winner could only claim the winning if they had automatic deposit or had made at least one one-time deposit.



RESULTS

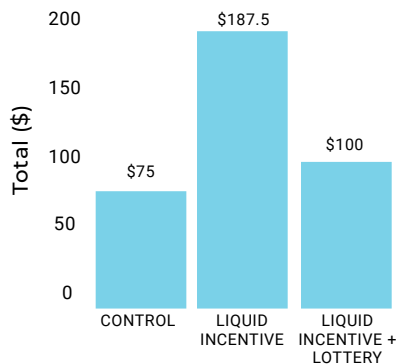
Starting in December of 2018, we implemented the new incentives structure across all 53 schools in the College Kids program in St. Louis and across approximately 2,500 children.

We found the new incentive structure did not appear to lead to more families to contribute to the child’s college savings account. However, the analysis indicated that the new incentives encouraged families to save more often and more when they saved. When looking only at families who contributed at least once to the savings account, we saw the families offered the new incentives tended to save more in total. The ‘savers’ made significantly more deposits into their accounts than the control and the total size of their deposits were marginally greater.

Taken together, the new incentive structures did not significantly influence families to start saving into the college savings account, but the intervention did lead to increased overall dollar amounts contributed into the account and the number of deposits made by the families. The number of families who made any deposit remains relatively small, but we believe that over time the families who contribute are more likely to create lasting savings behaviors that can lead to increased total savings in preparation for college.

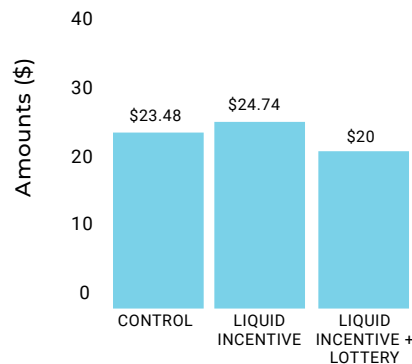
Median total contribution amongst saving families

There is a marginally significant difference in total contributions between the control and the liquid incentive group, but no difference with the savers in the added lottery group.



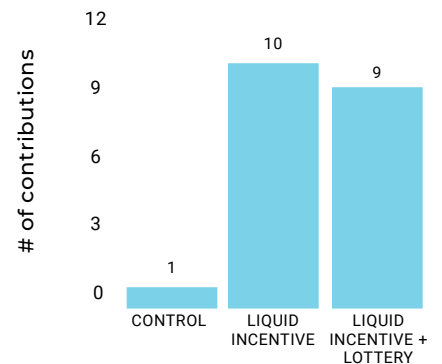
Median contribution amounts amongst saving families

Savers in the added lottery group saved significantly less ($p < 0.05$) than savers in the other two conditions.



Median contribution counts amongst saving families

Savers receiving either of the interventions made significantly more contributions to the account than those in the control ($p < 0.001$).



ASCENSUS

PROJECT TYPE

PARTNER COHORT

PROJECT STATUS

Field study

2019

Completed

CAN REMINDERS HELP EMPLOYERS REGISTER THEIR EMPLOYEES FOR STATE-FACILITATED SAVING PLANS?



Many states are considering similar kinds of SFRPs. Currently, Oregon, Illinois, and California have programs in market.

BACKGROUND

Evidence has shown that the most effective way to get people to save for retirement is by automatically saving part of each paycheck. Unfortunately, many Americans with part-time jobs or that work for small businesses do not have access to employer-based retirement benefits. An increasing number of states are offering state-facilitated retirement plans (SFRPs), which allow employees to set up payroll deductions for retirement savings. [Ascensus](#) partners with states to provide record-keeping, administrative, and support services not only for the newly emerging SFRPs, but also for a range of retirement and college savings programs.

While SFRPs have increased access to retirement savings, that access depends on employers completing registration, setting up accounts for the program, and sending employee payroll data. Many employers are slow to do so or they never finish the process. Without employer action, employees lose out on the ability to use the SFRPs. We partnered with Ascensus and the OregonSaves program to explore how to encourage employers to finish the registration and account set up process.

HYPOTHESIS AND KEY INSIGHTS

To better understand what might prevent employers from completing the registration and account set up process, we began by detailing the steps

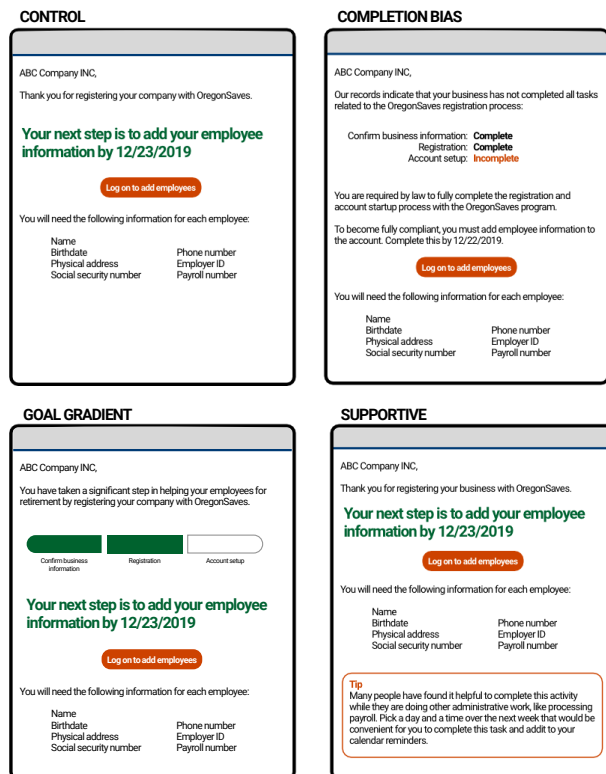
they must take in a behavior map.

We then further developed the map by undertaking a diagnosis of the online portal and by having Ascensus take us through the process. That diagnosis highlighted two barriers that we believe to be especially important:

- » The account registration and the account set up are two separate processes. Employers might feel they are done with the process when in reality they have only done the first step and still need to upload employee information.
- » Employers have many things that they are managing at once and many of them need a nudge to complete the employee registration process. Even though the process is something they are required to do, they may forget, and the frictions in the process make it easy for them to procrastinate and put off completing the process.

EXPERIMENT

We decided to focus first on employers that had registered, but not yet added employee information, in the OregonSaves SFRP. Those employers were split into four treatment conditions, corresponding to four versions of an email reminder.



A **control reminder** reminding the employer of the next steps to complete the process; this information is provided in all reminder conditions.

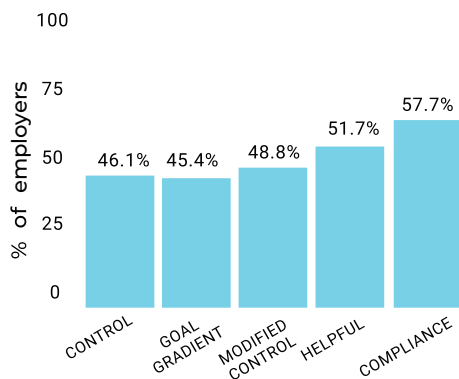
A **goal-gradient reminder** highlighting actions that have already been completed by the employer and showing just one action left.

A **supportive reminder** providing a planning "tip" to tie adding employee information to other administrative tasks and emphasizing the support available to employers to complete the process.

A **completion-bias reminder** emphasizing the mandate to provide the SFRP to employees and showing the final step of account setup as incomplete.

PERCENTAGE OF EMPLOYERS ADDING EMPLOYEE INFORMATION

Adopting a compliance frame highlighting incomplete information led to an 11.6% increase in probability that an employer would add employee information to the portal ($p < 0.001$.)



RESULTS

Reminder emails were sent to just over 6,000 employers. Our analysis found that the compliance framing was the best performing email to encourage employers to add employee information. Switching from the control version to the compliance version led to an 11.6% increase in the probability of adding employee information to the portal ($p < 0.001$).

Employers also responded the fastest to the compliance email. Approximately 32% responded within the first week, the highest proportion of the emails we tested. The average amount of time decreased by about 8.6% ($p = 0.14$). The helpful framing may have been slightly more effective than the control, but it also may have led to employer taking more time to finish the payroll.

In total, we estimate that across the 6,000 firms our experiment reached around 30,000 employees and that the increase in firms adding their employees' information led to approximately 1,100 individuals having access to retirement savings through their employer.

Kindergarten 2 College

PROJECT TYPE

PARTNER COHORT

PROJECT STATUS

Field study

2018

Completed

DOES PROGRESS TRACKING INCREASE COLLEGE SAVINGS DEPOSITS?

BACKGROUND

Research has shown when low- and moderate-income students have even a little money saved for college, they are over three times more likely to enroll and four times more likely to graduate than students with no savings. Further, research from the SEED for Oklahoma Kids Experiment demonstrates that offering automatic enrollment can ensure that nearly everyone has access to a savings account.

The San Francisco Kindergarten to College (K2C) Program is a college savings program run by the City and County of San Francisco in partnership with the San Francisco Unified School District (SFUSD). The K2C program automatically opens accounts for each SFUSD student entering kindergarten or a participating program year. Each account starts with \$50 and families have the opportunity to earn an additional \$90 in incentives over the year. This incentive structure makes it easy for families to save \$200 in college savings by making six \$10 deposits (although any level of deposit and interaction with the account is encouraged).

Even still, many families do not take advantage of the incentives offered through their K2C account. We partnered with San Francisco Kindergarten to College program (K2C) to try to increase participation and deposits in the K2C program. While all children receive an account, not all parents are aware of the program.

HYPOTHESIS AND KEY INSIGHTS

We began by conducting a behavioral diagnosis to identify the channels that K2C connects with eligible parents, which includes K2C's Welcome

Letter to parents. We learned that K2C's opportunities to remind parents of the program and their ability to encourage them to make deposits are primarily communicated via a letter at the beginning of the school year. This letter is distributed to new children enrolled in grades K - 6 in the San Francisco Unified School District. Previous studies by the Common Cents Lab have shown this delivery-by-backpack method to be effective in increasing savings rates.

We focused the majority of our efforts on optimizing the initial letter. There were primarily two behavioral insights that informed our design.

- » Previous work we conducted showed that savings reminders lead to more savings deposits.
- » Applied research conducted by Common Cents Lab and other lab research suggests that showing progress increases the likelihood of goal competition.

EXPERIMENT

We hypothesized that making savings progress salient would provide reminders to save. We designed two versions of the welcome letter and randomly assigned parents to receive one version.

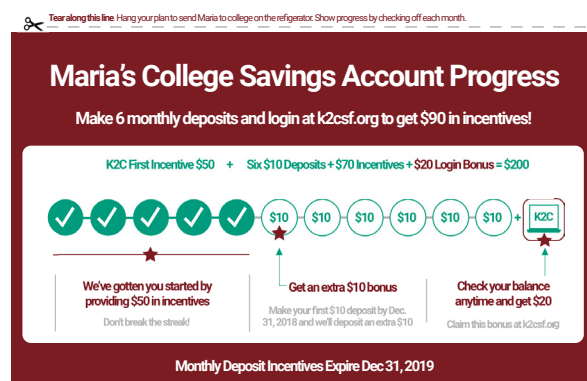
Informational Control

Parents were informed of the additional incentives they could receive by logging into the account and making additional deposits.



Progress Tracker

Parents were given the same information as the control, along with a progress bar to depict their deposits and a prompt to tear it off the progress bar and place it on the fridge.



RESULTS

The letters were distributed throughout 2019 to over 23,000 students in the San Francisco Unified School District (the only school district in San Francisco). The data collection period has ended, and the team is in the process of gathering enrollment and savings data.

OREGONSAVES

PROJECT TYPE

PARTNER COHORT

PROJECT STATUS

Field study

2018

Completed

DO NARRATIVE DECISION AIDS ENCOURAGE RETIREMENT SAVINGS?

BACKGROUND


People are unlikely to save for their future when they are unable to automatically contribute to a retirement savings account through their paycheck. Unfortunately, this is the reality for millions of people who work at small businesses, who have part-time jobs, or who are otherwise excluded from the traditional employer-based retirement savings system. In 2017, Oregon introduced OregonSaves as a way to address this issue. OregonSaves is a retirement savings option for employees in the state who did not have the option to save through their employer.

All employees are automatically given access to the account and they free to opt-out if they choose to do so. Even with automatic enrollment, the OregonSaves program looks to maximize employee participation to ensure the program helps as many people in the state of Oregon to start saving for retirement. We partnered with OregonSaves to explore how we might encourage more employees to start saving with the program.

HYPOTHESIS AND KEY INSIGHTS

A lot of work has already been done to understand why people often struggle to save for the future, but we wanted to understand how these barriers might prevent people from doing so within this specific context.

We began by conducting in-depth interviews with individuals in Oregon who would be eligible to enroll. We complemented these interviews by creating a behavior map that documented the timing and format of each interaction the program has with a potential saver. Lastly, we conducted a series of survey-based experiments to understand how people perceived and



One way to make saving a little easier is to simply make savings automatic. When we don't have to think about it, saving is less painful.

understood the OregonSaves program. Three barriers emerged as especially relevant:

- » Many people who are eligible for OregonSaves want to feel in control of their money and often aren't comfortable sacrificing short-term liquidity, even when they could save small amounts.
- » Some people are wary of a program managed by the government. This was not the case with everyone we spoke with, but some felt the state had mismanaged other things in the past like state pensions.
- » Many people felt torn about enrolling because they would like to save but they aren't sure if they are able to or if this is the right time to save. People look for cues, especially cues from how other people behave, as to what they should do when they are uncertain or unfamiliar with something.

EXPERIMENT

We hypothesized that by providing timely program information that addresses important barriers to enrollment and presents that information as vignettes might shape people's early impressions of the program and might send an implicit, social recommendation to enroll.

To test this hypothesis, we designed and embedded a decision-aid into the introductory email that is sent to eligible employees. Starting in May, two groups of employees randomly received emails one of two different decision aids while a third group received an email with an informational decision aid.

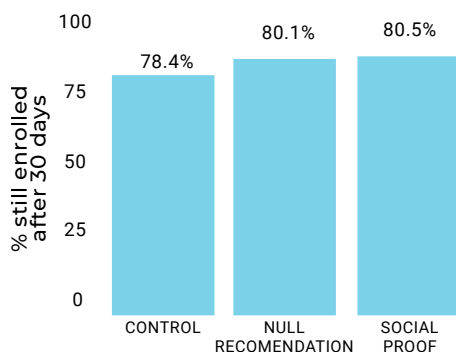
Null recommendation decision aid

Social proof decision aid

Null recommendation decision aid				Social proof decision aid			
Worried that you can't afford to save?	Worried about debt like a payday loan?	Worried about changing jobs soon?	Worried that it's too late to start saving?	Worried that you can't afford to save?	Worried about debt like a payday loan?	Worried about changing jobs soon?	Worried that it's too late to start saving?
Patricia was too. Is she enrolled?	Josh was too. Is he enrolled?	Madeline was too. Is she enrolled?	Gustavo was too. Is he enrolled?	Patricia was too. Is she enrolled?	Josh was too. Is he enrolled?	Madeline was too. Is she enrolled?	Gustavo was too. Is he enrolled?
<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input checked="" type="checkbox"/> Yes	<input checked="" type="checkbox"/> Yes	<input checked="" type="checkbox"/> Yes	<input checked="" type="checkbox"/> Yes	<input checked="" type="checkbox"/> Yes	<input checked="" type="checkbox"/> Yes
Between bills and supporting her family, the idea of saving just felt out of reach for Patricia. But OregonSaves lets her save to meet her needs, as little as 1% of her paycheck. She can also access her savings if something comes up. She can even stop saving if she wants, which makes the choice to start saving less stressful.	Josh took out a payday loan a couple of months before and was struggling to repay it. He decided that his savings were better spent repaying that high-interest debt. Balancing high-interest debt and saving for the future can be difficult. Fortunately, Josh can start saving with OregonSaves as soon as he is ready.	Madeline was switching careers when she was offered a chance to start saving. Fortunately, the OregonSaves account is portable, meaning she can easily take her money with her when she starts her new job. Her account can also be rolled into another Roth IRA.	Gustavo had put off saving for retirement for years. When OregonSaves came along, he felt bad at first that he hadn't started when he was younger. It is never too late to start saving. Gustavo decided to give it a shot anyways. Even if he puts away just a little bit, that can be a big help later.	Between bills and supporting her family, the idea of saving just felt out of reach for Patricia. But OregonSaves lets her save to meet her needs, as little as 1% of her paycheck. She can also access her savings if something comes up. She can even stop saving if she wants, which makes the choice to start saving less stressful.	Josh had taken out a payday loan a couple of months before and was struggling to repay it. With OregonSaves he could start saving when he was ready. Balancing high-interest debt and saving for the future can be difficult. After Josh repaid his loan, he was able to start investing in his future.	Madeline was switching careers when she was offered a chance to start saving. Fortunately, the OregonSaves account is portable, meaning she can easily take her money with her when she starts her new job. Her account can also be rolled into another Roth IRA.	Gustavo had put off saving for retirement for years. When OregonSaves came along, he felt bad at first that he hadn't started when he was younger. It is never too late to start saving. Gustavo decided to give it a shot anyways. Even if he puts away just a little bit, that can be a big help later.

PERCENTAGE OF POTENTIAL SAVES STILL ENROLLED

The narrative decision aids encouraged significantly more potential savers to stay enrolled with the OregonSaves program.



RESULTS

In total, 10,292 employees received emails as part of the experiment. We tracked whether the participant remained enrolled or chose to opt-out of the program after 30 days. We also examined enrollment patterns across different age groups.

We saw that 78.4% of individuals who received an informational decision aid stayed enrolled in the program. Savers who received either of the experimental decision aids were significantly more likely to remain enrolled in the program, with enrollment increasing to 80.1% and 80.5%. After controlling for age, the difference in enrollment rates among individuals receiving the null recommendation decision aid was marginally significant. Individuals receiving the social proof decision aid were still significantly more likely to participate in the program after 30 days.

While an increase of 1.68% and 2.11% seem relatively small, they still carry dramatic impact. This intervention would encourage more than 100,000 individuals to start saving for their retirement when scaled to the full, eligible population served by OregonSaves.

Savers who received either of the experimental decision aids were significantly more likely to remain enrolled in the program, with enrollment increasing from 78.3% to 80.1% and 80.5%.

RELATIVITY AND INVESTMENT RISK

PROJECT TYPE

PARTNER COHORT

PROJECT STATUS

Exploratory

-

Completed

ARE OUR PREFERENCES FOR RISK DEPENDENT ON RELATIVE CHOICES?

BACKGROUND

When people enroll in a retirement plan, inevitably they will be asked to choose a “style” of investing that reflects their comfort with investment risk. Most commonly, this experience comes in the form of selecting from set of portfolios labeled as “Conservative,” “Moderate,” or “Growth.” Their selection is linked with an underlying blend of equity, bonds, and other investments that are intended to match their preferences.

Figuring out our own preference for risk is not straightforward and, unfortunately, people often end up selecting a set of investments that are not ideal. Young investors construct a portfolio that is too cautious. Investors over-correct the portfolio to adjust for recent changes in the market. In the end, people rely on a range of heuristics and mental shortcuts to estimate how much risk they want in their investments, which can lead to suboptimal decision making about their long-term savings.

This project specifically explores what role the choice architecture related to the presentation of investment portfolios plays in creating a mismatch between risk and individual tolerance for risk.

HYPOTHESIS AND KEY INSIGHTS

We hypothesized that people’s investment choices and risk preferences are, in part, shaped by the relative comparisons that they could make. Most people don’t know how evaluate choices independently; they need to evaluate them within the context of alternatives.

Relative comparison plays an important role in how we as consumers evaluate and make financial decisions.

Just as one example, [prior research](#) demonstrates that changing the choice set to include a “decoy” can shift people’s preferences. People are more likely to purchase options that are similar, but superior to the decoy choice even when they were more purchase a different option before the decoy choice was added.

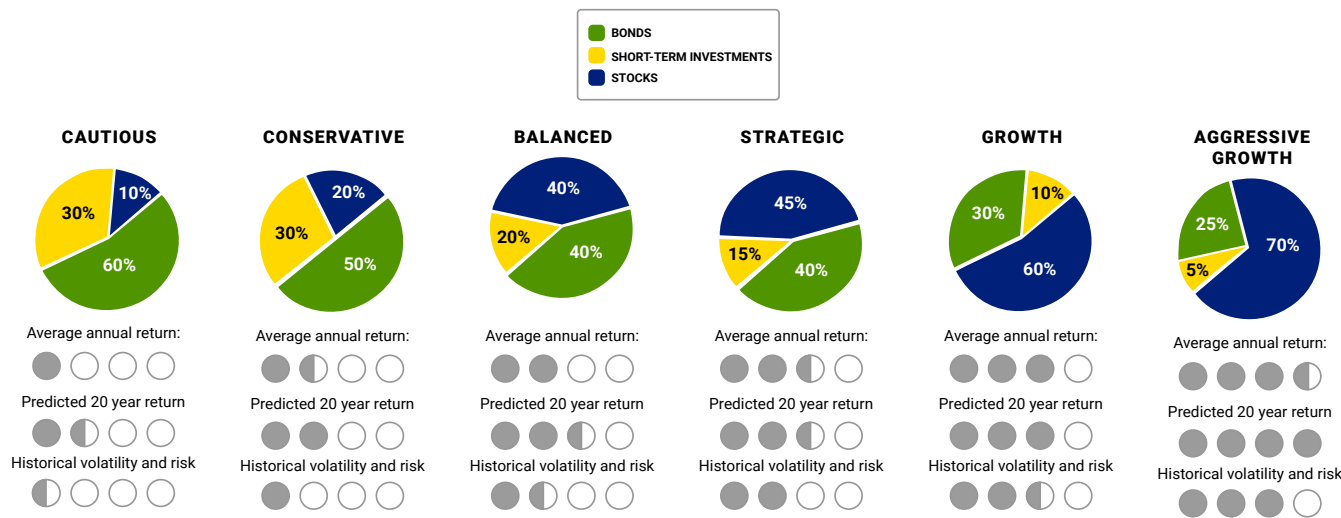
EXPERIMENT

In this experiment, we randomly assigned 605 respondents into three different “investment portfolio” conditions. In each condition, they were shown a set of four investment portfolios and asked to select the portfolio that they would be most likely to invest in if they had the chance to do so.

The portfolio sets varied for each condition based on the distribution of risk and return across the four investment portfolios:

Experimental sets of investment portfolios

Survey respondents were randomly shown one of three different sets of the investment portfolios below. Each set had four potential portfolios, but varied by the distribution of risk and return: The “Low-risk” set skewed towards lower risk/return investments, while the “High-risk” skewed in the opposite direction.



Low-risk portfolio: Cautious, Conservative, Balanced, Strategic

Even-risk portfolio: Conservative, Balanced, Strategic, Growth

High-risk portfolio: Balanced, Strategic, Growth, Aggressive Growth

RESULTS

We started our analysis by coding each portfolio 1-4, in terms of risk and reward within a specific choice set. So while the “Balanced” portfolio was coded as a “3” in the low-risk choice set, it was coded as a “1” in the high-risk choice set. If people were sensitive to changes in risk, we would expect the average risk of selected portfolios to change as the overall distribution of risk skewed in one direction of the other.

We see that respondents made investment selections that reflects a sensitivity to risk -- the average risk of the selected portfolios significantly decreases between the low-, even-, and high-risk choice sets ($p < 0.001$). For example, participants shown the low-risk choice set would select the portfolio with highest risk and return in the choice set, indicating a preference for more aggressive investments.

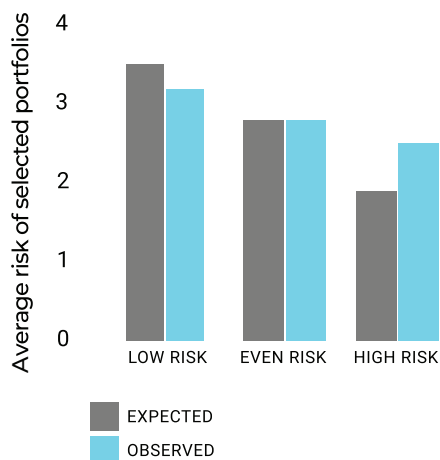
We then used the average responses from all three conditions to create an “expected” distribution of selections across all six portfolios. Then, we predicted how many people would select each of the portfolios when presented a particular choice set. If people selected investment portfolios independent of the choice set, the observed distribution would match the expected distribution.

We saw that this is not the case. Although respondents did shift their selections in ways that were sensitive to risk, they did not shift as much as expected. Respondents shown the low-risk choice set selected, on average, significantly less risky portfolios than expected ($p = 0.001$). Respondents shown the high-risk choice set selected significantly riskier portfolios than expected ($p < 0.001$).

This differences may have been driven by the naming conventions used to label each of the investment portfolios. Even still, the analysis provides evidence that people’s preferences for and tolerance of risk is not static but instead informed by cues and influences in the surrounding context.

AVERAGE RISK OF SELECTED INVESTMENT PORTFOLIOS

Across the distribution, the observed selections were marginally different from expectations ($p = 0.097$). Both the differences in between the expected and observed average risk of the selected portfolios for the low risk and high risk choice set differed significantly ($p = 0.001$, $p < 0.001$).



PENNSYLVANIA TREASURY & PROPEL

PROJECT TYPE

PARTNER COHORT

PROJECT STATUS

Field study

2018

Completed

DO ENDORSEMENTS CHANGE HOW PEOPLE VIEW A CSA PROGRAM?

BACKGROUND

Many public programs like 529 programs struggle to strike a comfortable balance between their proximity to a sponsoring governmental agency and program independence. Concerns about trust and credibility are at the heart of this discomfort: on one hand, programs feel pressure to create a distinct brand. Some programs may even want to intentionally distance themselves from negative perceptions of government that may spillover to affect program participation. On the other hand, government agencies inherently offer a degree of legitimacy and recognition that an independent program is unlikely to have.

We started exploring this question in our previous partnerships with the [Keystone Scholars](#) program, a CSA offered by the Pennsylvania Treasury, and with [Propel](#), a fintech company that helps low-income individuals manager their EBT SNAP benefits through their Fresh EBT tool. Our [previous work](#) found that advertisements that jointly displayed both the program logo and the Treasury logo together were the most effective at driving interest. We extended this work over the last year by testing whether visual and text endorsements from varying sources could further bolster perceptions of credibility and trustworthiness of programs.

HYPOTHESIS AND KEY INSIGHTS

To better understand how people perceived the Keystone Scholar branding, we first conducted qualitative work with mothers in Pennsylvania. During those interviews, we presented the mothers with the current Keystone Scholars marketing communications and solicited their reactions.

- » The Keystone Scholar program communications that used bolder and more eye-catching branding were less well received. Some mothers had reservations about the program and worried that an offer for \$100 from an unknown brand might be too good to be true.
- » When the communications showed that the Keystone Scholar program was part of the PA Treasury, it was viewed differently than when it was presented by itself. The people we interviewed often were unsure of what to make of the Keystone Scholar program. Including the connection to Treasury provided a cue for how to think about the program and shaped their initial impression of the program.

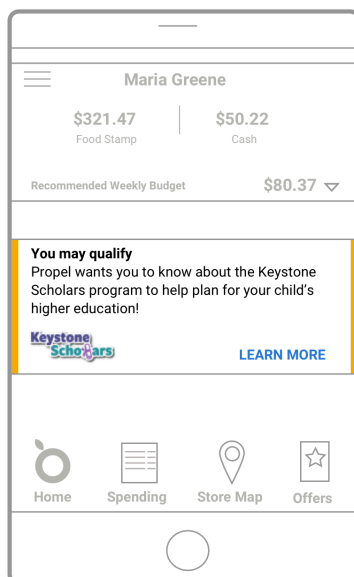
EXPERIMENT

Given the importance of these contextual cues in shaping perceptions of credibility and trustworthiness, we wanted to continue iterating and refining the communications between the PA Treasury and families. Drawing on past research, we thought that including an endorsement from a trusted source or a personal testimonial would be effective in increasing perceived trustworthiness and credibility.

To test our hypothesis, we randomly presented Propel users eligible for the Keystone Scholar program with one of three different advertisements.

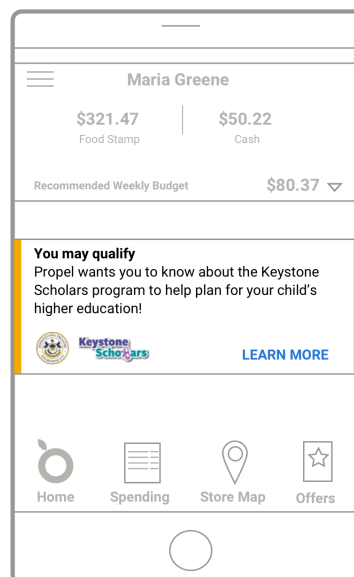
Condition A

An advertisement presented with only the Keystone Scholars logo and a Propel endorsement.



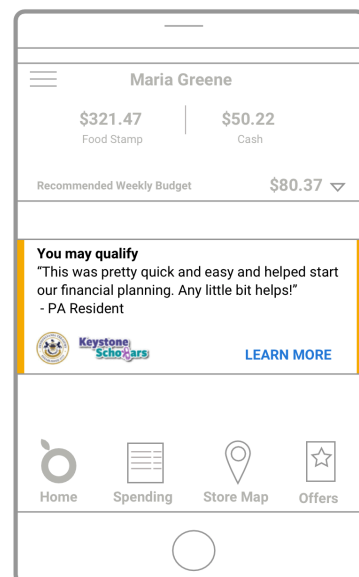
Condition B

An advertisement presented with a combination logo and a Propel endorsement.



Condition C

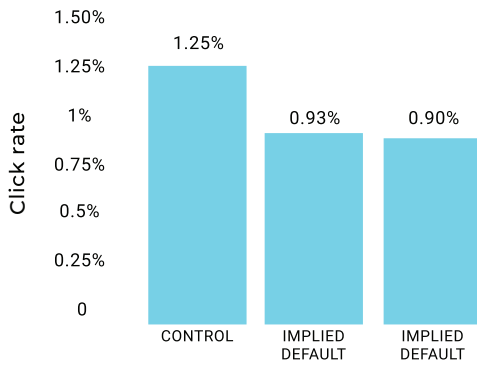
An advertisement presented with a combination logo with a personal testimonial.



1

PERCENTAGE OF CLICKS FROM UNIQUE IMPRESSIONS

Users that were shown an advertisement with Propel's recommendation and just the Keystone Scholars logo were significantly more likely to click to learn more.



RESULTS

We tracked which of the three advertisements was the most enticing to users by measuring unique clicks on the advertisement. Our analysis found that a significantly higher percentage of users expressed interest in the program when they were shown only the Keystone Scholars logo with a Propel endorsement. There is no significant difference between the other conditions.

The analysis shows that individuals' perceptions of how trustworthy or beneficial a program is can be shaped by contextual cues. Ultimately, we hope that increasing perceptions of trustworthiness increases interest so that more families participate in the program. Propel will continue displaying the successful advertisement for Keystone Scholars moving forward.

SELF-HELP CREDIT UNION

PROJECT TYPE

PARTNER COHORT

PROJECT STATUS

Field study

2017

In design

CAN WE USE LIMITED CHOICE AND LOSS AVERSION TO JUMPSTART RETIREMENT SAVINGS?

BACKGROUND

Like many Americans, many Self-Help Credit Union (SHCU) members are not currently saving for retirement. If you work a low-wage job, a part-time job, or if you are self-employed, you are more likely to not have access to a retirement savings option at work. According to the Bureau of Labor Statistics, just about a third of the lowest wage earners had access to a retirement program at work.

As a Community Development Financial Institution (CDFI), SHCU is a financial service provider that is focused on community development and creating access to services in historically excluded communities. In keeping with their mission, SHCU decided to address this issue among its members by creating a Retirement Savings Account (RSA) that serves as a substitute for traditional employer-based retirement plans.

A member's RSA is funded using automatic contributions from checking deposits and contains a free \$100 for all members who do not close the account or withdraw from it in the first year. In previous studies with Self-Help Credit Union, we saw approximately 36% of members enrolling in the RSA and over 24% of members maintaining active accounts during the period of observation. Across both experimental groups, members cumulatively saved over \$25,000 for retirement during our intervention.

We first partnered with Self-Help Credit Union in 2017 to help design how the initial account was structured and offered to members that were not

currently saving for retirement. This year, we continued that partnership by working with SHCU to rollout the RSA to more branches and to design the next iteration of the RSA to test in 2020.

HYPOTHESIS AND KEY INSIGHTS

The RSA is designed to allow members to save for retirement automatically just like a payroll-based retirement savings program. After a RSA is established for a member, savings will accumulate effortlessly and without much thought. However, to enjoy the benefits of the RSA, members must first overcome the hurdle of deciding to sign up.

There has been a lot of previous work on why individuals tend to under-save for the future and may not sign up for the retirement account:

- » People [often find it difficult](#) to think about the future value of decisions that they make today. Instead, they tend to overvalue things in the short-term over later rewards, even if the short-term value is considerably smaller. When they are weighing the costs and benefits of enrolling for a new retirement savings plan, members may undervalue the long-term benefits they would receive.
- » Members are likely to be unfamiliar with the new RSA. When forced to make a decision about a product with incomplete information or in an uncertain environment, [people intuitively look for contextual cues](#) to make sense of the new product and to decide if it's a good idea or not.

EXPERIMENT

We initially designed an experiment to test which version of the RSA prototype would lead to the greatest uptake and retirement savings for SHCU members. The most successful condition from the first iteration of the RSA presented members a limited choice with defaults. The next iteration will carry forward this success while extending the intervention in two ways that encourage signup using the behavioral science principles of loss aversion.

Both of the new conditions involve a printed graph which shows projected earnings for retirement using the RSA. In both conditions, projected earnings will be displayed for 3%, 6%, and 10% contributions.

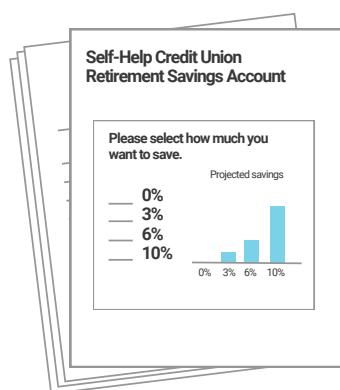
RESULTS

This experiment is currently in design and will launch in Q2 of 2020.

Condition 1

Limited choice with earnings graph

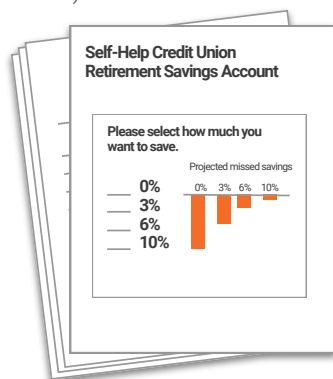
In the limited choice with earnings graph condition, members will see these projections presented as earnings (what they could stand to gain from enrolling in the RSA).



Condition 2

Limited choice with losses graph

In the limited choice with losses graph, members will see those projections presented as potential losses (what they could miss out on by not enrolling in the RSA).



THE END

Whew... you made it!

We hope you learned a little about what works and also what doesn't. We hope this sparked some curiosity and some ideas in your own life and your own work. And most of all, we hope you enjoyed reading this!

Want to learn even more & hear what we're doing next?

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