

COMMON CENTS LAB END OF YEAR 2016 REPORT



ABOUT

About Common Cents

Common Cents, supported by funds from MetLife Foundation, 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. Common Cents is comprised of researchers and experts in product design, economics, psychology, public policy, advertising, business administration, and more. The lab is led by famed Behavioral Economics Professor Dan Ariely. Dan has written three New York Times best-sellers, including Predictably Irrational.

To fulfill its mission, Common Cents partners with organizations, including fin-tech companies, credit unions, banks and nonprofits, that believe their work could be improved through insights gained from behavioral economics.

To learn more about Common Cents Lab visit www.commoncentslab.org.

About MetLife Foundation

MetLife Foundation was created in 1976 to continue MetLife's long tradition of corporate contributions and community involvement. Since its founding through the end of 2016, MetLife Foundation has provided more than \$744 million in grants and \$70 million in program-related investments to organizations addressing issues that have a positive impact in their communities.

Today, the Foundation is dedicated to advancing financial inclusion, committing \$200 million to help build a secure future for individuals and communities around the world.

To learn more about MetLife Foundation visit www.metlife.org.



LETTERS TO THE READER

Dear readers,

Common Cents Lab launched January of 2016 with the mission and mandate to increase the financial well-being of America's low to moderate income. Our core thesis of impact is to use behavioral insights to design the systems that shape our financial decision making.

How should we do this?

We decided from the start that we would try a variety of ways to accomplish this. We recruited different types and sizes of financial organizations: fin-tech, credit unions, and nonprofits. We did research in the lab and built our own prototypes to test assumptions. Some things didn't work. Many things did work. We increased Americans' rainy day fund, helped people pay down debt faster, extended the length of time food stamps last and put more from check cashing into savings accounts.

We also found a positive trend. There are a select and innovative group of financial organizations who not only want to use behavioral insights to strengthen their financial well-being mission but who are also passionate about rigorously testing these interventions, measuring impact and publicly sharing the results. While the financial world has it's handful of bad actors, we found there are a lot of good actors working to make people better off. As we reflect on the previous year, we believe this is a very uplifting finding for America's financial well-being outlook in 2017 and beyond. There is still a lot of work to do, but it feels a bit more feasible with the help of these innovators.

Sincerely,

Leadership team of Common Cents

Dan Ariely, Mariel Beasley, Kristen Berman, Wendy De La Rosa

Dear readers,

MetLife Foundation is pleased to support the work of Common Cents Lab.

Our Foundation focuses its global grant-making on improving the ability - and willingness - of low and moderate income people to use financial services to successfully navigate life's opportunities and challenges. We work with organizations that provide individuals and communities with actionable solutions with which to build financial stability and well-being.

Outside the U.S., our partners use technology innovations very different from the apps you will read about here: innovation may be something as simple as an SMS savings reminder received on a flip-phone. Some of our partners may meet their clients in open-air markets rather than interacting over the internet or in an air-conditioned branch. But, the one thing that's common the world over is that these customers – market traders, barbers, entrepreneurs or rickshaw or taxi drivers – all share the same kind of dreams for their families. They want healthy lives, good education, a safe place to live, a growing business and a secure old-age. And, they need financial services and tools that are affordable and convenient to use to help them achieve their goals.

Common Cents Lab's work is all about people. This report, which focuses on the U.S., strives to understand what drives people to achieve their goals and seeks insights into barriers and motivations in meeting those goals. Whether your customers are using flip phones or smart phones, saving at a rural micro-finance bank or a modern credit union –this report will shed new light on those key human motivations that are helping hundreds of thousands of people use financial services to meet their goals. You may find yourself re-thinking your processes and forms, your marketing materials or your customer service scripts! In fact, you might want to keep this on your literal or virtual desktop - you will want it nearby as a handy reference.

Sincerely,

Evelyn Stark

Assistant Vice President for Financial Inclusion

MetLife Foundation

HOW TO READ THIS REPORT

Hey there!

While we hope some of you sit with a glass of wine (or two) and go from page 1 to page 88 in one sitting, we do realize that some of you may skim.

If you skim, here are 3 recommendations from the authors:

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

Is your company or organization ready to apply behavioral insights to increase the financial well-being of your customers?

- Sign up on CommonCentsLab.org to stay up to date on our latest findings.
- Apply to attend our 2017 conferences.
- If you're part of a larger organization and want to explore a collaboration, please email kristen@commoncentslab.org

**Views or opinions presented in this report are solely those of the author(s) and do not represent those of MetLife Foundation.*

CONTENTS

1// Executive Summary	1
2// America's Financial State	4
3// Our 3Bs Approach	7
4// Improving Cash Flow Management	9
<i>Executive Summary</i>	9
<i>Increasing Deposits Among Check Cashers (Latino Community Credit Union)</i>	12
<i>Managing SNAP (Food Stamps) Efficiently (Propel)</i>	15
<i>Increasing Benefit Applications in New York City (Robin Hood)</i>	20
5// Decreasing Expenses	24
<i>Executive Summary</i>	24
<i>Using Social Proof to Reduce Expenses (Plaid)</i>	27
<i>Regretful Spending (Qapital)</i>	28
<i>Learnings from the Lab (Present Bias)</i>	30
<i>Learnings from the Lab (Marginal Utility)</i>	34
6// Managing Debt	37
<i>Executive Summary</i>	37
<i>Improving Retention and Savings on a Debt Management Plan (GreenPath Financial Wellness)</i>	40
<i>Using Psychologically Satisfying Numbers to Pay Off Loans Faster (EarnUp)</i>	44
<i>Increasing Access to Good Debt (Kiva)</i>	48
7// Increasing Short-Term Savings	52
<i>Executive Summary</i>	52
<i>Increasing Savings at Tax-Time (Digit)</i>	55
<i>Increasing Savings through Loan Payments (Credit Union 1)</i>	58
<i>Creating "Rainy Day Funds" to Increase Short-term Savings (Duke Credit Union)</i>	61
<i>Using Goals to Boost Savings (Community Empowerment Fund)</i>	63
<i>Leveraging "Robo-advisors" to Increase Savings (Retiremap)</i>	66

CONTENTS

8// Increasing Long-Term Savings	68
<i>Executive Summary</i>	68
<i>Framing: Encouraging a Long-term Mindset (Payable)</i>	71
<i>Defaults: Mirroring Workplace Retirement Products (Self-Help Credit Union)</i>	73
<i>Learnings from the Lab</i>	75
9// Dissemination of Research	77
<i>Executive Summary</i>	77
<i>Internal Conferences</i>	79
<i>Webinars</i>	81
<i>Content Publication</i>	83



This page is left intentionally blank.

EXECUTIVE SUMMARY

Common Cents Lab is a financial-decision research lab at Duke University that creates and tests behavioral economics interventions, with the mission of improving the financial well-being of 1.8 million low to moderate income (LMI) persons. We are generously supported by MetLife Foundation.

In the current state of the world, Americans are not financially secure. In a study we conducted with close to 1,000 LMI participants, 36% self-reported having less than \$500 in savings (including retirement savings). Most people in the study did not feel financially secure, yet they had a strong desire to become financially secure. Astonishingly, over 92% of the respondents could list three or more specific actions that they could take to improve their financial security in the next month.

This is what social scientists call the Intention/Action Gap. A person has a big goal, and they may even know what to do to reach this goal, but they predictably fail to take the actions necessary to achieve it. Common Cents Lab bridges the Intention/Action Gap in five core areas where people say they need the most financial help:

- **Improving Cash Flow Management**
- **Decreasing Expenses**
- **Managing Debt**
- **Increasing Short-Term Savings**
- **Increasing Long-Term Savings**

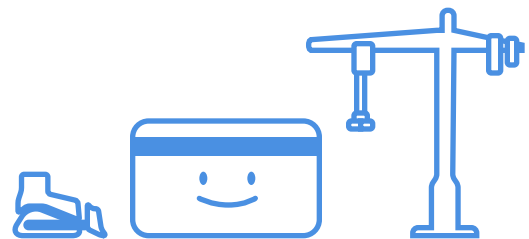
We strive to meet our mission by partnering with financial organizations, creating our own prototypes of financial products, and sharing our insights with the world.

Since our launch in 2016, we've partnered with 17 organizations, including credit unions, fin-tech organizations and nonprofits. Through these partnerships, we designed, tested, and launched eight experiments, with three more set to launch in the next couple of months. In addition, we launched three prototypes of new products into the world, with five more expected to launch in 2017.

Through these partnerships, we've tackled tough questions, such as:

- **How do we get people to save a larger part of their tax refund?**
- **How do we get 1099-workers to save for retirement?**
- **How do we increase the number of eligible people applying for and utilizing SNAP (food stamp) benefits?**
- **How do we get people to increase their saving contributions to their short-term savings accounts, without using cash incentives?**


19 PILOT EXPERIMENTS AND PROTOTYPES IN 2016























The results of this work show that social science can continue to help people make better long-term and short-term decisions for their financial well-being.

In total, we expect that the 19 pilot experiments and prototypes will reach 362,000 people and positively impact 151,500 LMI individuals during the pilot phase. Once these are fully rolled out, we expect that our work will reach 1.3 million people and positively impact 465,000 LMI individuals. Some of the full roll-outs are already underway with four of our partners.

It is important to note that this estimation of our impact does not include any estimates of us expanding our pilot programs to different partners, or any indirect impact we may have obtained from the practitioners who attended our conferences, office hours, or webinars.



  **WHEN FULLY ROLLED OUT, WE**  
  **EXPECT TO POSTIVELY IMPACT**  
  **465,000 LMI PEOPLE**  
       

Looking forward to 2017, we opened up our partnership application process in October and received over 75 applications. After a rigorous screening process, we expect to partner with 15 organizations, including credit unions, fin-tech companies, and nonprofits.

We are extremely proud of the work our team has done in such a short period of time and are poised for exponential growth in the coming years.

AMERICA'S FINANCIAL STATE

It is a well-documented phenomenon that Americans are not financially secure. In recent years, the United States economy has become a two-sided tale, one of hope and one of despair.

The Good

According to the U.S. Census Bureau, in 2015, the median household income rose 5.2% to \$56,516, the poverty rate decreased by 8.9% to 13.5%, and the uninsured rate dropped below 10%. The Center on Budget and Policy Priorities reported that 2015 was the first year that all three of these measurements improved since 1999.

As of October 2016, the unemployment rate has fallen to 4.9%, and the U.S. has had a record-breaking 73-month job growth streak; also, the S&P 500 is at an all-time high.

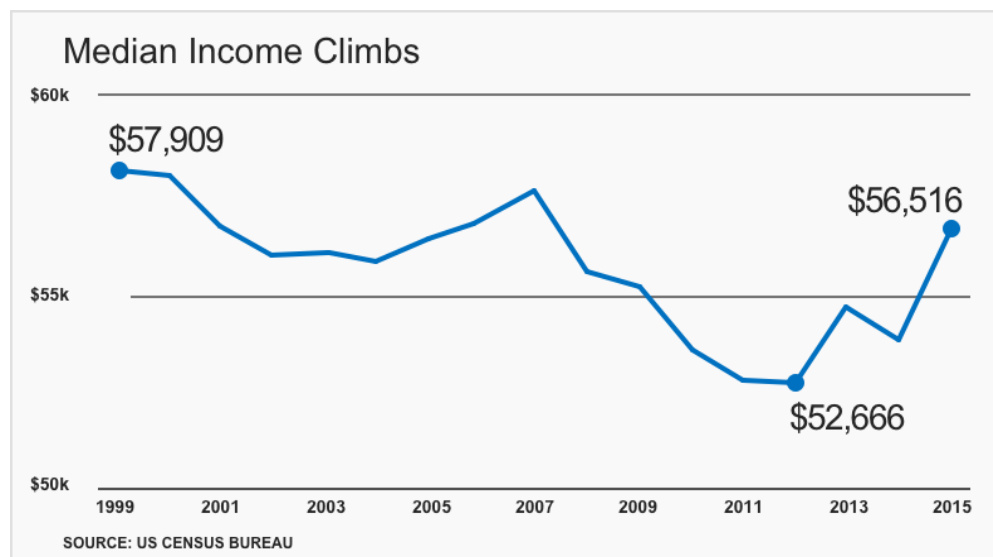


Figure [1]: Median income climbs (1999 - 2015)

Yet, so many in our country are still suffering financially.

The Bad

- **Income is still low:** The median income is still below 1999 levels of \$57,909.
- **Living is costly:** The cost of living has outpaced income growth in the last decade. From January 1999 to January 2016, the cost of living, as pegged by the Consumer Price Index, has increased by 44%.
- **Employment is hard to find:** While unemployment is down, the decline is largely a factor of people giving up and dropping out of the labor market. As of October 2016, the labor force participation rate (a measure of how many people are currently employed or actively looking for employment) is at 62.8%, one of the lowest measurements in decades.

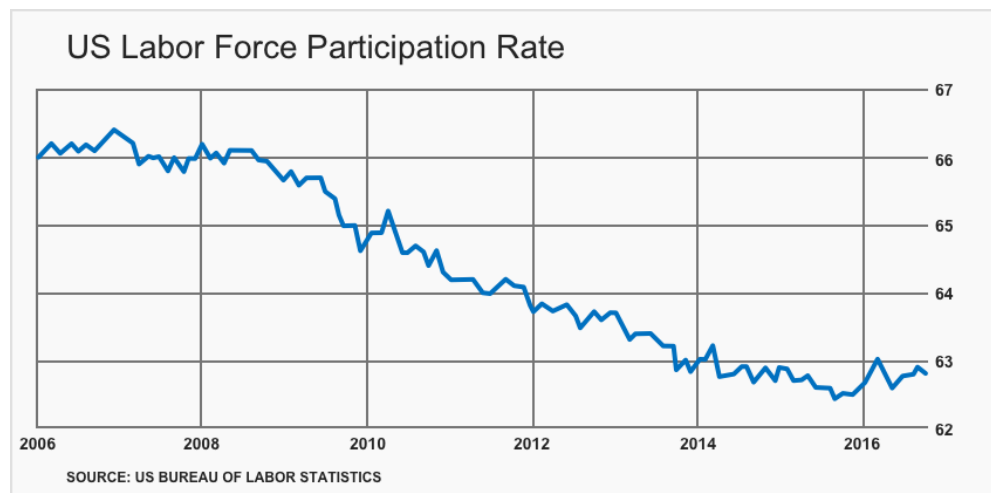
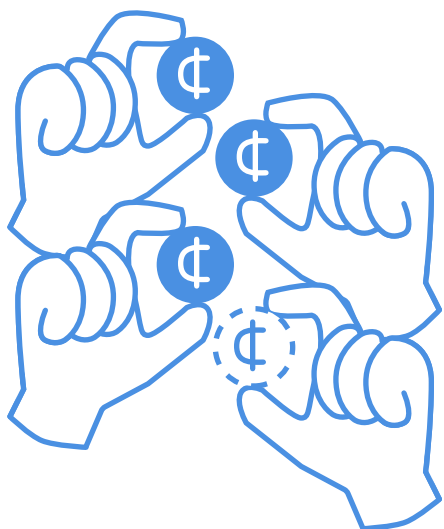


Figure [2]: US labor force participation rate (2006 - 2016)

What are the implications?

- **We have debt:** As a result, over 38% of households carry a credit card balance, according to the Federal Reserve Board Survey of Consumer Finances. Value Penguin estimates that the average credit card balance for these households is over \$16,000.
- **We're not saving:** In a recent study by the Federal Reserve Board, 47% of Americans say they either could not cover a \$400 emergency expense or would cover it by selling something or borrowing money. According to Bankrate's monthly Financial Security Index, in 2014 almost one third of adults have not started saving for retirement. More alarming, nearly 25% of those closest to the end of their careers (adults age 50-64) have not started to save for retirement.



NEARLY 25% OF THOSE NEAR THE END OF THEIR CAREERS HAVE NOT STARTED TO SAVE FOR RETIREMENT.

- **Our income inequality has continued to rise.** Since 1993, the earliest year available for comparable measures of income inequality, the Gini Index has risen 5.5% to 0.479 in 2015. The Gini index is a measure of income inequality ranging from 0 to 1, with a measure of 1 indicating perfect inequality (one household having all the income and the rest having none) and a measure of 0 indicating perfect equality (all households having an equal share of income). By comparison, the World Bank reports that out of the 154 countries measured, 91 countries have less income inequality, including countries like Iraq, Ethiopia and Thailand.

In short, as the recent report by the Pew Research Center stated, “the national trend is clear—the middle class is losing ground as a share of the population, and its share of aggregate U.S. household income is also declining.”

“The national trend is clear—the middle class is losing ground as a share of the population, and its share of aggregate U.S. household income is also declining.”

-Pew Research Center

It is our view that while the American economy is showing signs of improvement since the Great Recession, we have a long way to go. LMI households have been left behind, and we need structural and systematic changes, from policy to industry, to ensure their financial well-being.

This is why Common Cents Lab is focused on helping low-to-moderate income people living in the United States.

OUR 3B'S APPROACH

To fully understand the experiments and prototypes detailed in the next sections, it is important to understand our process. Before we design and launch an intervention, we undergo a behavioral diagnosis, which allows us to deeply understand the decision-making environment we are trying to influence.

A behavioral diagnosis is a three-step process whereby we fully immerse ourselves in the decision-making environment through observations, data pulls, surveys, and qualitative interviews. We call this three step process our **"3B's Approach."**

1. Identify the Key Behavior

Identify the key behavior that we want our population to take (save more, pay down debt, etc.). A key behavior is extremely specific, measurable, and very different from a broad goal.

As an example, let's think about the following statement:

"Increase financial well-being among low-income customers"

Is this a key behavior? In our process, this would not be a key behavior. It is too vague and leaves too many questions up for interpretation:

- What does "increasing financial well-being" mean?
- What actions does one need to take to increase one's financial well-being?
- How often does one need to take these actions?
- Where should one take these actions?

A more appropriate key behavior would be:

“Saving \$25 each month by making a deposit through the mobile app at the time the user receives their paycheck.”

By being extremely focused on a specific behavior, we can create more effective interventions. This level of specificity also allows us to define our success metrics, and ensures that we have the capabilities to measure that success metric.

2. Remove Barriers

Identify all possible barriers impeding the key behavior. This is a detailed process where we outline every barrier that our target customer needs to overcome in order to successfully complete the key behavior.

Most practitioners are quick to outline large scale barriers, including systematic poverty and income inequality. While these are important barriers to address, we find that the “small” barriers are just as important. Every click, step, field, form, and signature is just as significant as a large scale barrier.

We then focus our attention on addressing the barriers that we can realistically eliminate or decrease, and the barriers that cause the most friction.

3. Amplify Benefits

We then focus our attention on addressing the barriers that we can realistically eliminate or decrease, and the barriers that cause the most friction.

In this step, we rarely mean adding monetary incentives. While this is a powerful tool, it can often backfire and decrease any existing internal motivation.

Going through the 3Bs process allows us to surgically hone in on the most critical and addressable issues, leading to more effective and cost-efficient interventions.

IMPROVING CASH FLOW MANAGEMENT

Executive Summary

Many Americans are struggling to manage their cash-flow effectively. This is largely due to high income volatility, and unexpected expense shocks. As the Center for Financial Services Innovation has documented, cash flow management is not an issue affecting just temporary, seasonal, or contract workers. According to the U.S. Financial Diaries Project, the average family income experiences a 25% increase or decrease from their median income for more than five months out of the year.

In their 2015 report, after analyzing over 100,000 account holders, the JP Morgan Chase Institute published that “individuals experience high levels of income volatility and higher levels of consumption volatility across the income spectrum ... the typical household did not have a sufficient financial buffer to weather the degree of income and consumption volatility observed in their data.”

In our own analysis of 1099 contract workers, we found that contract workers experienced large income volatility, with incomes varying by a factor of 10 in the last year.

**CONTRACT
WORKERS
EXPERIENCED
LARGE INCOME
VOLATILITY, WITH
INCOMES VARYING
BY A FACTOR OF 10
IN THE LAST YEAR.**

With all of this income and expense volatility, it is amazing that people are able to budget at all.

What we are doing

To help individuals better manage their cash flow, we've partnered with four organizations to:

- **Help eligible individuals apply and receive/utilize SNAP benefits**
- **Help individuals manage their SNAP benefits more effectively throughout the month**
- **Help underbanked individuals manage their paycheck deposits**
- **Help people stick to their financial coaching plan**

To date, we launched two field experiments (both of which are still in the field); we are also in the process of developing two prototypes, and have added to our theoretical understanding of budgeting through a novel laboratory budgeting experiment.

Our key insights

Through our four partnerships, we've learned how difficult it is for eligible people to manage their cash flow, especially given their income and expense volatilities. Yet, there are environmental changes that we can make to help people overcome these challenges:

- **Opportunities to influence what people do with their income are the highest in the moment people receive it.**

In partnership with [Propel](#), a company that allows SNAP recipients to see their SNAP balance through a mobile app, and with the [Latino Community Credit Union \(LCCU\)](#), we learned that one of the most effective ways to help people manage their cash flow is at the point in which they receive their income. It is at this time that consumers are most engaged with their finances.

With LCCU, we added barriers to people cashing their entire paychecks, and we encouraged them to deposit part of their paycheck into savings. We could have asked members to increase their savings account contributions at any point in the month, but the real saving opportunity is created when we intervene at the point of payment.

- **Giving shorter parameters and smaller timeframes helps people think about the opportunity costs of spending.**

With Propel, we learned that how we display income (in this case, government benefits) has a real impact on behavior. When someone receives income, they are in a “windfall” mindset. They are not thinking about their future expenses, but just about the money they received. Thus, they feel a false sense of “security.” Highlighting people’s pro-rated weekly income vs. their total income impacts this “windfall” effect and helps people budget better.

- **When an action is difficult, financial incentives are often not enticing enough.**

In partnership with Robin Hood, the largest poverty-fighting organization in New York, we are working to increase the number of completed SNAP applications in New York City. For many low-income families, receiving SNAP benefits can be life-changing, as the average family receives \$250 a month for groceries. However, even with this incentive, less than half of the applications started are actually submitted.

The SNAP application process is complex, with most people dropping out, not because they do not want the benefits, but because they fail to submit documents or schedule an interview. Here our interventions revolve not just around reducing the barriers, but around also sending frequent reminders.

In addition, our interventions with LCCU and Propel have shown great promise because they are not just one-time interventions, but they occur **every** time someone gets a deposit.

INCREASING DEPOSITS AMONG CHECK CASHERS (LATINO COMMUNITY CREDIT UNION)

PROJECT AT A GLANCE

PARTNER TYPE
CREDIT UNION

PROJECT TYPE
EXPERIMENT

PROJECT STATUS
COMPLETED

The Latino Community Credit Union was founded in 2000 as a grassroots response to a wave of muggings of Latino immigrants in Durham. Since then, it has become a large credit union providing access to financial services to over 60,000 members in North Carolina, many of whom have little or no credit history in the U.S.

LCCU partnered with Common Cents to find ways to help members manage their cash flow by increasing short- and long-term savings. Through the diagnostic work described below, we narrowed this question to two main challenges: (1) How to increase deposits among members who only cash their checks; and (2) How to increase automatic transfers to savings accounts among members who are getting a loan.

Behavioral diagnosis

Common Cents performed several rounds of data analysis of members' deposits and cash checking patterns. Common Cents also interviewed 12 LCCU members, with both high and low levels of engagement with the credit union. The interviews covered topics on access and use of financial

products, and savings practices. We paired the interviews with a deep-dive into the process of making deposits and using other LCCU products. This exercise included site observations at branches and interviews with customer-facing staff.

Key insights

We learned that many members use shortcuts to decide how much to deposit into their savings account, such as depositing the amount of money they have left by the time they receive their next check or their smallest check if they have multiple sources of employment.

We decided to focus the first part of the project on further increasing the shortcuts to savings among check-cashers (which represents about 18% of the total volume of transactions that members make at LCCU's branches).

Experiment 1: How can we increase shortcuts to savings among check-cashers?

In October 2016, we launched a pilot experiment aimed at increasing deposits among members who walk into LCCU branches to cash their whole checks. This experiment had four conditions: a control and three experiment conditions, which changed the check cashing slip.

First, the slips created friction cost to cashing a check, as there was no slip required prior to the experiment. Second, the slips contained different combinations of the following ideas: defaulting members into depositing 50% of their checks, signing a risk waiver that highlights the opportunity costs of not depositing, thus increasing the pain of paying for the check cashing fee.

The image shows a check cashing slip form with the following elements:

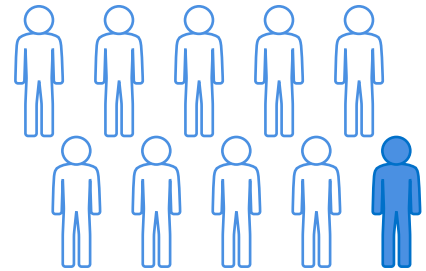
- CHECK CASHING** (Title)
- CHECK AMOUNT** (Field)
- DATE:** (Field)
- NAME:** (Field)
- SELECT YOUR TRANSACTION BELOW** (Section Header)
- I WANT TO DEPOSIT 50% OF CHECK AND CASH REMAINDER
- I WANT TO DEPOSIT THIS AMOUNT (Field)
- ACCOUNT NUMBER** (Section Header)
- * (Field)
- SAVINGS CHECKING OTHER (Field)
- TO BE FILLED OUT BY FSR** (Section Header)
- CASH BACK** (Field)
- DEPOSIT \$** (Field)
- KEEP SOME MONEY IN YOUR ACCOUNT THAT YOU CAN PULL OUT LATER WHEN YOU NEED IT** (Text)

Figure [3]: Check cashing slip with pain of paying, default and opportunity cost.

We observed that members in the treatment group made significantly more deposits. In 9.26% of the cases, the slips prompted a behavior change, switching check-cashers into depositors. These members deposited an average of \$169 of their paycheck, equivalent to 22% of their check's value.

If adopted and implemented across the board, the slips could impact short-term savings of 10,000 members. Following the current analysis, we will compare follow-up outcomes, observing whether members who received the slips made more deposits between one and two months of the intervention.

9.26%
**OF MEMBERS IN THE
TREATMENT CONDITION
SAVED PART OF THEIR PAYCHECK,**



**KEEPING AN AVERAGE OF
\$169
IN THEIR ACCOUNT.**



MANAGING SNAP (FOOD STAMPS) EFFICIENTLY (PROPEL)



PROJECT AT A GLANCE

PARTNER TYPE
FIN-TECH

PROJECT TYPE
EXPERIMENT

PROJECT STATUS
PILOT IN FIELD

There are over 45.8 million people (roughly 1 in 7 individuals in the US) who benefit from the Supplemental Nutrition Assistance Program (SNAP). This is a critical program in the United States as 50% of Americans will be eligible for SNAP at some point during their lifetime. The program helps low-income families by giving them a monthly food allowance of \$250 on average per household.

These benefits are administered on a monthly basis. This design has negative consequences on behavior as it creates a “windfall” effect, leading people to temporarily disregard their future expenses. Especially after a period of scarcity, the deposit of a monthly lump sum can lead to overspending and misappropriate spending. For example, in Peru, when the government assistance moved from twice-a-month to monthly payments, they saw a 70%

increase in the purchase of alcohol and sweets. (Note: In the U.S. SNAP benefits cannot be used for alcohol, but only for groceries.) This monthly lump sum creates what we call a “feed and famine” cycle, where according to the USDA, many families run out of their SNAP benefits mid-month. Studies have shown caloric intake decreases through the benefit month, contradicting claims that bulk buying is offsetting the front-loaded spending.

To understand how we can help SNAP recipients budget their benefits more effectively, we partnered with Propel, the fin-tech startup in New York behind “Fresh EBT,” a mobile app where SNAP food stamp recipients can check their balance and transaction history. SNAP recipients typically have to save receipts or call a phone line to find their balances, but with Fresh EBT, they can check their balances instantly, see recent transactions, find stores that accept EBT, make a shopping list, and access other useful resources.

Behavioral diagnosis

Common Cents partnered with Propel to create a database that analyzes users’ spending patterns. Through this work, we analyzed over 20,000 users and over 260,000 transactions. We conducted in-depth interviews with Propel employees, as well as industry experts in the field. Additionally, we are in the process of conducting qualitative interviews with a number of SNAP recipients.

**WE ANALYZED OVER
20,000 USERS AND
OVER 260,000
TRANSACTIONS**



Key insights

This deep data analysis allowed us to get meaningful insights into the spending behavior of SNAP recipients, including:

- **Small and frequent dollar purchases are the norm.**

Most purchases made are small dollar purchases, with the average purchase totaling \$30.94. Close to 20% of purchases were less than \$20. In addition, the average SNAP recipient makes 11 purchase trips, 2-3 of them on the day of the SNAP benefit deposit.

- **SNAP benefits deplete quickly.**

Our analysis depicts a grimmer picture than the USDA reports, as the average SNAP recipient spends 80% their benefits in the first nine days. By day 21, the average SNAP recipient has spent their entire SNAP balance.



AVERAGE SNAP RECIPIENT SPENDS 80% THEIR BENEFITS IN THE FIRST NINE DAYS.

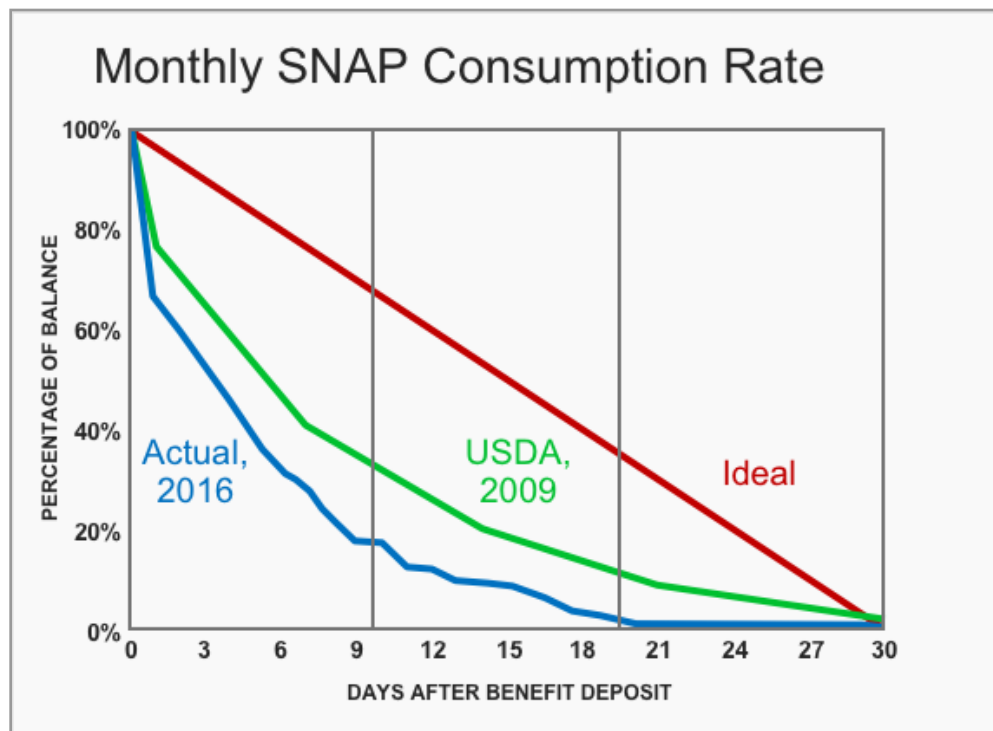


Figure [4]: Monthly SNAP consumption rate (Ideal, USDA, and Actual Comparison)

Many of these insights were shared publicly through our “Fixing the SNAP (Food Stamp) System, from application to spend: Learnings from the Field” webinar.

Experiment

From our behavioral diagnosis, we decided that we needed to focus on helping SNAP recipients smooth their consumption throughout the month. As such, we needed to directly combat the “windfall” effect. Thus, we created a two-condition experiment. In our control condition, we showed SNAP recipients their monthly SNAP balance (Propel’s standard screen). In our experiment condition, we showed SNAP recipients a weekly budget, anchoring them to a weekly spendable amount.

To ensure that our experiment does not have the unintended consequence of people eating lower quality foods for the sake of spending less, we are running weekly surveys about food consumption across all conditions.

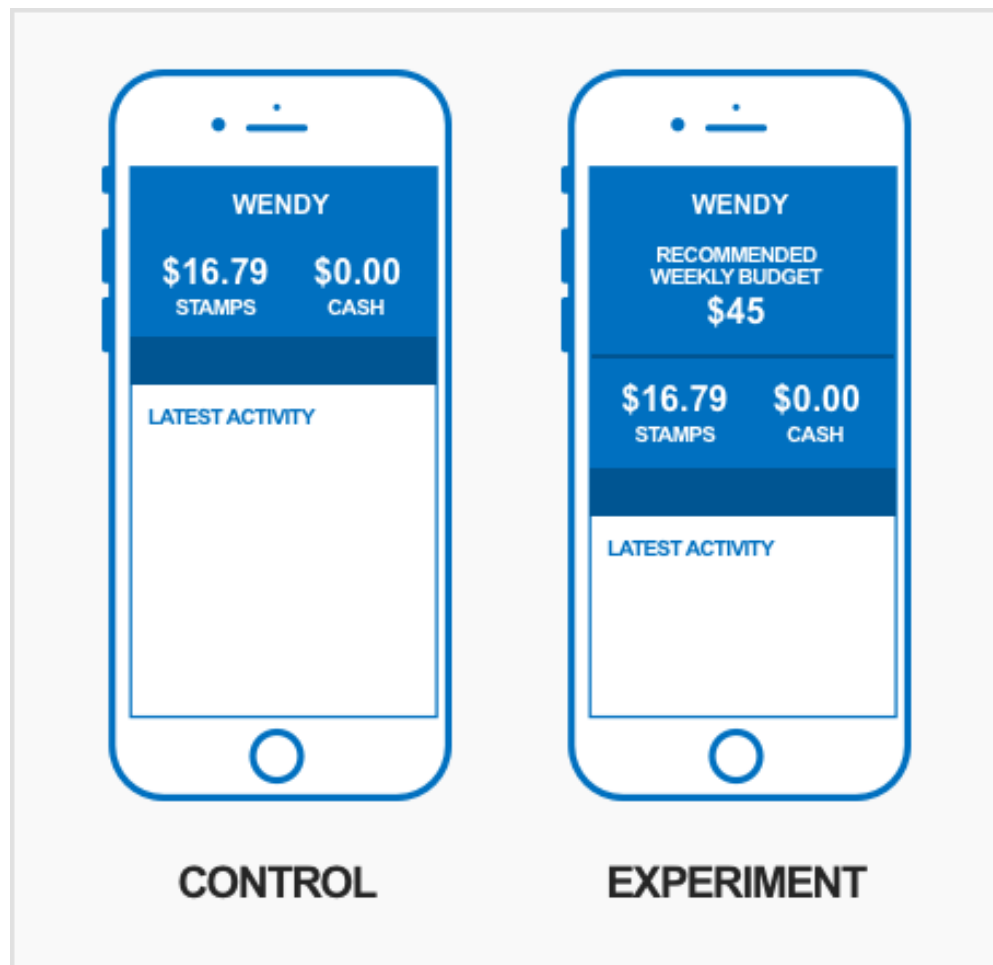


Figure [5]: Simplified mocks of user-interface changes in the Propel experiment.

Results

We launched this experiment in September, and it was in the field until January 20, 2017. Preliminary results indicated that we were able to help users smooth their consumption by roughly three more days in the experiment condition, as compared to the control condition. This resulted in nine extra meals for a family per month.

Additionally, the weekly health surveys showed that there was no difference in healthiness of consumption between the control and the experiment conditions, contradicting concerns that families would trade off food quality as a result of better budgeting.

“However much you get in your EBT benefits, it will tell you how much you should spend per week... That's what I really love about it.”

-Propel user, in the weekly budget condition

This experiment has huge impact for the field. Propel has indicated that pending the success of this pilot, it will roll out a version of this intervention, utilizing the behavioral findings of this experiment, to its entire consumer base. To date, Propel is the largest servicer of SNAP recipients nationwide. In addition, we hope that policy makers see these results and try to help people budget by giving SNAP recipients a weekly budget, printing the budget on the EBT card, or by simply making more frequent distributions throughout the month.

INCREASING BENEFIT APPLICATIONS IN NEW YORK CITY (ROBIN HOOD)



PROJECT AT A GLANCE

PARTNER TYPE
NON-PROFIT

PROJECT TYPE
EXPERIMENT

PROJECT STATUS
DEVELOPMENT

Although Food Stamps/SNAP is one of the most visible government entitlement programs in the United States, it is estimated that 1 in 4 individuals eligible for the benefits do not apply. We are working to increase the number of applications coming from the 13.4 million eligible individuals in America who are currently missing out on the necessary aid they are entitled to.

We are working with Robin Hood, the largest poverty-fighting organization in New York, and Benefits Data Trust (BDT), an organization that focuses on assisting individuals through the SNAP application process, on Robin Hood's Start by Asking campaign. This campaign is focused on helping over 800,000 low income New Yorkers who are not receiving valuable benefits like SNAP, WIC, EITC, and CTC.

Behavioral diagnosis

We conducted a behavioral analysis to understand the SNAP application process. We listened to initial application phone calls, conducted a behavioral diagnosis of BDT's outreach mailers, talked to industry experts, and analyzed every form and touchpoint that SNAP recipients receive from the Human Resources Administration when applying to SNAP in New York City.

Key insights

After conducting our behavioral diagnosis, we reached a couple of key findings including:

- **Eligibility uncertainty, not lack of awareness, is a key barrier to applying.**

Eligible households do not apply to SNAP, not because they don't know about SNAP, but because they don't know if they are eligible for the benefits.

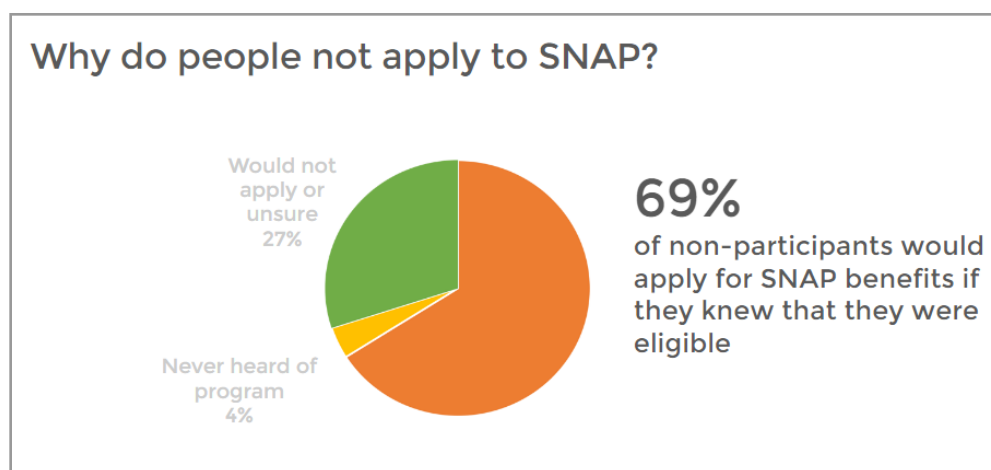


Figure [6]: Why eligible households do not apply for SNAP, USDA.

- **The application process is costly.**

Most applicants spend over 6.1 hours just to complete the process. In addition, 39% of working applicants said that they had to miss work in order to complete the application. This is not surprising, given that the average applicant needs to take 2.4 trips to the SNAP office in order to complete an application.

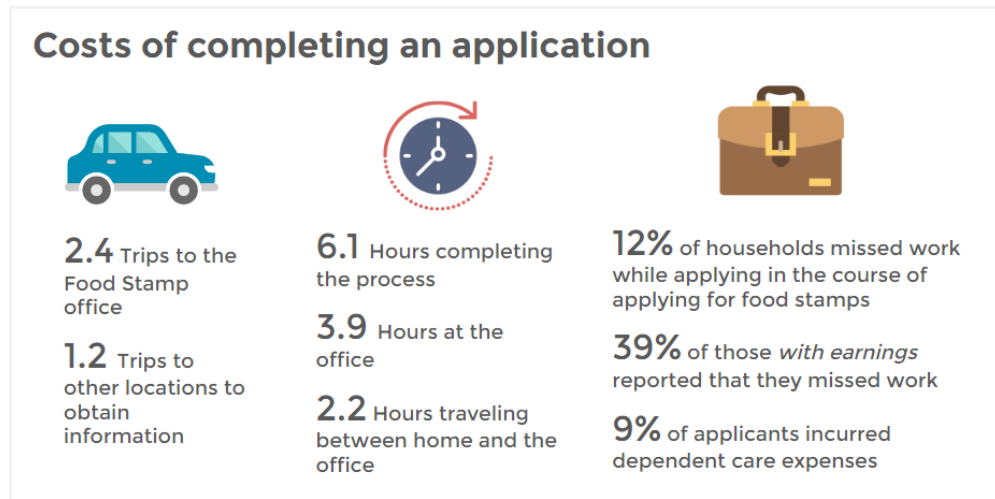


Figure [7]: The cost of completing a SNAP application, USDA.

- **The application process is complex, leading to massive drop-off.**

More than half of the applications started are not finished. Most people drop out not because they do not want the benefits, but because they fail to remember to submit documents or schedule an interview.

There are few support systems in place for people who forget to schedule an interview or submit their documents. In order to understand which documents they need to mail in and by when, these low-income families are expected to read through 30-page packets.

Experiment

Given the findings from our behavioral diagnosis, we are focusing our efforts on:

- **Increasing the number of new applications**
- **Increasing the number of completed applications**
- **Optimizing the post-application process, in order to increase re-certifications.**

We are still in the development phase of this project, but our intervention will revolve around reducing barriers, sending frequent reminders, and displaying progress.

The food stamp application process is long and exhausting, but we believe that reframing the benefits, increasing feelings of urgency, and utilizing social proof are the keys to increasing motivation to start and complete the application process.

DECREASING EXPENSES

Executive Summary

While the median household income rose 5.2% in 2015, it is still below 1999 levels. With stagnant income and increasing expenses, our middle-class is suffering.

From January 1999 to January 2016, the cost of living, as pegged by the Consumer Price Index, has increased by 44%. In a survey conducted by Harris Poll in 2016, more than 38% of full-time working adults say that they live paycheck to paycheck. Another 19% said that they were not able to make ends meet last year.

There are many across the country that are trying to increase wages by pushing for a \$15/ hour minimum wage. However, until those efforts pass, we have to focus on helping consumers decrease expenditures in order to increase savings.

The world is getting more tempting. From the growing persuasiveness of advertising and “one-click” payment methods, it is becoming harder for consumers to resist the temptation to buy. Even when consumers try to be fiscally responsible by setting auto-savings, preliminary research by Daniel Fernandes has shown that many people who have auto-savings will still incur credit card debt because they do not adjust their expenses to account for savings.

What we are doing

In 2016, we focused on first trying to understand this problem more deeply by tackling questions such as:

- **Which expenses do people regret?**
- **Where do people think they can cut back?**
- **Can we use social influence to reduce spending?**

Most of our work has been research driven, as this is an unexplored area in the field. We partnered with two organizations, Qapital, a mobile savings app, and Plaid, a software company that allows a variety of financial-technology startups to access their customers' bank account information. With their help we have created two prototypes to learn how to help people cut back on their expenses. In addition, we added to our theoretical understanding of why people choose to spend in the present, even when the future is only a few minutes away. These prototypes are research tools to increase our understanding of human behavior and are not yet targeted to reach Plaid or Qapital's user base.

Full research reports from these partnerships will be published in 2017.

Our key insights

Through this prototyping work and our research, we gained a couple of key insights:

- **Food is a focus.**
Through a series of qualitative and quantitative interviews, we found that an overwhelming majority of respondents cite "eating out" as the main area where they would be able to cut back on spending if they had an expense or income shock.
- **Social Proof can impact people's budgeting in certain spending categories.**
We can utilize social proof, the principle of showing what others like you are doing, to help people cut back on spending in certain categories, such as food. Given this finding, we are partnering with Plaid to create a prototype that will show people how their expenses compare in certain categories, with the hopes of helping people reduce those expenses.

- **Present bias is ever-present.**

Through a series of studies, we show that people have a tendency to spend now, rather than in the future, even when the future is only a couple of minutes away.

- **Budgeting decisions tend to focus on max vs. marginal happiness.**

Through a series of budgeting games, we show that people make irrational budgeting decisions. While the correct way to optimize happiness is to focus on marginal utility, people make budgeting decisions based on their average or max utility.

USING SOCIAL PROOF TO REDUCE EXPENSES (PLAID)



PROJECT AT A GLANCE

PARTNER TYPE
FIN-TECH

PROJECT TYPE
RESEARCH

PROJECT STATUS
DEVELOPMENT

Given our focus on reducing expenses for LMI families, we partnered with [Plaid](#), a company that sits at the intersection of—and builds a bridge between—finance and technology whose mission is to power innovation in financial services while making it simpler and more secure. Today, Plaid powers thousands of financial technology applications that help millions of people lead better financial lives.

Behavioral diagnosis

To understand people's expenses, we analyzed yearly, quarterly, and monthly spending data for 200,000 Plaid users. This dataset allowed us to get a base line of how much people spend at the category level. In addition, we conducted a number of in-person qualitative interviews in street fairs and subway stations across San Francisco and launched two experiments on Amazon's Mechanical Turk to test early hypotheses.

In general, we were interested in tackling two questions:

- Where can people cut their spending?
- How can we use social comparison to reduce spending in certain categories?

Key insights

The data collected from our behavioral diagnosis revealed a number of findings, including:

- **Food is a focus.**

An overwhelming majority of respondents cite “eating out” as the main area where they can cut back on spending. In addition, close to 40% of those interviewed mentioned having a spending “rule of thumb” around eating out or buying groceries.

- **Social Proof can impact people’s budgeting in certain spending categories.**

We ran an experiment on Amazon Turk asking participants to input their monthly budget across a number of categories. Then each participant received feedback that they were either overspending or underspending when compared to others like them across 3 categories:

- **Groceries**

- **Transportation**

- **Entertainment**

Lastly, participants were asked if they were interested in altering their budget for the next month.

Our findings show that our social proof intervention impacted monthly budgets for groceries and entertainment, but not for transportation. This difference indicates that a social proof intervention is likely to be most effective when limited to hedonic expenditures rather than utilitarian expenditures, which are harder to cut back.

Our approach

We are working with Plaid to estimate food and other category level expenditures for people in certain income brackets and locations. We will use these insights to create a prototype that shows people how their expenses compare to others.

We are still in the development phase of our prototype. This prototype is meant to serve as a guide for the number of companies that can, and should, show expense comparisons when appropriate.

We believe our prototype will be a useful tool for all practitioners, helping them implement social proof in their consumer facing designs and, in turn, help them curb user spending.

REGRETFUL SPENDING (QAPITAL)



PROJECT AT A GLANCE

PARTNER TYPE
FIN-TECH

PROJECT TYPE
RESEARCH

PROJECT STATUS
DEVELOPMENT

In order to help individuals reduce their spending, we first have to analyze which expenditures people regret, and therefore, want to cut back in the future.

Behavioral diagnosis

To answer this question, we partnered with Qapital, a mobile banking application that helps people save money through features like automatic savings, transfers, sharing goals through social media, and customizable savings rules.

Together, we designed a sleek survey tool where users link their bank account in order to reflect on past purchases. For our survey, users click a link, sign consent through a Qualtrics form, log in to their bank through the survey tool and rate the most recent 40 transactions on a scale from “1 – Highly Regrettable” to “100 – A Great Decision.”

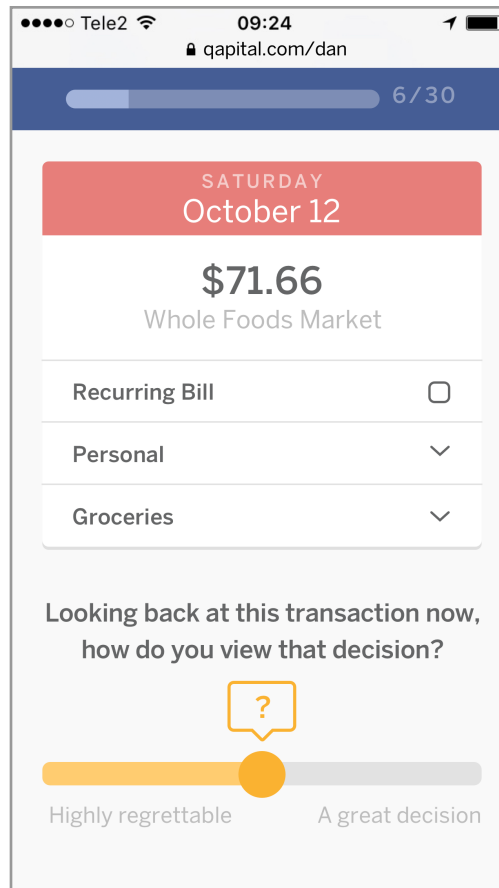


Figure [9]: Screenshot of prototype.

As users rate their transactions, the survey automatically differentiates between the type of account, the type of expense (personal, family, or business), the frequency of the expense (recurring vs. not), and the spending category. If any of these specifications are incorrect in the eyes of the user, they can quickly correct them.

Our approach

Through this survey, we hope to learn about how people experience broad classes of spending including:

- Do people tend to regret spending on electronics more than they do on eating out?
- How regrettable do people find recurring bills versus one-time fees?
- Are there any categories in which spending is almost always a good thing, in the eyes of a consumer?

We are still collecting data. Findings from this study will inform future work with fin-tech partners and how we can help people reduce their spending.

LEARNINGS FROM THE LAB (PRESENT BIAS)

Aside from partnering with credit unions, fin-tech companies, and nonprofits, we also strive to be a thought leader in the space by conducting studies in the lab. Below, we detail a theoretical study we conducted which helps explain why we tend to spend in the present, without regard for the future.

Study on present bias and spending behavior

In general, people have difficulty spending money in a balanced way. We spend too much money at the beginning of the month, after we get our paychecks, and end up with too little at the end of the month. We also spend too much money while we are young, so that we have too little left for our old days. What drives us to spend our money too soon, and what can we do about it? We ran an experiment that examines these questions.

Intervention and behavioral economic principles

We ran an experiment at the North Carolina State Fair. The Fair is a good place to look for irrational spending. Participants played a very simple bowling game. This game had the essential ingredients to look at spending behavior: a budget, diminishing marginal utility of spending, and a temptation to spend too early.

Each participant received 15 balls for 10 rounds of bowling, and they were free to choose how many balls they wanted to throw in which round. The 15 balls were the participant's "budget," throwing the balls was like "spending" the budget, and the 10 rounds provided a temptation to spend too early.

In each of the 10 rounds, 10 new pins were lined up.

At each moment in the game, the participant could choose to either throw a ball at the (remaining) pins, or to move to the next round and get 10 new pins. For each pin knocked over, the participant had a chance to earn 25 cents. In throwing a ball, there was no skill involved: One ball just knocked over a random number of the remaining pins.

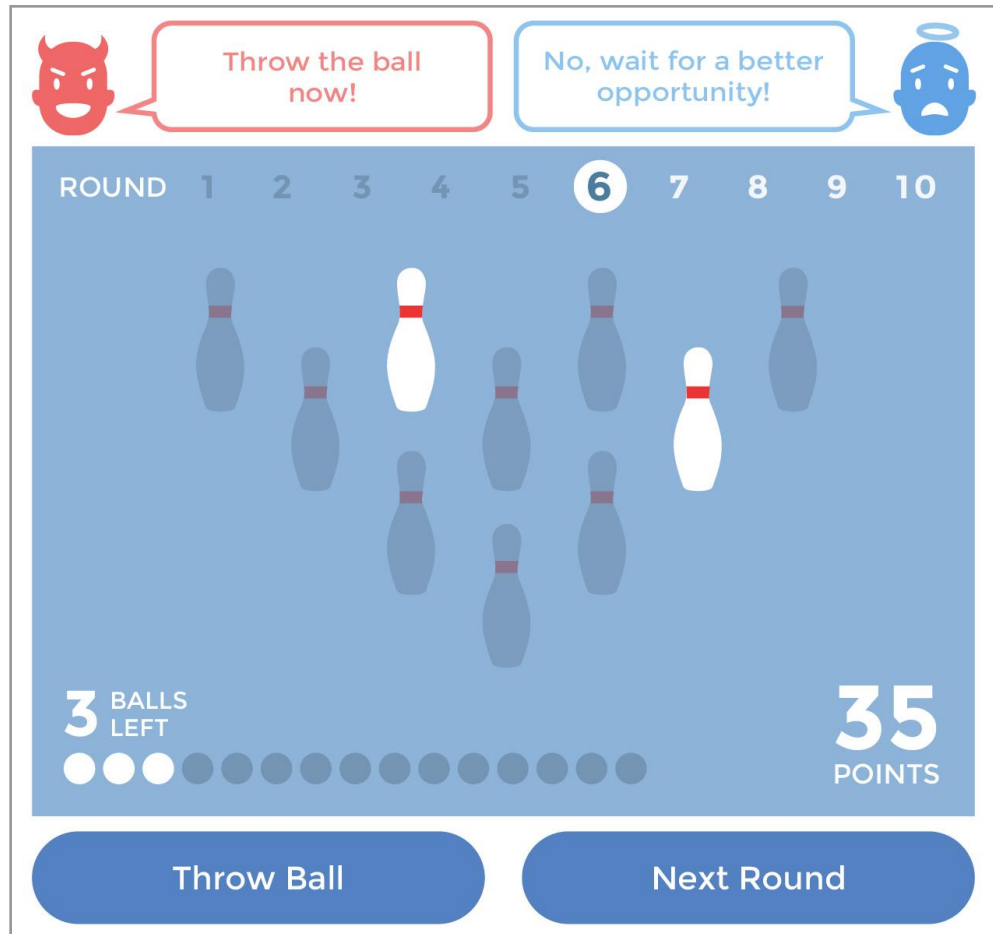


Figure [10]: Screenshot of bowling game.

The tempting, but bad, strategy is to keep on throwing balls in one round until the very last pin is hit. An ideal strategy is to throw only one or two balls of your total each round, and then move on to the next round and start with a new set of 10 pins to knock down. It is much better to “save” those balls for later, when there are more pins you can hit per ball.

The worst situation to encounter is to have no balls left to throw at a playing field full of pins. So rational players will spread their throwing over the different rounds. This feature of the game is also true of reality: Because every extra dollar spent early on brings increasingly less happiness, we should space out our spending more over time, to have more to spend later in the month when we need those same dollars more.

The problem is that people tend to look at the world through a present bias, where we think a lot more about the present, rather than the future. In our game, present bias means that participants are tempted to keep throwing balls in the round they are in, rather than wait for a more opportune moment in the future.

Our goal was to quantify the intensity of this bias, so we scored participants on this tendency, with a score that ranged from 1 if they used all their balls in the first round (1 = fully present biased) to 0 if they spread throwing perfectly evenly (0 = no present bias), and to -1 if they threw all their balls in the last round (-1 = fully future biased).

Results and potential impact

Most participants exhibited present bias, and this present bias made people lose money. Participants who had little present bias did well and hit 65 pins on average. But if you look at all participants, they hit on average only 59 pins, almost 10% less. In dollars, this meant that people forwent \$1.50 in just a few minutes.

PARTICIPANTS *WHO HAD LITTLE PRESENT BIAS* DID WELL



COMPARED TO ALL PARTICIPANTS, WHO HIT *ALMOST 10% LESS*



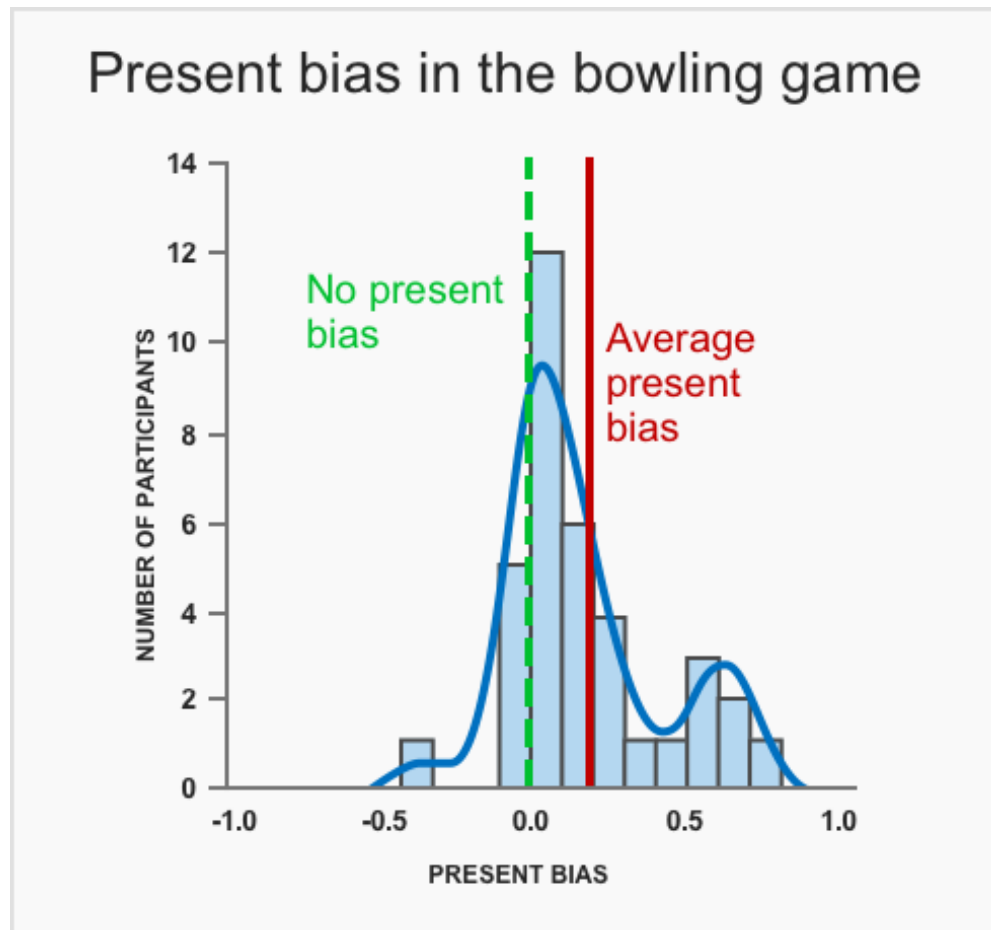


Figure [11]: Most people exhibit present bias.

In line with our casual day-to-day observations, we are bad at spending in a balanced way, and this present bias makes us spend too early. People fail to balance spending even in a simple game that lasts only a few minutes.

The results of this study help us to understand why we have such a strong propensity to spend now, rather than in the future. Moreover, the game provides a platform in which to test hypotheses about how to overcome present bias.

LEARNINGS FROM THE LAB (MARGINAL UTILITY)

In addition to partnering with credit unions, fin-tech companies, and non-profits, we also strive to be a thought leader in the space by conducting studies in the lab. One such study provides a strong theoretical framework for we make budgeting decisions between categories.

Study on Effective Budgeting

There is evidence that, when people budget, they do not do it rationally (Kourilsky & Murray, 1981). That is, they don't work towards a budget that gets them as much happiness as possible for each dollar they spend. In this study, we investigated whether people budget in a rational way, and how we can help them to budget more judiciously.

Rational budgeting requires that people think about the benefits and costs of small changes. Suppose I have a weekly budget, and I have \$300 for food and \$100 for entertainment. To determine whether this is a good budget, I should consider the benefits and costs of small changes in the budget. If I take one dollar from my food budget and put it in my entertainment budget, what is the cost of eating less well, and what is the benefit of having more entertainment? If the benefit of having more entertainment outweighs the cost of eating less well, I should transfer the dollar from my food budget to my entertainment budget. And I should continue to transfer dollars until it is no longer true that the benefit of having more entertainment outweighs the cost of eating less well. Economists call this marginal thinking, thinking about small changes.

We hypothesize people make errors in marginal reasoning, and we look for solutions. We hypothesize that people don't think about the impact of small changes, but that they just think about how happy consumption in either category makes them on average. Moreover, we hypothesize that consumption episodes that make people extremely happy have too much influence on their budgeting decision. To test this hypothesis, we ran a series of experiments on budgeting across a number of categories.

Intervention and behavioral economic principles

In a series of budgeting games, subjects allocated money to two budget categories. Some subjects focused on how small differences in budget allocations would impact their happiness ("marginal utility"), which is the correct way to do it. However, we tempted some subjects to focus on how happy consumption in either of these categories makes them on average ("average utility"). And we tempted others to focus on consumption episodes that made them extremely happy ("maximal utility").

In the budgeting games, subjects receive information on the (diminishing) return to buying items in 2 categories (gems and precious stones), they make a binding decision on the allocation, and earn money depending on their items.

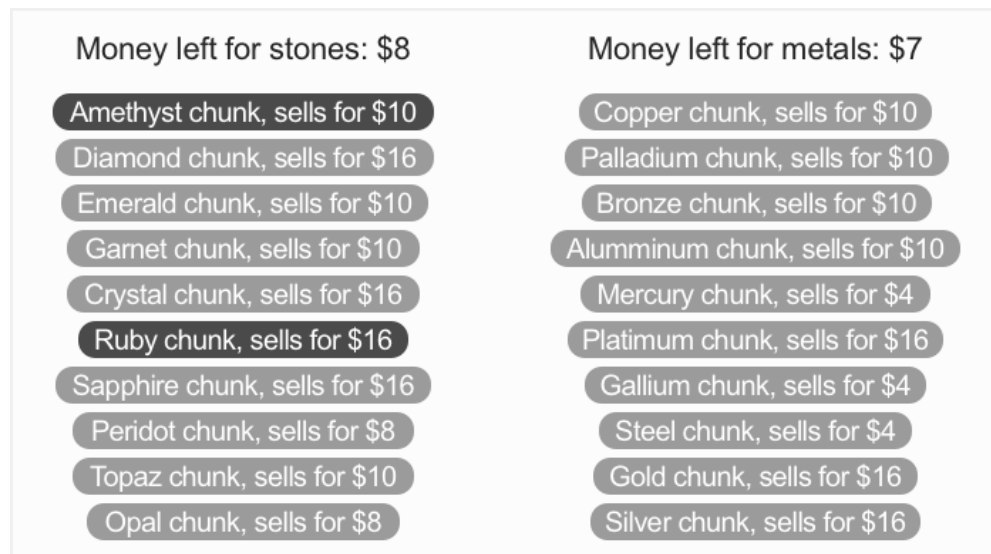


Figure [12]: Screenshot of the budgeting simulation.

Results and Potential Impact

In the Control condition, most people made a rational budgeting decision (the error was \$0). In contrast, when there was a decoy (high average or high maximum utility of items in the suboptimal budget category), many people made a fully irrational budgeting decision (the error was \$3).

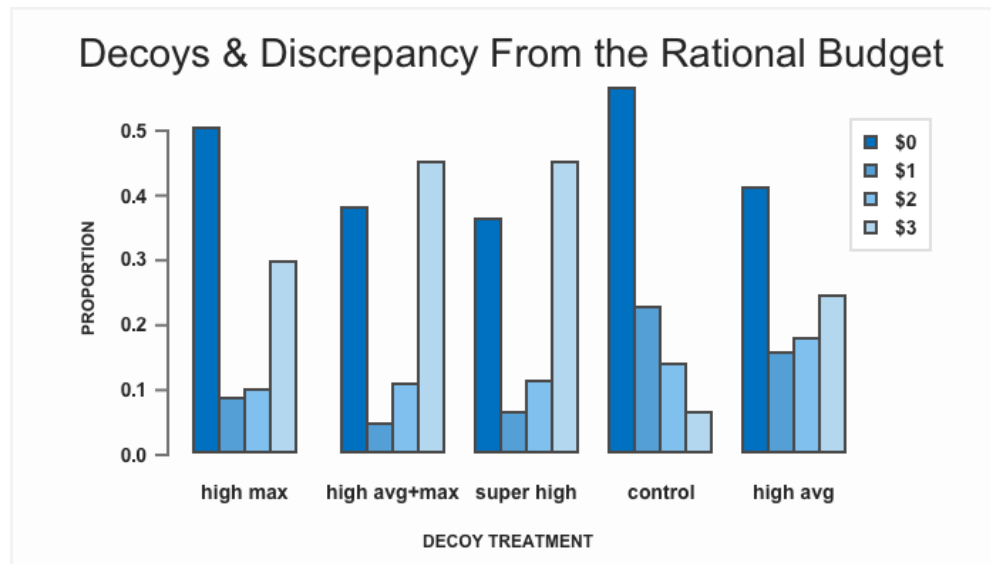


Figure [13]: Proportion of errors of different sizes, in the different conditions.

In the Control treatment, there is a clear mode for \$0 error in budgeting. In contrast, in all the other conditions, the distribution is bimodal: While \$0 error is still a peak, there is a second peak for fully irrational behavior (an error of \$3).

This provides evidence for an average bias and a maximum bias in marginal reasoning. This, according to our knowledge, is a novel finding in behavioral economics. What it means is that when someone is considering to transfer some money from his food budget to his entertainment budget, he is probably not thinking about small changes: about how much happiness he would lose from consuming a bit less food, and how much happiness he would gain from a bit more entertainment. Instead, he might be thinking something like: "Oh, I really like food, because I love my Friday night restaurant visits with my friends! I want more money in my food budget!"

These Friday night restaurant visits, however, should not determine his budgeting though, because it is not something he would want to cut (it is too nice to cut), and it is also not something he can add more of (because there are only so many Friday nights on a month). He should think about things like his sporadic afternoon snacks: this is something he might cut, or add more of. But it doesn't easily come to mind.

The results of this study are ground breaking and we plan to partner with budgeting companies like MoneyComb, to create better budgeting tools for consumers. MoneyComb is an app that helps consumers reduce their spending, while increasing their happiness by focusing consumers spending on the things that matter to them. Now we know which errors people make, and we have a platform to study these errors, we can test solutions.

MANAGING DEBT

Executive Summary

According to a 2016 report by the CFED, more than half of Americans are locked out of traditional lending markets because of their subprime credit score or lack of a credit score entirely.

Our obsession with credit scores has created an impossible system for consumers.

Families with low credit scores or limited credit histories are forced to seek liquidity from often predatory lenders such as pawn shops, auto title lenders, and payday lenders. Credit scores can also affect a person's ability to rent a home, gain employment, or access student loans.

The current lending system has become too focused on trying to measure risk rather than on developing strategies to mitigate that risk. Furthermore, the credit system attributes too much of the risk to individual characteristics without also examining how the way in which the system is structured may actually perpetuate or contribute to missed payments or default. Instead, we believe that how a borrower's environment is designed can increase the likelihood of repayment, regardless of each individual's credit risk. This way, we don't have to push individuals with low credit scores to use predatory lenders who lend at interest rates of upwards of 400%.

Getting access to good credit is not the only credit hurdle facing LMI households. As the PEW Charitable Trusts reports, Americans have become more indebted than ever, with eight out of ten Americans holding some form of debt. In addition, over 38% of households carry a credit card balance, according to the Federal Reserve Board Survey of Consumer Finances. The average credit card balance for these households is estimated to be over \$16,000 by Value Penguin.

We have placed a large burden on consumers. We expect them to be able to manage extremely complex debt products like credit cards and mortgages without any guardrails set in place.

It's amazing that people are able to budget at all if they have a variable 30-year mortgage, \$30,000 in student loan debt, \$15,000 in credit card debt, and have to plan for retirement where investment returns are not guaranteed

What we are doing

Through our partnerships, we are working to improve access to credit for people underserved by the existing lenders. In addition, we are helping people manage their current debt more efficiently in hopes this may expedite their journey to financial well-being/stability. We tackled tough and complex topics, including:

- **Increasing access to debt for LMI small businesses owners with Kiva U.S., a provider of 0% interest loans.**
- **Optimizing mortgage and long-term debt payments to reduce overall borrowing costs with EarnUp.**
- **Improving retention and successful completion rates of those going through GreenPath's debt management programs.**
- **Leveraging employers to provide access to cheap short-term loans, thereby reducing consumers' reliance on predatory lenders.**

To date, we launched two field experiments and one is set to launch in the coming month.

Our key insights

Through these partnerships, we learned several key insights including how to help people manage their debt more efficiently.

- **Framing of loan product matters.**
Through our work with EarnUp, we were able to increase interest in the product by replacing "saving" - an inherently unappealing concept, with "earning." This small change led to a 59% increase in click-through-rates.

- **Round up: The power of psychologically satisfying numbers.**

Paying down debt is a slow game, especially if debt payments don't exceed the minimum amount required. By framing a prompt to overpay in terms of 'rounding up' your debt payment, we were able to increase the number of people who opted into accelerating their repayment plan.

- **Non-monetary incentives can increase willingness to borrow.**

Having the ability to borrow at 0% interest should be an inherently motivating appeal, especially for small business owners. Yet, through our work with Kiva, we found that non-monetary incentives, like adding a deadline or getting priority status, can increase the number of completed applications.

- **Reward positive behavior.**

Through our work with GreenPath and Kiva, we found that people respond to positive reinforcement. Oftentimes we forget that rewarding positive behavior can be just as effective (or more effective) than punishing negative behavior.

IMPROVING RETENTION AND SAVINGS ON A DEBT MANAGEMENT PLAN (GREENPATH FINANCIAL WELLNESS)

PROJECT AT A GLANCE

PARTNER TYPE
NON-PROFIT

PROJECT TYPE
EXPERIMENT

PROJECT STATUS
DEVELOPMENT

GreenPath Financial Wellness is a nationwide, financial counseling nonprofit that works to empower their clients to lead healthier financial lives. To achieve this, GreenPath offers a range of services in addition to financial counseling, including a debt management plan (DMP). Our partnership with GreenPath narrowed in on addressing two primary research questions:

- **How might we improve clients' willingness to stick with their DMP after enrolling?**
- **How might we help clients to follow through on their intentions to save?**

Behavioral diagnosis

The team kicked off the partnership by holding a site visit and workshop, where the team narrowed in on the key behaviors and held a mapping exercise to chart the client journey and to begin thinking about behavioral barriers. GreenPath has subsequently infused the behavioral perspective we presented into a range of new services across the organization.

The research team also began the behavioral diagnosis by conducting interviews with staff and sitting in with frontline staff, such as financial counselors and client success advocates, as they interacted with clients. In total, we listened in to more than 30 counseling sessions or other interactions with clients. The team additionally followed up with nine hour-long in-depth interviews with DMP clients to better understand their day-to-day experiences with a debt management plan.

Key insights

Our diagnosis finds that DMP clients are nearly three times more likely to drop out within the first year, most of which happens in the first six months, compared to any time afterwards. This suggests that many have a difficult time adjusting their financial habits as they transition to the DMP. Yet, there is a gap in communicating small wins and successes to clients during these months, and clients often feel uncertain about their progress on the program.

Our diagnosis also suggests that clients incorrectly predict how difficult it will be to adjust to a DMP. Many clients expect the DMP to be an easy fix, rather than something requiring them to change their behavior. These expectations are set in part by the counselors and by the referring organization. Also important is the fact that clients also use a number of heuristics to form their expectations, such as their trust in GreenPath and the ratio of their debt to income.

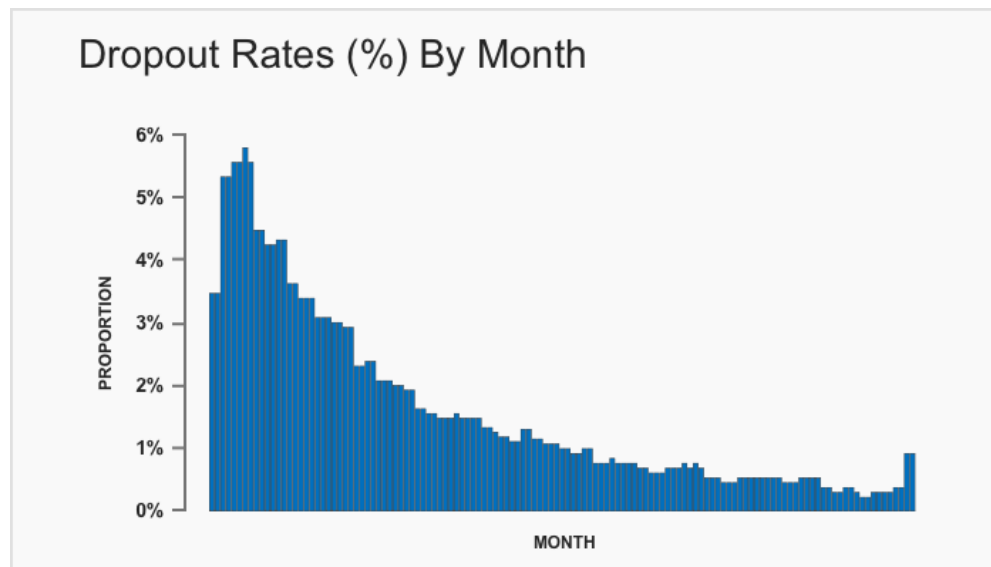


Figure [14]: Percentage dropout rates by month of DMP clients.

Experiment

To address client retention among DMP clients, GreenPath and Common Cents have designed an experiment focused on improving the transition to the program in the early months. Common Cents

and GreenPath worked together to develop new messaging that both better set clients' expectations and sent more encouraging messages to clients at key points in the first six months. GreenPath will send a new email to all clients, and will either email or call clients with pre-designed messages as they cross key milestones. This intervention utilizes the principle of goal-gradient theory to provide clients with a signal of their progress towards financial well-being.

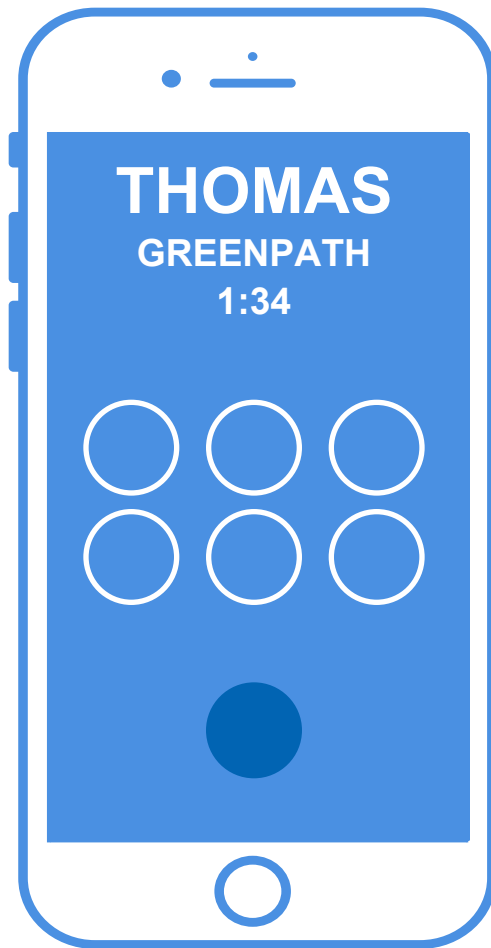


Figure [15]: Illustration of GreenPath experiment.

Our approach

The experiment will run for six months, and will be driven by GreenPath, with Common Cents conducting the final data analysis. Common Cents will also continue to explore GreenPath administrative data. Additionally, there are opportunities to explore how individuals conceptualize and make use of financial wellness services. GreenPath aims to move towards a more proactive approach to encouraging financial health.

**THIS
INTERVENTION
UTILIZES THE
PRINCIPLE OF
GOAL-GRADIENT
THEORY TO
PROVIDE
CLIENTS WITH A
SIGNAL OF
THEIR
PROGRESS
TOWARDS
FINANCIAL
WELL-BEING**

This includes changing how some existing services are offered and developing new services entirely. As GreenPath makes this transition, Common Cents will remain involved to advise on how to incorporate behavioral insights.

Additional findings from the data

As part of the diagnostic work, Common Cents has and continues to analyze administrative data provided by GreenPath. For example, we often talk about friction costs having an impact on people's willingness to take up a product. Equally important, though, is how difficult a person thinks a process will be; the data indicates that individuals use a number of heuristics to form these expectations.

For example, one heuristic is their overall level of debt. Among GreenPath DMP clients, people with high or low amounts of debt seem to have experiences that are in line with their expectations, meaning they appropriately anticipated having to adjust their behavior. However, individuals with medium levels of debt seem to have expectations like lower-debt clients, but experiences that are closer to high-debt clients. This mismatch in expectations may make the DMP seem more difficult, thus significantly increasing dropouts among members of this group.

Secondly, the data offered insights into just how important staff are in setting the expectations for clients. Common Cents looked at how counselor experience affected retention among DMP clients. This analysis suggests that less experienced counselors may not be as effective at describing the DMP and setting the new client up for success. However, as counselors interact with more clients, their ability to better expectations improves. Even holding other factors that predict DMP success, such as a client's debt total or income, counselor experience significantly increases retention among clients. This finding potentially translates to other kinds of products and services – even beyond making sure a program fits the needs of the client, how providers framing it in such a way that best sets client expectations is an important consideration for their long-term success on the program.

PAY OFF LOANS FASTER (EARNUP)



PROJECT AT A GLANCE

PARTNER TYPE
FIN-TECH

PROJECT TYPE
EXPERIMENT

PROJECT STATUS
COMPLETED

For a large share of Americans, housing costs are a severe burden. In 2014, the total number of households using more than 30% of their income for housing increased to 40 million, with almost 20% of households using more than 50% of their income to pay for housing costs.

To address this financial burden, we partnered with fin-tech startup EarnUp to help Americans pay off their home mortgages faster and increase long-term savings. EarnUp has built software that intelligently syncs users' income and expenses. This expense-matching software helps users save thousands of dollars on debt interest reduce loan term by over five years, avoid default, and build net worth faster.

Through this partnership, we became interested in understanding the following questions:

- **What makes saving on a mortgage payment appealing?**
- **How can we get people to increase their loan payments?**

Behavioral diagnosis

We conducted a full behavioral diagnosis of EarnUp's current sign up process, led in-depth interviews with the leadership team, and managed a data analysis of users' current payment patterns.

Key insights

Our behavioral diagnosis led us to two key insights:

- **We found that some customers were already paying more than their required mortgage payment.**
- **A large percentage of these users were overpaying because they rounded their mortgage payment to the nearest \$5 or \$10. Behavioral insights have consistently shown the strong tendency of households to use heuristics to simplify financial matters. Rounding is one heuristic found to be useful for LMI households as an easier alternative to complex budgeting.**

Experiment I

The team kicked off the partnership by trying to understand what drives people to save money on a mortgage payment. Given that EarnUp offers borrowers a very appealing saving opportunity, why isn't everyone with a mortgage jumping to sign up?

Our hypothesis was that while "saving money" should be appealing, it is not nearly as appealing as "earning money." We tested this hypothesis by making a slight language adjustment to EarnUp's online advertising materials. By reframing the value proposition from "save money on a mortgage" to "earn money back from a mortgage," we were able to increase click-through-rates on their online ads by 59%.

This low-cost intervention, based on behavioral principles, helped drive new users to EarnUp. Based on this research, the company changed their name. Prior to the research study, the company was named APASave. After the research was conducted, the company changed their name to EarnUp.

Experiment II

Our next experiment focused on our second question: How can we get people to increase their loan payments?

Given the combined insights from EarnUp's data and existing literature on rounding, we wanted to test if prompting people to round to psychologically satisfying numbers could cause people to overpay more than simply telling them to overpay.

We used a simple A/B email test and sent emails to a random selection of 3000 of EarnUp's active user base. These users were split into two conditions, a rounding condition and a control group.

In both conditions, participants received an email that told them how much the average EarnUp customer saves when they overpay their loan, their next payment amount, and a message asking them to contact EarnUp to start overpaying.

Both emails were identical, except that participants in the rounding condition were prompted to round up their monthly payments, while participants in the control condition were simply prompted to overpay. Participants could either reply to the email or call a phone number to increase their monthly payment.

Increasing the number of people who overpay on their mortgage payments, no matter how small, will have significant impact on their users' loan term, interest payment, and overall borrowing costs.

To put this into context, according to the Federal Housing Finance Agency, as of November 2016, the average mortgage amount for a new loan was \$312,700 at a 30-year-fixed interest rate of 3.76%. If a borrower paid just an extra \$25 a month on this loan, they will save over \$7,000 dollars and pay off their mortgage a full year sooner.

A SIMPLE PROMPT TO INCREASE YOUR REGULAR PAYMENTS INFLUENCED 10% OF PEOPLE TO MAKE A CHANGE.

In reality, our intervention produced a similar result. We compared the number of people who opted to increase their loan payments in the "over pay" and "round up" conditions. Across both conditions amount 10% of people who read our email indicated that they wanted to increase their payment. This represents the high latent demand for debt acceleration. **A simple prompt to increase your regular payments influenced 10% of people to make a change.**

Comparing the two conditions, the **“round up” framing increased the number of people who opted in by 3.1% over the “over pay” condition.** There was no difference between the dollar amount that people increased their payment. The average user who increased their monthly payment, did so by approximately \$60 per month.

“ROUND UP” FRAMING INCREASED THE NUMBER OF PEOPLE WHO OPTED IN BY 3.1%

We used data provided by EarnUp to calculate the average size, interest rate, and remaining loan size of their users. Using these numbers to approximate, we estimate that we saved the average EarnUp user about \$8,000 over the life of their loan. That is approximately \$1,300,000 in interest saved for users who opted to round up or overpay in our experiment. Perhaps most impressive of all - 86% of people who opted to overpay had never previously committed to overpaying on their loans. These consumers are now on a new automated path to savings and financial well being.

INCREASING ACCESS TO GOOD DEBT (KIVA)



PROJECT AT A GLANCE

PARTNER TYPE
FIN-TECH

PROJECT TYPE
EXPERIMENT

PROJECT STATUS
COMPLETED

Kiva U.S. crowdfunds interest-free loans to small businesses in the United States. Kiva U.S. approached Common Cents Lab and asked how they could increase the number of potential borrowers who complete the funding process.

Behavioral diagnosis

To diagnose this problem, we conducted an in-depth review of each step of the application process. In addition, we analyzed conversation rate data at each step of the application process to understand where the key barriers existed.

Key insights

Through our behavioral diagnosis, we found a number of key insights that could be boiled down to one key concept: the application process was filled with unnecessary barriers.

To qualify for a loan, applicants must fill out eight pages of information. This includes detailed information about the business' revenue and accounting, a picture of the business, and social media information about the business. This is obviously a multi-step setup process, and it results in many

small businesses starting the application, but failing to complete it, leading to a low conversion rate of just 20%.

Our approach

Our behavioral diagnosis led us to one key question: How could we increase the likelihood that an applicant completes the application and gets access to a 0% interest loan?

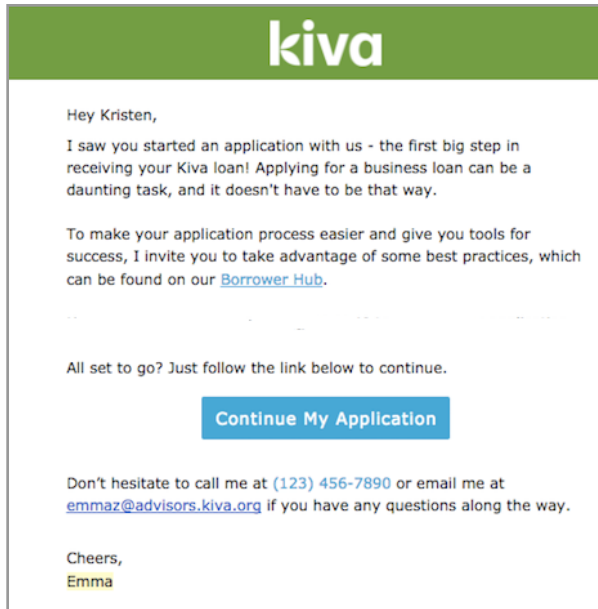
It's possible that an applicant might start the application and realize that they want to take time to diligently fill it out while carefully considering each step. Maybe they even want to have other people review their application before formally submitting it.

On the other hand, it's also possible that an applicant might start the application and stop, believing they will have more free time in the future. This is called time discounting. The perceived cost associated with our effort diminishes when the task gets farther in the future. Of course, that time in the future never comes. They continue to procrastinate which results in never completing an application at all.

To understand which of these scenarios was actually happening, our team proposed adding a deadline to the application process. If the process required a small business owner to invest significant amounts of time, then adding a deadline should decrease the number of applicants. People just won't have time to fill out the forms and they would miss the cutoff date. However, if people instead forget to complete it or are procrastinating, the deadline may be a helpful way to clarify their thoughts, create an action plan and complete the application.

To test these alternative hypotheses, we created a short email experiment. Applicants received one of two emails: one with a deadline and one without.

Control



Experiment

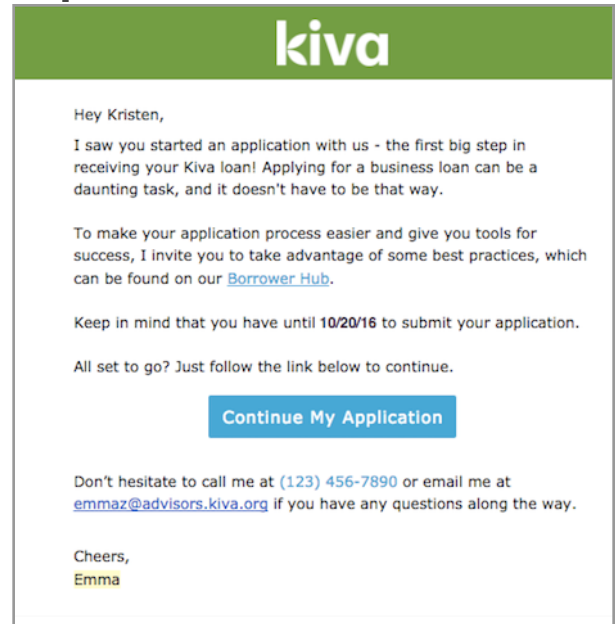


Figure [16]: Screenshot of emails sent to loan applicants.

The results were clear: the experiment condition received 24% more completed applications than the control. Our experiment resulted in at least 12% more small business owners receiving a 0% interest loan.

These results suggest that these new Kiva U.S. customers didn't require significant amounts of time to complete the application; they just hadn't prioritized it.

For our next test, the Kiva U.S. team incentivized even earlier completion by pairing a new, earlier deadline with a benefit. By submitting the Kiva loan application a week before the final deadline, applicants would move to the front of the line. Instead of punishing lateness, this intervention rewards the early bird.

**24% MORE
COMPLETED
APPLICATIONS
THAN THE
CONTROL. 12%
MORE SMALL
BUSINESS OWNERS
RECEIVING A 0%
INTEREST LOAN**

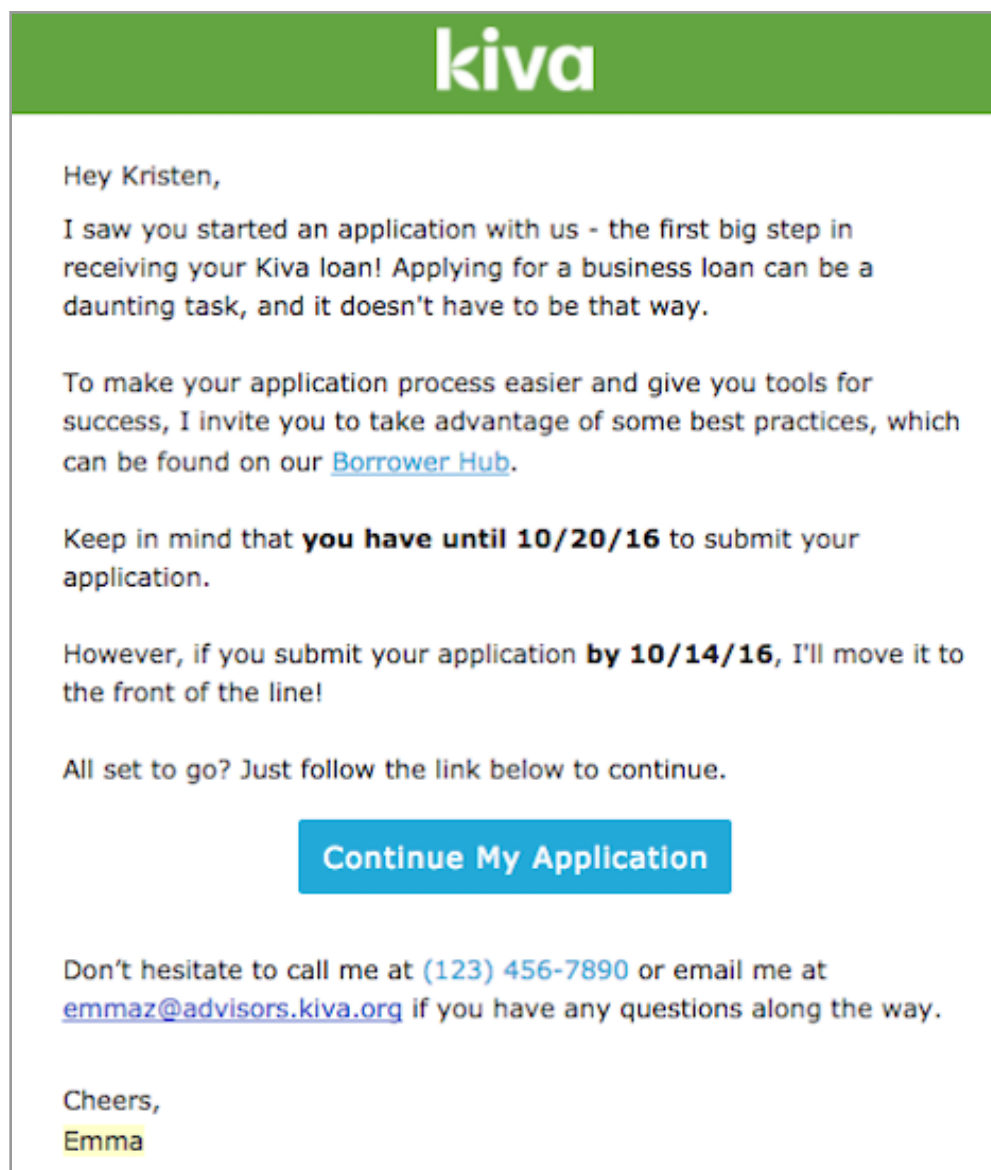


Figure [17]: Screenshot of revamped email.

By including two deadlines and rewarding good behavior,

WE WERE ABLE TO INCREASE THE NUMBER OF COMPLETED APPLICATIONS BY 26% OVER JUST HAVING ONE DEADLINE.

The majority of tasks we procrastinate on are usually high in immediate costs, but low in immediate benefits, thus making them unattractive in the short run. This additional benefit may have helped make the task of applying become more attractive and thus less likely to be in danger of procrastination.

These small changes will help hundreds of qualified borrowers achieve their small business dreams by getting access to good credit. Our small interventions led to over \$190,000 in additional credit to LMI small business owners, 80% of whom are women and minorities.

INCREASING SHORT-TERM SAVINGS

Executive Summary

In the complex financial lives of Americans, nearly half of all people living in the United States would not be able to live off their savings for three months at the poverty level. The outlook is even more startling for low-income households; only 1 in 3 households earning \$15,000 or less even have a savings account. In a study we conducted with close to 1,000 LMI participants, 36% self-reported having less than \$500 in savings (including retirement savings).

Short-term, liquid savings are crucial to protect families from the inevitable economic shocks from unexpected medical bills, spikes in expenses, fluctuations in work hours, car repairs, and more. This lack of a buffer pushes more and more households into a reliance on debt to cover basic needs.

As a society, we have taken efforts (albeit imperfect efforts) to encourage people to save for retirement. At the federal level, we have programs such as Social Security that automatically deduct part of people's earnings into a long-term savings account. Many employers set up 401(k)s and other long-term savings tools to prepare employees for retirement.

We have not done the same for short-term savings. We expect individuals to effectively manage a complex financial system, with credit cards, mortgages, and unexpected income shocks, without creating systems that help people automatically save in the short term.

What we are doing

At Common Cents, we are exploring how to increase the number of households with any short-term savings and the savings rates of those households by leveraging key saving opportunities, creating

compelling accounts, and using intrinsic motivation to catalyze savings.

To date, our team has worked with four different partners to create short-term savings innovations. Through these partnerships, we launched three experiments and two prototypes. In addition, we expect to launch one more savings-related prototype in early 2017.

In the lab, we also just begun to explore the relationship between racial discrimination, effort for earnings, and short-term savings behavior. The asset-building field has repeatedly demonstrated that people of color have fewer assets and reduced access to good savings products. Our research is currently attempting to understand whether any interventions aimed at increasing short-term savings for people of color should also address underlying perceptions of bias and discrimination.

Our key insights

Through this work, we learned key principles necessary to help people build their short-term savings, including:

- **When and how you ask matters.**

With Digit, we increased short-term savings rates by 51% simply by asking people if they want to save part of their tax refund before it hits their account.

- **Leverage existing payments.**

With Credit Union 1, we are designing a savings account entwined with a car loan, making contributions feel less painful and more like part of the car payment.

- **Utilize mental accounting.**

Often times, we need to help people create both a mental and physical account for savings in order to help people focus their attention on the savings account. With Duke Credit Union, we automatically opened a “Rainy Day Savings Account” for half of all new members, to see if the creation of another account would encourage people to fill it and to refill it once drawn on.

- **Set specific and focused goals.**

With Community Empowerment Fund, we redesigned goal-setting for clients who are homeless or in transitional housing, creating a process to recommend savings goals and monthly contributions based on the client's housing and income circumstances. Additionally, we used punch-cards to track deposits toward their savings goals. Clients who received the punch-cards saved, on average, 49% of their savings goal in 6 months or less.

Looking forward to 2017, we will continue to explore ways in which we can help LMI families increase their short-term savings.

- **Leveraging natural savings opportunities.**

According to the Bureau of Labor Statistics, over 69% of business pay their workers on a weekly or bi-weekly basis. Because the 52 weeks in a year don't get parceled out evenly between the different months there will be several times a year that people who are paid weekly will take home five paychecks instead of four. (For workers paid on a bi-weekly basis, this occurs two months out of the year.) When this happens, these workers experience a "bonus" check during months with 5 Fridays. With this current system, Duke Credit Union has noted a variety of behaviors that occur: paying down debt, saving, or splurging. We plan to seek ways to utilize this natural occurrence as an opportunity for savings.

- **Using the paycheck as a saving opportunity.**

From a behavioral perspective, if we want to encourage savings, we should reduce all of the friction associated with depositing money into a savings account. This can only be accomplished if your savings is automatically deducted from a person's paycheck. Alongside Double Net Pay, a fin-tech company that automatically sorts users' paychecks into savings, bills, and leisure spending and a 2017 partner, we plan on exploring ways to leverage pay day.

INCREASING SAVINGS AT TAX-TIME (DIGIT)



PROJECT AT A GLANCE

PARTNER TYPE
FIN-TECH

PROJECT TYPE
EXPERIMENT

PROJECT STATUS
COMPLETED

One of the biggest opportunities to help Americans save is when they receive their tax refunds. Roughly 83% of tax filers receive a tax refund, in the order of \$3,120 on average.

**83% OF TAX
FILERS
RECEIVE A TAX
REFUND
(\$3,120 ON
AVERAGE)**

We partnered with San Francisco fin-tech startup Digit, which aims to increase short-term savings by automatically withdrawing small amounts of money on a frequent basis from users' checking accounts. Unlike other financial management applications, Digit primarily communicates with its users through SMS texting. Users link their primary checking account to Digit, and Digit sends users regular updates, including deposit alerts and daily balance status updates.

Prior behavioral research has shown that people are likely to make better long-term decision if they pre-commit to a decision before they have to face the consequences of a decision. In short, we can commit to start saving \$1,000 a year from now, because we don't feel the pain of that commitment today.

However, committing to starting to save \$1,000 today is very difficult.

Experiment

We leveraged the behavioral principle of pre-commitment to get people to commit to save *before* they received their tax refund. To check if this principle would work, we conducted a randomized controlled trial in which users received one of two conditions.

In our control condition, we asked users to tell Digit what percentage of their tax refund they would like to save at the time Digit detected that they received a federal income tax refund in their checking account.

In our experiment condition, we asked users what percentage of their tax refund they would like to save before they received their tax refund.

In each case, Digit automatically saved the self-reported percentage when the funds were deposited into the users' checking account.

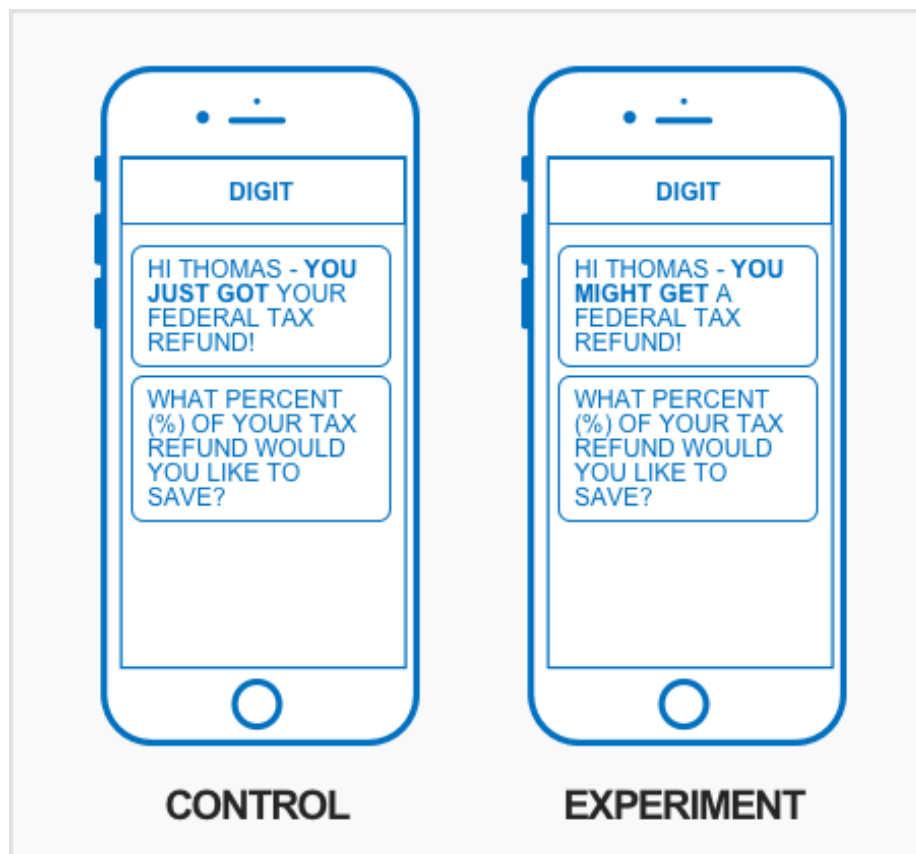


Figure [18]: Simplified illustration of SMS sent to users.

The results of this simple text were astonishing. Of everyone who responded to the text, on average people wanted to save 10% of their tax-refund in the control condition, and 15% in the experiment condition. When we looked at those that responded positively to the text and wanted to save, our experiment doubled savings rate to 22% from 12% in the control condition.

OUR EXPERIMENT NEARLY DOUBLED SAVINGS RATES TO 22% FROM 12%

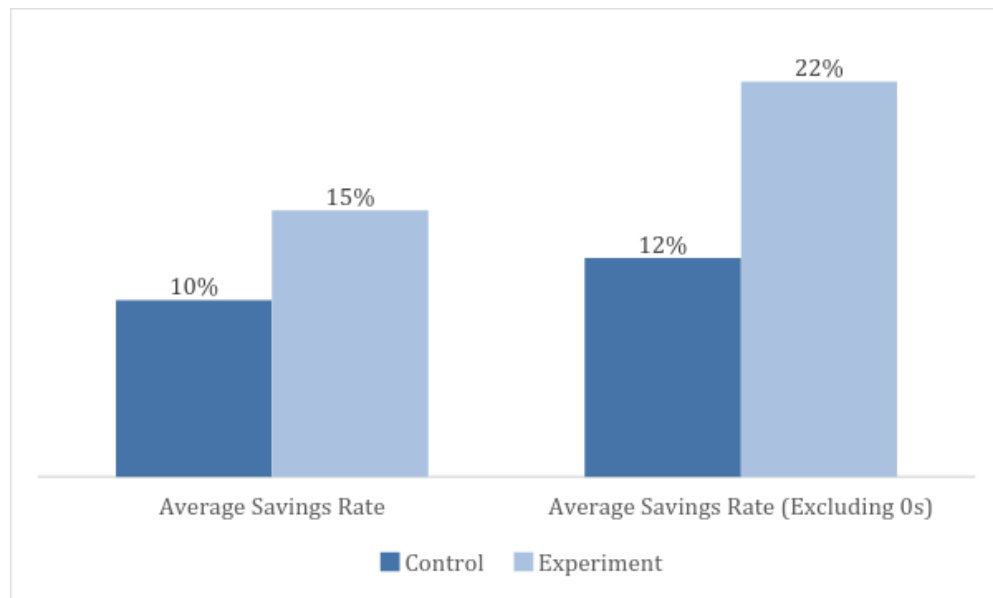


Figure [19]: Users in the experiment condition saved more than users in the control.

This short low-cost text intervention helped thousands of people save part of their tax-refund, totaling over \$1 million in savings. Three months after the intervention, roughly 85% of the savings were still in the savings accounts.

**OUR EXPERIMENT LED TO \$1,000,000 IN SAVINGS.
NEARLY 85% OF THE SAVINGS WERE STILL IN THE
SAVINGS ACCOUNT 3 MONTHS LATER.**

INCREASING SAVINGS THROUGH LOAN PAYMENTS (CREDIT UNION 1)



PROJECT AT A GLANCE

PARTNER TYPE
CREDIT UNION

PROJECT TYPE
PROTOTYPE

PROJECT STATUS
DEVELOPMENT

Credit Union 1 (CU1) is a credit union in Alaska that provides low-cost loans and easy-to-use products to 85,000 members at fourteen branches across the state. CU1 is known for its trailblazing nature in helping design products, services, and branches catered to the needs of LMI members. Our work with CU1 focused on helping members develop savings for car repairs and maintenance when they take out a loan for a used automobile.

In Alaska, many people purchase used cars – new cars are more expensive due to high delivery costs and harder to maintain due to the harsh winters. However, few people consider the longer-term costs of maintaining a vehicle when planning to purchase a car. In particular, CU1 chose to address the behavioral issue of people neglecting to consider the costs of repairs and regular maintenance, contributing to a trend of defaulting on loan payments when cars show signs of breaking down.

Behavioral diagnosis

The partnership started off with a workshop in Anchorage attended by over 60 CU1 employees from a range of departments. The Common Cents team visited three CU1 branches, surveyed 25 members in the branch lobbies, and observed and interviewed tellers, loan officers and branch managers. The team also reached out to people outside of the credit union including community organizers and

non-members. During a subsequent visit, the team focused on auto loans and visited car dealerships in Anchorage, listened in on phone calls from both the loans and the collection departments, and learned the nitty-gritty operational details of the loan process that were relevant to the experiment. We also conducted an online survey to gauge reactions to prototypes of savings products.

Key insights

When prompted, people recognized the need for repairs and maintenance, particularly when they thought about specific and predictable expenses such as oil changes and snow tires. So why weren't people considering these costs while shopping for a used car? People were much more focused on the monthly loan payment amount. Additionally, there's no place in the car buying process where someone makes an active choice not to save for repairs. For these reasons, our intervention focused on defaulting people into saving for repairs and framing these saving payments as part of the monthly loan amount.

Our approach

Common Cents worked with CU1 to develop a new product offering. In this prototype, a savings account for car costs is opened by default when members close on loans for used cars.

The intervention was implemented via a sign-up form for direct deposits into this car savings account; the forms prompted members to contribute a set amount each month to be transferred to the account in tandem with their regular loan payment. In the "write-in" condition members are prompted to write in a monthly savings amount. In the "round-up" condition, members are prompted to round up their loan amount to the nearest fifty dollars. The difference between the actual loan amount and the rounded up amount would be put towards car savings.

TRANSFER AMOUNT WORKSHEET	ROUND UP YOUR MONTHLY LOAN PAYMENT
LOAN PRINCIPLE & INTEREST: \$ ____.	
REPAIRS & MAINTENANCE: \$ ____.	
MONTHLY TRANSFER AMOUNT: \$ ____.	\$ ____.

WRITE-IN CONDITION **ROUND UP CONDITION**

Figure [20]: Illustration of intervention materials.

The intervention utilizes the behavioral economics principle of defaults to make saving as automatic and painless and possible. It combats the limited attention members face during loan close meetings by creating one mental account for car costs that will be automatically transferred to the loan and the savings account via one form. The round-up form also reduces the cognitive effort of determining savings amounts by recommending the loan payment to be a simple, round number.

The intervention will be launched in February 2017. A car savings account is created for all members who are closing a loan for a used car. During the loan close meeting, the members are prompted to set up payments to contribute to the account; this is addressed at the same time the member is prompted to set up payments for the monthly loan amount.

We will track deposits into the car savings account for all members. We expect people who have set up auto-pay for loan payments to be more likely to set up auto-pay for the savings payment. We hypothesize that members in the round-up condition will save more each month than members in the write-in condition, on average. Even a member who puts in just ten dollars a month will have enough savings for an oil change three months down the road. If CU1 learns that creating a savings account for a specific purpose prompts people to save more, they could create designated savings accounts to fit the needs of all 80,000 of their members.

CREATING “RAINY DAY FUNDS” TO INCREASE SHORT-TERM SAVINGS (DUKE CREDIT UNION)

PROJECT AT A GLANCE

PARTNER TYPE
CREDIT UNION

PROJECT TYPE
EXPERIMENT

PROJECT STATUS
PILOT IN FIELD

Low-income households could only cover expenses for an average of nine days if they lost their source of income. This lack of short-term savings threatens a family's ability to handle economic shocks such as unemployment, an unexpected car repair, or a medical bill.

We partnered with the Duke Credit Union, a not-for-profit financial cooperative serving just over 15,500 members of the Duke University community, to explore how the creation of a mental account specifically targeted for “rainy days” might increase motivation to save funds in that account. Like most credit unions, Duke Credit Union offers a typical suite of financial products, including checking and savings account, home and auto loans, and long-term savings products, such as IRAs. However, the median amount saved among all members is just \$25. If we exclude people who have a balance of \$0, it only jumps up to \$140.

Prior behavioral research has shown that changing the default from opting in to an account to opting out of an account can increase uptake as much as 50 percentage points (for 401(k)s only 40% enrolled when it was opt-in but 90% enrolled when it was opt-out) (Carroll, G.D., et al, 2009).

In addition, creating a mental account for emergency savings by labeling accounts was shown to increase total deposits in Ghana by 31.2% after nine months (Karlan, Dean et al., 2010).

Experiment

In collaboration with Duke Credit Union, we created a labeled savings account, called “Rainy Day Savings” to create and leverage a separate mental account for emergencies. Understanding the power of defaults, we had half of all new members choose to opt in to this account or opt out of this account.

Due to a number of current scandals with other financial institutions opening unauthorized accounts. We strive to overcome this stigma by highlighting that our accounts are no-fee accounts.

For members with the account, they would see the labeled savings account each time they received their statement or logged on to their online account. There were no fees or other costs associated with the accounts, nor was there any additional pressure around deposits into the account.

New members were randomized into the opt-in or opt-out conditions based on the last digit of their account number.

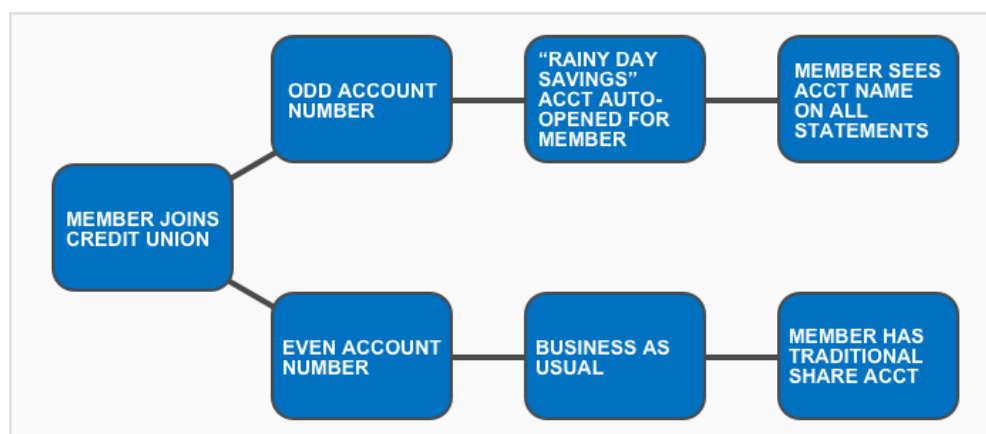


Figure [21]: Duke Credit Union
“Rainy Day Savings” account opt-in/-out organization.

The experiment was launched in early October 2016. We look forward to sharing the results in March, after collecting data for six months.

We are excited about this work, because if successful, it could have a tremendous impact not just for Duke Credit Union’s 15,500 members but also for members at any innovative credit union.

USING GOALS TO BOOST SAVINGS (COMMUNITY EMPOWERMENT FUND)



PROJECT AT A GLANCE

PARTNER TYPE
NON-PROFIT

PROJECT TYPE
EXPERIMENT

PROJECT STATUS
COMPLETED

The Community Empowerment Fund (CEF) is a nonprofit organization focused on enabling and sustaining transitions out of homelessness and poverty. Founded in 2009, CEF provides relationship-based support, workforce development, financial education, and matched savings accounts to individuals experiencing or at-risk of experiencing homelessness in Orange and Durham Counties of North Carolina.

Common Cents has been working with CEF to implement interventions to help optimize creation of and contributions to savings goals. In this intervention, members were randomly assigned to receive a punch card to help them keep track of their progress towards their savings goals. Clients who made deposits towards their savings goals got their cards marked each time, while members who didn't receive the punch cards were part of CEF's programs as usual.

This intervention employed the goal-gradient theory, which suggests that people will work harder to achieve a goal as the target gets closer; the punch card served as a physical reminder to make deposits and as a tangible tool for tracking progress towards completing savings goals.

On average, members who received the punch card completed 49% of their goal by the cutoff date, while members in the control group completed 33%. Members in the punch card condition were also more likely to reach the milestone of 15% of their goal by a difference of 16% between the treatment and control groups.

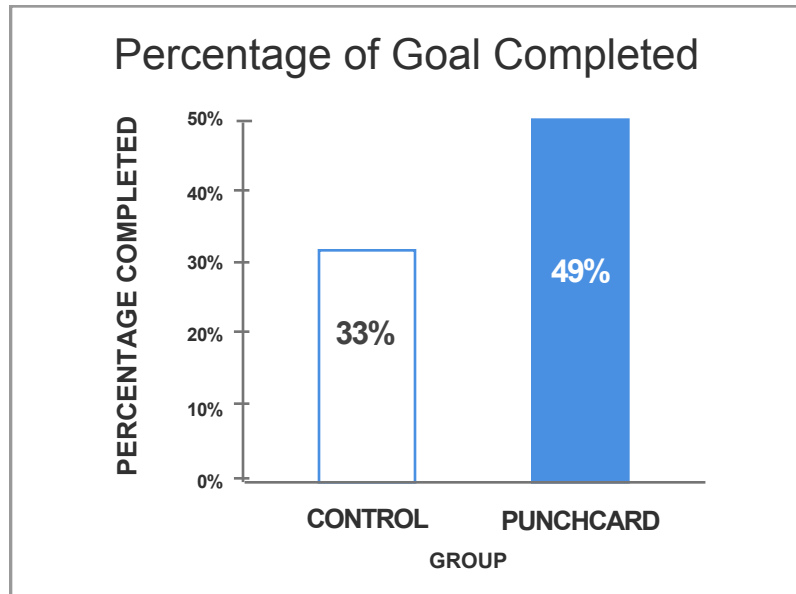


Figure [24]: Percentage of goal completed (control versus punch card)

**MEMBERS IN THE
PUNCHCARD
CONDITION WERE:**



**16%
MORE LIKELY**

**TO REACH
THE**

**15%
MILESTONE**

With the success of this test, CEF has now begun providing punch cards to all members activating new goals.

The lessons from this partnership will inform our work and research on savings among unbanked populations. Looking forward, we intend to continue partnering with CEF to help members achieve their financial goals and enable smoother transitions out of poverty.

LEVERAGING “ROBO-ADVISORS” TO INCREASE SAVINGS (RETIEMAP)



PROJECT AT A GLANCE

PARTNER TYPE
FIN-TECH

PROJECT TYPE
PROTOTYPE

PROJECT STATUS
COMPLETED

Researchers have shown that one of the most effective tools for changing financial behavior is financial coaching. However, scaling one-on-one interactions is difficult and expensive.

Many individuals are now using “robo-advisors” as an alternative to traditional investment advisors. In Silicon Valley, automated financial management services are the new “it” technology. Last year, “robo-advisor” firms raised nearly \$300 million in venture funding. Thousands of people are working to optimize algorithms that identify the best financial recommendation for each person.

While these optimization efforts are worthwhile, we believe that the average American needs less advice on investing and more help with saving. Therefore, a more impactful approach would be for firms to focus less on investing technology and more on the psychology behind the “robo-advisor,” to address the underlying money issues that prevent people from saving. The big opportunity that firms seem to be missing is how to leverage the idea of a uniquely qualified advisor in order to help people make real progress on their financial goals.

We partnered with Retiremap, a fin-tech financial coaching startup, to develop a scalable and effective “robo-advisor.” We created a prototype that helps users achieve their financial goals by harnessing behavioral insights around accountability, goal creation and progress, confidence and mental accounting.

By matching users with a financial coach, we were able to maintain the human element of financial coaching, while using behavioral economics in the many automated, personalized email, SMS and in-app communications. This combination of behavioral economics and automated technology is what enabled Retiremap to deliver a scalable financial coaching program at an affordable price. This will increase access to one-on-one coaching for the populations that need it the most.

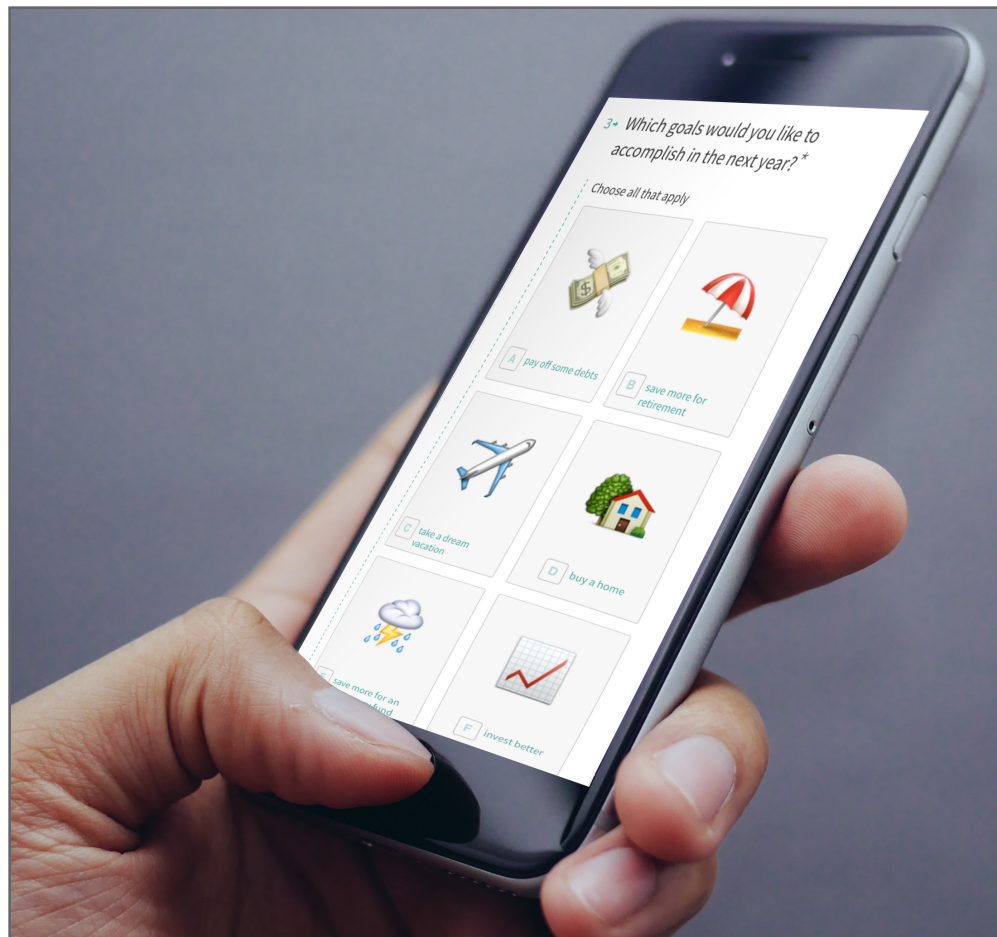


Figure [25]: Illustration of the Retiremap interface.

The Retiremap System is a multi-year intervention that kicks off with an initial eight week program. It is sold and delivered by some of America's leading retirement plan advisors. RetireMap is rolling out our prototype to employers, asset managers and financial advisors. After the roll-out process has ended, we will be able to measure the impact of our Retiremap System, as well as run experiments to optimize the experience for employees, so that they make even greater progress on their financial goals.

INCREASING LONG-TERM SAVINGS

Executive Summary

When most households begin to make a budget, retirement savings is often the last bucket, only to be filled if there's anything left over after paying bills, loans, and everyday consumption. This is largely because we are present-biased, focusing on immediate rewards and consequences, and because we are over-optimistic about our future earnings and ability to save.

In fact, according to the National Institute on Retirement Security, nearly 40 million working-age households in the U.S. do not have any retirement assets. Even among those who do, account balances are far below conservative estimates for how much is needed.

It's clear that the retirement system in the U.S. is broken given its over-reliance on employers and flawed "opt-in" system with inadequate default saving rates.

Approximately 40% of workers do not have access to a retirement plan or offering, outside of Social Security, given their worker arrangement as freelancers, part-time workers, or self-employed independent contractors. Additionally, while 34.3% of employers are employed by small or very small businesses, the vast majority of states do not require small businesses to offer a retirement plan. This may change in the future years, as states such as California and Illinois are making considerable efforts to mandate all employers to provide retirement plans.

For the fortunate workers who are offered an employer retirement plan, we created an "opt-in" system where the default for many employees is to not save anything for retirement. According to a study conducted by the National Bureau of Economic Research (NBER), when one firm switched

from an “opt-in” system to a “opt-out” system, participation rate in the employer’s retirement plan increased by 35%.

Additionally, many firms have a default contribution rate of just 3%, while most financial planners encourage a contribution rate of 10%. Few will be able to save enough for retirement by just saving 3% of their income. These defaults matter. The NBER reported that when a firm had a 3% contribution rate, more than 25% of workers contributed exactly 3%, even though the firm offered a dollar-for-dollar match on contributions up to 6%. Once the firm switched to a 6% default, virtually no new hires selected a 3% contribution rate.

What we are doing

At Common Cents, we’ve partnered with two organizations to specifically explore ways to increase retirement savings among households without access to workplace retirement programs. We tackled tough questions:

- **How do we get 1099-contract workers to save for retirement?**
- **How do we design an effective retirement tool for credit union members?**

Through these partnerships, we completed one field experiment and expect to launch a prototype of a new product in early 2017. In addition, we added to the framing and financial decision making research through our theoretical experiments.

Our key insights

We learned several key insights on how to incentivize long-term retirement savings, including:

- **Income Framing Matters.**
In the lab, we demonstrated that intended retirement contribution rates increased by 5 percentage points when income was framed as a yearly salary versus an hourly wage. We used this finding to run a field experiment with Payable, where we showed freelancers income either on an annual or project basis. Our annual framing increased the number of people who clicked through to start saving for retirement by 14.5%.
- **Adding friction is not always a bad thing.**
With Self-Help, we are developing a retirement savings account that purposefully adds friction and implicit recommendations to discourage non-saving behavior. Our retirement savings account automatically transfers 3% or more of every checking

withdrawal penalty (which can be waived under certain circumstances). In addition, the credit union deposits \$100 as an incentive to keep the account open for at least one year. We plan to roll out the product in early 2017, and ask all new members to opt-out of the account if they don't want it.

FRAMING: ENCOURAGING A LONG-TERM MINDSET (PAYABLE)



PROJECT AT A GLANCE

PARTNER TYPE
FIN-TECH

PROJECT TYPE
EXPERIMENT

PROJECT STATUS
COMPLETED

According to the [U.S. Government Accountability Office](#), 40% of Americans workers make a living as freelancers, part-time workers, or self-employed workers independent contractors. These workers face many difficulties, including limited access to retirement and health insurance benefits that many W-2 workers enjoy.

To help solve this problem, we partnered with [Payable](#) to help more 1099-workers enroll in retirement accounts. [Payable](#) helps tens of thousands of contractors get paid faster and more efficiently by making invoicing, work-tracking, and onboarding simple.

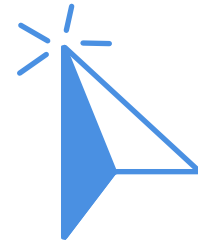
Experiment

We used a simple A/B email to test if displaying the contractor income in annual terms, instead of “per job,” would increase a contractor’s likelihood of signing up for a retirement account. These users were split into two conditions: a control group where income was framed in the usual “per job” amount, and an annual income framing condition.

This intervention used both income framing to encourage a long-term mindset, and anchoring (when displaying savings percentages) to encourage customers to save more for retirement.

Our annual intervention increased the number of people who clicked through to start saving for retirement with a third-party by 14.5%. The bulk of these 1099-workers indicated that they wanted to save 12% to 20% of their income.

OUR INTERVENTION INCREASED THE CLICK-THROUGH RATE BY 14.5%



Given these findings, Payable is working on changing its income framing across all of its communication channels when they encourage retirement savings. We are excited about the potential impact of this full roll-out, given Payable's large and growing user base.

Control

payable

Congrats! Here's the breakdown of this payment:

18.0 hrs. at \$12.50 /hr.
\$50.00 in tips
Jan 12 - Jan 16

How much will you contribute towards your retirement this year?

0% 1% 3% 6% 12% 20%

Your Common Cents payment should now be in your bank account!

Payment Amount: \$275.00
Payment Method: Direct Deposit
Payment Date: Jan 18, 2017

[Log In for More Details](#)

If your money isn't showing in your bank account, please [let us know](#).

You are receiving Payable emails | Unsubscribe | Get Help
©2017, Tiempo Labs, Inc. 73 Summer St. #302, San Francisco, CA 94103

Experiment

payable

You're making around \$11,400.00 annually just from Common Cents!

Estimated based on your recent payments in Payable.

How much will you contribute towards your retirement this year?

0% 1% 3% 6% 12% 20%

Your Common Cents payment should now be in your bank account!

18.0 hrs. at \$12.50 /hr.
\$50.00 in tips
Jan 12 - Jan 16

Payment Amount: \$275.00
Payment Method: Direct Deposit
Payment Date: Jan 18, 2017

[Log In for More Details](#)

If your money isn't showing in your bank account, please [let us know](#).

You are receiving Payable emails | Unsubscribe | Get Help
©2017, Tiempo Labs, Inc. 73 Summer St. #302, San Francisco, CA 94103

Figure [26]: Screenshots of intervention materials.

DEFAULTS: MIRRORING WORKPLACE RETIREMENT PRODUCTS (SELF-HELP CREDIT UNION)



PROJECT AT A GLANCE

PARTNER TYPE
CREDIT UNION

PROJECT TYPE
PROTOTYPE

PROJECT STATUS
DEVELOPMENT

Self-Help Credit Union (SHCU) is a financial service provider that is focused on community development and the improvement of the financial well-being of its members. SHCU members are diverse in employment and background, and they have a wide variety of savings needs.

Many SHCU members do not have access to a payroll retirement plan. Therefore, SHCU decided to offer a new Retirement Savings Account (RSA) that will serve as a substitute to traditional employer-based retirement plans. The RSA will be 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. Common Cents and SHCU are working together to develop this new prototype, as we are designing every aspect of this new product offering.

The RSA enrollment process will be informed by experimentation. SHCU and Common Cents will run a randomized controlled trial at branches across North Carolina. The intervention will occur during new checking account opening. There will be two treatment conditions to which all new members will be randomly assigned: default or default with higher anchors.

In the default condition, eligible members (i.e. those with no workplace retirement option) will be recommended to start with the new RSA at a 3% automatic deposit contribution rate. Members will be asked whether they would like to opt-out.

In the default with higher anchors condition, members will still be recommended to start with the new RSA at 3%, but will be offered to increase their automatic contribution rates to 6% and 10% as well. Members may select a higher contribution rate and will still be required to opt-out of the account if they do not want it.

The interventions will be rolled out and the RSA will begin March 2017 at product launch. We will test the interventions at two different locations and we will collect data for several months. We are excited about the potential impact of this project given SHCU's large 60,000 member base.

LEARNINGS FROM THE LAB

Common Cents was keen to understand the barriers to long-term savings. While there is substantial research around stagnant wages, present-bias, procrastination, and decision paralysis, we were curious about the role of wage framing.

There is substantial evidence that higher income households have higher contributions to retirement savings. These households are also more likely to have a yearly salary instead of an hourly wage. While it may be difficult to increase wages for everyone, it is potentially easier to change the earning frame. We predicted that the way people think about time can affect their preference to save. So we took this question to the lab.

In order to determine whether wage-framing had a causal impact on retirement savings contributions, we tested the presentation of time in wages.

We randomly assigned participants to one of two wage frames: hourly or yearly. We asked some participants to imagine earning \$70k per year while we asked other participants to imagine earning \$35/hr. We then asked all participants to indicate how much they would like to contribute to their savings.

We observed that participants intended to save 16% of their income when the wage was framed as a yearly salary. However, when the wage was framed as an hourly wage, we observed that participants only intended to save 11% of their income. The framing of earnings continued to impact intended contribution amounts, even when participants in the yearly salary conditions were told that \$70k salary is equivalent to a \$35/hour wage (and vice versa).

Next, we wanted to understand if our framing intervention impacted both short-term and long-term savings. In this second study, we excluded any reference to the actual amount of money earned. We told participants to imagine earning a yearly or an hourly salary and then asked them to indicate how much they would like to contribute to short-term savings and/or long-term savings.

We found there was no difference in how much people contributed to short-term savings, but there was a significant difference in how much they contributed to long-term savings.

Unanchored Wage vs. Allocation to ST/LT Savings (%)

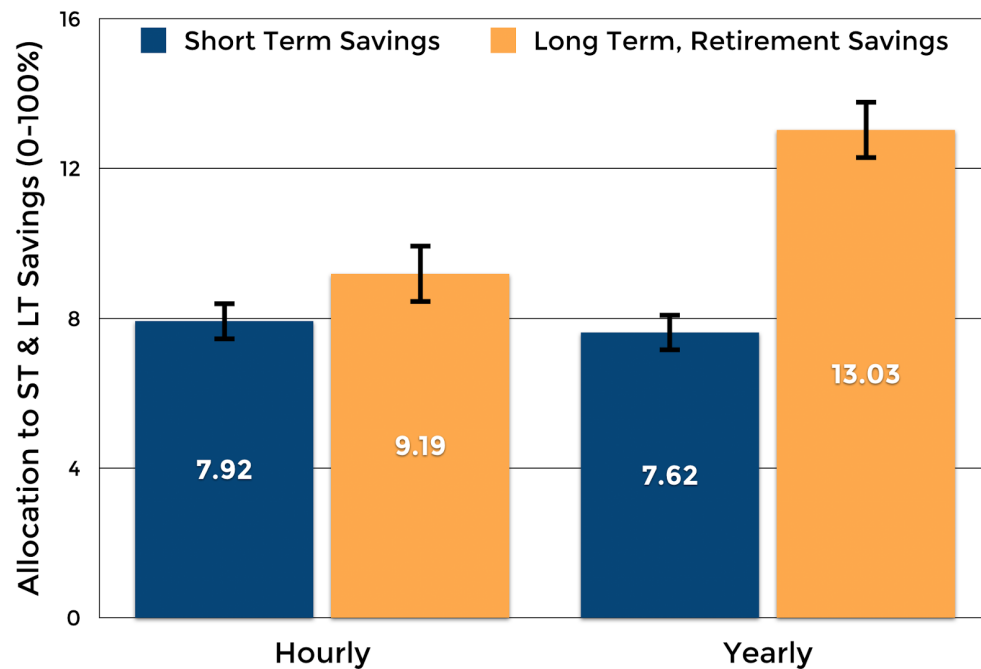


Figure [27]: Yearly income-framing impacts long-term savings, but not short-term savings.

This effect held, even when controlling for other factors, such as: job stability, perceived financial security provided, and individual quantitative ability.

The implications of our findings suggest that a yearly salary (regardless of the amount) helps put people into a long-term mindset and creates a greater willingness to save for a long-term future. With 77.2 million workers in the United States earning hourly wages, a simple framing shift could have a profound impact on addressing the retirement savings crisis in the United States. By telling people what their expected annual salary is, rather than their hourly wage and how many hours they will work per week, we can encourage greater long-term savings.

DISSEMINATION OF RESEARCH

Executive Summary

A core part of our mission is to disseminate our research broadly to help practitioners apply our insights to their own work.

To accomplish this goal we:

- Hosted two conferences, gathering 125 industry experts from 40 financial organizations, including fin-tech companies, credit unions and nonprofits.
- Held five webinars, reaching close to 500 industry experts and practitioners. All of our webinars are available online so practitioners can reference our materials.
- Hosted 11 90-minute sessions with prominent fin-tech companies to quickly diagnose how each organization could improve their offering and the overall experience for their LMI users.
- Published 14 articles across popular press outlets, such as Scientific American, PBS News, Business Insider, reaching over 30,000 readers.
- Published 17 blog articles on the Advanced Hindsight Blog, which boasts 2,200 subscribers.
- Were featured in 15 high-impact events on panels and in workshops, reaching over 1,000 practitioners.

Lastly, we created a financial education audit tool that helps practitioners audit their own financial education programs. This prototype provided practitioners with behaviorally-inspired methods to improve the efficacy of their financial education programs. Our prototype is available online, for free, on our website.

Is your company or organization ready to apply behavioral insights to increase the financial well-being of your customers?

- Sign up on CommonCentsLab.org to stay up to date on our latest findings.
- Apply to attend our 2017 conferences.
- If you're part of a larger organization and want to explore a collaboration, please email kristen@commoncentslab.org

COMMON CENTS CONFERENCES

To begin the process of sharing our findings with leaders in the field, Common Cents held two main conferences this year. Together, these conferences reached 40 organizations and 125 practitioners.

Conference for financial technology companies

The first was the Behavioral Design Immersion Conference held in Mountain View, California on April 8-10, 2016. This conference was geared towards fin-tech companies across the United States; we evaluated over 60 companies and selected 15 whose work positively impacts LMI individuals in the U.S.

Each company was instructed to send 3-4 representatives that are key decision-makers and have the capacity to enact change in their organizations. The first day of the conference was focused on learning and consisted of 10 hours of lectures and interactive sessions around behavioral economics findings that impact financial behavior.

The second day was spent guiding attendees through a process of applying behavioral economic principles to their products. This was a fast-paced, interactive session with behavioral research experts and was intended to help these organizations produce testable, implementable ideas that will improve the financial well-being of their consumers. Seventy-five individuals attended the conference; we distributed feedback surveys following the sessions and provide the following data:

- **70% of attendees gave us a perfect score on the question, "Would you recommend us to your peers?"**
- **90% said that they would make at least one change to their product in the next 1-6 months based on what they learned at the conference.**
- **65% said they would implement that change through an in-product experiment.**

Conference for credit unions and nonprofit organizations

The second conference was Designing Environments for Financial Well-Being held in Durham, North Carolina on October 4-6, 2016. This workshop was intended for Common Cents partners and other leading financial service providers. Fifty individuals from 25 organizations attended. These highly interactive two days offered primers on behavioral economics from experts in the field, including: Dan Ariely, Jeff Kreisler, Avni Shah, Pamela Chan, Zarak Kahn, and Common Cents researchers.

Representatives from this year's Common Cents partner organizations also presented how they are applying behavioral economics through their partnerships to optimize their services. Additionally, we engaged attendees in a service design session, led by the design firm Bridgeable. In this session, attendees were challenged to apply what they learned in order to build interventions for turning borrowers into savers.

We collaborated in mixed teams to rapidly generate concepts, prototypes, and iterate creative solutions to help members save. Throughout the workshop, attendees were given time to develop their own ideas and to discuss ideas with their fellow organization representatives as to how they planned on implementing their learnings. At the end of the workshop, we received the following evaluation results:

- **82% of attendees gave us a perfect score on the question, "I would be interested in continuing to work with the Common Cents Lab."**
- **87% said that they plan on making changes to current products and services based on learnings.**
- **71% reported having a better understanding of the importance of, and methods for, testing.**

We are producing a report on this workshop that will be distributed to all participating organizations, as well as to other financial service providers, so that we can engage a larger audience and apply our research to yield even better outcomes for LMI individuals.

WEBINARS

To share our work, we held five webinars, reaching close to 500 industry experts and practitioners. Our webinars are detailed in the section below. In addition, all of our webinars are available online so that practitioners can reference our materials.

12/01/16

“Creating short-term saving opportunities: Goals, Taxes, and 5-Weekends”

We held a riveting conversation on how to effectively start and increase short-term savings for middle-income Americans. In this session, we shared results from field studies with Digit, as well as new research on savings.

11/17/16

“Creating a Long-Term Mindset: A Simple Intervention to Increase Retirement Savings”

Field and lab studies suggest that the way people think about their income can have a big impact on the way they spend and save money. This is particularly important because often it is those who are the most vulnerable that are also the most likely to have inconsistent incomes. In this webinar, we reviewed findings from our lab and field studies.

11/10/16

“Fixing the SNAP System, from Application to Spend”

This session discussed how social science can help improve the way low-income Americans apply for SNAP, and potentially manage their spending. Common Cents Lab shared learnings from our field study work with Robin Hood and Propel.



10/10/16

“Retiremap 2.0 Launch Webinar”

We held a riveting conversation on how to effectively start and increase short-term savings for middle-income Americans. In this session, we shared results from field studies with Digit, as well as new research on savings.

We covered the key behavioral concepts behind Retiremap's new approach, as well as features that automate and scale many of the most impactful aspects of advisor-employee interactions.



9/22/16

“Thinking About Financial Education in America”

This webinar session tackled the common misconception about a lack of education being the primary driver behind poor financial decision making. Common Cents dispelled misconceptions regarding the efficacy of financial education by presenting research from Daniel Fernandes, John Lynch, & Richard Netemeyer that studies the relationship between financial literacy and financial behavior. We also discussed the ways in which financial education programs can be improved, and created a behavioral audit tool that helps practitioners ensure that their programs are run effectively.

CONTENT PUBLICATION

In addition to our webinars and office hours, we disseminated our research across a number of content publications.

- In 2016, Common Cents has published 17 out of the 20 Advanced Hindsight Blog posts, which has over 2,200 subscribers. Our average email open rate of 25% is well above industry standard. A full list of blog posts can be found at <http://advanced-hindsight.com/blog/>.
- We published 14 articles across popular press outlets including Scientific American, PBS, Forbes and Business Insider. We estimate that our publications have reached over 30,000 readers. A detailed list of our publications can be found below.
- In January 2017, Common Cents will publish 10 case studies showcasing our 2016 projects.

0000
11/24/15

Scientific American Black Friday: The Jury is Still Deliberating

"One potential reason for overspending on Black Friday is social proof. More generally, people seem to take deviation from their regular spending as a start of a new habit to a larger degree when it is just another day of the week. From this perspective, it is true that Americans spend a very large amount of money on Black Friday but it is possible that calling it by this special name and making it a national holiday helps us to separate our Black Friday shopping from all other days. Without a spending cheat day, it is possible that the same type of increased spending would not be categorized as one-off, and would lead to more systematic spending increases."

(<http://blogs.scientificamerican.com/mind-guest-blog/black-friday-the-jury-is-still-deliberating/>)

12/07/15

TechCrunch

How Startups Should Use Behavioral Economics

"The conflict between behavioral economics and product ethos arises because this notion of influence through design many times conflicts with a typical product team's mental model of the user...But the problem with this mental model is that it's impossible. One of the major lessons of the past half century of psychological research is that it's impossible to design a system in which the user has full agency on their decisions."

(<https://techcrunch.com/2015/12/07/how-startups-should-use-behavioral-economics/>)

12/07/15

Forbes

Q&A: Behavioral Economist Dan Ariely On His Plans To Help America's Poor

"How can behavioral economics help low and middle income families gain more financial security?"
"It can help everybody, not just people with low or middle income. But think about what's happening in the world. The world is basically trying to tempt us to do things that are not necessarily in our long-term best interests."

(<http://www.forbes.com/sites/elizabethharris/2015/12/07/qa-behavioral-economist-dan-ariely-on-his-plans-to-help-americas-poor/>)

01/19/16

PBS News Hour

Mental depletion complicates financial decisions for the poor

"One of the big lessons from behavioral economics is that we make decisions as a function of the environment that we're in. And what is the environment that you're in, in terms of your money? They - as in everyone - want to take it away."

(<http://www.pbs.org/newshour/making-sense/mental-depletion-complicates-financial-decisions-for-the-poor/>)

1/20/16

PBS News Hour

Poverty makes financial decisions harder. Behavioral economics can help

"Dan Ariely describes the important new initiatives that we're going to start: going into financial institutions for the poor - the Latino community banks, the self-help bank, the federal credit unions, all types of financial institutions that serve lower, middle-income Americans - and we're going to try to figure out what we can do to help them out. So we will bring a behavioral economics, social science perspective and examine their procedures. The final part is that we're going to develop technologies that we think will be helpful in making these financial decisions."

(<http://www.pbs.org/newshour/making-sense/poverty-makes-financial-decisions-harder-behavioral-economics-can-help/>)

2/11/16

Business Insider

This Google-backed app saves money for you - now it wants to save your tax refunds too

"Digit texts to ask users what percentage of the tax return they'd like to save, and once the tax refund gets in their checking accounts, it automatically moves the predetermined amount to their Digit accounts. According to Digit CEO Ethan Bloch, the tax refund is the single largest influx of non-income cash Americans receive annually, yet most people end up squandering a large part of it away on unnecessary expenses. "We often find that financial decisions are made in the moment, without thinking about the big picture or the long term," Dan Ariely, head of Common Cents Lab and professor of psychology and behavioral economics at Duke University, said in a statement. "By partnering with Digit, we can identify behavior-related challenges to dealing with money and design interventions that help people save more."

(<http://www.businessinsider.com/digit-adds-service-to-automatically-save-tax-refunds-2016-2>)

2/18/16

Scientific American

Poverty makes financial decisions harder. Behavioral economics can help

"The research shows that individuals are "debt account adverse," which means that consumers with multiple debts are motivated to reduce the total number of debts rather than reducing the total of their associated costs. What these kinds of results show is that the urge to get back to being in the black is so strong that people are more motivated to pay off small debts and close out accounts without considering how their interest rates differ.

Goal-Gradient Theory suggests that consumers are likely to be much more willing to put out effort (or allocate their scarce resources) towards debts that are smaller just to finish paying them off, even if the interest rate – and thus the total long-term cost – is lower than other, larger debts."

(<http://blogs.scientificamerican.com/mind-guest-blog/why-don-t-people-manage-debt-better/>)

3/22/16

Scientific American

People Should Spread Out Their Spending—So Why Don't They?

"In general, we have difficulty spending money in a balanced way. We spend too much money at the beginning of the month, after we get our paychecks, and end up with too little at the end of the month. We also spend too much money while we are young, so that we have too little left for our old days. In Economics-speak this is called diminishing marginal utility; it is a phenomenon so common that many economists call it the law of diminishing marginal utility. The problem is that people care a lot about the present, and much less about the future. This is a phenomenon called present bias."

(<http://blogs.scientificamerican.com/mind-guest-blog/people-should-spread-out-their-spending-so-why-don-t-they/>)

4/18/16

PBS News Hour

The realities of living as an independent contractor

"Common Cents Lab partnered with Payable to analyze their financial data and survey contractors in the Payable network. Not only are these new contractors forced to learn how to master a new skill, they are also thrust into a complex tax environment with relatively little experience. Our survey participants experienced a 10 times differential between their largest paycheck and their smallest paycheck in 2015, suggesting large income variability throughout the year. According to most tax experts, anyone who expects to owe more than \$1,000 in 1099 taxes throughout the year should pay quarterly estimated taxes or face a fine. Yet, in our survey, only 16 percent of contractors paid quarterly taxes, and an additional 18 percent did not know that they had to pay quarterly taxes."

(<http://www.pbs.org/newshour/making-sense/the-realities-of-living-as-an-independent-contractor/>)

4/18/16

Forbes

Working In The Gig Economy Is A Taxing Job, Indeed

"Results released today find many independent contractors juggle more than one job and are inexperienced with 1099 income, according to the new study conducted by the research center Common Cents Lab, along with Payable, a San Francisco-based company that provides support for managing pay, 1099 taxes, and benefits for independent contractors and the companies that employ them.

The relatively low pay suggests that much of the independent contract work cannot be relied on as a full-time job and that many people are using side jobs to supplement a more stable income, says Dan Ariely, professor of psychology and behavioral economics at Duke University who introduced the Common Cents Lab in December."

(<http://www.forbes.com/sites/elizabethharris/2016/04/18/tax-day-is-dim-for-gig-workers-who-fail-to-plan-for-filing-time-new-study-shows/>)

6/02/16

Wall Street Journal

Translating Good Intentions Into Actions

"According to recent research, 57 percent of American adults say they are struggling financially. Many organizations have tried to address financial health by investing in financial education programs. However, recent research suggests that financial education alone is ineffective.

"The gap between what people want and what they do is described by social scientists as the 'intention-action' gap," says Dan Ariely, professor and co-founder of the new Common Cents Lab at Duke University. "We know that we are supposed to think about all the things we want to spend on as 'now' versus 'later.'

But the reality is that we live in the moment and we make myopic decisions without thinking much about the big picture or the long term."

(<http://partners.wsj.com/metlife/multipliers/articles/translating-good-intentions-into-actions/>)

6/02/16

Wall Street Journal

Translating Good Intentions Into Actions - 'On-Demand' Work Woes

"As the middle class shrinks and real wages have been steadily decreasing, many have turned to the "on-demand" economy. Aside from working less-than-ideal schedules, many contractors might not be earning enough: In the Common Cents study with Payable, full-time independent contractors self-report a median income of just \$20,000 a year. This level of income is far below the U.S. median personal income of \$28,851."

(<http://partners.wsj.com/metlife/multipliers/articles/on-demand-work-woes/>)

6/27/16

PBS News Hour

Does being paid hourly vs. yearly change how you save?

"The majority of all workers in the United States were paid hourly last year. Typically, hourly wage earners have low incomes and are vulnerable to economic shocks. So we wondered, does being paid hourly instead of yearly somehow change the way people view themselves and their work? According to a well-established psychological theory known as "construal theory," the answer is yes."

(<http://partners.wsj.com/metlife/multipliers/articles/translating-good-intentions-into-actions/>)

11/09/16

Scientific American

The Deadline Made Me Do It

"As the middle class shrinks and real wages have been steadily decreasing, many have turned to the "on-demand" economy. Aside from working less-than-ideal schedules, many contractors might not be earning enough: In the Common Cents study with Payable, full-time independent contractors self-report a median income of just \$20,000 a year. This level of income is far below the U.S. median personal income of \$28,851."

(<https://blogs.scientificamerican.com/mind-guest-blog/the-deadline-made-me-do-it/>)

© 2016 COMMON CENTS LAB
[HTTP://COMMONCENTSLAB.ORG](http://COMMONCENTSLAB.ORG)