# Budgeting for Happiness in Canada

Katja Lemermeyer (BA Economics), Prof. Christopher Barrington-Leigh



#### Background

With the growing maturity of the "science of happiness", using self-reported life satisfaction as a guiding indicator for policy presents a promising alternative to traditional economic indicators and indices. In Canada, there is currently active interest in how to implement this vision from the federal Ministry of Finance, provincial governments, health agencies, and civic governments.

An eventual, concrete goal in this regard is to be able to carry out quantitative benefit/cost evaluations of public investments and policy changes through a framework of subjective wellbeing defined as "wellbeing cost-effectiveness". Evaluating wellbeing cost-effectiveness requires an appraisal of the best evidence on the individual, social, and collective determinants of life satisfaction over the life course of Canadians. These include areas ranging from health, employment, and income, to social trust and belonging, the quality of relationships, and the proximity of green spaces.

#### Purpose

A transition to wellbeing-oriented policy requires that the best practices for doing so are well communicated to policy-makers and understood in their own national context. With this vision in mind, the goal of this ARIA project is to synthesize knowledge on life satisfaction (or closely-related measures of overall subjective experience), applied to the Canadian context and, where possible, derived from Canadian data. The primary deliverable is a table of coefficients useful in the evaluation of prospective policies and budgeting decisions.

#### Methodology



## Selection of Key Findings

The Table of Canadian Happiness Coefficients

Domain	Category	Change	Effect on 0-10 Life Satisfaction	Dynamic over time	Confidence in effect and causality	Key lit references	Data source
Finances	Income	Doubling of household income	+0.16 (± 0.196)	Persistent effects with elation peak	High. Effect found in panels, cross-sections, and shock- related (lotteries).	flecheetal-2019 [1]	BCS70 ₩
		Increase in difference between own log income and log income of a provincial reference group	+0.194 (± 0.135)	Unknown	Medium. Panel data, significant negative effect as found in other Canadian literature.	latif-SIR2016 [2]	NPHS 1994-2009 🛂
	Financial Stress	High financial stress (self-rated)	-0.864 (±0.086)	Unknown	Cross-sectional data, considering the possibility of an indirect effect of income through financial stress uncovers a strong effect of financial stress on life satisfaction, but an effect not clearly linked to income	brzozowskispotton visano-JHS2020 [3]	GSS 19-24 I
	Prosocial spending	Donated to charity in the past month	+0.28 (±0.047) on 11-point Cantril ladder	Unknown	Cross-sectional data, relies on correlational analysis, supported by limited experimental data	akninetal-JPSP2013 [4]	GWP 2006-08 (#)
			+0.27(±0.039) on 11-point Cantril ladder	Unknown	Cross-sectional data, relies on correlational analysis, supported by limited experimental data	akninetal-JPSP2013 [4]	GWP 2006-08 (#)

The above table is an excerpt of the full table, which is a growing database that currently includes over 50 rows. It is sorted into eight domains: Crime, Education, Employment, Environment, Finance, Health, Social Capital, and Work.

#### Selected Coefficients

The following are a selection of SWB coefficients and confidence intervals, representing an increase or decrease in Life Satisfaction (conventionally on a Likert scale from 0-10, unless stated otherwise) following a unit change in the independent variable being studied.

Being a victim of violent crime<sup>5</sup>

▼ -0.396 (±0.1372)

Increase of 1-day SO<sub>2</sub> level by  $10 \mu g/m^3 6*$ 

 $-0.02 (\pm 0.0051)$ 

Having flexible work hours7

 $\bullet$  +0.19 (± 0.1176)

From O close friends to 3-5 close friends8 \*\*

+0.24

High self-reported financial stress<sup>9</sup>

 $\nabla$  -0.864 (±0.086)

From smoking daily to not at all 10

+0.12 (± 0.04)

From excellent to poor physical health (self-rated)<sup>11</sup>

**▼** -2.19 (±0.17)

From excellent to poor mental health (self-rated)12

**▼** -3.13 (±0.30)

#### What's Next?

The process of assembling the best of Canadian SWB literature naturally led to an identification of some major gaps in research. Certain key areas of research and certain populations remain under-studied in the Canadian context, and presently, not enough data exists for meaningful or specific policy guidance using SWB.

For the time being, these gaps may be supplemented in the table by looking to a broader set of international data (such as the findings of the World Happiness Report) and adapting their findings to the Canadian context. In addition, over the long term, the gaps identified through this project can easily provide direction for future research.

The next phase of this project will consist of translating the Table of Canadian Happiness Coefficients into a visually appealing, interactive webpage format so that it can be viewed by a larger audience and eventually recieve contributions.

## Bibliography

[1] Flèche, S., Clark, A. E., Layard, R., Powdthavee, N., & Ward, G. (2019). The Origins of Happiness: The Science of Well-Being Over the Life Course. Princeton University Press.

[2] Latif, E. (2016). Happiness and Comparison Income: Evidence from Canada. Social Indicators Research, 128(1), 161–177.

[3] [4] Aknin, L. B., Barrington-Leigh, C. P., Dunn, E. W., Helliwell, J. F., Burns, J., Biswas-Diener, R., Kemeza, I., Nyende, P., Ashton-James, C. E., & Norton, M. I. (2013). Prosocial spending and well-being: Cross-cultural evidence for a psychological universal. *Journal of Personality and Social Psychology*, 104(4), 635–652. https://doi.org/10.1037/a0031578

[5] Johnston, D. W., Shields, M. A., & Suziedelyte, A. (2018). Victimisation, Well-being and Compensation: Using Panel Data to Estimate the Costs of Violent Crime. The Economic Journal, 128(611), 1545–1569. https://doi.org/10.1111/ecoj.12478

[6] Barrington-Leigh, C., & Behzadnejad, F. (2017). Evaluating the Short-Term Cost of Low-Level Local Air Pollution: A Life Satisfaction Approach. Environmental Economics and Policy Studies. 19(2), 269–298.

[7] Hilbrecht, M., Smale, B., & Mock, S. E. (2014). Highway to health? Commute time and well-being among Canadian adults. World Leisure Journal, 56(2), 151–163. https://doi.org/10.1080/16078055.2014.903723

[8] Helliwell, J. F., & Huang, H. (2013). Comparing the Happiness Effects of Real and On-Line Friends. PLOS ONE, 8(9), e72754. https://doi.org/10.1371/journal.pone.0072754

[9] Brzozowski, M., & Spotton Visano, B. (2020). "Havin' Money's Not Everything, Not Havin' It Is": The Importance of Financial Satisfaction for Life Satisfaction in Financially Stressed Households. *Journal of Happiness Studies*, 21(2), 573–591.

[10][11][12]Shi, Y., Joyce, C., Wall, R., Orpana, H., & Bancej, C. (2019). A life satisfaction approach to valuing the impact of health behaviours on subjective well-being. BMC Public Health, 19(1), 1547. Scopus. https://doi.org/10.1186/s12889-019-7896-5

## Acknowledgements

This project was made possible by the Arts Research Internship Award (ARIA) Programme and the generosity of Mr. Harry Samuel, as well as the Social Sciences and Humanities Research Council of Canada.

\*on a 5-point Life Satisfaction scale, \*\*on a 10-point Life Satisfaction scale, confidence interval unavailable