Funding Employment Inclusion for Ontario Youth with Disabilities:

A Cost-Benefit Model

Holland Bloorview Kids Rehabilitation Hospital

Laura R. Bowman, Project Manager, Employment Pathways
Carolyn McDougall, Manager, Employment Pathways

CHRONICLE ANALYTICS

René Doucet, Principal Analyst
Brendon Pooran, Principal Analyst

ODEN

Jeannette Campbell, CEO

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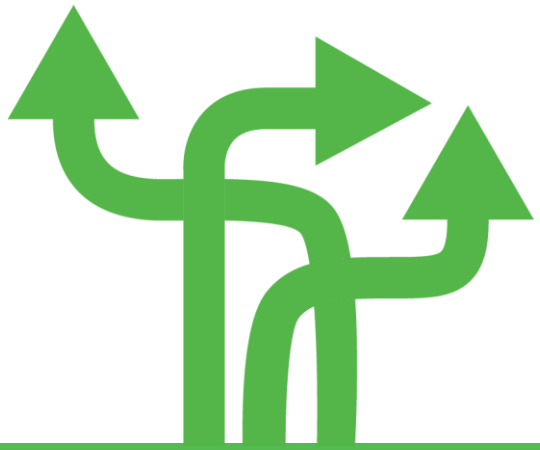


Executive Summary

When people with disabilities are included in the workforce, everyone benefits.

Job seekers gain financial stability, reduction in poverty, and mental, social, and quality of life benefits.

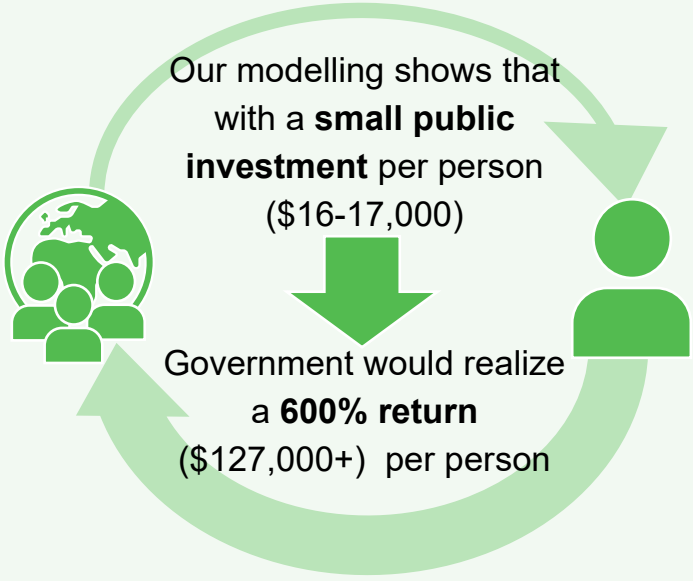
Employers have reported high quality of work, high retention, and employee satisfaction from being disability-inclusive employers.

Society at large sees increases in income taxes paid and decreases in social assistance programs, and an increased domestic labour force.

The best way to connect youth with disabilities to the labour market is through a **"start early" approach**, including them in the world of work as early as high school.

There is currently **no consistent public funding** to support "start early" programming for youth with disabilities.

To promote public funding of stable, equitable "start early" programs, we created a cost-benefit model to show lifetime government return on investment.



With this information, we can:

- Advocate for **public funding** for start-early employment programming.
- Increase availability of **evidence-based start-early programming** for people who have a disability in Ontario.

(Continued)

(continued)

Cost-Benefit Model Breakdown

Government savings and returns based on **increased income tax** paid *to* government and **decreased social assistance** costs paid *by* government.

Two personas

High School to Work

Age: 20

Disability: Intellectual disability + Autism

Challenges: limited work experience, social communication skills, literacy, time management

Start-Early Program: Project SEARCH

Public investment: $16,000

University to Work

Age: 16

Disability: Cerebral Palsy; Mild learning disability

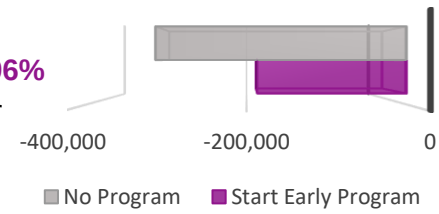
Challenges: difficulty standing/walking for long periods, carrying heavy items, confidence

Start-Early Program: Holland Bloorview's Employment Pathways

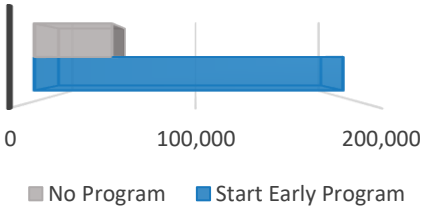
Public investment: $16,752

Total lifetime cash flow to government by persona

Reduced lifetime government spending of **696% ($127,338)** per individual



Increased lifetime government realized cost savings of **755% ($143,215)** per individual



Total lifetime cash flow to government by annual cohort of 100 students*

An annual public investment of $1,600,000 would yield lifetime return of

$8,913,694

per cohort of high school persona students.

An annual public investment of $1,675,200 would yield lifetime return of

$10,025,047

per cohort of university persona students.

*Assuming that after investing in all 100 students, only 70% obtain the desired outcomes

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ODEN

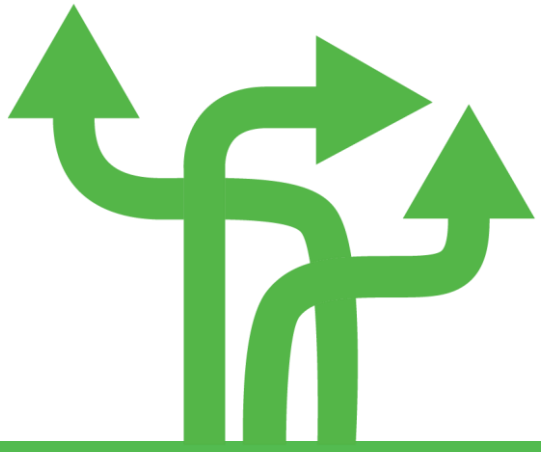
Purpose

In early 2024, our team published a theoretical cost benefit modelling paper outlining a lifetime cost-benefit model of early employment participation interventions for youth with disabilities (YwD) in Ontario, Canada (1). Our findings indicated that with early public investment in employment participation programs for youth with disabilities (during high school), there is a manifold return to government over the individual's lifetime. Returns primarily result from greater income taxes paid and fewer social assistance services used. The full publication is available at the following website or the QR Code below:

https://www.frontiersin.org/journals/sociology/articles/10.3389/fsoc.2024.1281088/full

The publication is open access to allow for public review and consideration. It was modeled based on the previous Ontario Disability Support Program (ODSP) model for employment services in Ontario. During the creation of our cost-benefit model, drafting of the paper, and its publication, the province of Ontario completed its recent Employment Service Transformation and moved to the new model called Integrated Employment Services.

The current report updates our cost-benefit findings to align with the current Integrated Employment Services funding and provides a summary including a brief background on the need for funding, an overview of the methodology used, and the outcomes.



Background

The importance of early employment participation

Opportunities to engage with employment before exiting high school is best practice for young people preparing to enter the workforce (2-4). Employment participation can include a range of activities, such as:

- Workforce participation (paid employment)
- Building skills and experiences (chores, volunteering, work)
- Preparing assets for job application (resume writing, interview preparation, gaining certifications)
- Preparing one's context for work (setting expectations of individuals and families that work is possible, setting goals related to employment)

Early engagement is linked to better lifetime employment outcomes (2, 5), whereas neglecting early employment engagement opportunities is linked to lower earned wages, decreased labour market attachment and wellbeing for the individual, and increased expenditure of social assistance or benefits (3, 6). Specifically for persons with disabilities (PwD), employment offers benefits related to:

- Finances: financial stability and reduction of poverty (7)
- Health: mental stimulation (8), increased quality of life and self-reported health (9)
- Social considerations: social connection (8), reduced social assistance funding (9)

There are additional organizational- and societal-level benefits of workforce participation for PwD. For organizations, employees with disabilities add unique skills, produce innovative ideas, and connect companies to diverse market segments (6, 10).

At the societal-level, increased workforce representation of PwD relates to:

- ↑ Increased annual income tax contributions of employed PwD (11-13)
- ↓ Decreased use of government social assistance programs such as income support and day programming (6, 8, 11, 14)
- ↑ Increase in domestic specialized labour force (14)

As Beyer (14) highlights below, employment intervention for PwD is a beneficial investment for governments, but there are no consistent metrics to measure outcomes across contexts and disability types. This lack of available, applicable evidence drove our decision to construct an Ontario-specific cost-benefit model for early investment in employment participation for YwD.

> ...disabled people, governments, and taxpayers are likely to benefit financially in the long-term for greater investment in inclusive employment. While there is much variability in methods, model comparisons, national contexts and relative levels of benefits... the weight of evidence is still positive in favour of inclusive employment *(Beyer, 2017, p. 63)*

Current Barriers to early employment participation

Providing appropriate and targeted opportunities for early employment participation is particularly important for YwD, who appear to face a *double* marginalization due to the combination of their age (and assumed inexperience) and their disability. Statistics Canada recently reported that Canadians with disabilities have lower employment rates than those without disabilities – 61.8% as reported in the 2022 Canadian Survey on Disability compared to 77.8% in the general population (15). Youth ages 15-24 are at a particular disadvantage in today's labour market – 17% of youth with disabilities were neither in employment nor education or training (NEET) in 2021 (percent rises to 28 amongst those with more severe disabilities) compared to 11% of all youth (16).

In addition to the low employment rates, there seems to be no positive movement. According to research conducted by the Canadian Labour Market Information Council, "in 2024, youth employment reached its lowest level since February 2012, barring the first two years of the COVID-19 pandemic. There has been almost no employment growth among people in this age group since December 2022… As of May 2024, the youth unemployment rate was 14%, more than double the national rate of 6.3%" (17). The compounding effect of being identifiable as both youth and a PwD is undeniable. By ignoring the inequitable opportunities available to YwD for early employment participation experiences, we as a society further dis-able them from acquiring long-term stable employment, and all of the associated benefits.

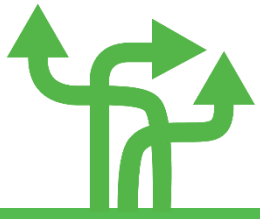
In addition to lack of support, in the Ontario, Canada context, YwD face multiple systemic barriers in accessing early employment opportunities, including (but not limited to):

- The Skills Development Fund (Ontario Ministry of Labour, Immigration, Training and Skills Development) was created to improve employment outcomes for people with disabilities. Yet these funds **only target job seekers who are no longer in school**, and will not benefit YwD who need training before entering the labour market.

- Services provided through the provincial education and federal youth-oriented support systems lack **specialized elements** to help young job seekers with significant disabilities succeed in obtaining/maintaining employment experience. The services are built to support 'all' youth, but end without expertise or resources to explore and facilitate modification or accommodation.
- Provincial employment service agencies that work with PwD hold the expertise needed by these youth to prepare for their entry into the workforce. Yet, the services are **unable to work with students** based upon their funding parameters of Integrated Employment Services. YwD are therefore unable to access the specialized interventions that would benefit them until they are already expected to enter the workforce, at which time they are left unprepared and already behind.
- For YwD who choose to access services to enable participation in volunteering or paid work during high school/university, they must often pay privately for programs that will allow them to do so, therefore **widening employment gaps based on means**.

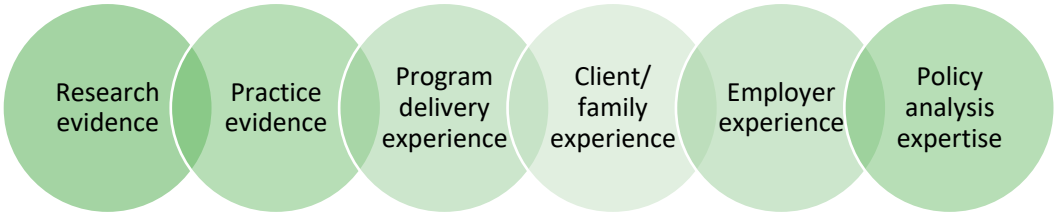
There is a disconnect between evidence and policy – specifically with the allocation of funding for needed supportive employment services and training for YwD in this critical developmental stage.

Our initial theoretical cost-benefit analysis indicates that the investment in early employment participation programming will translate to downstream societal-level savings (1). In that publication, we modeled the costs and benefits of early intervention for YwD on long-term public investment versus no intervention using relevant and adaptable values.



Cost-benefit model construction

A full accounting for the methods used to construct the cost-benefit model is available in our publication (1). In this report, we provide a summary, and encourage readers to consult the full version for more information. In order to project how societal-level savings might look over time and in different scenarios, the model was constructed based on:



Model construction was led by our policy analysis team and aligned with the Treasury Board of Canada's Cost Benefit Analysis Guide (18). We calculated net present values of cash flows and strictly examined costs and benefits accruing *to government*, not to business or hypothetical individuals accessing programs. Throughout model construction, we sought to yield as conservative a return as possible (e.g. accounting for all possible program costs but not necessarily accounting for all benefits experienced by individuals and businesses that may have downstream societal-level impacts).

Model inputs included three levels of values:

- ***Global inputs:*** values that remain consistent across local contexts, namely inflation and discount rates
- ***Local context inputs:*** the local tax regime, social assistance programs, and labour market, which were applied to Ontario, Canada in our example
- ***Persona inputs:*** inputs used to define a persona-scenario and that are further broken into two subgroups: annual earnings over a working lifetime and possible tax strategies

From our publication, we reiterate that, "The calculations represent calculable lifetime costs and returns to government per individual who would be eligible for employment support services. The model's variables were designed based upon information drawn from Ontarian and Canadian public data (e.g. tax thresholds and rates, social assistance payments). Input formulas were designed to account for variability in the types of employment, social assistance, and personal factors that influence individual employment experiences over the lifetime. The widely used discounted cash flow (DCF) analysis was used, whereby costs and benefits for a given scenario are projected out into the future and then discounted back to present day dollars. The modelling formula for our inflation-adjusted net present value calculation is in Table 1 [of the paper]. An in-depth description of the formulas and inputs used to construct the model are available in Supplementary Appendix A for the sake of both transparency and promotion of further work of this nature" (1).

Social assistance costs

The calculation of our social assistance costs is where this report diverges from the original publication. Social assistance costs must be considered in regionally-specific ways for readers outside of Ontario. Our social assistance costs, in the form of Integrated Employment Services performance-based milestone payments and ODSP Income Supports (ODSP IS), were obtained from the relevant available sources (19, 20). We assume in our scenarios that all available employment and income supports would be claimed if a System Service Manager (SSM) and/or individual was eligible to receive them. Therefore, in calculating social assistance costs, our model calculates the milestone amounts paid to SSMs as well as the income supports paid to individuals, both of which are paid by the province.

Prior vs Current Models

Prior to the current performance-based model in Ontario, which took effect in some of the 15 catchment areas starting in 2019 and expanded to the rest of the catchments gradually, the amount paid out by the government to ODSP Employment Service providers for the 6- and 13-week milestones was $1,000 and $6,000, respectively, and up to 33 months of retention at the greater of $250/month or 60% of chargeable earnings.

Under the current EST model, service providers are not paid directly by the government, but instead through an intermediary SSM. Moreover, the remuneration paid by the government is not predominantly performance-based, as it was under the prior model. Instead, the government maintains contracts with each of the SSMs across Ontario, contracts that specify a fixed amount of operational funding and then a separate amount of performance-based funding. The percentage of operational funding cited in several of the Ontario Ministry's Call for Proposal ("CFP") materials in 2019, was approximately 80%, with the rest of the 20% paid for through a performance-based milestone system. We consulted the work completed by Community Living Ontario and the Ontario Disability Employment Network, *Tangled in Red Tape*, which cited similar amounts (20). At the time of writing, the Ministry does not maintain up-to-date published funding percentages, but we assume the 80/20 allocation has continued.

A participant under the current model is streamed as either "A", "B" or "C" before their EAP is initiated, with the latter being the furthest from the labour market. Upon the outcome of an employment action plan ("EAP"), follow-ups are done with each participant in order to establish whether they are working 20 or more hours at the 1-, 3-, 6- and 12-month points following the outcome date.

Each milestone is attributed a predetermined amount, with the amounts increasing with streams (Stream A being the lowest, Stream C the highest) and the length of time covered by the milestone in question (1-month being the lowest, 12-month the highest). As such, the largest amount is associated with the 12-month milestone of a Stream-C participant.

Although the prior performance-based model covered a period of approximately three years at the point the participant first obtains employment, in our cost-benefit model we assume that the

typical Stream-C participant would only participate for approximately one year, which represents one 12-month cycle of milestones after reaching employment.

Based on the amounts cited in the 2019 CFP process, this results in a maximum milestone amount per participant of **$3,230**, which is the amount the SSM could claim from the government for the achievement of the four Stream-C milestones. To restate the important point, this is the amount paid by government regardless of how much of that amount is passed to the service provider that worked directly with the participant.

Social assistance thresholds are determined by policy and should, in theory, be adjusted to reflect inflation. In practice, thresholds are adjusted much less frequently than yearly. For example, under the prior model, the amounts paid to ODSP Employment Service providers for the 6- and 13-week milestones were not adjusted for inflation and instead remained at $1,000 and $6,000, respectively, from at least 2012 until the discontinuance of the model, which occurred gradually between 2021 and 2024. We have nonetheless conservatively adjusted the performance-based amounts under the new model to account for inflation when they have either historically risen with inflation or there is an official policy that signals the intent to enact increases.

Personas and scenarios

To understand the real-world application of our model and its specific variables, we constructed personas set in the local context of Ontario, Canada. Personas are fictional examples of typical target participants that remain realistic in terms of how individuals will interact with funding (21). Personas were created to ensure that our modelling reflected how real individuals act within our systems so as to avoid selecting idealized versions of an individual in order to generate the most positive outcome possible from our model. Each persona is modelled across different potential employment scenarios. The two personas are summarized to the right.

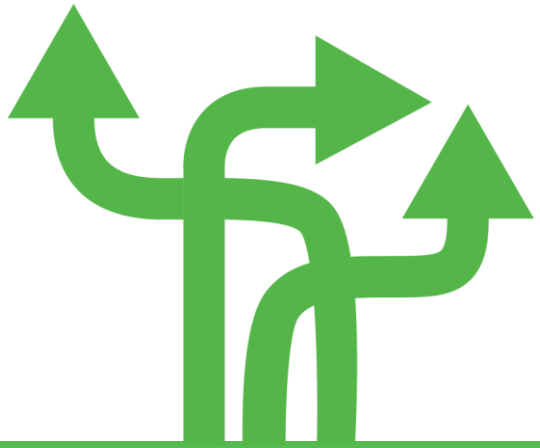
High School Persona	University Persona
• Young person with Intellectual Disability (ID) and Autism • ***Intervention:*** Project SEARCH (Appendix A) • Seeking job in food service industry	• Young person with cerebral palsy (CP) and mild learning disability (LD) • ***Intervention:*** Employment Pathways (Appendix B) • Seeking job in financial sector

The first persona represents perspectives from those who do not choose to attend or do not have access to post-secondary credentialing (“high school persona”). In the case of the second persona (“university persona”), the individual will access higher education and employment participation during school breaks before graduating.

For each persona, government-level costs and benefits are modelled across three scenarios:

Baseline	•Job seeking and preparation through services typically available in the adult sector (no early intervention program)
Moderate results	•Achieved expected results from participating in the intervention program
Above-expected results	•Outperformed the expeced results from participating in the intervention program

Comparison across scenarios for each persona provides insight into projected government cost/saving *over the persona's lifetime* if that scenario were to occur. Projected costs/savings can be applied across all individuals who might access such a program to explore the benefits of government investment in early employment participation programs.



Results

Our cost benefit model allowed for comparison of lifetime *cash flow to government* across scenarios for each persona. The graph below summarizes the total lifetime cash flow to government by persona. The farther right an item stretches indicates a more positive lifetime cash flow to government. As indicated, even with our conservative parameters, the interventions each result in a lifetime reduction in cash outlay by government or increase in cash flow to government based primarily on income taxes paid and social assistance funds saved. The results are further detailed below.

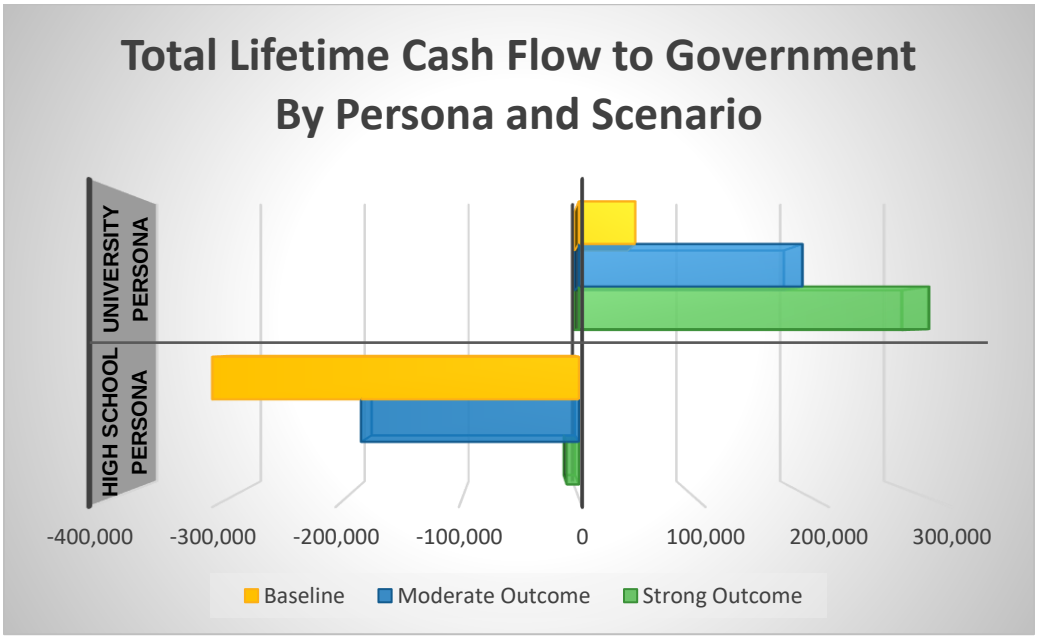


Figure 1. Updated (EST) total lifetime cash flow to government by persona and scenario

Results: High school persona

The intervention considered in the high school persona is the Project SEARCH (PS) program. We set an initial public investment of $16,000 per individual for the intervention. The persona was modeled under all three listed scenarios to have the individual work continuously until age 65 from the time of obtaining employment.

Baseline: No intervention during school; no Project SEARCH program

In the baseline scenario, the individual accessed employment supports otherwise available to an individual with their disability and employability profile after completing high school. They obtained part-time employment at minimum wage ($15.50/hour, rate from October 2022 to October 2023) approximately 1 year after leaving high school (age 22). This timing is based on

a conservative application of the authors' clinical experiences, Canadian data regarding earnings by age group and degree of disability (22), and research indicating reduced lifetime labour force attachment without early work experiences (2). This data is viewable in Table 1 to set the benchmark for return to government in the subsequent two scenarios.

	SCENARIOS		
High School	**Baseline**	**PS Moderate**	**PS Strong**
Project SEARCH Program Cost	0	16,000	16,000
Tax Revenue	-78,469	-78,359	29,804
Employment Ontario	3,136	3,230	3,230
ODSP IS	232,375	105,052	37,085
TOTAL CASH FLOWS (PV)	**-313,980**	**-186,641**	**-10,512**
DIFFERENCE FROM BASELINE	**0**	**127,338**	**303,468**
RETURN		**696%**	**1,797%**

Table 1. Updated (EST) high school persona main results summary
ODSP IS = Ontario Disability Employment Program, Individual Supports

Moderate outcomes

We built the moderate and strong outcomes based on stakeholder input and literature on reasonable outcomes following participation in the Project SEARCH program which achieves high graduate employment outcomes (23, 24). The moderate outcome scenario represents an individual who found part-time work slightly above minimum wage ($17.35/hour, 2021 average wage for the food services industry in Ontario) (22). We estimated that they acquire the job after approximately 6 months of searching (faster than the baseline persona who did not have similar early training).

In this scenario, the individual demonstrated a 696% positive difference between baseline and moderate scenario outcomes. This equates to a $127,338 lifetime reduction in government cash outlay. These differences are viewable in Table 1 and as the lower blue bar in Figure 1.

Strong outcomes

In the strong outcomes scenario, we designed a better than expected outcome in which the individual acquired a job immediately post-program at above minimum wage ($17.35/hour, as above) with a greater number of weekly work hours. They switch to a salaried position ($32,300) after 6 years of employment. In this scenario, the individual demonstrated a 1,797% positive difference from their baseline scenario, equating to a $303,468 lifetime reduction in government cash outlay. These differences are viewable in Table 1 and as the lower green bar in Figure 1.

We note that lifetime outcomes for all high school persona scenarios result in lifetime cash outlays (negative cash flows) to government meaning that the government pays out more in social assistance and supports than is recovered through income taxes paid by the individual. Yet, even with moderate intervention outcomes, the government will pay far less over the persona's lifetime (the bar ends farther to the right of the graph) than they would have without intervention. We emphasize that the goal of government investment is that of lower spending, not necessarily of net zero spending and that the monetary cost of investment in our citizens has benefits beyond cost recuperation (e.g. quality of life, diversity and inclusion, community participation).

Results: University persona

The intervention considered in the university persona is Holland Bloorview's Employment Pathway programs (25). We set an initial public investment of $16,752 per individual for the intervention. The persona was modeled under all three listed scenarios to have the individual work continuously until age 65 from the time of obtaining employment.

	SCENARIOS		
University	**Baseline**	**University + Pathway Moderate**	**University + Pathway Strong**
Pathway Program Cost	0	16,752	16,752
Tax Revenue	148,106	277,456	383,077
Employment Ontario	3,136	3,230	3,230
ODSP IS	96,698	82,738	80,056
TOTAL CASH FLOWS (PV)	**48,273**	**191,488**	**299,791**
DIFFERENCE FROM BASELINE	**0**	**143,215**	**251,518**
RETURN		**755%**	**1,401%**

Table 2. Updated (EST) university persona main results summary
ODSP IS = Ontario Disability Employment Program, Individual Supports

Baseline: No intervention during school; no Employment Pathways programs

In the baseline scenario, the individual accesses employment supports otherwise available to an individual with their disability and employability profile after completing their high school and postsecondary education. They did not participate in employment during high school or university and initiated their job search after postsecondary graduation. After a year-long job search, they entered a minimum wage role ($15.50/hour, as above), moved up to a higher rate

(17.35/hour) after three years, and then moved into a salaried position ($45,000) in the finance field after 5 years. Over their lifetime, there is a positive cash flow to government of $48,273 from their employment participation. This data is viewable in Table 2 to set the benchmark for return to government in the subsequent two scenarios.

Moderate outcomes

We built the moderate and strong outcomes based on stakeholder and clinical input of participation in Holland Bloorview's Employment Pathway programs (25). The moderate outcome scenario represents an individual who participated in the indicated intervention during high school. They worked during part of the summers for minimum wage during high school and university. The individual obtained a salaried position ($55,000) immediately following university graduation in their preferred field of finance.

In this scenario, the individual demonstrated a 755% positive difference between baseline and moderate scenario outcomes. This equates to a $143,215 lifetime cash flow to government. These differences are viewable in Table 2 and as the upper blue bar in Figure 1.

Strong outcomes

In the strong outcomes scenario, the individual participated in the Employment Pathway programs during high school. They held summer employment for above minimum wage ($23.00/hour) during high school and university. They obtained a salaried position ($65,000) immediately following graduation in their preferred field of finance with a higher starting rate than the moderate outcome scenario given their more extensive previous work experience. In this scenario, the individual demonstrated a 1,401% positive difference from their baseline scenario, equating to a $251,518 lifetime net cash flow to government. These differences are viewable in Table 1 and as the upper green bar in Figure 1.

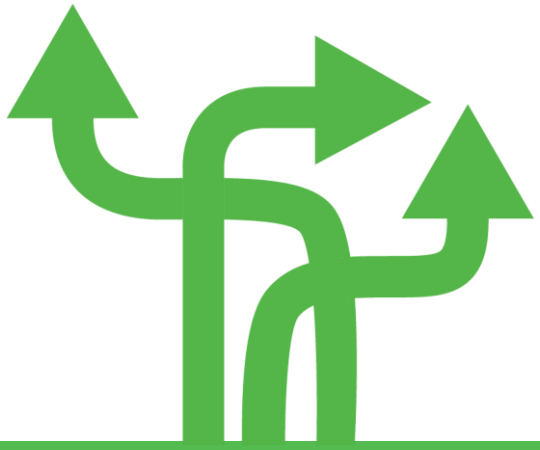
In both the moderate and strong outcome scenarios for the university persona, the individual accessed typical disability employment supports following school completion upon entering their full-time jobs. For this persona, all cash flow extend to the right of the "net zero" bar, indicating that in any scenario, the government would see a lifetime net financial gain from this person's engagement in employment, but the intervention outcomes far exceed the baseline scenario.

Sensitivity Analyses

In alignment with the original publication, sensitivity analyses were run based on a higher inflation rate, a higher discount rate, increased RRSP contributions (for university persona only), and excluding the Disability Tax Credit. As demonstrated in Table 3, the model is sensitive to each of these variables, supporting the model's overall strength.

		Baseline			Moderate			Strong		
		Cash Flow	Return $	Return %	Cash Flow	Return $	Return %	Cash Flow	Return $	Return %
High school	Main	-313,980	N/A	N/A	-186,641	127,338	696%	-10,512	303,468	1,797%
	↑ Inflation	-335,468	N/A	N/A	-203,148	132,320	727%	14,683	350,151	2,088%
	↑ Discount Rate	-162,568	N/A	N/A	-107,886	54,682	242%	-20,394	142,174	789%
	RRSP	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	No DTC	-286,771	N/A	N/A	-132,885	153,886	862%	71,583	358,354	2,140%
University	Main	48,273	N/A	N/A	191,488	143,215	755%	299,791	251,518	1,401%
	↑Inflation	149,808	N/A	N/A	363,670	213,862	1,177%	540,518	390,711	2,232%
	↑Discount Rate	-33,710	N/A	N/A	27,022	60,732	271%	63,573	97,283	494%
	RRSP	-10,481	N/A	N/A	85,234	95,715	471%	174,240	184,722	1,003%
	No DTC	108,871	N/A	N/A	257,721	148,849	789%	366,024	257,153	1,435%

Table 3. Updated (EST) sensitivity analysis summary table



Implications

Even when applied with conservative parameters, there are clear net benefits to public investment in early employment participation interventions. This report modeled societal benefits for a single individual. If in a given year 100 individuals moving from high school to employment attended the Project SEARCH program, and an estimated 70% of them obtained moderate outcomes, we would find a lifetime net benefit of **$8,913,694.31**, including the investment made for those who did not connect to the labour market. Similarly, if 100 individuals moving from post-secondary education to employment participated in the Employment Pathways programs and an estimated 70% of them obtained moderate projected outcomes, outcomes, we estimate a lifetime net benefit of **$10,025,046.95**.

The benefits are even more relevant when considered within systems that *already* invest public funds into the daily life and wellbeing of adults with disabilities, as is the case in Ontario, Canada. Based on the application of our cost-benefit model, we propose a shift in the public funding structure to include – and promote – employment training and supports upstream (i.e. in high school and young adulthood). Upstream investment in evidence-based programming is projected to lead to more individuals benefiting from intervention over longer periods of time. On a per-individual cost basis, both presented scenarios demonstrate notable lifetime savings of public funding based on an early investment approach. The model was responsive to sensitivity analyses, none of which indicated that realistic alternate inputs would change the net benefit to society.

Our model is not exhaustive and relies upon the assumption of effectiveness of the presented interventions, (24, 25) and the applicability of our constructed personas. We have modelled based on best evidence and expert input, but cannot guarantee outcomes for all YwD. When applying our model at a population-level, there will likely never be 100% participation in the labour force following evidence-based interventions, just as that level of workforce participation does not exist in the general Canadian population. Additionally, we chose not to include certain salient data points located between the individual and macrosystemic levels. Examples of the complex, interwoven nature of such variables can be seen in works such as that by Tompa et al. (13). These variables extend beyond the scope of our current study and will add interesting and relevant information to future iterations of our modelling. Notable exclusions that are often described but not quantified include the role of unpaid caregivers (usually family members) and the costs and benefits to employers (e.g. additional training, accommodations, training on diversity, equity and inclusion (14), lower staff turnover (8)). While not formally included in the benefit-cost analysis, the literature available surrounding such elements supports the benefits of funding early employment participation interventions.

An additional limitation of our model and this report is the inability to capture the myriad potential costs and benefits that contribute to employment participation/preparation for PwD. There is variability in the values used to calculate cost and benefits, idiosyncrasies of supports/services available by country or region, and differences in taxation practices. It is difficult to clearly

identify the societal-level benefits that can be (or have been) measured over time. Our modelling is also unable to fully capture and quantify the non-financial benefits of employment for an individual, their family, community and society. Examples include socializing and friendship, community participation, mental and physical health and engagement in occupations that help one work towards fulfillment and self-actualization. These benefits are not represented in the model, but must be considered alongside the financial argument for facilitating the movement of citizens into meaningful daily community engagement and citizenship.

A major consideration of our modelling at this time of employment transformation is the assumptions on which our model operates. We previously discussed the assumption of moderate to strong outcomes of the named programs, which we can see through practice and evidence are achieved. The model also, however, assumes that the involved employment supports will be available and able to perform as stated. Since its relatively recent roll-out, the new EST has received criticism from reports such as those released by Community Living Ontario and ODEN (20), Maytree (26), and First Work (27)]. The reports collectively identify a number of fundamental issues with the new delivery model, including:

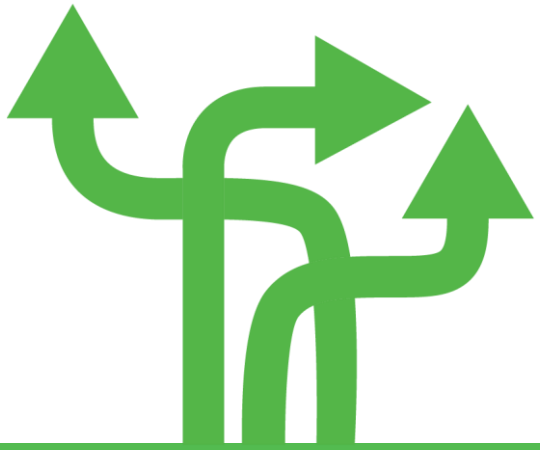
- **Lower overall revenues for service providers**, which leads providers to take on high caseload volumes to recuperate costs and decreases their capacity for personalized supports for complex clients.
- A **reduced job maintenance period**, from 36 months to 12 months, impacts the stability and long-term success of PwD by reducing access to necessary support to retain, maintain, and sometimes salvage employment. This leads to recurrent system re-entry rather than stable, long-term job maintenance with smaller amounts of support.
- A new **20-hour threshold for performance-based funding**, requires 20 hours of work per week for 52 consecutive weeks. This requirement further marginalizes those with complex and intersectional barriers to seeking employment. This indirectly incentivizes service providers to take on clients who they perceive to need less intervention, but marginalizes those who would benefit from higher intervention to attach to the workforce, who are also entitled to support services.

We highlight this to note that without adequate funding and supports for early and ongoing employment for PwD in Ontario, we are not only missing out on this key segment of the labour force, but also forgoing the modeled cash flow to government seen through our functioning modelled system.

Next steps

Our cost-benefit model provides a strong theoretical argument for investing in early employment participation intervention for YwD, using Ontario, Canada as an exemplar (1). Organizations involved in supporting PwD and YwD should advocate for publicly sustainable funding for pre-employment training programs and work with government to realize the full potential of early intervention.

Future research exploration should model *how* funds will be shifted upstream in order to intervene earlier in the lifespan when proposed savings would not be realized for years. Additionally, research is required to solidify the types of interventions, quality parameters, and optimal delivery formats that would allow for the realization of the theoretical societal benefits proposed by our model. Additional parameters of acceptable outcomes, such as participation in postsecondary education or training, job quality, types of benefits and stability offered by the employer, will also be important to consider when determining “success” of funded interventions (3). Having a model for funding interventions represents an important early step in moving toward more equitable job markets.



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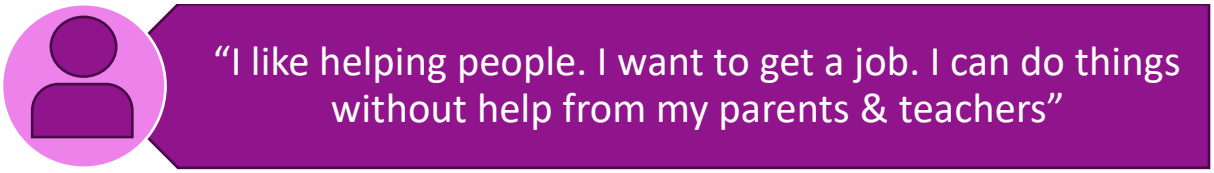
Appendix A. High School Persona & Project Search

The high school persona has the goal of working in the food services industry. They live with their parents and are preparing to enter their final year of high school.

Age	20
Disability	Intellectual disability + autism
Education	High school ⇒ work
Experience	Two supported (not independent) co-ops in school
Challenges & concerns	Limited experience. Social communication skills, literacy, time management. What kind of jobs can I do?
Intervention	Project SEARCH: ✓ Workplace experience & training with job coaching support (3 training "internships") ✓ Workplace life skills curriculum ✓ Employment planning ✓ Comprehensive, continuous, intensive (10-months)

They will be entering Project SEARCH (24), a 10-month intensive program for YwD preparing to enter the workforce. In the Project SEARCH intervention setting, the high school persona will learn professional and social skills in a classroom setting and complete 3 internships within a host business over the course of their final year of high school. Internships will be determined based on the individual's employment goals, skills, and availability. The internships are meant to be progressive in nature, whereby each internship builds upon and expands the skills learned so that they will graduate with a profile of skills and experiences required for their desired job.

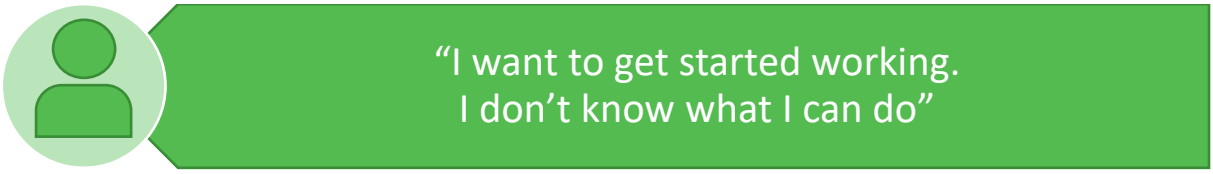


Appendix B. University Persona & HB Employment Pathways

The university persona has the goal of working in the finance industry. They live with their parents and are preparing to enter grade 11.

Age	16
Disability	Cerebral Palsy (right arm/leg); Mild learning disability
Education	High school ⇒ university ⇒ work
Experience	Chores at home, community service hours through school/faith organization
Challenges & concerns	Difficulty standing/walking for long periods, unable to carry heavy items, confidence
Intervention	Holland Bloorview's Employment Pathway ✓ Workplace experience & training with job coaching support ✓ Workplace life skills curriculum ✓ Employment planning ✓ Adaptable, personalized, long-term (multiple programs from a few months to a few years)

They have engaged in Holland Bloorview's Employment Pathways program (25), a pathway of programs aimed at progressively building skills for employment participation for YwD who are still in school (high school or university). In the Employment Pathways intervention setting, the university persona will learn professional and social skills through programs aimed at self-discovery, skill building, coaching, and supported employment participation. They participated in a supported employment opportunity through a bank as part of their Employment Pathways program participation, and eventually leveraged the skills gained through that opportunity and their formal education to gain employment in the financial sector, as desired.



Holland Bloorview Kids Rehabilitation Hospital | Employment Pathways

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For more information, please visit https://hollandbloorview.ca/advocacy/disability-workplace

Holland Bloorview Kids Rehabilitation is Canada's largest paediatric rehabilitation hospital with the vision of creating the most meaningful and healthy futures for all children, youth and families. Visit us at www.hollandbloorview.ca

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Ontario Disability Employment Network (ODEN) is a professional network of employment service providers united to increase employment opportunities for people who have a disability. Our vision is that all people who have a disability in Ontario have access to the labour force and the ability to achieve meaningful employment.