

February 2017

Consumer insights on managing spending

About CFPB Research, Tools, and Resources for Financial Educators

An essential part of the mission of the Consumer Financial Protection Bureau (CFPB or Bureau) is to empower consumers to take more control over their financial lives. Since the Bureau opened its doors in 2011, we have worked to improve the financial literacy of consumers in the United States and to ensure access to tools, information, and opportunities for skill-building that they need to manage their finances.

The Bureau's principal financial education mandate is set forth in the Dodd-Frank Wall Street Reform and Consumer Protection Act (Dodd-Frank Act). The Dodd-Frank Act created the Bureau and mandated the establishment of an Office of Financial Education to "be responsible for developing and implementing initiatives intended to educate and empower consumers to make better informed financial decisions." 12 U.S.C. § 5493(d)(1).

To better help consumers make well-informed financial decisions and achieve their own life goals, we at the CFPB have sought to increase understanding of three broad areas: consumer financial behavior, the financial education field, and effective practices in financial education.

We conduct research in these areas to inform the CFPB's own financial education efforts and to share our insights with others who have a common interest in improving the financial well-being of consumers.

The CFPB's goal for its financial education activities is to help consumers move towards financial well-being. In the CFPB's definition of financial well-being, consumers:

- have control over day-to-day, month-to-month finances
- have the capability to absorb a financial shock
- are on track to meet financial goals, and
- have the financial freedom to make choices that allow one to enjoy life

To learn more, visit the Resources for Financial Educators webpage at
<http://www.consumerfinance.gov/adult-financial-education>

To get regular updates on CFPB research, tools, and resources for financial educators, sign up for the CFPB Financial Education Exchange (CFPB FinEx) by emailing CFPB_FinEx@cfpb.gov.

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1. Executive summary

Having control over day-to-day, month-to-month finances is one of the four elements of financial well-being.¹ To better help consumers make well-informed financial decisions and achieve their financial goals, the CFPB sought to increase its understanding of the day-to-day money management challenges consumers face. Specifically, the CFPB conducted research into how consumers organize and manage their spending.²

We wanted to learn from consumers about the challenges they face in tracking their spending and keeping to a budget. We found that consumers aspire to manage their spending but for many reasons, many consumers spend more than intended and sometimes have difficulty in staying within their budgets. In addition, we found that although most people would like to use budgets and plans, these tools can be hard to use in guiding spending decisions in the moment. Budgeting and tracking spending are often considered to be overwhelming or too much of a hassle, and even those consumers who have a budget generally do not benchmark their spending to their budget frequently or regularly.

Some of these challenges stem from scarcity of financial resources and the unpredictability of income and expenses that many households face. Other challenges, however, stem from factors

¹ *Financial well-being: The goal of financial education*, Consumer Financial Protection Bureau (2015), available at consumerfinance.gov/reports/financial-well-being/.

² The study was conducted by Behavioral Labs, Inc. (also known as ideas42) under contract with the CFPB after selection through a competitive solicitation (contract number TPD-CFP-12-C-0020).

that can be at least partially addressed through financial education aimed at helping consumers learn new skills and use new tools and aids.

We also sought to explore how to help consumers meet these challenges and how context and psychology can impact consumers' aspirations to manage their spending. A major factor highlighted by this research is the importance of "decision context," that is, the power of the situation to affect behavior. After all, consumers do not make financial decisions in a vacuum—their decisions and actions are often driven by the situations in which they are made, and influenced by products and processes that interact with consumers' own knowledge, attitudes and motivations.

As part of this research, we tested approaches to helping consumers deal with spending challenges. Specifically, we explored whether having real-time spending feedback at the point of purchase – via a payment card that displays instant information on how much money is left to spend in a consumer's budget, paired with a mobile phone app with an overview of a consumer's budget – might help consumers to manage their spending more effectively.

The research found high consumer interest in having real-time spending feedback: over 90 percent of the consumers we talked to were interested in using a tool or mobile application that gave them such feedback. Consumers reported that they thought spending feedback tools were likely to help them to curb impulse spending, make it easier to budget and stay within their budget, and reduce uncertainty about their financial situation.

With greater understanding of the challenges to intentional decision making related to managing spending, the CFPB hopes to spur efforts to support consumers in making choices that result in the outcomes those individuals hope to achieve. We hope the consumer insights in this report will provide actionable ideas to financial educators and industry in helping consumers achieve financial well-being.

2. About the study

The goal of this research was to identify financial decision-making challenges faced by consumers, and design and test strategies to help people address those challenges.

The Bureau worked with a private-sector entity to develop a prototype to test solutions to consumers' spending challenges.³ The prototype was a digital-display payment card linked to a mobile budgeting application that provided real-time feedback on spending to consumers.

With consumer feedback, we refined prototypes that were functional and had high levels of consumer interest and demand. Insights from the designing, prototyping, and user testing processes for this project are the basis for this report.

The consumers who provided feedback were a demographically diverse group; however, they are not statistically representative of the overall population. Their feedback should be treated as suggestive of some consumers' experience in managing spending. Testing results are not intended to give us statistically significant data that can be generalized to all consumers.

³ We worked with NID Security, a hardware company that manufactures "display cards" -- payment cards that are able to communicate with point-of-sale and mobile technology and provide consumers with information about their finances on a small LCD screen on the card. NID Security had a Memorandum of Understanding (MOU) with the contractor for this project, Behavioral Ideas Lab Inc (see footnote 2) to share their findings from the prototype research. Working with this company does not constitute an endorsement of this company or its products on the part of the CFPB.

3. Consumer challenges in managing spending

Making day-to-day decisions on spending money is one of the biggest challenges consumers face in keeping their financial lives in order. Adding to this challenge is the fact that about one-third of all consumers live paycheck-to-paycheck,⁴ increasing the possibility that consumers may face negative consequences from overspending. Due to unanticipated spending, some consumers may find themselves short on cash and resort to dipping into savings; taking out short-term, high-interest loans; or using credit cards to try to address the difference between what they earn and what they spend.

To reveal factors that make organizing and managing spending a challenge for consumers, we examined previously published research reports, articles, and surveys in the field of decision-making research. Below is a summary of what the literature shows.

3.1 Organizing finances can be complex and intimidating

Organizing financial materials, making a budget, and managing expenses involves paperwork, math, trade-offs, and constraints. In short, it is a hassle.

⁴ Greg Kaplan & Giovanni L. Violante & Justin Weidner, *The Wealthy Hand-to-Mouth*, Brookings Papers on Economic Activity, vol 2014(1).

Consumers receive financial information in many forms—including pay stubs, checks, bills, and other planning materials—and often at times when they can't act on it. Few people arrive home, collect their mail, and immediately open financial documents. Even if they did, the most up-to-date and relevant materials arrive at different times of the month and year.

There are many types of financial and household documents that financial advisors recommend keeping in an “active file.”⁵ However, our research indicated that many consumers have difficulty even finding a product warranty, bill receipt, credit card term sheet, or tax returns.

Intentional cash flow management is usually done at specific moments such as when a choice or action needs to happen (such as tax time), or in the aftermath of life changes. These include decisions about tax withholding, direct deposit, and savings programs at the time of employment; when collecting materials for taxes or applications; or when trying to stretch finances to the end of the pay period or until a purchase or payment is made.⁶

Even when consumers take steps to manage their finances by setting up a budget, they may find it difficult to adhere to a monthly or weekly plan. In the absence of simple questions and simpler answers, consumers may have difficulty organizing their finances in a manner that results in strategic, consistent, disciplined financial management.

Considering that nearly half of all consumers say they “prefer not to think about money,” it is not surprising that most do not have a comprehensive personal budget or plan for their personal finances.⁷

⁵ USA.gov. *Keeping Family and Household Records*. Retrieved from <https://publications.usa.gov/USAPubs.php?PubID=3067>

⁶ Jennifer Turnham, *Attitudes to savings and financial education among low-income populations: Findings from the financial literacy focus groups*. Center for Financial Security, University of Wisconsin-Madison, Working Paper WP 10-7, 2010.

⁷ M.B. Franklin, “Americans’ Financial Plan? Not Planning.” Investment News. July 23, 2012.

3.2 Circumstances affect consumers' spending habits

Consumers spend in different ways at different times. For example, with higher-priced items such as a car or flat-screen TV, the consumption process is generally more deliberate, with consumers considering alternatives and potentially comparison-shopping. When purchasing less expensive items such as a cup of coffee or filling up a gas tank, however, consumers often pay less attention to how much they are spending and may not realize how smaller purchases add up over time.⁸ This is one reason why many financial management tools begin by tracking daily consumption in order to increase consumers' awareness.

In addition, people consistently underestimate the amount they spend on infrequent or uncommon purchases and also tend to overspend on these purchases.⁹

Consumers also may treat many purchases as special and off-budget. Research has shown that consumers are likely to make "off-budget" purchases in situations that they think of as "exceptional"¹⁰ -- for example, a wedding gift or a special meal out. By treating purchases as special occasions, consumers are even less likely to have a strategic view of their spending.

Consumers may also overspend in settings such as discount stores where everything appears to be inexpensive or a good deal. Consumers let their guard down in such stores and end up purchasing more items than they planned or needed to buy.¹¹ The impact of this behavior is

⁸ Meghan Casserly, *Little Splurges that Cost Thousands in the End*. Forbes, July 24, 2011.

⁹ Abigail B. Sussman & Adam L. Alter, *The Exception Is the Rule: Underestimating and Overspending on Exceptional Expenses*, Journal of Consumer Research (December 2012).

¹⁰ Ibid.

¹¹ See Karen Stilley, *Planning to Make Unplanned Purchases? the Role of Discretionary Budgets in In-Store Decision Making*, Advances in Consumer Research Volume 35, 2008; and On Amir & Erica Dawson, *Motivating Discounts: Price Motivated Reasoning*, Working paper, University of California-San Diego, 2007.

widespread, and, according to one survey, nearly all shoppers report buying items that are not on their shopping lists.¹²

It may be difficult to resist the temptation of spending and the instant gratification it brings, especially when the long-term benefit of frugality is not always obvious. This phenomenon has been seen in other instances in which people are trying to avoid temptation. For example, people trying to quit smoking who have high levels of stress are more likely to relapse and smoke.¹³

3.3 Consumers find it hard to know how much money is left

As the percentage of purchases made by debit or credit card rather than cash increases, some consumers may have a more difficult time keeping track of their spending. About 60% of all payments are made by non-cash methods such as credit and debit cards.¹⁴ Research shows that many consumers spend more with a credit card than they would with cash.¹⁵ And non-cash payments provide less immediate feedback, compared to a diminishing stack of money in the wallet.

As a result, many consumer purchases are made without any feedback about where the person stands with their budget. And when it comes to paying with a credit card, consumers usually don't see the results of a card purchase until the end of a month when the statement arrives.

¹² David Mielach, *Can't Resist That Gum? You're Not Alone*, BusinessNewsDaily.com, April 17, 2012.

¹³ Saul Shiffman & Andrew J. Waters, *Negative Affect and Smoking Lapses: A Prospective Analysis*, Journal of Consulting and Clinical Psychology, Vol 72(2), Apr 2004.

¹⁴ Barbara Bennett, Douglas Conover, Shaun O'Brien, & Ross Advincula, *Cash Continues to Play a Key Role in Consumer Spending: Evidence from the Diary of Consumer Payment Choice*, Federal Reserve Bank of San Francisco, 2014.

¹⁵ Dilip Soman, *Effects of Payment Mechanisms on Spending Behavior: The Role of Rehearsal and Immediacy of Payments*, Journal of Consumer Research 27, 2001.

Forgetting about purchases they have made or underestimating spending habits can leave consumers unaware of how individual purchases add up over time.

This is not to say there is no feedback on consumer spending. Indeed, credit card bills, bank statements, collections notices, and credit card declines can give consumers specific feedback on their spending. However, the feedback is delayed and often difficult to comprehend. This may contribute to a generalized anxiety around finances instead of a clear connection to individual purchase decisions.

3.4 Consumers don't always implement their financial intentions

Consumers may have financial plans and intentions that they may not act upon. For example, eight in ten households have less in liquid savings than they recommend for households like their own.¹⁶ In one survey, 48% of non-retired respondents answered “no” when asked whether they were “saving enough for a retirement in which you will have a desirable standard of living,” and only 40% of respondents indicated they were making good or excellent progress in “meeting their savings needs.”¹⁷

Most people know that switching to a credit card with a lower interest rate is a good idea, but only about one-third of consumers report doing so, while a quarter say they are okay with the higher interest rates as long as they can afford their payments.¹⁸

¹⁶ Pew Charitable Trusts, *The Role of Emergency Savings in Family Financial Security: What Resources Do Families Have for Financial Emergencies?*, November 2015.

¹⁷ Consumer Federation of America, *Less Than Half of U.S. Households Report Good Savings Progress, According to Annual America Saves Week Survey*, February 22, 2016.

¹⁸ Lucy Lazarony, *Americans are doing the wrong credit card thing*. Bankrate.com, March 2003.

The evidence suggests that consumers generally value financial management and planning and believe they would benefit from it. But, like building an emergency savings account, switching credit cards, or paying bills on time, it can seem like a large or overwhelming task, leading consumers to postpone or altogether avoid the anxiety and hassle.¹⁹

3.5 “Traps of scarcity” cause consumers to struggle even more

People behave differently when living under scarcity. When resources are scarce, they may focus only on the problem or task at hand. When short on time, for example, working to finish a task or meet a deadline, they can focus intensely on that task. Unfortunately, that extreme focus can come at the expense of other priorities.

When it comes to their finances, consumers with limited financial reserves may focus on their immediate spending decisions, perhaps without taking their subsequent or overall financial situation into account. The effect of focusing demonstrates how a consumer could fall into a “trap of scarcity.” When the feeling of scarcity grows, people may begin focusing on their immediate needs at the expense of long-term aspirations.²⁰

Consumers with limited financial resources may face daily, bi-weekly, and monthly financial crises. Income may flow in on a different schedule from expenses. Missed payments hold different consequences that are difficult to compare. Many consumers may end up moving from one financial crisis to the next, perhaps coming up with resourceful and creative solutions for each crisis but struggling to keep track of the payment or shortfall to come.²¹

¹⁹ Ibid.

²⁰ Sendhil Mullainathan & Eldar Shafir, *Scarcity: Why Having Too Little Means So Much*, Time Books, 2013.

²¹ See, for example, Rachel Schneider, *Spikes And Dips: How Income Uncertainty Affects Households*, Center for Financial Services Innovation, 2014; and Pew Charitable Trusts, *The Role of Emergency Savings in Family Financial Security: How Do Families Cope With Financial Shocks?*, Pew Charitable Trusts, 2015.

Consumers living under financial scarcity may actually make a better decision about a short-term problem because of their focus on immediacy – but as other aspects of their finances, such as planning for medium-term cash flow needs, are less top-of-mind, their overall financial stability may suffer.

Recovering from over-spending or a shortage of funds requires even more frugality and self-control by consumers. When consumers feel that they face scarcity, this may be even more difficult.

4. Potential solutions for consumers

Scarcity and income volatility are realities over which consumers and financial educators have little control. However, there are ways to help consumers overcome the challenge of managing spending in accordance with their own budget and goals. We tested potential solutions to one of the challenges described above: Consumers find it hard to know how much money is left. We looked at approaches that would give consumers real-time feedback on their spending at the point of purchase. Our solutions testing asked, *if consumers know where they are in their spending related to their self-determined budget, will they be able to make more informed choices about potential purchases?*

Research studies in a lab setting have found that providing feedback on spending behaviors to consumers leads to reduced spending.²² Specifically, this research study provided consumers with information on their credit card receipts about the amount spent on a current transaction, cumulative spending in the current month; and current credit card debt as of the day of the transaction. Consumers who received the feedback on credit card receipts spent 9.6 percent less over the course of the trial than those who didn't receive such feedback.

²² Amit Poddar, Cameron M. Ellis & Timucin Ozcan, *Imperfect Recall: The Impact of Composite Spending Information Disclosure on Credit Card Spending*, Journal of Consumer Policy 38(1), December 2014.

To gain more insight into this idea, we worked with a private-sector company²³ to design and test prototypes that provided real-time spending feedback to consumers. A prototype with two key pieces was developed:

- **A payment card with built-in feedback.** The company we worked with²⁴ developed a prototype card that displayed instant and pertinent information on how much money is left to spend after taking a consumer's monthly bills, expenses, and savings goals into account, based on the consumer's own personal budget. The card looked, felt, and functioned like a regular credit or debit card, but also had an LCD screen that displayed useful budgetary information at each press of a button on the card. Consumers could scroll through numbers that show how much money they had left in their budget for that month, week, and day, based on their income and transactions.
- **A flexible budgeting app.** The company we worked with also created a prototype mobile phone application, or app, that provided an easy-to-understand overview of a consumer's budget by consolidating information from across multiple accounts. In market-ready versions, this app would sync with the consumer's payment card transaction data²⁵ and display in real-time how much of the consumer's expendable budget remained for the present day, week, and month. For the prototype, mock transaction data was used.

²³ The company's participation was determined through an open process for organizations to express interest in working with the CFPB and Behavioral Labs, Inc. on the project. See <http://www.consumerfinance.gov/blog/were-looking-for-innovative-partners-for-financial-education-research/> for more details. Working with these companies does not constitute an endorsement of these companies or their products on the part of the CFPB.

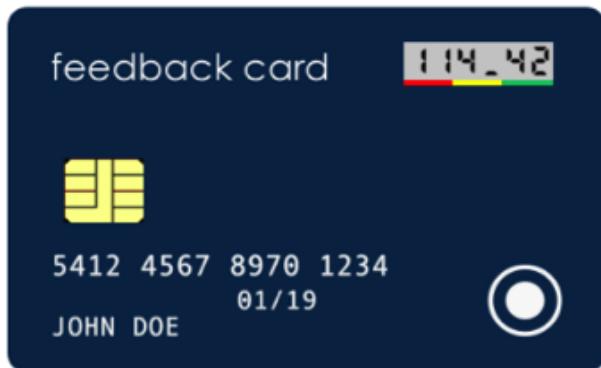
²⁴ We worked with NID Security, a hardware company that manufactures "display cards" -- payment cards that are able to communicate with point of sale and mobile technology and provide consumers with information about their finances on a small LCD screen on the card. Working with this company does not constitute an endorsement of this company or its products on the part of the CFPB.

²⁵ This syncing happens using Near-Field Communication (NFC) technology between the card and either the consumer's smartphone or the retailer's point-of-sale device.

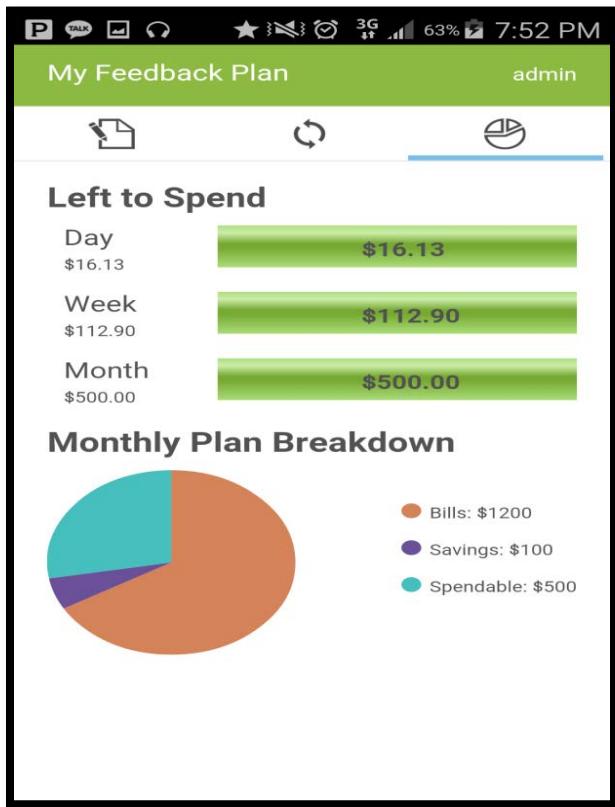
Together, the budgeting app and feedback card would provide consumers with real-time feedback at the point of purchase on their spending relative to the budget for the day, week, or month. (See Figure 1 for a graphic depiction of the display card and budgeting app).

For example, a consumer could use the budgeting app to determine that based on current income and bills, he or she could spend a certain amount – say, \$25 a day, or \$125 a week -- on miscellaneous items. When the consumer went to a retailer, at the point of sale the feedback card would sync with the app and the LCD screen would let the consumer know how much money was left in the “allowable spending” for the day or month. This would help the consumer to keep track of how much had already been spent, and give the consumer actionable information on whether to make the purchase or not.

Figure 1: Visual depiction of the display card and budgeting app



This credit card shows the consumer how much is “left to spend” in a given week, based on budgets set by the individual.



This phone/computer app allows consumers to create a budget and keep track of how much they have left to spend in a day, week, or month, drawing on consolidated data from their transaction accounts.

4.1 Testing methodology

The company we worked with initially created low-fidelity mock-ups of the prototype display card and mobile budgeting app that, while not fully functional, were able to convey the intended immediate feedback without the fully comprehensive suite of functions of card and app.

Visual depictions of these two prototypes were tested with an online panel of consumers to get their reactions and opinions that could then be used to inform further iterations of the

prototypes. A diverse group of 144 respondents from the panel answered questions about consumers' budgeting attitudes and behaviors, and were introduced to the prototypes and queried about their interest in the prototypes, and the prototypes' functionality.²⁶ Although this user testing was not designed to provide conclusive evidence of the prototypes' potential success in the market, it still yielded important insights to inform the next iteration of the study and the product.

Based on the findings of the online survey, the company we worked with then created functional, full-fidelity prototypes of the display card and mobile app. These prototypes were tested in person with nine consumers to gauge interest and reactions to the prototypes.

The consumers interacted with the prototypes in a lab setting with mock transaction data and not in real-world settings with actual purchases or budgets. As such, the prototype testing results are suggestive of consumer preferences and demand, but should not be seen as definitive research about how these interventions would impact consumers with their actual financial decisions and transactions.

²⁶ The respondents represented a diverse range of ages (18 to 75), annual household income levels (ranging from less than \$10,000 to great than \$150,000), educational attainment (high school equivalent to doctorate degree), and geographic location (36 states). The respondents, while diverse, were not statistically representative of the overall population. Their feedback should be treated as suggestive of some consumers' experience in managing spending. Testing results are not intended to give us statistically significant data that can be generalized to all consumers.

4.2 Testing results

4.2.1 Insights on consumer behavior

Lack of meaningful, timely feedback appears to be a challenge to managing finances. The online user testing results indicate that most consumers do not currently have a means to obtain instant and holistic feedback about how their spending compares to their available funds. Only about 2% of respondents said they had a tool that could instantly communicate how much money they had left to use based on actual transactions. Forgetting purchases or misestimating spending habits are common occurrences, leading many to be unaware of how individual purchases add up to large total expenditures.

Furthermore, by treating some purchases as special occasions, consumers are even less likely to have a strategic view of their spending. About 61% of respondents said they would be fine with spending a little more than usual for special events like birthdays or other special celebrations. If consumers are not aware of their cash flow or budget objectives while spending on special occasions, it can be hard to get an accurate grasp on how a purchase fits into one's overall budget.

Budgeting can be overwhelming or too much of a hassle. Consumers may face many expenses throughout a pay cycle, some of which may be unexpected. These uncertain expenses can sometimes be beyond individual control, which in turn can make any efforts to budget or account comprehensively for one's cash flows overwhelming. Indeed, 40% of survey respondents said that the primary reason they did not have budgets either currently or at some point in the past was due to the level of uncertainty surrounding their income and/or expenses.

Another prominent reason for not following a budget was lack of time. Approximately 23% of respondents either never got around to making a budget despite the intention to do so, or simply did not feel they had the time to craft one. In addition, nearly one in five respondents explicitly stated it was too much of a hassle to make a budget.

People generally do not benchmark their spending to their budget frequently or regularly. Even after overcoming the hassle of crafting a budget, there are additional actions consumers need to take to manage their finances in a sustainable manner. Periodically comparing one's actual spending to a pre-set budget is yet another hassle in the personal financial management process. Although 96% of survey respondents reported that they had

made a budget at some point in the past, they reported that they compared their spending to their budgets relatively infrequently, with only 12% comparing their spending to their budget daily, 13% comparing weekly, and more than half comparing their spending to their budget once a month, if at all.

4.2.2 Insights on the display card and budgeting app

The display card and budgeting app were designed to enable consumers to consider their budgets in real time to inform spending decisions. The online survey and in-person user testing provided insights on consumer interest in the display card and mobile budgeting app.

Providing meaningful feedback. Many respondents acknowledged the value of the prototypes' ability to provide immediate feedback on spending behaviors. As one respondent noted, "The [the card and app] made me aware of it actually being MONEY that I'm spending, where a regular card sometimes feels like it is free." This comment points to the prototypes' potential to prompt consideration of one's budget and convey effectively the real depletion of funds with each purchase.

Others echoed that the prototypes would help them realize the impact of their spending decisions, thus leading them to check the card and app frequently to see if they had sufficient funds to make certain expenditures. Respondents identified specific features of the prototype as providing feedback that consumers could use to better manage money: "The monthly figure [on the budgeting app] lets you know how carefully you need to limit your spending for the month so you don't go over your limit before the end of the month."

Curbing impulse spending. Multiple users commented on the prototypes' potential to curb impulse purchases. Indeed, the prototypes' ability to track transactions in real-time and accurately present consumers' remaining spendable balances eliminates the hassles of manual calculations while making top of mind the limits of one's budget.

Users suggested that such features of the card and app prompted them to reconsider and ultimately forgo "unnecessary" purchases. According to one respondent: "I think [the card and app] would be most useful to control impulse purchases, stuff that you might buy day to day, like coffee or things at the drugstore or whatever that you don't account for in a budget or don't realize how fast they add up."

Staying within budget. In a further indication of the prototypes' effectiveness in providing meaningful feedback, consumers who used the prototype mock-ups made significantly different choices in the testing situation than those who did not use the prototype. Even when given the exact same monetary information, people made different purchasing decisions based on the way information was presented.

For example, significantly fewer people would buy concert tickets ("an unnecessary expense") when the app screen showed they were over-budget than when they were given the text-only version of the same information.

Reducing uncertainties. Respondents indicated that the prototypes may have been able to alleviate some of consumers' worries about uncertainty. Despite their self-reported struggles with managing finances, 74% of respondents who interacted with the app screen to work through a financial decision agreed or strongly agreed that knowing their bills were accounted for in the "safe to spend" figure gave them peace of mind. Consumers seemed to appreciate having a tool that dispelled some of the uncertainty around the calculation of an expendable budget.

Making budgeting easier. Nearly one out of five survey respondents reported viewing budgets as too much of a hassle to make. Yet, even among those who "preferred not to think about money," 87% said they would use the app if it were made available to them. Some respondents claimed that the information given through the prototypes could make planning ahead for the week easier.

One respondent further commented: "A lot of people live paycheck to paycheck and [the card and app] would be structured to give a good idea of what is going on between checks." This suggests that the prototypes' easy-to-understand consolidation of financial information may help consumers manage their spending within their budget constraints.

Applicability to younger and older consumers. Several users pointed out the display card and app would be useful for younger people or individuals with little experience in creating, maintaining, and following a budget. Some believed it would simply make it easier for younger people to budget, while others believed it could teach people to budget for the first time. One respondent said: "Most people need to learn how to spend money wisely. [The card and app] could help the younger people learn to budget."

One respondent who was a mother of five thought the card and app would be useful to give her children their allowance through the display card and then allow her to monitor their expenditures.

Other respondents noted that this could be a valuable tool for older consumers who may face difficulties in accessing their accounts through other means.

Increasing frequency of budget tracking. Although only 12% of survey respondents said they normally check their actual spending against their budget on a daily basis, 50% of respondents said they would use the card and app at least daily to keep up to date on their spending status. This suggests that making budget tracking more convenient through automation could motivate more consumers to keep an eye on their spending, reducing the hassles and obstacles of having to do it manually.

Making routine updates and benchmarking easier. Respondent comments reported that the card and app would be particularly useful for people who wouldn't necessarily have the time to track their expenses. This is likely due to the automated nature of the feedback, as well as the convenience of being able to see in a central location one's cash outflows against one's cash inflows.

In addition, of the respondents who identified the lack of time as a barrier to budget-keeping, 77% said they would use the card and app if it were available to them.

4.2.3 Consumer concerns

The consumer reaction to the card/app combination was very positive; however, consumers also raised some issues to consider for potential uses of these findings. The first notable concern was accuracy. Some consumers lacked confidence that the budgeting app would provide an accurate summary of the user's funds. If not all accounts were entered or updated appropriately in the budgeting app, it is possible that some spending would not be accounted for, potentially leaving the consumer with an unrealistically high "allowable spending" number. Any tool based on these findings would need to be accurate and thorough to gain consumer confidence.

Some consumers also raised concerns about the security and privacy of sensitive personal financial data involved in the card/app combination. Some consumers were worried that others might be able to look at the consumer's remaining spendable balance. This worry was particularly tied to fear of theft of the card. Consumers also had some hesitation about

transmitting sensitive financial data over the Internet by using the app, and the transfer of data between the card and app. This concern was arguably not unique to the mobile app, but a general concern of consumers about online financial management and payment tools.

5. Conclusions and implications

Our research finds that consumers recognize their own challenges in the area of managing spending, and are interested in using tools to help achieve their spending and budgeting goals. Our findings suggest that real-time spending feedback and budgeting tools might help consumers better manage their spending. Specifically, we learned that the display card and mobile app or similar technology appeal to consumers.

A promising implication of this research is that easy-to-use tools that provide immediate and accessible feedback on one's remaining "spendable" balance could invite consumers to think more frequently and comprehensively about the consequences of purchases on their available funds. Tools based on this finding can help consumers close the gap between their intentions to follow a budget and their real-time spending decisions.

This research has implications for multiple audiences:

Consumers

Real-time feedback on spending can help consumers manage their budget. Even when consumers do not have access to specific products such as the display card and mobile budgeting app we tested, consumers can find other ways to get information on their spending and account balances in as close to real time as possible, by, for example, signing up for balance-alert text-messaging services, calling their bank, visiting an ATM, viewing their accounts online,

or using one of a growing number of mobile personal finance management applications.²⁷ (See the consumer worksheet that is a companion to this brief, *Consumer tips for managing spending* at http://files.consumerfinance.gov/f/documents/201702_cfpb_Consumer-Tips-on-Managing-Spending.pdf).

Financial education professionals

Financial educators and others who work with consumers can use these findings to help consumers with challenges related to budgeting and managing spending. Financial educators can help consumers create budgets, manage bills, and find ways to get regular feedback on spending, by encouraging consumers to access the types of options described above to get account balance information before spending. (For more ideas on how to help, see the financial educators digest that is a companion to this brief, *Managing spending: Ideas for financial educators* at http://files.consumerfinance.gov/f/documents/201702_cfpb_Managing-Spending-Ideas-for-Financial-Educators.pdf).

Financial services providers

The concepts underlying the prototype we tested could be adopted by a variety of financial institutions that issue payment cards, including banks, credit card companies, credit unions, and financial technology companies. Innovations in the area of real-time feedback around spending could meet consumer demand for products to help them manage their spending.

In conclusion, developing mechanisms or approaches that allow consumers to get real-time feedback could help them to better manage spending, stick to their budgets, and potentially achieve a range of financial goals.

As referenced above, the CFPB has developed resources to help financial educators and consumers with issues of managing spending: see the companion digest *Managing spending: Ideas for financial educators* and *Consumer tips on managing spending* worksheet. The CFPB

²⁷ Consumers should be aware that use of some of these options may incur fees.

also has other resources aimed at helping consumers budget, pay bills, and manage their money (see box on CFPB tools). These and all of CFPB's tools and resources can be found on the Resources for Financial Educators webpage at www.consumerfinance.gov/adult-financial-education.

Other CFPB tools to help consumers with spending and money management decisions

My New Money Goal

Having a plan is the easiest way to reach new money goals, navigate changes in income, or switch priorities in our lives. You would not start a road trip without mapping it out first, and the same is true with your finances. This guide will help you gain a clear view of where your money goes now so you can more easily decide where you want it to go in the future.

pueblo.gpo.gov/CFPBpubs/CFPBpubs.php?PubID=13057

My Money Rules to Live By

These worksheets help consumers set their own rules on savings, spending, use of credit cards, and checking credit reports.

consumerfinance.gov/data-research/research-reports/consumer-voices-financial-rules-live/

Behind on Bills? Start with one step.

Behind on Bills is a modular toolkit that financial educators can use to help their clients with a range of budgeting challenges.

pueblo.gpo.gov/CFPBpubs/CFPBpubs.php?PubID=13263

Make the most of your tax refund

A worksheet to help consumers plan how to distribute their tax refund so they can have some for immediate needs and set aside some for future expenses.

consumerfinance.gov/static/fin-ed-resources/tax-preparer-resources/cfpb_tax-prep_refund-worksheet_2016.pdf

SAVED: Five steps for making financial decisions

To find the best deal when you buy a financial product or service stop, ask, verify, estimate and decide.

pueblo.gpo.gov/CFPBpubs/CFPBpubs.php?PubID=13123