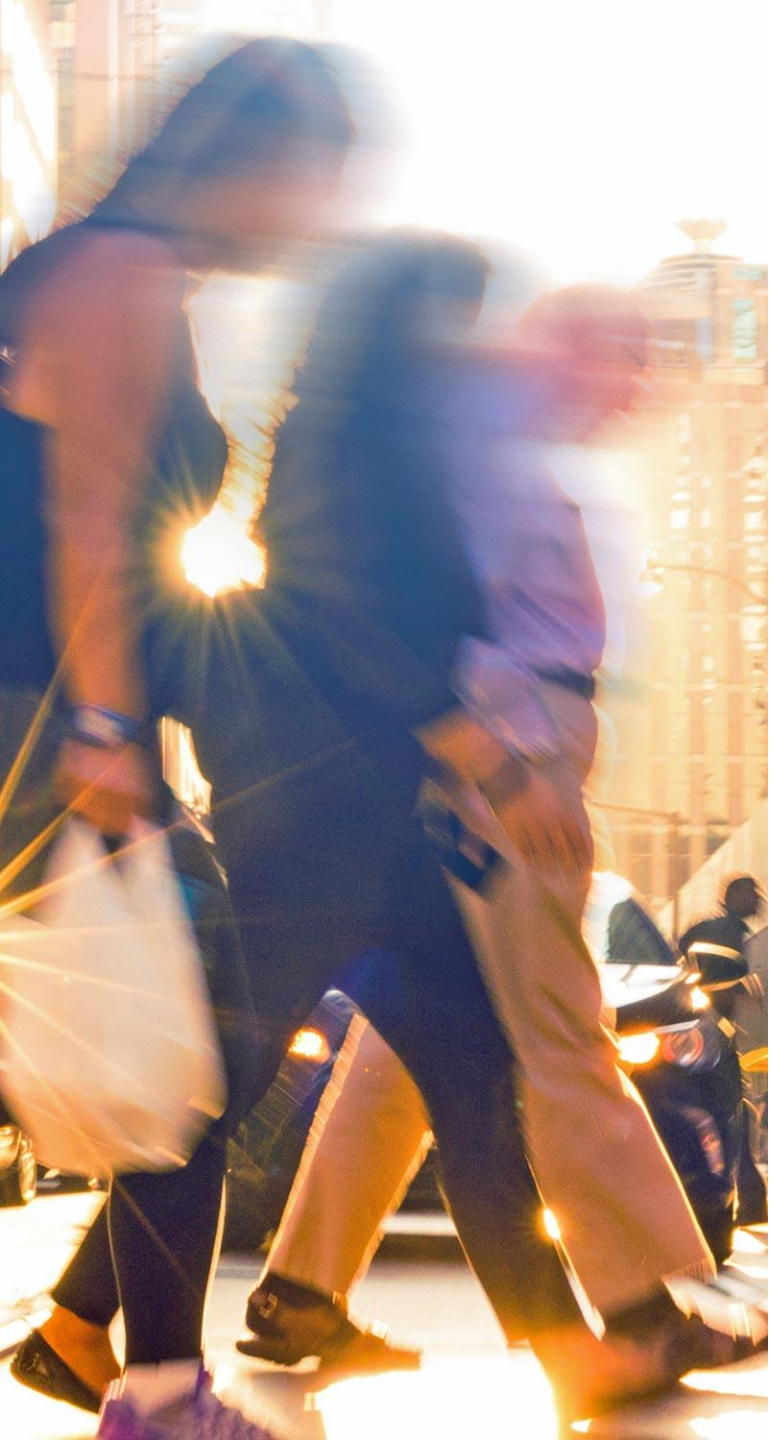

Development and implementation of a framework for estimating the economic benefits of an accessible and inclusive society

IWH Speaker Series
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Co-Investigators: Amir Mofidi, Arif Jetha, Pam Lahey, Alexis Buettgen

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Overview

1. Research question and context
2. Study methods and findings
3. Applications of the methodology and estimates
4. Preview of the new Inclusive Design for Employment Access (IDEA) social innovation laboratory
5. Discussion (questions/comments/advice)

Key question

What would be the benefits to Canadian society in reference year 2017, if Canada was accessible and inclusive in all domains relevant to full participation?

Prevalence of disability (CSD, 2017)

Age group	Total Population	Persons without disabilities	Persons with disabilities	Prevalence of disability
Total - aged 15 years and over	28,008,860	21,762,230	**6,246,640**	**22.3%**
15 to 24 years	4,155,440	3,609,040	546,410	13.1%
25 to 64 years	18,636,250	14,908,330	3,727,920	20.0%
25 to 44 years	8,940,410	7,572,150	1,368,270	15.3%
45 to 64 years	9,695,840	7,336,190	2,359,650	24.3%
65 years and over	5,217,160	3,244,860	1,972,310	37.8%
65 to 74 years	3,241,250	2,204,670	1,036,580	32.0%
75 years and over	1,975,920	1,040,190	935,730	47.4%

Statistics Canada, Canadian Survey on Disability, 2017

Benefits of inclusion estimation

Economic and social benefits = counterfactual scenario – current scenario

A fully accessible and inclusive society

Difference in resources

Current situation in accessibility and inclusion

Measurement context and challenges

Measurement context

- Prevalence study (include all persons with disabilities) with 2017 as the reference year
- Cost of illness approach but different conceptual framing
- Consider a counterfactual scenario of the absence of barriers to inclusion, rather than absence of impairment or disability

Key challenges

- What does the counterfactual look like?
- How is it different from the current situation?
- How can we measure the difference?

Domains considered

1. Healthcare Expenses
2. Out-of-Pocket Expenses
3. Output and Productivity
4. Quality of Life and Social Role Engagement
5. Life Expectancy
6. Informal Caregiving
7. Children with Disabilities
8. Human Rights
9. Transportation
10. Tourism
11. General Productivity
12. Administration of Social Safety Net Programs
13. Pensions
14. Market Multiplier Effects

Benefits of inclusion conceptual framework

Institute for Work & Health

Domain of output and productivity

Loss/Potential Gain = Earnings gap + Employment gap + Participation gap

$$Loss = \sum_{i=1}^{k} Pn_i\,\gamma_i \;\; and \;\; \gamma_i = \underbrace{(\beta_i^* - \beta_i)e_i}_{I} + \underbrace{\beta_i^*(u_i - u)}_{II} + \underbrace{\beta_i^*(d_i - d)}_{III}$$

(Buckup, 2009)

P is the earnings of peers without disabilities,
n_i is the number of persons with disabilities within a certain category identified by *i*
γ_i is the productivity adjustment factor if the labour-force was accessible and inclusive
β_i^* is the potential labour-market earnings of persons with disabilities expressed as a percentage of *P*
β_i the actual earnings also expressed as a percentage of *P*
e_i is the employment rate of persons with disabilities
u_i , ***u*** the unemployment rate of persons with disabilities and their peers without disabilities
d_i , ***d*** the labour-market non-participation rate of persons with disabilities and their peers without disabilities

In the counterfactual scenario we level up earnings of persons with disabilities with that of their non-disabled peers

Domain of quality of life and social role engagement

- In this domain we consider the gap in quality of life and social role engagement between persons with and without disabilities
- We use QALYs/HUIs to capture quality of life and social role participation
- We draw on data from the Canadian Community Health Survey (CCHS)
- We translated HRQoL into monetary terms, with the frequently used value of $100,000/QALY

Health Utilities Index (HUI) for persons with and without disabilities

Participation and activity limitations[1]	Frequency	Mean weighted HUI
Sometimes + Often	33%	0.72
Never/Not applicable	67%	0.93

[1] CCHS, 2014.

In the counterfactual scenario, we assume persons with disabilities have the same quality of life as persons without disabilities

Domain of administration of social safety net programs

- We draw on national expenditure data for the major federal, provincial, and third sector programs that provide income support to persons with disabilities for calendar year 2013

System[1]	Estimated benefit expenditure	Estimated administration cost (%)
CPP-D and QPP-D	$4.8 B	15%
EI Sickness	$1.3 B	15%
Veterans' disability pensions and awards	$2 B	20%
Private disability insurance	$6.7 B	15%
Workers' compensation	$5.4 B	25%
Social assistance benefits for persons with disabilities	$9.0 B	15%
Disability tax measures	$2.5 B	15%
Total	$31.7 B	

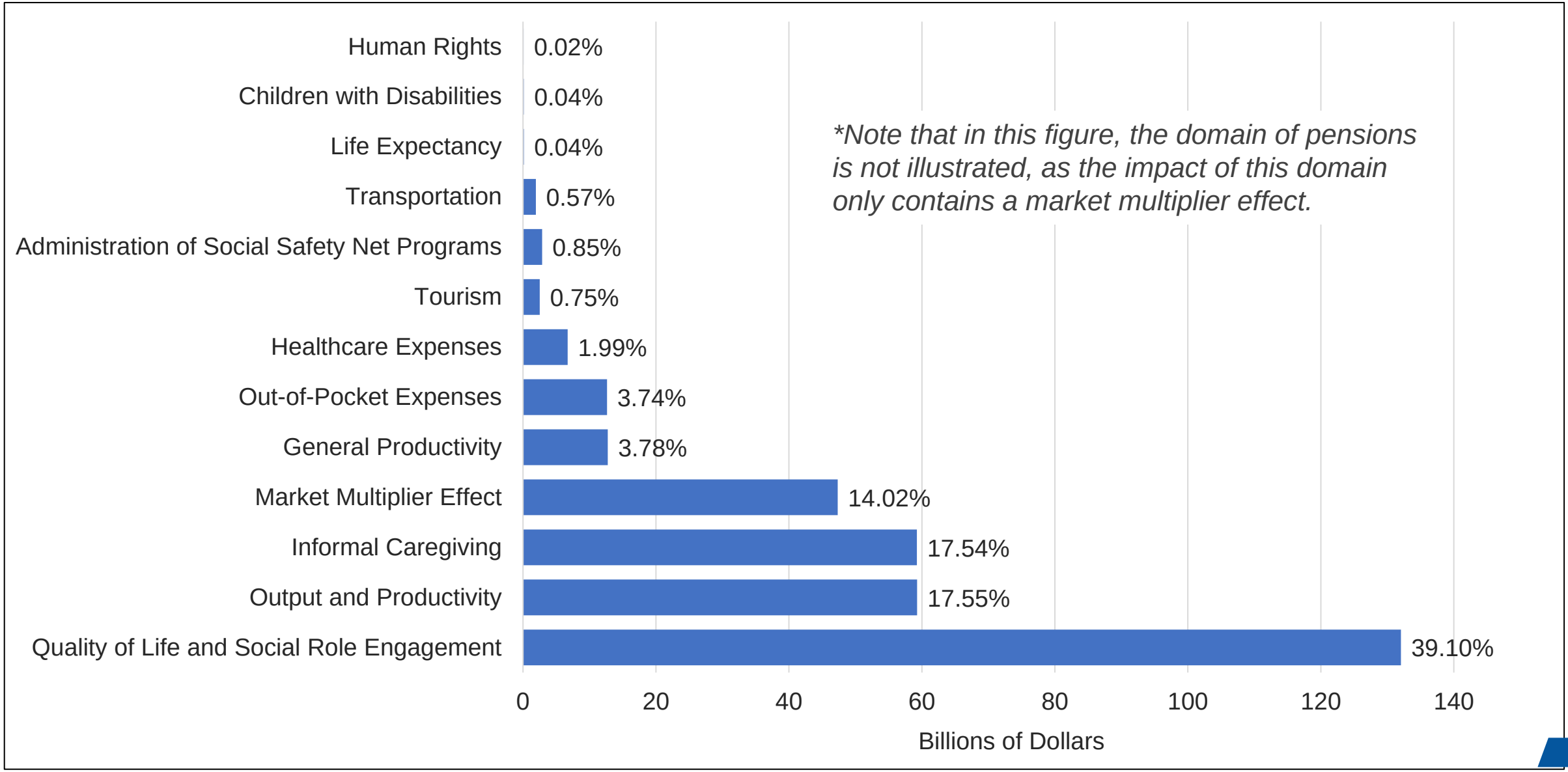
[1] Metcalf Foundation, 2015.

In the counterfactual scenario, we assume 50% of administrative costs are averted

Total Benefits: $338 Billion (17.6% of GDP)
Output and Productivity Gains: $62.2 Billion (3.2% of GDP)
Quality of Life Benefits: $132.2 Billion (6.9% of GDP)

Category	Lower healthcare expenses	Output and productivity gains	Quality of life and social role engagement	Spillover effects	Market multiplier effects	Total benefits	Range
Total	**$19.4 B**	**$62.2 B**	**$132.2 B**	**$76.7 B**	**$47.3 B**	**$337.7 B**	**$252.8-$422.7 B**
Percent	**5.73%**	18.42%	39.13%	22.70%	14.02%	100.00%	**100.00%**
Per person	**$3,100**	$9,957	$21,156	$12,273	$7,578	$54,066	**$40,473-$67,675**
Percent of GDP	**1.0%**	**3.2%**	**6.9%**	4.0%	2.5%	**17.6%**	**13.1%-22.0%**

Economic benefits by domain



Public sector revenues

Type of benefit	Federal	Provincial and Territorial	Percent
Tax revenue from output and productivity impacts	**$17.0 B**	**$18.0 B**	**57%**
Tax revenue from tourism and the market multiplier effects	$5.4 B	$6.0 B	19%
Averted healthcare expenses	$0.3 B	$3.9 B	7%
Averted social safety net programs expenses	$5.2 B	$5.2 B	17%
Averted human rights discrimination complaints costs	$0.001 B	$0.04 B	0.1%
Totals	$27.9 B	$33.1 B	100%

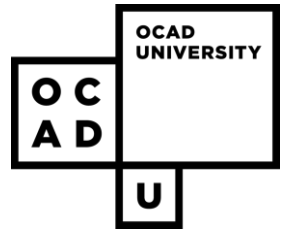
Application of methodology and estimates

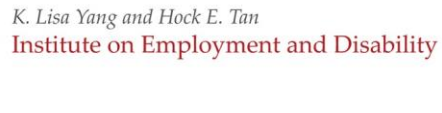
- Burden studies can serve as input for economic evaluations of initiatives
  - This study was used for the impact analysis of the Accessible Canada Act
  - Potential for assessing the cost-benefit of existing or proposed initiatives
- Application of methodology for monitoring and evaluating progress
  - Study we did for EU-OSHA on the economic burden of work injury and illness at the country level being used across Europe for this purpose
- We used the present study to make the case for the high impact potential of a proposed social innovation laboratory on improving employment opportunities for persons with disabilities focused on “demand-side capacity building”
  - Received six-year funding envelope from the New Frontiers for Research Fund

IDEA

Inclusive Design for Employment Access

A Social Innovation Laboratory





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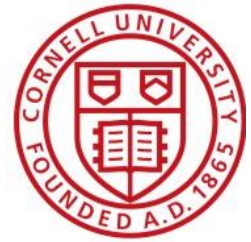

IDEA Commitment and Passion

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References

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Tompa E, Mofidi A, Jetha A, Lahey P, Buettgen A. Environmental Scan of the Impacts, Including Social Benefits, of Accessibility and Social Inclusion for Persons with Disabilities. 2019. 175 pp. https://www.crwdp.ca/sites/default/files/cost_of_exclusion_final_report_full_version_etompa_et_al._final_submission_v2.1_clean.pdf.