Change in self-perceived ability to keep track of money

Indicator Reference Sheet

Outcome area: Income

Outcome type: Impact, Behaviour, Knowledge-Attitudes-Skills-Aspirations

How to use this document:

Indicator Reference Sheets define indicators in enough detail that they can be used to share comparable data across organizations. Users should select indicators that best fit their organization's needs, then select the most useful options for method of measurement, frequency and disaggregations. Options are rated 1 (Highly Recommended), 2 (Recommended) and 3 (Optional). For information about how to use, create or revise Indicator Reference Sheets, see [DOI reference].

Indicator Code: INC-track_money

Description:

The indicator is a survey question intended to measure the change in a person's control over day-to-day and/or month-to-month finances before and after a program intervention. The indicator could also be used measure changes in the beliefs that an individual has regarding their management over money (i.e., financial self-efficacy), or their skills in money management. Note that it is not an objective measurement of financial control – it asks the participant about their own perceptions.

Rationale:

The indicator is based on a survey question in Statistics Canada's "2014 Canadian Financial Capability Survey" (CFCS) (Statistics Canada, 2014a). The question was adopted by the Financial Consumer Agency of Canada's (FCAC) "Financial literacy self-assessment quiz", a 30-item questionnaire that assesses an individual's financial literacy skills and knowledge. (FCAC, 2015a). It was also included in a 'Personal Financial Literacy Quiz' developed by Prosper Canada (Robson, n.d.).

The CFCS was developed by the Government of Canada over several years in 2006-2009 to measure important aspects of financial literacy and capability among Canadians (Statistics Canada 2006). The survey underwent cognitive testing with focus groups and interviews to ensure the questions were clear and understandable (Statistics Canada 2007).

This same question is also an element in a multi-question scale for 'change in personal assessment of ability in financial management'. It can be reported as a stand-alone indicator, or as part of a composite score. See INC-fin-management [to be developed].

The indicator is suitable for the pre and post assessment of an intervention's impact related to financial empowerment. It is appropriate for use with persons who can comprehend English or French, and are in control of their personal and/or household finances. The survey question is available in French from Statistics Canada and FCAC.

The main advantages of this indicator are that the question:

- Is widely used in surveys from Statistics Canada and others, showing high credibility
- Has been included in the FCAC's survey instrument which will be a major outcome measure of FCAC's national financial literacy initiative (FCAC 2015b)
- Has been designed to be easy to understand using cognitive testing

- Can be compared with Canadian populations using Statistics Canada microdata as a kind of quasi-experimental control group or baseline

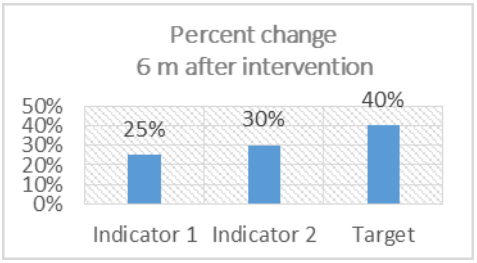
As with the use of any questionnaire, the indicator does have limitations. These include:

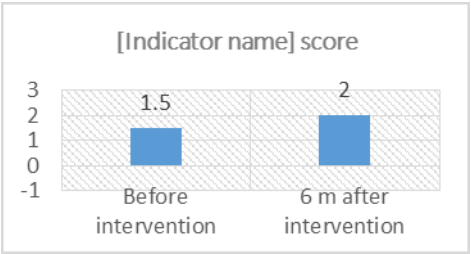
- If individuals have low levels of English or French literacy, the question should be read aloud to ensure comprehension.

- The indicator's data may not be reliable due to social desirability bias, as it requires self-report answers from the participant. In other words, individuals may rate themselves higher than their true capacity.

Data element:	How would you rate yourself on keeping track of money? • Very good • Good • Fairly good • Not very good • I don't know
Method of Measurement:	The data element above can be used in three different ways to provide information for the indicator (Change in personal assessment of ability to keep track of money). The terms 'program' and 'intervention' will be used interchangeably. **I. Calculating change by using a differential percentage from the pre and post indicator score (Strongly recommended approach)** When utilizing the above data element, participants would be asked to answer the questions at the beginning of the program (pre-survey) and also near the conclusion of the program (post-survey). Calculating the change in responses will provide information about the indicator of how participants have learned to be more fiscally responsible. This option of assessing results is strongly recommended because it effectively displays a clear and intuitive representation of change that has occurred. Percent increase/decrease in the pre-post indicator score is also a good standardized measure that allows comparison between financial empowerment program elements. Specifically, a data finding in percentage score has shown to properly represent change in program participants related to behaviour and self-efficacy with respect to financial empowerment. Ideally, the program could set a numerical standard (target) to measure actual change against desired change. **II. Calculating absolute change in the pre and post indicator score (Recommended approach)** The second method is to measure the effect of the program by calculating the difference between the pre and post indicator score. This can be referred to as calculating the absolute change and similarly to the aforementioned method it can be compared to the target change that the program has set. This method also allows for comparison between program elements when the same scoring system is used to provide information on indicators. **III. Calculating the relative share of each answer option (Optional approach)** The third method can be used to calculate the relative share of each answer option (the percent of respondents that answered "Very good", "Good", "Fairly good", etc.). The effect of the program in a specified target area could be measured by comparing the pre and post relative shares of answer options to identify specific positive changes (increase in the relative share of "Very good", "Good", "Fairly good" answer options) or negative changes (increase in the relative share of "Not very good", "I don't know" answer options). In addition, this method of measurement enables comparison to public use microdata file for the 2014 Canadian Financial Capability Survey, in which survey results are represented in the same way – see Statistics Canada 2014b).

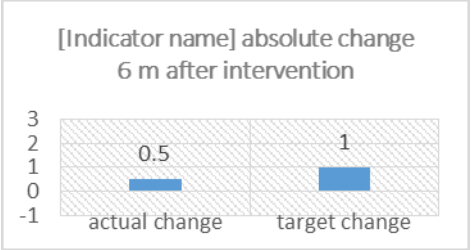
		Detailed description of the calculation of all three methods is provided below. *NOTE: Make sure that post intervention results are accompanied by the program dropout rate and that the responses to the pre intervention survey of the people who dropped out are analyzed to determine their impact on post survey results (indicator is in development).*
	1	**I. Calculating change by using a differential percentage from the pre and post indicator score (Recommended approach)** The change in difference is represented by a percentage number, which shows the difference between the post intervention score and the pre intervention score. The numerator is the difference between the post intervention score and the pre intervention score. The denominator is the pre intervention score. The numerator is divided by the denominator and then multiplied by a factor of 100 to present a percentage value. *Calculation of pre and post intervention scores* Pre intervention and post intervention scores are calculated identically, with the difference that pre intervention numerator and denominator are calculated using the number of responses recorded before the intervention and the post intervention numerator and denominator are calculated using the number of responses recorded after the intervention. The pre intervention and post intervention scores are arithmetic means, derived by dividing a pre/post numerator to pre/post denominator. The pre/post numerator is a composite of the following two data components: 1. Number of responses to each answer option 2. The score attributed to each answer option The pre/post numerator is calculated by multiplying the total number of responses of each answer option by the respective score and adding the results. The values attributed to each answer options are as follows: • Very good = 3 • Good = 2 • Fairly good = 1 • Not very good = -1 • I don't know = 0 To calculate the nominator, use the following formula ((number of responses to “Very good” x 3) + (number of responses to “Good” x 2) + (number of responses to “Fairly good” x 1) + (number of responses to “Not very good” x -1) + (number of responses to “I don't know” x 0)). The denominator is the sum of the responses to each answer option (the total responses to the indicator question). To calculate the denominator, use the following formula ((number of responses to “Very good”) + (number of responses to “Good”) + (number of responses to “Fairly good”) + (number of responses to “Not very good”) + (number of responses to “I don't know”)). *Reporting type:* Bar chart, composed of one bar, illustrating the percent change of the pre-post score. The horizontal axis will represent the indicator and the vertical axis will be the percent change values. The chart title includes details about the data collection frequency. The report

		could be presented in a combination with a target or in comparison to other indicators' percent changes. See example below. 
	2	**II. Calculating absolute change in the pre and post indicator score (Suggested approach)** The absolute change is calculated as the difference between the post intervention and pre intervention score. A difference that is a positive number, represents a positive effect by the evaluated program, and vice versa. *Calculation of pre and post intervention scores* Pre intervention and post intervention scores are calculated using the same scoring system. The difference is that the pre intervention numerator and denominator are calculated using the number of responses recorded before the intervention and the post intervention numerator and denominator are calculated using the number of responses recorded after the intervention. The pre intervention and post intervention scores are arithmetic means, derived by dividing a pre/post numerator to pre/post denominator respectively. The pre/post numerator is composed of the following two data components: 1. Number of responses to each answer option 2. The score attributed to each answer option The pre/post numerator is calculated by multiplying the total number of responses to each answer option by its respective score and adding together the results. The scores attributed to each answer options are as follows: • Very good = 3 • Good = 2 • Fairly good = 1 • Not very good = -1 • I don't know = 0 To calculate the nominator use the formula (number of responses to "Very good" x 3) + (number of responses to "Good" x 2) + (number of responses to "Fairly good" x 1) + (number of responses to "Not very good" x -1) + (number of responses to "I don't know" x 0)). The denominator is the sum of the responses to each answer option (the total responses to the indicator question). To calculate the denominator use the formula ((number of responses to "Very good") + (number of responses to "Good") + (number of responses to "Fairly good") + (number of responses to "Not very good") + (number of responses to "I don't know")). *Reporting type:* Bar chart, with two bars comparing the pre and post program scores. The vertical axis is the score (range from -1 to +3) and the horizontal axis is the time line (before intervention and [number of months] after intervention. See example below.



OR

Bar chart, illustrating the absolute change of the pre-post score, compared to a target. The horizontal axis is the indicator and the target and the vertical axis is the absolute change in the indicator score and the targeted value. The chart title includes details about the data collection frequency. See example below.



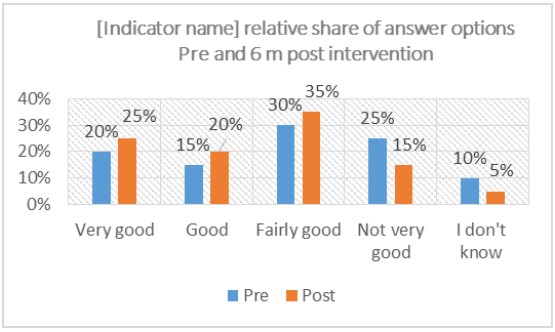
3

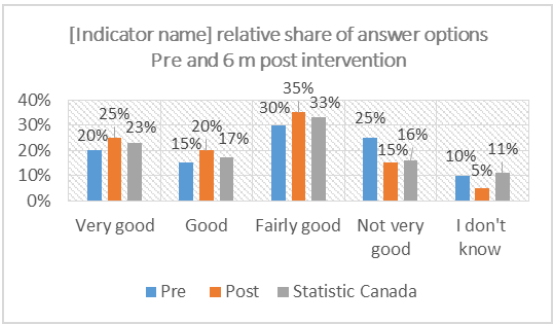
III. Calculating the relative share of each answer option (Optional approach)

The relative share of each answer option is calculated separately. The numerator is the number of responses to the respective answer option and the denominator is the total number of responses to the question. The numerator is divided by the denominator and then multiplied by a numerical factor of 100 to create a percentage value. For accurate representation of the data the sum of the relative shares of each answer option must equal a 100% figure.

Reporting type:

Bar chart, with one bar for each answer option, illustrating both pre and post program relative share. The vertical axis contains each answer option and the horizontal axis is the percentage score. The chart title includes details about the data collection frequency. Alternatively, the report could include three bars for each answer option – one for pre intervention results, one for post intervention results and one for the benchmark (2014 Canadian Financial Capability Survey results). See examples below.



		
Data Collection Frequency:	**1**	**Pre-Post Intervention Data Collection** Pre: At intake or before the first session of a financial empowerment program Post: 2-5 months after final session
	2	**Pre-Post Intervention Data Collection** Pre: At intake or before the first session of a financial empowerment program Post: at final session or within one month of final session
	2	**Pre-Post Intervention Data Collection** Pre: At intake or before the first session of a financial empowerment program Post: 1 year after completion of a financial empowerment program 6 months to 1 year after final session
Data Source:	The survey question is answered by the program participant with or without assistance. The answers to the question may be read aloud or included in a written survey.	
Numerator:	**1**	**I. Calculating change by using a differential percentage from the pre and post indicator score** The numerator is a numerical representation of the difference between the post intervention score and the pre intervention score. A detailed description of how to calculate the pre intervention and post intervention scores is provided in the “Method of Measurement” section in this document.
	2	**II. Calculating absolute change in the pre and post indicator score** For this method, the numerator represents the difference between the post intervention score and the pre intervention score. A detailed description of how to calculate the pre intervention and post intervention scores is provided in the “Method of Measurement” section in this document.
	3	**III. Calculating the relative share of each answer option** Each answer option in the data element is individually calculated and expressed in percentage values. The numerator represents the number of responses each respective answer option received.
Denominator:	**1**	**I. Calculating percent change in the pre and post indicator score** The denominator is the pre intervention score.

		A detailed description of how to calculate the pre intervention score is provided in the "Method of Measurement" section in this document.
	2	**II. Calculating absolute change in the pre and post indicator score** N/A
	3	**III. Calculating the relative share of each answer option** The denominator is the total number of responses to the indicator question. A detailed description of how to calculate the denominator is provided in the "Method of Measurement" section in this document.
Disaggregation(s):	**1**	Age (17 and younger; 18-24; 25-29; 30-39; 40-54; 55-64; 65-74; 75 and over; Prefer not to say) Sex (Male; Female; Other or prefer not to say) Age/Sex disaggregates: 17 and younger male, 17 and younger female, 17 and younger other; 18-24 male, 18-24 female, 18-24 other; 25-29 male, 25-29 female, 25-29 other; 30-39 male, 30-39 female, 30-39 other; 40-54 male, 40-54 female, 40-54 other; 55-64 male, 55-64 female, 55-64 other; 65-74 male, 65-74 female, 65-74 other; 75 and over male, 75 and over female, 75 and over other; Prefer not to say male, Prefer not to say female, prefer not to say other
	2	Age (19 and younger; 20-29; 30-39; 40-49; 50-59; 60-69; 70 and over; Prefer not to say) Sex (Male; Female; Prefer not to say) Age/Sex disaggregates: 19 and younger male, 19 and younger female; 19 and younger prefer not to say; 20-29 male, 20-29 female, 20-29 prefer not to say; 30-39 male, 30-39 female, 30-39 prefer not to say; 40-49 male, 40-49 female, 40-49 prefer not to say; 50-59 male, 50-59 female, 50-59 prefer not to say; 60-69 male, 60-69 female, 60-69 prefer not to say; 70 and over male, 70 and over female, 70 and over prefer not to say; Prefer not to say male, prefer not to say female, prefer not to say for age - prefer not to say for sex
References:		Financial Consumer Agency of Canada (2015a): Financial literacy self-assessment quiz. Retrieved September 23, 2015, from http://www23.statcan.gc.ca/imdb/p2SV.pl?Function=getSurvey&SDDS=5159#a1 Financial Consumer Agency of Canada (2015b): National strategy for financial literacy: Count me in, Canada. Retrieved September 29, 2015, from http://www.fcac-acfc.gc.ca/Eng/financialLiteracy/financialLiteracyCanada/strategy/Pages/home-accueil.aspx?WT.mc_id=InfoGraNSFLmainENG Program dropout rate indicator [indicator to be developed] Robson, J. (n.d.). Piloting a personal financial literacy quiz in Canada: Results of developmental study. Unpublished document Statistics Canada (2006): Planning report for a Canadian Survey of Financial Capability. Unpublished report. Statistics Canada (2007): Cognitive testing report of the draft questionnaire for the Canadian Survey of Financial Capabilities. Unpublished report. Statistics Canada (2014a): Canadian Financial Capability Survey (CFCS). Retrieved September 23, 2015, from http://www23.statcan.gc.ca/imdb/p2SV.pl?Function=getSurvey&SDDS=5159#a1 Statistics Canada (2014b): Canadian Financial Capability Survey: Public Use Microdata File, 2014. http://www23.statcan.gc.ca/imdb/p3Instr.pl?Function=assembleInstr&lang=en&Item_Id=201522

Relevant populations:	Adults; Low and Middle income. Available in English, French
URL:	This will be a DOI link generated by Zenodo when the Indicator Reference Sheet is posted. The DOI link will also be added to the 'How to cite this document' field below.
Terms of use for the indicator:	Open Government License – Canada, attributed to Government of Canada
How to cite this document:	Canadian Bankers Association and Prosper Canada (2015): Change in self-perceived ability to keep track of money: Indicator reference sheet. Zenodo. DOI when available. This document is licensed under a Creative Commons Attribution International License 4.0.