Improving Labour Market Participation of Persons with Disabilities

A Review of Barriers to Employment and Innovative Products and Practices

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Executive Summary

The purpose of this research was to review current labour force participation and summarize barriers faced by persons with disabilities. The research also sought to identify and evaluate practices and products that support and provide more equal access to enable persons with disabilities to participate more fully in the labour market. These research objectives were explored through secondary research, an online questionnaire, and key informant interviews.

In Canada, persons with disabilities are significantly less likely to be employed, and more likely to be unemployed, compared to persons without disabilities. Research showed that the most common barriers faced by individuals with disabilities engaging in the workforce are attitudinal barriers, organizational or systemic barriers, physical or architectural barriers, informational and communication barriers and technological barriers.[1]

While new graduates typically experience challenges when entering the workforce (such as lack of experience and being unprepared by their program for all aspects of work), students with disabilities often have this compounded by further barriers to their transition into the workforce. Additional unique challenges such as lack of continuity of support moving from youth to adulthood and inconsistency in education programs, for example, have been noted. To aid this transition, the following effective practices were identified and reviewed:

- Flexible work arrangements;
- Inclusive recruitment and selection practices;
- Community outreach/engagement;
- Job coaches;
- Early transition planning and;
- Internships and wage subsidies.

Types of assistive technology and aids 'products' were discussed and it was determined based on the research that the effectiveness of these products was based on personal preference and familiarity. Barriers to accessing products and possible solutions to increasing access to products were discussed. Key recommendations to support the implementation of effective workplace practices and access to products used by individuals with disability were presented. The recommendations were proposed in consideration of those strategies that the Government of Newfoundland and Labrador is best able to support and are also likely to have the broadest impact in increasing workforce participation among persons with disabilities in the province. This included:

- A focus on increasing awareness and understanding including battling misconception and increasing awareness of resources and products for persons with disabilities.
- Encouraging increased flexibility, specifically supporting flexible work arrangements and flexibility in support and funding programs.
- Encouraging the implementation of inclusive recruitment and selection practices.

The benefit of wage subsidy programs and internships and the increasing role of post-secondary institutions in providing more individualized support in career transition was also discussed.

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[1] Turcotte, M., (2014). Insights on Canadian Society: Persons with Disability and Employment. Statistics Canada. Retrieved from: http://www.statcan.gc.ca/pub/75-006-x/2014001/article/14115-eng.pdf

Introduction

Project Background

The Department of Advanced Education, Skills, and Labour (AESL) is primarily responsible for ensuring that Newfoundland and Labrador's labour market needs are met, and that the provincial economy can develop and grow by ensuring that skilled and educated individuals are entering the workforce. One aspect of this responsibility is to encourage labour force participation of persons with disabilities.

In line with this responsibility, the Department of Advanced Education, Skills, and Labour contracted MQO Research to conduct research to identify and evaluate practices and products that support and provide more equal access to enable persons with disabilities to participate more fully in the labour market.

This report is intended to support the mandate laid out for the Minister of Advanced Education, Skills and Labour as well as the provincial government's "The Way Forward" program, and will serve as a practical resource for decision-making moving forward.

Approach

This project involved conducting a current state analysis through a literature review, in depth interviews and an online survey and identifying recommendations to address the following objectives:

1. Identify current labour force participation rates among persons with disabilities in Newfoundland and Labrador, and throughout Canada.
2. Provide a summary of the main barriers experienced by persons with disabilities as they enter and remain in the workforce, with a focus on their experiences transitioning from secondary or post-secondary education and into the workforce.
3. Explore labour market practices that have been utilized in Canada and internationally to improve labour force participation among persons with disabilities, focusing on the transition from education to the workforce.
4. Explore labour market products that have been utilized in Canada and internationally to improve labour force participation among persons with disabilities, focusing on the transition from education to the workforce.
5. Assess the effectiveness of identified labour market products and practices, highlighting any barriers that may be experienced by persons with disabilities.
6. Summarize the most effective labour market practices and products by recognizing the factors that make them successful.

Literature Review

A variety of electronic sources ranging from government websites, Statistics Canada and census data, as well as published journal articles and academic presentations were reviewed to inform this report.

In-Depth Interviews

In total, nineteen individuals were interviewed, representing 17 different organizations.[2,3] A list of participating organizations can be found in Appendix A. Organizations were selected to participate based on a combination of secondary research and feedback provided by the Department of Advanced Education, Skills and Labour. The snowball method of recruitment, in which participants were given the opportunity to suggest possible contacts they felt might be relevant to this research, was also used.

Interviews were conducted in person and over the telephone. Interviews were approximately 60 minutes in length. All interviews were conducted between February 2018 and March 2018. An interview guide was used to facilitate broad discussion on topics of barriers to workforce participation for persons with disabilities and potential supports and practices to increase workforce participation. The interview guide is included in this report as Appendix B. Data from the interviews was reviewed and analyzed for key themes reflected in the interview guide, participants' comments and interviewer notes. A full summary of the interview results is presented in Appendix C.

Online Survey

An online survey was conducted using an online panel to compare and contrast against the findings of the literature review and in-depth interviews. The questionnaire can be found in Appendix D.

Ninety-five individuals residing in Newfoundland and Labrador who identified as having an impairment or disability completed the online survey. The results of the survey did not contradict the findings of the interviews and literature review but it should be noted that only a small portion of participants utilized aids or assistive products so the contribution of the survey results to this report is limited. A summary of the results of the survey can be found in Appendix E.

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[2] MQO reached out to 35 organizations to participate.

[3] One researcher was travelling abroad and submitted feedback via e-mail.

Defining Disability

Disability research as a field of study crosses many disciplines. In the literature there is a lack of consistency in how disability is framed and understood. Differing definitions of disability also exist throughout Canadian legislation and policy. Two dominant views of disability are *the medical model* and *the social model*.

The Medical Model

The medical model of disability defines disability related to biology rather than the social or geographical environment. The medical model focuses on disability as the result of an individual's physical or mental limitation. In this view, the focus is on the individual and disability or illness. The medical model centres on the identification and understanding of an illness so it can be controlled or its course can be altered. The medical model of disability has been criticised for leading to stereotyping and defining individuals by a condition or their limitations because of its focus upon individuals.[4,5]

The Social Model

The Social Model of disability views disability from a structural or societal perspective rather than an individual perspective. The social model understands disability as a consequence of environmental, social and attitudinal barriers that prevent people with an impairment from full participation in society. The social model focuses the source of the problem on society rather than the individual, solutions born out of the social model look to social change rather than treatment of the individual. This model also considers barriers of a social nature such as prejudice and stereotyping. [6,7]

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[4] World Health Organization (2011). World Report on Disability. Chapter 1 Understanding Disability. Retrieved from: http://www.who.int/disabilities/world_ report/ 2011/en/

[5] Sellevoll, K. (2016). Disability and work, barriers to employment: a qualitative study on disability and experiences entering the labor market. Hedmark. Master's Thesis. Retrieved from: https://brage.bibsys.no/xmlui/bitstream/handle/11250/2393110 /Sellevold.pdf

[6] World Health Organization (2011). World Report on Disability. Chapter 1 Understanding Disability. Retrieved from: http://www.who.int/disabilities/world_ report/ 2011/ en/

[7] Sellevoll, K. (2016). Disability and work, barriers to employment: a qualitative study on disability and experiences entering the labor market. Hedmark. Master's Thesis. Retrieved from: https://brage.bibsys.no/xmlui/bitstream/handle/11250/2393110/ Sellevold.pdf

The Relational Model

Other frameworks for understanding and defining disability have taken a blended approach understanding disability as a result of the relationship between individual impairment and environmental barriers that hinder full and equal participation in society.

This report has been prepared from the perspective of a relational model of understanding disability in line with the United Nations Convention on the Rights of Persons with Disabilities (UN-CRPD) which states that "disability should be seen as the result of the interaction between a person and his or her environment. Disability is not something that resides in the individual as the result of some impairment."

Disability and Environment

"A person's environment has a huge impact on the experience and extent of disability. Inaccessible environments create disability by creating barriers to participation and inclusion. Examples of the possible negative impact of the environment include:
  - *A deaf individual without a sign language interpreter*
  - *A wheelchair user in a building without an accessible bathroom or elevator*
  - *A sight-impaired individual using a computer without screen-reading software.*
The environment may be changed to prevent impairments and improve outcomes for persons with disabilities. Such changes can be brought about by legislation, policy changes, capacity building or technological developments leading to, for instance:
  - *Accessible design of the built environment and transport;*
  - *Signage to benefit people with sensory impairments;*
  - *More accessible health, rehabilitation, education and support services;*
  - *More opportunities for work and employment for persons with disabilities."*

Excerpt from The World Health Organization's (WHO) 2011 World Report on Disability.

Current State Analysis

In order to support the participation of persons with disabilities in the Newfoundland and Labrador workforce, it is necessary to have an understanding of the current state of labour force participation and challenges faced by persons with disabilities in seeking and retaining employment in the province. The following sections present a summary of current Canadian and Newfoundland labour market statistics, research on employment barriers faced by persons with disabilities, and in-depth interviews conducted with subject matter experts in Newfoundland and Labrador to provide provincial context.

Labour Market Participation

Labour Force Participation Statistics in Canada

Based on the population of Canadians who participated in the 2011 National Household Survey (NHS), 13.7% of individuals aged 15 to 64 (approximately 3.8 million people) expressed having some type of disability, or disabilities, related to sight, hearing, mobility, flexibility, dexterity, pain, learning, development, mental/psychological disorder, and/or memory. [8]
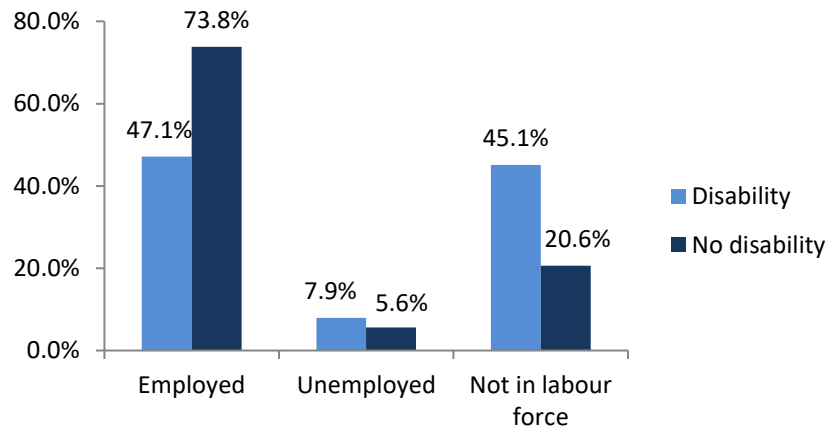
Persons with disabilities are significantly less likely to have a postsecondary education compared to individuals without disabilities. Among persons with disabilities aged 25 to 64, 13.9% had a university degree, certificate, or diploma, compared to 26.7% of individuals without disabilities, and the percentage of university graduates declines as severity of disability increases. Among persons with a disability who had engaged in post-secondary education, 40% cited that people avoided or excluded them at school, 27% were bullied. [8] Persons with a disability who graduate with a university degree are less likely to hold a management position and earn less than university graduates without a disability.[8]

Twelve percent of persons with a disability reported having been refused a job as a result of their condition, in the five years prior to the survey being conducted. This percentage was higher (33%) among younger job seekers (25 to 34-year-olds) who reported a severe or very severe disability.

With regards to labour force participation in Canada, the data indicates that overall, persons with disabilities (aged 15 to 64) are significantly less likely to be employed, and more likely to be unemployed, compared to persons without disabilities. Working age Canadians with disabilities are also more likely to not be in the labour force at all.[8]

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[8] Turcotte, M., (2014). Insights on Canadian Society: Persons with Disability and Employment. Statistics Canada. Retrieved from: http://www.statcan.gc.ca/pub/75-006-x/2014001/article/14115-eng.pdf

Figure 1
National Labour Force Participation

When looking at young adults aged 15 to 24, about one-third (32.2%) of those with disabilities are employed, while 11.2% are unemployed, and 56.5% are not in the labour force.[9]

Although 43% of persons with disabilities who had recent labour force experience considered themselves to be disadvantaged in employment because of their condition, a quarter (27%) have not made their disability known to their employer. [9]

Among those individuals who were employed or unemployed, just under half (43%) indicated that they did require accommodation in the workplace[10]. One-quarter (24%) reported requiring flexibility (e.g., reduced work hours) or a job redesign to adjust job requirements (15%). Others reported needing modified seating (e.g., a chair for better back support). [9]

Assistive devices or aids are very common among persons with disabilities with 80% of individuals with a disability reporting the use of at least one aid or assistive device. Although a large number of persons with disabilities use at least one aid or assistive device, 26% indicated there was at least one aid that was needed but did not have.[9]

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[9] Statistics Canada. (2012). A profile of persons with disabilities among Canadians aged 15 years or older. Retrieved from: http://www.statcan.gc.ca/pub/89-654-x/89-654-x2015001-eng.htm

[10] Although the survey and interviews developed for this research utilized the terms "accommodate" and "accommodation", as the study progressed it was noted by one of the experts interviewed that "adaptation" or "workplace adaptation" were more appropriate terms. With the exception of reference to the survey or interview specifically, "adaptation" and "workplace adaptation" are used for the remainder of this report.

Labour Force Participation Statistics in Newfoundland & Labrador

In NL, the 2012 Canadian Survey on Disability (CSD) shows that 40,060 individuals aged 15 to 64 reported having some type of disability. The following table outlines the labour force status of persons with disabilities in NL, as per the 2012 Canadian Survey on Disability.[11] The employment rate for individuals with disabilities in Newfoundland & Labrador is 40.4%, which is lower than the national employment rate for persons with disabilities (49%) and considerably lower than the overall employment rate for the province which is at 61.7%.[9]

Table 1 shows the overall data for all persons with disabilities, while also noting that for CSD severity classifications of *mild, moderate, severe, and very severe*.

Table 1

National Labour Force Participation

Disability Severity	Labour Force Status	Frequency (n)
All Disabilities	Total labour force	40,060
	Employed	14,660
	Unemployed	2,390
	Not in labour force	19,280
Mild	Total labour force	13,760
	Employed	8,230
	Unemployed	1,150*
	Not in labour force	4,000
Moderate	Total labour force	6,790
	Employed	2,920*
	Unemployed	680*
	Not in labour force	2,590
Severe	Total labour force	8,720*
	Employed	2,050*
	Unemployed	300*
	Not in labour force	5,160
Very Severe	Total labour force	10,790
	Employed	1,470*
	Unemployed	F
	Not in labour force	7,520

Note: Values marked with * are to be used with caution, as indicated in the CSD data tables. Values marked with "F" are too unreliable to be published, as indicated in the CSD data tables.

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[11] Statistics Canada. (2012). Canadian Survey on Disability: *Labour Force Status for Adults with and without Disabilities.* Retrieved from: https://www150.statcan.gc.ca/t1/tbl1/en/tv.action?pid=1310034701&pickMembers%5B0%5D=1.2&pickMembers%5B1%5D=3.

Barriers to Employment

Despite progress, persons with disabilities are still less likely to be employed than persons without disabilities. Although there are an increasing number of Canadians with disabilities who participate in the labour market at a level that matches their skill and qualifications, there are still numerous barriers persons with disabilities face in trying to find, retain and progress in employment. Barriers such as inaccessible workplaces and discriminatory hiring practices can exclude persons with disabilities entirely; these and other barriers can lead to underemployment or unemployment for these individuals with disabilities.[12] The most prominent barriers to employment experienced by persons with disabilities can be sorted into five categories:[13]

- Attitudinal Barriers
- Organizational or Systemic Barriers
- Physical or Architectural Barriers
- Informational and Communication Barriers
- Technological Barriers

Attitudinal Barriers

Attitudinal barriers are behaviours, perceptions, and assumptions that discriminate against persons with disabilities.[14] These barriers occur when people think and act based on false assumptions and are often born out of ignorance and misconception.[15] Attitudinal barriers take a number of forms from overt discrimination to more subtle beliefs that negatively impact labour market participation for persons with disabilities across a wide spectrum of impairment. Some of the most common concerns employers cite about hiring persons with disabilities are concerns over the cost of potential workplace adaptations, a lack of knowledge of how to handle workplace adaptations, fear of increased costs not associated with adaptation (for example lost revenue or the need for additional training), a belief that persons with disabilities cannot work or are poor performers as well as potential legal liability.[16,17, 18, 19] All of these examples are attitudinal barriers because the concerns and beliefs are mainly based on bias and fear rather than fact. Attitudinal barriers have been cited in the literature as one of the most prominent

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[12] Turcotte, M., (2014). Persons with Disability and Employment. Statistics Canada, Retrieved from: https://www.statcan.gc.ca/pub/75-006-x/2014001/article/14115-eng.htm

[13] http://www.accessibilitymb.ca/types-of-barriers.html

[14] http://www.uottawa.ca/respect/sites/www.uottawa.ca.respect/files/accessibility-cou-understanding-barriers-2013-06.pdf

[15] http://www.uottawa.ca/respect/sites/www.uottawa.ca.respect/files/accessibility-cou-understanding-barriers-2013-06.pdf

[16] Chabot, L. (2013). Institutional barriers to employment for individuals with disabilities. Seminar research paper series, paper. Retrieved from: http://digitalcommons.uri.edu/cgi/viewcontent.cgi?article=1036&context=lrc_paper_series

[17] Bennett, L., Ray., K., Wilson., T. (2016). Addressing barriers to work for disabled people and those with long term health conditions in Brighton & Hove. Learning and Work Institute. https://ec.europa.eu/epale/sites/epale/files/addressing_barriers_to_employment_for_disabled_people.pdf

[18] Chabot, L. (2013). Institutional barriers to employment for individuals with disabilities. Seminar research paper series, paper. Retrieved from: http://digitalcommons.uri.edu/cgi/viewcontent.cgi?article=1036&context=lrc_paper_series

[19] https://deep.idrc.ocadu.ca/lit-review-hiring/

barriers persons with disabilities face in seeking, retaining and progressing in their employment.[20,21]

NEWFOUNDLAND AND LABRADOR: Interview Insights

Nearly all of those interviewed indicated that discrimination or employer bias against persons with disabilities was the greatest barrier to workforce participation. Interviewees indicated that this bias was not always intentional and many described a general sense of employers' lacking "disability confidence", a concept used to describe an employer's level of comfort in hiring and managing people with disabilities.[22] Low disability confidence was a result of a combination of factors including a perception of high cost/effort to create an accessible work environment; social stigma, particularly against those who have intellectual or psychosocial disabilities; misconceptions about the abilities or willingness of persons with disabilities to do a job well, and other factors.

Organizational or Systemic Barriers

Organizational or systemic barriers are policies, procedures, or practices that unfairly discriminate and can prevent individuals from participating fully in the workforce or society. Organizational or systemic barriers often result from a lack of education or awareness and can be put into place unintentionally. [23] For example, a hiring process that requires completion of a complex application that may not reflect the skills required to perform well in a job or a skill test printed in small text that may be difficult for an individual with a visual impairment to read. While discrimination is not intended, these practices indirectly exclude persons with disabilities by not taking their needs into account. More overt examples of organizational barriers include eligibility criteria that exclude people based on a disability, such as inflexibility in scheduling or requiring a job applicant to have a driver's license when there may be ways to reorganize a job to allow for fewer hours, flexible shifts or use other forms of transportation.[24]

NEWFOUNDLAND AND LABRADOR: Interview Insights

Interviewees frequently cited contemporary hiring practices that demonstrated organizational or systemic barriers. For example, interviewees cited time limits for entrance exams or skills testing that may put those who require translation services at a disadvantage; unstructured interviews that may cause extreme anxiety for someone with autism and online applications that force persons with disabilities to disclose information about their disability without context (e.g., graduation from a specialized high school).

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[20] LaGrow, S. J., & Daye, P. (2005). Barriers to employment identified by blind and vision-impaired persons in New Zealand. Social policy journal of New Zealand. (26)

[21] Perkins-Dock, R. E., Battle, T. R., & McNeill, J. N. (2015). A Survey of Barriers to Employment for Individuals who are Deaf. JADARA, 49(2). Retrieved fromhttp://repository.wcsu.edu/jadara/vol49/iss2/3

[22] Concept was coined by Dr. Susan Scott Parker, founder and CEO of Business Disability International http://www.businessdisabilityinternational.org/

[23] http://www.uottawa.ca/respect/sites/www.uottawa.ca.respect/files/accessibility-cou-understanding-barriers-2013-06.pdf

[24] http://www.accessibilitymb.ca/types-of-barriers.html

<div style="background-color:#8cc63f; color:white; padding:8px;">Physical Barriers</div>

Physical barriers are elements of outdoor spaces or buildings that create structural barriers to persons with disabilities. Examples of physical or architectural barriers can include things such as a lack of ramps, a hallway or door that is too narrow for a wheelchair to navigate, a door that could not be opened by a person with limited strength or other structural obstacles. [25],[26],[27] If an individual is not able to access transportation to a job, access a building or have basic mobility needs met, then that individual will be unable to work.[28]

Transportation

Challenges or inability to access transportation is integral to workforce participation.[29] Although barriers to transportation have been categorized within physical barriers in this report, it is worth noting that transportation is frequently cited in the literature as a significant challenge for persons with disabilities.[30],[31],[32] Transportation affects one's ability to obtain education and training to prepare for workforce participation, to compete for jobs in interviews and selection processes and transportation limitations can affect the type of jobs an individual can consider.

NEWFOUNDLAND AND LABRADOR: Interview Insights

> *Physical barriers reported by interviewees included difficulty navigating a changing physical layout, particularly for those who are blind; access to transportation (e.g., unreliable/inaccessible public transit system); and inaccessible infrastructure. The inaccessibility of the built environment was a recurring challenge identified by some of the interviewees. Specifically, interviewees located in St. John's, Newfoundland mentioned the small, inaccessible spaces that are typical of historic buildings; the lack of*

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[25] http://www.uottawa.ca/respect/sites/www.uottawa.ca.respect/files/accessibility-cou-understanding-barriers-2013-06.pdf

[26] http://www.accessibilitymb.ca/types-of-barriers.html

[27] Pancyprian Organization of the Blind (2018). Challenges in employment of blind and partially sighted people. Retrieved from: http://www.designingsteps.com/challenges.html

[28] Darcy, S. Taylor, T. & Green, J.(2016). 'But I can do the job': Examining disability employment practice through human rights complaint cases. Disability and Society, 31:9. Retrieved from : https://doi.org/10.1080/09687599.2016.1256807

[29] O'Donnell, William, "An Analysis of Employment Barriers Facing Blind People" (2014). Public Affairs Capstones Collection. Paper 23. http://scholarworks.umb.edu/mspa_capstone/23

[30] Barrier Free Manitoba (2018). Barrier in Ontario: Life in a province full of barriers. Retrieved from: http://www.barrierfreemb.com/onbarriers

[31] Loprest, P., & Magg, E., (2001). Barriers to and Supports for Work Among Adults with Disabilities: Results from the NHIS-D. US Department of Health and Human Services. Retrieved from: https://aspe.hhs.gov/basic-report/barriers-and-supports-work-among-adults-disabilities-results-nhis-d

[32] National Rehabilitation Information Centre. People with disabilities face barriers to employment, but accommodations may help. Research in Focus. Retrieved from: https://www.naric.com/sites/default/files/People%20with%20Disabilities%20Face%20Barriers%20to%20Employment%2C%20But%20Accommodations%20May%20Help.pdf

modernization of buildings (e.g., lack of elevators in buildings); and narrow, uneven or sloping sidewalks.

Informational/Communication Barriers

Information or communications barriers occur when sensory disabilities, such as hearing, seeing, or learning disabilities, have not been considered. Communication and informational barriers can interfere with person with disabilities' ability to participate in the workforce when information is provided in ways that are only accessible to some of the population but not others.[33] Some examples of informational barriers or communication barriers include print on signage that is too small for individuals with a visual impairment to read, information that requires a high level of reading comprehension or public alert systems that do not account for individuals with a hearing impairment.[34] Informational and communication barriers are especially salient for individuals with visual or hearing impairments, but can also impact persons with mental health or learning disabilities.

Technological Barriers

Technological barriers occur when technology cannot be accessed or utilized by people with disabilities. Technology barriers are often related to information and communications.[35] Innovations in technology have resulted in increased functioning and independence in many ways, many internet-related technologies are inaccessible resulting in exclusion of some or all users with disabilities. Society's increasing reliance on technology in the workplace has made this a particularly salient issue in regard to workforce participation of persons with disabilities. For example, many companies only advertise job openings online, so a lack of website compatibility with screen readers can present challenges for individuals with visual impairments who may not be able to access job postings to apply. Technological barriers do not just need to be overcome in recruitment; persons with disabilities face technological barriers once in the workplace as well. Many organizations have virtual teams or require distance communication, so virtual conferencing features that only offer audio and not text option may be unusable for persons with hearing impairments. Motor impairments can also make software use challenging when software or sites have buttons and links that are too small or have cluttered layouts. Attention to layout and navigability are also essential to usability of a program or site for persons with autism, dementia, or other cognitive impairments.[36]

NEWFOUNDLAND AND LABRADOR: Interview Insights

Access to Wi-Fi was brought up by multiple interviewees as a barrier. Many of the assistive products that were referenced in the interviews were app based. For example, technologies such as Video Relay Service, which is an app in which a person with a hearing impairment can access an interpreter to interpret conversations in real time,

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[33] http://www.uottawa.ca/respect/sites/www.uottawa.ca.respect/files/accessibility-cou-understanding-barriers-2013-06.pdf

[34] http://www.accessibilitymb.ca/types-of-barriers.html

[35] http://www.uottawa.ca/respect/sites/www.uottawa.ca.respect/files/accessibility-cou-understanding-barriers-2013-06.pdf

[36] Lazar, J. & Jaeger, P. Reducing Barriers to Online Access for People with Disabilities. Issues in science and technology. Retrieved from: http://issues.org/27-2/lazar/

and requires connectivity. Both the availability and affordability of technology was referenced in the interviewers.

Barriers to Accessing Aids and Assistive Technologies

One of the primary ways individuals with disabilities navigate barriers to increase participation in society is through the use of aids and assistive technologies.[37]

Based on the results of the 2012 Canadian Survey on Disability, the majority of Canadians with a disability report using an aid or assistive device, however approximately 27% of persons with disabilities who require aids or assistive devices are living without at least one other aid or device that they need.[38] Multiple barriers to obtaining needed aids or assistive technologies exist for persons with disabilities. The cost of technologies has been cited as one of the most prevenient barriers to accessing needed aids and technologies. For instance, cost and access to funding was noted by individuals who responded to the online survey for this report as well as being a key theme brought up in the in depth interviews. Although government programs exist, these programs do not always cover the full cost of devices. Responses from in depth interviews also suggested that criteria to access funding can be limiting in terms of access for particular impairments or device options. These practices restrict consumer choices and can result in consumers making compromises that do not adequately meet their needs or requirements.[37]

Aids and assistive technologies	*Barriers to accessing aids and assistive technologies*
An aid or assistive technology refers to any assistive or adaptive device used by persons with disabilities. For example, wheelchairs, canes, screen readers, sound cancelling headphones, screen magnifiers and hearing aids.	• *Cost* • *Access to funding* • *Flexibility of funding criteria* • *Unwillingness to disclose*

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[37] Scholz, N. (2015). Assistive technologies to support people with disabilities. European Parliamentary Research Service. Retrieved from: http://www.europarl.europa.eu/EPRS/EPRS-Briefing-559513-Assistive-technologies-support-people-with-disabilities-FINAL.pdf

[38] Statistics Canada. (2012). A profile of persons with disabilities among Canadians aged 15 years or older. Retrieved from: http://www.statcan.gc.ca/pub/89-654-x/89-654-x2015001-eng.htm

Barriers Transitioning from Post-secondary Education to the Workforce

Research suggested that barriers faced by students transitioning from post-secondary education to the workforce are similar to the barriers reported by most persons with disabilities seeking to engage in the workforce. Attitudinal and physical barriers are noted as some of the primary barriers students face.[39] Attitudinal barriers are compounded by common barriers faced by all new graduates, such as lack of experience.

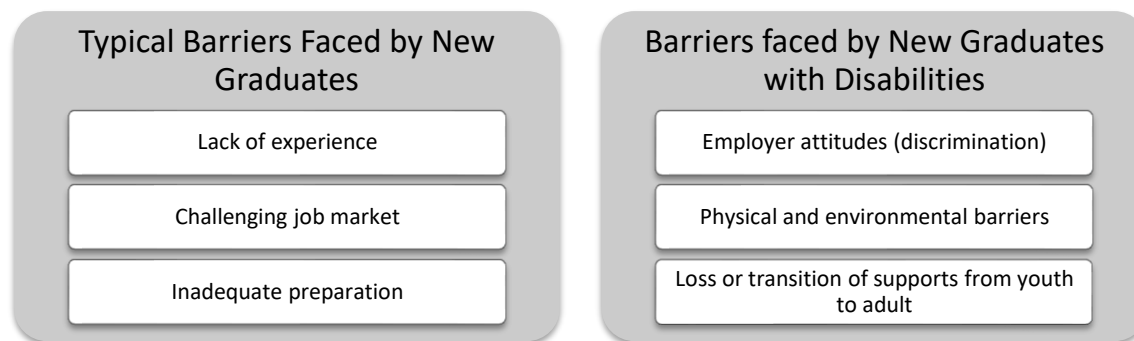*NEWFOUNDLAND AND LABRADOR: Interview Insights*

When asked specifically about what challenges students in Newfoundland and Labrador with disabilities face in transitioning to the workforce, interviewee responses echoed the comments on barriers persons with disabilities face in the workforce in general. Interviewees felt that attitude based barriers remained the primary challenge for new entrants into the job market, although other barriers unique to new graduates were cited.

Some interviewees suggested that inconsistencies in schooling experiences can lead to students being unprepared. Alternative programming is available to some students but there is no quality control and the curriculum is up to the discretion of the teacher.

It was also noted that the switch from youth to adult services can be a challenge. When students hit 18 they move from services that were available as a youth to having to navigate eligibility of adult services.

Figure 2
Barriers faced by new graduates and graduates with disabilities

Typical Barriers Faced by New Graduates	Barriers faced by New Graduates with Disabilities
Lack of experience	Employer attitudes (discrimination)
Challenging job market	Physical and environmental barriers
Inadequate preparation	Loss or transition of supports from youth to adult

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[39] National Organization on Disability. (2002a). Employment rates of people with disabilities. Retrieved from: http://www.nod.org/content.cfm?id=134

Practices and Products Utilized by Persons with Disabilities

The following section summarizes the practices or products that were most frequently cited in publications and literature or prominently cited in the key interviews and online feedback gathered to inform this report.

Labour Market Practices

Flexible Work Arrangements

Traditional work structures can limit the ability of persons with a disability to manage health related concerns. Many individuals with mental illness want to work but require flexible work hours to manage stress and meet treatment needs.[40] Flexibility in work arrangements and the openness to consider the needs of individuals with disabilities is an industry practice that permeates many aspects of a company from recruitment and selection processes to maintaining employment. Table 2 illustrates different types of flexible working arrangements.

Table 2
Types of Flexible Working Arrangements[41]

Type of Flexible Working Arrangement	Definition
Part-time work	Employees work less than standard full-time hours
Flextime	Employees have a degree of autonomy in deciding when to work during the workday
Staggered hours	Employees have different working times, allowing employee flexibility, and the business to be open longer
Compressed working hours	Employees can complete their full-time house in fewer days
Job sharing	One full-time job is shared between two employees, who divide the hours
Shift swapping	Employees decide shifts amongst themselves, provided all shifts are covered
Self-rostering	Employees suggest their preferred shifts, which are taken into account during scheduling
Term-time working	An employee has a permanent contract, but can take paid or unpaid leave during school holidays
Annual hours	Employees' hours are calculated over a year, and those hours are worked as needed (e.g., seasonally)
"V-time" work	Employees reduce their hours to part-time for a fixed term, and then go back to full-time work after this term ends
Home working/teleworking	Employees spent all or part of their work week working away from the business location (e.g., from home)
Sabbatical or career break	Employees can take paid or unpaid time off for an extended period of time

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[40] https://scholarship.law.georgetown.edu/cgi/viewcontent.cgi?article=1015&context=cpe

[41] This information was adapted from Northern Ireland Business Info. Retrieved from https://www.nibusinessinfo.co.uk/content/types-flexible-working

There are many ways in which flexibility can be an important practice in supporting persons with disabilities. Reduced hours may support an individual who may not have the endurance to work full hours. Working non-standard hours may help persons with disabilities resolve transportation barriers or attend necessary medical appointments. Flexibility in where work is completed may support persons with disabilities by allowing them to work from home, removing the challenge of navigating inaccessible physical spaces. As Table 2 notes, examples of flexible work arrangements include: flextime, term time working, part-time or reduced hours, job sharing, career breaks, family-related and other leaves, compressed workweeks and teleworking.[42]

Although research on the effectiveness of flexible work arrangement in increasing labour market participation of individuals with disabilities is limited, flexible work arrangements can combat some of barriers individuals with disabilities face which could lead to more opportunities to engage in the workforce.

Inclusive Recruitment and Selection Practices

There is a lack of planning for recruitment and recruitment specific strategies that purposefully target persons with disabilities. To advance inclusive hiring practices there is a need for greater coherence between the organizational commitment to diversity and inclusion and the recruitment strategies used by employers that are accessible and made known to persons with disabilities.

Interviewees indicated that most HR practices are not inclusive. Online job postings and applications are common and can be challenging for persons with disabilities to access and navigate.

The Government of Western Australia Disabilities Services Commission has developed a checklist for inclusive recruitment processes that includes inclusive recruitment and selection practices such as: ensuring job descriptions and applications are available in alternate formats; reviewing postings for language that could be seen as discriminatory or excluding people with disability; incorporating a diversity statement in job descriptions and advertisements touting a commitment to equal employment opportunity; advertising in a variety of places and reaching out to community organizations; being proactive about asking shortlisted applicants if they require adaptations; preparing workplace adaptations for any special needs and assessing applicants on merit as well as other suggestions for inclusive recruitment and selection.[43] Many recommended practices are small changes that could increase access and opportunity for individuals with disabilities.

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[42] Lewis, S. (2003).Flexible working arrangements: Implementation, outcomes and management. International Review of Industrial and Organizational Psychology, 18. Retrieved from:
http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.198.4476&rep=rep1&type=pdf

[43] Government of Western Australia, Disability Services Commission. Checklist for an inclusive recruitment process. Retrieved from:http://www.disability.wa.gov.au/Global/Publications/For%20business%20and%20government/Employing%20people%20wth%20disability/Checklist%20for%20inclusive%20recruitment.docx

Community Outreach/Engagement

Although it is lumped in with recruitment practices, community outreach is listed here separately because of its significance not just in recruitment and selection but in its role in maintaining employment by connecting businesses to resources and supports. Community outreach or engagement has been found to be one of the most successful methods of engagement for hard to reach or vulnerable populations.[44] As a recruitment practice, community outreach suggested engaging local support organizations and reaching the people 'where they are'. Traditional recruitment methods such as recruiting by posting jobs on a jobs search site can present challenges for some persons with disabilities. Building relationships with community support organizations and utilizing community groups to recruit and reach persons with disabilities to share information is a good practice to ensure persons with disabilities are aware of and have the opportunity to apply for open positions but is also beneficial to support continued employment. In addition, community outreach is also an important and effective practice to raise awareness and engagement with government and community services and programs.[45]

Job Coaches

A job coach provides highly personalized support for persons with disabilities in finding and maintaining employment using supported employment services.[46] The job coaches provide support on and off the job to help increase the odds that the individual with a disability becomes successful at work. The role of a job coach often includes:[47]
1. Identifying the individual's interests, skills and abilities to facilitate a career/job choice.
2. Negotiating customized jobs for individuals with disabilities.
3. Addressing employer concerns about hiring people with disabilities while maintaining the confidentiality of the job seekers.
4. Identifying a wide variety of workplace supports.
5. Using data collection techniques to document effectiveness of workplace supports and to guide transition to independence on the job site.
6. Providing proactive follow along services.

Although research is mixed (i.e., there is some evidence that job coaches are only effective in urban areas and regions with low or intermediate unemployment rates), overall evidence suggests that job

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[44] Sellevoll, K. (2016). Disability and work, barriers to employment: a qualitative study on disability and experiences entering the labor market. Hedmark. Master's Thesis. Retrieved at
https://brage.bibsys.no/xmlui/bitstream/handle/11250/2393110/Sellevold.pdf

[45] Equity and Diversity Directorate Policy Branch (2011). Recruitment of persons with disabilities: A literature review. Public Service Commission of Canada. Retrieved from: http://publications.gc.ca/collections/collection_2011/cfp-psc/SC3-156-2011-eng.pdf

[46]HM Government. (2011). Supported employment and job coaching: Best practice guidelines. https://www.base-uk.org/sites/default/files/%5buser-raw%5d/11-06/supported_employment_and_job_coaching-_best_practice_guide....pdf

[47] Rehabilitation Services Administration. Supporting Individuals with Significant Disabilities: The Roles of a Job Coach. Retrieved from: https://vcurrtc.org/research/printView.cfm/630

coaches do increase the likelihood of successful employment outcomes. [48,49] Interview responses, also supported job coaches as an effective practice to aid employment programs and increase the likelihood of employment success.

Early Transition Planning

A transition plan outlines transition goals and services for students with a disability. The transition plan is based on a student's individual needs, strengths, skills, and interests.

> *"A truly successful transition process is the result of comprehensive team planning that is driven by the dreams, desires and abilities of youth. A transition plan provides the basic structure for preparing an individual to live, work and play in the community, as fully and independently as possible."* [50]

Transition plans have been shown to increase engagement in post school employment or education.[51, 52] During transition planning, self-advocacy and self-determination (the capacity to choose and have choice be the basis for one's actions) are key practices in successful transition to employment. Developing transition goals that are action oriented and reflect their interests, skills, and abilities is also key to successful transition planning. [53]

Responses to the interviews conducted for the purposes of this report stressed the importance of starting transition plans early. Although many transition plans will begin in high school, interviewees felt that transition planning should be initiated much younger.

Internships and Wage Subsidies

Although internships and wage subsidies are generally considered programs, they are considered here because almost all interviewees cited internships and wage subsidies as frequently used and effective practices that provide an opportunity for persons with disabilities to get experience and combat some of the misconceptions that employers may have about disability.

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[48] Gray B.R., McDermott S. and Butkus S. (2000). Effect of job coaches on employment likelihood for individuals with mental retardation. Journal of Vocational Rehabilitation, 14, 5-11.

[49] Wehman, P & Bricout, J. Supported employment : Critical issues and new directions. Retrieved from: https://pdfs.semanticscholar.org/ac04/1a7b8ffad24453b8c50d87e67e7bb293973d.pdf

[50] PACER Center Inc. (2001). Parent tips for transition planning, PHP-c80. Retrieved from www.asec.net/Archives/Transitionresources/Parent%20tips%20for%20transition.pdf.

[51] Test, D.W., Mazzotti, V.L., Mustian, A.L., Fowler, C.H., Kortering, L., & Kohler, P. (2009). Evidence-based secondary transition predictors for improving postschool outcomes for students with disabilities. Career Development for Exceptional Individuals, 32(3), 160-181. doi: 10.1177/0885728809346960

[52] Singleton, S. M. (2016). Transition Outcomes of Young Adults with Disabilities: A Social Cognitive Career Theory Perspective. Retrieved from: https://aquila.usm.edu/cgi/viewcontent.cgi?referer=https://www.google.ca/&httpsredir=1&article=1370&context=dissertation

[53] Hui, E. K. & Tsang, K. M. (2012). Self-Determination as a Psychological and Positive Youth Development Construct. The Scientific World Journal. Retrieved from: https://www.hindawi.com/journals/tswj/2012/759358/

Internships

An Internship is a fixed term work experience opportunity that can be paid or unpaid and provides individuals with disabilities hands-on opportunities to gain relevant work experience. Internships are often targeted at individuals entering the workforce from educational programs. Internships provide students opportunities to explore different industries, apply existing and new skills and build a network.[54, 55]

There are many examples of successful internship programs for individuals with disabilities.[56, 57, 58] An internship provided by the Project on Science, Technology and Disability at the American Association for the Advancement of Science, reported that 90% of past participants in the program are working in science, technology, engineering or business positions from the program, or are pursuing graduate degrees in relevant fields.[59] Incorporating one-on-one coaching and linking with community resources to support the intern and the employer are reported to improve the rate of success of the internship.[54]

Wage Subsidies

Wage subsidies are intended to facilitate persons with disabilities in entering the labour market. Most wage subsidies are structured such that organizations are eligible to receive government funding to offset the cost of hiring an individual with a disability.

The empirical evidence evaluating the effectiveness of employers utilizing wage subsidies to support the employment of persons with disabilities is mixed. Although some research has shown wage subsidies to be effective, others have reported no increase in the likelihood that persons with disabilities will be hired by an organization long term. Subsidies can also generate stigma and disproportionate access to low-wage, low-skill jobs.[60, 61, 62] The effectiveness of wage subsidy programs has been found to be heavily

[54]Hastings (2008). Expert: Internships for Students with Disabilities Benefit Companies.
Retrieved from: https://www.shrm.org/resourcesandtools/hr-topics/behavioral-competencies/global-and-cultural-effectiveness/pages/expertinternshipsstudents.aspx

[55] Briel, L. W. & Getzel, E. E. (2001). Internships in higher education: promoting success for students with disabilities. Disability studies quarterly. 21 (1). Retrieved at: http://dsq-sds.org/article/view/254/257

[56] Luecking, R. G. & Fabian, E. S. (2000). Paid internships and employment success for youth in transition. Retrieved from: http://sites.bu.edu/miccr/files/2015/03/Paid-internships-and-employment-success-for-youth-transition.pdf

[57] Izzo, M.V & Lamb, M. (2002). Self-determination and career development: Skills for successful transition to postsecondary education and employment. A white paper for the Post-School Outcomes Network of the National Center on Secondary Education and Transition (NCSET) at the University of Hawaii at Manoa. Retrieved
from: http://www.ncset.hawaii.edu/Publications/

[58] Stanton, M. (1992, Summer). Internships: Learning by doing. Occupational Outlook Quarterly, 36(2), 30-34.

[59] Hastings. (2008). Expert: Internships for students with disabilities benefit companies. Retrieved at: https://www.shrm.org/resourcesandtools/hr-topics/behavioral-competencies/global-and-cultural-effectiveness/pages/expertinternshipsstudents.aspx

[60] http://69.89.31.83/~disabio5/wp-content/uploads/2010/09/Wage_Subsidies_Review_Sept_2010_REVISED.pdf

[61]Universitat Pompeu Fabr Barcelona (2017). Hiring subsidies for people with disabilities: Do they work? Retrieved from: http://www.cfeebc.org/resource/hiring-subsidies-people-disabilities/

[62] Boyce WF, Piker J, Paterson J. (2005). Labour force participation and social inclusion for people living with HIV and other episodic disabilities: a policy review and analysis. Final report for the Canadian Working Group on HIV and Rehabilitation. Kingston: Queen's University, Social Program Evaluation Group, Centre for Health Services and Policy Research. Retrieved from http://educ.queensu.ca/sites/webpublish.queensu.ca.educwww/files/files/Research/SPEG/SPEG%20Labour%20Force%20Participation%20and%20Social%20Inclusion%20for%20People%20Living%20with%20HIV.pdf

dependent on elements of the program. Subsidies work best when the programs include additional forms of employee and employer support such as assisted access to community-based resources about workplace adaptation and grants to retain, hire or train individuals with disabilities.[55, 56]

Success Factors in Labour Market Practices

Although interviewees' views of the most effective practices varied (and, for some practices, research indicated mixed results in terms of effectiveness), it was noted that many of the responses suggested that the most effective practices are flexible in how they are applied and support both the employee and the employer.

Labour Market Products

Assistive technologies and aids are available to help individuals with many types of disabilities participate more fully in the work place and in society in general. The types of aids and technologies that are available are varied. Table 3 summarizes examples of some of the types of products that are available for different impairments.

NEWFOUNDLAND AND LABRADOR: Interview Insights

"For us, wage subsidies are good incentives for employers to take a chance on persons with disabilities (subsidized work placements). This is best practice, because it helps persons with disabilities get their foot in the door.

Table 3

Examples of Aids and Assistive Technologies by Impairment

Impairment	Definition	Examples of Aids and Assistive Technologies
Motor	Motor impairments affect movement of the upper and/or lower limbs.	Manual or powered wheel chair, prosthetic limb, supportive seat, cane, touch free switches
Vision	Vision impairments affect the eyes and sight.	Magnifying, magnifying software, braille systems, screen reader
Hearing	Hearing impairments affect auditory abilities.	Hearing aid, amplified telephone, as well as alerting devices such as a blinking light
Cognitive	Cognitive impairments affect the brain, mouth or tongue.	Picture based instructions, manual or automatic reminders, word prediction software
Communication	Communication impairments typically affect the brain, mouth or tongue and affect individuals ability to speak and communicate.	Keyboards, touch screens, speech generating devices that translate words or pictures into speech

Although there is a great deal of knowledge about the barriers faced by persons with disabilities in the workforce, research on the effectiveness of products to improve workforce participation among individuals with disabilities is scarce. Although hundreds of different types of assistive technologies and aids can be found online, few if any have been empirically tested to evaluate the impact of each on workforce participation.

Part of the reason for this may be that the effectiveness of an assistive aid or technology is so individualized. Measures of effectiveness that do exist such as the Quebec User Evaluation of Satisfaction with Assistive Technology (QUEST) and the Psychosocial Impact of Assistive Devices Scale (PIADS) are based on personal satisfaction with a device and individual perceptions of effectiveness.[63]

In an effort to understand what products may be identified as most effective by users in the Newfoundland Labrador market, interviewees were asked to share their insight on any products that they believed were effective. Nearly every interviewee reported that assistive technology varied, and effectiveness depended on the needs of the specific individual. Feedback from the online survey was similarly varied and no specific products emerged.[64] Some of the frequently identified products included: Screen reading technology (e.g., JAWS); speech to text software (Dragon Naturally Speaking); text to speech (Kurtzweil); headsets for the telephone; video relay services; FM systems; and alerts for the hearing impaired (e.g., visual alert door bells) and apps such as FaceTime and Video Relay

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[63] Gray, D, & Cook, A.M. Assistive technology. Retrieved from: https://www.britannica.com/science/assistive-technology#ref1185943

[64] For a summary of online survey responses see Appendix D.

Service.[65],[66] Interviewees suggested that these were products that they had experience with or knew were frequently used by individuals that they work with but overall were hesitant to say that one product over another was objectively more useful or effective. Although not exhaustive, an inventory of specific assistive technology products curated by EmpowerNL can be found in Appendix F.

NEWFOUNDLAND AND LABRADOR: Interview Insights

> *"There are lots of accessories that can be used, nothing in particular is better than the other. However, the issue is that people don't know where to go to get the resources, true for both transitioning persons with disabilities and those entering the workforce generally."*

> *"Nothing is considered more useful/more effective than other products, it's too individualized to answer"*

Although interviewees felt that effectiveness was less about the product itself and more about what works for an individual based on preference and familiarity, some themes did emerge from interviewees regarding challenges in accessing needed products or aids. Although it may not be possible to identify the most useful specific products for contributing to labour market participation and supporting transition into the workplace, it is possible to remove some of the barriers that exist to persons with disabilities accessing the aids and assistive technologies that are *most effective for them* as an individual.

As outlined above in the discussion on barriers, cost and access to funding was noted by individuals who responded to the online survey for this report as well as being a key theme brought up in the in-depth interviews as a barrier to accessing assistive technologies and aids. Although government programs exist, these programs do not always cover the full cost of devices.

Specific to workplace adaptations, persons with disabilities can be hesitant to disclose impairment to an employer that they require adaptations, which can prevent individuals from gaining access to necessary aids and technologies. Other common themes that emerged included the restrictive nature of some funding in terms of access for particular impairments or device options. These practices restrict consumer choices and can result in consumers making compromises that do not adequately meet their needs or requirements.[38] Some interviewees indicated that while there may be a number of products available to address any given type and severity of impairment, persons with disabilities and employers are not always sure how and where to access these products and, in some cases, access to these technologies can be limited in rural areas.

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[65] VRS is a service in which a deaf person can call an interpreter through facetime, who is able to interpret a conversation between a deaf person and a hearing person. The service is based in Ottawa. More information can be found here: https://srvcanadavrs.ca/en/

[66] JAWS are screenreading software, more information can be found here:

http://www.freedomscientific.com/Products/Blindness/JAWS

Key Recommendations

Below are some key recommendations to support the implementation of effective workplace practices and access to products used by individuals with a disability. The recommendations are proposed in consideration of those strategies that the Government of Newfoundland and Labrador is best able to support and are also likely to have the broadest impact in increasing workforce participation among persons with disabilities in the province.

Awareness and Understanding

It is recommended that government and community agencies engage in efforts to increase awareness and understanding with the dual goal of battling misconception and helping employers and employees learn about where and how to access potential resources, products and programs.

Battling Misconceptions

This report identifies the need to encourage inclusive employment opportunities by challenging preconceptions about disability and employment. Persons with disabilities face attitudinal barriers to employment in the recruitment process, during the selection process, in maintaining employment and in trying to progress in their career. Negative attitudes, discrimination and stigma remain some of the most challenging barriers individuals with disabilities must overcome to be actively engaged in the workforce and were even shown to affect ability to access necessary assistive technologies and aids.

This recommendation underscores all of the barriers outlined in this report, and if achieved, any measure would have a positive impact on all of the practices outlined throughout this report and increase the effectiveness of all of the recommendations outlined below.

Interviewees felt that government and community agencies had the biggest responsibility in increasing awareness and understanding and fighting misconception about persons with a disability in the workplace through partnering to fund and deliver awareness campaigns.

Awareness of Resources and Products

There are numerous resources and programs already in place to support persons with disabilities in the work place that, in many cases, individuals with disabilities and employers are not aware of. Interview responses indicated that persons with disabilities often do not know where to obtain the necessary aids. In the case of industry, employers are unaware of what products and programs exist to support adapting a work environment. Communicating and raising awareness about existing programs and supports may increase participation in those programs and encourage work force participation.

Joint sessions that link and provide information to post-secondary students and potential employers at the same time may also be incredibly valuable tools in creating an awareness of available products, programs and resources. Joint sessions would provide a unique opportunity to connect persons with disabilities and potential employers and identify how students with disabilities and organizations can work together to access necessary products and resources and adapt work roles and environments to better support equal employment. Information on available resources and products could also be sent

directly to businesses with information on how to access these resources for existing or potential employees. Although one-on-one in person sessions may be the most effective way to share this information, e-mails or print communication sent directly to businesses could also be used.

In recent years, the Department of Advanced Education, Skills and Labour (AESL) has collaborated with organizations in the province to help promote employment opportunities, particularly within the tourism industry, targeted towards persons with disabilities. Most notably, AESL, Hospitality NL, Inclusion NL, EmplowerNL, with other partner organizations, have collaborated to host two Destination Dream Job events (an inclusive Tourism Job Fair). The goal of this job fair is to increase awareness of employment opportunities that are available in the tourism industry, and to promote inclusive workplaces. The second Destination Dream Job event was held in April, 2018[67].

Flexibility in Programs and Practices

One of the common themes throughout all the research conducted for this report was the importance of flexibility and individualization in helping individuals with disabilities succeed in the workplace.

Flexible Work Arrangements

Flexible work arrangements can be the difference between a person with a disability being able or not able to participate in the work force. In Canada, federally regulated workers do have the right to request flexible work arrangements, such as working from home or adjusting their workday, from their employers. [68] Creating legislation that allows employees to request flexible work arrangements is one way to begin to encourage employers to promote and structure jobs in such a way that it allows for flexible work arrangements.

Flexibility in Support and Funding Programs

Research suggests, and the interviews confirmed, that flexibility within programs contributes to successful outcomes, particularly with regards to program inclusion criteria. For example, interviewees mentioned stringent criteria make it difficult to access funds for particular aids and assistive technologies that they could benefit from. Similarity, interviewees suggested difficulty in accessing particular program supports.

Inclusive Recruitment and Selection Practices

There is a lack of planning for recruitment and recruitment specific strategies that purposefully target persons with disabilities. Creating more inclusive recruitment and selection practices is vitally important because advancements like creating more inclusive work environments and flexible work arrangements will not be effective if individuals with disabilities are not aware of job opportunities or do not have the opportunity to compete on merit. Individuals who are able and invested in participating in the workforce are denied the opportunity to even become aware of potential employment opportunities

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[67] https://hnl.ca/news/destination-dream-job-hospitality-nl-hosts-2nd-annual-inclusive-tourism-job-fair/

[68] Benefits Canada. Retrieved from: http://www.benefitscanada.com/news/budget-includes-right-to-request-flexible-work-changes-to-internship-rules-95535

because of a lack of inclusive recruitment practices. Implementing recruitment and selection practices that engage individuals with disabilities is not cost prohibitive for organizations, many businesses simply are not aware that their practices are not inclusive and are in some cases discriminatory.

Providing businesses with the tools to implement inclusive recruitment and selection practices and mandating that those practices be implemented through legislation would likely increase workforce participation for those individuals with disabilities.

Supporting the Transition of Students with Disability to the Workforce

Internships and wage subsidy programs have been identified as effective tools in supporting students in their transition from post-secondary education to the workforce. Post-secondary education institutions may be able to take an increased role in supporting students with disabilities in accessing and gaining work experience through these programs.

Most interviewees feel that in general post-secondary institutions are currently not helpful in supporting students with disabilities in their transition to the workplace. Where resources do exist, students are often unaware of the supports. Interviewees varied on the level of support they felt post-secondary institutions currently provide and should provide, however, many interviewees indicated that dedicated offices, internships and Individualized Service Support Plans done in collaboration with the student should be offered. Interviewees indicated that post-secondary institutions should pull in external supports to provide additional guidance to students with disabilities and felt that while post-secondary institutions may offer general transition support, customized personalized support for individuals with disabilities is needed.

Appendix A: Key Informant Organizations

Occupation
Newfoundland Based Organizations
Empower
Easter Seals
Hard of Hearing Association
Association for the Deaf
Inclusion NL
Spinal Cord Injury Association
Office of Employment Equity for Persons with Disabilities (OEEPD)
The Blundon Centre - Memorial University of Newfoundland
Autism Society
Canadian Council on Rehabilitation and Work (CCRW)
Lead Centre
Centre for Disability Law and Policy, National University of Ireland - Galway
Canadian National Institute for the Blind
NLACA - Association for Community Living
Outside of Newfoundland and Labrador
Coordinating Council on Deafness
National Disability Institute, Washington, DC

Appendix B: Interview Guide

Introduction

Hello, my name is *** from MQO Research, a professional research firm in Atlantic Canada. May I please speak to _____?

ONCE CORRECT PERSON IS ON THE LINE: *I am conducting best practice research on behalf of The Department of Advanced Education, Skills and Labour in Newfoundland and Labrador (Canada). This research is aimed at identifying products, best practices and resources used to assist persons with disabilities in labour market participation. In our research, you were identified as a subject matter expert in this field [your organization was identified as a leader in this field] and I am hoping you would be willing to allow me to ask you some questions to help me better understand your perspective on supporting and increasing labour market participation for persons with disabilities.*

The information from this interview will be kept confidential. Any information shared beyond the research team will be presented in an aggregate form only and no individuals will be identified by name. This information will be used to inform recommendations in terms of what practices, resources, and products are most effective in encouraging and assisting labour force participation for persons with disabilities. The report will be presented to the Newfoundland and Labrador Department of Advanced Education, Skills and Labour. Your input is incredibly valuable and your time is much appreciated.

DATE:	CONTACT NAME:
ORGANIZATION:	JOB TITLE:

Are you available to proceed now?

IF UNAVAILABLE: ARRANGE CALLBACK – When is the best time to call back?
IF NO, THANK AND TERMINATE.

INTERVIEWER NOTES:
If necessary, add: The interview could take approximately **20** minutes to complete.
If a participant questions the validity of the survey, the call or MQO, please state: MQO Research has been conducting research studies in Canada and abroad for 30 years. We are a Member of the Canadian Marketing Research and Intelligence Association (MRIA) which is responsible for regulating marketing research practices in Canada. MQO Research adheres very strictly to all guidelines of professionalism and privacy as outlined by the MRIA. If you would like to contact the MRIA to verify the legitimacy of our company please call 1-888-602-6742 ext. 8728 toll free.

If a participant questions the confidentiality of the information that they are providing please state the following: As a member of the Marketing Research and Intelligence Association (MRIA) we adhere to strict standards of privacy and confidentiality. Information will never be released to a third party in a

manner that could be used to disclose your identity or violate your privacy.

Section I: Your Role in Assisting Persons with Disabilities

(1) In general, can you describe the role(s) ***your organization*** (or department) plays in supporting persons with disabilities?

(2) In general, can you describe ***your role(s)*** within your organization?

Probe: What type of support do you (in your role) provide persons with disabilities?
Probe: What about support specific to workforce participation?
Probe: What about helping individuals transition from secondary or post-secondary education and into the workforce?

Section I [For Individual Subject Matter Experts]: Role of your work in Assisting Persons with Disabilities

(3) Can you tell me a little bit about your research around workforce participation and individuals with disabilities?

Probe: What about helping individuals transition from secondary or post-secondary education and into the workforce?

Section II: Barriers Faced by Persons with Disabilities in Entering the Workforce

(4) In your experience, in general, what are the greatest barriers faced by persons with disabilities in entering the

workforce?

Probe: What about challenges faced specifically by persons with disabilities transitioning from post-secondary education to the workforce?

Section III: Effective *Practices* in Assisting Persons with Disabilities in Labour Force Participation

(5) Can you share any *practices* that you are familiar with that assist persons with disabilities in workforce participation?
*** If asked, or if interviewee is only providing program and policy information, provide examples of what we mean by "practices" (e.g., internships, providing a transition plan, offering wayfinding) ***

(6) In your experience, of those *practices* what are most the most effective and useful in assisting persons with disabilities in workforce participation?

*Probe: What about *practices* specific to helping persons with disabilities transition from education to the workforce?*
Probe: What aspects of these practices are most important?

Section IV: Effective *Products* in Assisting Persons with Disabilities in Labour Force Participation

(7) Can you share any **products or resources** that you are familiar with that assist persons with disabilities in workforce participation?
*** If asked, or if interviewee is only providing program and policy information, provide examples of what we mean by "products" (e.g., wheelchair accessible desks, screen magnifiers or readers, braille keyboards) ***

    a. *What about products <u>specific</u> to helping persons with disabilities transition from education to the workforce?*

(8) In your experience, of those products and resources what are most the most effective and useful in assisting persons with disabilities in workforce participation?

    Probe: *What about products specific to helping persons with disabilities transition from education to the workforce?*
    Probe: *What features are most important?*

(9) Are there any additional barriers you are aware of that persons with disabilities face when trying to utilize or access any of the products that you mentioned?

Section V: Role of Industry and Educational Institutions in Assisting Persons with Disabilities

(10) To your knowledge, what is industry doing/what are workplaces doing to support persons with disabilities in entering the workforce?
    <u>Probe:</u> *Are you aware of any specific practices or products that are being used by industry or workplaces to assist persons with disabilities in their transition from education to the workforce?*

(11) To your knowledge, what are educational institutions doing to support persons with disabilities in entering the workforce?
    <u>Probe:</u> *Are you aware of any specific practices or products that are being used by educational institutions to assist persons with disabilities in their transition from education to the workforce?*

Section VI: Role of Government and Community Agencies/Organizations in Assisting Persons with Disabilities

(12) To your knowledge, what is government currently doing to support persons with disabilities in entering the workforce?
    <u>Probe:</u> *Are you aware of any specific practices or products that are being used or provided by government to assist persons with disabilities in their transition from education to the workforce?*

(13) To your knowledge, what are community agencies/organizations doing to support persons with disabilities in entering the workforce?
    <u>Probe:</u> *Are you aware of any specific practices or products that are being used by community agencies/organizations to assist persons with disabilities in their transition from education to the workforce?*

Section VII: Conclusion

(14) Is there any other organization or individual you feel it would be valuable for us to speak with to gain a thorough understanding of the products and practices that are most successful in assisting persons with disabilities in workforce participation?

(15) Do you have any additional thoughts or comments that you would like to add?

*Those are all the questions I have for you today. Thank you so much for taking the time to speak with me. If you have any questions or concerns about this research please feel free to give me a call **[provide contact information].***

Appendix C: Summary of the In Depth Interviews

Barriers Faced by Persons with Disabilities in Entering the Workforce

Persons with disabilities have to overcome stereotypes, stigma and discrimination in the job market. Negative attitudes towards persons with disabilities were identified as a primary barrier to employment by almost all interviewees. Nearly all of those interviewed indicated that discrimination or employer bias against persons with disabilities was the greatest barrier to workforce participation. Interviewees indicated that this bias was not always intentional and many described a general sense of employers lacking "disability confidence", a concept used to describe an employer's level of comfort in hiring and managing people with disabilities.[69] Low disability confidence was a result of a combination of factors including a perception of high cost/effort to create an accessible work environment; social stigma, particularly against those who have intellectual or psychosocial disabilities; misconceptions about the abilities or willingness of persons with disabilities to do a job well, and other factors. In many cases interviewees suggested that employers were simply unaware or misinformed and needed to be educated. One interviewee indicated that many employers do not realize how inaccessible their workplaces are and are not aware of the adaptive technologies that are available.

> "Many qualified post-secondary graduates – have difficulty finding employment, because of perceived/real negative attitudes toward persons with disabilities."

> "Getting employers to understand that there are technologies available that can overcome a lot of the difficulties from the past."

> "A lot of it is employers not being aware of the abilities of persons with disabilities as competent employees. Misconception that persons with disabilities will cost money, or will have more issues…"

> "When talking to business representatives, I had to invest a large amount of time into countering all their concerns, things they've heard about why persons with disabilities would be bad employees."

Interviewees also cited contemporary hiring practices that demonstrated organizational or systemic barriers. For example, interviewees cited time limits for skill testing that may put those who require translation services at a disadvantage; unstructured interviews that may cause extreme anxiety for someone with autism and online applications that force persons with disabilities to disclose information about their disability without context (e.g., graduation from a specialized high school).

Physical barriers reported by interviewees included difficulty navigating a changing physical layout, particularly for those who are blind; access to transportation (e.g., unreliable/inaccessible public transit

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[69] Concept was coined by Dr. Susan Scott Parker, founder and CEO of Business Disability International http://www.businessdisabilityinternational.org/

system); and inaccessible infrastructure. The inaccessibility of the built environment was a recurring challenge identified by some of the interviewees. Specifically, interviewees located in St. John's, Newfoundland mentioned the small, inaccessible spaces that are typical of historic buildings; the lack of modernization of buildings (e.g., lack of elevators in buildings); and narrow, uneven or sloping sidewalks*.* In regards to transportation, interviewees noted that transportation may not be readily available or the cost may be too high. Without sufficient and accessible transportation persons with disabilities may not be able to get to and from a job.

One interviewee spoke about the link between disability and poverty. Some of the interviewees linked this to transportation challenges and others to availability and access to technology. It was also noted that funding for necessary employee support can be limited.

> "...many of the people we work with receive income support and live below the poverty line. Transportation, affordability of bus passes, buying clothes, access to laundry facilities to be able to have clean clothes can be a barrier. People can sometimes find that they don't know how to work around that – if you don't have the money for transportation, how do you get places."

> "Funding is a barrier – employee support funding and job coach funding is very limited for many employment services for persons with disabilities."

Access to technology was cited as a barrier given common recruitment practices. Online job postings and applications are common and can be challenging for persons with disabilities to access and navigate. Even individuals who have access to technology may not be able to access online postings and applications as most businesses post job advertisements on inaccessible websites, or the websites were built for keyboard functionality. Interviews indicated that most HR practices are not inclusive. Access to wifi was brought up by multiple interviewees as a barrier. Many of the assistive products that were referenced in the interviews were app based. For example, technologies such as VRS, which is an app in which a person with a hearing impairment can access an interpreter to interpret conversations in real time, requires connectivity. Both the availability and affordability of technology were referenced by interviewees as important factors affecting workforce participation for persons with disabilities.

> "Whole job search process is not personal, it's all online. Managers do not meet persons with disabilities face-to-face and therefore persons with disabilities don't get a chance to "sell themselves" to potential employers."

> "Employer engagement – we don't have conversations with employers about what graduates look like. Employers are not supported to see the different needs of students. Students with disabilities are always tacked on as an afterthought; but it's an untapped pool that employers haven't considered. Every conversation MUN has with employers should ask about the accessible work environment."

Barriers Transitioning to the Workforce

When asked specifically about what challenges students with disabilities face in transitioning to the workforce, interviewee responses echoed the comments on barriers persons with disabilities face in general engaging in the work force. Attitude-based barriers remained the primary challenge for new entrants into the job market. Interviewees suggested that most employers are not willing to hire persons with disabilities, in part due to misconceptions around the high cost and the effort employers believe is required to support persons with disabilities in the workplace.

> "[Employers] see the disability first before the candidate; employers are biased against new graduates with disabilities."

Other interviewees suggested that inconsistencies in schooling experiences can lead to students being unprepared. Alternative programming is available to some students but the curriculum is up to the discretion of the teacher.

> "It's really inconsistent. It depends on the school how prepared you are and there is no quality control on programming."

It was also noted that the switch from youth to adult services can be a challenge. When students hit 18 they move from services that were available as a youth to having to navigate eligibility of adult services.

> "…that transition is enormous, at a time when all sorts of other stuff is happening, and this can be a huge burden. "

Interviewees suggested that attitudinal barriers are compounded by common barriers faced by all new graduates, such as lack of experience. It was also noted that for what resources are available to support students, individuals do not know where to go to find details, and often those who provide resources provide outdated technology.

> "(persons with disabilities graduates) have the barriers they face on a daily basis on top of the whole process of not having work-related experience because they're recent graduates. Therefore, persons with disabilities are double burdened by lack of experience and by organizations who are leery of hiring persons with disabilities or perceived to have negative attitudes towards persons with disabilities."

> "Unfortunately, it goes back to stigma – even with the qualifications, there are questions about their ability, cost of hiring them. Poor employer awareness.

Persons with disabilities will go to school; but in general this group of persons –
of which there are many - are "vastly underemployed or unemployed," because
of the misconception among employers."

Effective *Practices* in Assisting Persons with Disabilities in Labour Force Participation

When asked about what practices interviewees felt were effective in assisting persons with disabilities engage in the labour market, the main practices mentioned were internships, wage subsidies, flexible work arrangements/practices and inclusive recruitment and selection practices.

Almost all interviewees cited internships and wage subsidies as frequently used and effective practices that provide an opportunity for persons with disabilities to get experience and combat some of the misconceptions that employers may have about disability.

"A large number of job offers originated from internships. In many cases the
instructors of the internship were impressed by the intern and took the initiative
of finding, sometimes creating, a job for our customers. While internships are
sometimes criticized as a form of exploitation, if they last longer, it is my
experience that internship provide not only work experience but are also a door
opener for a job in the same firm."

"Supports that convinced employers to give persons with disabilities a chance,
are subsidies."

"We offer internships and wage subsidies for businesses."

"For us, wage subsidies are good incentives for employers to take a chance on
persons with disabilities (subsidized work placements). This is best practice,
because it helps persons with disabilities get their foot in the door. It's also a
cost saving opportunity to small organizations, helps local businesses. In turn,
the businesses will be in a better position to sustain the individuals employment
once the placement ends."

Job coaches were also frequently cited as a proven and effective practice to support employment of persons with disabilities. One interviewee did note the challenge with the job coach transitioning out of the support relationship.

"Job coach, to guide the participant and help the staff with diversity training.
This practice has been very successful."

"Job coaches – we've used job coaches in the past, but the issue is that the job coach goes on and on and does not wean away."

Early transition planning and customized employment (for those with extreme disabilities) were also mentioned, as was industry specific disability forums, such as those run by the oil and gas industry. Training and mentorship programs were also provided as examples. Training was cited for both persons with disabilities (on how to use adaptive technology) and employers (on inclusivity and how to interact with persons with disabilities).

One interview notes that regardless of the practice, the most successful practices provided support for both individual and employer.

"The most successful practices have a "warm-handover" context in which graduates and employers are both supported, and support eventually is taken away once this is stabilized."

Most Effective Practices

Interviewees ranged in their view of the most effective practices; however, many of the responses suggested that the most effective practices are flexible in how they are applied and support both the employee and the employer.

"While job coaching can be the deciding factor of job maintenance at an initial stage, the job coach remains an external person and it is the mentor within the company who can facilitate actual inclusion within the firm and its staff."

"I have seen several projects, and the more successful ones were usually those with greater flexibility…to ensure customer-led, individual work, the regulations have to give some freedom to the work assistance project."

"Not one more than other is effective – taking part in numerous practices like counselling and work placements are equally important."

"Organizational support for the employer. Letting the employers know that the support is there – whether its financial or professional support like conducting assessments, constant communication. Employer needs to know what other services or resources are available."

"Work placements work really well, but must be run and organized by people who understand the needs of [persons with disabilities]."

Practices to Support Transition from Education to the Workforce

Many of the practices cited as effective are aimed to be beneficial for student to workforce transition. Wage subsidy programs and internships in particular tend to be recent graduate programs.

Interviewees noted raising awareness among employers as crucial (e.g., their state of in/accessibility, how to build disability confidence, etc.). A government department and a support organization were also singled out.

> "Government provides funding to a number of different organizations – Labour Market partnership with AESL does a lot to increase workforce participation."

> "Human resources secretariat… are active in working with organizations to ensure that employers are focused on disabilities workforce participations."

Effective *Products* in Assisting Persons with Disabilities in Labour Force Participation

Interviewees suggested a number of products that they had experience with or knew were frequently used by individuals that they work with. Products that were mentioned included a number of adaptive technologies such as screen readers and apps such as Face time and VRS[70]. Kertswell; speak to text technology and "JAWS" were mentioned.[71] Adapted furniture was also listed such as accessible furniture and accessible work stations. Interviewees indicated that there are a number of products available but that persons with disabilities and employers are not always sure how and where to access these products.

> "There are lots of accessories that can be used, nothing in particular is better than the other. However, the issue is that people don't know where to go to get the resources (true for both transitioning persons with disabilities and those entering the workforce generally)."

> "Standard workstations that are spacious enough for a wheel chair; employers should build their businesses or organize their buildings to be accessible from the get go (e.g., accessible washrooms). Special doors are the most important."

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[70] VRS is a service in which a deaf person can call an interpreter through facetime, who is able to interpret a conversation between a deaf person and a hearing person. The service is based in Ottawa. More information can be found here: https://srvcanadavrs.ca/en/

[71] JAWS are screen-reading software, more information can be found here: http://www.freedomscientific.com/Products/Blindness/JAWS

Most Effective Products

Although some interviewees cited products that they use or are familiar with, most interviewees were not sure how to answer this as they felt that effectiveness was less about the product itself and more about what works for an individual based on preference and familiarity.

"Nothing is considered more useful/more effective than other products, it's too individualized to answer"

Most Effective Products for Transition to the Workforce

Similar to the general discussion on the effectiveness of products overall, most interviewees indicated that effectiveness of products specifically for transition from post-secondary to the workforce was individualized.

"No – comes down to the individual. Same as earlier – alternative formats for training and support working. persons with disabilities should have their adaptive technology from school; free products are available, just need to help these individuals locate the software.

"Laptop computers are the most effective, but ultimately this depends on the type of work (e.g., bricklaying vs office job) and the individual."

Barriers to Accessing or Utilizing Assistive Product or Aids

The majority of the interviewees comments focused on cost or the lack of awareness about where to access products. Individuals/employers are not aware of how to go about accessing necessary aids and assistive technologies. Based on interviewee feedback, attitudinal barriers also play a role in impeding access to assistive products or aids. Some interviewees suggested persons with disabilities may go without needed assistive technologies because they are unwilling to disclose their disability to an employer.

"VRS and Skype are dependent on a connection; affordability of wifi – many don't have access to wifi"

"Where to find the products; cost of products; where to find funding support to secure resources."

"Lack of funding – [there is funding to] cover some adaptive equipment, but it's often on the employer to have this equipment made available."

Role of Industry

Many interviewees shared positive views of industry making strides to create adaptive workplaces and to ensure that organizational practices are inclusive. Although in many cases it was noted that positive momentum was often seen in larger organizations and specific industries rather than smaller businesses. Interviewees indicated that they noticed an increase in accessible buildings and willingness to provide individualized support in recent years, although there is a lot of room to grow and it is not evident across all industries/businesses.

> "Some enterprises are especially dedicated to promoting inclusive employment and cooperate with workshops or schools, to provide internships and later on jobs."

> "Oil and Gas will specifically reach out to persons with disabilities and report on this every year. It's not a stellar percentage – less than 1% - but it's something they continue to focus on."

A few interviewees did not share a positive view of industries' current role in working toward increasing labour force engagement of persons with disabilities.

> "Not doing very much, there are ongoing issues with misconception, attitudinal problems among employers."

> "for the most part, it's because of the lack of support within industry that so many barriers to employment exist"

Interviewees suggested that industry should be willing to provide internal supports to persons with disabilities including adaptive business practices like flexible shifts. Interviewees mentioned that industry should be encouraging self-disclosure of impairments and show a genuine desire and stated commitment to a diverse workforce. More inclusive recruitment and selection practices were also cited.

> "In St. John's, not a lot of workplaces are incorporating or setting their own targets for persons with disabilities."

Role of Educational Institutions

Most interviewees feel that in general post-secondary institutions are currently not helpful in supporting students with disabilities' transition to the workplace. Where resources do exist, students are often unaware of the supports. Interviewees varied on the level of support they felt post-secondary institutions currently provide and should provide.

"Educational institutions are generally not helpful – no mechanism set up to support anyone to enter the workforce. – unless they have work placements. But even then, educational institutions are not helpful, people are on their own."

"More supportive than employers; there are centres that provide services dedicated to students with disabilities. However, there still remains the problem of whether or not students are aware of the services."

Interviewees indicated that dedicated offices, internships and Individualized Service Support Plans done in collaboration with the student should be offered. Interviewees indicated that post-secondary institutions should pull in external supports to provide additional guidance to students with disabilities. Interviewees felt that while post-secondary institutions may offer general transition support, customized personalized support is needed.

"Secondary institutions are doing very little, if anything, to help transition individuals to the workforce or post-secondary institution. Students are missing the opportunities to access the community (e.g., co-op programs)"

When asked about specific practices or products used by educational institutions to assist persons with disabilities in their transition from education to the workforce, most interviews suggested the responsibility lies with the student. Some interviewees did identify the Blundon Centre as an excellent support.

Role of Government and Community

Interviewees felt that in general, government was providing valuable funds to support organizations, research and programs like relevant work assistance, return to work projects, subsidies for workplace adaptation, personal assistants and mentors as well as subsidies for employers.

"Government has been willing to step up, particularly in an economic climate that is financially desperate. We have supportive employment agencies, community programs, and support to other agencies, all because of government funding."

"They have an appetite to help!"

Overall the interviewees were positive about the role government is currently playing in supporting persons with disabilities; however, the fear of losing funding and continuity of funding was mentioned. Additionally, some interviewee responses indicated that program criteria can be restrictive and that uptake on some programs is low. These may be greater challenges for specific impairments such as individuals who are deaf and those living with autism.

"Wage subsidy is offered – but no one to my knowledge has availed of the services. In 10 years, not one employer has used that service."

"Services only available for those with IQ under 70. No services for individuals with autism, only those with intellectual disability. More services needed for those with autism, particularly outside of st. john's."

When probed for what role government should play, in addition to funding, many interviewees mentioned raising awareness. For example, government could increase awareness by giving bite to legislation. Interviewees also mentioned wage subsidy programs, setting targets for hiring and extra funds for adaptive technology.

" Employers need the support to make their environments successful. Gov't should be a leader in practicing disability confidence"

"Government should raise awareness among employers and general public that supporting persons with disabilities would ultimately help improve bottom line for the province, for the business."

Community Agencies

Interviewees felt that community agencies primarily offer resources and support services. Most interviewers indicated that the agencies work well together. One interviewee indicated that there are duplication of services and that the agencies are primarily located in St. John's and it can be difficult to locate services in rural areas.

"Community agencies/organizations provide the resources, information, expertise and services to support persons with disabilities. A lot of groups do programming. However: there are not enough resources; need funding; Non-profits, charities are lacking in funding/resources."

"They provide some additional subsidies and fund projects such as social enterprises etc, depending on their competencies. They usually have unemployment services."

"Lots of community networking – we try to work together."

> "We're always connected; we get referrals from other agencies; always open communication; a lot of community networking; job referrals, etc."

One interviewee indicated that the goal of the community agencies should be to put themselves out of work, but overall most interviewees suggested the role of the community agency is to provide individual and organizational support. Interviewees listed skill development such as resume writing and interview practice, to mentorship, as linking potential employees and businesses as well as funding for campaigns to battle misconceptions.

> "I'd like to have funding for advertising; media; to improve the misconceptions about what [persons with disabilities] can do. That's a big project. I have seen others do it, like Stella's Circle, and everyone knows they're there. I wish we had something similar to that."

Appendix D: Online Questionnaire

To provide persons with disabilities in the communities in Newfoundland and Labrador an opportunity to provide

Online Invitation – General Population

To be provided by Research Now

Ages 18-65, individuals with a disability – self identified by screener questions
Survey Length: Approximately 10 minutes

Survey Deadline: March 3, 2018

Thank you in advance for your participation in this survey. We appreciate your input. When you are ready to begin, please click the link below.

<Insert Link>

If you require assistance accessing the survey or require an accommodation to participate, please reply to this e-mail and the survey administrator will address any issues or concerns you may have lsarson@mqoresearch.com

This study is registered with the Canadian Marketing Research and Intelligence Association (MRIA). If you would like to contact the MRIA to verify the legitimacy of this research study or our company please visit http://www.surveyverification.ca or call 1-888-602-6742 ext. 8728 toll free and reference survey:

S1. Do you have difficulty hearing, seeing, communicating, walking, climbing stairs, bending, learning or doing any similar activities?

No	01	**Continue to S2**
Sometimes	02	**Continue to S3**
Often	03	**Continue to S3**
Prefer not to say	98	**Continue to S2**

Programming Note: For 01 or 98 continue to S2, 02 and 03 continue to S3

S2. Does a physical or mental condition or health problem reduce the amount or kind of activity you do?

No	01	**Thank and Terminate**
Sometimes	02	**Continue to D1**
Often	03	**Continue to D1**
Prefer not to say	98	**Thank and Terminate**

Programming Note: For 01 or 98 thank and terminate, 02 and 03 continue to D1

S3. Do you have a disability in any of the following categories? Please select all that apply to you.

Seeing	01
Hearing	02
Mobility	03
Flexibility	04
Dexterity	05
Pain	06
Learning	07
Development	08
Mental/psychological disorder	09
Memory	10
Prefer not to say	98

Programming Note: Eligible if responding to S3, all continue to D1

D1.   Into which of the following categories does your age fall?

18 - 21	01
22 - 25	02
26 - 35	03

36 - 45	04
46 - 55	05
56 - 65	06
65 plus	07 **Thank and Terminate**
Prefer not to say	98 **Thank and Terminate**

Programming Note: Thank and terminate if 65 or older

D2.   What is the highest level of education you have <u>completed to date</u>?

High school or less	01
Community College Diploma or Certificate	02
Bachelor's Degree	03
Post-Graduate Degree (Master's, PhD)	04
Prefer not to say	98

EMPLOYMENT

Q1. Which of the following best describes your current employment?

Employee	01
Self Employed	02
Working in a family business without pay	03
Not currently working	04
Prefer not to say	98

Q2. Which of the following best describes your current employment?

Part time (less than 30 hours per week)	01
Full time (30 hours or more per week)	02
Prefer not to say	98

Q3. Does your work require the level of education you have?

Yes	01
No	02
Prefer not to say	98

WORK FORCE PARTICIPATION – BARRIERS AND SUPPORTS

Ask All:

Q4. What are the biggest barriers or challenges you have faced, if any, participating in the workforce (finding and keeping employment)?

Products

The next set of questions will ask you about your experience with **products** that support workforce participation or finding and keeping employment.

Examples of products include: computers with specialized software or adaptations (e.g., braille, screen magnification software, voice recognition software or screen reader), special transportation, accessible washrooms, Communication aids (e.g., Braille or large print reading material or recording equipment) etc.

Q5. Can you describe any assistive **products** that you use that support your ability to participate in the workforce (find and keep employment)?

Q6. In your experience, of those **products** that you listed, which are the most effective and useful in assisting in workforce participation (finding and keeping employment)?

Q7. Are there any barriers or challenges you have faced in trying to utilize or access any of the **products** that you mentioned?

Practices

The next set of questions will ask you about your experience with **practices or resources** that support workforce participation or finding and keeping employment.

Examples of practices that support workforce participation include: internships, mentorships, funding programs for assistive products, transition plans from education to employment, offering wayfinding, subsidy programs etc.

Q8. Can you describe any **practices or resources** that supported your ability to participate in the workforce (find and keep employment)?

Q9. In your experience, of those **practices or resources** that you listed, which are the most effective and useful in assisting in workforce participation (finding and keeping employment)?

Q10. Are there any barriers or challenges you have faced in trying to utilize or access any of the **practices or resources** that you mentioned?

Q11. **Programming Note: ask only if responded 02, 03, 04 to D2.** Can you describe any **products practices or resources** that specifically supported your transition from post-secondary education into the workforce?

Q12. Do you believe it is difficult to obtain required supports or accommodations for your work?

Yes, very difficult	01
Yes, difficult	02
No, not difficult	03
Prefer not to say	98

DEMOGRAPHICS

D3.   Please indicate your gender:

Male	01
Female	02
Other	03
Prefer not to say	98

D4.   In what town or community do you live?

_____

Thank you very much for taking the time to participate in this survey.

Appendix E: Online Questionnaire Summary

S0. Question to confirm participant lives in NFLD

S1. Do you have difficulty hearing, seeing, communicating, walking, climbing stairs, bending, learning or doing any similar activities?

	n	Percentage
Total (n)	95	100%
No	27	28%
Sometimes	52	55%
Often	16	17%

S2. Does a physical or mental condition or health problem reduce the amount or kind of activity you do?[72]

	n	Percentage
Total (n)	27	100%
No	0	0%
Sometimes	23	85%
Often	4	15%

S3. Do you have a disability in any of the following categories? Please select all that apply to you.

	n	Percentage
Total	68	100%
Pain	68	53%
Flexibility	36	41%
Seeing	28	29%
Mobility	20	29%
Hearing	20	19%
Memory	13	12%
Mental/Psychological disorder	8	10%
None of the above	7	9%
Development	6	6%
Dexterity	4	6%
Learning	4	4%
Prefer not to say	3	1%

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[72] SUBSET: Those who said they do NOT have difficulty hearing, seeing, communicating, walking, climbing stairs, bending, learning or doing any similar activities

D1. Into which of the following categories does your age fall?

	n	Percentage
Total	95	100%
18 - 21	1	1%
22 - 25	1	1%
26 - 35	10	11%
36 - 45	18	19%
46 - 55	36	38%
56 - 65	29	31%

D2. What is the highest level of education you have <u>completed to date</u>?

	n	Percentage
Total	93	100%
High school or less	25	27%
Community College Diploma or Certificate	41	44%
Bachelor's Degree	19	20%
Post-Graduate Degree (Master's, PhD)	8	9%

EMPLOYMENT

Q1. Which of the following best describes your current employment?

	n	Percentage
Total	93	100%
Employee	25	27%
Self Employed	41	44%
Working in a family business without pay	19	20%
Not currently working	8	9%

Q2. Which of the following best describes your current employment?

	n	Percentage
Total	58	100%
Part time (less than 30 hours per week)	14	24%
Full time (30 hours or more per week)	44	76%

Q3. Does your work require the level of education you have?

	n	Percentage
Total	60	100%
Yes	41	68%
No	19	32%

WORK FORCE PARTICIPATION – BARRIERS AND SUPPORTS

Ask All:

Q4. What are the biggest barriers or challenges you have faced, if any, participating in the workforce (finding and keeping employment)?

Approximately half of the participants reported experiencing no barrier or challenges (49%). Those who did report a challenge most commonly cited barriers directly related to their disability or health, the need for accommodation or cited the economy and difficulty finding work in general.

Theme	Examples
Barriers directly related to disability or health	"Tremors which cause my hands to shake when I eat, drink & hold the tools on which I do measurements with." "Memory" "Mobility"
Need for accommodation	"Before receiving my hearing aids I found it difficult to understand customers and had to keep asking them to repeat themselves. Had to save up for the hearing aids." "Accommodations in seating; rest." "I have an injury to my foot that prevented me from doing home visits as required by by employment. I was sent home and had to fight to get back to work. The employer does not seem to understand my limitations."

Economy	"No local employment" "No hiring" "Very little employment in my area of residence"

Q5. Can you describe any assistive **products** that you use that support your ability to participate in the workforce (find and keep employment)?

More than half of participants reported using no aids or assistive products (67%). The most commonly cited types of aids and assistive devices included sensory aids (visual and hearing), computer access and mobility aids. Modified furniture/furnishings were also mentioned by a couple of participants and one individual used an orthotic aid.

Theme	Examples
Sensory aids (visual and hearing)	"Finally saved enough to obtain hearing aids." "hearing assist as well as textual conversations." "Vision"
Mobility aids	"Cane" "Ankle braces or a knee brace."
Computer	In this category four participants simply listed 'computer' 'or computer system' as an aid, participants did not specify how the computer was utilized as an aid, what apps or systems might be used.

Q6. In your experience, of those **products** that you listed, which are the most effective and useful in assisting in workforce participation (finding and keeping employment)?

Few participants (28%) provided specific products and instead offered general categories. In line with the types of aids the participants indicated that they use, sensory aids (visual and hearing), computer access and mobility aids were among the most commonly cited. One individual did cite, "workplace accommodations, working from home."

Q7. Are there any barriers or challenges you have faced in trying to utilize or access any of the **products** that you mentioned?

The majority of participants (82%) indicated that there were no barriers or challenges to accessing or utilizing the products they used. Those that did indicate barriers cited cost and one individual referenced access to products in their area as a challenge.

"Limited products in my location."

"A lot are not covered by government or employer insurance."

"…they usually are high price and they are not covered under health plan."

Q8. Can you describe any **practices or resources** that supported your ability to participate in the workforce (find and keep employment)?

Two thirds of the participants (75%) indicated that there were no resources or practices available to them that supported their ability to participate in the workforce. Those that did cite useful practices cited flexibility and openness of their work place, training, online resources and access to occupation and health nurses and occupational therapy assessments. Two participants cited a specific program, the return to work program and another cited the fit for work organization.

Q9. In your experience, of those **practices or resources** that you listed, which are the most effective and useful in assisting in workforce participation (finding and keeping employment)?

The most effective practices varied, in part based on impairment and need. Some examples of responses cited include access to occupational therapy assessments, flexible work environments, government funded training, online courses and books.

Q10. Are there any barriers or challenges you have faced in trying to utilize or access any of the **practices or resources** that you mentioned?

Outside of barriers related to a participants disability (e.g., movement and standing, pain etc.) participants cited cost or lack of resources, wait times and availability in the participants' community as barriers to accessing and utilizing needed practices or resources.

"There are no resources to help. I sink or swim on my own."

"the wait time and the money costs involved."

"location of program is not in local community."

Q11. Can you describe any **products practices or resources** that specifically supported your transition from post-secondary education into the workforce?

Most participants (81%) indicated that there were no products or practices that specifically supported transition from post-secondary education to the workforce. Those that did cited, work term placement, volunteering, government website, funding/scholarship, on-site training

Q12. Do you believe it is difficult to obtain required supports or accommodations for your work?

	n	Percentage
Total	86	100%
Yes, very difficult	14	27%
Yes, difficult	21	44%
No, not difficult	51	20%

DEMOGRAPHICS

D3.   Please indicate your gender:

	n	Percentage
Total	95	100%
Male	46	48%
Female	49	52%

D4.   In what town or community do you live?

	n	Percentage
Total	90	100%
St. johns	35	39%
Corner Brook	7	8%
Goose Bay	5	6%
Mount Pearl	4	4%
Conception Bay South	3	3%
Grand Falls	3	3%
Port aux Basque	3	3%
Burgeo	2	2%
Paradise	2	2%
South Brook	2	2%
Stephenvile	2	2%
Botwood	1	1%
burin	1	1%
Burlington	1	1%
Carmanville	1	1%

Clarenville	1	1%
Cupids	1	1%
Dover	1	1%
Gambo	1	1%
Grand Bank	1	1%
Happy Valley	1	1%
Hare Bay	1	1%
Jackson's Arm	1	1%
Labrador City	1	1%
Lewisporte	1	1%
Marystown Nl	1	1%
Placentia	1	1%
Roberts Arm	1	1%
St Joseph's	1	1%
Sunnyside	1	1%
Torbay	1	1%
Triton	1	1%
Whitbourne	1	1%

Appendix F: Inventory of Resources

Please see appended excel file.