

# Budget Planner Tool Assessment Report

Prepared for Financial Consumer Agency of Canada (FCAC)

Ashley Wong, Jai Singh, Laura Goodyear, Bing Feng and Dilip Soman

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## About

This report was prepared by the research team at Behavioural Economics in Action at Rotman [BEAR] under the supervision of Professor Dilip Soman for the Financial Consumer Agency of Canada [FCAC]. For questions and enquiries, please contact:

Dilip Soman or Bing Feng  
Rotman School of Management  
University of Toronto  
105 St. George Street  
Toronto, ON M5S 3E6

Email: [dilip.soman@rotman.utoronto.ca](mailto:dilip.soman@rotman.utoronto.ca) or [bing.feng@rotman.utoronto.ca](mailto:bing.feng@rotman.utoronto.ca)  
Phone Number: (416) 978-6980

Twitter: @UofT\_BEAR @dilipsoman

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## Executive Summary

Many Canadians are worried their money will not last and feel they are just getting by financially (FCAC, 2022). Budgeting is crucial for many Canadians as research shows that budgeting helps people manage monetary constraints and achieve their financial goals (Kan et al., 2015). Despite the numerous budgeting tools and budgeting styles available for Canadians, in this report, we focus on the Financial Consumer Agency of Canada (FCAC) interactive Budget Planner – a digital tool to help Canadians better manage their financial goals. This report aims to provide a holistic assessment of the Budget Planner and identify key considerations for future development, optimization, and improvement.

We completed the assessment and analysis using a two-phased approach. First, we collected and analyzed secondary data, including literature review, benchmarking analysis, FCAC intercept survey, and Key Performance Indicator (KPI) analysis.

- **Literature review:** The literature review allows us to develop a foundational understanding of existing research on financial decision making, budgeting behaviour, and the distinction between budget setting and budget tracking. Research found that there is a behavioural distinction between budget setting and budget tracking. Consumers may intend to be financially responsible and set up a budget, but there often exists an intention-action gap that prevents consumers from sticking to their budgeting goals. The literature review findings shed light on the questions of why budgets work and why budget tracking is important to many users.
- **Benchmarking analysis:** We identify unique attributes and functionalities of the FCAC Budget Planner after comparing 12 different online budgeting tools on 38 different features. Some key strengths of the FCAC Budget Planner include a high level of personalization and a highly detailed and interactive visual summary of the user's budgeting status on the budget results page. One shortcoming of the FCAC Budget Planner relative to other alternatives is that it may not create the desired “stickiness”—that is, its design may not sufficiently encourage users to keep using the tool to assist with budget tracking. A detailed summary of the benchmarking analysis can be found on page 17.
- **Intercept Survey:** Our analysis of the data from FCAC's 2020 intercept survey showed that most survey participants found the tool was easy to use and helpful in achieving their financial objectives. However, for individuals whose main goals were to make a new budget, pay down debt, or set saving goals, a large proportion reported being unsure of their perceptions of the Budget Planner.
- **KPI Analysis:** At the end of Phase One, we developed a list of KPIs to gauge the Budget Planner's performance over time. There are two types of KPIs on our list: (a) FCAC's existing and new KPIs that measure the awareness, access, and usability of the tool, and (b) KPIs related to the evidence of behavioural change. Please see Figure 6 for the full list of KPIs.

In Phase Two, we collected primary data through user interviews, online survey and experimentation (Perception Survey and Experimentation) to understand how individuals perceive different aspects of the Budget Planner and what aspects of the tool are important to Canadians. In addition, we collected feedback from the FCAC project team who had been involved in deploying and disseminating the tool to verify the findings from our research.

- **User Interviews:** Using insights from 16 user interviews, we created journey maps that chart the potential pathways that a user can go through when using the Budget Planner and identified some potential bottlenecks. A vast majority of interviewees shared positive feedback but also reported a couple of bottlenecks impacting their experience. One bottleneck is the lack of customizability – the Budget Planner provides a large number of potential income, savings, and expense categories irrespective of users’ demographic and life stage selections during the onboarding process. The second bottleneck reported by the interviewees is the lack of options for effective follow-through except for the unique URL.
- **Quantitative Survey and Experiment:** Next, we partnered with Canadian Viewpoint Services to conduct a survey across a geographically representative sample of 1500 Canadians for our Budgeting Perception Survey and Experiment. The online survey focuses on two areas: people’s perceptions and beliefs about the Budget Planner and Canadians’ budgeting behaviour (e.g., budget type, budget length, budget effort, reasons for budgeting etc.). Several key insights are drawn from the Perception Survey and Experimentation. (1) Opinions on the FCAC Budget Planner are positive but somewhat uncertain. (2) Perceptions of the Budget Planner vary based on demographic background. (3) The most common beliefs about the Budget Planner are consistent among demographics. (4) “Spending tracking” is a key reason for budgeting among participants. (5) People who need the Budget Planner are uncertain about its usefulness but are most likely to engage with the planner.

Combining the insights from the above analysis with discussions with the FCAC project team, we propose four sets of recommendations.

**Recommendations:**

- 1) FCAC should keep the Budget Planner, finetune, consolidate and build on it while simultaneously reflecting about its ultimate purpose. Analysis of the FCAC Intercept Survey, our qualitative user interviews, and our perception survey concludes that the Budget Planner is relatively user-friendly and can potentially influence behaviour. The benchmarking analysis also shows that the FCAC Budget Planner has a clear advantage over other tools. However, some features can be further finetuned to improve user experience. We summarize those improvements into three groups: enhancements, customizability, and towards stickiness. Please see the full list on page 47. One important question we encourage FCAC to think about is what should the strategic objective of the FCAC budget planner be? One potential avenue is to position the FCAC Budget Planner as a “gateway” or “steppingstone” for non-budgeters into a world of better and more prudent financial management. Instead of making the current tool sticky, an alternative strategy for FCAC might be to not necessarily increase usage (or repeat

usage) of the tool, but to set Canadians on the path of budgeting and hence more prudent decision making.

- 2) FCAC should further promote beneficial budgeting habits, change how users can re-access the Budget Planner, and insert behavioral nudges into the budget creation and tracking process. Respondents from our Perception Survey and Experimentation list spending tracking as one of the main reasons for budgeting, but the Budget Planner's lack of stickiness may make it hard for consumers to use the tool to fulfill their budget tracking/spending tracking goals.
- 3) FCAC should identify and avoid information overload and streamline the onboarding process.
- 4) FCAC can increase public awareness of the Budget Planner through a partnership with major Canadian banking institutions and credit unions to promote usage of the Budget Planner.

The report is organized in five parts. First, we provide an overview on financial wellbeing in Canada and introduce our research methodology. Second, we present the user journey map to document the step-by-step processes from a user's perspective. Third, we include the findings from the literature review, benchmarking analysis, FCAC Intercept Survey analysis, user interviews and KPI analysis into our landscape analysis. Fourth, we report on the Perception Survey and Experimentation and discuss the results and key insights from the survey. Finally, based on findings from our research and the FCAC project teams, we propose a set of recommendations along with discussions to help FCAC think about the future of the Budget Planner.

# 1. Introduction

This report is an analysis of the Financial Consumer Agency of Canada's (FCAC) Interactive Consumer budgeting tool - FCAC's Budget Planner. The analysis of the Budget Planner was performed by Behavioural Economics in Action at Rotman (BEAR), a research centre located within the Rotman School of Management at The University of Toronto.

In November of 2019, the FCAC launched its Budget Planner, a revamped version of its Budget Calculator with additional features designed to strengthen the knowledge, skills, and confidence for consumers' financial decisions. In its current form, the Budget Planner uses "Behavioural Insights" elements such as gamification, personalized budgets, and customized tips and recommendations to improve user interface and consumer engagement.

In July of 2020, the FCAC met with BEAR to discuss an in-depth assessment of the Budget Planner's attributes and performance, in order to gauge if the Budget Planner is achieving its intended outcomes and determine any potential paths for improvement. The following report, written by BEAR staff members, consists of our appraisal methodology, a walkthrough of our research activities and findings, the conclusions from said research, and recommendations for the short and long-term future of the FCAC's Budget Planner.

## 1.1 Financial Wellbeing and Budget Planning in Canada

The FCAC's 2019 Financial Capabilities Survey and 2018 Financial Well-Being Survey indicated several key figures concerning Canada's financial wellbeing:

- Canada's debt burden has grown - "Canadian household debt represented 177% of disposable income in 2019, up from 168% in 2018" with 73.2% of Canadians reporting some form of debt and 31% believing they had too much debt.
- Financial stress has also grown - 36% of Canadians "indicated that they are struggling to manage their day-to-day finances or pay their bills" with 8% reporting they are "falling behind on bill payments and other financial commitments" (up from 2% in 2014).
- The Financial Well-Being in Canada Survey Results (2019) revealed that behaviours, not economic factors, played the greatest role in determining financial wellbeing - 23% of a participant's financial wellbeing was correlated with financial behaviours (such as budgeting), while 19% was correlated with economic factors (such as their income).

The FCAC's survey also indicates the potential usefulness of an accessible, digital Budget Planner for Canadians. In nearly all aspects of financial management (paying down debts and

mortgages, spending within their monthly cash flow, and minimizing excessive borrowing), Canadians who budgeted managed their money better than those who did not budget - even when under similar constraints. When presented with differing budgeting styles, digital method was observed to be the most effective - “Canadians who actively use digital tools for budgeting (compared with other methods) are among the most likely to keep on top of their bill payments and monthly cashflow.”

Peer-reviewed literature also points to the benefits of consumer budgeting. In their 2015 paper, “How Budgeting Helps Consumers Achieve Financial Goals,” Christina Kan, John Lynch, and Philip Fernbach observe that budgeting, as a whole, helps consumers with a fundamental financial concern - overspending. The authors also find that “budget setting decreases ambiguity surrounding what one can or cannot afford and increases the clarity of financial goals” and overall “budgeting helps people manage monetary constraints and achieve their financial goals.”

Additionally, while our later research draws a distinction between budget setting (or making a budget) and budget tracking (continually checking a budget), Kan et al. (2015) make clear that both budget setting and tracking have their merits - “Budget setting clarifies financial goals, while budget tracking limits temptations by increasing pain of paying.” Kan, Lynch, and Fernbach (2015) also discuss the importance of budgeting in their paper “Squeezed: Coping with Constraint through Efficiency and Prioritization.” The researchers noted that budgeters, as a group, are able to plan and resist behavioural impulses more successfully than non-budgeters - when faced with resource constraints, budgeters will adapt their spending habits successfully and are better at managing overspending and impulse shopping.

## 1.2 Project Objective and Methodology

Our assessment of the FCAC Budget Planner had five main objectives:

- 1) Assess user satisfaction with the Budget Planner - how do users perceive its helpfulness and applicability?
- 2) Assess the Budget Planner’s impact on sustained budgeting behaviours - does utilizing the planner result in noticeable and/or quantifiable changes in a user’s budgeting choices?
- 3) Develop additional Key Performance Indicators (KPIs) that could better assess the awareness, usage, and behavioural changes from using the Budget Planner.
- 4) Compare FCAC’s Budget Planner to similar online tools and assess whether FCAC is best placed to develop and maintain a tool of this nature.
- 5) Identify key considerations for future development, optimization, and improvement via the inclusion of behavioural insights and experimentation.

To complete these objectives, we adopted a two-phased approach. Both Phase 1 and Phase 2 required a multi-method approach to integrate existing data concerning the FCAC Budget Planner and users’ budgeting behaviours in general.

### **Phase 1: Analysis of Secondary Data**

The goal of the first phase was to develop a foundational understanding of existing literature on budgeting behaviour, contextualize the tool among its contemporaries, both domestically and internationally, and understand perceptions of current users of the Budget Planner. Findings from Phase 1 will allow us to assess the Budget Planner’s relative strengths and weaknesses.

<b>Method</b>	<b>Objective</b>	<b>Process</b>
Literature Review	To examine relevant academic research to identify contemporary budgeting behaviours and practices	Investigated publications on behavioural insights including books, journal articles, white papers and study reports
Benchmarking Analysis	To compare the FCAC Budget Planner to other popular consumer budgeting tools, allowing us to pinpoint unique attributes of the FCAC Budget Planner and identify features that were ubiquitous among the popular tools.	Comparison of FCAC Budget Planner to 12 other online budgeting tools, on the basis of 38 different features. Drafted a spreadsheet comparing the presence and absence of said features for each tool.
FCAC Intercept Survey Analysis	To analyze the 2019 & 2020 FCAC Budget Planner intercept survey data, in order to understand current user attitudes towards the FCAC Budget Planner.	Generated cross-tabulation tables based on survey data, which revealed user perceptions and their main goal when using the Budget Planner.
KPI Analysis	To create a list of Key Performance Indicators (KPIs) to better assess the FCAC Budget Planner’s performance with respect to the original goals set by the FCAC.	Developed two distinct lists of KPIs, by referencing pre-existing FCAC KPIs and generating new KPIs based on our literature review.

## **Phase 2: Primary Data Collection and Analysis**

After completing Phase 1, we still had several questions left unanswered. The goal of phase 2 was to collect primary data via an online survey and assess individuals' perceptions of the FCAC Budget Planner based on user's demographic information and past budgeting behaviour. The findings from Phase 2 will allow us to understand how individuals perceive different aspects of the Budget Planner, and what aspects of the Budget Planner are important to Canadians.

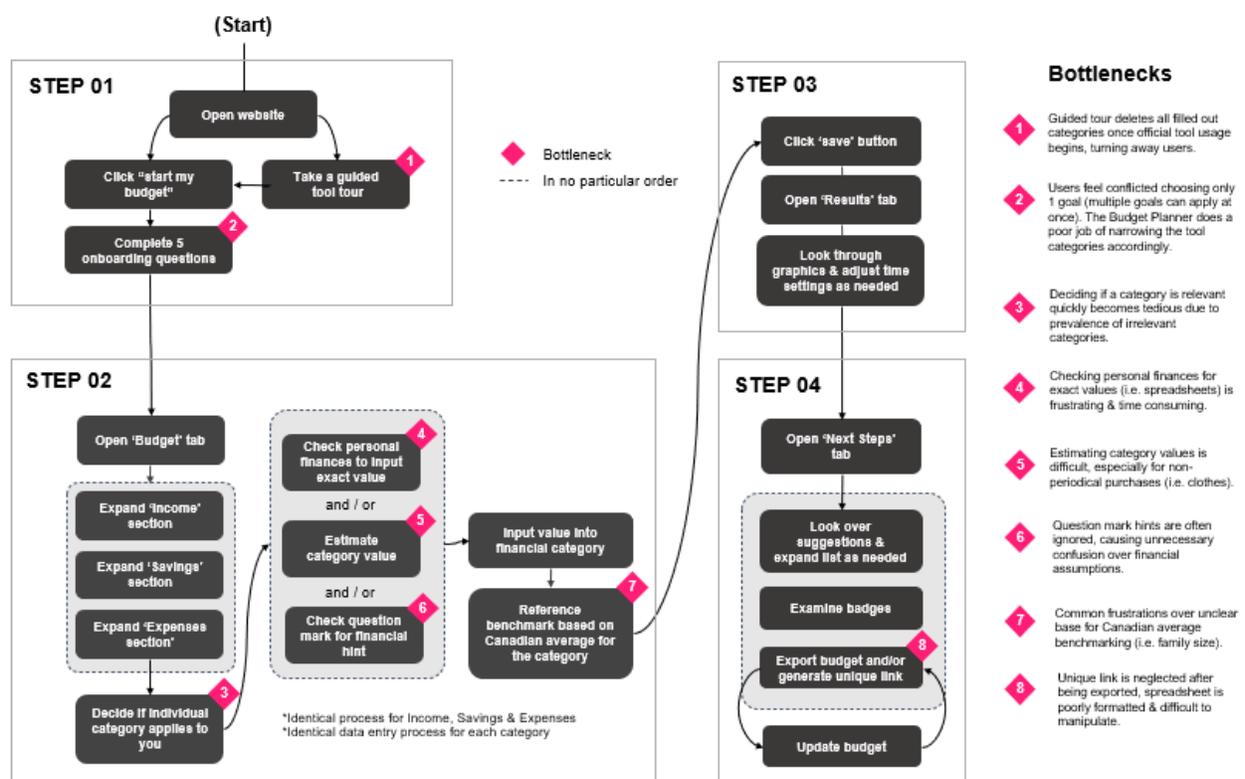
In addition to the user interviews and the survey / experiment, we also collected feedback from the FCAC project team. This included FCAC staff that were involved with the project from its inception, as well as others who had been involved in deploying and disseminating the tool, and the feedback was collected prior to our own data collection efforts. The researchers who collected and interpreted primary data (as described below) had not seen this feedback in order to ensure that data collection and interpretation was not biased. We did revisit the feedback in preparing this report, and note that it was very consistent with what we found in our own research.

<b>Method</b>	<b>Objective</b>	<b>Process</b>
User Interviews	To conduct interviews with Canadians, all at varying points in their life and financial journeys, in order to collect qualitative data on first-time experience with the Budget Planner and obtain specified feedback unavailable via the intercept survey data.	Online interview with 16 Canadians (8 male, 8 female), from four different age ranges (20 – 29, 30 – 39, 40 – 49, and 50 – 65). Interviewees were given free reign to navigate through the tool and express opinions and were also asked a series of open-ended questions.
Perception Survey and Experiment	To develop and administer a budgeting perception survey to further gauge Canadian perspectives on the Budget Planner itself.	Developed a 15-minute survey and partnered with Canadian Viewpoint Services to distribute survey across a geographically representative sample of 1500 Canadians.

## 2. Budget Planner User Journey Map

The journey map exhaustively details the potential pathways that a user can go through while using the FCAC Budget Planner. The map is split into four main steps: (1) FCAC Budget Planner onboarding process, (2) Financial data entry, (3) Budget results walkthrough and (4) Next steps walkthrough. Breaking those main steps into smaller pieces allows us to identify potential bottlenecks that impede the value and usability of the Budget Planner, which are detailed below.

Figure 1. Budget Planner user journey map



**Step 1: Onboarding Process** - Users begin by first opening the Budget Planner link, where they are presented with an option to either take a tour of the Budget Planner's main functions or proceed directly to the onboarding questions.

**Step 2: Financial Data Entry** - The majority of the Budget Planner's action occurs directly after the onboarding questions, where consumers are prompted to enter their personal financial information into three categories: Income, Savings, and Expenses. The user is left to decide whether or not a category is relevant to their lifestyle and whether to input exact numbers based

on their personal finances, or broadly estimate category values. Based on their entries, reference benchmarks are provided by the tool that are based on the Canadian average.

**Step 3: Budget Results Walkthrough** - Upon completing their entries, users are prompted to save their budget, and subsequently examine their results. Their incoming and outgoing money, section by section breakdown of spending, and overall comparison to the average Canadian are listed on this page. Users also have the option of changing the “display total” to a different time window, so their results can be presented based on weekly, biweekly, monthly, or annual timeframes.

**Step 4: Next Steps Walkthrough** - Users are offered “next steps” based on their created budget. These steps could include suggestions such as creating a savings goal, setting up an emergency fund, or starting retirement planning. Users are also presented with “badges” based on their actions while assembling the Budget Planner (these badges can be shared on social media). Users are also presented with a unique weblink which can return them to their created budget online.

In addition, several potential bottlenecks were identified. These bottlenecks pinpointed “points of concern” - areas which could frustrate users or dissuade them from using the full capabilities of the tool. The two pertinent barriers are: (1) Lack of customizability (Bottleneck #4) - The Budget Planner currently provides a large number of potential income, savings, and expense categories irrespective of users demographic and life stage selections during the onboarding process. As a result, users have to go through the tedious process of individually determining which category is suitable for their financial circumstances. (2) Disinterest in returning to the completed budget (Bottleneck #8): - The unique URL offered to consumers (as a way to return to their online budget) is often missed or forgotten, which unnecessarily complicates a user’s ability for budget checking/tracking. The provided alternative, a downloadable spreadsheet, is poorly formatted and lacks the positive attributes that exist in the online planner (such as visual graphics or external links to other FCAC tools). Taken together, this indicates that while the downloadable spreadsheet has a list of suggestions for tracking, it might a) often not downloaded, and b) if downloaded, not saved with a easy-to-recall filename and in a dedicated location and is usually lost in a sea of miscellaneous files in the “downloads” folder. More generally, the cognitive burdens on a user that has scarce attention and organizational skills might be relatively high. As a result, users might likely not return and this hinders the budget tracking process.

While all eight bottlenecks can be detrimental to the user experience, we selected these two due to their relevance to our findings from the primary and secondary data. We will discuss later on how participants in our survey desire ease of spending tracking - both of these bottlenecks make it more unwieldy to input a user’s financial data easily and accurately, and then quickly return to reference their budget against recent spending habits.

## 3. Landscape Analysis

### 3.1 Literature Review

As part of the landscape analysis, we first conducted a comprehensive literature review. We read the reviewed papers in the areas of financial planning, budgeting, and financial decision making. We selected literature from reports and peer reviewed academic journals. This process helped us to derive an academic response to key questions, such as “How and why do consumers budget?” and “What budgeting behaviours seemed to be most and least effective?”

While undergoing the literature review, an article which focused on literature reviews for business research was used as a reference point (see Snyder, 2019). We avoided potential bias affecting the literature review by focusing on observed behaviours through interventions. By looking at research that prioritized a “show, don’t tell” methodology, we were able to better understand financial behaviours rather than relying on self - reported data, which can be biased (particular for a sensitive topic such as budgeting and other financial decisions). At the end of the literature review, we identified three key takeaways supported by research:

#### ***Point of Interest #1 - Budgeting habits were affected by financial wellbeing.***

While budgeting was common irrespective of financial background, there were key behavioural differences between those with good financial wellbeing and those with poor financial wellbeing. The better a consumer’s financial situation, the more likely they were to consistently be engaged in regular budget checking, whereas consumers with poor financial wellbeing were less likely to be engaged in budget checking (Zhang et al., 2020).

Since we see an existing relationship with financial wellbeing and budgeting behaviour, we will examine, through primary data, if there exists a relationship between one’s financial situation and their perceptions of the Budget Planner.

#### ***Point of Interest #2 – There is a behavioural distinction between budget setting and budget tracking.***

Consumers may intend to be financially responsible and set up a budget, but there often exists an intention-action gap that prevents consumers from sticking to their budgeting goals (Soman Vinoo, & Ly, 2015). Research in the area of mindsets suggests that consumers could adopt one of two mindsets (see Tu & Soman, 2014 and Gollwitzer, Heckhausen, & Steller, 1990). Prior to action (e.g., when a consumer is contemplating purchase), consumers are in a deliberative mindset characterized by weighing the cons and pros of tasks; whereas when they are in the action mode (e.g., when they are in-store), they are in an implemental mindset characterized by an action orientation and a tendency to behave with the goal of getting tasks done. In the deliberative mindset, consumers are usually asking the “what and why” (strategic and abstract)

sort of questions, while in the implemental mindsets, they are seeking answers to the “how” (concrete) questions. In the domain of budgeting, once the budgeting goals have been formulated, consumers will move from a deliberative mindset to an implemental mindset, where they are looking at tools and methods to help them accomplish the task of budgeting.

Research also found that there is a behavioural distinction between budget setting and budget tracking. Budget setting (assigning spending limits to categories, for instance) did little to curtail overspending. Instead, it was budget tracking (consistently checking spending based on budget categories & goals) that had a much greater impact on stopping reckless overspending (Kan et al., 2015). Note that in prior research, budget setting is usually accompanied by specific goals, hence it is an open question as to whether these results are due to the process of tracking alone, or due to the added effects of specificity of goals. In a different line of inquiry, Soman (2001) showed that tracking of past expenses decreases spending even when no specific savings goals were identified, suggesting that the mere act of tracking might improve vigilance and decrease overspending.

***Point of Interest #3 - Changing how budgeting information is presented in electronic tools can help consumers save more.***

The emergence of electronic budgeting tools has affected how consumers view their finances - research indicates that having easy access to financial information via an electronic planner can actually decrease budget compliance and “lead to an increase in spending” (Ghosh & Huang, 2020).

In order to rectify this behaviour, electronic budgeting tools can institute behavioural “nudges” to prompt budgeting behaviour - for example, encouraging smaller budget timeframes (such as prompting budgeting on a “Weekly” basis, instead of a “Monthly” basis). This research introduces the possibility of financial planners introducing “nudges” throughout the budget making process, a suggestion we make later on in our report.

***Point of Interest #4 - Mental accounting and the presence of “hedonic posting” in budgeting behaviour.***

An important paper by Fernbach, Kan, and Lynch describes how mental budgets help reduce dysfunctional behaviour in priority planning by creating a reference point for spending and prompting people to pre-commit to expenditure levels, thereby mitigating ambiguous mental accounting (Fernbach, Kan & Lynch, 2015). This is a valuable insight as it highlights fundamentally why budgets work, and why some features (i.e., tracking) might be important in budgeting.

Furthermore, when looking into the literature on mental accounting, there are some researchers highlight the presence of “hedonic posting” on budgeting behaviour. Even with proper budget setting, consumers may evade budget constraints by assigning vague expenses (ex. eating at a restaurant could be considered both “food” and “entertainment”) to underutilized budget

categories. This practice is referred to as “hedonic posting” (see Heath and Soll, 1996 and Cheema and Soman, 2006). This finding stresses the importance of proper tracking in budgeting. In later parts of the report, we will explore further the budget tracking process through primary research.

## 3.2 Benchmarking Analysis

Next, we conducted the benchmarking analysis. The objectives of the benchmarking analysis were to identify and document which unique and shared features existed among the FCAC Budget Planner and other comparable online budgeting tools. By identifying the different features offered by the Budget Planner compared to other existing tools, we were able to assess the Budget Planner’s relative strengths and weaknesses.

We compiled a master list of 12 different online budgeting tools through Internet searches and solicitations of examples. In order to achieve an adequate amount of breadth for this comparison, we analyzed budgeting tools offered by a range of institutions. These included financial government agencies in other countries similar to the FCAC such as the US Consumer Finance Protection Bureau, financial institutions such as banks, and commercial budgeting tools.

The types of budgeting tools were categorized into three different types based on their functionality as well as the platform through which they could be accessed.

### 1. *Dynamic Calculators*

We designated budgeting tools as “dynamic calculators” if they had live or dynamic features embedded in the budgeting tool that created an interactive user experience. “Dynamic features” refer to web content or features that change based on user inputs – for example, a bar representing a user’s proportion of income or expenses that change depending on numbers entered in designated fields by the user. The budgeting tools that we categorized as dynamic calculators in the benchmarking analysis include the FCAC Budget Planner, the Sun Life Financial Budget Calculator, and the UK Money and Pensions Service Budget Planner.

The main strengths of dynamic calculators stem from the high level of personalization and interactivity that they are able to provide throughout the user experience. By allowing users to input income and expense information into desired categories, more precise advice could be provided to the user. For example, dynamic calculators often included visual cues or text pop-ups giving suggestions on how to calculate certain income and expense figures, or provide warnings if expenses exceed a certain proportion of income. Furthermore, they provided highly interactive results summaries with attractive visual interfaces and graphical breakdowns, with detailed insights about a user’s budgeting health.

However, the amount of choice offered through these dynamic calculators was also found to be a major weakness among these tools. In some cases, having an overwhelming number of

options could lead to difficulty during use, and may have deterred users from wanting to complete their budget through the tool. Furthermore, many of the dynamic calculators lacked effective means to ensure follow-through and re-access of completed budgets. The most common options provided to users to re-access their budgets were to either create an account through the website and sign in at a later time, or receive an email reminder with a unique key to view the budget again. These options would all require the user to go through several additional steps in order to re-access their budget, making it difficult and cumbersome for users to quickly view or update their completed budget.

## ***2. Static Webpages/Calculators***

We designated budgeting tools as “static webpages” or static calculators if they provide static web content for the user to fill in. This means that the user would simply request the web page, enter in income and expense numbers in the designated fields, and click a button to receive a summary of results. Budgeting tools that are categorized as static webpages do not update in real-time with user inputs. Budgeting tools that were offered by institutions in the form of fillable PDFs are also considered static webpages due to the static nature of the content. The budgeting tools that we categorized as static webpages or static calculators in the benchmarking analysis include the TD Canada Personal Cash Flow Calculator, the US Consumer Financial Protection Bureau Spending Tracker, and the Charles Schwab Monthly Budget Planner.

The main strength of static budget calculators stems from their simplicity, as they are straightforward and extremely easy to use. Static budget calculators allow users to quickly aggregate their income and expenses, and provide a very general overview of an individual’s budget status that is easily understandable. There are very few barriers that would prevent users from using static budget calculators, as they require very little technological fluency.

The main weaknesses of static budget calculators stem from their limited uses and the lack of detail that they are able to provide to users. Given their nature as a “one-size-fits-all” tool, static budget calculators are not customizable, and are mostly useful only in the short-term for individuals looking to get a snapshot of their income and expenses. They tend not to be useful for long-term planning, as that would generally involve users having to manually input many months or years worth of income and expense numbers. Furthermore, static budget calculators only provide limited insights about a user’s budgeting health, at most only generating a graphical breakdown of income and expense areas. These graphs are typically generated as static images that cannot be interacted with, unlike the visual outputs that are produced by dynamic calculators, which often allow users to toggle the time horizon, show the effects of changes in savings or spending with interactive sliders, or display more detailed breakdowns of income and expense inputs.

### ***3. Mobile Applications/Automated Spending Trackers***

The last tool category that we identified consists of budgeting tools that are available as mobile applications. A key feature among these mobile budgeting tools is that they are able to integrate with a user's banking and investment accounts in order to provide real-time tracking of expenses. The budgeting tools that we categorized as mobile applications or automated spending trackers include the Bank of America mobile banking and budgeting application, Mint, Quicken, You Need a Budget (YNAB), EveryDollar, and PocketGuard.

The main strength of mobile budgeting tools is that they are able to provide a highly personalized experience due to their ability to integrate with users' financial accounts and automatically track user spending. For example, many of the mobile applications that we considered in the benchmark analysis had features that sent mobile alerts to users when certain spending thresholds were crossed, giving users real-time information about their spending behaviour to encourage adherence to budgeting limits. Furthermore, the automatic integration feature with a user's banking and investment accounts eliminated the need for the user to perform calculations for any income or expense figures. Many of the mobile budgeting tools were also able to provide highly actionable and personalized saving, budgeting, and investing suggestions based on the user's accounts and financial history.

One weakness of mobile budgeting tools is their general lack of a long-term interface or focus on long-term recommendations to improve budgeting health. Most mobile budgeting tools are focused on short-term or monthly expense tracking, given that their main strength revolves around their ability to track spending in real-time. Furthermore, more advanced features available on these mobile applications, such as access to personalized resources or more in-depth analytics are often blocked behind a paywall; generally, users would not be able to get the full benefit of the tool unless they pay a regular subscription fee. Conversely, any third-party budget app that offers personalization, it will also compromise the security of their bank account. Likewise, any app offered by a bank will suffer from the limitation that it can only read information from within bank accounts, and hence (unless the user exclusively uses just that bank for all their needs) can only offer a limited view of the consumer finances. More generally, there will be some weaknesses inherent in every app and hence design choices should always be driven by an analysis of the relative strengths and weaknesses.

### ***FCAC Budget Planner Strengths and Weaknesses***

From the benchmark analysis, we found that the main strengths of the FCAC Budget Planner relative to other budgeting tools are found in its Budget Results page (Part 3 of the Budget Planner User Journey) and the summary outputs that can be generated from there. The FCAC Budget Planner provides a highly detailed and interactive visual summary of the user's current budgeting status that includes features not found in other budgeting tools. Examples of this include providing options to toggle between multiple options for the time horizons of the user's budget (e.g., monthly vs. annual) and providing comparisons to the completed budget against that of an "average consumer". These unique features allow the Budget Planner to provide

consumers with more comprehensive insights about their current budgeting health compared to other budgeting tools.

The main shortcoming of the FCAC Budget Planner relative to other alternatives that was identified through the benchmarking analysis stems from the tool's current inability to ensure re-access of budgets created through the platform. Currently, consumers who wish to revisit a budget made through the FCAC Budget Planner can do so either by creating a printable Excel output of their budget and manually updating it, generating a unique key that can be entered into the tool, or opting in to email reminders. These options are cumbersome for the user and rely on the user being motivated to continue to update and track their budget. As one of the findings from the literature review was that the act of budget tracking has been found to have more of a significant impact on improved financial decision making and well-being relative to other steps in the budgeting process, the user retention features that are currently available within the FCAC Budget Planner may not create the desired “stickiness” of the tool.

We use the term “stickiness” to refer to the ability of a particular tool to create ongoing engagement with the end user. Stickiness manifests itself in repeat visits and multiple instances of using the tool over a period of time. One common definition of stickiness in the domain of online apps related to how often users come back to an app and perform an action. More formally, stickiness “refers to the application of the concepts of loyalty or continuance behaviour to websites or virtual communities. In other words, with stickiness, a website can continuously attract users to revisit—which is indicative of an individual's attachment to the website, as well as lengthen the time spent by users on the website (Hsu and Tang, 2020)”. This ongoing engagement may be due to two primary (and possibly other) reasons. One, the value of the tool increases with increasing number of interactions (this could happen because the user learns new features over time, or because the cost of navigating the tool decreases with repeated exposure). Two, the customer's main goal in using the tool is to sense changes in output over time (for instance, a visitor to a skill-based website might be looking to improve performance over time, or a visitor to a budgeting website might be looking to track expenses over time).

We would like to make two additional comments about stickiness. First, not all websites / tools aim for stickiness or were constructed with stickiness as their explicit goal. In particular, the FCAC budgeting tool was originally never meant to be a tool for people to visit frequently. Second, we note that at this stage, the lack of stickiness is a descriptive outcome of our benchmarking analysis and not an evaluative one. In other words, if stickiness was not an important criterion for end users, then the lack of stickiness might not matter.

A table summary of the main strengths and weaknesses in capability among each of the tool categories based on our content analysis is displayed below. Note that the table refers to relative strengths and weaknesses of each category of tools based purely on the *capabilities* of the tool without regard for the underlying rationale for specific design choices, or for associated back-end limitations associated with those choices. For instance, a tool that integrates with a bank account might offer the added capability of customized recommendations, but come with security or liability challenges that are at the back-end (i.e., not readily apparent to the user and in a non-budgeting domain). Without being privy to why these various tools made the design

choices they did, and how they chose to mitigate the associated back-end challenges, we will obviously not be able to assess the optimality of these design choices.

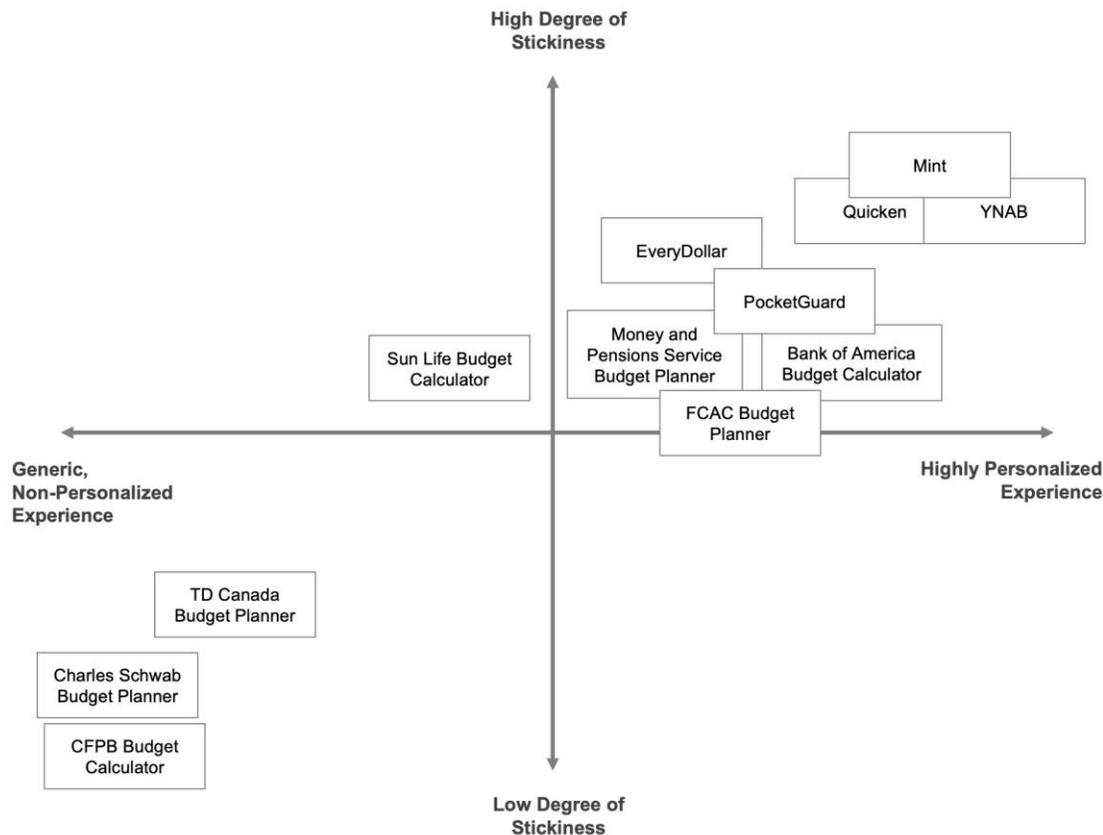
**Figure 2. Table summary of relative strengths and weaknesses of the capabilities of various budgeting tools**

Tool Categories	Tools	Relative Strengths	Relative Weaknesses
Detailed Budget Planners/Dynamic Calculators	FCAC Budget Planner Money and Pensions Service Sun Life Financial	<ul style="list-style-type: none"> <li>High level of personalization with respect to income, expense and savings categories and breakdowns.</li> <li>Detailed and interactive results summaries, visual warnings, nudges, and immersive tips</li> </ul>	<ul style="list-style-type: none"> <li>Lack effective means to ensure follow-through and re-access; use of printable Excel outputs, unique key generation, and email reminders are not likely to be used</li> <li>Overwhelming amount of choice that can lead to poor user experience and difficulty during use</li> </ul>
Automated Spending Trackers/Mobile Apps	Bank of America Mint Quicken YNAB EveryDollar PocketGuard	<ul style="list-style-type: none"> <li>Integrates with banking and investment accounts to provide real-time tracking of expenses and alerts that inform immediate spending</li> <li>Highly personalized experience (see PocketGuard comparison)</li> <li>Actionable and personalized saving, budgeting, or investing suggestions based on your accounts and financial history</li> </ul>	<ul style="list-style-type: none"> <li>No long-term interface or long-term recommendations like the FCAC tool; are more focused on short-term/monthly expense tracking</li> <li>More advanced features are often blocked behind a paywall</li> </ul>
Static Budget Calculators	CFPB Charles Schwab TD Canada	<ul style="list-style-type: none"> <li>Simply aggregates income and expenses in order to help users get organized quickly, often through fillable PDF templates or basic web tools</li> </ul>	<ul style="list-style-type: none"> <li>Offer very limited uses, with no real focus on long-term planning</li> <li>Provides limited approach for those planning monthly or short-term income and expenses; little for FCAC to learn from</li> </ul>

### Perceptual Map

Figure 3 is a perceptual map comparing the 12 tools included in the benchmarking analysis across two dimensions: their degree of stickiness, and the level of personalization that each tool provides. In general, mobile apps such as Mint, Quicken, and YNAB stand out as they are able to provide both a highly personalized experience due to their integration with users' financial accounts, require little additional effort on each usage occasion to retain past information, and have many options that allow and actively prompt users to re-access their budgets, making them highly sticky as well. Dynamic calculators including the FCAC Budget Planner and Sun Life Budget Calculator are able to provide a personalized experience, but are less sticky given their limited range of re-access options because of the friction associated with reloading information with, say, a unique key (see earlier discussion on customer journey) creates sludge in the user experience (Soman et al., 2019). Static budget calculators such as the Charles Schwab Budget Planner and CFPB Budget Calculator tend to offer a low degree of personalization and are not very sticky.

Figure 3. Perceptual map



### 3.3 FCAC Intercept Survey Analysis

The main objective of the data analysis performed on the FCAC 2020 Intercept survey data was to understand the current perceptions of users regarding the tool.

Examples of questions from the FCAC 2020 survey include:

- How helpful was the Budget Planner in enabling you to achieve what you wanted to do?
- How easy or difficult was it to use the Budget Planner?
- How would you rate your overall experience with the Budget Planner?
- Why did you use this tool today?

For the Intercept Survey analysis, we generated cross-tabulation tables (See Figure 4) between the central variables of interest (the survey questions) and the survey participants' main goal in using the Budget Planner. This was done in order to identify the distribution of responses across survey questions, and to see if responses to the survey questions differed based on the goals that the participants had in using the Budget Planner. Highlighted in each table are data for the top three goals that respondents indicated were their reason for using the Budget Planner.

Figure 4. FCAC Intercept Survey analysis – cross tabulation tables

Frequencies of HelpBudget

HelpBudget	Goal							Track	Update budget
	New Budget	Cut expenses	Don't know	Pay Debt	Other	Prefer not to say	Savings Goals		
Don't know	114	23	12	54	6	10	40	17	13
Helpful	100	21	4	30	16	5	40	34	34
Neither helpful nor unhelpful	24	7	2	20	9	2	9	4	9
Unhelpful	2	1	1	1	1	0	3	4	0
Very helpful	88	17	0	29	13	3	33	28	24
Very unhelpful	4	0	0	1	1	0	3	2	3

Frequencies of HelpAchieveObjective

HelpAchieveObjective	Goal							Track	Update budget
	New Budget	Cut expenses	Don't know	Pay Debt	Other	Prefer not to say	Savings Goals		
Don't know	121	28	11	56	6	9	41	16	13
Helpful	98	16	3	30	17	6	40	35	29
Neither helpful nor unhelpful	18	4	4	14	4	1	7	3	3
Unhelpful	3	0	0	2	1	0	0	0	1
Very helpful	94	23	0	32	18	4	39	33	38
Very unhelpful	2	0	0	1	1	0	3	2	0

Frequencies of EaseUse

EaseUse	Goal							Track	Update budget
	New Budget	Cut expenses	Don't know	Pay Debt	Other	Prefer not to say	Savings Goals		
Don't know	104	23	10	51	6	11	40	15	16
Moderately difficult	5	1	1	2	3	0	3	1	1
Moderately easy	66	19	2	22	9	6	31	33	28
Neither easy nor difficult	19	6	1	11	10	1	9	4	3
Very difficult	1	0	0	0	0	0	2	0	0
Very easy	128	21	5	48	19	3	42	33	36

Frequencies of OverallExperience

OverallExperience	Goal							Track	Update budget
	New Budget	Cut expenses	Don't know	Pay Debt	Other	Prefer not to say	Savings Goals		
Don't know	106	24	10	47	5	7	41	15	15
Neutral	23	6	2	22	4	2	10	6	6
Satisfied	94	17	4	29	17	6	37	31	28
Unsatisfied	4	1	0	2	4	0	1	3	0
Very satisfied	97	22	2	32	15	3	36	32	35
Very unsatisfied	2	0	0	1	0	1	2	0	0

Overall, the cross-tabulations showed that there were generally positive perceptions of the Budget Planner; the majority of survey participants found that the Budget Planner was easy to use, helpful in achieving their objective, and that they were satisfied overall with their experience

using the tool. However, a large proportion of participants also reported being unsure of their perceptions of the Budget Planner (i.e. their responses to the survey questions were “Don’t know”), especially among individuals whose main goal in using the Budget Planner was to make a new budget, pay down debt, or set savings goals. This may have implications on how useful the tool is for people with different budgeting goals. This may also suggest that people, even after using the Budget Planner, are not sure how they feel about the tool; it could be that they need to see how it helps them over time, particularly if they are new to budgeting and may be unsure how to assess their experience given their lack of exposure to other budgeting tools.

### 3.4 User Interviews

To build upon the insights developed from the benchmarking and data analyses that were performed, user interviews were also conducted in order to collect data from user feedback in real-time while using the tool, as well as to identify other pain points within the tool and insights unavailable from the survey data.

A total of 16 online interviews were conducted, with 2 participants (one female and one male) from each of the age ranges from 20-29, 30-39, 40-49, and 65+ years. Interviewees were given 10-15 minutes to navigate through the tool to complete a personal budget. While using the Budget Planner to create their budgets, they were asked to verbally communicate their thoughts and reactions as they were going through the tool and encountered its different features. Interview participants were also asked a series of other open-ended budgeting questions after completing their budget. Examples of these questions include:

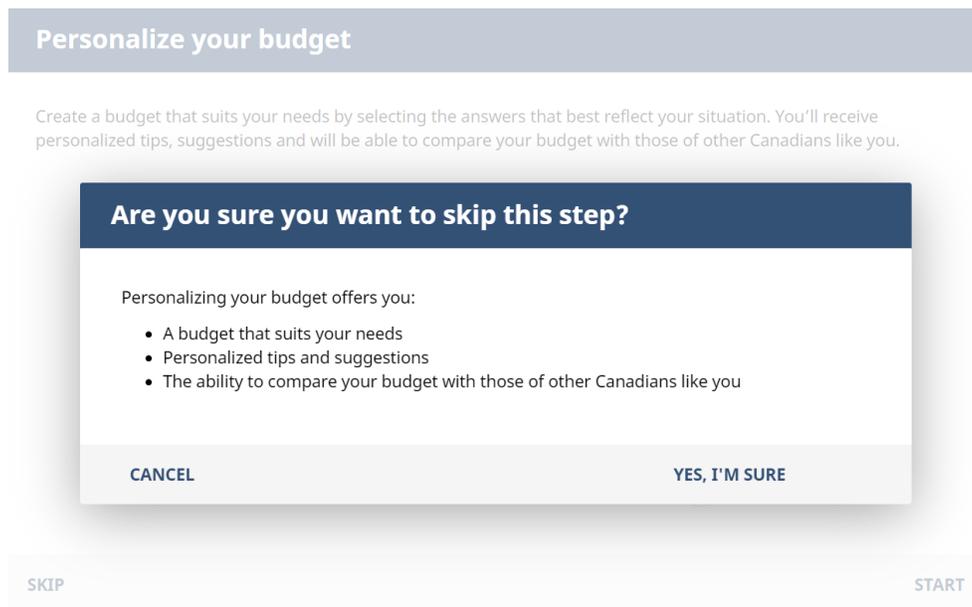
- What was your overall impression of the tool?
- What was your favourite/least favourite part, or favourite/least favourite feature?
- Could you see yourself using this tool in the future? Do you think you would ever use this tool again?

In general, participants in the user interviews reported that they liked the FCAC tool and that it was user-friendly; in particular, there were positive reactions to the visual interface, which was found to be colourful and visually appealing.

Some of the weaknesses of the tool that were pointed out from the interviews include comments about the overwhelming amount of choice that was provided, particularly in the stage where users were required to input their financial information. Specifically, interviewees found that many of the suggested income and expense categories that were pre-generated by the tool were not relevant to their specific needs. For example, many of the mortgage and housing expense categories were not relevant to interviewees from the 20-29 age category, who didn’t own a house, but users found that they were not able to delete these irrelevant categories. For example, Serena age 20 stated “I don’t own a house, or have insurance, or pay for hydro. I’m just a student. Seeing all of these expense categories that don’t apply to me is super frustrating.” This resulted in a large number of blanks that were discouraging and frustrating to look at the from the point of view of the users, particularly when the budget was exported into an

Excel format, as null responses were simply recorded as zeroes for their respective categories. It was also noted that the suggested income and expense categories remained the same regardless of the responses inputted at the beginning of the tool, in which users were asked to indicate information about themselves such as their goal in using the tool or their age. This was confusing, as opting to skip this initial step would prompt a pop-up (Figure 5) encouraging users to complete the questions in order to better personalize their budget.

Figure 5. A pop-up window encouraging users to complete the questions



Furthermore, the interviewees also found that having to manually input information was frustrating, as many of the categories required them to make financial assumptions that were unclear to the users. One solution to this frustration is a tool that provided default amounts that the user could adjust to meet their needs. The hints and question-mark tips embedded in the tool were largely ignored because they were not salient enough, despite being there to serve the purpose of aiding users in calculating certain income and expense figures. Since most of the interviewees did not even click on these links, we are unable to assess their satisfaction with the content.

Finally, echoing the insights from the benchmark analysis, a vast majority of interviewees appeared to have wanted to engage with the tool over time (to track income and expenses). However, they also reported that the tool seemed to lack options for effective follow-through, and that they would not be likely to remember to check their emails for the unique key or use the Excel output options. While the tool provides a pathway for “stickiness,” this was seen as cumbersome and hence relatively ineffective.

One limitation to the findings generated from the user interviews was that the sample of interviewees was largely urban, which may have influenced the interviewee's responses and their overall perceptions of the tool.

## 3.5 KPI Analysis

The main objective of the KPI analysis was to develop a list of recommended KPIs that could be used to assess the FCAC Budget Planner in order to determine how well the tool has been able to fulfill its role with respect to the original intention and goal of the tool set forth by the FCAC.

As stated by the FCAC, the goal of the Budget Planner was not only to provide a budgeting tool to help Canadians budget, but also to create sustained behavioural change with respect to budgeting behaviour among its users. In creating a list of recommended KPIs for the tool, we first referenced existing KPIs used by the FCAC to generate more general KPIs related to awareness, access, and usability of the tool. For KPIs used to measure behavioural change, we drew upon our existing literature review to generate suitable measures for budgeting behaviour change that could be used to assess the Budget Planner.

Overall, we generated a list of KPIs that can be separated into two categories:

### ***1. Access, awareness and usability***

These KPIs consist of performance indicators that were originally being used by the FCAC, and relate to the overall usage and awareness of the tool; these include KPIs such as “Number of consumers who are aware of the tool”, and the “% of surveyed consumers who are satisfied with the tool”

### ***2. Evidence of behavioural change***

These KPIs consist of performance indicators that should be used to assess the tool with respect to how well it is actually able to create sustained behavioural change with respect to improved budgeting behaviour among users of the tool. Examples of KPIs under this category include “% of consumers who experienced improved personal financial satisfaction (Xiao et al., 2018) after using the tool”, or “% of consumers who experienced improved financial confidence after using the tool”.

Descriptions of each of the KPIs, as well as a rationale, initial suggestions for measurement strategies, and additional notes and definitions were included in an Excel output as shown in Figure 6. KPI’s currently used by the FCAC are marked with an asterisk.

Figure 6. FCAC Budget Planner KPI analysis

KPI Type	KPI Name	Indicator Type	Explanation/Rationale	Formula/Calculation	Measurement Strategy	Notes/Definitions
Access, Awareness and Usability	Number of consumers that are aware of the tool*	Numeric	This indicator provides insight into the reach that the Budget Planner has among Canadians or potential users, and the degree of general awareness or use that the tool currently has among the general population	Number of unique web visits to the Budget Planner tool website	Tracking the number of unique web visits to the Budget Planner tool website	
	Percentage of surveyed consumers who are satisfied with the tool*	Numeric	This indicator provides insight into the degree of current satisfaction that surveyed consumers have with the tool, which may have implications as to whether or not the features of the tool are helpful or useful in its current form	Percentage of surveyed consumers who indicate that they are satisfied with the tool	This KPI is currently measured by using a combination of the FCAC's ongoing online survey (Rate this tool) and an intercept survey	A consumer is "satisfied" if their responses in the Rate this Tool survey are any of helpful/very helpful, easy/moderately easy, or satisfied/very satisfied
	Percentage of budgets that are filled in accurately	Numeric	This indicator provides insight into whether or not users of the Budget Planner are using the tool as intended; for example, a high proportion of budgets that are filled in with erroneous or unrealistic values could indicate that consumers do not understand the structure of how data should be entered or how to properly use the tool	Percentage of budgets that are filled in without erroneous or unrealistic values	The issue with measuring this KPI is that the FCAC does not have access to the specific values that are entered by users of the Budget Planner	Examples of erroneous or unrealistic values would be instances where users fail to report any values for income or expenses (or both), large outliers, mismatched pairs (e.g. reporting costs for motoring but no costs for gas), etc.
	Percentage of consumers that become users of the tool*	Numeric	This indicator provides insight into the number of consumers that interact deeply with the Budget Planner in such a way that indicates that the tool is actually being used to support their personal financial planning	Percentage of consumers that become users of the tool	Tracking the number of unique keys generated, Excel sheets download, and/or requests to print budget in PDF form for all unique sessions/unique keys generated	Visitors become "users" by posing one of any of the 3 following actions: 1. Request a unique key to save their budget online for future use 2. Download the Excel sheet to work on it offline or share with others 3. Print their budget in PDF form for future use or reference

KPI Type	KPI Name	Indicator Type	Explanation/Rationale	Formula/Calculation	Measurement Strategy	Notes/Definitions
Evidence of Behavioural Change	Percentage of consumers that demonstrate sustained budgeting behaviour through the continued use of the Budget Planner/FCAC tools and resources	Numeric	This indicator provides insight into whether or not users of the Budget Planner continue to reaccess their saved budget and continue budgeting or updating their budget through the Budget Planner, or are able to sustain their budgeting behaviour by using the tool to set and reach new financial goals	Percentage of consumers that continue to budget using the Budget Planner or other FCAC resources	As part of phase 2 of the engagement (data collection and experimentation), a survey with relevant questions will be developed and used to collect data to measure this KPI	
	Percentage of consumers that continue to use other budgeting resources after using the Budget Planner	Numeric	This indicator provides insight into whether or not users of the Budget Planner are continuing to budget by moving to other budgeting tools after being exposed to the Budget Planner	Percentage of consumers that continue to use other budgeting resources after using the Budget Planner	As part of phase 2 of the engagement (data collection and experimentation), a survey with relevant questions will be developed and used to collect data to measure this KPI	This KPI may provide insight into the role or value of the Budget Planner in terms of creating sustained behaviour change wrt budgeting - e.g. is it enough that the BP may be most useful as the first stepping stone for consumers to get comfortable/initial exposure to budgeting?
	Percentage of consumers who experience improvement in financial behaviour after using the Budget Planner	Qualitative	This indicator will provide insight into whether or not users of the Budget Planner also experience behaviour change or demonstrate improvements in other areas of positive financial behaviour after using the Budget Planner	Percentage of consumers who experience improvement in areas of financial behaviour after using the Budget Planner	As part of phase 2 of the engagement (data collection and experimentation), a survey with relevant questions will be developed and used to collect data to measure this KPI	Examples of improved financial behaviour: - Continued budgeting behaviour (e.g. budget maintenance) - Evidence of underspending (is household spending less than, more than, or equal to household income?) - Creation of an emergency savings/rainy day fund - Creation of long-term financial goals - Creation of a retirement savings plan (e.g. does the user know how much they need to save for their retirement?)
	Percentage of consumers who experience improved personal financial satisfaction after using the Budget Planner	Qualitative	This indicator will provide insight into whether or not use of the Budget Planner leads to users experiencing improvements in personal financial satisfaction	Percentage of consumers who report increased personal financial satisfaction after using the Budget Planner	As part of phase 2 of the engagement (data collection and experimentation), a survey with relevant questions will be developed and used to collect data to measure this KPI	
	Percentage of consumers who experience improved financial confidence after using the Budget Planner	Qualitative	This indicator will provide insight into whether or not use of the Budget Planner allows users to feel more confident or aware about their personal financial situation and financial goals	Percentage of consumers who indicate that they have experienced improved financial confidence after using the Budget Planner	As part of phase 2 of the engagement (data collection and experimentation), a survey with relevant questions will be developed and used to collect data to measure this KPI	Given that proper use of the Budget Planner tool would require users to closely review their personal financial situation, the Budget Planner may be useful as a tool to improve financial confidence by forcing individuals to understand and review their financial needs
	Percentage of consumers who experience improved financial literacy after using the Budget Planner	Qualitative	This indicator will provide insight into whether or not use of the Budget Planner leads users to experience improved financial literacy as a result of having to have gone through the steps of the tool and review/understand personal financial information. It may also provide insight into the general level of financial literacy of users who are using the Budget Planner, which may have implications on further improvements of the tool.	Percentage of consumers who indicate that they have experienced improved financial literacy after using the Budget Planner	As part of phase 2 of the engagement (data collection and experimentation), a survey with relevant questions will be developed and used to collect data to measure this KPI	Examples of measures of objective financial literacy include questions testing users' understanding of interest, inflation, bond pricing, mortgages, risk, etc.

## 4. Perception Survey and Experimentation

### 4.1 Survey Specifications and Demographics

Upon completion of the landscape analysis of the FCAC Budget Planner, we believed that there were still several questions that remained unanswered.

- 1) Is the conclusion from current data analysis restricted to current users of the budgeting tool, or can our findings be extrapolated to Canadian consumers who have not had experience with the tool?
- 2) Do perceptions of the Budget Planner differ based on heterogeneity within the population - are there certain kinds of consumers who are more likely to prefer, and/or use the budgeting tool than others?
- 3) Do certain financial behaviours (e.g., current budgeting practices) create a predisposition in favour of the Budget Planner?

To answer these questions, we developed a survey to assess Canadians' opinions of the Budget Planner, based on the Budget Planner "tour" currently used on the FCAC website. Canadian Viewpoint Services (CVS), a Gold Seal member of the Canadian Research Insights Council, was contracted to administer the survey. Given that our survey was in English only and given the associated constraints on our sampling universe, CVS reached a representative sample of the Canadian population (excluding French speaking Quebec residents, and individuals from the Canadian territories).

Data tables indicating demographic breakdowns can be found in the Appendix A. A brief summary of our participant sample, as well as our data cleaning techniques, are as follows:

- The final sample size was 1369 participants after data cleaning.
- We removed participants who did not finish the survey.
- We removed participants who spent less than 3 minutes completing the survey.
- We removed participants that took over 3 Standard Deviations on the total survey time duration (after removing those that did not complete the survey).

#### **Geographic Area:**

Consistent with the geographic distribution of the Canadian population, 39.7% of participants were from Ontario, 20.1% from Quebec, 12.7% from British Columbia, 12.3% from Alberta, 3.7% from Saskatchewan, and 3.3% from Manitoba. We classified responses from New Brunswick, Newfoundland and Labrador, Nova Scotia, and Prince Edward Island into the category of "Atlantic Canada" (8.2% in total). We did not run our survey in the Canadian territories.

### **Gender:**

51.9% of responses were from women, while 48.1% were from men.

### **Age:**

Of the total participants 40.3% were 55 years and older, 33.4% were between the ages of 35-54 and 26.3% were between 18-34.

### **Income:**

Based on self-reported household income, our participants tended to be of higher income backgrounds - a number of participants reported incomes above \$100,000. This includes incomes of either “between \$100,000 - \$149,999” (16.4% of responses) or “more than \$150,000” (8.3% of participants). Looking at self-reported incomes below the \$100,000 figure, we found that “\$40,000 - \$49,000” received the most responses (9.2%) followed closely by “\$20,000 - \$29,999” (8.9%). Nearly a tenth of participants (9.1%) chose not to answer the income query. These distributions are similar to the findings from the Canadian census.

### **Education:**

When asked about the highest education level they achieved, many participants indicated they had completed a “Bachelor’s Degree” (32.3% of participants). This was followed by those who had achieved a “High School” diploma (30.9%). We also had significant number of participants who indicated possession of an “Associate’s Degree” (19.6%) and a “Master’s Degree” (10.5%). Fewer participants indicated that they “Did Not Complete High School” (2.6%) or “Prefer Not To Answer” (1.8%). The least reported responses came from “Post Doctoral Degree” (1.4%) and “Doctoral Degree” (0.9%).

### **Ethnicity:**

A majority of our participants identified as “White/Caucasian” (77.6%). This was followed by “Asian” (12.3%), then by “Other” (4.2%), then by “Black or African American” (3.0%), and by “Hispanic” (0.7%). 2.2% of participants chose not to self-identify.

### **Number of Household Dependents:**

A majority of our participants reported “zero (0)” dependents in their household (51.0%). This was followed by “one (1)” dependent (20.3%), and by “two (2)” dependents (14.8%). We also had participants with “three (3)” dependents (6.6%), “four (4)” dependents (3.4%), and “five (5)” dependents (1.6%). Smaller percentages chose “six or more (6+)” dependents (0.7%) and “Prefer Not To Answer” (1.5%).

### **Financial Literacy Score:**

In our survey, we asked three questions meant to test a participant's financial literacy score. These questions tested knowledge on interest rates, inflation, and stock mutual funds. Many participants answered all three questions correctly (45.4%), followed by those who answered two correctly (27.0%) and those who answered one correctly (18.2%). Nearly a tenth of participants (9.3%) answered none of the questions correctly.

## **4.2 Sample Questions**

### ***Questions on Budget Planner***

In our survey, we asked two types of questions related to perceptions and beliefs about the Budget Planner. The first type of question we referred to as "Perception" questions. These asked participants about broad and specific usage behaviours. This is to quantify the perceived useableness of the Budget Planner itself. Examples include:

- **Broad Usage Behaviours:** "How easy or difficult do you feel that the Budget Planner would be to use?" (Possible answers ranged from "1 - Extremely Difficult" to "7 - Extremely Easy").
- **Specific Usage Behaviours:** "How likely is it that you would follow links or resources that are recommended by the Budget Planner?" (Possible answers ranged from "1 - Extremely Unlikely" to "7 - Extremely Likely").

The second type of question we referred to as "Beliefs" questions. In this section questions focused on whether or not participants believed that the Budget Planner would help them achieve various financial behaviours. Higher scores indicate a more positive belief in the Budget Planner's abilities by the participant. For example: Beliefs on how the Budget Planner will help the user "... become more confident in managing my finances." (Possible answers ranged from "1 - Strongly Disagree" to "7 - Strongly Agree").

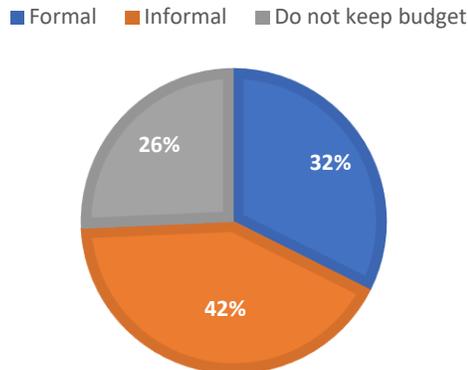
### ***Questions on Budgeting Behaviour***

In addition to asking questions about the FCAC Budget Planner, we also asked questions on basic budgeting practices. A brief synopsis of results can be seen below, with full tables available in the Appendix B.

### **Budget Type:**

Participants were asked to indicate whether they keep a budget “formally” (writing a budget down or using a digital planner), “informally” (keeping track in their head), or do not keep a budget in any form. While budgeting was not formally defined, phrases such as “writing a budget” and “keeping track” appeared as a cue to help respondents (see Appendix D for the survey instrument). Of these choices, 41.9% participants indicated they “informally” keep a budget, followed by those who “formally” keep a budget (32.4%). A quarter of participants (25.7%) indicated they do not keep a budget.

**Figure 7. Questions on Budgeting Behaviour – budget type**



**Budget Length:**

Participants were asked to indicate the frequency at which they created/updated their budget. For example, “Weekly” was an option to indicate that participants created/updated their budget on a weekly basis, “Monthly” was an option to indicate that participants created/updated their budget on a monthly basis, et cetera.

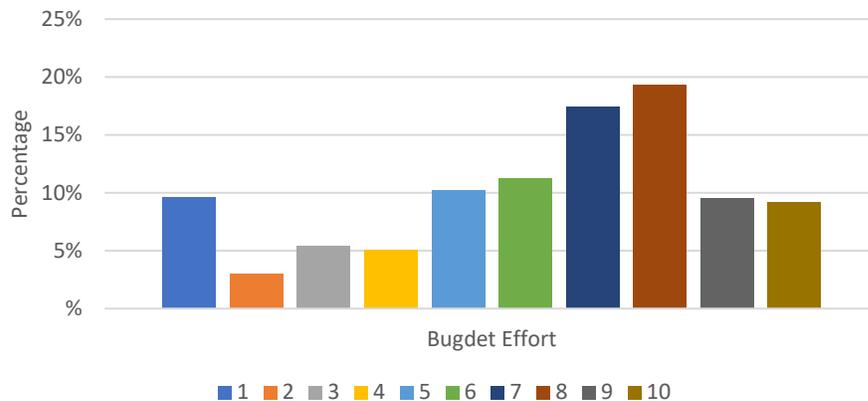
The most common response among those who indicated they keep any kind of budget (formally or informally) was “Monthly” (29.8%). This was closely followed by “Once A Year” (26.8%), and “Weekly” (11.8%). This question also allowed a “Never” option for those who did not budget - 26.2% chose the “Never” option.

**Budget Effort:**

Participants were presented with a numerical scale upon which they were asked to rate their own effort at staying within their budget. Potential answers ranged from “1” through “10”, where “1” was “No Effort At All” and “10” was “A Very Large Amount Of Effort.”

Overall, most participants place a medium to high amount of effort in staying within their budget. The majority of participants answered within the “5” through “10” range of the possible options, with less than a quarter of responses answering “4” or lower.

Figure 8. Questions on Budgeting Behaviour – budget effort frequency



**Reasons for Budgeting:**

Participants were offered a series of ten possible options to describe their reasons for budgeting. These reasons ranged from “To track income and expenses” to “To avoid debt from predictable expenses.” Participants were allowed to select multiple options. Participant were also able to select an option saying, “I don’t think it’s important to budget.”

The most commonly selected option was “Make sure I don’t spend more than my income” (48.4% of participants selected this option). Closely following was “To track income and expenses” (46.0% of participants). The complete list of responses and the percent of respondents that selected each is as follows:

On average, participants selected 2.5 reasons for budgeting.

48.4% - “Make sure I don’t spend more than my income”

46.0% - “To track income and expenses”

36.5% - “Save for long-term financial goals”

24.4% - “Save for short-term financial goals”

21.5% - “To make sure I can provide for family”

20.7% - “To avoid debt from predictable expenses”

20.6% - “To avoid debt from unforeseen expenses”

19.9% - “To get myself out of debt”

9.9% - “I don’t think it’s important to budget”

3.1% - Other

In Section 3.2 (*FCAC Budget Planner Strengths and Weaknesses*, see page 14 - 15) of this report, we had a) defined the concept of stickiness, b) noted that the FCAC tool does not possess high levels of stickiness but c) also noted that if users didn’t value stickiness, then this is not truly a relevant weakness. The question then is, what are users really looking for? The results above suggest that almost half of survey respondents (46%) associate budgeting with tracking income and expenses over time (this is consistent with feedback from our interview respondents). Therefore, even if the FCAC tool was not designed for stickiness, users seem to spontaneously want budgeting tools that are sticky.

### 4.3 Budget Tool Experiment

Within the survey, we embedded a randomized experiment, to further understand how the presentation of the “Budget Planner Tour” could affect user perceptions.

Currently, the “Budget Planner Tour” takes participants through an example of a consumer who ends with a “negative” summary (higher expenses/outgoing money than income/incoming money). We were interested in testing whether presenting survey participants with a “positive” (higher income than expenses) versus “negative” summary affected the perception of the budget tool. To study this, the survey participants were randomly assigned into a negative summary condition or a positive summary condition. The only difference between the two conditions was the financial information presented in the Budget Planner Tour. The variation (or similarity) in their responses to the survey helped us assess any observable/measurable changes in perception of the budget tool.



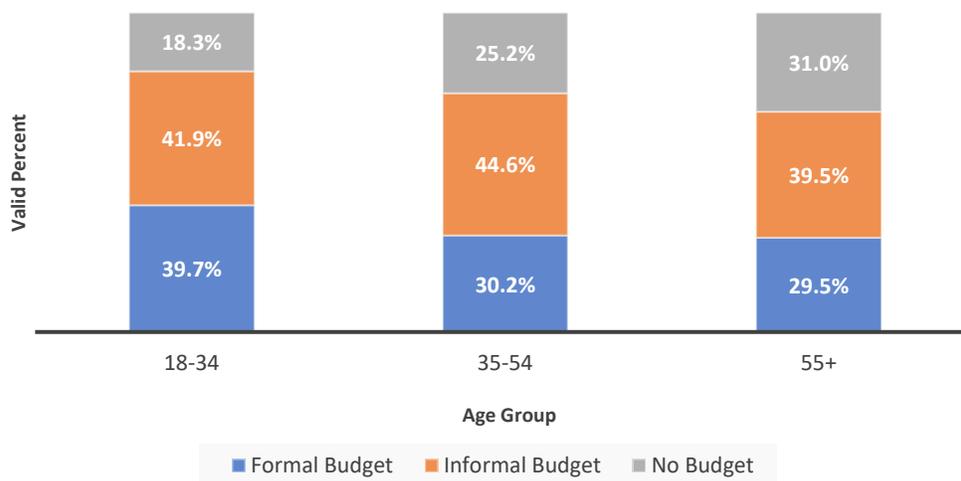
## 4.4 Results and Key Insights

The analysis of the survey data was conducted using SPSS - a Multivariate ANOVA was performed for nearly all analyses, with the exception being analyses regarding Income and Perceptions/Beliefs, where a Correlation Analysis was used instead.

### *Current budgeting behaviour by demographic characteristics*

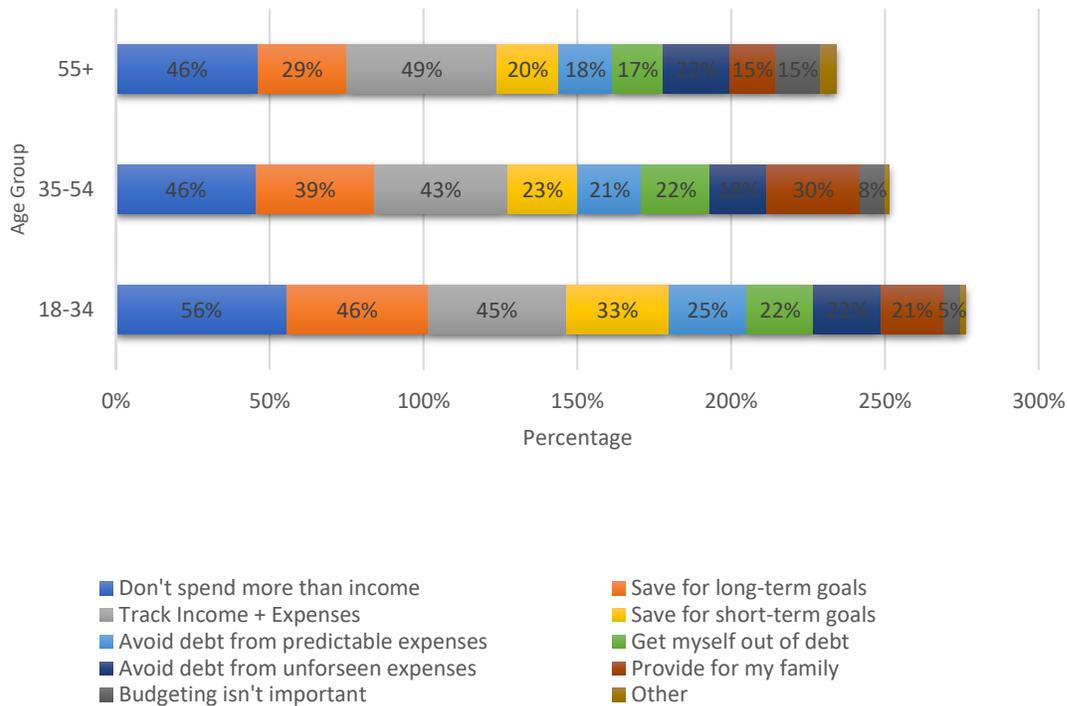
Our survey found that as individuals get older, they find it less important to budget. Those in the 55+ age group appear to be less likely to keep any type of budget. 31.0% of the 55+ participants indicated that they did not keep a budget, compared to 25.2% of the 35-54 participants and 18.3% of the 18-34 participants. A larger proportion of the 55+ participants also indicate that they do not think budgeting is important (14.7%, compared to 7.9% of the 35-54 participants and 53% of the 18-34 participants).

Figure 10. Results and Key Insights – budget type by age



The top three reasons for budgeting amongst all three age groups are to: 1) track their expenses, 2) avoid overspending, and 3) save for long term goals. However, older individuals found it substantially less important to save for long term goals, while those between the ages of 35-54 (presumably the most likely to have dependents) prioritized budgeting to “provide for one’s family.” Budgeting as a main reason to correct debt or avoid debt was found to be only important to approximately one fourth of individuals, irrespective of age group (response rates ranged from 25.3% for 55+ to 16.5% for 18-34).

Figure 11. Results and Key Insights – reasons for budgeting



We observed no substantial differences in current budgeting behaviour between men and women or by province. We did note some differences in responses for Saskatchewan and Manitoba, but samples were too small (N=51 and N=45 respectively) to make a definitive claim.

***Did our Budget Planner experiment affect participant perceptions and beliefs?***

Recall our experiment (Section 4.3) that we imbedded in our survey:

We presented participants with a “negative” summary, where the tour ends with the example consumer’s expenses/outgoing money being higher than income/incoming money, or with a “positive” summary, where the tour ends with the example consumer’s income/incoming money being higher than expenses/outgoing money.

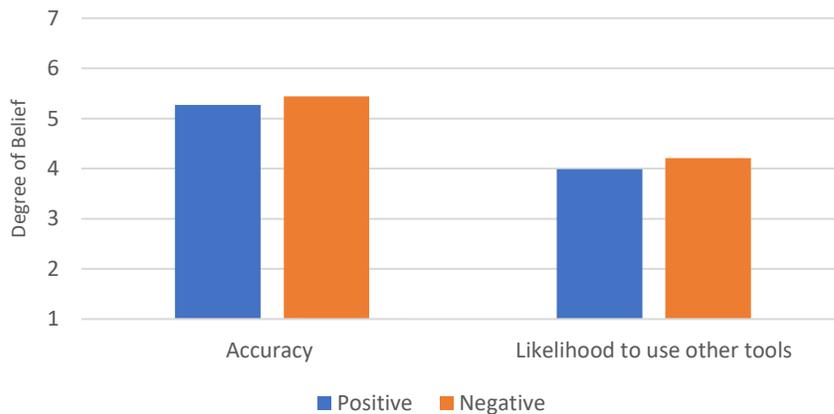
After analysis, there were few significant differences between the positive and negative conditions, indicating that the valence of financial information presented in the Budget Planner Tour may not shift perceptions of the Budget Planner. However, we did note that the mean responses in the negative condition were slightly more favorable than those in the positive condition.

There was a significant difference between the condition on the perceived ability to accurately input their financial information. Those in the negative condition reported being more likely to

accurately input their information vs. those in the positive condition ( $F(1, 1367) = 3.852$ ;  $M_{\text{Positive}} = 5.271$ ,  $SE = .059$  vs.  $M_{\text{Negative}} = 5.437$ ,  $SE = .061$ ;  $p=.05$ ;  $\eta_p^2=.003$ ).

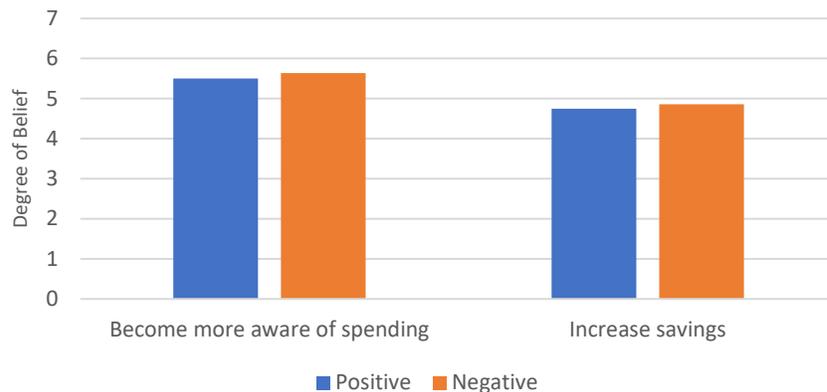
Interestingly, there was also a significant difference between the conditions when asked about their likelihood to use other budgeting tools beside the FCAC Budget Planner. Those in the negative condition reported being more likely to use other budgeting tools than those in the positive condition ( $F(1, 1367) = 5.460$ ;  $M_{\text{Positive}} = 3.994$ ,  $SE = .065$  vs.  $M_{\text{Negative}} = 4.213$ ,  $SE = .068$ ;  $p=.02$ ;  $\eta_p^2=.004$ ). However, the mean responses for both conditions were around the scale mid-point where they are “neither likely nor unlikely” to select a different tool.

Figure 12. Results and Key Insights – perceptions by condition



Additionally, we found that the presentation of both positive and negative conditions resulted in few significant differences in participant beliefs about the tool - we did find that in all cases, the mean responses for those in the negative condition were noticeably more favourable. The strongest belief (irrespective of condition assigned) was the belief that the planner will help individuals become more aware of how much they are spending ( $F(1, 1367) = 3.250$ ;  $M_{\text{Positive}} = 5.50$ ,  $SE = .055$  vs.  $M_{\text{Negative}} = 5.642$ ,  $SE = .057$ ;  $p=.07$ ;  $\eta_p^2=.002$ ). The weakest belief (irrespective of condition assigned) was the belief that the planner will help increase their savings ( $F(1, 1367) = 1.856$ ;  $M_{\text{Positive}} = 4.749$ ,  $SE = .057$  vs.  $M_{\text{Negative}} = 4.86$ ,  $SE = .059$ ;  $p=.173$ ;  $\eta_p^2=.001$ ). Recall that a larger score means that the user had a stronger belief that the budget planner was helpful.

Figure 13. Results and Key Insights – greatest and weakest beliefs by condition



Among the significant difference we observed in beliefs based on the condition assigned, we found that those in the negative condition more strongly believed that the planner:

Would help them make better financial decisions ( $F(1, 1367) = 9.742$ ;  $M_{\text{Positive}} = 4.979$ ,  $SE = .053$  vs.  $M_{\text{Negative}} = 5.218$ ,  $SE = .055$ ;  $p = .002$ ;  $\eta_p^2 = .007$ ).

Would help them become more confident in managing their finances ( $F(1, 1367) = 7.071$ ;  $M_{\text{Positive}} = 4.997$ ,  $SE = .055$  vs.  $M_{\text{Negative}} = 5.209$ ,  $SE = .057$ ;  $p = .008$ ;  $\eta_p^2 = .005$ ).

Would help them understand how to take more concrete steps towards improved financial wellbeing ( $F(1, 1367) = 4.726$ ;  $M_{\text{Positive}} = 5.08$ ,  $SE = .054$  vs.  $M_{\text{Negative}} = 5.25$ ,  $SE = .056$ ;  $p = .03$ ;  $\eta_p^2 = .003$ ).

Note that the negative means above are not drastically different from the positive information condition. The differences are never greater than 1 point on the scale.

Overall, perceptions of the Budget Planner were positive, but not overwhelmingly so. Most of the mean responses to the perceptual questions fell just above or at the scales mid-points, indicating that people were either not sure, or neutral about their perceptions of the Budget Planner.

These results remained unchanged when controlling for age, gender, location, and income.

***Does current budgeting behaviour affect Budget Planner perception and beliefs?***

Overall, it does appear that participants current budgeting behaviour does impact how people perceive the Budget Planner and how they think it could help them. However, there were no significant interaction between the condition (Positive vs. Negative) that the participant was in when viewing the budgeting tool and participants current budgeting behaviour impacting perceptions of the Budget Planner. In other words, those with different budgeting behaviours

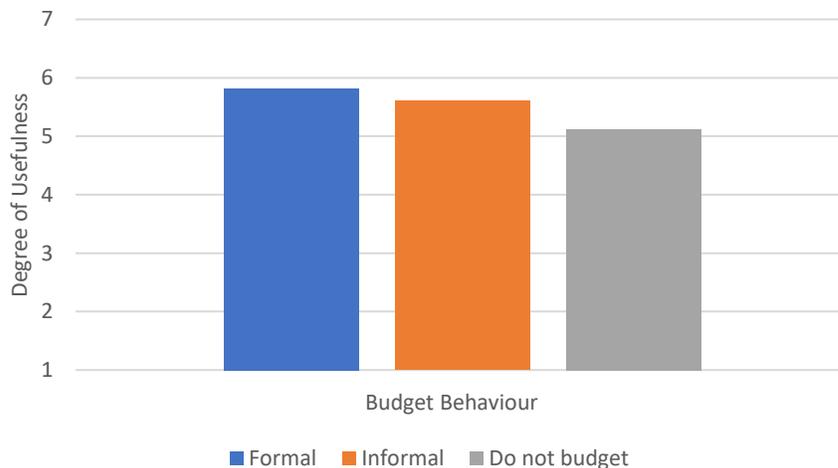
were not differentially impacted by the presentation of information in the overview of the Budget Planner. The survey output is available in Appendix C.

Those who budget formally (create an actual budget) have the most positive perceptions of the Budget Planner, followed by those that keep a budget informally (such as in their head). Those who do not have a budget report the lowest mean responses across all questions.

There is a significant difference between all groups on participants' likelihood to use other budgeting tools. Those who do not keep a budget are least likely to switch to other budgeting tools, whereas those who budget formally were the most likely to switch to another budgeting tool. However, the mean response for those that budget formally and informally were around the scale mid-point which indicates they are "neither likely nor unlikely" to select a different tool. ( $F(2, 1363) = 84.279$ ;  $M_{\text{Formal}} = 4.797$ ,  $SE = .078$  vs.  $M_{\text{Informal}} = 4.071$ ,  $SE = .068$  vs.  $M_{\text{NoBudget}} = 3.284$ ,  $SE = .087$ ; all  $p$ 's < .001;  $\eta_p^2 = .110$ ).

An individual's current budgeting behaviour also impacted how they perceived the usefulness of the Budget Planner. Those who budget formally (create a physical budget on paper/electronically) agree the most that the budget will help them, followed by those that keep a budget informally (in their head), with those who do not have a budget reporting the lowest mean responses ( $F(2, 1363) = 25.891$ ;  $M_{\text{Formal}} = 5.823$ ,  $SE = .066$  vs.  $M_{\text{Informal}} = 5.60$ ,  $SE = .058$  vs.  $M_{\text{NoBudget}} = 5.119$ ,  $SE = .074$ ; all  $p$ 's < .04;  $\eta_p^2 = .037$ ).

**Figure 14. Results and Key Insights – perceived usefulness of Budget Planner by budget behaviour**



The analysis was also conducted by removing those who feel like budgeting is not important from the sample. Individuals who selected the "I don't think it's important to budget" from a list of options were removed from the analysis ( $N=150$ ). This was done to determine if perceptions for the "Do not keep a budget" group were artificially low due to those within the group that may believe budgeting to be unimportant. The means of those who do not keep a budget increased versus when the full sample was used. The perceptions of those who do not budget in this analysis tended not to be statistically different from those who keep a budget informally, which

was not the case when the full sample was used. Therefore, those who do not budget, but maintain that it is important, have similar perceptions of the Budget Planner to those that budget informally.

With regard to beliefs about the Budget Planner, we found that participants budgeting behaviour does impact how they believe the Budget Planner will help them. Again, there was no significant interaction between the condition (Positive vs. Negative) that the participant was in when viewing the budgeting tool and the participants current budgeting behaviour. Overall, participants level of agreement with these beliefs is not overly strong with most mean responses falling just above the scale mid-point.

We found that those who budget formally had the highest mean response to the Budget Planner beliefs questions - on average, this group agreed the most with the statements presented. The opposite was true for those who do not budget - this group reported the lowest mean responses.

The strongest belief (irrespective of their current budgeting behaviour) was that the Budget Planner would help individuals become more aware of how much they are spending ( $F(2, 1363) = 17.234$ ;  $M_{\text{Formal}} = 5.807$ ,  $SE = .068$  vs.  $M_{\text{Informal}} = 5.615$ ,  $SE = .060$  vs.  $M_{\text{NoBudget}} = 5.210$ ,  $SE = .077$ ;  $p < .001$ ;  $\eta_p^2 = .025$ ).

The weakest belief (irrespective of their current budgeting behaviour) was that the Budget Planner would help increase savings ( $F(2, 1363) = 35.588$ ;  $M_{\text{Formal}} = 5.167$ ,  $SE = .070$  vs.  $M_{\text{Informal}} = 4.846$ ,  $SE = .062$  vs.  $M_{\text{NoBudget}} = 4.284$ ,  $SE = .079$ ;  $p < .001$ ;  $\eta_p^2 = .050$ ).

As with our perception analysis above, we also conducted an analysis while removing those who feel like budgeting is not important from the sample. Again, individuals who selected the “I don’t think it’s important to budget” from a list of options were removed from the analysis ( $N=150$ ). The means of those who do not keep a budget increased versus when the full sample was used. The beliefs of those who do not budget in this analysis tended not to be statistically different from those who keep a budget informally, which was not the case when the full sample was used. This means that those who do not budget, but maintain that it is important, have similar beliefs regarding the Budget Planner to those that budget informally.

These results remained unchanged when controlling for age, gender, location, and income.

### ***Perceptions and beliefs of the Budget Planner by age***

When asked about their perceptions of the Budget Planner, the youngest have the most positive perceptions of the Budget Planner, followed by those who are middle aged, and then with those who are oldest. Most of the significant differences appear to be driven by differences between the youngest (18-34) and oldest (55+) participants. These different perceptions were mostly not impacted by the condition (Positive vs. Negative) that the participant was in when viewing the budgeting tool.

It also appears that age does impact how people believe the Budget Planner will help them. Those who are youngest agree the most that the budget will help them, followed by those who

are middle aged, with those who are oldest reporting the lowest mean responses. Again, these significant differences appear to be driven by differences between those 18-34 and 55+.

With regards to beliefs concerning the Budget Planner, the strongest belief (irrespective of age category) was that the Budget Planner would help individuals become more aware of how much they are spending ( $F(2, 1363) = 9.248$ ;  $M_{18-34} = 5.777$ ,  $SE = .077$  vs.  $M_{35-54} = 5.651$   $SE = .068$  vs.  $M_{55+} = 5.377$ ,  $SE = .062$ ;  $p < .001$ ;  $\eta_p^2 = .013$ ). The weakest belief (irrespective of age category) was that the Budget Planner would help increase savings ( $F(2, 1363) = 24.005$ ;  $M_{18-34} = 5.192$ ,  $SE = .079$  vs.  $M_{35-54} = 4.866$   $SE = .070$  vs.  $M_{55+} = 4.502$ ,  $SE = .063$ ;  $p < .001$ ;  $\eta_p^2 = .034$ )

These results differed when controlling for gender, income, location, and budget type. This is most likely due to the fact that age was found to be significantly correlated with income ( $r = .195$ ;  $p < .001$ ). Mainly, responses between those 18-34 and 35-54 were no longer significantly different from one another.

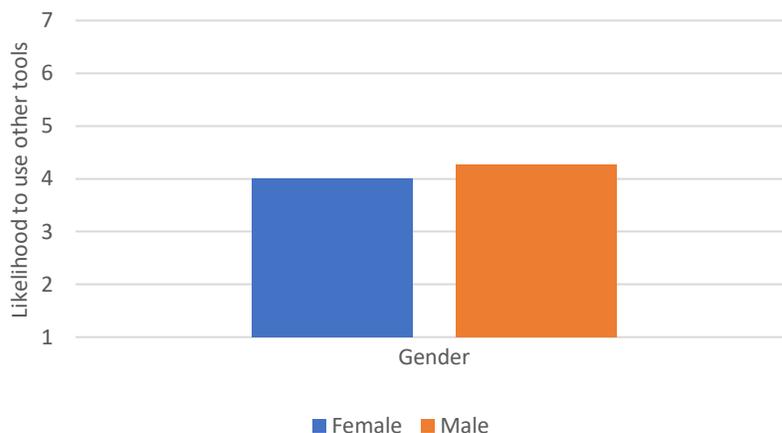
### Perceptions and beliefs of the Budget Planner by gender

Overall, it does appear that gender impacts how people perceive the Budget Planner. As with other demographic analyses, these different perceptions were not impacted by the condition (Positive vs. Negative) that the participant was in when viewing the budgeting tool.

Many comparisons of individuals' perceptions were significantly different between the groups based on their gender, but despite gender, the mean responses still fall close to the scale mid-point, indicating general ambivalence. Women tended to have more significantly positive perceptions of the Budget Planner than men.

However, when it comes to specific usage behaviours, women and men show no difference in their perceptions, with the exception of continued use - men are more likely to budget using other budget tools than the FCAC Budget Planner. ( $M_{Female} = 4.008$ ,  $SE = .061$  vs.  $M_{Male} = 4.207$ ,  $SE = .063$ ;  $p = .025$ ).

Figure 15. Results and Key Insights – likelihood to use other tools by gender



With regards to beliefs concerning the Budget Planner, women on average agree more than men that the budget will help them. As with other demographics, the greatest belief among the seven investigated is that the Budget Planner will allow individuals to become more aware of how much they are spending (this is true for both women and men). The weakest belief among the seven investigated is that the Budget Planner will increase savings (this is true for both women and men).

### ***Perceptions and beliefs of the Budget Planner by income***

After controlling for the “Positive vs. Negative” condition that participants were placed in, we found that perceptions of the Budget Planner become increasingly more positive as income increases. At the same time, individuals were more likely to respond that they would seek out other tools as income increases.

This analysis was also conducted to examine if income interacted with the experimental condition. We found that the above relationship between perceptions and income is stronger for those in the positive condition, with one exception. We found that for those in the positive condition, their likelihood of using the Budget Planner is consistent across income groups.

With regard to Budget Planner beliefs, we found that (after controlling for condition, as we did above) beliefs about the Budget Planner became increasingly more positive as income increases. As with income and perception, the relationship between beliefs and income is stronger in the positive condition.

Lastly, perceptions and beliefs did not display any significant differences by province/income and are not reported here.

We have also identified five key insights from the survey and experiment results.

#### ***Key Insight #1 - Opinions on the FCAC Budget Planner were positive, but somewhat uncertain.***

Participants appear to have generally positive perceptions about the Budget Planner, although not strongly positive. This is consistent with the findings from the FCAC’s intercept survey.

One important general rule concerning our results - the mean response in our surveys for the majority of questions hovered around the scale mid-point of potential responses - akin to a “Neither agree, nor disagree”. This could indicate that while we were able to ascertain participants’ perceptions and beliefs regarding the Budget Planner, it appears that many people are also unsure or neutral about their feelings of the Budget Planner. The lack of both strongly positive or strongly negative responses points to a certain ambivalence among our participants.

#### ***Key Insight #2 - Perceptions of the Budget Planner varied based on demographic backgrounds.***

We also found that individual perceptions of the Budget Planner varied based on demographic factors, such as age, gender, income, and current budgeting behaviours and practices. On average, younger people, women, those who maintain a formal budget and those with higher incomes all had more positive perceptions and beliefs of the Budget Planner than their fellow participants.

***Key Insight #3 - The most common beliefs about the Budget Planner were consistent among demographics.***

Irrespective of demographics, the greatest belief among participants was that the Budget Planner would help them “become more aware of how much they were spending.” In contrast, the weakest belief was that the Budget Planner would “help increase their savings.”

This last point is particularly important for the FCAC. One of the most commonly stated reasons for budgeting was so that consumers could save for financial goals - in our survey, 36.5% of participants indicated they budgeted to “save for long-term financial goals.” If increasing savings is important, but users do not believe that the Budget Planner will help them accomplish this goal, they may not continue to use the Budget Planner. Similarly, if users only wish to become more aware of how much they are spending, they may not feel the need to re-access their information once they have achieved this goal.

***Key Insight #4 - “Spending Tracking” a key reason for budgeting among participants.***

When looking at the main reasons why individuals state they budget, one of the top reasons is that people wish to track how much they are spending (46.0% of participants listed this as a reason). However, the Budget Planner (based on our Benchmarking Analysis) is lacking in this area - it is more cumbersome to input and update financial information into the Budget Planner tool than it is with other financial applications, like automated spending trackers. While participants, on average, slightly agreed that the Budget Planner would help individuals track their spending, investing more into easier financial tracking could result in a much more positive reaction to the Planner.

***Key Insight #5 - People who need the Budget Planner are uncertain about its usefulness but are most likely to engage with the Planner.***

In our survey, we studied the relationship between a participant’s budgeting habits and their likelihood of continuing to use the FCAC Budget Planner. We found that those who do not keep a budget are least likely to switch to other budgeting tools. This makes intuitive sense – those that don’t keep a budget will see no value in budgeting tools in the first place. However, the mean response for those in the other groups (people that do budget formally and informally) were “neither likely nor unlikely” to select a different tool.

However, those who may benefit the most from using the Budget Planner (those who do not budget at all) are unsure of how they feel about the tool. It could also be that this group is uncertain about the prospects of using or searching for other tools, which may make them more likely to use the Budget Planner if they began engaging with the tool.

We also found through statistical analysis that people who do not budget, but still think budgeting is important, have similar perceptions and beliefs about the Budget Planner to those that budget informally.

## 5. Recommendations and Discussion

### 5.1 Recommended Courses of Actions and Associated Costs [Cost Benefit Analysis]

Based on our research, the FCAC has several courses of action for developing and maintaining the FCAC Budget Planner. We have outlined these paths below and have briefly summarized the potential costs and benefits of each. Further details of the preferred course of action are provided in Section 5.2.

Course of Action	Benefits	Costs
Partner with major banking institutions to allow for “Automatic Entry” in an era of Open Banking	<ul style="list-style-type: none"> <li>• Significantly increase ease of use of the planner by providing users with a more convenient way to update and re-access a saved budget, especially given that individuals may already use banking sign-in partners to access other government services (e.g., CRA web login).</li> <li>• Reduce sludge / friction associated with the need to enter data</li> </ul>	<ul style="list-style-type: none"> <li>• Privacy/Security issues become paramount; resources would have to be dedicated to protecting user information</li> <li>• Additional regulations and technology would be needed – will not be feasible till the introduction of open banking in Canada</li> </ul>
Introduction of Technological Widgets (customized lock screens, calendar invites, etc.)	<ul style="list-style-type: none"> <li>• Increase “stickiness” of the Budget Planner by providing content that can effectively serve as nudges prompting users to re-access a saved budget.</li> <li>• Widgets will simplify processes from the customers perspective and reduce sludge, hence improving stickiness.</li> <li>• Increase user engagement and/or interest; provides an opportunity for the FCAC to expand upon the existing feature of badges as “awards” by providing additional shareable or usable rewards.</li> </ul>	<ul style="list-style-type: none"> <li>• Upfront cost could be a concern</li> </ul>
Allow for easier re-access to the Budget Planner using follow-through tools such as email notification and internet browser bookmarking	<ul style="list-style-type: none"> <li>• Email notifications, which remind users to check their budget and adjust them as their spending and saving habits change, can increase the “stickiness” of the Budget Planner.</li> <li>• Internet browser bookmarking would make re-access of a completed budget more convenient for users.</li> </ul>	<ul style="list-style-type: none"> <li>• Monetary costs of developing/maintaining a robust email tool, as well as potential privacy concerns due to the storing of a user’s email address</li> </ul>
Develop a FCAC Budget Planner App	<ul style="list-style-type: none"> <li>• Could significantly increase consumer engagement with Budget Planner (see CNBC research)</li> <li>• Could increase ease of use and “stickiness” of the Budget Planner by providing an alternate platform through which budgets can be accessed, addressing concerns about the lack of effective re-access options for the Budget Planner from the benchmarking analysis and user interviews</li> </ul>	<ul style="list-style-type: none"> <li>• Arguably the most expensive option for improvement</li> <li>• Requires long term commitment (continued support for iOS/Android, bug fixes and updates, etc.)</li> </ul>

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Finetune and Consolidate

- Budget Planner is well-liked by Canadians and useful in its current state - nothing would change this reality
- No increase in funding needed
- Planner would be bereft of useful features that could improve usability and “stickiness” of the tool (but FCAC could emphasize what the goals of the planner are, and why they don’t include stickiness)
- Would be hard for the planner to break out amongst other tools as technology develops

## 5.2 Caveats and Recommendations

Before delivering our recommendations for the FCAC Budget Planner, we wanted to formulate a series of “discussion” questions about the future of the Budget Planner itself. These discussion items are in the nature of caveats under which our current results and recommendations should be interpreted. Our results indicated avenues for future research that builds upon our findings and goes beyond the scope of our current analysis. When the FCAC decides on the long-term future of the Budget Planner, further research based on these questions will be valuable. As a general observation, we believe that future research should include both quantitative but also qualitative methods, which would allow for a more nuanced perspective into participant perceptions and beliefs regarding the planner.

### **Discussion #1 - What is behind the neutral perception of the Budget Planner?**

Both our perception survey analysis and FCAC Intercept Survey Analysis indicated that perceptions of the Budget Planner were relatively “neutral”. As we wrote in our analysis, “participants appear to have generally positive perceptions about the Budget Planner, although not strongly positive... the mean response in our surveys for the majority of questions hovered around the scale mid-point of potential responses - akin to a “Neither agree, nor disagree” ... The lack of both strongly positive or strongly negative responses points to a certain ambivalence among our participants.”

It is not entirely clear why the perceptions are not more positive, but we would advise further research into this area. Studying how perceptions of the Budget Planner are formed (both before and after usage) could point to more concrete avenues for improvement.

### **Discussion #2 - How can user beliefs about the Budget Planner’s saving capabilities be improved?**

One of the most noteworthy findings from our perception survey was the discussion around the Budget Planner’s saving capabilities - the weakest belief was that the Budget Planner would

“help increase their savings.” As outlined in the report, “one of the most commonly stated reasons for budgeting was so that consumers could save for financial goals - in our survey, 36.5% of participants indicated they budgeted to “save for long-term financial goals.” If increasing savings is important, but users do not believe that the Budget Planner will help them accomplish this goal, they may not continue to use the Budget Planner.”

Our analysis was not designed to explore the reasoning behind these beliefs, but future research could delve more closely into why participants feel the way that they do about the planner and its assistance with savings. Specifically, research that explores whether Canadians believe that using a budget would help increase savings is highly recommended. It is possible that a large portion of people are skeptical that a budget would help. Furthermore, it would be interesting to examine whether people who budgeted to save for long-term financial goals are also the people who most strongly believed that the Budget Planner would help improve their savings.

### Recommendations

To conclude, we wanted to present several recommendations for the Budget Planner. These suggestions are based on the findings of both phases of our analysis and seek to provide tangible actions that the FCAC could take to not only improve user satisfaction, but also nudge users towards better budgeting practices.

#### **Recommendation #1: The FCAC should keep the Budget Planner, finetune, consolidate and build on it while simultaneously reflecting about its ultimate “purpose.”**

Our research indicates that while the response to the Budget Planner may be relatively neutral, the overall opinion of the planner among our participants is positive. Whether pulling from our analysis of the FCAC Intercept Survey, our qualitative user interviews, or from our perception survey, the general consensus was that the Budget Planner is viewed in a positive light, is relatively user friendly, and can “potentially” influence behaviour (we included the word “potentially” since much of our work is unable to track users’ financial behaviour over time). There is a definite role for the Budget Planner in the financial lives of Canadians, and the FCAC should continue its support of the application - the greater question may be “How should the FCAC define the role/purpose of the Budget Planner? What constitutes “success”?”

As outlined in our benchmarking analysis, there are several other popular tools for financial planning. The FCAC Budget Planner has a clear advantage over some other planners (CFPB and Charles Schwab) in terms of customization and stickiness, but there are others (Mint, YNAB, and Quicken) that stand above the FCAC Budget Planner. However, is it the goal of the FCAC to ensure the Budget Planner reaches that upper echelon? As we outlined earlier in this section, some of the improvements needed to compete with those planners (automatic entry from a user’s bank account, for example) are costly (both from a monetary perspective as well as the costs associated with overcoming security and privacy concerns) and time consuming to implement and maintain. The goal for the FCAC should not be to supersede these planners, but to chart its own distinct niche in the Canadian budget planning landscape. The table below lists several moderate recommendations that emerged from responses from survey / experiment and

interview participants, as well as feedback from the FCAC project team and respondents of the intercept survey (collectively referred to as “FCAC Project Team”).

#	Recommendations	Source
<b>A) Enhancements</b>		
1	Ability to enter your actual budget vs budget you had planned (like a second column to compare).	FCAC Project Team
2	Add fields to account for pension contributions pre-taxes and things that are deducted at source on salary. The tool asks for Net Income and only takes into consideration savings after net income. For example: if I contribute an amount to REGOP from my pay, it's doesn't consider it.	FCAC Project Team
3	Add the ability to enter non-recurring income, expenses, or savings (one-time, few times per year). *One recommends to look at YNAB (You need a budget) for optimization.	FCAC Project Team
4	Add a legend to the comparison of average Canadian so people see "you and your average Canadian" at all times, not just when they hover.	FCAC Project Team
5	Making the excel export function more obvious as people are suggestion the export function without noticing that it's already there.	FCAC Project Team
6	Option to toggle the alters on and off (rules of thumbs with red hand, yellow ! and green light).	FCAC Project Team
7	Instead of "This amount is within the average range" - consider including their percentage - "You are at 20%, this is within the average range".	FCAC Project Team
8	Integrate a more diverse set of tips about how to track your spending.	FCAC Project Team
9	Should add a space to put comments in about different savings and expenses.	FCAC Project Team
10	Integrate stats that are adjusted by province because prices change drastically across the provinces (by at least 10% when running through numbeo.com).	FCAC Project Team
11	Tax treatment not clear: Net income from employment: therefore after tax and all deductions for employer savings programs and the employee's share for social benefits (insurance and various contributions) In addition, other sources of income are before tax: Rental, RRQ, PSV and RRSP or RRIF withdrawals... which are taxable. So there is a mix between taxable, non-taxable and disposable income. Overall how do you treat taxes in the calculator?	FCAC Project Team

12	In my opinion, taking everything on the basis of gross income and allowing the deductions to be identified by category would give fairer guidelines. Taxes and deductions would be treated like all other expenses and there would be no more ambiguity.	FCAC Project Team
13	Stay faithful (as much as possible) to Statistics Canada's household spending categories.	FCAC Project Team
14	Guided tour should save all filled out categories once official tool usage begins. The current version deletes all filled out categories once official tool usage begins, turning away some potential users.	User Interviews
15	Make the question-mark tips/ Eyeball icon hints salient. Users reported that the eyeball icon & hints embedded in the tool were often ignored.	User Interviews
16	Provide default amounts that the user could adjust to meet their needs.	User Interviews

### **B) Customizability**

17	Add extra curricular kid activities as an item.	FCAC Project Team
18	Ability to delete existing or rename existing categories.	FCAC Project Team
19	The tool should consider family size.	FCAC Project Team
20	Ability to delete existing categories. Same as #18 above, users reported overwhelming number of choices were provided, particularly in the stage where users were required to input their financial information - many of the suggested income and expense categories that were pre-generated by the tool were not relevant to their specific needs.	User Interviews
21	The deleted/ hided categories should be deleted/hided when exported into an excel format. Currently, the irrelevant categories were carried over to the excel spreadsheet, which were recorded as zeroes for their respective category. Users reported the feeling of incompleteness of tasks in the journey.	User Interviews

### **C) Towards Stickiness**

22	Ability to track budget versions overtime. Every time your budget or your profile changes, it creates a new version with the date, allowing the user to go back in time to compare.	FCAC Project Team
23	Integrate balance entry, especially for credit and savings products. Then we can track progress, give badges or congrats messages and also link to the FGC for debt or savings goals.	FCAC Project Team

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24	Provide follow-through options such as email notification and internet browser bookmarking. Many users appeared to have wanted to engage with the tool over time to track income and expenses. The unique URL offered to consumers as a way to return to their online budget is often missed or forgotten, which unnecessarily complicates a user's ability for budget checking/tracking	User Interviews & Survey/ Experiment
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What should the strategic objective of the FCAC budget planner be? One potential avenue is to position the FCAC Budget Planner as a “gateway” or “steppingstone” for non-budgeters into a world of better and more prudent financial management. The FCAC budgeting tool does appear to be successful at getting non-budgeting participants to get started. One of our key insights from our perception survey was the nature of non-budgeting participants - as we write in Section 4, “we found that those who do not keep a budget are least likely to switch to other budgeting tools. However, the mean response for those in the other groups (people who budget formally and informally) were ‘neither likely nor unlikely’ to select a different tool... those who may benefit the most from using the Budget Planner (those who do not budget at all) are unsure of how they feel about the tool. It could also be that this group is uncertain about the prospects of using or searching for other tools, which may make them more likely to use the Budget Planner if they began engaging with (this or any) tool.”

While more research is needed in this area, our findings indicate a greater than expected openness towards the FCAC Budget Planner among those who do not budget in any way. A potential path for the FCAC is to target this group of users - Canadians who do not budget, but who may be receptive to using an electronic budgeting planner. By introducing them to the world of electronic budgeting, the FCAC could better inform and assist these Canadians. And even if these Canadians, with newfound interest in electronic budgeting, were to migrate to more in-depth and personalized budgeting planner, the FCAC would still accomplish its original goal - to promote financial literacy and healthy financial habits among the Canadian public.

More generally, while acknowledging that the current tool does not have the capabilities of other tools, and while recognizing that when the tool is viewed in isolation, many users might ask for additional features – we would like to pause and reflect on the final goal. We believe that FCAC’s goal should not necessarily be to increase usage (or repeat usage) of the tool, but to set Canadians on the path of budgeting and hence more prudent financial decision making. In the context of this broader goal, if the current tool sends some Canadians to other tools or resources, we believe that would constitute success!

**Recommendation #2 - To promote beneficial budgeting habits, change how users can re-access the Budget Planner, and insert behavioural nudges into the budget creation and budget tracking process.**

As outlined in our literature review, budget tracking (consistently checking spending based on budget categories & goals) had a much greater impact on stopping reckless overspending than simply setting a budget (Kan et al., 2015). In addition, nearly half of the participants (46.0%) in our perception survey listed spending tracking as a rationale for budgeting. However, our user journey map, benchmarking analysis, and user interviews highlighted the FCAC Budget

Planner's lack of "stickiness" - the unique web key provided, or the exportable Excel spreadsheet did not encourage users to access the tool, severely limiting the impact of the Budget Planner. The introduction of open banking in Canada will facilitate data sharing that can, in turn, result in design features that promote stickiness. Till such time, there might be more traditional methods for encouraging stickiness.

With this in mind, we recommend a more traditional method of information saving and retrieval - letting users create an account which saves their data. We drew this inspiration from other budgeting tools examined in our benchmarking analysis; highly sticky budgeting tools such as Mint, YNAB, and Quicken all utilize a more formal username/password system for their clients.

The introduction of a user account would not only allow for easier access, but it would also allow for greater engagement with the Budget Planner through the usage of spending and budgeting alerts via email. Often cited as a positive addition to other budgeting tools, optional email alerts could remind users of their budgeting commitment and encourage them to develop consistent budget tracking habits.

Another beneficial budgeting behaviour indicated by our research is the importance of smaller budget timeframe, which can reduce unnecessary spending (Ghosh & Huang, 2020). The inclusion of small pop-ups during budget creation (suggesting modifications like making a budget on a weekly basis instead of a monthly basis) could be a small step towards better budgeting behaviours.

Another small nudge could be the provision of "rewards" for consistent user engagement. The current FCAC Budget Planner already has a small "gamification" element in the form of unlockable badges given for achievements (saving towards a goal or returning to the Budget Planner after setting it up) - adding even more desirable awards, such as unique wallpapers, could boost user commitment and interest.

### **Recommendation #3 - To avoid information overload, streamline the onboarding process.**

As we discussed in our user interview analysis, one of the most cited weaknesses of the FCAC Budget Planner was "the overwhelming amount of choice that was provided, particularly in the stage where users were required to input their financial information. Specifically, interviewees found that many of the suggested income and expense categories that were pre-generated by the tool were not relevant to their specific needs."

This was one of the weaknesses we also identified in both our benchmarking analysis and our user journey map - the "Dynamic Calculators" such as the FCAC Budget Planner provided so much choice that it was actually detrimental to the user experience - our interviewees reported feeling overwhelmed at the number of options provided and were frustrated at the difficulty of parsing through categories to determine personal applicability. In addition, interviewees noted that the "suggested income and expense categories remained the same regardless of the responses inputted at the beginning of the tool, in which users were asked to indicate information about themselves such as their goal in using the tool or their age."

Our literature review also pointed to the danger of providing too many initial categories - research observed an increase in total consumer spending after budgeting if consumers were

able to easily divide their budget into multiple categories (Ghosh & Huang, 2020). All this is not to argue that too much customization is bad, but to propose limiting initial budgeting categories provided - by significantly narrowing down suggested categories based on age, lifestyle, and primary budget goals (all questions currently asked in the onboarding section), the Budget Planner can become more manageable for the user to fill out.

**Recommendation #4 - To increase public awareness of the Budget Planner, partner with major Canadian banking institutions to promote usage of the planner.**

The FCAC, as an institution, is better positioned to be a trustworthy actor in this field of financial literacy and healthy budgeting practices, due to its position as an independent agency of the Government of Canada. By partnering with major financial institutions that already have their own budgeting tools, such as RBC, TD, Scotiabank, and CIBC, the FCAC could promote the usefulness of the Budget Planner to a much greater audience.

This suggestion links up with Recommendation #1 as well; if the FCAC were to situate its Budget Planner as a “gateway” into the world of electronic budgeting, the nationwide reach of these institutions would be of great benefit to the ultimate ubiquity of the Budget Planner - through its outreach partnership, many Canadians could be introduced to the concept of electronic budget planning and using said planners to manage their spending and develop healthy and long-lasting financial habits.

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# Appendices

## Appendix A: Perception Survey Output - Demographics

### Location

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Alberta	169	12.3	12.3	12.3
	British Columbia	174	12.7	12.7	25.1
	Manitoba	45	3.3	3.3	28.3
	Ontario	543	39.7	39.7	68.0
	Atlantic Canada	112	8.2	8.2	76.2
	Quebec	275	20.1	20.1	96.3
	Saskatchewan	51	3.7	3.7	100.0
	Total	1369	100.0	100.0	

### Gender

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Female	711	51.9	51.9	51.9
	Male	658	48.1	48.1	100.0
	Total	1369	100.0	100.0	

### Age

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	18-34	360	26.3	26.3	26.3
	35-54	457	33.4	33.4	59.7
	55+	552	40.3	40.3	100.0
	Total	1369	100.0	100.0	

### Income

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Less than \$10,000	25	1.8	1.8	1.8
	\$10,000 – \$19,999	74	5.4	5.4	7.2
	\$20,000 – \$29,999	122	8.9	8.9	16.1
	\$30,000 – \$39,999	87	6.4	6.4	22.5
	\$40,000 – \$49,999	126	9.2	9.2	31.7
	\$50,000 – \$59,999	89	6.5	6.5	38.2
	\$60,000 – \$69,999	97	7.1	7.1	45.3
	\$70,000 – \$79,999	101	7.4	7.4	52.7
	\$80,000 – \$89,999	78	5.7	5.7	58.4
	\$90,000 – \$99,999	107	7.8	7.8	66.2
	\$100,000 – \$149,999	224	16.4	16.4	82.5
	More than \$150,000	114	8.3	8.3	90.9
	Prefer not to answer	125	9.1	9.1	100.0
	Total	1369	100.0	100.0	

### Education

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Did not complete high school	35	2.6	2.6	2.6
	High school	423	30.9	30.9	33.5
	Associate's Degree	269	19.6	19.6	53.1
	Bachelor's Degree	442	32.3	32.3	85.4
	Master's Degree	144	10.5	10.5	95.9
	Doctoral Degree	13	.9	.9	96.9
	Post Doctoral Degree	19	1.4	1.4	98.2
	Prefer not to answer	24	1.8	1.8	100.0
	Total	1369	100.0	100.0	

### Race

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	White/Caucasian	1063	77.6	77.6	77.6
	Black or African American	41	3.0	3.0	80.6
	Hispanic	10	.7	.7	81.4
	Asian	168	12.3	12.3	93.6
	Other	57	4.2	4.2	97.8
	Prefer not to answer	30	2.2	2.2	100.0
	Total	1369	100.0	100.0	

### How many dependents do you have in your household?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0	698	51.0	51.0	51.0
	1	278	20.3	20.3	71.3
	2	203	14.8	14.8	86.1
	3	90	6.6	6.6	92.7
	4	47	3.4	3.4	96.1
	5	22	1.6	1.6	97.7
	6+	10	.7	.7	98.5
	Prefer not to answer	21	1.5	1.5	100.0
Total	1369	100.0	100.0		

### Financial Literacy Score

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	None Correct	128	9.3	9.3	9.3
	1.00	249	18.2	18.2	27.5
	2.00	370	27.0	27.0	54.6
	All Correct	622	45.4	45.4	100.0
	Total	1369	100.0	100.0	

## Appendix B: Perception Survey Output - Budgeting Behaviour

### Budget Type

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Formally	444	32.4	32.4	32.4
	Informally	573	41.9	41.9	74.3
	I do not keep a budget	352	25.7	25.7	100.0
	Total	1369	100.0	100.0	

### Budget Length

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Weekly	162	11.8	11.8	11.8
	Monthly	408	29.8	29.8	41.6
	Every 3 months	120	8.8	8.8	50.4
	Every 6 months	82	6.0	6.0	56.4
	Once a year	181	13.2	13.2	69.6
	Never	358	26.2	26.2	95.8
	Other (please describe)	58	4.2	4.2	100.0
	Total	1369	100.0	100.0	

### Budget Effort

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No effort at all (1)	131	9.6	9.6	9.6
	2	41	3.0	3.0	12.6
	3	74	5.4	5.4	18.0
	4	70	5.1	5.1	23.1
	5	140	10.2	10.2	33.3
	6	155	11.3	11.3	44.6
	7	238	17.4	17.4	62.0
	8	264	19.3	19.3	81.3
	9	130	9.5	9.5	90.8
	A very large amount of effort (10)	126	9.2	9.2	100.0
	Total	1369	100.0	100.0	

#### Reasons for budgeting, by percentage reported (allowed to select multiple options):

- On average, participants selected 2.5 reasons for budgeting.
- 1) 48.4% - "Make sure I don't spend more than my income"
  - 2) 46.0% - "To track income and expenses"
  - 3) 36.5% - "Save for long-term financial goals"
  - 4) 24.4% - "Save for short-term financial goals"
  - 5) 21.5% - "To make sure I can provide for family"
  - 6) 20.7% - "To avoid debt from predictable expenses"
  - 7) 20.6% - "To avoid debt from unforeseen expenses"
  - 8) 19.9% - "To get myself out of debt"
  - 9) 9.9% - "I don't think it's important to budget"
  - 10) 3.1% - Other

### Budget Type

Age			Frequency	Percent	Valid Percent	Cumulative Percent
55+	Valid	Formally	163	29.5	29.5	29.5
		Informally	218	39.5	39.5	69.0
		I do not keep a budget	171	31.0	31.0	100.0
		Total	552	100.0	100.0	
18-34	Valid	Formally	143	39.7	39.7	39.7
		Informally	151	41.9	41.9	81.7
		I do not keep a budget	66	18.3	18.3	100.0
		Total	360	100.0	100.0	
35-54	Valid	Formally	138	30.2	30.2	30.2
		Informally	204	44.6	44.6	74.8
		I do not keep a budget	115	25.2	25.2	100.0
		Total	457	100.0	100.0	

### Budget Length

Age			Frequency	Percent	Valid Percent	Cumulative Percent
55+	Valid	Weekly	54	9.8	9.8	9.8
		Monthly	155	28.1	28.1	37.9
		Every 3 months	38	6.9	6.9	44.7
		Every 6 months	26	4.7	4.7	49.5
		Once a year	75	13.6	13.6	63.0
		Never	177	32.1	32.1	95.1
		Other (please describe)	27	4.9	4.9	100.0
		Total	552	100.0	100.0	
18-34	Valid	Weekly	53	14.7	14.7	14.7
		Monthly	124	34.4	34.4	49.2
		Every 3 months	41	11.4	11.4	60.6
		Every 6 months	27	7.5	7.5	68.1
		Once a year	35	9.7	9.7	77.8
		Never	69	19.2	19.2	96.9
		Other (please describe)	11	3.1	3.1	100.0
		Total	360	100.0	100.0	
35-54	Valid	Weekly	55	12.0	12.0	12.0
		Monthly	129	28.2	28.2	40.3
		Every 3 months	41	9.0	9.0	49.2
		Every 6 months	29	6.3	6.3	55.6
		Once a year	71	15.5	15.5	71.1
		Never	112	24.5	24.5	95.6
		Other (please describe)	20	4.4	4.4	100.0
		Total	457	100.0	100.0	

### Budget Effort

Age			Frequency	Percent	Valid Percent	Cumulative Percent
55+	Valid	No effort at all (1)	66	12.0	12.0	12.0
		2	18	3.3	3.3	15.2
		3	28	5.1	5.1	20.3
		4	27	4.9	4.9	25.2
		5	55	10.0	10.0	35.1
		6	51	9.2	9.2	44.4
		7	87	15.8	15.8	60.1
		8	105	19.0	19.0	79.2
		9	65	11.8	11.8	90.9
		A very large amount of effort (10)	50	9.1	9.1	100.0
		<b>Total</b>		<b>552</b>	<b>100.0</b>	<b>100.0</b>
18-34	Valid	No effort at all (1)	20	5.6	5.6	5.6
		2	8	2.2	2.2	7.8
		3	15	4.2	4.2	11.9
		4	26	7.2	7.2	19.2
		5	41	11.4	11.4	30.6
		6	44	12.2	12.2	42.8
		7	61	16.9	16.9	59.7
		8	76	21.1	21.1	80.8
		9	31	8.6	8.6	89.4
		A very large amount of effort (10)	38	10.6	10.6	100.0
		<b>Total</b>		<b>360</b>	<b>100.0</b>	<b>100.0</b>
35-54	Valid	No effort at all (1)	45	9.8	9.8	9.8
		2	15	3.3	3.3	13.1
		3	31	6.8	6.8	19.9
		4	17	3.7	3.7	23.6
		5	44	9.6	9.6	33.3
		6	60	13.1	13.1	46.4
		7	90	19.7	19.7	66.1
		8	83	18.2	18.2	84.2
		9	34	7.4	7.4	91.7
		A very large amount of effort (10)	38	8.3	8.3	100.0
		<b>Total</b>		<b>457</b>	<b>100.0</b>	<b>100.0</b>

Reasons for budgeting, by percentage reported (allowed to select multiple options) **18-34**:

- 1) 55.6% - "Make sure I don't spend more than my income"
- 2) 45.8% - "Save for long-term financial goals"
- 3) 45.0% - "To track income and expenses"
- 4) 33.3% - "Save for short-term financial goals"
- 5) 25.3% - "To avoid debt from predictable expenses"
- 6) 21.9% - "To get myself out of debt"
- 7) 21.7% - "To avoid debt from unforeseen expenses"
- 8) 20.6% - "To make sure I can provide for family"
- 9) 5.3% - "I don't think it's important to budget"
- 10) 1.9% - Other

Reasons for budgeting, by percentage reported (allowed to select multiple options) **35-54**:

- 1) 45.5% - "Make sure I don't spend more than my income"
- 2) 43.3% - "To track income and expenses"
- 3) 38.5% - "Save for long-term financial goals"
- 4) 30.4% - "To make sure I can provide for family"
- 5) 22.8% - "Save for short-term financial goals"
- 6) 22.3% - "To get myself out of debt"
- 7) 20.8% - "To avoid debt from predictable expenses"
- 8) 18.4% - "To avoid debt from unforeseen expenses"
- 9) 7.9% - "I don't think it's important to budget"
- 10) 1.5% - Other

Reasons for budgeting, by percentage reported (allowed to select multiple options) **55+**:

- 1) 48.9% - "To track income and expenses"
- 2) 46.2% - "Make sure I don't spend more than my income"
- 3) 28.8% - "Save for long-term financial goals"
- 4) 21.7% - "To avoid debt from unforeseen expenses"
- 5) 19.9% - "Save for short-term financial goals"
- 6) 17.6% - "To avoid debt from predictable expenses"
- 7) 16.5% - "To get myself out of debt"
- 8) 14.7% - "To make sure I can provide for family"
- 9) 14.7% - "I don't think it's important to budget"
- 10) 5.3% - Other

## Appendix C: Perception Survey Output - Perceptions & Beliefs

### Perceptions and Beliefs by Condition

Dependent Variable	Condition	Mean	Std. Error	95% Confidence Interval	
				Lower Bound	Upper Bound
How easy or difficult do you feel that the Budget Planner is to understand?	Negative Summary	5.240	.060	5.122	5.359
	Positive Summary	5.206	.058	5.093	5.320
How easy or difficult do you feel that the Budget Planner would be to use?	Negative Summary	5.180	.059	5.064	5.295
	Positive Summary	5.091	.056	4.981	5.202
How helpful or unhelpful do you feel that the Budget Planner is?	Negative Summary	5.505	.056	5.395	5.615
	Positive Summary	5.424	.054	5.318	5.530
How useful do you feel that the Budget Planner is?	Negative Summary	5.610	.055	5.502	5.718
	Positive Summary	5.487	.053	5.384	5.591
How likely are you to follow links or resources that are recommended by the Budget Planner?	Negative Summary	4.855	.064	4.730	4.981
	Positive Summary	4.705	.062	4.584	4.826
How likely are you to save and re-access the Budget Planner to update your financial information?	Negative Summary	5.081	.067	4.950	5.211
	Positive Summary	4.963	.064	4.838	5.089
How likely is it that you would be able to accurately input all of your financial information into the Budget Planner?	Negative Summary	5.437	.061	5.317	5.556
	Positive Summary	5.271	.059	5.156	5.386
How likely is it that you would continue to use the Budget Planner to set or reach new goals, etc.?	Negative Summary	5.023	.067	4.891	5.155
	Positive Summary	4.871	.065	4.744	4.998
How likely is it that you would budget using other budgeting tools besides this one?	Negative Summary	4.213	.068	4.081	4.346
	Positive Summary	3.994	.065	3.867	4.122

### Beliefs by Condition

Dependent Variable	Condition	Mean	Std. Error	95% Confidence Interval	
				Lower Bound	Upper Bound
track my spending and savings	Negative Summary	5.527	.056	5.417	5.636
	Positive Summary	5.383	.054	5.278	5.489
think about my financial situation	Negative Summary	5.513	.055	5.405	5.620
	Positive Summary	5.441	.053	5.338	5.544
become more aware of how much I am spending	Negative Summary	5.642	.057	5.531	5.754
	Positive Summary	5.500	.055	5.393	5.607
increase my savings	Negative Summary	4.860	.059	4.744	4.976
	Positive Summary	4.749	.057	4.638	4.860
make better financial decisions	Negative Summary	5.218	.055	5.109	5.326
	Positive Summary	4.979	.053	4.875	5.083
become more confident in managing my finances	Negative Summary	5.209	.057	5.096	5.321
	Positive Summary	4.997	.055	4.889	5.105
understand the concrete steps I need to take to better my financial situation	Negative Summary	5.250	.056	5.139	5.360
	Positive Summary	5.080	.054	4.974	5.186

Perceptions and Beliefs by Budget Behaviour

### Perceptions by Budget Behavior

Dependent Variable	Budget Type	Mean	Std. Error	95% Confidence Interval	
				Lower Bound	Upper Bound
How easy or difficult do you feel that the Budget Planner is to understand?	Formally	5.441	.073	5.298	5.583
	Informally	5.225	.064	5.099	5.351
	I do not keep a budget	4.949	.082	4.789	5.109
How easy or difficult do you feel that the Budget Planner would be to use?	Formally	5.366	.071	5.226	5.505
	Informally	5.134	.063	5.011	5.256
	I do not keep a budget	4.849	.080	4.693	5.006
How helpful or unhelpful do you feel that the Budget Planner is?	Formally	5.744	.067	5.612	5.876
	Informally	5.456	.059	5.340	5.573
	I do not keep a budget	5.125	.076	4.977	5.273
How useful do you feel that the Budget Planner is?	Formally	5.823	.066	5.693	5.952
	Informally	5.600	.058	5.486	5.713
	I do not keep a budget	5.119	.074	4.974	5.264
How likely are you to follow links or resources that are recommended by the Budget Planner?	Formally	5.161	.076	5.012	5.310
	Informally	4.844	.067	4.712	4.975
	I do not keep a budget	4.193	.085	4.026	4.361
How likely are you to save and re-access the Budget Planner to update your financial information?	Formally	5.417	.079	5.262	5.572
	Informally	5.080	.070	4.943	5.217
	I do not keep a budget	4.429	.089	4.255	4.603
How likely is it that you would be able to accurately input all of your financial information into the Budget Planner?	Formally	5.761	.073	5.619	5.904
	Informally	5.303	.064	5.177	5.428
	I do not keep a budget	4.926	.082	4.766	5.086
How likely is it that you would continue to use the Budget Planner to set or reach new goals, etc.?	Formally	5.391	.080	5.235	5.548
	Informally	5.007	.070	4.869	5.145
	I do not keep a budget	4.287	.089	4.111	4.462
How likely is it that you would budget using other budgeting tools besides this one?	Formally	4.797	.078	4.645	4.950
	Informally	4.071	.068	3.936	4.205
	I do not keep a budget	3.284	.087	3.113	3.455

### Beliefs by Budget Behavior

Dependent Variable	Budget Type	Mean	Std. Error	95% Confidence Interval	
				Lower Bound	Upper Bound
track my spending and savings	Formally	5.750	.067	5.620	5.881
	Informally	5.511	.059	5.396	5.626
	I do not keep a budget	4.991	.075	4.845	5.138
think about my financial situation	Formally	5.783	.065	5.655	5.911
	Informally	5.527	.058	5.414	5.639
	I do not keep a budget	5.017	.073	4.873	5.161
become more aware of how much I am spending	Formally	5.807	.068	5.673	5.941
	Informally	5.615	.060	5.496	5.733
	I do not keep a budget	5.210	.077	5.060	5.361
increase my savings	Formally	5.167	.070	5.030	5.304
	Informally	4.846	.062	4.725	4.967
	I do not keep a budget	4.284	.079	4.130	4.438
make better financial decisions	Formally	5.402	.066	5.273	5.531
	Informally	5.141	.058	5.027	5.254
	I do not keep a budget	4.651	.074	4.506	4.795
become more confident in managing my finances	Formally	5.414	.068	5.280	5.548
	Informally	5.168	.060	5.050	5.286
	I do not keep a budget	4.608	.077	4.458	4.758
understand the concrete steps I need to take to better my financial situation	Formally	5.443	.068	5.310	5.576
	Informally	5.160	.060	5.043	5.277
	I do not keep a budget	4.824	.076	4.675	4.973

## Perception and Beliefs by Age

### Perceptions by Age Group

Dependent Variable	Age	Mean	Std. Error	95% Confidence Interval	
				Lower Bound	Upper Bound
How easy or difficult do you feel that the Budget Planner is to understand?	55+	5.094	.066	4.965	5.223
	18-34	5.337	.081	5.177	5.497
	35-54	5.294	.072	5.152	5.436
How easy or difficult do you feel that the Budget Planner would be to use?	55+	5.049	.064	4.923	5.175
	18-34	5.237	.079	5.081	5.393
	35-54	5.162	.071	5.024	5.301
How helpful or unhelpful do you feel that the Budget Planner is?	55+	5.312	.061	5.192	5.431
	18-34	5.653	.076	5.505	5.802
	35-54	5.499	.067	5.368	5.631
How useful do you feel that the Budget Planner is?	55+	5.388	.060	5.271	5.505
	18-34	5.750	.074	5.604	5.895
	35-54	5.584	.066	5.455	5.713
How likely are you to follow links or resources that are recommended by the Budget Planner?	55+	4.587	.070	4.451	4.724
	18-34	5.068	.086	4.899	5.237
	35-54	4.786	.077	4.636	4.937
How likely are you to save and re-access the Budget Planner to update your financial information?	55+	4.779	.072	4.638	4.921
	18-34	5.337	.089	5.161	5.512
	35-54	5.067	.079	4.912	5.223
How likely is it that you would be able to accurately input all of your financial information into the Budget Planner?	55+	5.373	.066	5.243	5.504
	18-34	5.412	.082	5.250	5.574
	35-54	5.286	.073	5.142	5.429
How likely is it that you would continue to use the Budget Planner to set or reach new goals, etc.?	55+	4.660	.073	4.517	4.802
	18-34	5.346	.090	5.169	5.523
	35-54	4.979	.080	4.822	5.136
How likely is it that you would budget using other budgeting tools besides this one?	55+	3.843	.073	3.700	3.986
	18-34	4.405	.090	4.227	4.582
	35-54	4.171	.080	4.013	4.328

### Beliefs by Age Group

Dependent Variable	Age	Mean	Std. Error	95% Confidence Interval	
				Lower Bound	Upper Bound
track my spending and savings	55+	5.312	.061	5.193	5.431
	18-34	5.603	.075	5.455	5.751
	35-54	5.515	.067	5.384	5.646
think about my financial situation	55+	5.275	.059	5.159	5.392
	18-34	5.690	.074	5.545	5.835
	35-54	5.557	.065	5.429	5.685
become more aware of how much I am spending	55+	5.377	.062	5.256	5.498
	18-34	5.777	.077	5.627	5.927
	35-54	5.651	.068	5.517	5.784
increase my savings	55+	4.502	.063	4.378	4.626
	18-34	5.192	.079	5.038	5.346
	35-54	4.866	.070	4.729	5.002
make better financial decisions	55+	4.848	.060	4.732	4.965
	18-34	5.382	.074	5.238	5.527
	35-54	5.175	.066	5.046	5.304
become more confident in managing my finances	55+	4.877	.062	4.756	4.999
	18-34	5.401	.077	5.250	5.552
	35-54	5.143	.068	5.009	5.276
understand the concrete steps I need to take to better my financial situation	55+	4.989	.061	4.870	5.109
	18-34	5.400	.076	5.251	5.548
	35-54	5.191	.067	5.059	5.323

## Perceptions and Beliefs by Gender

### Perceptions by Gender

Dependent Variable	Gender	Mean	Std. Error	95% Confidence Interval	
				Lower Bound	Upper Bound
How easy or difficult do you feel that the Budget Planner is to understand?	Female	5.360	.058	5.247	5.473
	Male	5.077	.060	4.960	5.195
How easy or difficult do you feel that the Budget Planner would be to use?	Female	5.293	.056	5.183	5.404
	Male	4.967	.058	4.852	5.081
How helpful or unhelpful do you feel that the Budget Planner is?	Female	5.612	.054	5.506	5.717
	Male	5.304	.056	5.194	5.413
How useful do you feel that the Budget Planner is?	Female	5.725	.053	5.622	5.828
	Male	5.356	.055	5.249	5.463
How likely are you to follow links or resources that are recommended by the Budget Planner?	Female	4.849	.062	4.728	4.970
	Male	4.705	.064	4.579	4.830
How likely are you to save and re-access the Budget Planner to update your financial information?	Female	5.084	.064	4.958	5.210
	Male	4.955	.067	4.825	5.086
How likely is it that you would be able to accurately input all of your financial information into the Budget Planner?	Female	5.364	.059	5.249	5.479
	Male	5.344	.061	5.225	5.464
How likely is it that you would continue to use the Budget Planner to set or reach new goals, etc.?	Female	5.044	.065	4.917	5.171
	Male	4.838	.067	4.706	4.970
How likely is it that you would budget using other budgeting tools besides this one?	Female	4.021	.065	3.894	4.149
	Male	4.191	.067	4.059	4.324

### Beliefs by Gender

Dependent Variable	Gender	Mean	Std. Error	95% Confidence Interval	
				Lower Bound	Upper Bound
track my spending and savings	Female	5.585	.053	5.480	5.690
	Male	5.312	.055	5.203	5.421
think about my financial situation	Female	5.609	.053	5.506	5.712
	Male	5.334	.055	5.227	5.441
become more aware of how much I am spending	Female	5.725	.055	5.618	5.832
	Male	5.404	.057	5.293	5.515
increase my savings	Female	4.912	.057	4.801	5.023
	Male	4.685	.059	4.570	4.800
make better financial decisions	Female	5.195	.053	5.091	5.299
	Male	4.993	.055	4.885	5.101
become more confident in managing my finances	Female	5.215	.055	5.107	5.323
	Male	4.980	.057	4.868	5.092
understand the concrete steps I need to take to better my financial situation	Female	5.298	.054	5.192	5.404
	Male	5.020	.056	4.910	5.130

## Correlation Between Income and Perceptions and Beliefs Controlling for Experimental Condition

**Correlation of Income and Perceptions Controlling for Experimental Condition**

Control Variables		Income	How easy or difficult do you feel that the Budget Planner is to understand?	How easy or difficult do you feel that the Budget Planner would be to use?	How helpful or unhelpful do you feel that the Budget Planner is?	How useful do you feel that the Budget Planner is?	How likely are you to follow links or resources that are recommended by the Budget Planner?	How likely are you to save and re-access the Budget Planner to update your financial information?	How likely is it that you would be able to accurately input all of your financial information into the Budget Planner?	How likely is it that you would continue to use the Budget Planner to set or reach new goals, etc.?	How likely is it that you would budget using other budgeting tools besides this one?
Condition	Income	1.000	.104	.088	.078	.085	.056	.085	.048	.070	.069
	Correlation										
	Significance (2-tailed)		.000	.001	.004	.002	.040	.002	.078	.009	.010
	df	0	1366	1366	1366	1366	1366	1366	1366	1366	1366
How easy or difficult do you feel that the Budget Planner is to understand?	Income	.104	1.000	.864	.548	.551	.418	.452	.494	.440	.159
	Correlation										
	Significance (2-tailed)		.000	.000	.000	.000	.000	.000	.000	.000	.000
	df	1366	0	1366	1366	1366	1366	1366	1366	1366	1366
How easy or difficult do you feel that the Budget Planner would be to use?	Income	.088	.864	1.000	.596	.579	.459	.478	.556	.488	.160
	Correlation										
	Significance (2-tailed)		.000	.000	.000	.000	.000	.000	.000	.000	.000
	df	1366	1366	0	1366	1366	1366	1366	1366	1366	1366
How helpful or unhelpful do you feel that the Budget Planner is?	Income	.078	.548	.596	1.000	.852	.626	.648	.539	.652	.218
	Correlation										
	Significance (2-tailed)		.000	.000	.000	.000	.000	.000	.000	.000	.000
	df	1366	1366	1366	0	1366	1366	1366	1366	1366	1366
How useful do you feel that the Budget Planner is?	Income	.085	.551	.579	.852	1.000	.654	.670	.554	.678	.243
	Correlation										
	Significance (2-tailed)		.000	.000	.000	.000	.000	.000	.000	.000	.000
	df	1366	1366	1366	1366	0	1366	1366	1366	1366	1366
How likely are you to follow links or resources that are recommended by the Budget Planner?	Income	.056	.418	.459	.626	.654	1.000	.815	.567	.787	.343
	Correlation										
	Significance (2-tailed)		.000	.000	.000	.000	.000	.000	.000	.000	.000
	df	1366	1366	1366	1366	1366	0	1366	1366	1366	1366
How likely are you to save and re-access the Budget Planner to update your financial information?	Income	.085	.452	.478	.648	.670	.815	1.000	.601	.854	.318
	Correlation										
	Significance (2-tailed)		.000	.000	.000	.000	.000	.000	.000	.000	.000
	df	1366	1366	1366	1366	1366	1366	0	1366	1366	1366
How likely is it that you would be able to accurately input all of your financial information into the Budget Planner?	Income	.048	.494	.556	.539	.554	.567	.601	1.000	.639	.262
	Correlation										
	Significance (2-tailed)		.000	.000	.000	.000	.000	.000	.000	.000	.000
	df	1366	1366	1366	1366	1366	1366	1366	0	1366	1366
How likely is it that you would continue to use the Budget Planner to set or reach new goals, etc.?	Income	.070	.440	.488	.652	.678	.787	.854	.639	1.000	.345
	Correlation										
	Significance (2-tailed)		.000	.000	.000	.000	.000	.000	.000	.000	.000
	df	1366	1366	1366	1366	1366	1366	1366	1366	0	1366
How likely is it that you would budget using other budgeting tools besides this one?	Income	.069	.159	.160	.218	.243	.343	.318	.262	.345	1.000
	Correlation										
	Significance (2-tailed)		.000	.000	.000	.000	.000	.000	.000	.000	.000
	df	1366	1366	1366	1366	1366	1366	1366	1366	1366	0

**Correlation of Income and Beliefs Controlling for Experimental Condition**

Control Variables			Income	track my spending and savings	think about my financial situation	become more aware of how much I am spending	increase my savings	make better financial decisions	become more confident in managing my finances	understand the concrete steps I need to take to better my financial situation
Income	Correlation		1.000	.067	.082	.102	.095	.054	.083	.061
	Significance (2-tailed)		.	.013	.002	.000	.000	.044	.002	.024
	df		0	1366	1366	1366	1366	1366	1366	1366
track my spending and savings	Correlation		.067	1.000	.759	.749	.583	.672	.684	.677
	Significance (2-tailed)		.013	.	.000	.000	.000	.000	.000	.000
	df		1366	0	1366	1366	1366	1366	1366	1366
think about my financial situation	Correlation		.082	.759	1.000	.815	.611	.709	.710	.709
	Significance (2-tailed)		.002	.000	.	.000	.000	.000	.000	.000
	df		1366	1366	0	1366	1366	1366	1366	1366
become more aware of how much I am spending	Correlation		.102	.749	.815	1.000	.632	.704	.715	.720
	Significance (2-tailed)		.000	.000	.000	.	.000	.000	.000	.000
	df		1366	1366	1366	0	1366	1366	1366	1366
increase my savings	Correlation		.095	.583	.611	.632	1.000	.780	.733	.715
	Significance (2-tailed)		.000	.000	.000	.000	.	.000	.000	.000
	df		1366	1366	1366	1366	0	1366	1366	1366
make better financial decisions	Correlation		.054	.672	.709	.704	.780	1.000	.818	.801
	Significance (2-tailed)		.044	.000	.000	.000	.000	.	.000	.000
	df		1366	1366	1366	1366	1366	0	1366	1366
become more confident in managing my finances	Correlation		.083	.684	.710	.715	.733	.818	1.000	.812
	Significance (2-tailed)		.002	.000	.000	.000	.000	.000	.	.000
	df		1366	1366	1366	1366	1366	1366	0	1366
understand the concrete steps I need to take to better my financial situation	Correlation		.061	.677	.709	.720	.715	.801	.812	1.000
	Significance (2-tailed)		.024	.000	.000	.000	.000	.000	.000	.
	df		1366	1366	1366	1366	1366	1366	1366	0

## Appendix D: Survey

### Budget Tool Assessment Survey

In this survey, we will ask you to assess a new budgeting tool, the **Budget Planner**. First, you will view photos and read descriptions about the capabilities and features of the tool. After this, you will be asked to answer some questions about your opinions on this budgeting tool, so **please review the information thoroughly**.

#### Condition: Positive Summary

To begin using the Budget Planner, you can select answers from a drop-down list to create a personalized budget. By personalizing your budget, the Budget Planner will be able to provide suggestions and compare your results to others who are similar to you.

### Personalize your budget

Create a budget that suits your needs by selecting the answers that best reflect your situation. You'll receive personalized tips, suggestions and will be able to compare your budget with those of other Canadians like you.

Your life situation?	▼	<input type="radio"/>
Your age range?	▼	<input type="radio"/>
Your work status?	▼	<input type="radio"/>
Your home?	▼	<input type="radio"/>
Your primary budget goal?	▼	<input type="radio"/>

[SKIP](#) [START](#)

The next step allows you to enter your financial information. This is the budget page with 3 main sections: Income, Savings, and Expenses. You can enter and update your information here.

The screenshot shows the 'Budget' page in the BEAR application. It features three tabs: 'Budget', 'Results', and 'Next Steps'. The 'Budget' tab is active. At the top, there is a navigation bar with 'Expand all', 'Tips' (with a toggle switch), and a menu icon. Below this, there are three main sections: 'Income', 'Savings', and 'Expenses', each with a dropdown arrow, an icon, and a '\$0.00' value. Under 'Expenses', there are two input fields labeled 'Incoming' and 'Outgoing'. At the bottom, there is a 'Display totals' section with a 'Monthly' dropdown and four columns showing '\$0.00' for each category. The page has 'BACK' and 'NEXT' buttons at the bottom.

Category	Value
Income	\$0.00
Savings	\$0.00
Expenses	\$0.00

Category	Value
Income	\$0.00
Savings	\$0.00
Expenses	\$0.00
Summary	\$0.00

Each section has a list of related items. Use a drop-down list to select the frequency for each entry and enter the amount of each item.

You can add up to 10 personal items per category.

Budget
Results
Next Steps

^ Collapse all
Tips

^
Income
\$0.00

<span style="font-size: 20px;">?</span> My net income	Every 2 weeks <span style="font-size: 18px;">v</span>	\$ 0.00
My spouse / partner's net income	Every 2 weeks <span style="font-size: 18px;">v</span>	\$ 0.00
<span style="font-size: 20px;">?</span> Employment insurance	Every 2 weeks <span style="font-size: 18px;">v</span>	\$ 0.00
<span style="font-size: 20px;">?</span> Education savings and loans	Monthly <span style="font-size: 18px;">v</span>	\$ 0.00
<span style="font-size: 20px;">+</span> Add item		
Incoming		
Outgoing		

Display totals  
 Monthly v

\$ \$0.00

\$ \$0.00

\$ \$0.00

\$ \$0.00

The Savings section offers a drop-down list to select the type of instrument you will use for each savings goal.

^ Collapse all
Tips

^ Savings
\$0.00

? Emergency fund	CASH	▼	Monthly	▼	\$ 0.00
Retirement	RRSP	▼	Monthly	▼	\$ 0.00
Education	RESP	▼	Monthly	▼	\$ 0.00
Home purchase	CASH	▼	Monthly	▼	\$ 0.00
Car purchase	CASH	▼	Monthly	▼	\$ 0.00
Income tax	CASH	▼	Annually	▼	\$ 0.00
+ Add item					
Incoming					
Outgoing					

Display totals
Monthly ▼

\$0.00

\$0.00

\$0.00

\$0.00

The Expenses section is broken down into a number of categories with their related items.

^ Collapse all Tips

^  Expenses	\$0.00
▼  Debt repayment	\$0.00 <input type="checkbox"/>
▼  Housing	\$0.00 <input type="checkbox"/>
▼  Communications	\$0.00 <input type="checkbox"/>
▼  Food	\$0.00 <input type="checkbox"/>
▼  Insurance	\$0.00 <input type="checkbox"/>
▼  Transportation	\$0.00 <input type="checkbox"/>
▼  Education	\$0.00 <input type="checkbox"/>
Incoming <input type="text"/>	
Outgoing <input type="text"/>	
Display totals Monthly ▼	\$0.00             \$0.00             \$0.00             \$0.00

^ Collapse all Tips

^  Expenses	\$0.00
▼  Recreation	\$0.00 <input type="checkbox"/>
▼  Personal care	\$0.00 <input type="checkbox"/>
▼  Clothing	\$0.00 <input type="checkbox"/>
▼  Medical	\$0.00 <input type="checkbox"/>
▼  Pets	\$0.00 <input type="checkbox"/>
▼  Fees	\$0.00 <input type="checkbox"/>
▼  Gifts and donations	\$0.00 <input type="checkbox"/>
Incoming <input type="text"/>	
Outgoing <input type="text"/>	
Display totals Monthly ▼	\$0.00             \$0.00             \$0.00             \$0.00

As you enter your data, the tool provides you with an average range of the percentage of income spent on each section/category.

A chart at the bottom displays your incoming money (income) and outgoing money (expenses and savings). You can hover over the different portions with your mouse to view the item names and amounts.

You can click on the charts to view a waterfall breakdown of your information.



The next step provides you with a summary of your results. The top portion of the summary page displays your budget results as well as the good points and the areas you may need to focus on.

**Summary**

**You have money left.** You make \$3,900.00 per month, you spend \$3,158.33 and save \$100.00.

- Savings** - This amount is slightly below the average range (5% or more of income)
- Debt repayment** - This amount is within the average range (15% or less of income)
- Housing** - This amount is within the average range (35% or less of income)
- Communications** - This amount is within the average range (5% or less of income)

[Show more results](#)

**Note:** The suggested ranges are based on average Canadian data and are to be used as guidelines only. These guidelines are not applicable to all personal situations.

The lower portion of the summary page provides you with a graphic view of your budget and a comparison to your average Canadian.

**Charts** Legends  \$  %

**Incoming and outgoing money**

**Where your money goes**

**Comparison to your average Canadian**

**Display totals**  
 Monthly \$3,900.00 \$100.00 \$3,112.33 \$687.67

The final step offers suggestions and useful links that are based on your budget information. They are aimed at helping you improve your budgeting skills.

### ^ Suggestions



As you currently have money left in your budget, you could put that money toward a savings goal. Use our [Financial Goal Calculator](#) in order to set and reach your savings goals. The process is quick and simple and the tool provides you with a savings plan.



A comfortable retirement requires saving and planning. It's never too early or too late to start. Learn all about [retirement planning](#). You'll find information on the different types of retirement income and how much you'll need to save.



There are many ways you can bring down your credit card balance and avoid overspending. Visit our page [Using your credit card responsibly](#).

∨ [Show more suggestions](#)

Below the budgeting suggestions, the Budget Planner offers badges that you can obtain with your good budgeting habits.

### ^ Badges

Congratulations! You've earned 3 badges. You could obtain 2 more.



You are taking charge of your finances by making a budget.

Share this badge:



You customized your budget to meet your specific needs.

Share this badge:



You are saving money toward a financial goal.

Share this badge:



The Budget Planner allows you to save your budget at any time. Once you have saved your budget, you will be presented with the option to email or copy your unique key. This is your unique key, every time you hit the save button, your key is updated and can be used to return to your budget at any time.

 **Save**

 Your budget has been saved and your unique key has been generated (One budget per key).

 <https://itools-ioutils.fcac-acfc.gc.ca/BP-PB/budget-planne>

Email or copy your key to access your budget online.

Enter your email address

**SEND**

\* No email address is being kept.

## Condition: Negative Summary

To begin using the Budget Planner, you can select answers from a drop-down list to create a personalized budget. By personalizing your budget, the Budget Planner will be able to provide suggestions and compare your results to others who are similar to you.

### Personalize your budget

Create a budget that suits your needs by selecting the answers that best reflect your situation. You'll receive personalized tips, suggestions and will be able to compare your budget with those of other Canadians like you.

Your life situation?	▼	<input type="radio"/>
Your age range?	▼	<input type="radio"/>
Your work status?	▼	<input type="radio"/>
Your home?	▼	<input type="radio"/>
Your primary budget goal?	▼	<input type="radio"/>

**SKIP** **START**

The next step allows you to enter your financial information. This is the budget page with 3 main sections: Income, Savings, and Expenses. You can enter and update your information here.

The screenshot shows the 'Budget' tab of the BEAR app. At the top, there are three tabs: 'Budget', 'Results', and 'Next Steps'. Below the tabs is a dark blue header bar with a 'Expand all' dropdown, a 'Tips' toggle (which is turned on), and a menu icon. The main content area is divided into three sections: 'Income', 'Savings', and 'Expenses'. Each section has a dropdown arrow on the left, an icon, a title, and a total value of '\$0.00' on the right. Below these sections are two input fields for 'Incoming' and 'Outgoing' amounts. At the bottom, there is a 'Display totals' section with a 'Monthly' dropdown and four columns, each with an icon and a '\$0.00' total. The bottom of the screen has a 'BACK' button on the left and a 'NEXT' button on the right.

Section	Total
Income	\$0.00
Savings	\$0.00
Expenses	\$0.00

Display totals: Monthly

Category	Total
Income	\$0.00
Savings	\$0.00
Expenses	\$0.00
Net	\$0.00

Each section has a list of related items. Use a drop-down list to select the frequency for each entry and enter the amount of each item.

You can add up to 10 personal items per category.

Budget
Results
Next Steps

^ Collapse all
Tips

^ **Income** **\$0.00**

<span>⊕ ?</span> My net income	Every 2 weeks <span style="font-size: 0.8em;">v</span>	\$ 0.00
My spouse / partner's net income	Every 2 weeks <span style="font-size: 0.8em;">v</span>	\$ 0.00
<span>⊕ ?</span> Employment insurance	Every 2 weeks <span style="font-size: 0.8em;">v</span>	\$ 0.00
<span>⊕ ?</span> Education savings and loans	Monthly <span style="font-size: 0.8em;">v</span>	\$ 0.00
<span>⊕</span> Add item		
Incoming <input style="width: 80%; border: 1px solid #ccc;" type="text"/>		
Outgoing <input style="width: 80%; border: 1px solid #ccc;" type="text"/>		

Display totals
Monthly v

\$0.00

\$0.00

\$0.00

\$0.00

The Savings section offers a drop-down list to select the type of instrument you will use for each savings goal.

^ Collapse all
Tips

^ Savings
\$0.00

? Emergency fund	CASH <span style="font-size: 0.8em;">v</span>	Monthly <span style="font-size: 0.8em;">v</span>	\$ 0.00
Retirement	RRSP <span style="font-size: 0.8em;">v</span>	Monthly <span style="font-size: 0.8em;">v</span>	\$ 0.00
Education	RESP <span style="font-size: 0.8em;">v</span>	Monthly <span style="font-size: 0.8em;">v</span>	\$ 0.00
Home purchase	CASH <span style="font-size: 0.8em;">v</span>	Monthly <span style="font-size: 0.8em;">v</span>	\$ 0.00
Car purchase	CASH <span style="font-size: 0.8em;">v</span>	Monthly <span style="font-size: 0.8em;">v</span>	\$ 0.00
Income tax	CASH <span style="font-size: 0.8em;">v</span>	Annually <span style="font-size: 0.8em;">v</span>	\$ 0.00

+ Add item

Incoming

Outgoing

Display totals

Monthly v

\$0.00

\$0.00

\$0.00

\$0.00

The Expenses section is broken down into a number of categories with their related items.

^ Collapse all Tips

^  Expenses	\$0.00
∨  Debt repayment	\$0.00 <input type="radio"/>
∨  Housing	\$0.00 <input type="radio"/>
∨  Communications	\$0.00 <input type="radio"/>
∨  Food	\$0.00 <input type="radio"/>
∨  Insurance	\$0.00 <input type="radio"/>
∨  Transportation	\$0.00 <input type="radio"/>
∨  Education	\$0.00 <input type="radio"/>
Incoming	<input type="text"/>
Outgoing	<input type="text"/>
Display totals	
Monthly ∨  \$0.00  \$0.00  \$0.00  \$0.00	

^ Collapse all Tips

^  Expenses	\$0.00
∨  Recreation	\$0.00 <input type="radio"/>
∨  Personal care	\$0.00 <input type="radio"/>
∨  Clothing	\$0.00 <input type="radio"/>
∨  Medical	\$0.00 <input type="radio"/>
∨  Pets	\$0.00 <input type="radio"/>
∨  Fees	\$0.00 <input type="radio"/>
∨  Gifts and donations	\$0.00 <input type="radio"/>
Incoming	<input type="text"/>
Outgoing	<input type="text"/>
Display totals	
Monthly ∨  \$0.00  \$0.00  \$0.00  \$0.00	

As you enter your data, the tool provides you with an average range of the percentage of income spent on each section/category.

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You can click on the charts to view a waterfall breakdown of your information.



The next step provides you with a summary of your results. The top portion of the summary page displays your budget results as well as the good points and the areas you may need to focus on.

**Summary**

**You spend more than you earn.** You make \$3,900.00 per month, you spend \$4,266.00 and save \$100.00.

- Down Arrow:** Your expenses exceed your income. Please review your budget and determine what's essential for you. That is the first step to creating a balanced budget.
- Warning:** **Savings** - This amount is slightly below the average range (5% or more of income)
- Green Check:** **Debt repayment** - This amount is within the average range (15% or less of income)
- Green Check:** **Housing** - This amount is within the average range (35% or less of income)

[Show more results](#)

**Note:** The suggested ranges are based on average Canadian data and are to be used as guidelines only. These guidelines are not applicable to all personal situations.

The lower portion of the summary page provides you with a graphic view of your budget and a comparison to your average Canadian.

**Charts** Legends  \$  %

**Incoming and outgoing money**

**Where your money goes**

**Comparison to your average Canadian**

**Display totals**

Monthly 📈 \$3,900.00 🏠 \$100.00 📄 \$4,487.67 📉 -\$687.67

The final step offers suggestions and useful links that are based on your budget information. They are aimed at helping you improve your budgeting skills.

### ^ Suggestions



As you currently have more money going out than coming in, our [Financial Goal Calculator](#) could really help you pay down your debt. The process is quick and simple and the tool provides you with a debt payment plan.



You will also be interested in our page [Making a plan to be debt-free](#) which offers you a step-by-step process of paying back your debt.



If you feel like you need professional help to pay down your debt, you may wish to consult an accredited credit counsellor or a financial professional in your area. To learn where to find help, visit our page [Getting help from a credit counsellor](#).

v Show more suggestions

Below the budgeting suggestions, the Budget Planner offers badges that you can obtain with your good budgeting habits.

### ^ Badges

Congratulations! You've earned 3 badges. You could obtain 2 more.



You are taking charge of your finances by making a budget.

Share this badge:



You customized your budget to meet your specific needs.

Share this badge:



You are saving money toward a financial goal.

Share this badge:

The Budget Planner allows you to save your budget at any time. Once you have saved your budget, you will be presented with the option to email or copy your unique key. This is your unique key, every time you hit the save button, your key is updated and can be used to return to your budget at any time.

 **Save**

 Your budget has been saved and your unique key has been generated (One budget per key).

 <https://itools-ioutils.fcac-acfc.gc.ca/BP-PB/budget-planne>

Email or copy your key to access your budget online.

Enter your email address

**SEND**

\* No email address is being kept.

**Now that you have an overview of the capabilities that the Budget Planner includes, please answer the following questions below.**

How easy or difficult do you feel that the Budget Planner is to understand?

- Extremely difficult
- Moderately difficult
- Slightly difficult
- Neither easy nor difficult
- Slightly easy
- Moderately easy
- Extremely easy

How easy or difficult do you feel that the Budget Planner would be to use?

- Extremely difficult
- Moderately difficult
- Slightly difficult
- Neither easy nor difficult
- Slightly easy
- Moderately easy
- Extremely easy

How helpful or unhelpful do you feel that the Budget Planner is?

- Extremely unhelpful
- Moderately unhelpful
- Slightly unhelpful
- Neither helpful nor unhelpful
- Slightly helpful
- Moderately helpful
- Extremely helpful

How useful do you feel that the Budget Planner is?

- Extremely useless
- Moderately useless
- Slightly useless
- Neither useful nor useless
- Slightly useful
- Moderately useful
- Extremely useful

How likely are you to follow links or resources that are recommended by the Budget Planner?

- Extremely unlikely
- Moderately unlikely
- Slightly unlikely
- Neither likely nor unlikely
- Slightly likely
- Moderately likely
- Extremely likely

How likely are you to save and re-access the Budget Planner to update your financial information?

- Extremely unlikely
- Moderately unlikely
- Slightly unlikely
- Neither likely nor unlikely
- Slightly likely
- Moderately likely
- Extremely likely

How likely is it that you would be able to accurately input all of your financial information into the Budget Planner?

- Extremely unlikely
- Moderately unlikely
- Slightly unlikely
- Neither likely nor unlikely
- Slightly likely
- Moderately likely
- Extremely likely

How likely is it that you would continue to use the Budget Planner to set or reach new goals, etc.?

- Extremely unlikely
- Moderately unlikely
- Slightly unlikely
- Neither likely nor unlikely
- Slightly likely
- Moderately likely
- Extremely likely

How likely is it that you would budget using other budgeting tools besides this one?

- Extremely unlikely
- Moderately unlikely
- Slightly unlikely
- Neither likely nor unlikely
- Slightly likely
- Moderately likely
- Extremely likely

Please indicate your agreement with the following statements:  
I believe that the Budget Planner will help me...

	Strongly disagree	Disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Agree	Strongly agree
track my spending and savings	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
think about my financial situation	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
become more aware of how much I am spending	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
increase my savings	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
make better financial decisions	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
become more confident in managing my finances	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
understand the concrete steps I need to take to better my financial situation	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

### Current Budgeting Behavior

In the following questions, we are interested in your current budgeting behavior. Please describe to the best of your knowledge your current budgeting practices.

Do you keep your budget formally (for example, written down or on a website) or informally (for example, keep it in your head)?

- Formally
- Informally
- I do not keep a budget

How often do you create a budget?

- Weekly
- Monthly
- Every 3 months
- Every 6 months
- Once a year
- Never
- Other (please describe) \_\_\_\_\_

What are your main reasons for budgeting? Select all that apply.

- To make sure I don't spend more than my income
- To make sure that I can provide for my family
- To save for long-term goals (e.g., retirement)
- To save for short-term goals (e.g., a new computer)
- To avoid debt from predictable overspending (e.g., routine doctor visit)
- To avoid debt from unforeseen expenses (e.g., an unexpected hospital visit)
- To get myself out of debt (e.g., repaying credit card debt)
- To track my spending and income
- Other (Please specify)  

---
- I don't think it's important to budget

Which websites or apps do you use to budget, if any?

---

On a scale of 1-10, how much effort do you put in to stay within your budget?

- No effort at all (1)
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- A very large amount of effort (10)

### **Financial Knowledge**

In the following questions, we are interested in understanding your financial knowledge.

Suppose you had \$100 in a savings account and the interest rate was 2% per year. After 5 years, how much do you think you would have in the account if you left the money to grow?

- More than \$102
- Exactly \$102
- Less than \$102
- Do not know
- Refuse to answer

Imagine that the interest rate on your savings account was 1% per year and inflation was 2% per year. After 1 year, how much would you be able to buy with the money in this account?

- More than today
- Exactly the same
- Less than today
- Do not know
- Refuse to answer

Please tell me whether this statement is true or false. "Buying a single company's stock usually provides a safer return than a stock mutual fund."

- True
- False
- Do not know
- Refuse to answer

Think of this ladder as representing where people stand in Canadian society. The families with the most money, power, and opportunity are at the top of the ladder, and families with the least money, power, and opportunity are at the bottom.

Where would you place yourself on this ladder?



- 1
- 2
- 3

4

5

6

7

8

9

10

### Demographic Questions

Is English your first language?

Yes

No (please describe) \_\_\_\_\_

Prefer not to answer

What is your ethnicity?

▼ White/Caucasian ... Prefer not to answer

What is the highest level of education you have completed?

▼ Did not complete high school ... Prefer not to answer

How many dependents do you have in your household?

▼ 0 ... Prefer not to answer

Please indicate your average household income (you and those in your home).

▼ Less than \$10,000 ... Prefer not to answer