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Inclusive Postsecondary Education and Decent Work: Effective links for young adults with disabilities

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It is the hope of Eviance that the findings outlined in this report are used to inform policy and practice and improve inclusivity of people with disabilities in society both in Canada and abroad.

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1. Introduction

Purpose and Scope

It is well established that education, and postsecondary education in particular, has a strong bearing on the likelihood of a person having a job, which in turn has a major bearing on their income. Postsecondary education (PSE) is a strong predictor of having a job and a decent income (Azevedo et al., 2013; International Labour Office, 2003; Organisation for Economic Co-operation and Development, 2017; Till et al., 2015). Such linkages between postsecondary education, employment, and income prevail for people with and without disabilities. However, relatively little is known about the quality of PSE that young adults with disabilities experience and how the quality of their PSE is associated with the nature and quality of work they obtain.

This study provides an analysis of the nature, quality, and selected employment outcomes of the postsecondary educational experiences of young adults with disabilities, 18 to 34 years of age. Basic comparisons are drawn between young adults with and without disabilities. However, major focuses of the research are the factors that contribute to high-quality versus low-quality PSE for young adults with disabilities, and to their high-quality and low-quality employment and joblessness. An aim of the research is to identify and encourage the scaling up of policy and practices that optimize the likelihood that young adults with disabilities will obtain both good-quality PSE *and* employment that is consistent with "decent work" as the International Labour Organization (ILO) has defined it. The present study found that there are indeed important linkages between the quality of PSE that young adults with disabilities experience and whether they will hold high-quality versus low-quality employment or no employment at all.

Detailed definitions of high-quality versus low-quality PSE and work are provided in Sections 5 and 7, and in the discussion on Methodology in the Appendix. Briefly, however, PSE can be considered high-quality, and work can be considered decent, where they include and support all PSE students or workers to thrive and succeed. High-quality PSE is realized in colleges, CEGEPs, trade schools, universities, and other PSE institutions. Decent work can be realized in private-sector and public-sector places of employment. In high-quality PSE and work, inclusion and the availability of support prevail regardless of a person's age, gender, race, ethnicity, income, region of the country, type of community, type or degree of disability, field of study or work, or other differences. Low-quality PSE and work fail across many of those domains. This study has an age restriction in that it focuses on young adults with disabilities 18 to 34 years old. However, it addresses many of the other differences that characterize this highly diverse group of people.

The research has drawn from a review of the literature to pinpoint key themes of interest, and microdata from the Canadian Survey on Disability (CSD) of 2017, including data from the Census of 2016 that are available in the CSD data file. The CSD is Statistics Canada's flagship survey on disability, versions of which have been conducted about every five or six years since 1986, with the exception of the mid-1990s. More details about the CSD are provided in the Definitions subsection (below) and in the Appendix.

The discussion in the rest of the present section provides an overview of this report's contents, definitions of key terms used throughout, a brief description of the research methodology, and a thumbnail sketch of a few key themes drawn from the scholarly literature. A comprehensive literature review has been produced as a separate document.

Other sections of the present report are as follows:

- Section 2 provides basic demographic information and analyses. This information serves as general context for the more detailed information relevant to postsecondary education that follows in the subsequent sections.
- Section 3 provides information and analysis on the highest level of schooling that was attended by young adults without and with disabilities in the nine months leading up to the Census of 2016. Section 3 also provides additional details on the PSE attendance of young adults with disabilities based on the CSD. Included in this section is an examination of the odds of young adults with disabilities attending college/CEGEP/trade school and university.
- Section 4 begins to focus on issues in postsecondary education that affect young adults with disabilities. It looks at the extent to which various supports are needed for PSE (built environmental, curriculum and procedures, materials, technologies, human support, and miscellaneous other supports), and the extent to which young adults with disabilities have ever felt avoided, left out, or bullied at school because of disability or have incurred additional costs for education because of disability. Section 4 also provides a discussion on the equity of the distribution of young adults with disabilities across various fields of academic study.
- Section 5 builds on the information covered in sections 2 through 4 and focuses specifically on the quality of education young adults with disabilities have experienced at college/CEGEP/trade school and university and on experiences of high-quality versus low-quality PSE. The section draws from a conceptually straightforward but operationally complex methodology that is explained briefly in Section 5 and in more detail in Part 1 of the Methodology subsection the Appendix.
- Section 6 pursues an intersectional analysis of the factors associated with and that most strongly predict whether young adults with selected intersecting characteristics graduate from PSE.
- Section 7 examines at the relationship between the quality of work young adults with disabilities obtain − or their joblessness − and a range of sociodemographic factors and

other factors related to PSE, including the quality of PSE that young adults with disabilities have experienced.

- Section 8 teases out key findings based on a comprehensive review and summary of findings from Sections 2 through 7.
- Section 9 provides high-level policy and practice directions for government ministries responsible for postsecondary education, postsecondary administrators, professors, instructors, and other PSE staff. To better understand the directions provided and to carry them into action would require attending in detail to the voices and experiences of diversely located young adults with disabilities, which was beyond the scope of the present study. The recommendations focus on scaling up conditions in PSE that the present study identified which contribute to high-quality postsecondary education and positive employment outcomes. The recommended directions also focus on reducing the conditions in PSE that result in low-quality experiences of college/CEGEP/trade school and university and that result in poor employment outcomes.
- Section 10 concludes the report and serves as an executive summary of key findings and directions for policy and practice.
- The appendixes provide more in-depth explanations of complex terms than are provided in the Definitions (below). The Appendix includes a two-part discussion of how the CSD was used to derive variables for 1) focusing on PSE, and 2) focusing on the quality of work held by PSE students and graduates. The Appendix also contains detailed tables that provide more detail than those included in the body of the report.

Definitions

The following definitions are for key terms that are used frequently in this report.

Age group. Except where indicated otherwise, this report focuses on young adults 18 to 34 years of age.

BIPOC (Black, Indigenous, and People of Colour). This category includes Indigenous and racialized people. In the CSD, these are discrete (non-overlapping) categories. See the definitions of those terms below.

Canadian Survey on Disability (CSD). The 2017 Canadian Survey on Disability (CSD) is Statistics Canada's national "flagship" survey of Canadians aged 15 and over whose everyday activities are limited because of a long-term condition or health-related problem. The Appendix provides further details. "Raw" microdata from the CSD include data from the Census, which allow for some limited comparisons between people with and without disabilities.

Census. The Canadian Census of Population is conducted every five years. It counts the number of people living in households in all regions of the country. The Census captures information about people's age, sex, type of dwelling, families, households and marital

status, living arrangements, language, income, immigration and ethnocultural diversity, Indigeneity, housing, education, labour, transportation to work, language of work, geographic mobility, and migration. Statistics Canada makes Census-based information for people with and without disabilities available on the "raw" microdata file that contains detailed data about disability that was captured through Canadian Survey on Disability. On Census-based details (e.g., age, sex, ethnocultural diversity, Indigeneity), comparisons can be drawn between people with and without disabilities.

College/CEGEP/trade school. In the discussion that follows, the term "college/CEGEP/trade school" is a shorthand term used to refer to students who have attended any of these types of institutions, or another non-university postsecondary institution such as a technical institute. CEGEP is an acronym for *Collège d'enseignement général et professionnel*, which is general and vocational college.

Decent work. "Decent work" satisfies the International Labour Organization's (ILO) requirements across several major domains that the ILO calls the Substantive Elements of decent work. Generally, work can be considered "decent" or of high quality to the extent that it includes and supports all workers to thrive and succeed, whether with private-sector or public-sector employers. In high-quality work, inclusion and support prevail regardless of a person's age, gender, race, ethnicity, income, region of the country, type of community, type or degree of disability, occupation, industry, or other differences. Low-quality work fails across many of these domains. For more details, see Section 7 and Part 2 of the methodology subsection in the Appendix.

Disability. Disability can be defined as the hindrances to full and equal participation in society that barriers (which include physical and social barriers) impose upon individuals who have impairments. See, for instance, Section 2 of the *Accessible Canada Act* (Canada, 2019), in which this approach to defining disability has been adopted. For the purposes of the present report, disability means the difficulties people experience in doing everyday activities that are associated with one or more long-term conditions or health-related problems which produce functional limitations or impairments, and which can be aggravated by barriers. The CSD gathered information in ten major domains or types of disability: mobility, flexibility, dexterity, hearing, seeing, developmental/ intellectual, learning, memory, psychological well-being, and pain-related disabilities. The Appendix provides further details about disability and the CSD.

Disability—Four major grouped categories. In much of the discussion that follows, some categories of disability have been grouped for the sake of simplicity and clarity, and to ensure the numbers sought from the CSD would be large enough for Statistics Canada to release. The groupings are as follows:

- Physical disability—Includes any disability in the areas of mobility, flexibility, dexterity, or pain.

- Cognitive disability—Includes any developmental/intellectual disability, learning disability, or memory-related disability.
- Any sensorial disability—Includes any difficulties with the ability to see or hear.
- Psychosocial disability—This is the same as the non-grouped category from the CSD that includes people with an emotional, psychological, or mental health condition associated with limitations in daily activities.

There is considerable overlap between these four groupings; it is fairly common for people to report a disability across two or more domains. Where feasible, this report provides information about selected subgroups included in these broad groupings of disability, such as people with a developmental/intellectual disability, learning disability, hearing or seeing disability, and disability with or without pain.

Disability—complexity. Statistics Canada has developed a four-point categorical scale to classify people according to the scope, degree, and frequency of impact that disability has upon everyday activities. The groupings are like a severity scale that consists of a mild, moderate, severe, and very severe level of impact. The scoring takes into account the intensity of difficulties a person experiences in an area of activity such as mobility or seeing (e.g., no difficulty, some difficulty, a lot of difficulty, or cannot do) and the frequency of the activity limitations in that area (never, rarely, sometimes, often, or always). A score that reflects degree and frequency of impact are assigned to each of the 10 major disability types. Those scores are then rolled up into a single overall score that is broken into four categories (mild, moderate, severe, and very severe). As that score is based on 10 sub-scores, it also reflects the scope of impacts across domains of functioning. In the present discussion, the level of "complexity" has been used to describe the impacts. See Cloutier, Grondin, and Lévesque (2018) for details on how Statistics Canada has constructed this scale.

Geographic regions. Many of the estimated numbers of young adults with disabilities who have characteristics across various descriptive categories (e.g., BIPOC, Indigenous, some major types of disability) are quite small for the provinces and territories with low populations. Accordingly, some of the provinces and territories have been grouped for some analyses. Grouped regions are the prairie provinces (Alberta, Saskatchewan, and Manitoba), the Atlantic provinces (Newfoundland and Labrador, New Brunswick, Nova Scotia, and Prince Edward Island), and the three northern territories (Yukon, Northwest Territories, and Nunavut).

Indigenous people. The CSD uses the Census definition and data for "Aboriginal" people, which the present report refers to as people of Indigenous identity or Indigenous people. This category includes people who are First Nations (Status and non-Status North American Indian), Métis, or Inuk (Inuit), and individuals who self-identify as belonging to more than one of these three groups. (For more information, see Statistics Canada, 2011, 2018b.)

Low income. The low-income variable used for the present research reflects the total household income situation of a person in relation to Employment and Social Development Canada's Market Basket Measure (MBM). People with a household income below the MBM's low-income line are considered in low income or poverty. The MBM was recently adopted as the Government of Canada's official measure of poverty (Employment and Social Development Canada, 2018a). More details about the MBM are provided in the Appendix.

Postsecondary education (PSE). For the purposes of statistical analysis with the CSD, postsecondary education (PSE) means participation in schooling beyond the high school level, such as in community college, CEGEP, technical or trade school, or university.

Quality of postsecondary education. For the purposes of the present study, PSE can be considered high-quality where it includes all young adults equitably and supports all PSE students to thrive and succeed, whether at college/CEGEP/trade school or university. In high-quality PSE, inclusion and support prevail regardless of a young adult's gender, race, ethnicity, income, region of the country, type of community, type or degree of disability, field of study, or other differences. Low-quality PSE fails across many of those domains. For more details, see Section 5 and Part 1 of the Methodology subsection in the Appendix.

Racialized identity. The CSD uses the Census definition and data on "visible minorities," referred to here as people of racialized identity. This category excludes people who self-report as Indigenous (Aboriginal). The category includes people who are South Asian, Chinese, Black, Filipino, Latin American, Arab, Southeast Asian, West Asian, Korean, or Japanese. The category includes individuals who self-report as belonging to more than one of these groups, and individuals who self-report as belonging to some other group that is "non-Caucasian in race or non-white in colour."

Weighs and weighted estimates. The CSD is a sample survey and captures information about a selected number of people with disabilities rather than all people with disabilities living in Canada. A respondent's sample weight in the CSD represents the approximate number of people with disabilities who would have answered a given CSD question if everyone in Canada with a disability had been asked the same question. Statistics Canada releases only weighted data from surveys like the CSD. For Statistics Canada to release weighted data from this survey, the unweighted count for a unit of data must represent at least 10 individuals.

Young adults. For the purposes of this research, "young adults" means people 18 to 34 years of age. However, some additional refinements to age categories were made for this research and are discussed in context in Sections 3, 4 and 5. Essentially those refinements capture people with disabilities who were younger than 35 when the CSD was conducted and who were at least 18 years old when attending school, whether the attendance was in 2017, 2016, or sometime from 2012 to 2015.

Brief Notes on Methodology

Eviance's approach

Our work at Eviance is guided by and furthers the social justice intent of the *Universal Declaration of Human Rights*, the *United Nations Convention on the Rights of Persons with Disabilities* (CRPD), and other international social justice frameworks. We are dedicated to the use of high-quality evidence in disability, inclusive of broad disability sectors' policies, programs, and practices. Our research activities include people with disabilities in constructive and meaningful ways by using methods that include intersectionality, reflexivity, and innovation. Reflexivity means that we attend systematically to the context and process of knowledge construction by facilitating the time and space to listen, share and co-create (Buettgen et al., 2018). We believe that high quality evidence does not speak for itself; it must be socialized, which involves engaging in ongoing conversations related to content, context, culture, and capacity on disability issues. Our reflexive approach also means that we attend to the effects we have, as researchers, at every step of the research process. Thus, we have attempted to be clear about our values and thoughts as these are represented in our work. We value all individuals for their knowledge and unique contributions and embrace and facilitate inclusion and intersectionality. Intersectionality is a research, policy and practice paradigm which seeks to reveal the complex interactions among multiple social categories (Hankivsky & Cormier, 2009).

Accordingly, our methodology for this project highlights the experiences of people with disabilities from marginalized communities who are diversely located. By undertaking this work, we anticipate that there will be more representation in public discourse from communities that have been historically underrepresented. While our task is complex, we hope that our inclusive and intersectional approach will help lead to a more inclusive and equitable Canada. Our aim is for the cross-disability sector to benefit from this project (including, but not exclusively Eviance and our project partners), because exploring the various ways that PSE is experienced by diversely located people with disabilities may provide stakeholders in the field with information, insight, and tools for greater equity in their awareness raising, advocacy, teaching, PSE administration, research, and other work.

For this project

Most of the analyses performed for this project were in the form of descriptive statistics (e.g., analytical reporting based on frequency runs, crosstabs, etc.). Specific techniques are explained in the body of the paper. Several binary logistical regression tables were also developed, and related analyses were performed to:

- Isolate the general sociodemographic factors and disability-specific factors most strongly associated with high-quality versus low-quality PSE and successful PSE graduation as certified by a college/CEGEP/trade school diploma or university degree.

- Pinpoint the PSE-related and other factors that are most strongly associated with students and/or graduates obtaining decent work.

Binary logistic regression is a method of inferential statistics that many statistical software packages can perform. The method calculates the discrete odds ratios (ORs) of separate predictor variables in determining an outcome. The odds ratio that something will occur is defined as the probability of an event will occur when under the influence of a predictor variable, divided by the probability that the event will not occur when under the influence of the same predictor. Binary logistic regression computes the discrete contribution of each predictor in influencing an outcome when holding a range of predictors constant in interaction with one another.

Further notes on method are provided in context throughout this report. A discussion on the variables derived for the research and other methodological details can be found in the Methodology subsection of the Appendix.

Young adults at the focus of this research

Some of this report is based in information about the education of young adults 18 to 34 years old with and without disabilities when the Census of 2016 was conducted on May 10, 2016. That information was drawn from the Census component of the CSD master file, some of which pertains to the education of young adults from September 2015 to May 10, 2016. However, most of the present report is based on information about young adults with disabilities only. That information was drawn from the CSD file. The CSD was conducted from March 1 to August 31, 2017. Drawing from that component, much of the information in this report pertains to young adults with disabilities who: a) were attending school when the CSD was conducted in 2017; or b) were not attending but had attended sometime in 2016 or 2017; or c) were not attending but attended at some point from 2012 through 2015. In all cases, the young adults with disabilities were at least 18 years old when attending and younger than 35 when the CSD was conducted.

This study includes individuals in category c) because important information is available for this group about various supports needed and available in education and other education-related details, and because their inclusion yields a subsample that is considerably larger than it would have been if the research had focused only on students who attended school in 2016 or 2017.

As the present study focuses largely on the PSE-related needs and experiences of young adults 18 to 34 years old with disabilities, several age filters were used in deriving the CSD subsample that was used. The age filters aimed to exclude people who were younger than 18 when they attended school; most of these individuals were in high school.

The age filters and age groupings for the three time periods of schooling are as follows:

a) Young adults with disabilities who were attending some form of schooling when the CSD was conducted (N = 211,660):

These CSD respondents were in the 18 to 34 age group when the CSD was conducted.

b) Adults with disabilities younger than 35 when the CSD was conducted, and who attended some form of schooling in 2016 or 2017:

Data were filtered to capture CSD respondents who were at least 18 years old when they attended. These individuals were therefore in the 20 to 34 age group when the CSD was conducted in 2017 (N = 86,880).

c) Adults with disabilities younger than 35 years of age when the CSD was conducted, and who attended some form of schooling at some time from 2012 through 2015:

Data were filtered to capture CSD respondents who were at least 18 years old when they attended. These individuals were therefore in the 23 to 34 age group when the CSD was conducted in 2017 (N = 158,110)

The upper age limit of young adults has been capped at 34 years of age when the CSD was conducted for the sake of clarity. To have extended the upper age limit by two years for category b) and by five years for category c) would not have resulted in a major increase in sample size but would have resulted in and tables and charts that would have been conceptually more complex and more difficult to explain.

Table 1.1 shows the total number of young adults with disabilities in groups a—c, filtered for age as described above, and all others 18 to 34 years old with disabilities when the CSD was conducted (group d). Those in group d) were not attending school and had not recently attended when the CSD was conducted.

Table 1.1. Present and recent young adult school attendees with disabilities: Key groups (Source: Canadian Survey on Disability, 2017)			
Key groups	**N**	**Pct of subtotal**	**Pct of grand total**
a) Presently attending at the time of the CSD in 2017, with disability, and 18–34 years old	211,660	46.4%	21.0%
b) Last attended in 2016–2017, at least 18 years old and had disability then, and maximum 34 years old when the CSD was conducted	86,880	19.0%	8.6%
c) Last attended 2012–2015; at least 18 years old and had disability then, and maximum 34 years old when the CSD was conducted	158,110.	34.6%	15.7%
Subtotal	**456,650**	**100.0%**	**45.2%**
d) All others with disabilities and 18 to 34 years old when the CSD was conducted (with no current or recent attendance at school)	552,810		54.8%
Grand total	**1,009,460**		**100.0%**

Literature Review

A comprehensive literature review was completed in conjunction with and informed the present research. The literature review has been produced as a separate document available on the project website. While the detailed literature review was being completed, the research moved forward based on the collective experience of the research team, Eviance's community advisors in the disability sector, and the senior leaders in diversity and innovation at the Canadian universities who have partnered with Eviance on this project. The research moved forward on the hypothesis that students with disabilities who have the supports they need for PSE and who have positive social experiences while studying will generally have more positive PSE experiences and will be more likely to achieve successful PSE and employment outcomes than their counterparts whose needs have not been properly met and who have undesirable social experiences while studying. PSE-related supports can include those related to accessibility in the areas of the built environment; technologies for learning; in-class and out-of-class personal support; suitable assignments, due dates, and testing procedures; diversified instructional practices, etc. At an institution-wide level, supports also include the broad cultural and pragmatic measures that senior university and college/CEGEP/trade school administrators, and individual instructors and diversity leaders, implement to foster a climate of respect, support, and safety for all students. As the remainder of this study shows, there are indeed

positive linkages between the quality of PSE young adults with disabilities experience and their employment trajectories.

However, published research tends to touch only tangentially on the above-mentioned issues for young adult PSE students and graduates with disabilities. For instance, the research shows that working-age adults with higher levels of education are more likely than others to be employed (Organisation for Economic Co-operation and Development, 2017; Till et al., 2015). Morris et al. (2018) have found that employment rates are indeed higher among adults 15 to 64 years with and without disabilities who have postsecondary credentials than among adults with high school graduation or less. Turcotte (2014) found a lower difference in the employment rates of adults 25 to 64 years of age with and without a disability who are university graduates versus college/CEGEP/trade school graduates. The employment rate difference among university graduates with and without a disability is nonsignificant where the severity of disability is mild or moderate versus severe or very severe (Turcotte, 2014). Little surprise, then, that Clarke (2018) recently found the main reason why recent university graduates with and without disabilities attended PSE was to become better equipped to start or advance in a career.

However, the Canadian Human Rights Commission (CHRC, 2017) and Shanouda and Spagnuolo (2021) describe funding and service issues that make it difficult for young adults with disabilities to gain access to PSE. Arim and Frenette (2019) found that the impact of disability in postsecondary enrollment is itself under-investigated, and that youth diagnosed in their elementary and high school years with neuromuscular conditions (e.g., ADHD) and mental health conditions (e.g., emotional, psychological, or nervous difficulties) face distinct barriers to enrolling in PSE that non-disabled school students do not face.

For young people who do manage to gain access to PSE, the CHRC (2017) – drawing from the experiences of human rights commissions and tribunals across Canada – and Shanouda and Spagnuolo (2021) explain some of the issues that create obstacles which prevent students with disabilities from obtaining the supports and certification they seek. Key issues include the insufficiency of public funding, lack of support services, the privatization of financial responsibility for dealing with the costs of disability-related supports, and the lengthier programs of study and associated costs that that many students with disabilities must undertake because of their conditions. These issues make it difficult for many students with disabilities to secure and pay for the services and technologies they need, and to bear the extended costs of living while completing PSE (see also Chambers et al., 2013). Furrie (2017) provides an analysis of the types of support in PSE for which there are significant unmet needs. The Association of Canadian Community Colleges (2009) has focused on some of the challenges students with disabilities experience in the college/CEGEP/trade school system.

Factors internal to PSE institutions present specific difficulties, including the lack of institutional awareness, and insufficient pedagogical focus and practical support to help youth with disabilities develop the career skills needed to successfully transition from PSE to work (Gatto

et al., 2020). Institutional policies around accessibility and accommodation vary across the country and are inconsistently implemented despite the widespread experience of pain, often together with mobility/flexibility, which are the most common forms of disability among PSE students, followed by issues of mental health that also loom large for PSE students with disabilities (National Educational Association of Disabled Students [NEADS], 2019). Students with learning disabilities are much less likely to be found studying at universities than at other postsecondary institutions (Furrie, 2017).

Other issues of intersectionality also warrant attention. For instance, university students with disabilities are younger on average than non-university PSE students with disabilities. The university students are more likely to identify as female, Indigenous or immigrant, and are less likely to self-identify as a member of a visible minority (NEADS, 2019). Aggravating matters is unsupportive "gatekeeping" by PSE instructors and disability services staff, which makes it difficult for students to secure the disability-related supports and accommodations they require. So does the "siloed" approach to disability accommodations that is common within PSE institutions, and the lack of universal design approaches which recognize the importance of accessible human and built environments and learning processes to support the participation and success of all students (NEADS, 2018). Flemming et al. (2017) discuss social and cultural factors that detract from students with disabilities' sense of inclusion and belonging at college/CEGEP/trade school and university. Insufficient postsecondary preparation for employment and follow-up after graduation compound these difficulties, especially for students with disabilities who are preparing for jobs in industries that require proficiency in STEM fields of study—science, technology, engineering, and mathematics (NEADS, 2018).

In terms of the general employment patterns among young PSE graduates with disabilities, little research has been conducted in Canada. Some research looks at the occupational patterns of disabled people overall, but not much research has been conducted in this area other than to point out that disabled people tend to be more involved in low-skilled jobs and less involved in management and technical jobs (e.g., Kaye, 2009; Human Resources and Skills Development Canada [HRSDC], 2010, 2011; Turcotte, 2014); the research conducted to date has not placed a significant focus on the occupations and other work patterns of recent graduates with disabilities. Contemporary evaluations of the Sectoral Initiatives Program (Employment and Social Development Canada [ESDC], 2018d) and its predecessor program in Canada suggest that major employer organizations have not been using federal program dollars in a significant way to further the professional development and certification of people with disabilities in specific industry sectors (e.g., Human Resources and Skills Development Canada, 2010).

Tompa et al. (2006) have observed that people with disabilities are more likely than people without disabilities to work part-time. Indeed, in her Royal Commission report on *Equality in Employment,* Judge and subsequently Supreme Court Justice Rosalie Abella urged that better data be captured on the representation of individuals from disadvantaged groups in various dimensions of federally regulated employment, including part-time work (Abella, 1985). Yet

modified hours of work are among the most widely needed job accommodations for workers with disabilities (Statistics Canada, 2008a; Till, Leonard, Yeung, & Nicholls, 2015) and have been associated with worker well-being (Konrad, Moore, Ng, & Doherty, 2013; Schur, 2003). Little research has been conducted on the extent to which people with disabilities, including young adult PSE graduates with disabilities, are over-represented in part-time work once their need for modified work hours has been factored into the picture.

While high-level research has been conducted on the extent of unmet need for job accommodations (e.g., Till et al., 2015), not much research has tied the extent of unmet need to the demographic characteristics of people with disabilities, such as age, gender, ethno-racial background, or type of disability. There have been a few exceptions, however (Bizier, Till & Nichols, 2014; Bizier, Marshall & Fawcett, 2014; Bizier, Fawcett, Gilbert & Marshall, 2015; Bizier, Contreras & Walpole, 2016a, 2016b). Nor has the Canadian research looked at unmet needs for job accommodations in relation to the occupations and industries of young workers with disabilities, or the reasons why job accommodations have not been forthcoming across various industries and occupations for young and older workers, or the nature and quality of the PSE young people with disabilities have experienced.

In summary, some research has been conducted on the PSE experiences of students with disabilities in Canada. However, limited research has been conducted on those experiences with attention to the following: met and unmet needs for various PSE-related supports by major fields of study; the overall adequacy of supports for PSE by type of institution (college/CEGEP/trade school and university); region of the country; type of disability; and other demographic characteristics of students with disabilities. Similarly, little research has been conducted on the nature and quality of work held by young adult PSE graduates with disabilities. The research provides only limited insight into the dimensions of the work of people with disabilities of any age that align with the International Labour Organization's (ILO) "substantive elements" of decent work (ILO, 2012, 2013). The research that has been conducted has often been done in conceptual "silos" and not well integrated to provide a more holistic understanding of which people with disabilities are in decent or less-than-decent work. Issues that need to be more fully integrated for such an analysis are the comparative adequacy of earnings; gender equity in the distribution of working people with disabilities across occupations and industries; experiences of discrimination with the present employer; job accommodations needed, provided and not provided with the present employer; job security/tenure; reasonableness and adequacy of work hours; workplace safety; and employer willingness to hire/rehire young graduates who have been recently attached to the income security system.

The present study was unable to find *any* research that looks at the relationship between the educational experiences of PSE students/graduates with disabilities in Canada and the nature and quality of the work they hold. Accordingly, the study was unable to find other research that explores a) whether there is a relationship for young graduates with disabilities between, on

the one hand, the nature and quality of their PSE experiences and, on the other, the nature and quality of work they obtain, and b) factors in PSE that need to be scaled up to optimize the likelihood of positive work trajectories into high-quality versus low-quality employment for PSE students and graduates with disabilities. The present research aims to close many of the above-mentioned knowledge gaps, particularly on the educational experiences of PSE students and graduates with disabilities and the nature and quality of the work they hold.

2. Basic Demographics

Based on the Census of 2017, young adults with disabilities make up 13.5% (slightly over 1 million) of the nearly 7.5 million young adults 18 to 34 years old in Canada. The following discussion provides basic demographic information about young adults without and with disabilities 18 to 34 years old. It covers major types of disability and the severity of disability's complexity, age distribution within the 18 to 34 age group, gender, geographic region, Indigenous identity, racialized identity, BIPOC status, and highest level of educational certification. Appendix Table 2.a provides the population counts for the charts and tables in the discussion that follows. Appendix Table 2.b provides column percentages for Appendix Table 2.a.

Type of disability and the severity of its complexity. Table 2.1 shows the major types of disability included in the present report. Overall, young adults with physical disabilities make up nearly half (49.3%) of the population with disabilities at the focus of this research. As defined for this study, anyone with a physical disability has a disability in the area of mobility (13.1%), or arising from pain (43.9%), or because of dexterity limitations (7.5%), or due to limited flexibility (17.1%). The table shows that almost nine out of 10 young adults with a physical disability have a disability related to pain (43.9% out of 49.3%, or 88.9% of all with a physical disability). This means that a great many individuals with disabilities in the areas of mobility, dexterity, or flexibility experience pain as an accompanying factor that significantly limits their activities. As can be inferred from Table 2.1, relatively few young adults (55,050 or 5.5% of the total) experience pain as their only physical disability.

Table 2.1. Major types of disability (Source: Canadian Survey on Disability, 2017)

	N	%
Any disability	**1,009,460**	**100.0%**
Any physical disability	**497,820**	**49.3%**
Mobility	132,290	13.1%
Pain-related	442,770	43.9%
Dexterity	76,150	7.5%
Flexibility	173,020	17.1%
Any sensorial disability	**257,970**	**25.6%**
Hearing	84,710	8.4%
Vision	193,270	19.1%
Any cognitive disability	**399,650**	**39.6%**
Learning-related	303,190	30.0%
Developmental/intellectual	123,690	12.3%
Memory/confusion	163,780	16.2%
Psychosocial	**546,170**	**54.1%**
(Unknown disability)	39,650	3.9%

Leaving pain aside, there are other overlaps between physical disabilities in the areas of mobility, dexterity, and flexibility, and other disabilities such as sensory, cognitive, and psychosocial disabilities. In fact, multiple disabilities are quite common. Morris, Fawcett, Brisebois, and Hughes (2018) have shown that, of all adults 15 years and over with disabilities, only 29% have only one type of disability, while 38% have two or three, and 33% have four or more.

While multiple disabilities become more common as people get older, even among youth 15 to 24 years, 19% have four or more types of disability. Furthermore, Morris, Fawcett, Timoney, and Hughes (2019) have found that, in the 25 to 34 age group, less than half (47.7%) of the disabilities reported are continuous or progressive and that the remainder (52.4%) are recurrent or fluctuating. It was beyond the scope of the present report to explore such details for the 18 to 34 age group.

Table 2.2. Severity of disability complexity among young adults (18 to 34 years old) with disabilities (Source: Canadian Survey on Disability, 2017)

Mild	522,820	51.8%
Moderate	203,660	20.2%
Severe	174,290	17.3%
Very severe	108,690	10.8%
Total	**1,009,460**	**100.0%**

That said, Statistics Canada's measure of the frequency, degree, and scope of disability's impacts (here referred to as disability's complexity) indicates that disability generally becomes more "severe" with increases in the number of functional domains that are affected, and with the frequency and intensity of the limitations experienced. Among young adults 18 to 34 years old, about half (51.8%) as shown on Table 2.2 have disability that presents a comparatively mild level of complexity. The others' disabilities present moderate (20.2%), severe (17.3%), or very severe levels of complexity (10.8%). It is important to underscore that these are relative measures. A very severe level of complexity signifies more difficulty than a severe, moderate, or mild level of complexity. However, a person with an overall level of disability classified as "mild" may have significant difficulties in one or more domains of activity. See Cloutier, Grondin, and Lévesque (2018) for details on the degrees of severity.

Age distribution. Figure 2.1 (below) shows the age distribution of young adults without and with disabilities. It shows that young adults with disabilities are a little less likely to be 18 to 24 years old (38% versus 40.1%, respectively) or 25 to 29 (28.1% versus 29.9%). In contrast, they are more likely to be 30 to 34 years of age (33.8% versus 30%). This pattern is due in part to disability becoming progressively more widespread as people get older (Morris, Fawcett, Brisebois, & Hughes, 2018).

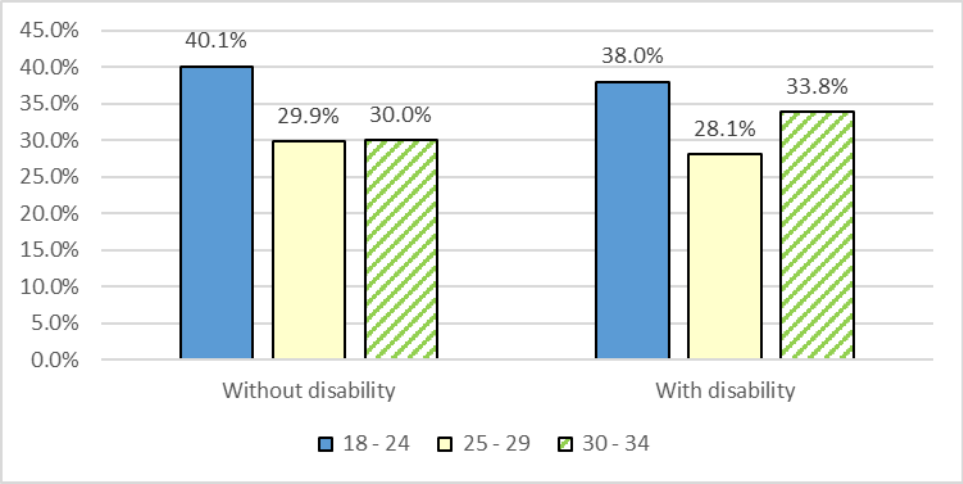


Figure 2.1
Age distribution of young adults 18 to 34 years of age, without and with disabilities
N = 6,469,810 (without disability), 1,009,460 (with disability).
From the Canadian Survey on Disability, 2017 (Census 2016 component)

Gender. The distribution across genders is roughly even among young adults without disabilities. Here, 51.8% are male and 48.2% are female. Among young adults with disabilities, however, a substantial majority are females (60.4%—Figure 2.2). The Census of 2016 and CSD of 2017 did not capture information about gender that falls outside the male-female binary.

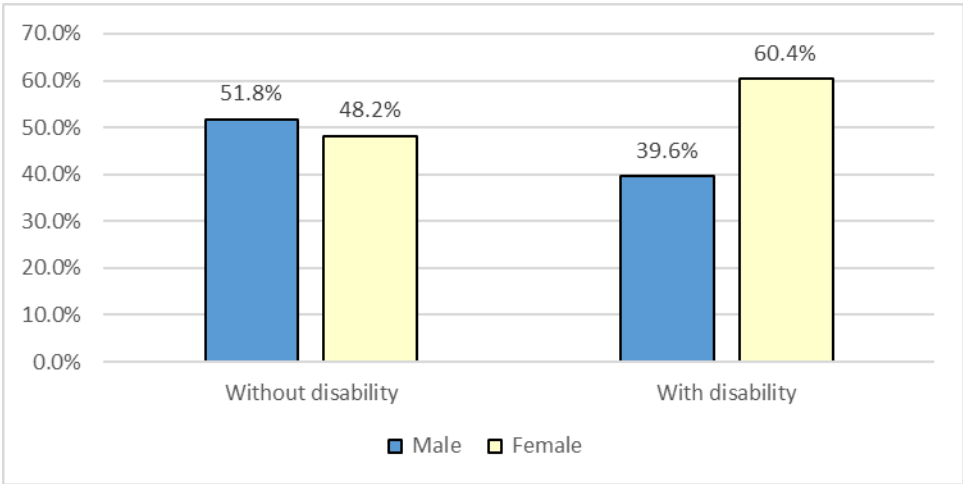


Figure 2.2
Gender of young adults without and with disabilities
N = 6,469,810 (total without disability), 1,009,460 (total with disability)
From the Canadian Survey on Disability, 2017 (Census 2016 component)

Province/territory. It was anticipated for the present research that, owing to the low numbers of young adults with disabilities in some provinces and territories, geographic regions may have to

be grouped for some lines of analysis. Accordingly, Table 2.3.a provides the numbers and percentage distributions of young adults (18 to 34 years old) without and with disabilities by major geographic region, and the regional disability rates for this age group. Table 2.3.b shows the same information for the ungrouped provinces and territories. Figure 2.3 shows in graphic form the disability rates among young adults in each of the major geographic regions and Figure 2.4 shows the regional population distributions graphically, with a focus on those without and with a disability.

Table 2.3.a. Numbers and percentage distributions of young adults (18 to 34 years old) without and with disabilities by major geographic region, and the regional disability rates for this age group (Source: Canadian Survey on Disability, 2017, with the Census 2016 component)

	Without disability		With disability		Total		Disability rate
	N	%	N	%	N	%	
British Columbia	824,530	12.7%	145,660	14.4%	970,190	13.0%	15.0%
Prairies	1,259,060	19.5%	209,750	20.8%	1,468,810	19.6%	14.3%
Ontario	2,523,680	39.0%	400,680	39.7%	2,924,360	39.1%	13.7%
Quebec	1,485,870	23.0%	167,730	16.6%	1,653,600	22.1%	10.1%
Atlantic	351,860	5.4%	81,580	8.1%	433,440	5.8%	18.8%
Northern territories	24,820	0.4%	4,060	0.4%	28,880	0.4%	14.1%
Total (all Canada)	**6,469,810**	**100.0%**	**1,009,460**	**100.0%**	**7,479,270**	**100.0%**	**13.5%**

Table 2.3.b. Numbers and percentage distributions of young adults (18 to 34 years old) without and with disabilities by province and territory, and the provincial/territorial disability rates for this age group (Source: Canadian Survey on Disability, 2017, with the Census 2016 component)

	Without disability		With disability		Total		Disability rate
	N	%	N	%	N	%	
Newfoundland and Labrador	79,260	1.2%	15,780	1.6%	95,040	1.3%	16.6%
Prince Edward Island	21,960	0.3%	4,650	0.5%	26,610	0.4%	17.5%
Nova Scotia	138,670	2.1%	37,650	3.7%	176,320	2.4%	21.4%
New Brunswick	111,960	1.7%	23,490	2.3%	135,450	1.8%	17.3%
Quebec	1,485,870	23.0%	167,730	16.6%	1,653,600	22.1%	10.1%
Ontario	2,523,680	39.0%	400,680	39.7%	2,924,360	39.1%	13.7%
Manitoba	229,910	3.6%	36,030	3.6%	265,940	3.6%	13.5%
Saskatchewan	199,420	3.1%	32,620	3.2%	232,040	3.1%	14.1%
Alberta	829,740	12.8%	141,090	14.0%	970,830	13.0%	14.5%
British Columbia	824,530	12.7%	145,660	14.4%	970,190	13.0%	15.0%
Yukon	6,490	0.1%	1,270	0.1%	7,760	0.1%	16.4%
Northwest Territories	9,120	0.1%	1,640	0.2%	10,760	0.1%	15.2%
Nunavut	9,210	0.1%	1,160	0.1%	10,370	0.1%	11.2%
Total	**6,469,810**	**100.0%**	**1,009,460**	**100.0%**	**7,479,270**	**100.0%**	**13.5%**

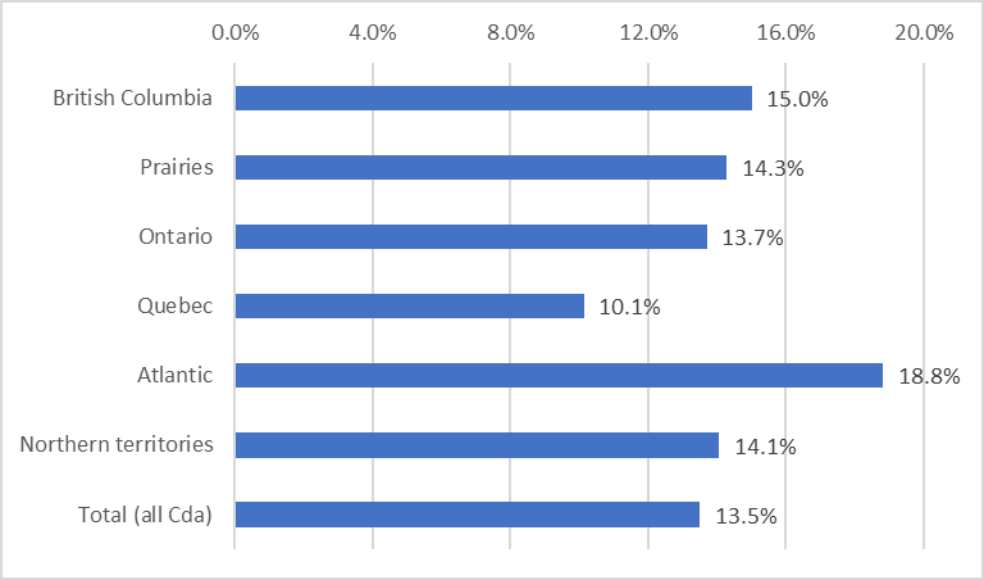


Figure 2.3
Disability rates among young adults (18 to 34 years old), by geographic region
N = 6,469,810 (total without disability), 1,009,460 (total with disability)
From the Canadian Survey on Disability, 2017 (with Census 2016 component)

Consistent with other research for adults with disabilities overall (e.g., Arim, 2015), a lower-than-expected share of young adults with disabilities resides in Quebec. For instance, 22.1% of all young adults 18 to 34 years reside in that province. This includes 23% of all young adults without disabilities. In contrast, only 16.6% of all young adults with disabilities reside in Quebec (Figure 2.4). The disability rate among young adults is 10.1% in Quebec compared with the national average of 13.5% for this age group.

In contrast, a higher-than-expected share of young adults with disabilities resides in the Atlantic provinces (Newfoundland and Labrador, Nova Scotia, New Brunswick, and Prince Edward Island). Some 8.1% of all young adults with disabilities live in Atlantic Canada versus a considerably lower share of young adults without disabilities (5.4%). The disability rate among young adults is considerably higher in Atlantic Canada (18.8%) compared with Canada overall (13.5%). Consistent with the similar disability rates in BC, the prairies, Ontario, and the northern territories, the percentages of young adults with disabilities who reside in those provinces are only slightly higher than the respective shares of young adults without disabilities.

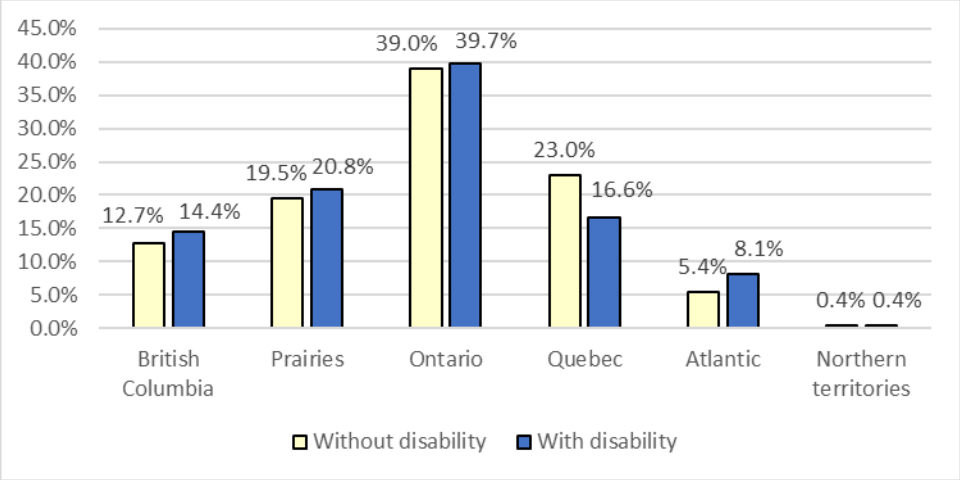


Figure 2.4
Province of residence, young adults (18 to 34 years old) without and with disabilities
N = 6,469,810 (total without disability), 1,009,460 (total with disability)
From the Canadian Survey on Disability, 2017 (Census 2016 component)

Indigenous identity. Young adults with disabilities are much more likely to be Indigenous than would usually be expected. For instance, among all young adults, the Census of 2016 identifies 4.6% as Indigenous people. Among young adults without disabilities, 4% are Indigenous (Figure 2.5). In contrast, 7.9% of young adults with disabilities are Indigenous.

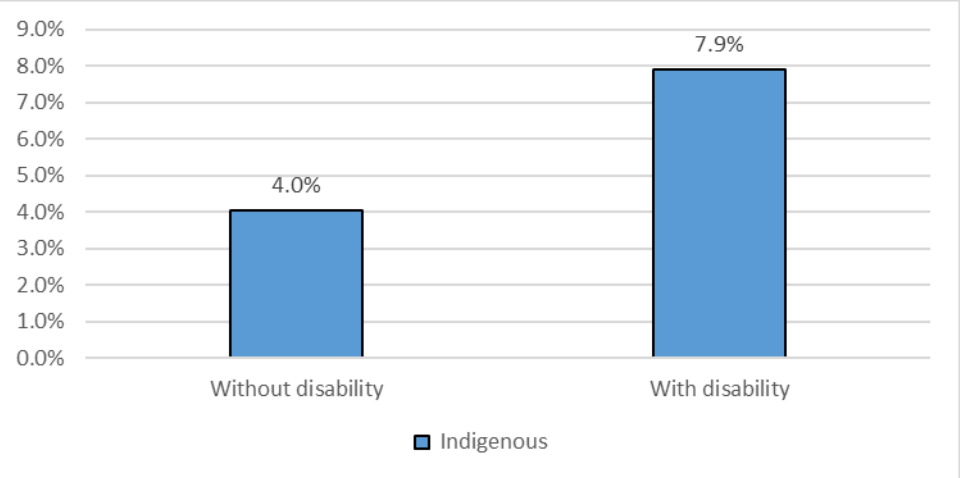


Figure 2.5
Indigenous identity of young adults without and with disabilities
N = 6,469,810 (total without disability), 1,009,460 (total with disability)
From the Canadian Survey on Disability, 2017 (Census 2016 component)

Racialized identity. Racialized people are relatively uncommon among young adults with disabilities. For instance, in the Census of 2016, 27.1% of young adults are identified as from a

racialized (visible minority) group. Among young adults without a disability, a slightly higher proportion are racialized people (28.9%). In sharp contrast, among young adults with disabilities, only 15.3% are identified as racialized (Figure 2.6).

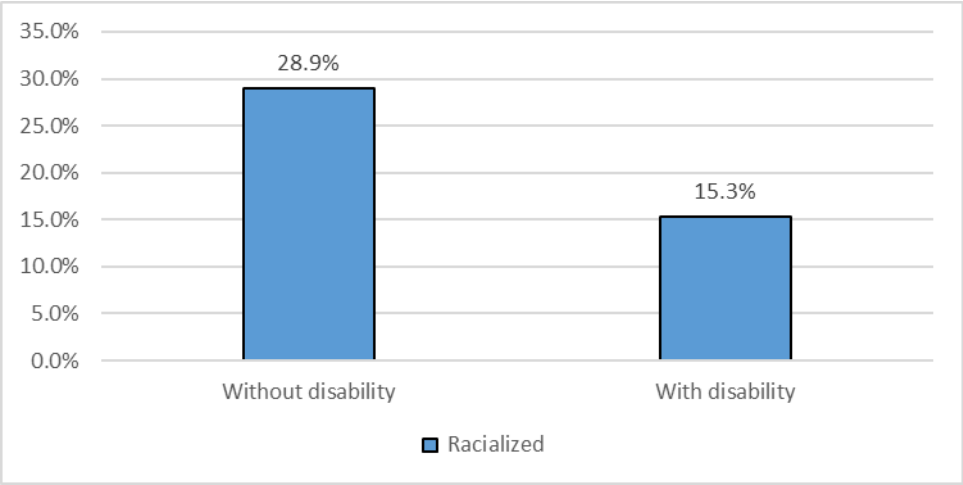


Figure 2.6
Racialized identity of young adults without and with disabilities
N = 6,469,810 (total without disability), 1,009,460 (total with disability)
From the Canadian Survey on Disability, 2017 (Census 2016 component)

BIPOC identity. For the purposes of this research, the diverse group of Black, Indigenous, and People of Colour, often referred to as BIPOC, consists of the racialized and Indigenous people discussed in the previous two subsections. Based on the Census of 2016, 31.7% of young adults can be classified as BIPOC. In line with a lower-than-expected share of racialized people among young adults with disabilities, the share of BIPOC young adults with disabilities is also comparatively low at 23.2% compared with 33% among young adults without disabilities (Figure 2.7).

However, an important detail is that, among BIPOC young adults with disabilities, Indigenous people make up a nearly three-times larger share than among BIPOC young adults without disabilities. Indigenous people make up 34.1% of BIPOC young adults with disabilities compared with 12.2% of BIPOC young adults without disabilities.

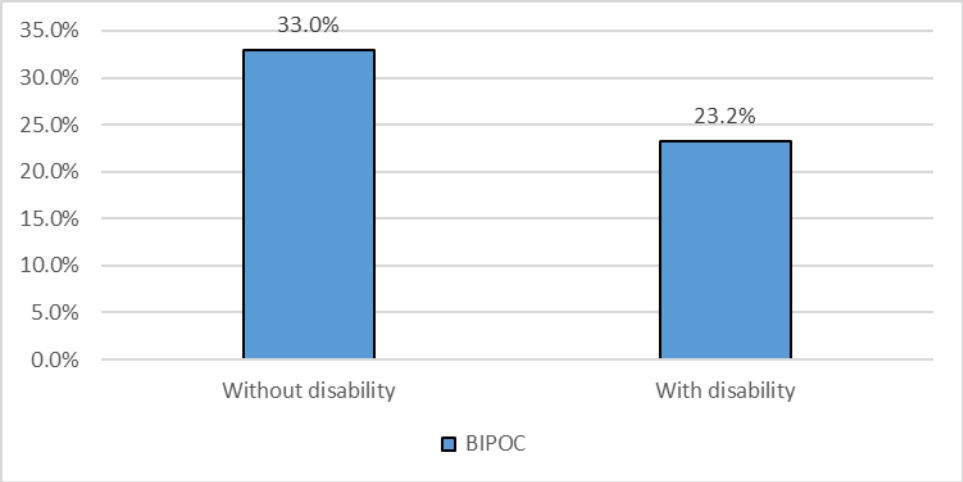


Figure 2.7
BIPOC young adults without and with disabilities
N = 6,469,810 (total without disability), 1,009,460 (total with disability)
From the Canadian Survey on Disability, 2017 (Census 2016 component)

Highest level of school attended in the reference year. Young adults with disabilities are slightly more likely to be out of school than their counterparts without disabilities (66.5% versus 64%—Figure 2.8). This means that 33.5 % of young adults with disabilities attend some form of schooling compared with 36% of their counterparts without disabilities.

Young adults with disabilities are slightly more likely to be at elementary or high school (6.2% versus 4.1%) and are nearly as likely to be attending a college/CEGEP/trade school (13.2% versus 13.7%). In contrast, young adults with disabilities are considerably less likely than their counterparts without disabilities to be attending university (14% versus 18.1%).

As a side note, many young adults who are out of school are employed. For instance, 82.9% of young adults without disabilities who are not at school have jobs, as do 68.7% of young adult non-attendees with disabilities. Many others are looking for work or are dealing with other issues that preclude work, such as illness or disability, caring for their own children, caring for an adult family member, other personal or family responsibilities, and various other reasons. That said, young adults with disabilities are twice as likely as their counterparts without disabilities to be jobless *and* not attending school (20.8% versus 10.9%).

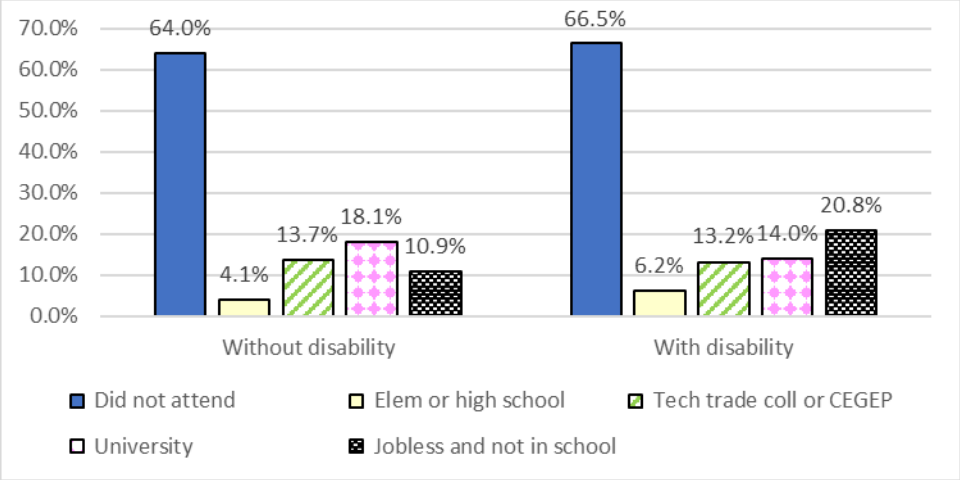


Figure 2.8
Highest level of school attended by young adults without and with disabilities attended in the reference year
N = 6,469,810 (without disability), 1,009,460 (with disability)
From the Canadian Survey on Disability, 2017 (Census 2016 component)

Highest level of educational certification. As discussed above, many young adults without and with disabilities are not in school, and young adults with disabilities are more likely to be out of school *and* jobless. They are also more than twice as likely to have no educational certification at all (17.8% versus 8.7%—Figure 2.9). They are more likely (37.4% versus 33.4%) to have a high school diploma as their highest educational credential. Young adults with disabilities are less likely to have a trade certificate (6.2% versus 8.3%), a college/CEGEP/trade school or other postsecondary certificate lower than a university bachelor's degree (19.4% versus 22%) and are substantially less likely to hold a university degree (19.2% versus 27.5%). The lack of educational certification among young adults with disabilities, and the comparatively low status of the certification they have obtained, help to explain the considerably higher rate of joblessness among young adults with disabilities who are not at school.

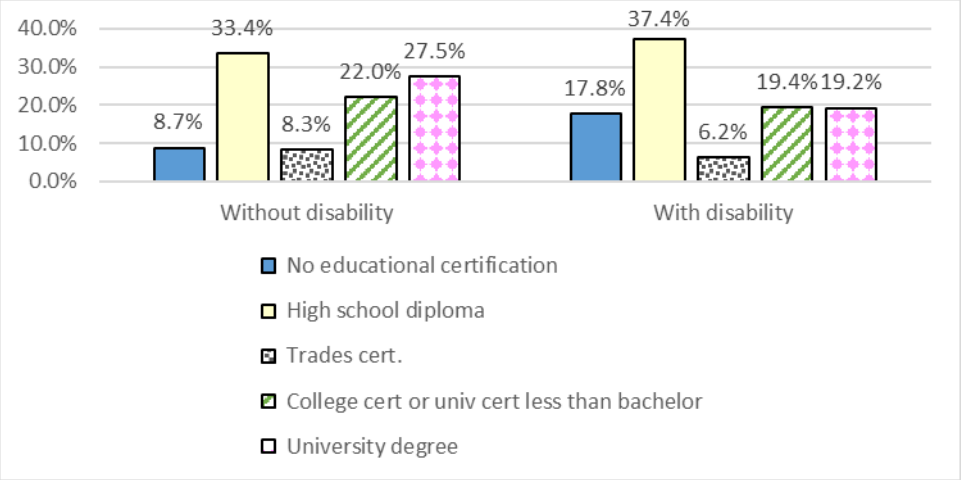


Figure 2.9
Highest level of educational certification among young adults without and with disabilities
N = 6,469,810 (total without disability), 1,009,460 (total with disability)
From the Canadian Survey on Disability, 2017 (Census 2016 component)

Summary

Based on the Census of 2017, young adults with disabilities make up 13.5% (slightly over 1 million) of the nearly 7.5 million young adults 18 to 34 years old. Young adults with physical disabilities make up nearly half of the population with disabilities at the focus of this research. Almost nine out of 10 of these individuals also have a disability related to pain; multiple disabilities are quite common. About half of the young adults at the focus of this study have disability that presents a comparatively mild level of complexity. About two in ten, respectively, have disabilities in the moderate or severe range of complexity, and about one in ten have disabilities in the very severe range of complexity. Compared with young adults without disabilities, those with disabilities are a little less likely to be younger than 30 years old and a little more likely to be 30 to 34 years of age.

Compared with young adults who do not have disabilities, those with disabilities are more likely to be women, less likely to live in Quebec, and more likely to reside in the Atlantic provinces. They are about as likely as those without disabilities to live in BC, the prairies, Ontario, and the northern territories.

They are twice as likely to be Indigenous and about half as likely to be racialized; BIPOC young adults with disabilities are much more likely to be Indigenous.

Young adults with disabilities are slightly more likely than those without disabilities to be out of school and to be attending elementary or high school. They are nearly as likely to be attending a college/CEGEP/trade school but considerably less likely to be attending university.

They are somewhat more likely to have a high school diploma as their highest educational credential, are considerably less likely to have a college/CEGEP/trade school or other postsecondary certificate lower than a bachelor's degree and are substantially less likely to hold a university degree. They are about twice as likely to have no educational certification at all and nearly twice as likely to be jobless *and* not attending school.

3. School Attendance and Highest Level of School Attended

Notes on Methodology

The discussion in this section provides a greater range of basic information than in Section 2 on the highest level of schooling attended by young adults 18 to 34 years of age. The first part of this section continues the comparisons of young adults with and without disabilities and focuses on gender, Indigenous person status, racialization, BIPOC identity, and geographic region. That information is drawn from the Census and pertains to the schooling that young adults with and without disabilities who attended at any time from September 2015 to May 10, 2016. Some of the discussion looks at participation in various forms of education by all young adults without and with disabilities. Some of the discussion, however, focuses only on those with and without disabilities who attended various forms of schooling. That is, it ignores those who were not at school. Detailed data are provided in Appendix Tables 3.1 to 3.10. Appendix Table 3.11 provides detailed counts for the most relevant points of interest. [1]

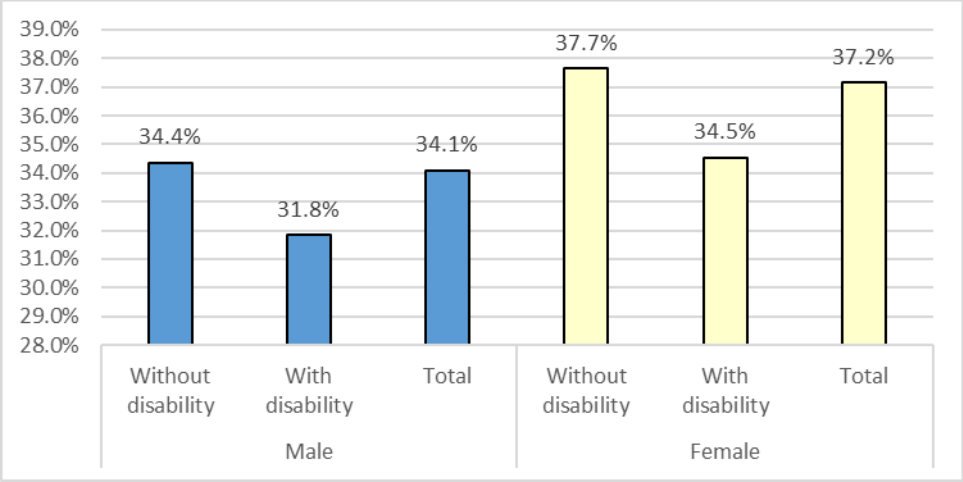
Individuals may have passed from a lower to a higher level of schooling in the reference period. In such cases, respondents have been classified within the highest level of school they eventually attended. For instance, people who studied for a while at elementary or secondary school and made the transition to community college/CEGEP, technical, or trade school have been classified within the "college/CEGEP/trade school" category. People who studied for a while at elementary or secondary school, and made the transition to community college/CEGEP, technical, or trade school and ultimately to university, have been classified within the "university" category.

The second part of this section focuses on the education of young adults with disabilities who attended college/CEGEP/trade school or university. It includes young adults with disabilities who were attending school when the CSD was conducted in 2017 or who were not then at school but who recently attended at some point from 2016 through 2017. CSD data for those who attended in 2016 or 2017 were filtered to capture only those who were at least 18 years old when attending and younger than 35 when the CSD was conducted. The discussion includes attention to gender, Indigenous person status, racialization, BIPOC identity, and geographic region, but also includes type of community (population size), type of disability, severity of disability's complexity, and low-income status. The discussion on students with disabilities draws from information presented in Appendix Table 3.13.

[1] Appendix Table 3.12 has been provided as a convenience but has not been used for the discussion. It shows row percentages for Appendix Table 3.11. The Figures and analysis in the Census-based discussion in the present section draw from the column percentages in Appendix Tables 3.1 – 3.10.

The Attendance of Young Adults Without and With Disabilities – From the Census

Gender. Figure 3.1 shows that young adults with disabilities are less likely than their non-disabled counterparts to be attending any form of schooling (33.5% versus 36%). In that context, and regardless of disability, young women are more likely than young men to be attending. For instance, 34.5% of young women with disabilities are at school compared with 31.8% of their male counterparts. Similarly, 37.7% of young women without disabilities attend school compared with 34.4% of their male counterparts. Appendix Table 3.1 provides details for Figure 3.1.



* Low counts. Use data with caution.***Figure 3.1***
Any current school attendance, by disability and gender
N = 3,750,840 (male), 3,728,420 (female)
From the Canadian Survey on Disability, 2017 (Census 2016 component)

Among young adults currently attending some form of schooling (Figure 3.2 and Appendix Table 3.2), men are more likely than women to be in elementary or high school. For instance, among those without disabilities and attending school, 12.9% of young men versus 10.1% of young women are at elementary or high school. The same general pattern holds among young adult school attendees with disabilities. However, the proportions of young men attending elementary school are higher: 23.1% (males) versus 15.6% (females).

Among young adult school attendees, the proportions who attend college/CEGEP/trade school are similar regardless of gender and disability (Figure 3.2). However, there are some small differences. Among attendees without disabilities, men are slightly more likely than women to be at one of the non-university postsecondary institutions (39.9% versus 36.3%). Among

attendees with disabilities, the proportions of young men and women attending such institutions are almost the same (39.4% and 39.7%, respectively).

Among young adult school attendees, those with disabilities are considerably less likely than their non-disabled counterparts to be at university (42% versus 50.5%, respectively). Regardless of disability among school attendees, however, young women are more likely than young men to be at university. For instance, 44.7% of young women with disabilities who attend school versus only 37.5% of their male counterparts are at university. Similarly, 53.6% of young women without disabilities who attend school are at university versus only 47.2% of their male counterparts.

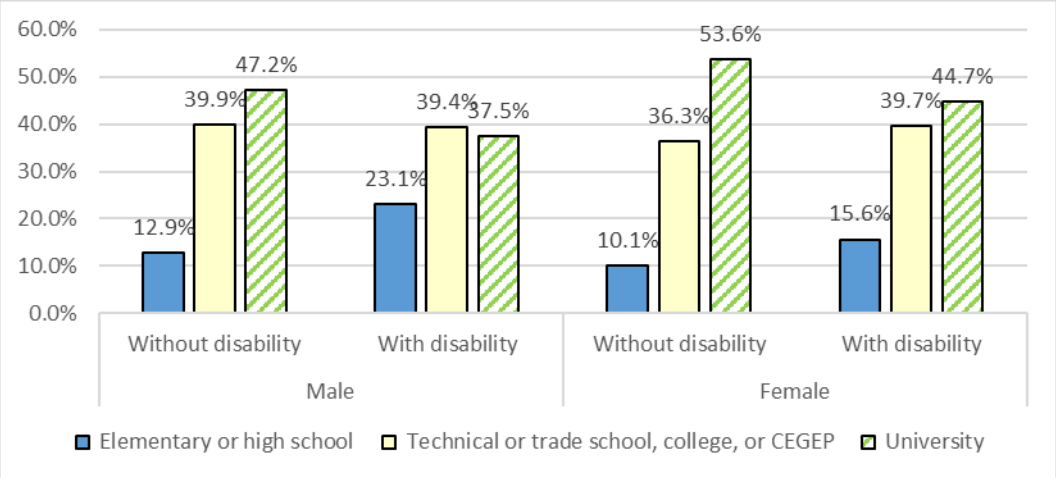


Figure 3.2
Highest level of school attended by young adults (18 to 34 years old), by disability and gender, attendees only
N = 1,278,830 (male), 1,385,270 (female)
From the Canadian Survey on Disability, 2017 (Census 2016 component)

Indigenous identity. As discussed in the previous section, young adults with disabilities are less likely than their non-disabled counterparts to be attending any form of schooling (33.5% versus 36%). The general pattern is not the same when a focus is placed on Indigenous young adults. For instance, among Indigenous young adults, 34.8% with disabilities *do* attend school compared with 27.8% of their Indigenous counterparts without disabilities. In contrast, among non-Indigenous young adults, only 33.4% with disabilities attend school compared with 36.3% without disabilities (Figure 3.3 and Appendix Table 3.3). The reasons for these patterns are not immediately self-evident and it was beyond the scope of the present research to explore further.

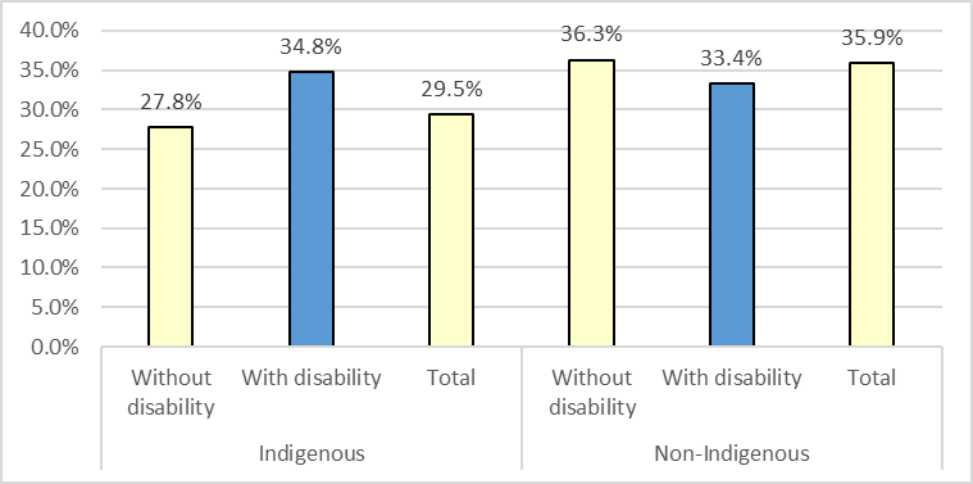


Figure 3.3
Any current school attendance, by Indigenous identity and disability
N = 340,940 (Indigenous), 7,138,320 (non-Indigenous)
From the Canadian Survey on Disability, 2017 (Census 2016 component)

Focusing now on young adults currently attending some form of schooling and looking at the Total columns in Figure 3.4 and Appendix Table 3.4, overall and regardless of disability, Indigenous young adults are twice as likely as non-indigenous young adults to be attending elementary or high school (22.9% versus 11.9%) and are also substantially more likely to be studying at college/CEGEP/trade school (44.7% versus 38%). Indigenous young adults are considerably less likely than their non-Indigenous counterparts to be studying at university (32.4% versus 50%).

Within those patterns (see Figure 3.4), Indigenous young adults with disabilities are *much* more likely than their Indigenous counterparts without disabilities (30.9% versus 19.8%) to be attending elementary or high school. Similarly, among non-Indigenous young adults, those with disabilities are also more likely to be in elementary or high school (17.4% versus 11.2% without disabilities), but the levels of elementary or high school attendance are much lower overall for non-Indigenous students.

In contrast, Indigenous young adults with disabilities are considerably less likely than their Indigenous counterparts without disabilities (39.4% versus 46.7%) to be studying at a non-university postsecondary institution. Among non-Indigenous young adults, those with and without disabilities are nearly as likely (39.6% versus 37.8%, respectively) to be studying at a non-university postsecondary institution (Figure 3.4). The percentages of Indigenous and non-Indigenous young adults with disabilities who are studying at non-university postsecondary institutions are almost the same (39.4% and 39.6%, respectively).

Indigenous young adults with disabilities are considerably less likely than their Indigenous counterparts without disabilities to be studying at university (29.7% versus 33.5%). Non-indigenous young adults with disabilities are also less likely to be at university than their non-disabled counterparts (43.1% versus 51%). Of note, the percentages of those at university are much lower among Indigenous young adults with disabilities than among non-Indigenous young adults with disabilities (29.7% versus 43.1%).

In terms of intersectionality, the findings point to higher educational disadvantages that Indigenous young adults face when it comes to participating in university education when they must also deal with issues related to disability.

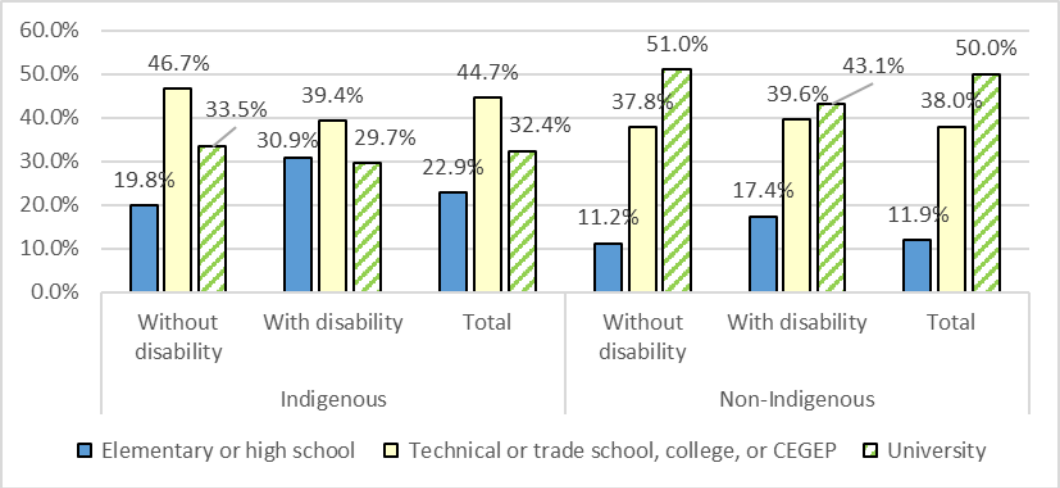


Figure 3.4
Highest level of school attended, by Indigenous identity and disability, attendees only
N = 100,440 (Indigenous), 2,563,670 (non-Indigenous)
From the Canadian Survey on Disability, 2017 (Census 2016 component)

Racialized identity. Figure 3.5 and Appendix Table 3.5 show that racialized young adults are more likely than their non-racialized counterparts to be attending some form of schooling. This pattern holds regardless of disability. For instance, among racialized young adults with a disability, 44% are attending school, which is almost the same percentage as among racialized young adults without disabilities (43.7%). In contrast, among non-racialized young adults, 31.6% with disabilities attend school, as do 32.8% without disabilities. Of note, racialized young adults *with* disabilities are even *more* likely to be attending some form of schooling than non-racialized young adults *without* disabilities (44% versus 32.8%).

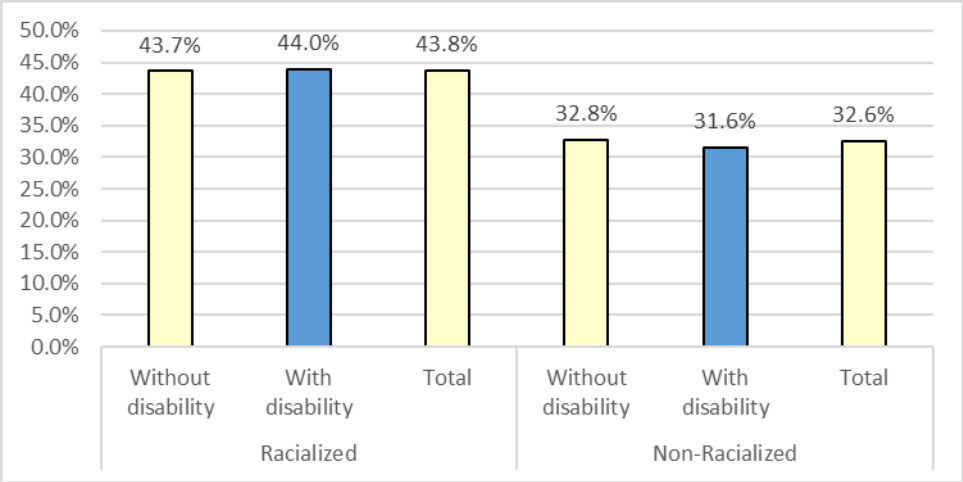


Figure 3.5
Any current school attendance, by racialized identity and disability
N = 2,026,550 (racialized), 5,452,720 (non-racialized)
From the Canadian Survey on Disability, 2017 (Census 2016 component)

Among young adults who attend some form of schooling, those with disabilities are more likely to attend elementary or high school and less likely to attend university, regardless of racialized identity (Figure 3.6 and Appendix Table 3.6). For instance, among racialized young adults, nearly one in five with disabilities (18.2%) attend elementary or high school, compared with fewer than one in eight (12%) of their non-disabled counterparts. The pattern is similar among non-racialized young adults, where 18.5% with disabilities attend elementary or high school compared with 11.2% without disabilities. Similarly, among racialized young adults, only 45.2% with disabilities attend university compared with 54.4% without disabilities. Among non-racialized young adults, the spread is not so great: 41.1% with disabilities attend university compared with 48.3% without disabilities.

Racialized young adults with disabilities are more likely than their counterparts without disabilities to attend a non-university PSE institution (36.6% versus 33.6%). Among non-racialized young adults with and without disabilities, the proportions attending non-university PSE schools are essentially the same as one another (40.3% and 40.5%, respectively).

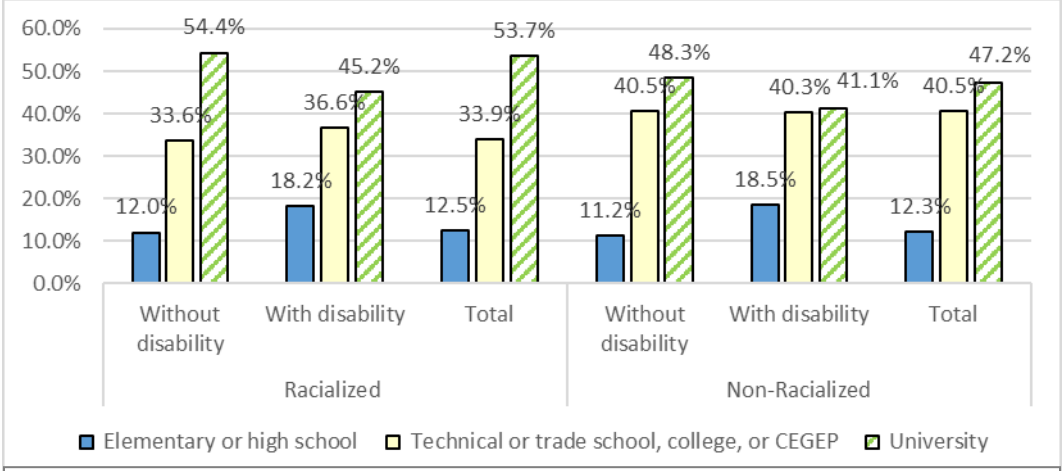


Figure 3.6
Highest level of school attended by young adults (18 to 34 years old), by racialized identity and disability, attendees only
N = 886,610 (racialized), 1,777,460 (non-racialized)
From the Canadian Survey on Disability, 2017 (Census 2016 component)

BIPOC identity. While the group of young BIPOC adults consists mostly of racialized individuals, Indigenous young adults are also included. Figure 3.7 and Appendix Table 3.7 show that BIPOC young adults are more likely than their non-BIPOC counterparts to be attending some form of schooling (41.7% versus 32.8%). Among BIPOC young adults without a disability, 41.8% are attending school, which is almost the same percentage as among BIPOC young adults with disabilities (40.8%).

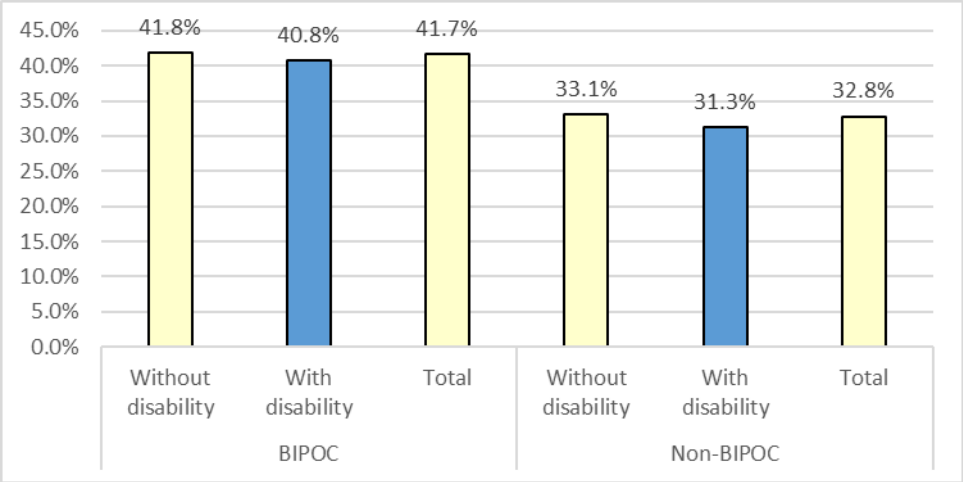


Figure 3.7
Any current school attendance, by BIPOC identity and disability
N = 2,367,310 (BIPOC), 5,111,970 (non-BIPOC)
From the Canadian Survey on Disability, 2017 (Census 2016 component)

Looking only at young adults who currently attend some form of schooling, Figure 3.8 and Appendix Table 3.8 reflect the findings on Indigenous and racialized young adults discussed above. The figure shows a comparatively high proportion of young BIPOC adults with disabilities are in elementary or high school (21.8% versus 12.6% among BIPOC individuals without disabilities), and a relatively low proportion with disabilities who are studying at university (40.7% versus 52.7% of non-disabled BIPOC individuals). The share of young BIPOC adults with disabilities studying at a non-university PSE school is higher than among their non-disabled BIPOC counterparts (37.4% versus 34.7%, respectively). In contrast, the percentage among non-BIPOC young adult school attendees with and without disabilities at non-university PSE schools are virtually the same: 40.4% and 40.2%, respectively.

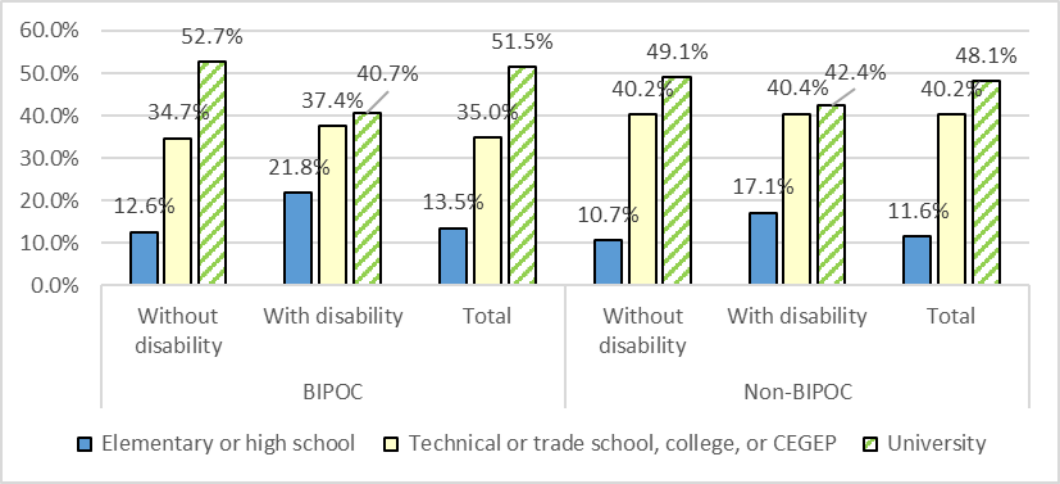


Figure 3.8
Highest level of school attended by young adults (18 to 34 years old), by BIPOC identity and disability, attendees only
N = 986,950 (BIPOC), 1,677,150 (non-BIPOC)
From the Canadian Survey on Disability, 2017 (Census 2016 component)

Geographic region. Figure 3.9 and Appendix Table 3.9 show the rates of current participation in any form of schooling among young adults with and without disabilities, by geographic region. Owing to low cell counts, it was not possible to present findings for school attendance in the northern territories (NT, YU and NU). Among young adults without and with disabilities, the highest percentages of school attendance are in Quebec. Here, 39.8% of young adults without disabilities attend school, as do 40.2% of young adults with disabilities. The Atlantic provinces (NB, NS, PE, and NL) have the lowest participation rates for students without and with disabilities, where 32.2% of young adults without disabilities and 29.4% with disabilities attend some form of schooling.

At the Canada level, young adults with disabilities are 0.93 times as likely as young adults without disabilities to attend school. Compared with that ratio, the ratios for the attendance of young adults with disabilities to young adults without disabilities are high in Quebec (1.01) and the prairie provinces (0.98). The ratios are lower than the national ratio in Ontario (0.92), the Atlantic provinces (0.91), and British Columbia (0.89).

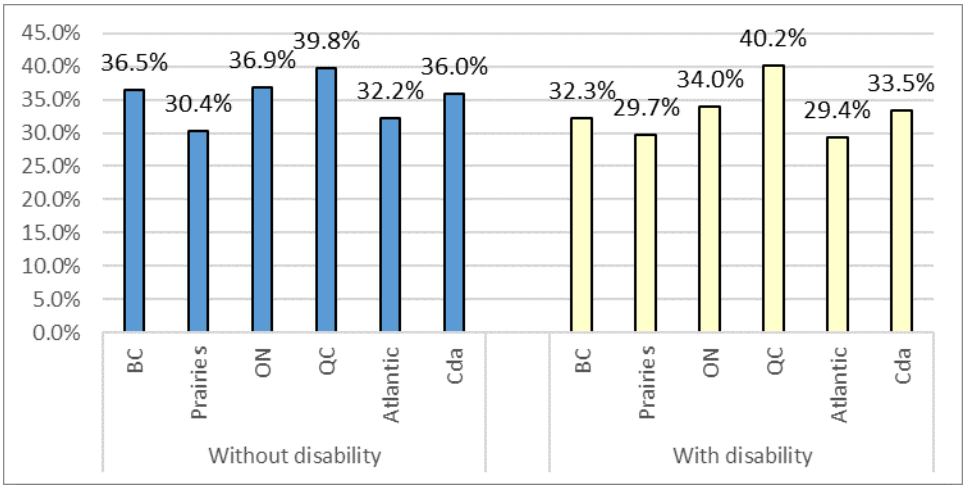


Figure 3.9
Any current school attendance by young adults (18 to 34 years old), by geographic region and disability
N = 6,469,810 (without disability), 1,009,450 (with disability)
From the Canadian Survey on Disability, 2017 (Census 2016 component)

Figure 3.10 shows the distributions of young adults who attend some form of schooling across the types of schooling attended and geographic region. The rates of school attendance are lowest in Atlantic Canada (Figure 3.9 and Appendix Table 3.9). However, among students who *are* at school in that region, high percentages with and without disabilities attend university. For instance, at the Canada level, a baseline of 50.5% of young adults without disabilities who attend any schooling are in university. Among attendees with disabilities, 42% are in university. By way of comparison, in Atlantic Canada, 57.2% of young adult attendees without disabilities are at university, as are 47.8% with disabilities (Figure 3.10).

School attendance is highest in Quebec for young adults without and with disabilities (Figure 3.9 and discussion, above). Among young adult school attendees in Quebec, however, nearly half without disabilities are at college/CEGEP/trade school (47.8%), as are nearly the same share of young adult attendees with disabilities (47.4% − Figure 3.10). Some 44.2% of young adult school attendees without disabilities in Quebec are in university. However, the same holds true for only 32.7% of young adult school attendees with disabilities in that province.

There are several ways of looking at the comparative participation rates in various forms of schooling by young adults with and without disabilities. One approach is to compare the provincial participation rates among young adults with and without disabilities against the national averages for young adults with and without disabilities. For instance, compared with the national average of 42% at university among young adults with disabilities who attend any schooling, what is the relative proportion who attend university in BC? The answer is 47.8% ÷ 42% = 1.14 times higher, rounded to the nearest 100th. When this approach is adopted, and

±0.2 times above or below the national average is used as a cut-off to indicate a substantial difference for a regional percentage, young adults with disabilities in Quebec are 1.2 times more likely than young adults with disabilities overall in Canada to attend college/CEGEP/trade school. In contrast, young adults with disabilities in Quebec are substantially less likely than young adults with disabilities overall in Canada to attend university (0.78 times as likely). The other differences across forms of schooling and provinces for young adults with disabilities are within ±0.2 times the national average.

Of some interest, young attendees without disabilities in Quebec are substantially more likely than young attendees overall in Canada to attend college/CEGEP/trade school (1.25 times more likely).

Another approach to comparing differences is to express the participation rate of young adult school attendees with disabilities in a type of schooling in a geographic region as a factor of the participation rate of young adult attendees without disabilities in the same type of schooling in the same region. Appendix Table 3.10 provides figures that can be used for such an analysis. A difference of at least ±0.2 times the average for young adults without disabilities in a region could be considered a regional percentage for young adults with disabilities that warrants attention. When this approach is adopted, young adults with disabilities are 1.61 times more likely than their counterparts without disabilities to be at elementary or high school in Canada overall (18.5% ÷ 11.5%). The baseline itself warrants attention. In Quebec, young adults with disabilities are 2.46 times more likely to be in elementary or high school (19.9% ÷ 8.1%). They are 1.38 times more likely in BC to be in elementary school, and 1.35 times more likely in the prairie provinces. Other differences between young adults with and without disabilities in given types of education by geographic region fall within ±0.2 times the national average.

The Canada-level baseline participation ratio for school attendees with disabilities at university compared with their non-disabled counterparts is 0.83 (42% ÷ 50.5%), which itself approaches a factor difference of −0.2. In that context, young adult school attendees with disabilities are substantially less likely than young adults with disabilities to attend university in Quebec (0.74 times as likely: 32.7% ÷ 44.2%). While that difference falls within ±0.2 times the national university attendance ratio, the ratio for Quebec is quite low given the already low Canada-level ratio for university attendance of young adults with disabilities.

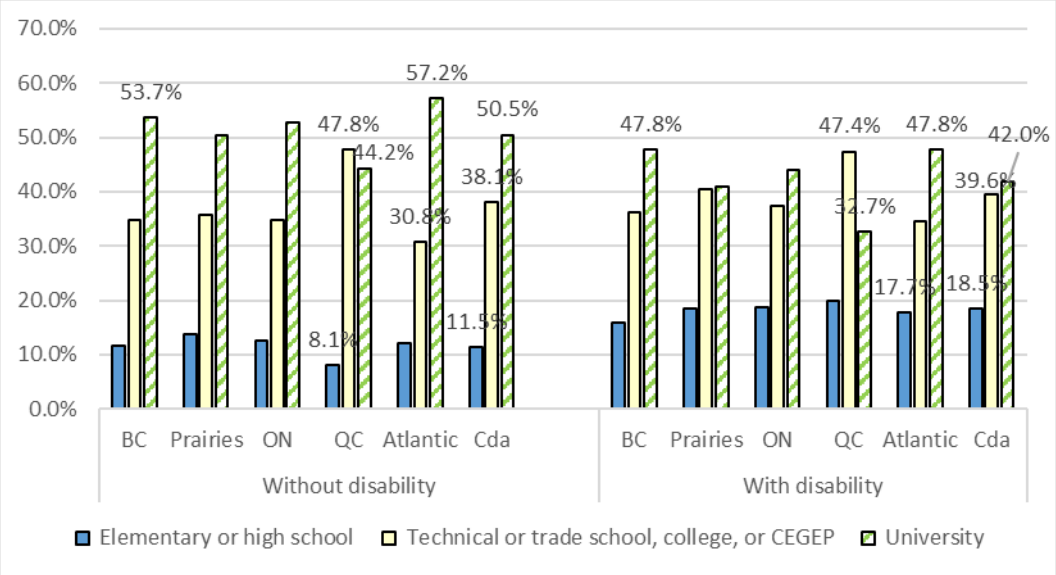


Figure 3.10
Highest level of school attended by young adults (18 to 34 years old), by geographic region and disability, attendees only
N = 2,326,190 (without disability), 337,890 (with disability)
From the Canadian Survey on Disability, 2017 (Census 2016 component)

Summary of the Census-based statistics on the attendance of young adults with and without disabilities

Based on the Census, then, young adults with disabilities are less likely to be attending any form of schooling than those without disabilities. If not attending, they are more likely than on average to be males and to live in the prairie provinces.

If attending any school at all, young adults with disabilities are more likely than their counterparts without disabilities to live in Quebec, even though Quebec has the lowest regional rate of disability among young adults. Young adults with disabilities who attend any school are more likely to be racialized and more likely to be Indigenous. Accordingly, BIPOC young adults with disabilities are more likely to attend school than those are not BIPOC.

However, Indigenous young adults with disabilities who attend school are much more likely than their counterparts without disabilities to be in (elementary or) high school. Young adult males with disabilities also make up a larger-than-average share in (elementary or) high school.

Young adult students with disabilities are about as likely as others to attend college/CEGEP/trade school, regardless of gender. However, they are more likely to attend college/CEGEP/trade school if living in Quebec. Racialized students with and without disabilities are less likely overall than their non-racialized counterparts to attend college/CEGEP/trade school. However, if racialized, those with disabilities are more likely to attend college/CEGEP/trade school than their racialized counterparts without disabilities. Young adult

students with disabilities are less likely to attend college/CEGEP/trade school schools if Indigenous.

Young adult male students are less likely to be at university than their female counterparts. Young adults with disabilities are also less likely to be at university if Indigenous. The findings point to intersectional differences and higher educational disadvantages that Indigenous young adults face when it comes to participating in university education when they must also contend with issues related to disability. In contrast, racialized young adult students with and without disabilities are more likely to be studying at university than their non-racialized counterparts.

While the overall attendance of young adults with disabilities in PSE is low in Atlantic Canada, the share of those attending university in Atlantic Canada is comparatively high. Young adult students with disabilities are less likely than those without disabilities to be in university in Quebec but are about as likely to attend college/CEGEP, trade school.

Markedly High and Low Attendance in PSE of Young Adults With Disabilities – From the CSD

For the previous discussion in this section, the Census variable for school attendance (ATTSCH) was used to facilitate comparisons between young adults with and without disabilities. In the discussion that follows for the remainder of this section, however, the information for attendance was drawn from variables in the disability component of the CSD master file (EDU_20B and EDU_20C). The CSD was conducted from March to August 2017—from several months to a little more than a year after the 2016 Census was conducted (on May 16, 2016). The CSD's information on postsecondary attendance is therefore slightly more up to date than the Census information. However, the CSD information cannot be directly compared with attendance figures for people without disabilities in the same timeframe because the CSD questions about education were not asked of people without disabilities.

Using data from the CSD, Appendix Table 3.13 provides a baseline snapshot of the extent to which young adults 18 to 34 years old with disabilities attended college or university at some point in 2016 or 2017. The following is a summary of marked departures from expected percentages of those attending college/CEGEP/trade school and university. Here, a "marked" difference is one that is at least 1.15 times the expected value or 0.85 times or less than the expected value (i.e., beyond ±0.15 times the expected value). Results that are within ±0.15 of the general population percentages are not presented in the summary.

Rates of college/CEGEP/trade school attendance

Looking at college/CEGEP/trade school attendance, the young adults with disabilities and markedly higher-than-typical attendance rates (at least 1.15 times or higher) than the CSDs 12.7% overall rate are:

- BIPOC (15.4%)
- Indigenous (14.8%)
- Racialized (16.1%)
- Residents of Quebec (16.0%) and
- In low-income households (15.4%).

Young adults with disabilities and markedly lower-than-typical college attendance rates (0.85 times or lower than the 12.7% average) are:

- Males (10.6%) and
- Residents of Atlantic Canada (9.6%)
- Those who live in small and mid-sized population centres (10.1%), and
- Those with a hearing disability (10.6%).

Rates of university attendance

Shifting the focus to university attendance, young adults with disabilities and markedly higher-than-typical attendance rates (1.15 times or higher) than the 14.4% overall rate are:

- Racialized (19.9%)
- Residents of British Columbia (16.6%)
- Those who live in large urban population centres (17.8%)
- In low-income households (17.1%) and
- Those with a disability that is not pain-related (18.4%).

Young adults with disabilities and lower-than-typical university attendance rates (0.85 times or lower) than the 14.4% overall rate are:

- Indigenous (9.9%)
- Living in the northern territories (7.1%)
- Living in rural communities (8.9%) or in small and mid-sized population centres (8.3%)
- Those with a cognitive disability (12%) or physical disability that includes pain (10.2%) and
- Those whose disability is in the very severe range of complexity (8.1%).

Intersectionality and the Odds of Attending PSE – From the CSD

Many factors combine and interact to have a bearing on the participation of young adults with disabilities in PSE. For example, a student who lives in a small to mid-sized community in Ontario may be Caucasian, racialized, or Indigenous. They may have a physical disability together with a cognitive disability. Their disabilities may be of moderate complexity when factoring in the cumulative impacts of the physical and cognitive disabilities.

Such realities beg the questions: what matters most for participation in postsecondary education? The type of disability? The severity of disability's complexity? Where a student lives? Their ethno-racial characteristics? Which student characteristics and other factors are most in need of attention in public policy and practices to further the attendance of young adults with disabilities at colleges/CEGEPs/trade schools and universities?

To unravel some of the answers to those questions, binary logistic regression analyses were performed. The essential questions asked for the regressions were:

- Who is most and least likely to attend college/CEGEP/trade school?
- Who is most and least likely to attend university?

Drawing from the disability component of the CSD, Table 3.1 (below) shows the logistic regression odds of young adults with disabilities attending college/CEGEP/trade school or university by a range of sociodemographic characteristics. While many of the interacting patterns are of general interest, when all the predictors in the regression models are held constant, only a few basic sociodemographic characteristics are statistically significant predictors of college/CEGEP/trade school or university attendance. In the discussion that follows, the odds ratios are indicated by "OR =." The usual test of statistical significance is a p-value of 0.05 or less. In a few instances, results have been shown that did not quite meet that standard, but which were close. The exact p-values are reported in those instances.

The odds of attending college/CEGEP/trade school

Focusing on college/CEGEP/trade school and holding a range of factors constant, young adult females with disabilities are more likely to attend than their male counterparts (OR = 1.4 p <.05), as are young adults with disabilities whose total household incomes are below rather than above the poverty line (OR = 1.36, p <.05). As well, holding other factors constant, young adults with learning disabilities are more likely to attend college than those with a pain-related disability (OR = 1.41, p <.05). Although the finding for Quebec did not quite meet the standard .05 test for significance, young adults with disabilities in that province are more likely to attend college/CEGEP/trade school than their counterparts in Ontario to attend college (OR = 1.40, p = .07). In contrast, compared with young adults whose disabilities are of mild complexity, those with disabilities of moderate or very severe complexity are only about two-thirds as likely to attend (respectively, OR = .67, p <.05 and OR = .64, p <.05).

The odds of attending university

Concerning university and holding a range of factors constant, compared with young adults with disabilities who live in large urban communities, those who live in small to mid-sized urban and rural communities are only about half as likely to attend (respectively, OR = 0.45, p <.001 and OR = 0.50, p <.01). Compared with those who have a physical disability with pain, young adults with a developmental/intellectual disability are only about a third as likely to attend university (OR = 0.34, p <.001). In contrast, compared with young adults with pain-related

disability, those with disabilities that are not pain-related are considerably more likely to attend university (OR = 1.78, p <.001).

A note on the odds of attending PSE

The findings on the odds of attending college/CEGEP/trade school and university do not mean the other sociodemographic factors presented in Appendix Table 3.13 or in the preceding discussion in this section are irrelevant. Rather, when all factors are held constant and considered as part of the mix of issues with which students and PSE institutions must contend, a few factors do come to the surface. These statistically significant predictors of attending or not attending PSE warrant particular attention because they provide clues about factors that can be scaled up or otherwise addressed to increase the participation of young adults with disabilities in PSE.

Table 3.1. The odds of young adults with disabilities (18 to 34 years old) attending college or university, by selected sociodemographic characteristics (Source: CSD 2017)

	Attended College	Sig.	95% Confidence Limits		Attended University	Sig.	95% Confidence Limits	
Males (reference)								
Females	1.40	*	1.07	1.85	1.09		0.83	1.44
Non-racialized (reference)								
Racialized	1.36		0.89	2.07	1.17		0.80	1.71
Non-Indigenous (reference)								
Indigenous	1.36		0.79	2.32	0.74		0.46	1.18
Ontario (reference)								
British Columbia	1.01		0.67	1.51	1.20		0.84	1.73
Prairie provinces	1.01		0.70	1.45	0.99		0.73	1.34
Quebec	1.40	†	0.97	2.02	0.96		0.66	1.38
Atlantic provinces	0.79		0.56	1.10	1.11		0.81	1.53
Northern territories	1.04		0.53	2.03	0.91		0.45	1.82
Large urban population centres (reference)								
Small to mid-sized urban pop. ctrs	0.77		0.56	1.05	0.45	***	0.33	0.61
Rural communities	0.98		0.68	1.42	0.50	**	0.32	0.78
Above the poverty line (reference)								
Below the poverty line	1.36	*	1.00	1.85	1.32		0.97	1.79
Physical disability—with pain-related disability (reference)								
Vision disability	1.09		0.77	1.55	0.93		0.67	1.30
Hearing disability	0.89		0.56	1.42	1.00		0.64	1.58
Learning disability	1.41	*	1.02	1.95	1.02		0.76	1.37

Table 3.1. The odds of young adults with disabilities (18 to 34 years old) attending college or university, by selected sociodemographic characteristics (Source: CSD 2017)								
	Attended College	Sig.	95% Confidence Limits		Attended University	Sig.	95% Confidence Limits	
Developmental/intellectual disability	1.23		0.75	2.03	0.34	***	0.20	0.57
Psychosocial disability	1.24		0.93	1.67	1.30		0.97	1.76
Disability without pain	0.98		0.71	1.36	1.78	***	1.30	2.45
Mild complexity of disability (reference)								
Moderate complexity	0.67	*	0.46	1.00	0.99		0.68	1.46
Severe complexity	0.64	*	0.43	0.97	0.91		0.59	1.40
Very severe complexity	0.57		0.29	1.10	0.75		0.43	1.31

Note on significance: p <.05 = *; p <.01 = **; p <.001 = ***; († p <.08).

Summary of the CSD-based Statistics on Attendance in PSE

College/CEGEP/trade school. Young adults with disabilities and markedly high rates of attendance in college/CEGEP/trade school are Indigenous, racialized, and BIPOC individuals, residents of Quebec, and those who live in low-income households. Young adults with disabilities who have significantly high odds of attending college/CEGEP/trade school when a range of factors are considered are females, those who live in low-income households, young adults with learning disabilities, and residents of Quebec.

Young adults with disabilities and markedly low rates of college/CEGEP/trade school attendance are males, residents of Atlantic Canada, those who live in small and mid-sized population centres, and those who have a hearing disability. Those with significantly low odds of attending college/CEGEP/trade school have disabilities of moderate or very severe complexity.

University. Young adults with disabilities and markedly high rates of attendance in university are racialized individuals, residents of British Columbia, living in large urban population centres, in low-income households, and have disabilities that are not pain related. Those who have significantly high odds of attending university when a range of other factors are considered are those with disabilities that are not pain related.

Young adults with disabilities and markedly low rates of attendance at university are Indigenous, those who live in the northern territories, and those who live in rural or small-to-mid-sized population centres. They are more likely to have a cognitive disability, a disability that includes pain, and that is of very severe range complexity. Young adults with disabilities who have significantly low odds of attending university live in rural and small to mid-sized urban communities, as do those with a developmental/intellectual disability.

4. Disability-Related Supports, Social and Economic Experiences, and Fields of Study

This section of the study looks at the extent to which young adults with disabilities require various supports for their postsecondary studies, have had experiences inconsistent with inclusive and safe PSE cultures, and have incurred additional costs because of disability. It also looks at the equity of distribution of young adults with disabilities across academic fields of study.

Notes on Methodology

People at the focus of this section

The present discussion is based on information about young adults with disabilities who a) were attending school when the CSD was conducted in 2017; b) or were not attending but had attended sometime in 2016 or 2017; c) were not attending but attended at some point from 2012 through 2015. In all cases these individuals were at least 18 years old when attending and younger than 35 when the CSD was conducted.

The discussion includes individuals in category c) because important information is available for this group on supports needed and available in education, as well as other education-related details, and because their inclusion yields a sample that is considerably larger than it would have been if the research had focused only on students who attended school in 2016 or 2017.

Grouped information about supports

The CSD captured information on supports for education across many variables. To keep the analysis manageable yet intuitively meaningful, the variables have been grouped; the groupings and their source variables are shown in the following list. Further details on the numbers of young adults with disabilities who said they need various supports are presented in relation to the respondents' demographic characteristics in Appendix Tables 4.1 – 4.10. Those tables provide the bases for the Figures in this section of the report.

Accessible built environmental features (Appendix Table 4.1)

- Accessible classrooms
- Adapted washrooms
- Accessible residences
- Accessible buildings, excluding residences
- Other features of built environments for PSE

Accessible curriculum and procedures (Appendix Table 4.2)

- Modified or adapted course curriculum
- Extended time to take tests and exams

- Special education classes[2]
- Individualized Education Plan (IEP)

Accessible materials (Appendix Table 4.3)

- Textbooks in e-format
- Large print reading materials
- Braille reading materials or manual Brailler

Accessible technologies for instruction (Appendix Table 4.4)

- Mobile/smart phone with specialized features
- Computer/tablet with specialized software/adaptation
- Recording equipment/portable note-taking device
- Device for playing audio/e-books
- Magnifier
- Closed-circuit devices

Human support for PSE (Appendix Table 4.5)

- Teacher's aide or tutor
- Sign language interpreter
- Attendant service
- Speech therapist

Other instructional supports (Appendix Table 4.6)

- Other aid or service not otherwise specified

Information about inclusion, safety, and cost

In addition, for the three age-filtered groups of participants in education (groups a—c in Table 1.1 in Section 1), the research has drawn from the following information the CSD captured on experiences of disability-related inclusion, safety, and additional costs for education.

PSE culture of inclusion

- Have felt / have never felt avoided at school (Appendix Table 4.7)
- Have felt / have never felt left out at school (Appendix Table 4.8)

PSE culture of safety (Appendix Table 4.9)

[2] The numbers of people needing formally defined "special education classes" or "Individualized Education Plans (IEPs)" in PSE are typically low. However, such educational arrangements were retained in the mix of instructional supports as some individuals may have equated those terms with the individualized instruction (e.g., one-on-one support from a tutor or instructor) or the educational planning (e.g., for instructional and other accommodations) in which they participated while attending PSE and which are often called "Special Education" and "Individual Education Planning" in high school.

- Have experienced / have never experienced being bullied at school. As defined in the CSD question, bullying includes when one person hurts or threatens someone else physically, verbally, or in writing. Bullying can include pushing, shoving, kicking, hitting, or writing mean or threatening notes, Internet posts, or text messages.

Cost (Appendix Table 4.10)

- Have had / have not had additional costs related to disability for PSE.

The CSD questions on inclusion, safety, and cost are retrospective in that they ask whether the respondent *ever* experienced such things in their schooling because of their disability. It is understood that some of those experiences may have occurred earlier in a person's schooling than in PSE. However, it was reasoned that, if a CSD respondent *never* felt avoided or left out at school because of their disability, *never* felt bullied at school because of their disability, or *never* had to bear additional costs for education because of disability, the timeframe for not having such experiences would include the respondent's present or recent attendance in PSE. Arguably, a person who never experiences such things while in PSE is more likely to have positive PSE experiences than a person who experiences one or more of these things. For the present report, the absences of such experiences have been taken as indicators of positive factors in educational administration and school culture that contribute to positive educational experiences.

Equity in distribution across academic fields of study

In addition, a complex measure was derived to express the level of equity in the distribution of young adults with disabilities across various fields of academic study. Design details for this measure are provided in Part 1 of the Methodology subsection in the Appendix. Essentially, however, the measure is based on three sub-indices that assigned the highest possible score of "1" where a person's field of study is in an area of expertise where a person's characteristics are substantially under-represented as: a) a person with a disability, *and* b) as a male or female, *and* c) as a BIPOC individual. The lowest possible score of "0" was assigned where a person is substantially overrepresented in a field of study as a person with a disability, *and* as a male or female, *and* as a member or non-member of the BIPOC group. Except for cases with missing data, people's scores fall somewhere between 0 and 1.

General analytical approach

In the discussion that follows in this section, if the percentages of cases fall within ±0.2 of the overall "average" or "expected" percentages for the issue at the focus of attention, those cases are considered to have roughly typical levels of need for a given class of supports, or roughly typical levels of experience with issues of disability-related inclusion, safety, and cost for PSE. Sociodemographic groups that fall outside of the expected range are discussed as having substantially higher or lower levels of need or experience with an issue at the focus of discussion. Respectively, these are cases where the percentages are 1.2 times or higher than the average percentage or 0.8 times the average or less.

In the charts that follow, and in Appendix Tables 4.1 – 4.10, some socio-demographic characteristics of young adults with disabilities have been collapsed into broad groupings (e.g., types of disability). Explanations of the groupings are provided in the Definitions subsection of the introduction.

As the discussion will show, the extent to which young adults with disabilities need various supports for education varies considerably according to individuals' characteristics. So does the extent to which young adults have experienced feeling left out or avoided at school because of disability, being bullied at school because of disability, or having additional costs for their schooling because of disability.

Findings

The following discussion takes as its points of departure young adults with disabilities when attending school who indicated in the CSD that, because of their condition, they require(d) one or more supports to attend school or to follow their courses. Such supports include adapted or modified building features, or "instructional supports" that included any assistive devices, support services, modification to curriculum, additional time for testing, etc. The specific kinds and broad categories of information captured from those respondents are discussed in the subsection above on "Grouped information about supports."

Table 4.1 provides high-level numbers and percentages of CSD respondents in the age and school attendance categories at the focus of this research who indicated a need for one or more supports for their education. The Total column shows that, overall, only 37.3% of young adults with disabilities and currently or recently attending school needed any disability-related support to attend or follow their courses.

The CSD did not capture information from survey respondents with disabilities who did *not* attend school at any point from 2012 to 2017 and who *would have needed* support to attend and follow their courses. However, the percentage of young adults with disabilities who did attend and who needed any support increased by a factor of 1.25 from 33.4% of recent attendees to 41.8% among current attendees. That finding suggests that perhaps schools have become more inclusive and supportive of late, thereby enabling greater numbers of young adults to attend and follow their courses. Looking at the rows in Table 4.1 that show the need for one or both broad classifications of support, there were increases in all categories from 2012 to 2017, but most notably by a factor of 2.35 for the small number of young adults with disabilities who need only accessible built environmental features so they can attend school. While the estimated numbers for that group are low and should be treated with caution, the increase was from 0.9% to 2%. The increase among the much larger number of young adults who need only instructional supports went from 26.7% to 33.7% (1.26 times). For those who need accessible built environmental features *and* instructional supports, the increase was more modest, from 5.9% to 6.1% (1.04 times), suggesting only a marginal gain in inclusiveness for young adults with more complex needs.

Table 4.1. Built environmental and instructional supports needed by young adults (18 to 34 years old) presently (2017) and recently (2012–2015) attending school (Source: Canadian Survey on Disability, 2017)						
	Current attendees: attending at the time of the CSD in 2017, w/ disability and 18–34 years old		Recent attendees: last attended at some point in 2012–2017, and at least 18-years-old, w/ disability when attending, and max. 34 years old at the time of the CSD		Total	
Supports needed	**N**	**%**	**N**	**%**	**N**	**%**
None needed *	123,140	58.2%	163,120	66.6%	286,260	62.7%
One or both needed:	88,520	41.8%	81,870	33.4%	170,390	37.3%
Need accessible built environmental features only †	4,290	2.0%	2,110	0.9%	6,400	1.4%
Need instructional supports only	71,260	33.7%	65,300	26.7%	136,560	29.9%
Need accessible built environmental features *and* instructional supports	12,970	6.1%	14,460	5.9%	27,430	6.0%
Total	**211,660**	**100.0%**	**244,990**	**100.0%**	**456,650**	**100.0%**

* Includes 2,600 missing cases. Not needing support was imputed for these individuals.

† Low counts. Treat data in this row with caution.

The discussion that follows provides details on the extent of needs for broad sub-classifications of support by selected socio-demographic characteristics of the young adults with disabilities at the focus of this research. Given the subsample size, it was only possible to show the figures for present and recent attendees (2012 through 2017) together, not separately for the groupings shown on Table 1.1 in Section 1.

Those who need accessible built environmental features

Figure 4.1 shows the extent to which young adults with disabilities need accessible built environmental features at school. Such features include accessible classrooms, adapted washrooms, accessible residences, accessible buildings (excluding residences), and miscellaneous other built environmental school features. Overall, only 7.4% indicate any need for accessible built-environmental features at school.

Taking a difference of at least 1.2 times the overall level of need for accessible built environmental features (7.4%), comparatively high proportions need such features among BIPOC individuals (9.2%), people with a cognitive disability (11.8%), physical disability (11.8%), and sensorial disability (9.7%), including people with seeing (10.6%) and hearing disabilities

(10.1%). Those in greatest need are people with very severe complexity of disability (26.8%), although a considerably higher-than-usual proportion of people with a severe complexity of disability also need accessible built environmental features (10.7%). While those shown as least in need of such features in Figure 4.1 are people with a mild level of disability (3.4%), the estimated number with such needs is low so the finding should be treated with caution. The estimated numbers are also low for people with hearing disabilities and people who have low incomes, and those findings should be treated with caution. Appendix table 4.1 provides further details.

The levels of need are within 0.2 of that overall percentage for males (7.9%) and females (7.1%), people with psychosocial disability (6%), people who do not have a low income (7.7%), and people with a low income (6.8%).

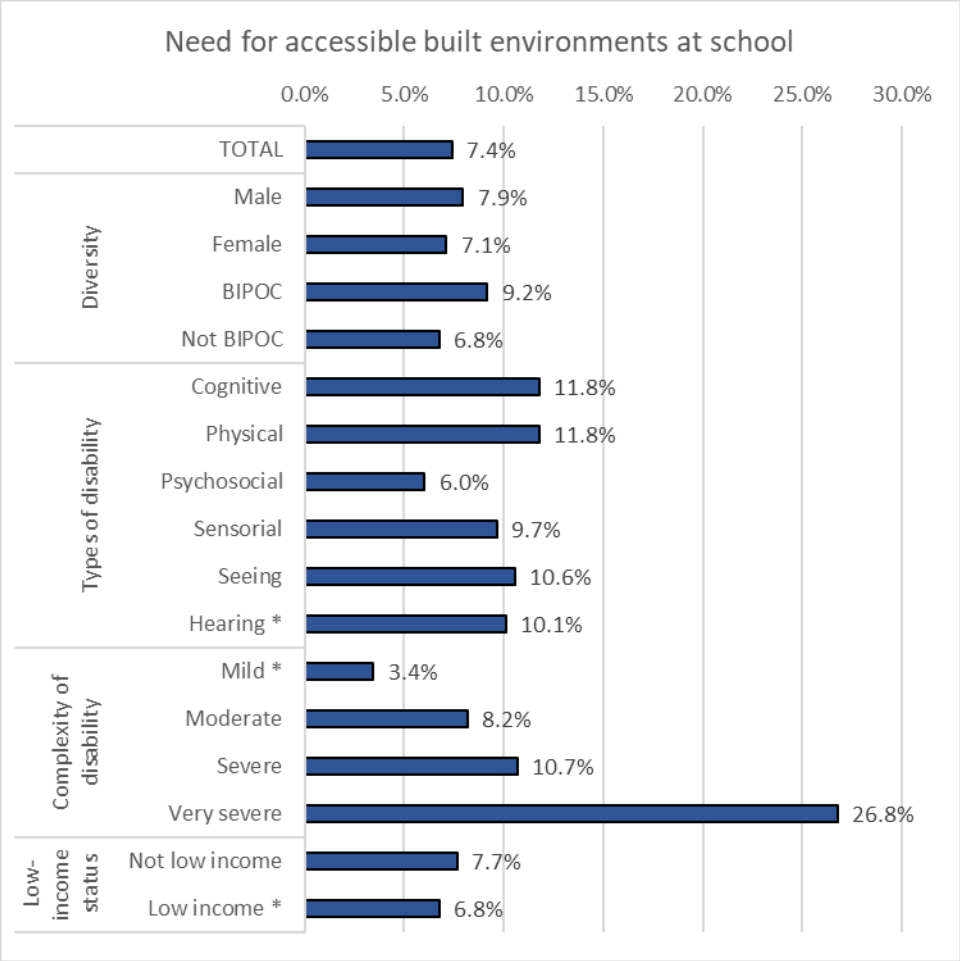


Figure 4.1
Young adults (18 to 34 years old) presently or recently attending school: Percentages of category totals who need accessible built school environments
From the Canadian Survey on Disability, 2017.

Those who need modified curriculum or procedures for learning with a disability

Figure 4.2 shows that, overall, 32.6% of young adults with disabilities need modified curriculum or procedures for learning. Such needs include those for modified or adapted course curriculum, extended time to take tests and exams, and in a few cases the equivalent of special education classes or individualized education plans. The percentages of young adults with disabilities needing these forms of support fall within ±0.2 of the overall percentage regardless of gender (males at 36.3% and females at 30.5%) and BIPOC status (BIPOC at 38% and non-BIPOC at 30.7%). People with physical disabilities (31.7%), psychosocial disability (35.5%), sensorial (31.8%), and vision disabilities (29.4%) also fall within the ±0.2 range.

The levels of need are greater than 0.2 times the overall average for people with a cognitive disability (58.4%), hearing disability (39.1%), and disabilities that fall within the moderate (40.8%), severe (47.6%), and very severe ranges of complexity (61.4%). People with low income are also more likely to experience need for modified curriculum or procedures for learning (39.7%). The young adults with disabilities shown in Figure 4.2 who are least likely to need modified curriculum or procedures are those with a disability of mild complexity (21.4%). Appendix Table 4.2 provides further details.

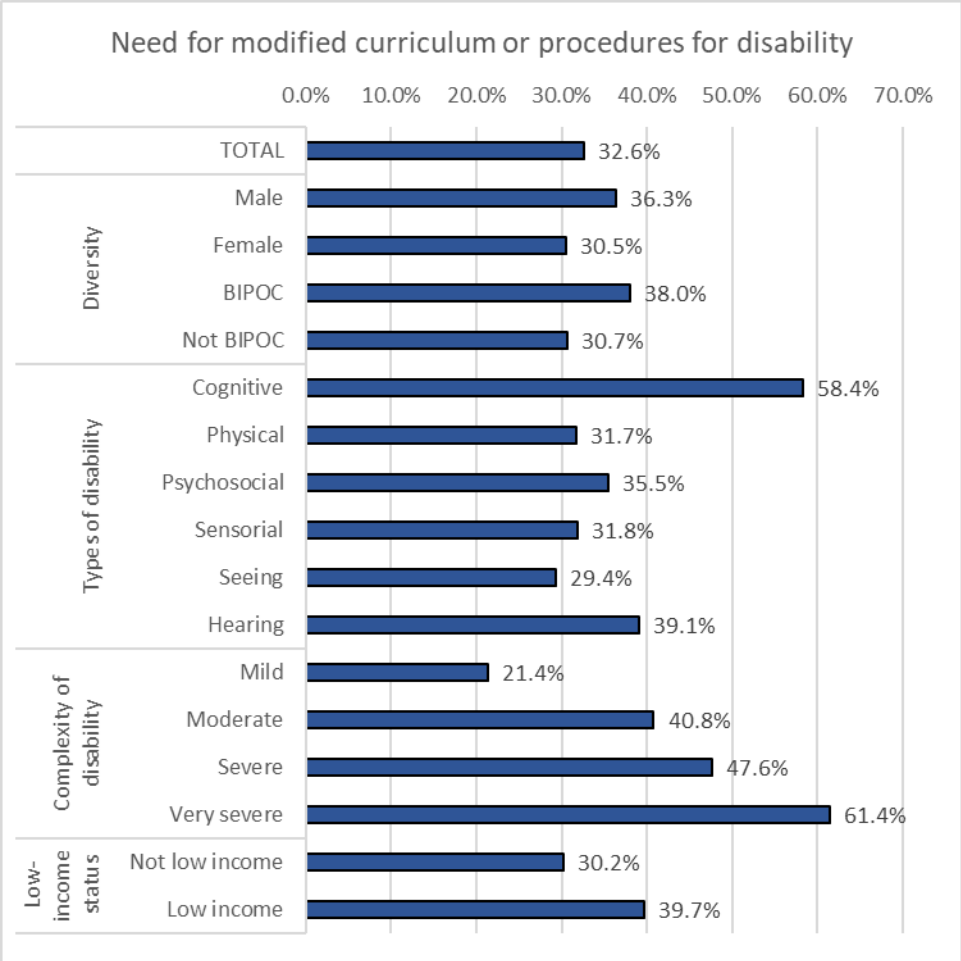


Figure 4.2
Young adults (18 to 34 years old) presently or recently attending school: Percentages of category totals who need modified curriculum or procedures for learning with a disability
From the Canadian Survey on Disability, 2017.

Those who need suitable materials for learning with a disability

Figure 4.3 shows that only 8.6% of young adults with disabilities indicate a need for suitable materials for learning with a disability. This category of supports includes textbooks in e-format, large print reading materials, and Braille reading materials or a manual Brailler. As those materials apply mainly to people who are blind or with low vision, it is no surprise that individuals with disabilities in the area of seeing have comparatively high needs for such supports (11.6%). However, also having high needs for suitable materials are individuals who self-identify as in the BIPOC group (11.6%) and people with a cognitive disability (8.4%). Some 13.4% with hearing disabilities indicate the need for suitable materials, but the number is low and should be treated with caution. Similarly, a comparatively high proportion of young adults

with disabilities and low incomes also need suitable materials (10.3%), but again the number is low and the finding should be treated with caution. A considerable proportion of

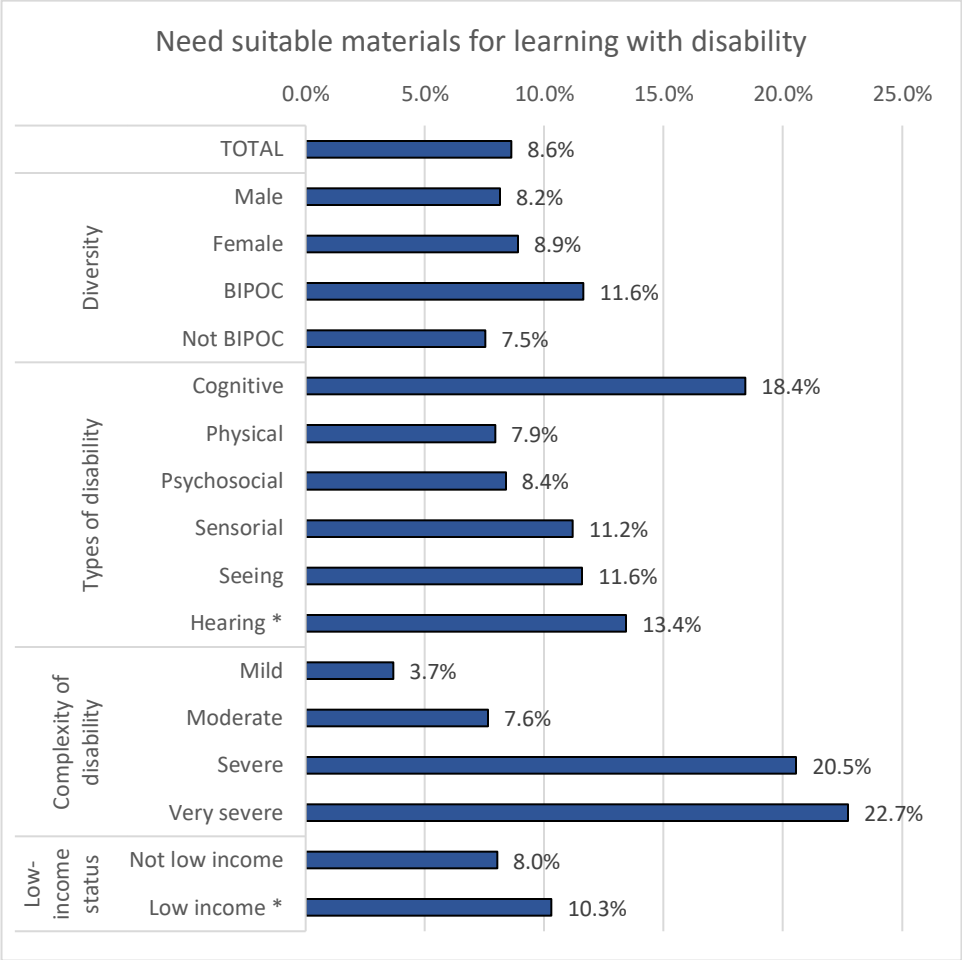


Figure 4.3
Young adults (18 to 34 years old) presently or recently attending school: Percentages of category totals who need suitable materials for learning with disability
From the Canadian Survey on Disability, 2017.
* Low counts. Use data with caution.

young adults with severe complexity of disability need suitable learning materials (20.5%) as does an even higher proportion with very severe complexity disability (22.7%). The young adults least likely to need such materials are those with a disability of mild complexity (3.7%).

Levels of need fall roughly within the expected or typical range for males (8.2%), females (8.9%), non-BIPOC students (7.5%), people with a physical (7.9%), psychosocial (8.4%), or moderate level of disability (7.6%), and people who do not have low incomes (8.0%).

Those who need suitable technologies for learning with a disability

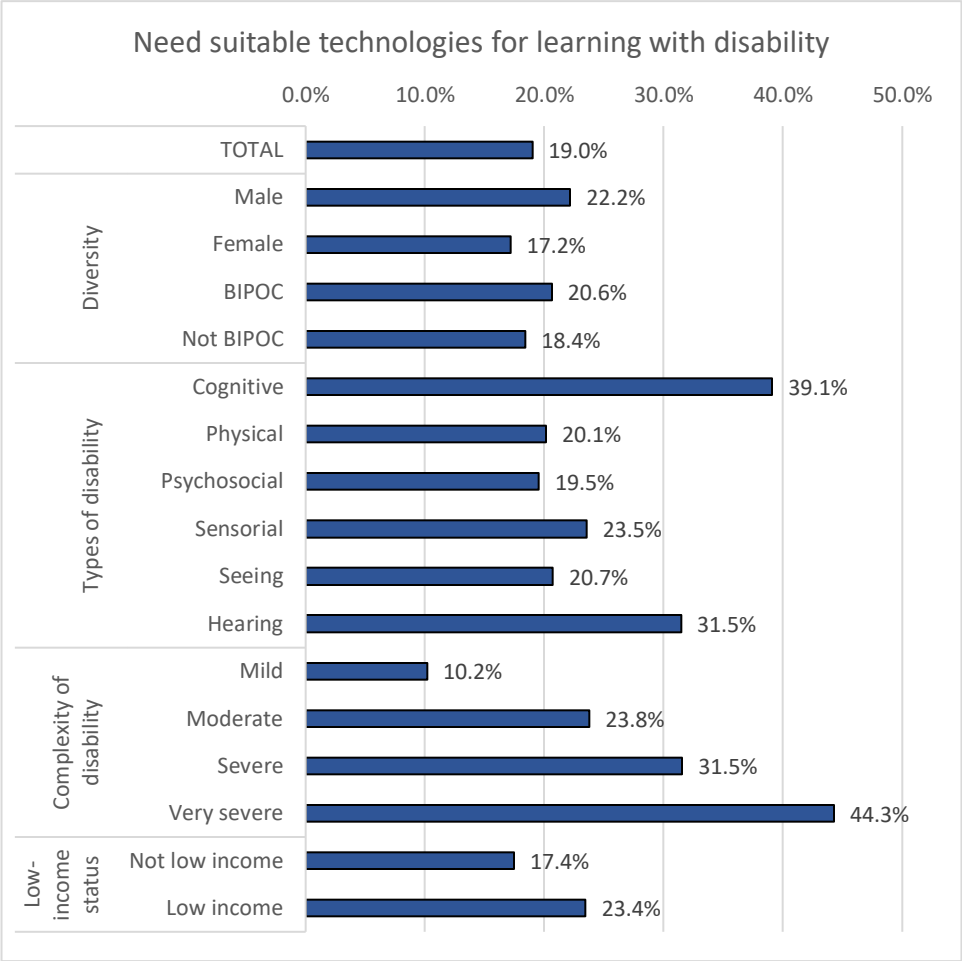


Figure 4.4
Young adults (18 to 34 years old) presently or recently attending school: Percentages of category totals who need suitable technologies for learning with disability
From the Canadian Survey on Disability, 2017

Figure 4.4 shows that 19% of young adults with disabilities need one or more technologies for learning with a disability. These technologies include: mobile or smart phones with specialized features; computers or tablets with specialized software or adaptations; recording equipment or portable note-taking devices; devices for playing audio or e-books; magnifiers; and closed-circuit devices. The young adults in comparatively high need of technologies (1.2 times the average or higher) are those with a cognitive disability (39.1%), sensorial disability (23.5%)—hearing disability in particular (31.5%)—and students whose disability is in the moderate (23.8%), severe (31.5%) or very severe range of complexity (44.3%). As well, young adults with low incomes are in comparatively high need of technologies for learning (23.4%). Young adults

with disabilities and substantially fewer-than-typical needs for technologies for learning are young adults with a mild level of disability (10.2%).

The other young people shown on Figure 4.4 have needs for technologies that fall within ±0.2 of the overall average. Gender does not seem to be a major factor that distinguishes between typical and very high or very low levels of need for technology. For instance, compared with the overall average of 19%, the needs of young men and women fall within 0.2% (22.2% and 17.2%, respectively). BIPOC status does not seem to be a major distinguishing factor, either, with 20.6% in the BIPOC group and 18.4% in the non-BIPOC group having needs for learning technologies. Similarly, young adults with a physical disability (20.1%), psychosocial disability (19.5%), and seeing disability (20.7%) have needs that fall within ±0.2 times the overall average, as do the 17.4% who are not living on a low income.

Those who need human support for learning with a disability.

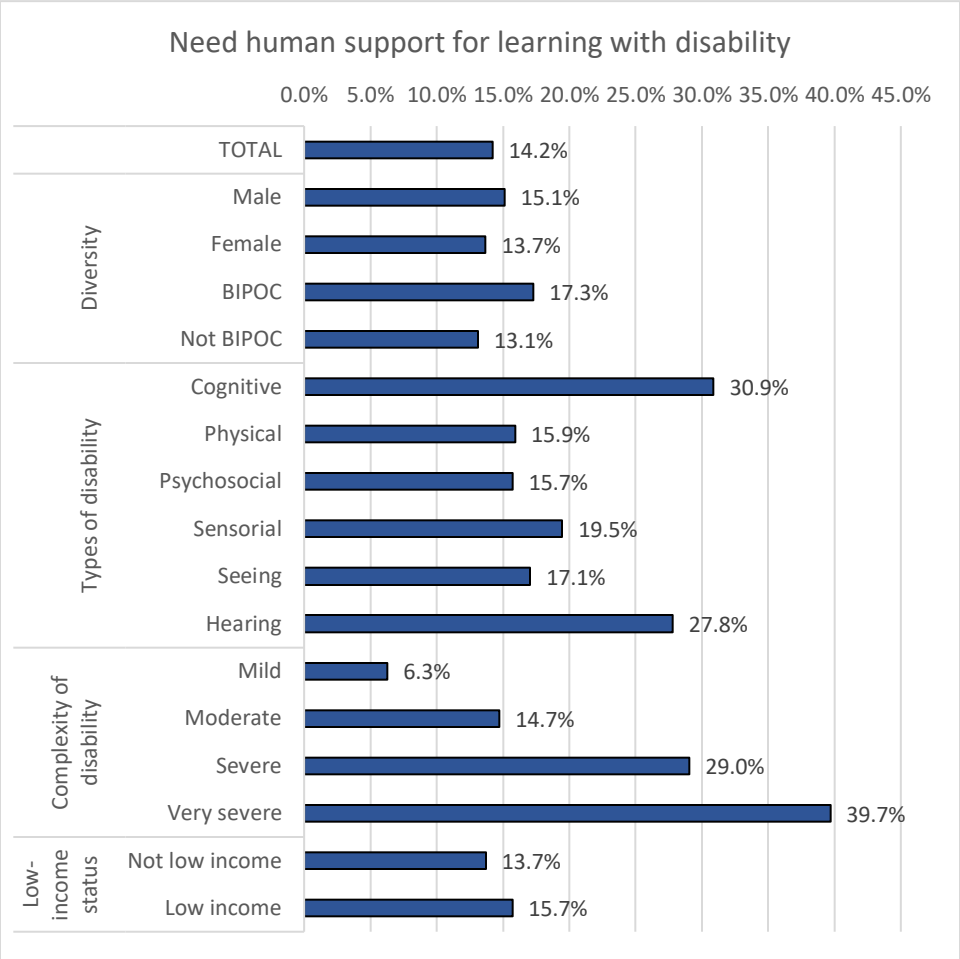


Figure 4.5
Young adults (18 to 34 years old) presently or recently attending school: Percentages of category totals who need human support for learning with disability
From the Canadian Survey on Disability, 2017.

Figure 4.5 shows that 14.2% of young adults with disabilities need human support for learning with a disability. Such supports include teachers' aides and tutors, sign language interpreters, attendant service providers, and speech therapists. Young adults with at least 1.2 times the average level of need are individuals in the BIPOC group (17.3%), students with a cognitive disability (30.9%), and those with a sensorial disability (19.5%).

Among those with a sensorial disability, those with seeing disabilities and hearing disabilities have substantially higher-than-typical needs for human support (17.1% and 27.8%, respectively). Young adults with severe (29%) or very severe complexity of disability (39.7%) are particularly in need of human support. Those with a disability of mild complexity are least likely to need human support (6.3%).

The young adults represented by the graph not discussed immediately above have needs for human support that fall within ±0.2 of the overall average. Gender does not seem to be a major factor that separates young adults with very high or low needs for human support. For example, 15.1% of young adult males with disabilities and 13.7% of females need human support. Neither does income seem to be a major distinguishing factor, with 13.7% above and 15.7% below the poverty line having such needs compared with 14.2% overall. Those who do not identify as BIPOC have roughly typical levels of need for human support (13.1%) as do young adults with physical (15.9%), psychosocial (15.7%) and moderately complex levels of disability (14.7%).

Those who need of various other supports for learning with a disability

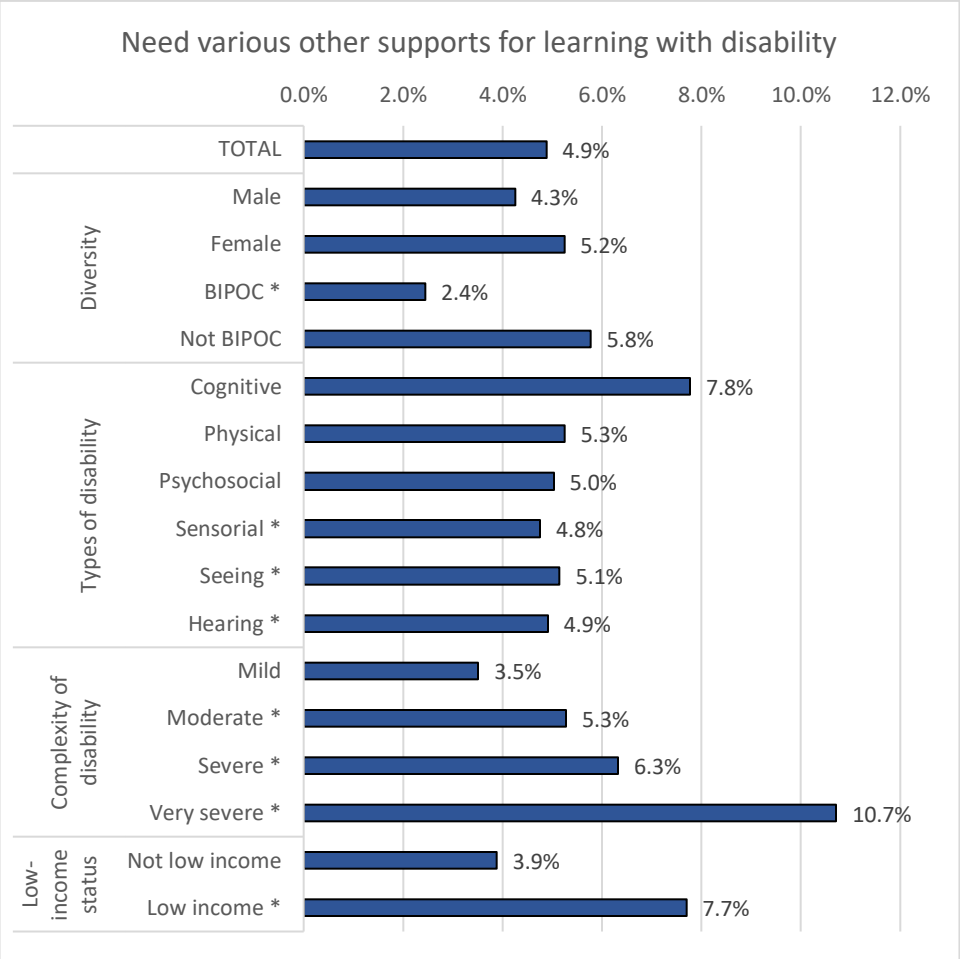


Figure 4.6
Young adults (18 to 34 years old) presently or recently attending school: Percentages of category totals who need various other supports for learning with disability
From the Canadian Survey on Disability, 2017
* Low counts. Use data with caution.

Overall, very few young adults with disabilities (only 4.9%) indicate any need for some "other" support for learning (Figure 4.6) that does not fall within the accessible built environment features, modified curriculum or procedures, suitable materials or technologies, or human supports discussed above. Accordingly, many of the estimated numbers of young adults with these miscellaneous needs are low, as indicated by asterisks on Figure 4.6 and in the discussion that follows. Such data should be treated with caution.

That said, young adults with comparatively high needs for other supports are those with cognitive disabilities (7.8%), and those whose disabilities are of severe (6.3%*) or very severe complexity (10.7%*). Young adults living on low incomes are also substantially more likely than others to need miscellaneous other supports (7.7%*). Those least likely to need such supports are young adults in the BIPOC group (2.4%*), those with a mild level of disability (3.5%), and those not living on a low income (3.9%).

Other young adults with disabilities represented by Figure 4.5 have needs for miscellaneous other supports that fall within ±0.2 of the overall average of 4.9%. Gender does not seem to be a major indicator of need, with 4.3% of males and 5.2% of females indicating such needs. As the non-BIPOC group represents most young adults with disabilities, it is not surprising to find that their level of need is within ±0.2 of the average (5.5%), as is the case among the large group of young adults with physical disabilities (5.3%). Young adults with psychosocial disabilities have miscellaneous needs (5%) that are roughly on par with the overall average, as are young adults with sensorial disabilities (4.8%*), regardless of whether their disability is in the area of seeing (5.1%*) or hearing (4.9*). Similarly, those with disabilities that present a moderate level of complexity (5.3%*) are also within ±0.2 times the average.

Those who have felt avoided at school because of disability

As shown in Figure 4.7, nearly a quarter (24.2%) of young adults with disabilities who are attending or who recently attended school have felt avoided at school because of disability. It is understood that some of those experiences may have occurred before PSE, e.g., in high school. However, the converse is that 75.8% have *never* had such experiences, including in PSE. (See Appendix Table 4.7). In the discussion that follows, the focus has been placed on the experience of feeling avoided because it is an easier notion to grasp and discuss than *not* having such an experience.

Taking at least 1.2 times or more than the overall average as a high rate of feeling avoided because of disability, those most likely to have had such an experience are young adults with cognitive disabilities (39.5%), those with psychosocial disabilities (30.2%), those with severe (44.1%) or very severe complexity of disability (51.3%), and those living on a low income (32.4%). Those least likely to have felt avoided at school because of disability are young adults

with a mild level of disability (15.9%).

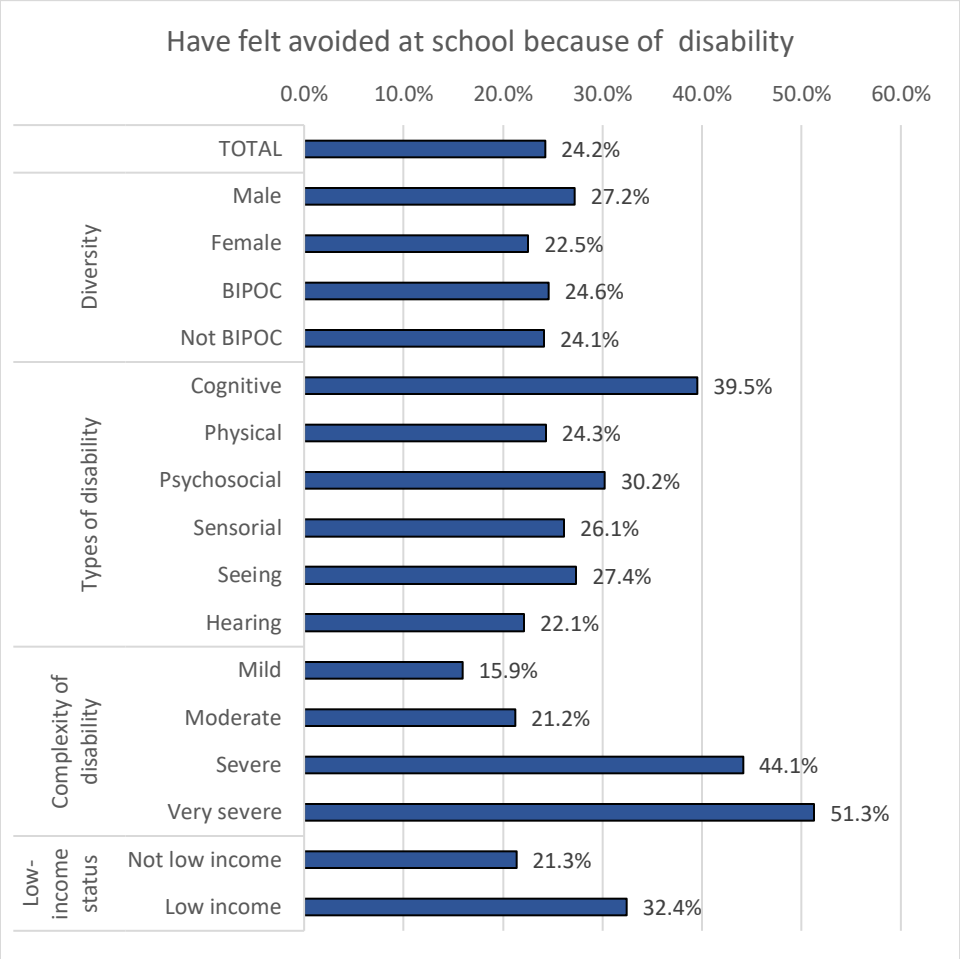


Figure 4.7
Young adults (18 to 34 years old) presently or recently attending school: percentages of category totals who have felt avoided at school because of disability
From the Canadian Survey on Disability, 2017.

The other young adults represented by Figure 4.7 have experiences of feeling avoided that fall within ±0.2 times the average. Gender does not seem to be a major stand-alone predictor, although young adult males are more likely to say they have had this experience than young women (27.2% and 22.5%, respectively). Similarly, neither being in the BIPOC group (24.6%) nor outside of that group (24.1%) seems to be a major indicator. Nor does physical disability (24.3%), sensorial disability (26.1%)—including seeing disability (27.4%) or hearing disability (22.1%)—or a level of disability that falls within the moderate range of complexity (21.2%). The large group of young adults who are not living on a low income are a little less likely to have experienced being avoided because of disability (21.3%), but that percentage is within ±0.2 times the average.

Of note, nearly a quarter (24.2%) of all young adults with disabilities have felt avoided at school because of disability.

Those who have felt left out at school because of their disability

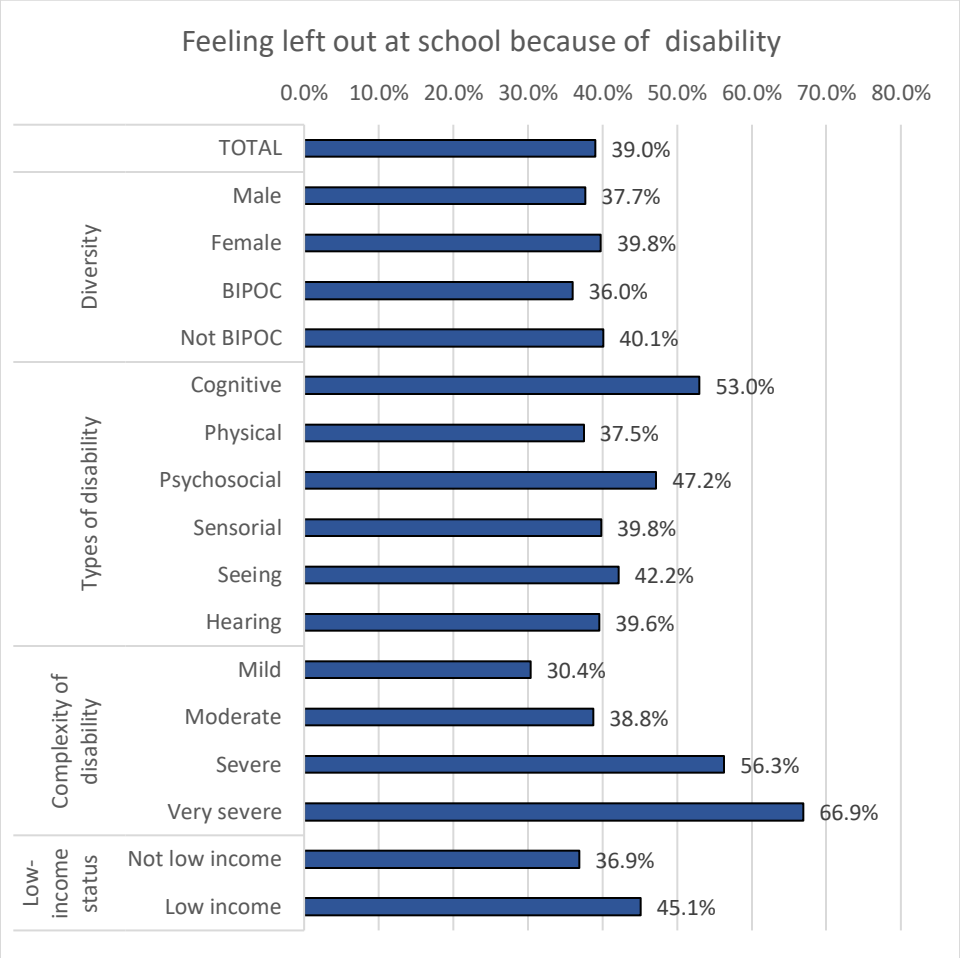


Figure 4.8
Young adults (18 to 34 years old) presently or recently attending school: percentages of category totals who have never felt left out at school because of disability
From the Canadian Survey on Disability, 2017.

Although feeling left out at school because of a disability may seem similar to feeling avoided, a higher percentage of young adults with disabilities who are current or recent school attendees have felt left out (39% versus 24.2% who have felt avoided—Figures 4.8 and 4.7). Those substantially more likely to have felt left out at school are young adults with a cognitive (53.0%) or psychosocial disability (47.2%), and those with disabilities in the severe (56.3%) or very severe (66.9%) range of complexity. Those least likely to feel avoided at school because of disability are those whose disability presents a mild level of complexity (30.4%—Figure 4.8).

The other young adults with disabilities represented by Figure 4.8 are about as likely as one another to have felt left out. Gender does not seem to make a major difference (with males at 37.7% and females at 39.8%). Neither does BIPOC status (36% of BIPOC young adults with disabilities versus 40.1% not in the BIPOC group). Neither physical disability (37.5%), nor sensorial disability (39.8%)—including seeing disability (39.6%) or hearing disability (39.6%)—seem to make a major difference, either. Level of income seems to account for only a minor difference, with 36.9% not living on a low income having felt avoided versus 45.1% living on low income. Young adults with a moderate level of disability who are attending or who recently attended school are also about as likely as young adult attendees with disabilities overall to have had this experience (38.8%).

Of note is that more than one in three young adults who are recently attending or who recently attended school have felt left out at school because of disability.

Those who have felt bullied at school because of disability

Almost a third (32.9%) of young adults presently or recently attending school say they have been bullied at school because of disability (Figure 4.9). In the Canadian Survey on Disability, bullying includes being hurt or threatened by someone else physically, verbally, or in writing. Bullying also includes being at the receiving end of pushing, shoving, kicking, hitting, or of mean

or threatening notes, Internet posts, or text messages.

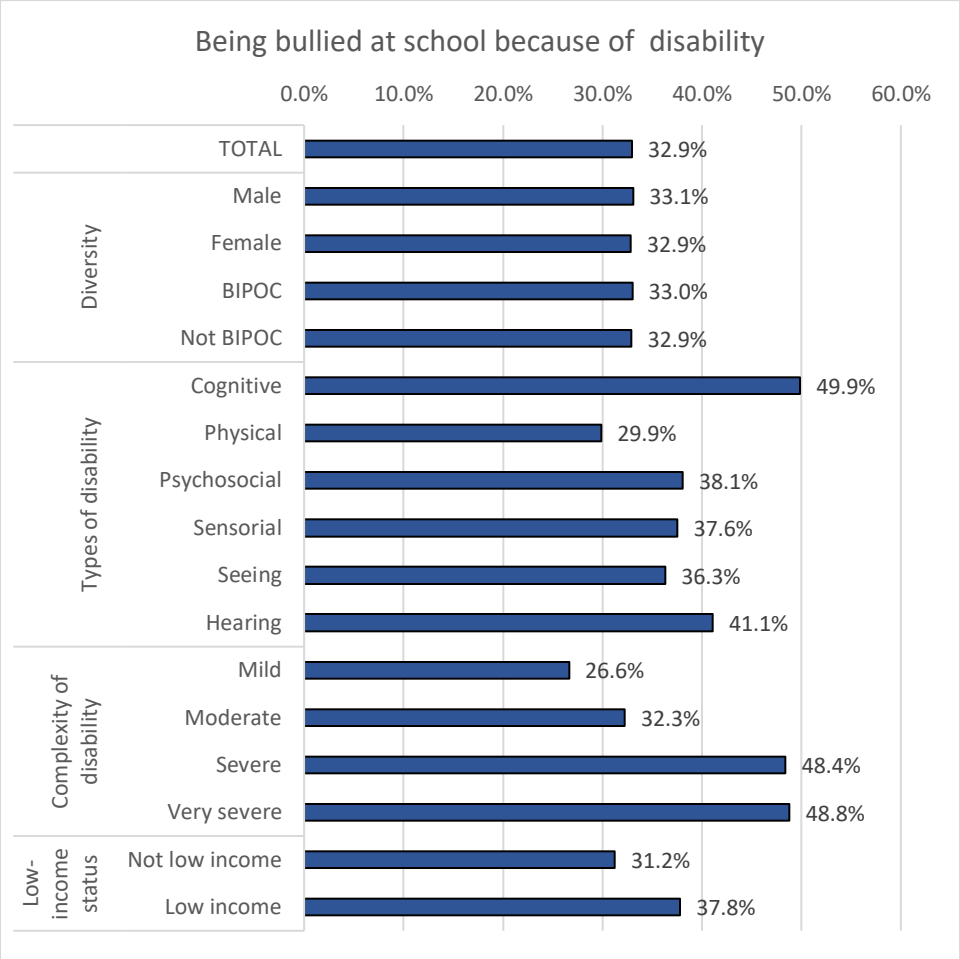


Figure 4.9
Young adults (18 to 34 years old) presently or recently attending school: percentages of category totals who have felt bullied at school because of disability
From the Canadian Survey on Disability, 2017.

Present and recent young adult school attendees with disabilities who are substantially more likely than others to have felt bullied are those with a cognitive (49.9%) or hearing disability (41.1%), and those whose disability falls within a severe (48.4%) or very severe (48.4%) range of complexity.

With the exception of those with disabilities of mild complexity (26.6%), all the other young adults with disabilities shown on Figure 4.9 are about as likely as one another to have had this experience. None are substantially less likely than others to have been bullied.

Those who have additional expenses for education because of disability

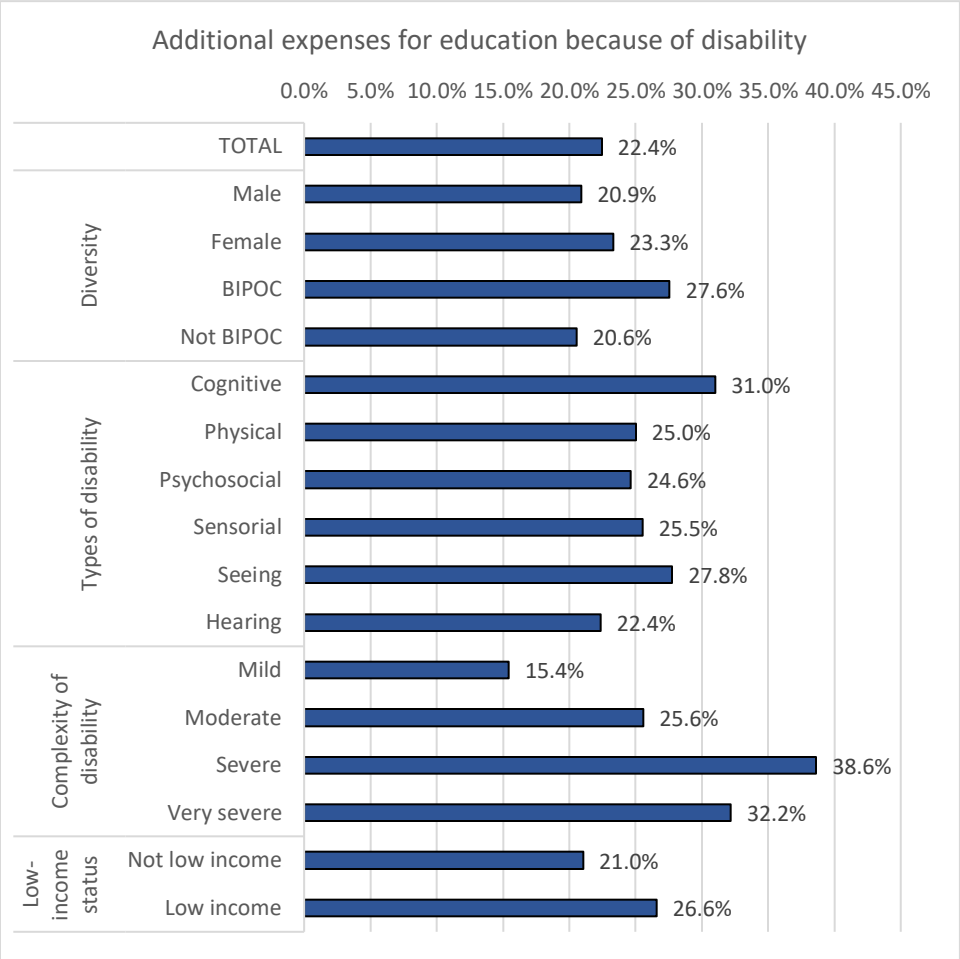


Figure 4.10
Young adults (18 to 34 years old) presently or recently attending school: percentages of category totals who have had additional expenses for education because of disability
From the Canadian Survey on Disability, 2017.

Nearly a quarter (22.4%) of young adults with disabilities and presently or recently attending school have had additional expenses for their education because of disability (Figure 4.10). Those at least 1.2 times more likely than the average to have had such expenses are young BIPOC adults (27.6%), those with cognitive disabilities (31.0%), seeing disabilities (27.8%), and those whose disability is in the severe or very severe range of complexity (38.6% and 32.2%, respectively). Those least likely to have incurred additional disability-related expenses for their education are those whose disability presents a mild level of complexity (15.4%).

The other young adults with disabilities represented by Figure 4.10 are about as likely to have such expenses as one another. This includes young adult males (20.9%) and females (23.3%) with disabilities, non-BIPOC young adults with disabilities (20.6%), those with a physical (25%)

or psychosocial disability (24.6%), hearing disability (22.4%), or a moderately complex level of disability (25.6%). While those living on a low income are more likely than those with higher incomes to have such expenses (26.6% versus 21%), both income groups are within ±0.2 of the average.

Diversity equity across academic fieds of study

Figure 4.11 shows the distribution of young adults with disabilities across major fields of academic study. Those fields reflect groupings of the CIPSTEM variable as discussed in "Variables for the PSE component of this research," which can be found in Part 1 of the Appendix's Methodology subsection. The CSD provides information on fields of study only for people who have a postsecondary certificate. Accordingly, as many of the young adults at the focus of the present study were still at school when the CSD was conducted, more than half (51.7%) did not yet have any postsecondary certificate. Among those who do have such certification, the most widely held are for the arts, humanities, social, and behavioural sciences disciplines (16.3%). The least widely held are in the STEM disciplines—science, technology, engineering, and mathematics disciplines (6.8%).

Figure 4.12 shows the equitability of distribution across major fields of study. See Part 1 in the Appendix's Methodology subsection for a discussion of how the measure of equity was derived. Briefly, however, the measure takes into account three sub-indices: disability, gender, and BIPOC identity. On each sub-index, the measure assigns a "1" for fields of study where people with disabilities are substantially under-represented. In effect, the measure "rewards" the educational arrangements of people who are underrepresented by according the maximum possible score; if more individuals had "1's," there would be more equal representation in that field of study. The measure assigns a "0" where people are substantially overrepresented in a field of study. This means that, in effect, there are already numerous people with the same kind of certificate, and it is of questionable value for the postsecondary system to be adding more certificate holders in those areas of study. A score midway between "0" and "1" ("0.5" for "average") was assigned where the number of young adults with disabilities who hold certification in a given field of study is roughly on par with what could be expected, given the number of other certificate holders. It was possible for people to have a score on either side of the average that leaned towards "0" or "1." As some counts were low, scores that fell between 0 and 0.5 had to be grouped into 0.167 to 0.333 to be shown on Figure 4.12, and scores from 0.5 to less than 1 had to be grouped into 0.5 to 0.833. However, the scores were not compressed when the measure of PSE quality was derived, and which is discussed in Section 5. Instead, the scores were used "as is."

It was theoretically possible for a BIPOC male and female with disabilities to have obtained a 0 score on the diversity-equity index by being substantially over-represented as a certificate holder in a given field of study across all three disability, gender, *and* BIPOC dimensions of the equity measure. However, as Figure 4.12 shows, only a few young adults with disabilities had scores of 0. These were the 14% of the students with certificates in the broad area that includes

trades, services, natural resources, and conservation. The students with 0's tended to be young adults with certificates in social work, where many others with and without disabilities also hold such certificates. Most others (67.9%) with certificates in the same general area had scores somewhere from 0.167 to 0.333 out of a possible high score of 1.

As shown on Figure 4.12, many young people with disabilities lack a postsecondary certificate. While this was to be expected, it was found that they are over-represented among non-certificate holders given their scores on the sub-measures that made up the diversity-equity score.

While only 6.8% of young adults with disabilities have certificates in the science, technology, engineering and mathematics (STEM) disciplines, 21.9% of these individuals are substantially underrepresented and are therefore represented in Figure 4.12 by very high scores on the equity measure. However, many other young adults with disabilities and certificates in STEM disciplines (60.2%) are also substantially underrepresented or are represented about on par with others in those fields of study. These individuals' successful studies in the STEM fields suggest that inequities can be addressed to further such successes. The same could also be said about business and administration programs. Here, 79.8% with disabilities and certificates in those areas of study are represented to about the same degree as others or are substantially under-represented, garnering diversity-equity scores from 0.5 to 0.833. The finding shows that, although it may be difficult for many to gain access to such programs and to succeed when disability, gender and BIPIC identity must be negotiated, many do succeed.

Fields of study where young adults with disabilities are most disproportionately likely to hold a certificate are in the broad classification of trades, services, natural resources, and conservation. On more granular analysis of this cluster of disciplines, it was found that young adults with disabilities are disproportionately likely to hold certificates in social work. Many other young adults with disabilities are also disproportionately likely to hold a certificate in one of these areas and have a diversity-equity score less than 0.5 (67.9%). Other fields of study where disproportionate numbers of young adults hold certificates and where the diversity-equity scores are low are in the arts, humanities, social and behavioural sciences (80.6%), and in disciplines associated with legal, health and education professions (76.3%).

In summary, the highest scores in terms of diversity equity were assigned to certificates in the STEM disciplines and in business and administration. Lower scores were assigned to all other general categories of postsecondary certification. These include the arts and humanities, in social and behavioural sciences, in the legal, health and education professions, and in the broad category of certifications for the trades, services, natural resources, and conservation. Exceptions are a few young adults with certificates in the general category that includes trades, services, natural resources and conservation. Here, certificates are relatively rare among students with disabilities and such certificates obtained high diversity-equity scores accordingly. Also in this category, however, are a few students with very low scores, mainly because of the

considerable supply of young adults with and without disabilities who hold certificates in social work.

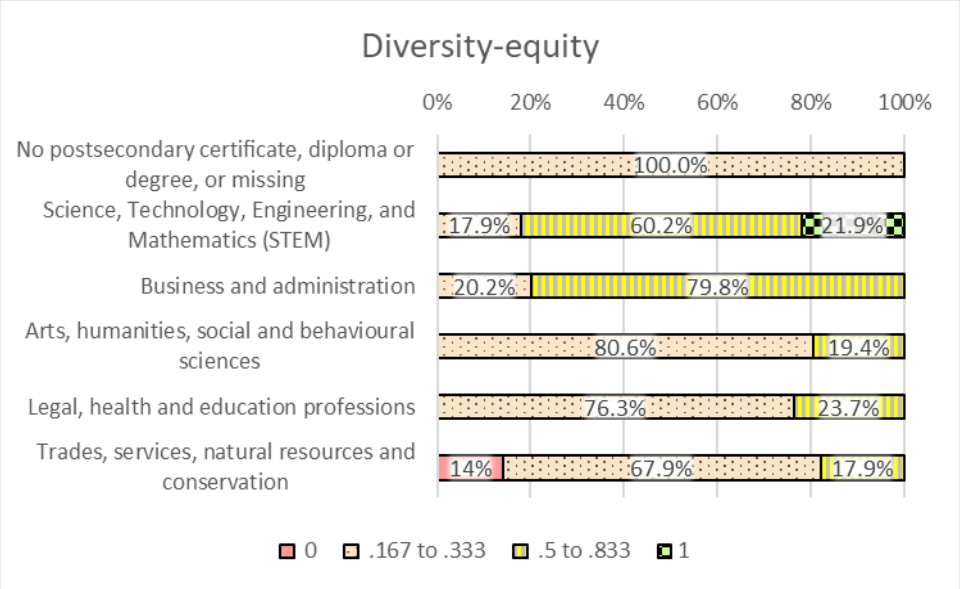


Figure 4.12
Scores on the Diversity-Equity measure, by grouped CIPSTEM major fields of academic study, among young adults with disabilities (18 to 34 years old) and recently or presently attending school.
N = 456,560
Source: Canadian Survey on Disability, 2017 (Census and disability components).

Section Summary

The previous discussion has presented numerous findings. Table 4.3 provides a summary of key messages from that discussion. The non-bracketed percentages in the table show the young adults with disabilities who are substantially more likely than others (i.e., at least 1.2 times the average) to have support-related needs or difficult social experiences related to education because of disability. The percentages for those substantially less likely (0.8 times the average or less) are shown in square brackets. Blank cells represent young adults whose needs are within ±0.2 of the average. Asterisks, including in otherwise blank cells, represent cells with low counts and whose data should be used with caution.

- Young adults with cognitive disabilities are in comparatively high need of *all* the supports reflected in Figures 4.1 to 4.6 *and* are substantially more likely to have felt avoided or left out at school because of disability, to have been bullied at school, and to have had extra expenses for their education because of disability (Figures 4.7 to

4.10). Young adults whose disabilities present a severe or very severe level of complexity are also substantially more likely than the average young adult with disabilities to experience needs for all kinds of support and to experience all the socioeconomic challenges explored above.

  - Young adults with hearing disabilities experience 5 out of 10 of these needs or challenges (4 needs and one difficult social experience), followed by young adults with seeing disabilities, those living on low incomes, and those identified as BIPOC individuals, all of whom experience substantially more needs for support in 3 areas and one kind of difficult socioeconomic experience (4 categories in total).
  - Young adults with psychosocial disabilities are substantially more likely than others to experience two forms of social difficulty (feeling avoided *and* left out at school).
  - Modified curriculum and procedures and suitable technologies are the only two areas of substantially greater-than-average need among young adults whose disabilities present a moderate level of complexity.

- Those most likely to experience a substantially lower-than-typical level of need for support or challenging socioeconomic experience are young adults whose disability presents a mild level of complexity. These individuals experience substantially lower levels of need and experience across 9 of the areas shown on Table 4.3. BIPOC individuals and those not living on a low income are also substantially less likely than others to need various "other" supports.

- The young adults with disabilities who are consistently likely to have roughly average levels of need for support and difficult social/economic experience (blank cells on Table 4.3) are those who are not in the BIPOC population and males and females irrespective of their belonging to any other category.

- While not many young adults with disabilities presently or recently attending school need accessible built environments for learning (7.4%), those needs are experienced more pervasively than on average among young adult BIPOC students with disabilities, those with cognitive, physical, seeing, and hearing disabilities, and those with severe and very severe complexity of disability.

- While only 8.6% of young adults with disabilities presently or recently attending school need suitable materials for learning with a disability, and only 14.2% need human support, those who are substantially more likely than others to have needs in *both* of these areas are young adults with cognitive, seeing, hearing, severe, and very severe

levels of disability.

- Young adults with cognitive disabilities, psychosocial disabilities, and disabilities that present severe and very severe levels of complexity are substantially more likely than the average young adult school attendee with disabilities to feel avoided *and* left out at school.

- Table 4.3 shows that young adults with cognitive disabilities are substantially more likely than the average young adult school attendee with disabilities to have been bullied at school. Some 90,190 young adults with cognitive disabilities have had this experience, which represents half (49.9%) of all young adults with cognitive disabilities presently or recently attending school, and nearly one in five (19.8%) of *all* young adults present or recent attendees with *any* disability.

- While the level of bullying experienced by young adults with psychosocial disabilities is within ±0.2 of the average, some 98,830 with psychosocial disabilities have had this experience, who comprise more than one in five (21.7%) of all young adult school attendees with disabilities.

- Overall, 150,060 young adults with disabilities and presently or recently attending school have experienced bullying at school, which represents nearly one third (32.9%) of all young adult attendees with disabilities. Even where young adults are not subject to bulling in PSE, there is a strong chance they will have been subjected to this experience at some point in their educational history and may be struggling with the emotional and social aftermaths, e.g., depression, damaged self-image, diminished self-confidence, substance use, tendency to self-isolate, impaired academic performance, etc. (e.g., Wolpert, 2010; U.S. Department of Health and Human Services, 2021; Centers for Disease Control and Prevention, 2021).

Table 4.3. Young adults with disabilities (18 to 34 years old) presently or recently attending school who are substantially more [or less] likely than others to have needs for support or difficult experiences because of disability (Source: Canadian Survey on Disability, 2017)

	Substantially more widespread needs for support than typical						Substantially more widespread experience than typical			
Personal characteristics	**4.1. Built environmental**	**4.2 Curriculum and procedures**	**4.3. Materials**	**4.4. Technologies**	**4.5 Human support**	**4.6 Other support**	**4.7 Feeling avoided**	**4.8 Feeling left out**	**4.9 Being bullied**	**4.10. Additional expenses**
Total (average)	**7.4%**	**32.6%**	**8.6%**	**19.0%**	**14.2%**	**4.9%**	**24.2%**	**39.0%**	**32.9%**	**22.4%**
Male										
Female										
BIPOC	9.2%		11.6%		17.3%	[2.4%*]				27.6%
Not BIPOC										
Cognitive	11.8%	58.4%	18.4%	39.1%	30.9%	7.8%	39.5%	53.0%	49.9%	31.0%
Physical	11.8%									
Psychosocial							30.2%	47.2%		
Sensorial	9.7%		11.2%	23.5%	19.5%	*				
Vision	10.6%		11.6%		17.1%	*				27.8%
Hearing	10.1%*		13.4%*	31.5%	27.8%	*			41.1%	
Mild complexity	[3.4%*]	[21.4%]	[3.7%]	[10.2%]	[6.3%]	[3.5%]	[15.9%]	[30.4%]		[15.4%]
Moderate complexity		40.8%		23.8%		*				
Severe complexity	10.7%	47.6%	20.5%	31.5%	29.0%	6.3%*	44.1%	56.3%	48.4%	38.6%
Very severe complexity	26.8%	61.4%	22.7%	44.3%	39.7%	10.7%*	51.3%	66.9%	48.8%	32.2%
Not low income						[3.9%]				
Low income	*	39.7%	*	23.4%		7.7%*	32.4%			

* Low counts. Use data with caution.

Another way to look at the scope of the social and economic difficulties experienced by young adults with disabilities presently or recently attending school is to 1) look at the percentage of the population of young adults who are currently or were recently at school and who have a given characteristic, and 2) to compare that share with the share of those with the same characteristic who have experienced a given difficulty.

For instance, Table 4.4 shows that:

- 39.4% of young adult present or recent school attendees with disabilities have some form of cognitive disability. However, these individuals comprise 64.8% of all young adult attendees who have felt avoided at school because of disability, 53.8% of all who have felt left out, 60.1% of all who have been bullied, and 54.6% of all who have additional expenses because of disability. Clearly, young adults with cognitive disabilities are significantly over-represented among those who have had those four experiences.

- Similarly, 56.8% of present or recent attendees have a psychosocial disability, but they comprise 71.0% of all who have felt avoided and 69.0% who have felt left out at school because of disability.

- Those with seeing disabilities make up only 17.3% of all young adult school attendees with disabilities but 21.3% of all who have incurred additional disability-related expenses for their education. Similarly, young adult BIPOC attendees with disabilities make up 26.6% of the total, but 33% of those with additional disability-related expenses.

- Looking at severity of disability complexity, 15.4% have severe complexity of disability, but they comprise 28.3% of those who have felt avoided, 22.3% who have felt left out, 22.7% of all who have been bullied, and 26.6% of all with additional educational expenses because of disability.

- While only 8.1% of young adult school attendees have a very severe complexity of disability, they make up 17.1% of all who have felt avoided at school, 13.8% of those who have felt left out, 12.1% who have been bullied, and 11.7% of all with additional expenses for education because of disabilities.

- Regardless of the type or complexity of disability, young adult attendees with disabilities who live on a low income make up only 26.2% of all present or recent young adult school attendees with disabilities, but 35.0% of those who have felt avoided at school because of disability.

Most notable among these patterns are the consistently high rates of socially and economically difficult experiences and the associated population counts among young adults with cognitive, severe, and very severe levels of disability.

- In addition, although not shown on Table 4.3 and the numbers are not large, there are notable successes among young adults who study in the STEM fields and in the business and administration fields. The numbers of certificate holders are considerably higher in the arts, humanities, social, and behavioural sciences, and in disciplines associated with legal, health, and education professions. However, taking into account disability, gender and BIPOC identity, young adults with disabilities are disproportionately likely to hold certificates in those fields and to find themselves competing with many others with and without disabilities in the labour market who hold similar qualifications.

Table 4.3. Percentages of the total population of present and recent young adult school attendees with disabilities who have selected personal characteristics, subtotals who have had four challenging social / economic experiences, and distributions within those subtotals by selected personal characteristics (Source: Canadian Survey on Disability, 2017)

	Percent of population	4.7. Felt avoided	4.8. Felt left out	4.9. Were bullied	4.10. Additional expenses
% of total who have experienced—>		**24.2%**	**39.0%**	**32.9%**	**22.4%**
	Category subtotals				
	100.0%	**100.0%**	**100.0%**	**100.0%**	**100.0%**
Male	36.4%	40.8%	35.1%	36.6%	33.9%
Female	63.6%	59.2%	64.9%	63.4%	66.1%
BIPOC	26.6%	27.2%	24.7%	26.9%	33.0%
Not BIPOC	73.4%	72.8%	75.3%	73.1%	67.0%
Cognitive disability	39.4%	64.8%	53.8%	60.1%	54.6%
Physical disability	44.5%	44.8%	42.9%	40.6%	49.9%
Psychosocial disability	56.8%	71.0%	69.0%	65.9%	62.7%
Sensorial disability	23.3%	25.0%	23.7%	26.5%	26.4%
Vision	17.3%	19.5%	18.6%	19.0%	21.3%
Hearing	7.7%	7.0%	7.8%	9.6%	7.6%
Mild complexity	56.2%	37.0%	43.8%	45.4%	38.6%
Moderate complexity	20.3%	17.7%	20.1%	19.8%	23.1%
Severe complexity	15.4%	28.3%	22.3%	22.7%	26.6%
Very severe complexity	8.1%	17.1%	13.8%	12.1%	11.7%
Not in low income	73.5%	64.8%	69.6%	69.8%	69.1%
In low income	26.2%	35.0%	30.1%	30.0%	30.7%

5. The Quality of PSE

The discussion in this section explores how young adults with disabilities fare in terms of the overall quality of their postsecondary education. As described below, and in more detail in Part 1 of the Methodology subsection in the Appendix, PSE can be considered high-quality where it includes all young adults equitably and supports all PSE students to thrive and succeed, whether at college/CEGEP/trade school or university. In high-quality PSE, inclusion and support prevail regardless of a person's age, gender, race, ethnicity, income, region of the country, type of community, type or degree of disability, field of study, or other differences. Low-quality PSE fails across many of those domains.

The analysis in this section considers the percentages and odds of young adults with disabilities experiencing high-, midrange, and low-quality education with reference to their gender, BIPOC status, type of disability, their disability's complexity level, the region where they live, their type of community, low-income status, needs for various built environmental and instructional supports for attending classes, their social and economic experiences while attending, and their levels and kinds of educational certification.

Notes on Methodology

People at the focus of this section

Figures and charts in this section feature details drawn from the CSD on educational quality for young-adult college/CEGEP/trade school students (N = 127,800) and university students (N = 145,320) with disabilities. The college/CEGEP/trade school students include 80,600 who were attending when the CSD was conducted and 47,210 who were not currently attending but who attended at some point in 2016 or 2017. The university students include 109,790 who were currently attending and 35,520 who attended at some point in 2016 or 2017.

The category "Any current or recent schooling" includes all college/CEGEP/trade school and university students presented in the charts, together with a fairly large number of other young adults with disabilities (158,110—Table 1.1) who attended *some* form of schooling *at some point* from 2012 through 2015, but whose type of schooling the CSD did not capture. It is reasonable to assume that many of these individuals attended college/CEGEP/trade school or university, and that a few attended high school; however, the CSD did not explicitly ask these individuals about the kind(s) of schooling they attended in 2012 to 2015. The "any" category also includes a fairly small number of young adults who were currently attending high school when the CSD was conducted (N = 24,120) or who attended high school in 2016 or 2017 (N = 16,700).

Despite not capturing the kind of schooling attended from 2012 to 2015, the CSD did capture information about the quality of education these young adults with disabilities experienced in

those years. Accordingly, as most of these school attendees would have been in PSE, they have been incorporated into the "any" group for the present study.

As with the college/CEGEP/trade school and university students, all individuals in the "any" category were at least 18 years old when attending school and younger than 35 when the CSD was conducted. In all, this section of the report focuses on 456,650 young adults with disabilities.[3]

PSE quality: a master index and categorical measure

As discussed in detail in Part 1 of the discussions on Methodology in the Appendix, an index on educational quality was developed that reads across numerous variables and assigns a score. The higher the score, the greater the number of positive educational conditions that are/were in place for students attending classes. The lower the score, the fewer the positive conditions. The domains included in the index are the same as those discussed in Section 4 and include the following.

The extent of met and unmet need for:

- Accessible built environmental features
- Modified curriculum or procedures for learning with a disability
- Suitable materials for learning with a disability
- Suitable technologies for learning with a disability
- Human support for learning with a disability
- Various other supports for learning with a disability.

The extent of *not* experiencing:

- Feeling avoided at school because of disability
- Feeling left out at school because of disability
- Being bullied at school because of disability
- Having additional expenses for education because of disability.

And:

- Diversity equity across academic fields of study.

Scores across these separate domains were each weighted equally, with each of the eleven domains having a score that ranges from 0 to 1. Those scores were then tallied and converted to a single composite score with a maximum value of 1. As all respondents obtained a positive

[3] The numbers shown on Appendix Table 3.11 as attending college/CEGEP/trade school or university are a little different than the numbers at the basis of in the discussion below because the numbers in the Appendix Table draw from the Census' rather than CSD's education variables. Unlike the CSD's information, the Census information is available for young adults with and without disabilities and was therefore used in earlier sections of this report where comparisons were drawn.

score in one or more of the domains, no respondent had a score of 0. The index score was then converted into a three-point categorical scale. The "highest" category includes the 25% of all current or recent school attendees with the highest scores on the quality index. The "lowest" category includes the 25% of attendees with the lowest index scores. The middle 50% represents the individuals whose index scores fall somewhere between the top and bottom 25%.

To facilitate discussion, a three-part common standard is maintained at the top of all charts presented below. The standard represents the lowest 25%, middle 50%, and top 25% that would apply across all details shown in the charts if individuals' characteristics were not relevant. As the discussion will show, however, there are numerous departures from the 25%-50%-25% standard, meaning that individuals' characteristics are often highly relevant.

Substantial and noteworthy socio-demographic differences between groups

All percentages that served as the bases for the Figures below can be found in Appendix Tables 5.1.a-e, 5.2.a-e, and 5.3.a-e. However, as those tables contain a great deal of information, the charts have highlighted only the most relevant patterns.

- The numbers displayed in a larger, non-italicized font reflect percentages that are substantially greater or less than the cut points for the bottom 25%, the middle 50%, and the top 25% of PSE quality. The terms "substantial difference" and "substantially different" are used to indicate such cases.
    - A substantially greater-than-expected score is defined as one that is at least 0.2 times higher than a given cut point in the common standard (i.e., 1 + 0.2 = 1.2 times the cut point or more). For instance, a midrange score of at least 60% is considered substantially higher than 50% (i.e., 1.2 x 50% = 60%). A low-range or high-range score of at least 30% is considered substantially higher than 25% (i.e., i.e., 1.2 x 25% = 30%).
    - A substantially lower-than-expected score is defined as one that is 0.2 times lower than the standard score (i.e., 1 – 0.2 = 0.8 times the cut points). For instance, 40% or less is considered substantially lower than 50% for midrange scores (i.e., 0.8 x 50% = 40%), and 20% or less is considered substantially lower than 25% for low- and high-range scores (i.e., 0.8 x 25% = 20%).

- A few "notable" percentages are also provided in smaller italicized font in the Figures below.
    - These scores represent differences that are not as substantial as the ±0.2 difference discussed above but reflect a ±0.15 difference and seemed noteworthy.

Relatively few bars in the Figures below show percentages in italics. This means that most of the information highlighted is for patterns that are substantially higher or lower than in the

25%-50%-25% common standard. Bars in the charts that do not display percentages have scores that are within ±0.15 of the percentage thresholds for the common standard.

In the following discussion, a "marked" difference is one that is "substantial" or "notable," that is, one that is at least 1.15 times the 25%-50%-25% cut points, or 0.85 times or less than those cut points.

Major patterns in educational quality

The analysis that follows is based on Figures 5.1 through 5.5, below, as summarized on in-text Tables 5.1 through 5.5, also below. Fuller details on the percentages and numbers are shown in Appendix Tables 5.1 to 5.3 (all parts a—e for those tables).

To facilitate analysis of the figures, the tables are subdivided into three major panels that reflect: 1) positive patterns, 2) negative patterns, and 3) ambivalent patterns. These three broad types of patterns are each subdivided into two subcategories, as follows:

1. Positive patterns	a) Departures from the common standard that reflect a marked (substantial or notable) expansion of higher-quality PSE (i.e., 1.15 times or more than the expected value, or to 28.75% or more); and
	b) Departures from the common standard that reflect a marked contraction of lower quality PSE (i.e., 0.85 times or less than the expected value, or to 21.25% or less).
2. Negative patterns	c) Departures from the common standard that reflect a marked expansion of lower quality PSE (i.e., to 28.75% or more); and
	d) Departures from the common standard that reflect a marked contraction of higher quality PSE (i.e., 21.5% or less).
3. Ambivalent patterns	e) Departures from the common standard that reflect a marked expansion of midrange-quality PSE (i.e., to 57.5% or more); and
	f) Departures from the common standard that reflect a marked contraction of midrange-quality PSE (i.e., to 42.5% or less).

The subgroupings of the positive patterns are based on the notion that subcategory a) provides clearer evidence of a positive pattern and is preferable to subcategory to b). However, both are preferable to any of the negative-pattern subcategories. Subcategory c) provides clearer evidence of a negative pattern and is less preferable to d), but d) is not desirable, either.

Where a positive pattern features a marked expansion of high-quality PSE and a corresponding contraction of low-quality PSE, the discussion mentions only the expansion of high-quality PSE. The corresponding contraction is implied and in some cases it is not large enough to be flagged. The same basic logic applies to the discussions about marked increases in low-quality PSE: contractions in high-quality PSE whether marked or not, are often implicated and are not pointed out.

In some cases, a marked expansion or contraction at the low or high end is offset by an increase in the midrange. Such corresponding changes are also to be expected and have not been singled out for attention, here.

Some patterns are classified as ambivalent because they may be preferable to negative patterns, but not always. For instance, there may be a marked expansion of midrange quality and no major contraction of high- and low-quality. In such an instance, students are somewhat shielded from low-quality PSE even if they have somewhat lesser access to high-quality PSE. So, that situation is ambivalent: while not markedly positive, it is not markedly negative, either.

However, whatever benefits there may be in midrange PSE are not so clear-cut where midrange-quality contracts to yield marked expansions in both low-*and* high-quality PSE. Here, some students will benefit and while others will lose out in the polarization, and fewer will be able to find middle ground.

An ambivalent pattern that sees a marked expansion of midrange quality, along with a marked expansion or contraction of lower or higher quality PSE, is addressed as a positive or negative pattern. That is, a substantial contraction or expansion of high- or low-quality education takes precedence over any corresponding marked change of midrange quality. If a marked expansion of the middle is matched by marked contractions at both extremes, the focus here has been placed on the marked expansion of the middle because the contractions at both extremes are often similar.

The Characteristics of Young Adults with Disabilities who Experience Low, Midrange, and High-Quality PSE

The relationship between this section's Figures and Tables

The Figures in the discussion in this section of the report are subdivided into three panels: one for any recent schooling, one for college/CEGEP, and one for university. However, the Tables in this section reproduce those subdivisions within each of the six patterns indicated above, namely positive (green − categories a and b), negative (pink − categories c and d), and ambivalent (brown − categories e and f). This tack was taken to assist with visual separation of the elements on the tables. The tack was also taken to facilitate analysis. It was found that by scanning down the colour-coded positive, negative, and ambivalent patterns for recent attendance at any schooling, college/CEGEP/trade school and university, the welter of details provided in the Figures can seem a little more understandable.

Points of discussion for selective focus

The reader may be particularly interested in the overall quality of PSE for young adults with disabilities, or the quality of PSE in college/CEGEP/trade school or university, but perhaps not for all three groups. The remaining parts of this section have been structured to facilitate selective reading of the details in which the reader may be most interested.

Basic sociodemographic characteristics by quality of PSE

Figure 5.1 and Table 5.1 show the extent to which young adults with disabilities are markedly more or less likely than in the common standard to experience low-, midrange- and high-quality PSE by several general sociodemographic characteristics. Appendix Tables 5.1.a, 5.2.a and 5.3.a provided further details.

Any current or recent education

Positive patterns. Young adults with disabilities with any current or recent schooling are markedly less likely than in the common standard to experience low-quality education if they live above the poverty line.

Negative patterns. Overall, young adults with any current or recent education and who live below the poverty line are markedly more likely than in the common standard to experience low quality education. Young adults with any recent schooling are markedly less likely to have been in high-quality PSE if they live in British Columbia.

Ambivalent patterns. Young adults with any current or recent education and living in the northern territories are markedly more likely than in the common standard to experience midrange-quality PSE. A positive aspect of this ambivalent pattern is that they are markedly less likely to experience low-quality PSE. However, they are also markedly less likely to experience high-quality PSE.

Current or recent college/CEGEP/trade school

Positive patterns. Based on Figure 5.1 and Table 5.1, college/CEGEP/trade school students are markedly more likely to experience low-quality PSE overall (29.4%. See Appendix Table 5.2.a). The analysis did not find current or recent college/CEGEP/trade school students who are markedly more likely than in the common standard to experience high quality education. However, those who are markedly less likely to experience low-quality PSE are those living in the prairie provinces.

Negative patterns. Overall, young adults currently or recently in college/CEGEP/trade school are markedly more likely than in the common standard to experience low-quality PSE if they are females, BIPOC, living in poverty, living in British Columbia or Ontario, in rural communities, or

in large urban population centres. College/CEGEP/trade school students are markedly less likely to be in high-quality PSE if males, living in Quebec, or in Atlantic Canada.

Ambivalent patterns. The analysis did not find any markedly ambivalent patterns related to the general demographic characteristics of current or recent college/CEGEP/trade school students.

Current or recent university

Positive patterns. Figure 5.1 and Table 5.1 show that the percentages of young adult university students with disabilities in low-quality, midrange, and high-quality PSE are 21.7%, 52.9% and 25.4%, respectively. (See the "All" row on Appendix Table 5.3.a.) University students who are markedly more likely than in the common standard to experience high-quality PSE are males and students who live in Quebec. The university students markedly less likely to experience low-quality PSE are BIPOC, or live above the poverty line, or live in Ontario or Atlantic Canada, or live in small to mid-sized urban population centres.

Negative patterns. Female university students are markedly less likely to experience high-quality PSE, as are university students who live below the poverty line or in British Columbia.

Ambivalent patterns. University students in rural communities are markedly more likely to experience midrange-quality PSE. A positive feature of this pattern is that they are less likely to experience low-quality PSE. On the negative side, however, they are also less likely to experience high-quality PSE.

Summary

Young adult male university students with disabilities, and young adults with disabilities who live in Quebec, are markedly more likely than in the common standard to experience high-quality PSE. Those markedly less likely to experience low-quality PSE are university students who are not living in low-income households, and university students living in Ontario, Atlantic Canada, and in small to mid-sized urban population centres. College/CEGEP/trade school students living in the prairie provinces are also markedly less likely to experience low-quality PSE.

In general, young adult female college/CEGEP/trade school and university students with disabilities are more prone to negative PSE experiences, as are young adult college/CEGEP/trade school and university students with disabilities in low-income households or who live in British Columbia. College/CEGEP/trade school students with disabilities fare less well than their counterparts at university across a range of sociodemographic characteristics.

Basic sociodemographic characteristics by quality of PSE

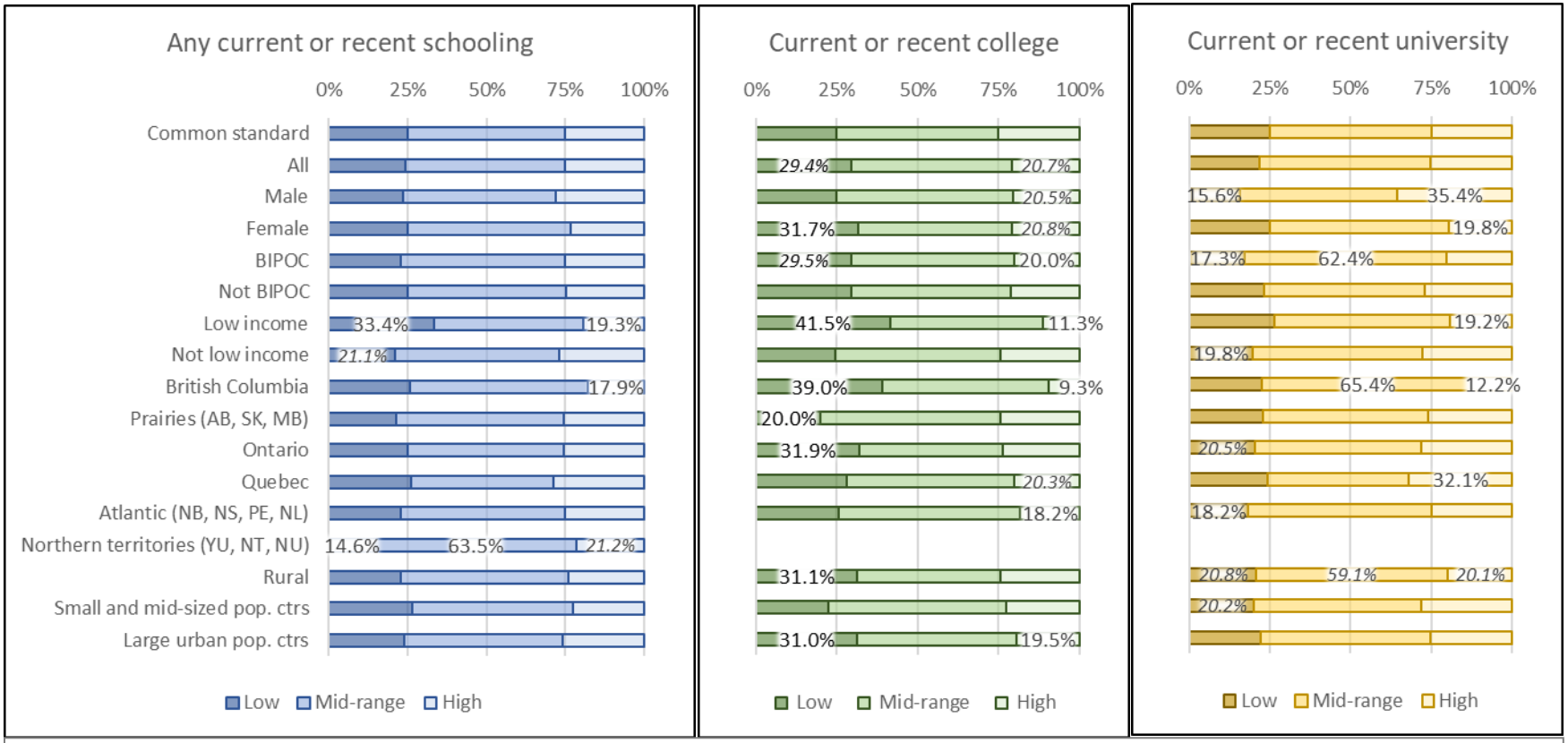


Figure 5.1

General quality of education for young adults with disabilities currently or recently attending any schooling (2012–2017), or college (2016–2017) or university (2016–2017), focusing on key sociodemographic characteristics.

(Any schooling N = 456,650; College N = 127,800; University N = 145,320)

From the Canadian Survey on Disability, 2017.

Table 5.1. Basic sociodemographic characteristics by markedly high-, low-, and ambivalent-quality PSE (Summary of Figure 5.1)

	Positive						Negative						Ambivalent					
	Expanded highest			Contracted lowest			Expanded lowest			Contracted highest			Expanded middle			Contracted middle		
	Any schooling	College/CEGEP, etc.	University	Any schooling	College/CEGEP, etc.	University	Any schooling	College/CEGEP, etc.	University	Any schooling	College/CEGEP, etc.	University	Any schooling	College/CEGEP, etc.	University	Any schooling	College/CEGEP, etc.	University
All								X										
Male			X								X							
Female								X				X						
BIPOC								X							X			
Not BIPOC																		
Low income							X	X				X						
Not low income				X		X												
British Columbia								X		X		X						
Prairies (AB, SK, MB)					X													
Ontario						X		X										
Quebec			X								X							
Atlantic (NB, NS, PE, NL)						X					X							
Northern territories													X					
Rural								X							X			
Small and mid-sized population centres						X												
Large urban population centres								X			X							

Disability-specific characteristics by quality of PSE

Figure 5.2 and Table 5.2 show the extent to which young adults with disabilities are markedly more or less likely to encounter low-, midrange, and high-quality PSE in relation to disability-specific characteristics. Appendix Tables 5.1.b, 5.2.b and 5.3.b provided further details.

Any current or recent education

Positive patterns. The research found no strongly positive indications where young adults with any current or recent schooling and specific disabilities or degrees of disability complexity are markedly more likely than in the common standard to experience high-quality PSE, except for in an ambivalent pattern, discussed below.

Negative patterns. Young adults with disabilities and any current or recent schooling are markedly more likely than in the common standard to experience low-quality PSE if they have a psychosocial disability, or a disability that is of severe or very complexity.

Ambivalent patterns. Students with a cognitive disability are much more likely than in the common standard to experience an ambivalent pattern in the quality of PSE. On the one hand, they are markedly less likely to experience midrange quality. On the positive side, this means that they are more likely to experience high-quality PSE. By the same token, however, they are also more likely to experience low-quality PSE.

Current or recent college/CEGEP

Positive patterns. Young adult college/CEGEP/trade school students with disabilities are markedly more likely to experience high-quality PSE when their disabilities are in the moderate range of complexity.

Negative patterns. The overall patterns for college/CEGEP/trade school students with disabilities are tilted towards markedly greater likelihoods of experiencing low-quality PSE than in the common standard. This pattern plays out particularly when students have a disability that is not pain-related, have a psychosocial disability or a visual disability, and when their disability is from severe to very severe complexity. College/CEGEP/trade school students with disabilities are markedly less likely than on average to experience high-quality PSE when their disabilities are physical or in the mild range of complexity.

Ambivalent patterns. College/CEGEP/trade school students with hearing disabilities are markedly more likely to experience ambivalent PSE in the sense that they are more likely to experience midrange quality. The advantage is their lower likelihood of experiencing low-quality PSE. At the other end of the scale, they are also markedly less likely to experience high-quality PSE.

Current or recent university

Positive patterns. Current or recent university students are markedly more likely to experience high-quality PSE if their disability is of severe complexity or if they have a cognitive disability. Here, the cognitive disability is most typically a learning disability rather than an intellectual/developmental disability. University students are also markedly less likely to experience low-quality PSE if their disability is in the mild to moderate range of complexity.

Negative patterns. University students with mild through severe levels of disability fare relatively well in terms of markedly greater likelihood of experiencing high-quality PSE. However, in sharp contrast are university students with disabilities of very severe complexity. These students are markedly more likely to experience low-quality PSE, as are university students with sensorial disabilities, particularly in hearing.

Ambivalent patterns. University students with a cognitive disability (mainly learning disability in PSE) fare relatively well in terms of experiencing high-quality PSE. However, they are markedly less likely to experience midrange-quality PSE. While perhaps not markedly more likely than in

the common standard to experience low-quality PSE, university students with a cognitive disability are somewhat more likely to have that kind of experience.

Summary

University students with a cognitive (mainly learning) disability are considerably more likely than in the common standard to experience high-quality PSE, as are university students with a disability in the severe range of complexity, and College/CEGEP/trade school students with disabilities of moderate complexity. University students with disabilities in the mild and moderate ranges of complexity are markedly less likely to experience low-quality PSE than in the common standard.

Students most likely to have negative PSE experiences are college/CEGEP/trade school students across a variety of characteristics, and university students with psychosocial disabilities.

Disability-specific characteristics by quality of PSE

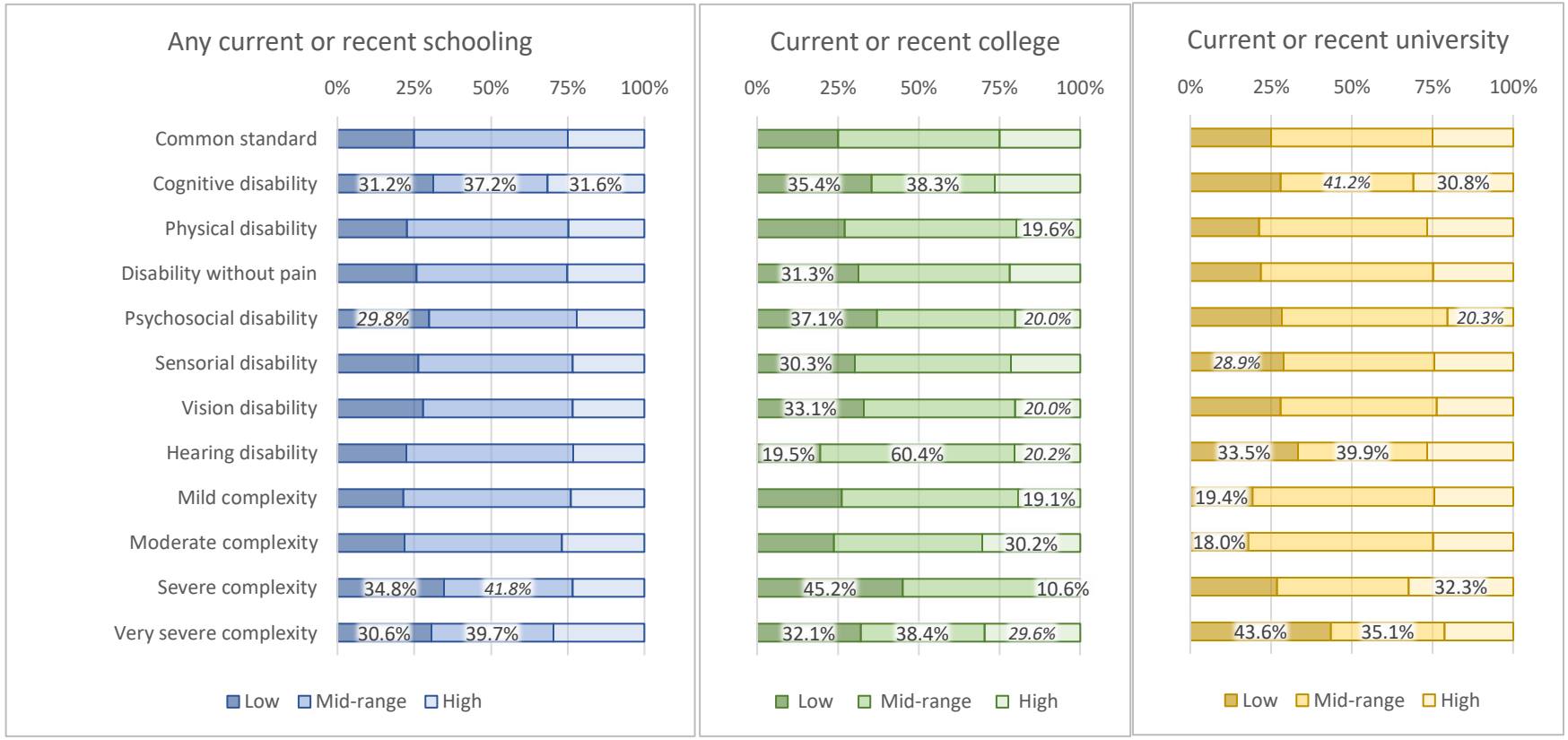


Table 5.2. Disability-specific characteristics by markedly high-, low-, and ambivalent-quality PSE (Summary of Figure 5.2)																		
	Positive						Negative						Ambivalent					
	Expanded highest			Contracted lowest			Expanded lowest			Contracted highest			Expanded middle			Contracted middle		
	Any schooling	College/CEGEP, etc.	University	Any schooling	College/CEGEP, etc.	University	Any schooling	College/CEGEP, etc.	University	Any schooling	College/CEGEP, etc.	University	Any schooling	College/CEGEP, etc.	University	Any schooling	College/CEGEP, etc.	University
Cognitive disability			X					X								X		
Physical disability											X							
Disability without pain								X										
Psychosocial disability							X	X				X						
Sensorial disability								X	X									
Vision disability								X										
Hearing disability									X					X				
Mild complexity						X					X							
Moderate complexity		X				X												
Severe complexity			X				X									X	X	
Very severe complexity							X		X							X		

Needs for built environmental and instructional supports to attend classes with a disability, by quality of PSE

Figure 5.3 and Table 5.3 present the extent to which young adults with disabilities are markedly more or less likely to experience low-, midrange, and high-quality PSE in relation to their needs for built environmental and instructional supports to attend classes. Appendix Tables 5.1.c, 5.2.c and 5.3.c provided further details. Low counts for students needing only accessible buildings to attend classes resulted in some data having to be suppressed in the top third of the bars in Figure 5.3 and the corresponding information on Table 5.3. However, a few patterns become clear upon scanning the remainder of Figure 5.3 and Table 5.3.

Any current or recent education

Positive patterns. Young adults with disabilities and any current or recent education are markedly more likely than in the common standard to experience high-quality education if they have any need for accessible buildings or instructional supports. In part that pattern is dictated by the construction of the index of PSE quality: the more such needs have been fully met, the higher the score on the index. Generally, where young adults with disabilities have such needs for disability-related supports so they can attend classes, the needs must be and have been met. Otherwise, the young adults would not be able to attend classes. That said, there are some ambivalent patterns, which are discussed in the subsection on ambivalence, below.

Consistent with the general pattern, young adults with disabilities and any current or recent education are markedly more likely than in the common standard to experience high quality

education if they need one or more instructional supports, or some combination of instructional supports and accessible buildings.

In more detail, those markedly more likely to experience high-quality PSE are those who need accessible buildings to attend classes, or who need accessible curriculum and procedures, or human support, or accessible materials, or accessible technologies, or miscellaneous other supports for disability.

Negative patterns. The young adults with disabilities and any current or recent education who are markedly less likely to experience high-quality PSE are those who do not need accessible buildings to attend classes, or accessible curriculum or procedures, or human support, accessible materials, or technologies. That said, such individuals are not markedly more likely to experience low-quality PSE; they are simply less likely to experience high-quality PSE.

Ambivalent patterns. Young adults with disabilities and any current or recent education are markedly more likely to experience ambivalent quality PSE if their only need relating to disability is for accessible school buildings. Such individuals are markedly more likely to experience midrange PSE quality. While they are markedly less likely to experience high-quality PSE, they are also markedly less likely to experience low-quality PSE.

Current or recent college/CEGEP

Positive patterns. Figure 5.3 and Table 5.3 show that the general patterns, for young adults with any current or recent education who need disability-related supports, are similar to the patterns for young adult college/CEGEP/trade school students with disabilities. For these students, those most likely to experience high-quality PSE are those who require some combination of accessible buildings and/or instructional supports.

Negative patterns. College/CEGEP/trade school students are markedly less likely than in the common standard to experience high-quality PSE if they do not need any built-environmental or instructional supports for disability so they can attend classes. However, there is ambivalence associated with that pattern, as discussed below. Concerning specific supports that college/CEGEP/trade school students *do not* need, those who do not need accessible curriculum/procedures or human support are markedly more likely to experience low-quality PSE, partly offset by markedly greater likelihoods of experiencing midrange-quality PSE.

Ambivalent patterns. College/CEGEP/trade school students with disabilities who need accessible materials are markedly more likely than in the common standard to have ambivalent experiences of PSE quality. Overall, they are markedly less likely to experience midrange PSE quality. On the one hand, they are markedly more likely to experience high-quality PSE while, on the other, they are also markedly more likely to experience low-quality PSE. This suggests an "all or nothing" situation for these students with disabilities at college/CEGEP/trade school: if

the accessible materials needed are available, the quality of PSE can be quite good; but if those resources are not available, the quality of PSE can be poor.

College/CEGEP/trade school students with disabilities who do not need any built-environmental or instructional supports so they can attend classes are also markedly more likely than in the common standard to experience midrange and ambivalent quality PSE. As corollaries, on the one hand they are markedly less likely to experience high-quality PSE while, on the other, they are somewhat more likely to experience low-quality PSE as well.

Current or recent university

Positive patterns. As with college/CEGEP/trade school students, the university students with disabilities who are most likely to experience high-quality PSE are those who need some combination of built-environmental and instructional supports, and any of the specific supports shown on Figure 5.3 and Table 5.3.

Negative patterns. The university students who are markedly less likely to experience high-quality PSE than in the common standard are those who do not need accessible curriculum or procedures, and those who do not need accessible technologies. However, such students are markedly more likely to experience midrange-quality PSE and are slightly less likely to experience low-quality PSE.

Ambivalent patterns. University students who do not need any built-environmental or instructional supports to attend classes are markedly more likely than in the common standard to experience midrange-quality PSE. The ambivalence comes from being markedly less likely to experience high-quality PSE, but also being markedly less likely to experience low-quality PSE.

Summary

Young adult students with disabilities who need built environmental or instructional supports to attend classes are likely to have most or some of those needs met rather than none met. For many individuals, having such needs properly met is probably a necessary condition for attending classes. Where such needs are met, students are markedly more likely to experience high-quality versus low-quality PSE as operationally defined for the present study.

Needs for built environmental and instructional supports to attend classes with a disability, by quality of PSE

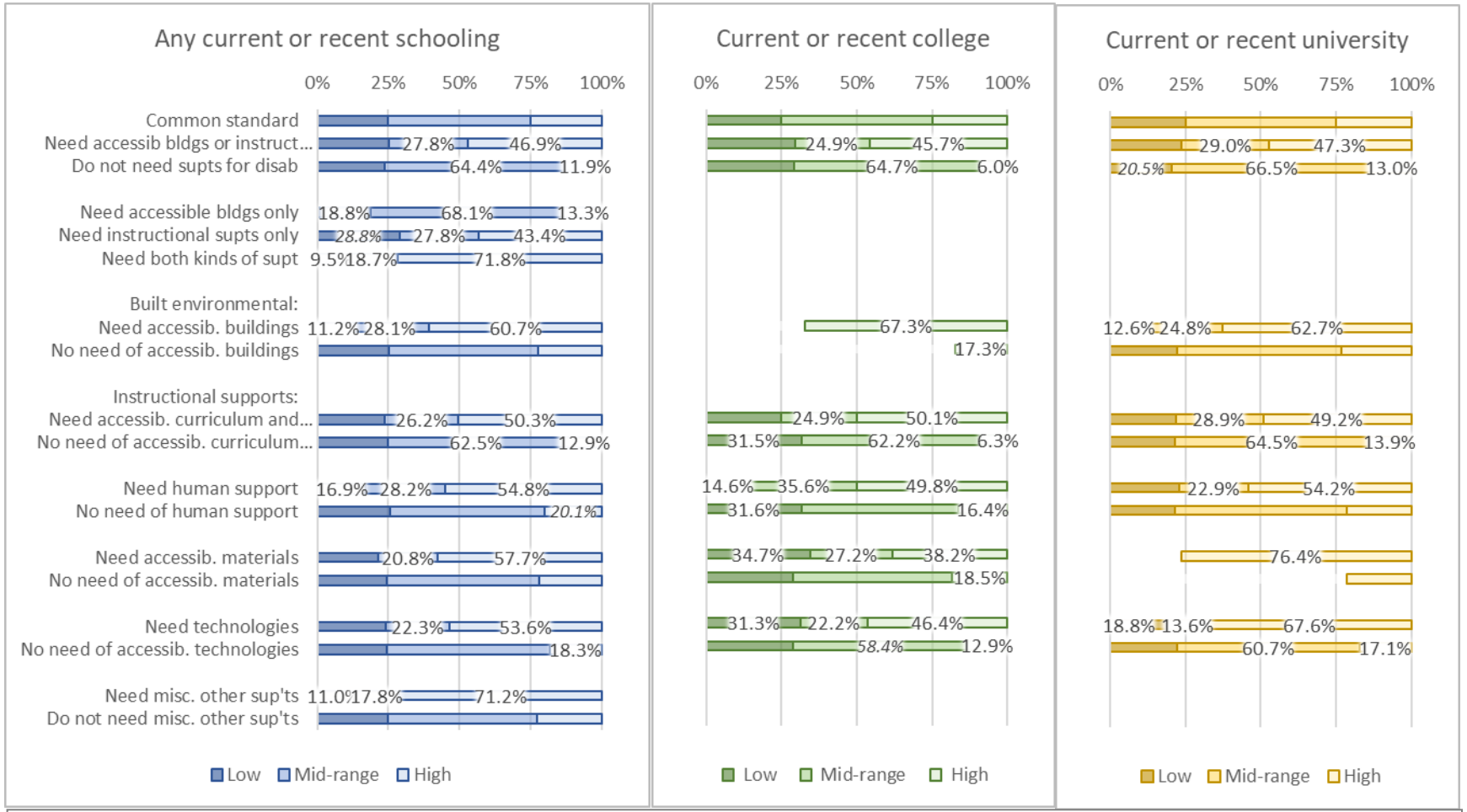


Figure 5.3

General quality of education for young adults with disabilities currently or recently attending any schooling (2012–2017), or college (2016–2017) or university (2016–2017), focusing on needs for built environmental and instructional supports to attend classes with a disability. (Any schooling N = 456,650; College N = 127,800; University N = 145,320)

From the Canadian Survey on Disability, 2017.

Table 5.3. Needs for built environmental and instructional supports to attend classes with a disability, by markedly high-, low-, and ambivalent-quality PSE (Summary of Figure 5.3)

	Positive						Negative						Ambivalent					
	Expanded highest			Contracted lowest			Expanded lowest			Contracted highest			Expanded middle			Contracted middle		
	Any schooling	College/CEGEP, etc.	University	Any schooling	College/CEGEP, etc.	University	Any schooling	College/CEGEP, etc.	University	Any schooling	College/CEGEP, etc.	University	Any schooling	College/CEGEP, etc.	University	Any schooling	College/CEGEP, etc.	University
Need accessible bldgs. or instructional supports	X	X	X															
Do not need any accessible buildings or instructional supports for education													X	X	X			
Among those needing support:																		
Need accessible buildings only													X					
Need instructional supports only	X																	
Need both kinds of support	X																	
Need accessible bldgs..	X	X	X															
Do not need accessible bldgs.											X							
Need accessible curric./procedures	X	X	X															
Do not need accessible curric./procedures								X		X		X						
Need human support	X	X	X															
Do not need human support								X		X								
Need accessible materials	X	X	X															
Do not need accessible materials											X							
Need accessible technologies	X		X											X				
Do not need accessible technologies										X	X	X						
Need misc. other support	X																	
Do not need misc. other support																		

Selected social and economic experiences related to disability and education by quality of PSE

Figure 5.4 and Table 5.4 show the extent to which young adults with disabilities are markedly more and less prone to experiencing low-, midrange, and high-quality PSE where they have had additional costs for their education because of disability, or have felt avoided, left out, or bullied at school because of disability. Appendix Tables 5.1.d, 5.2.d and 5.3.d provided further details.

Any current or recent education

Positive patterns. Figure 5.4 and Table 5.4 show that young adults with any current or recent education are markedly more likely to experience high-quality education where they have never felt left out at school because of disability and have never been bullied at school because of disability. These individuals are also markedly more likely to experience at least midrange PSE quality instead of low-quality PSE. Young adults with any current or recent education are markedly less likely to experience low-quality education where they have not had additional costs for their education because of disability or have never felt avoided at school because of disability. Those who have never been avoided are also markedly more likely to experience midrange-quality PSE and are a little more likely than in the common standard to experience high-quality PSE.

Negative patterns. Young adults with any current or recent education are markedly more likely to experience low-quality PSE if they have had additional costs for their education because of a disability, have felt avoided because of disability, or left out, or where they have been bullied at school because of disability. Such individuals are also markedly less likely to experience midrange or high-quality PSE.

Ambivalent patterns. There are no markedly ambivalent patterns for young adults with disabilities and any current or recent education. The general patterns tend to fall into the positive and negative experiences discussed above.

Current or recent college/CEGEP

Positive patterns. As shown on Figure 5.4 and Table 5.4, young adults with current or recent college/CEGEP/trade school education are markedly less likely to experience low-quality education where they have never felt avoided at school, left out at school, or bullied at school because of a disability. All such individuals are more likely to experience midrange-quality PSE and are about as likely as in the common standard to experience high-quality PSE.

Negative patterns. Young adults with any current or recent college/CEGEP/trade school education are markedly more likely to experience low-quality PSE if they have had additional costs for their education because of a disability, have felt avoided because of a disability, or left out, or where they have been bullied at school because of disability.

Ambivalent patterns. The patterns for young adults with any current or recent college/CEGEP/trade school tend to fall into positive or negative categories discussed above.

Current or recent university

Positive patterns. Similar to the patterns for college/CEGEP/trade school students, young adult university students with disabilities are markedly more likely to experience high-quality PSE where they have never felt left out at school because of a disability. They are less likely to experience low-quality education where they have not had additional costs for education because of a disability or have never felt avoided or bullied at school because of disability. Usually, such individuals are markedly more likely to experience midrange-quality PSE than in the common standard and are about as likely as in the common standard to experience high-quality PSE.

Negative patterns. Young adult university students with disabilities are markedly more likely to experience low-quality PSE if they have had additional costs for their education because of disability, have felt avoided, or left out, or where they have been bullied at school because of disability. Such individuals are markedly less likely to experience either midrange or high-quality PSE.

Ambivalent patterns. The patterns for young adults with any current or recent university students with disabilities tend to fall into positive or negative categories discussed above.

Summary

The general patterns on these social and economic issues are twofold. One pattern includes students with heightened chances of experiencing high-quality education, or chances that are about the same as in the common standard, or markedly reduced likelihoods of low-quality education, together with markedly higher likelihoods of experiencing at least midrange PSE quality. The other pattern includes students with markedly higher likelihoods of experiencing low-quality PSE, together with markedly diminished likelihoods of experiencing either midrange or high-quality education.

Accounting for the positive patterns are the lack of additional costs for education because of a disability, and not feeling avoided, left out, or bullied at school because of a disability. Negative patterns occur where individuals experience those difficulties.

Selected social and economic experiences by quality of PSE

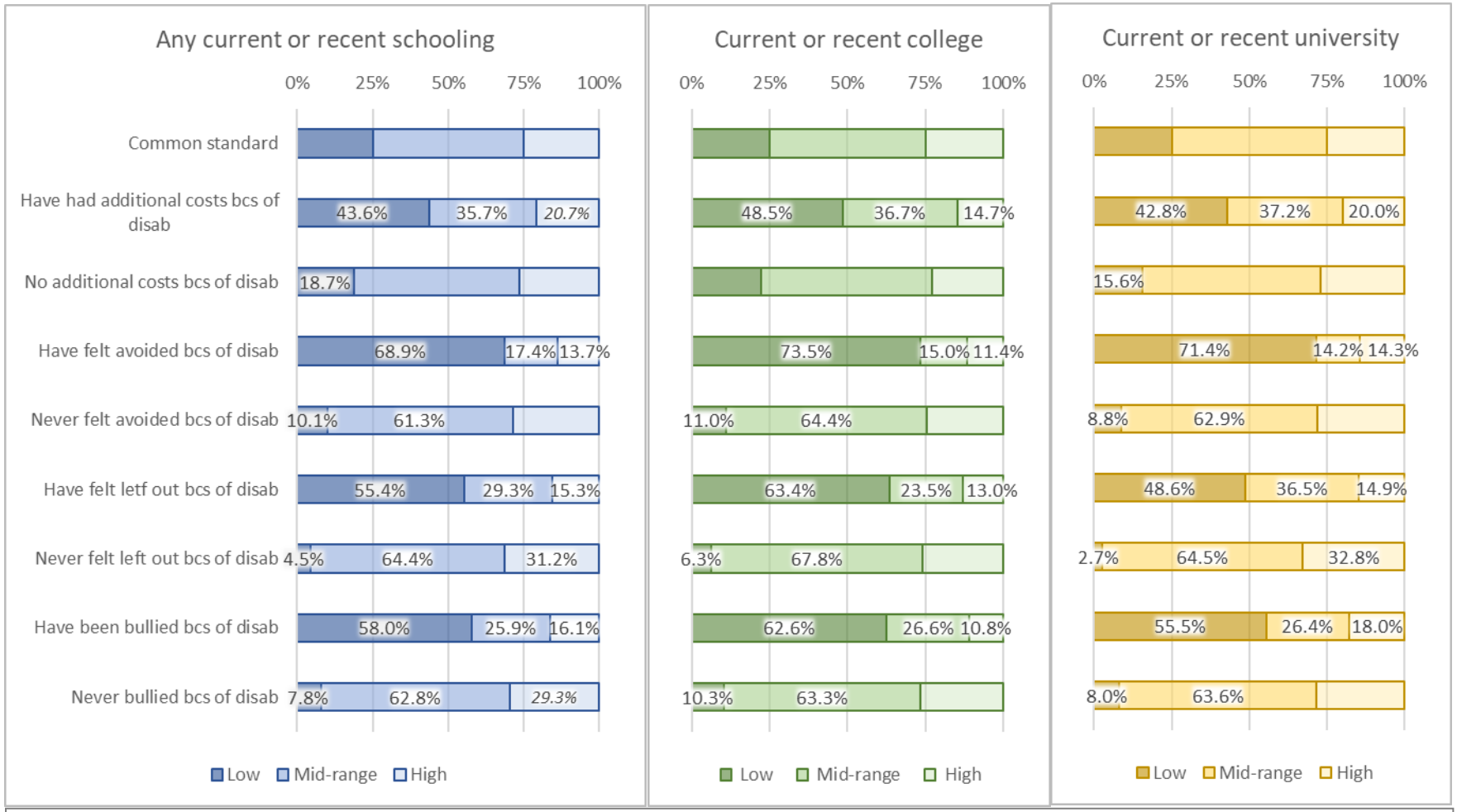


Figure 5.4
Experiences of selected social and economic issues among young adults with disabilities currently or recently attending any schooling (2012–2017), or college (2016–2017) or university (2016–2017)
(Any schooling N = 456,650; College N = 127,800; University N = 145,320)
From the Canadian Survey on Disability, 2017.

Table 5.4. Selected social and economic experiences by markedly high-, low-, and ambivalent-quality PSE (Summary of Figure 5.4)

	Positive						Negative						Ambivalent					
	Expanded highest			Contracted lowest			Expanded lowest			Contracted highest			Expanded middle			Contracted middle		
	Any schooling	College/CEGEP, etc.	University	Any schooling	College/CEGEP, etc.	University	Any schooling	College/CEGEP, etc.	University	Any schooling	College/CEGEP, etc.	University	Any schooling	College/CEGEP, etc.	University	Any schooling	College/CEGEP, etc.	University
Have additional costs because of disability							X	X	X									
No additional costs because of disability				X		X												
Felt avoided because of disability							X	X	X									
Never felt avoided because of disability				X	X	X												
Felt left out because of disability							X	X	X									
Never felt left out because of disability	X		X		X													
Was bullied because of disability							X	X	X									
Never bullied because of disability	X				X	X												

Highest level of educational certification and type of postsecondary certification by quality of PSE

Figure and Table 5.5 show the extent to which young adults with disabilities are markedly more and less likely to experience low-, midrange, and high-quality PSE by the highest level and type of educational credential they possess. Appendix Tables 5.1.e, 5.2.e and 5.3.e provide further details. Unfortunately, the CSD did not capture information about fields of study among students who had not yet obtained certification.

- A person's highest certificate, diploma or degree refers to the highest level of education that a person has successfully completed. The measure for Figure 5.5 and Table 5.5 is derived from the educational qualifications questions of the Census (variable HCCD), which asked for all certificates, diplomas and degrees to be reported.

- The type of postsecondary education shown in Figure 5.5 and Table 5.5 is the main discipline or area of learning or training of a person's highest postsecondary certificate, diploma, or degree, which was based on the Census (CIPSTEM variable).

The present research collapsed the detailed categories in the original two Census variables for the highest level of education and type of postsecondary certification into the broad groupings shown on Figure and Table 5.5. The purpose of collapsing the quite detailed original categories

was to enable comparisons across college/CEGEP/trade school and university students and to avoid having to suppress data because of low counts, as the data in some categories would have pertained to very few individuals.

Any current or recent education

Positive patterns. For young adults with disabilities and any current or recent schooling, those markedly more likely than in the common standard to experience high-quality PSE are those who have obtained a college/CEGEP/trade school certificate or diploma and those who have obtained a university degree. The kinds of postsecondary programs in which students are most likely to experience high-quality PSE are the programs in the sciences, technology, engineering, and mathematics (STEM) fields, as well as those in business and administration, and for the legal, health, and education professions.

Negative patterns. Those markedly less likely to experience high-quality PSE are those without any educational certification or who have obtained only a high school diploma.

Ambivalent patterns. There are no markedly ambivalent patterns by highest type of educational certification or by type of postsecondary certification.

Current or recent college/CEGEP

Positive patterns. For college/CEGEP/trade school students, those markedly more likely than in the common standard to experience high-quality PSE are those who have obtained a certificate in the STEM, business and administration, law, health, or education fields.

Negative patterns. College/CEGEP/trade school students with disabilities who are markedly more likely to experience low-quality PSE are those whose postsecondary certificate is in the non-STEM and non-professional category which includes the arts, humanities, social and behavioural sciences, trades, services, natural resources, and conservation. Those markedly less likely than in the common standard to experience high-quality PSE are those without any educational certification, or who have obtained only a high school diploma, and those who have (already) obtained a university degree.

Ambivalent patterns. College/CEGEP/trade school students with disabilities who are markedly more likely than in the common standard to have ambivalent experiences of PSE quality are those who have obtained a postsecondary certificate or diploma lower than a bachelor's degree. Here, students are markedly less likely to experience midrange PSE quality. While they are markedly more likely to experience high-quality PSE, they are also at greater risk of experiencing low-quality PSE.

Current or recent university

Positive patterns. Recent or current university students with disabilities are most likely to experience high-quality PSE if they have obtained a postsecondary certificate in the STEM, business and administration, law, health, or education fields. University students with disabilities are markedly less likely to experience low-quality PSE if they lack any educational certificate (yet), or have obtained only a high school graduation diploma, or have already obtained a university degree.

Negative patterns. University students with disabilities who are markedly less likely than in the common standard to experience high-quality PSE are those whose postsecondary certificate is in the non-STEM and non-professional category that includes the arts, humanities, social and behavioural sciences, trades, services, natural resources, and conservation.

Ambivalent patterns. As with college/CEGEP/trade school students, university students with disabilities are also markedly more likely to have ambivalent experiences of PSE quality if they have obtained a postsecondary certificate or diploma lower than a bachelor's degree. Here, students are markedly less likely to experience midrange PSE quality. If they are markedly more likely to experience high-quality PSE, they are also at greater risk of experiencing low-quality PSE.

Summary

A clear pattern that emerges from Figure and Table 5.5 is for students with disabilities to be markedly more likely than in the common standard to experience high-quality PSE if their certificates are in the broad area that includes the STEM disciplines, business and administration, and the legal, health and education professions. As well, young adults with disabilities presently or recently attending university are markedly less likely to experience low-quality education if they have already obtained a university degree.

Those markedly more likely than in the common standard to experience low-quality PSE are college/CEGEP/trade school students with a postsecondary certificate lower than a bachelor's degree, or who have obtained a certificate in the broad area that includes the arts and humanities, social and behavioural sciences, trades, services, natural resources and conservation. Those markedly less likely to experience high-quality PSE are university students who hold a postsecondary certificate lower than a bachelor's degree, college/CEGEP/trade school students with no educational certification or only high school graduation, and college/CEGEP/trade school students who already hold a university degree.

Highest level of educational certification and type of postsecondary certification by quality of PSE

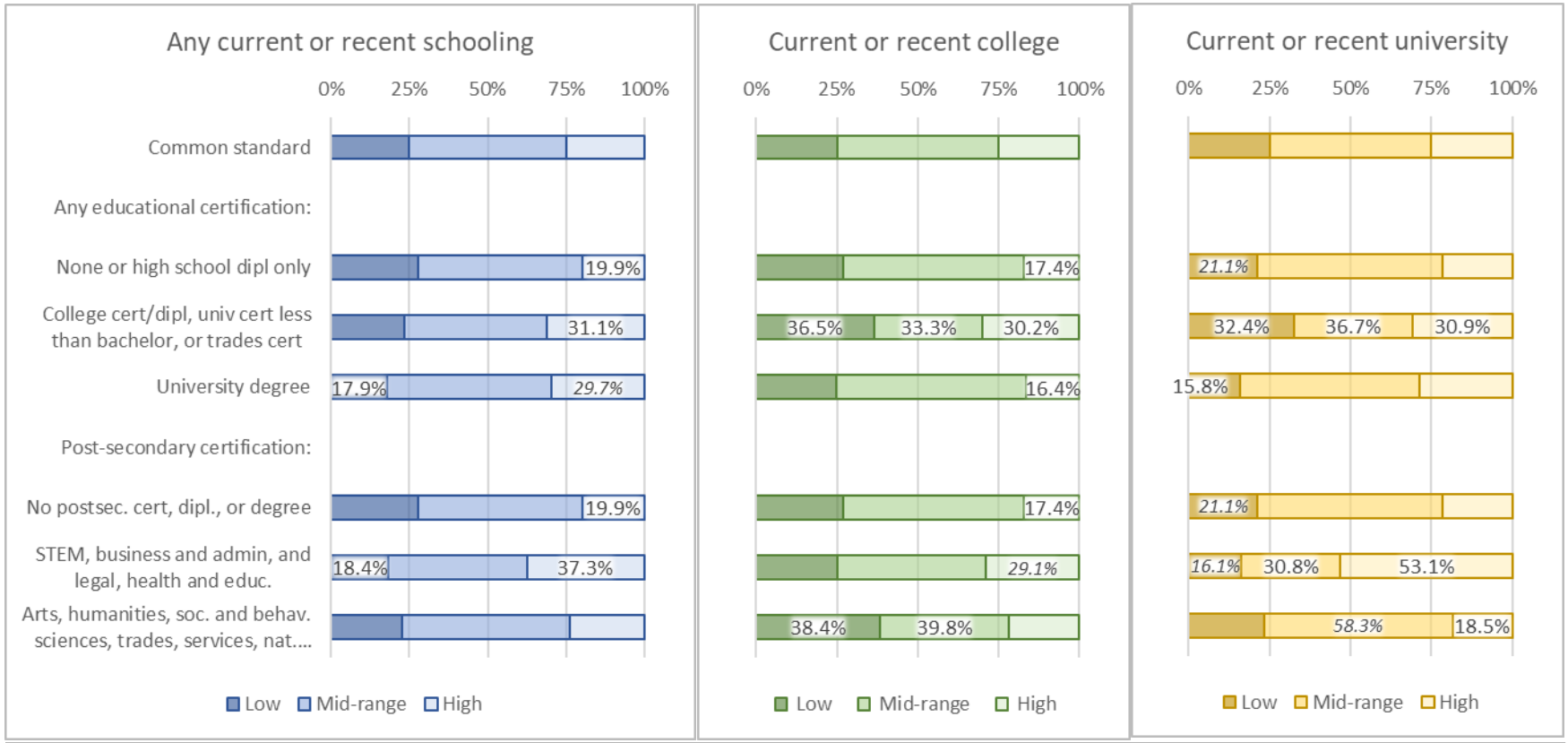


Figure 5.5
General quality of education for young adults with disabilities currently or recently attending any schooling (2012–2017), or college (2016–2017) or university (2016–2017), focusing on the highest level of any educational certification and type of postsecondary certification.
(Any schooling N = 456,650; College N = 127,800; University N = 145,320)
From the Canadian Survey on Disability, 2017.

Table 5.5. Highest level of educational certification and highest type of postsecondary certification, by markedly high-, low-, and ambivalent-quality PSE (Summary of Figure 5.5)

	Positive						Negative						Ambivalent					
	Expanded highest			Contracted lowest			Expanded lowest			Contracted highest			Expanded middle			Contracted middle		
	Any schooling	College/CEGEP, etc.	University	Any schooling	College/CEGEP, etc.	University	Any schooling	College/CEGEP, etc.	University	Any schooling	College/CEGEP, etc.	University	Any schooling	College/CEGEP, etc.	University	Any schooling	College/CEGEP, etc.	University
Any educational certification:																		
High school graduation as highest certificate (and a few with no educational certification)						X				X	X							
College/CEGEP/ trades certificate	X							X	X									
University degree	X					X					X							
Postsecondary certification:																		
No postsecondary certificate, diploma or degree						X				X	X							
STEM, Business and admin, and Legal, Health and Education professions	X	X	X															
Arts, Humanities, Social and behavioural sciences; and Trades, Services, Natural resources and Conservation								X				X						

Summary table

Table 5.6 provides an abbreviated summary of this section of the report. It focuses only on the overall positive, negative, and ambivalent patterns by combining the detailed patterns within those categories. As writing out even a high-level synopsis would take considerable space, the reader is encouraged to review the table and consider which aspects may be most pertinent to their interests and engagements on issues of PSE for young adults with disabilities.

Table 5.6. Summary of the current / recent PSE experiences of young adults with disabilities who were at least 18 years old when attending and younger than 35 years when the CSD was conducted									
	Markedly positive overall			Markedly negative overall			Markedly ambivalent overall		
	Any	College/ CEGEP, etc.	University	Any	College/ CEGEP, etc.	University	Any	College/ CEGEP, etc.	University
Basic sociodemographic characteristics									
Male			X		X				
Female					X	X			
BIPOC					X				X
Not BIPOC									
Low income				X	X	X			
Not low income	X		X						
British Columbia				X	X	X			
Prairies (AB, SK, MB)		X							
Ontario			X		X				
Quebec			X		X				
Atlantic (NB, NS, PE, NL)			X		X				
Northern territories							X		
Rural					X				X
Small and mid-sized population centres			X						
Large urban population centres					X				
Disability characteristics									
Cognitive disability			X		X		X		
Physical disability					X				
Disability without pain					X				
Psychosocial disability				X	X	X			
Sensorial disability					X	X			
Vision disability					X				
Hearing disability						X		X	
Mild complexity			X		X				
Moderate complexity		X	X						
Severe complexity			X	X			X	X	
Very severe complexity				X		X	X		
Instructional and built-environmental supports									
Need accessible bldgs. or instructional supports	X	X	X						
Do not need any accessible buildings or instructional supports for education							X	X	X
Among those needing support:									

Table 5.6. Summary of the current / recent PSE experiences of young adults with disabilities who were at least 18 years old when attending and younger than 35 years when the CSD was conducted									
	Markedly positive overall			Markedly negative overall			Markedly ambivalent overall		
	Any	College/ CEGEP, etc.	University	Any	College/ CEGEP, etc.	University	Any	College/ CEGEP, etc.	University
Need accessible buildings only							X		
Need instructional supports only	X								
Need both kinds of support	X								
Need accessible bldgs.	X	X	X						
Do not need accessible bldgs.					X				
Need accessible curric./procedures	X	X	X						
Do not need accessible curric./procedures				X	X	X			
Need human support	X	X	X						
Do not need human support				X	X				
Need accessible materials	X	X	X						
Do not need accessible materials					X				
Need accessible technologies	X		X					X	
Do not need accessible technologies				X	X	X			
Need misc. other support	X								
Do not need misc. other support									
Socioeconomic factors related to education									
Have additional costs because of disability				X	X	X			
No additional costs because of disability	X		X						
Felt avoided because of disability				X	X	X			
Never felt avoided because of disability	X	X	X						
Felt left out because of disability				X	X	X			
Never felt left out because of disability	X	X	X						
Was bullied because of disability				X	X	X			
Never bullied because of disability	X	X	X						
Certification and programs of study									
Educational certification:									
High school graduation as highest certificate (and a few with no educational certification)			X	X	X				
College/CEGEP/ trades certificate	X				X	X			
University degree	X		X		X				
Postsecondary certification:									
No postsecondary certificate, diploma or degree			X	X	X				

Table 5.6. Summary of the current / recent PSE experiences of young adults with disabilities who were at least 18 years old when attending and younger than 35 years when the CSD was conducted									
	Markedly positive overall			Markedly negative overall			Markedly ambivalent overall		
	Any	College/ CEGEP, etc.	University	Any	College/ CEGEP, etc.	University	Any	College/ CEGEP, etc.	University
STEM, Business and admin, and Legal, Health and Education professions	X	X	X						
Arts, Humanities, Social and behavioural sciences; and Trades, Services, Natural resources and Conservation					X	X			

Intersectionality and the Odds of Experiencing Low-Quality and High-Quality PSE

The discussion to this point in the present section has considered a considerable amount of information, which begs the question:

- Who is most and least likely to experience low-quality and high-quality PSE, all things considered?

Table 5.7 presents the logistic regression odds of young adults with disabilities experiencing low-quality and high-quality PSE. These data are for young adults with disabilities who were attending or had recently attended school at some point from 2012 to 2017, who were at least 18-years old while attending, and who were younger than 35 years when the CSD was conducted. Two regression models were run separately, which have been consolidated on Table 5.7. These show 1) the odds of experiencing low-quality PSE, and 2) the odds of experiencing high-quality PSE.

The regressions would ideally have been run separately for college/CEGEP/trade school and university who a) were attending 2017 and b) recently attended at some point in 2016 or 2017; those are the years for which the kind of PSE schools attended were available from the PSE. However, the unweighted numbers for some data points would have been too low for Statistics Canada to release. The strategy adopted therefore included those young adults together along with those who had attended at some point from 2012 through 2015.

Owing to the low number of young adult students with disabilities in the northern territories, those data were grouped with data for Ontario for the regression models. Overwhelmingly, the results shown for that grouped category refer to Ontario.

Compared with previous tables and discussions in this report, several in-family and non-family living arrangements have been newly added, here. The data are from the Census and are available for students with disabilities in the CSD file. Based on the work completed to this

point, an emergent working hypothesis was that present or recent students' living arrangements may have some bearing on the quality of PSE they experience, or on their graduation, or on their employment trajectories, and that those issues might be somehow interrelated. Those hypotheses were confirmed as the discussions in Sections 7 and 8 show. However, details on living arrangements have not been shown in the descriptive statistics on the quality of PSE presented earlier in this section because the counts for some categories of living arrangements were low. This would have required grouping the living arrangements into almost meaningless subcategories to show each of the low-, midrange, and high-quality PSE distinctions for the three major categories of young adult students with current or recent attendance in 1) any schooling, 2) college/CEGEP/trade school, and 3) university. While the counts were too low to show by all those dimensions in the descriptive statistics, they were large enough to use in the two regression models.

Young adult sons/daughters living with one or both parents are the largest of the subgroups within the living arrangements and have been used as a reference category. This group includes young adults living with their biological, step, or foster parents, as well as with grandparents who function as *de facto* parents. Those shown on Table 5.7 as "Parents (themselves)" are young adults with disabilities who themselves have children and who live either as members of couples or as lone parents. Lone parents and parents living as members of couples had to be combined because young adult lone parents with disabilities comprise a small group of people.

Low-quality and high-quality PSE are, respectively, the lowest and highest 25% of scores on the PSE quality index. While many of the patterns on Table 5.7 may seem interesting, only a few represent statistically significant results. These have been organized as positive, negative, and ambivalent scenarios. In the discussion that follows, the odds ratios are indicated by "OR =." Where p-values are close to but slightly higher than the standard value of 0.05, the exact p-values have been reported.

Positive scenarios

Young adults with disabilities currently or recently attending school with significantly high odds of experiencing high-quality PSE are:

- Those who live in the prairie provinces (OR = 1.72, p <.05) or the Atlantic provinces (OR = 1.89, p <.05) as compared with those in Ontario and the northern territories.
- Those who need accessible technology to attend classes as compared with those who do not need such technology (OR = 4.87, p <.001) and
- People who live alone as compared with adult sons and daughters living with one or both parents, although the data for those who live alone do not quite rise to the usual p <.05 standard for statistical significance (OR = 1.76, p = .055).

In some instances, young adults with significantly high odds of experiencing high-quality PSE have a characteristic that is also associated with significantly low odds of experiencing low-quality PSE. This occurs for young adults with disabilities who:

- Need versus do not need accessible buildings to attend classes (OR = 5.53, p <.001 and OR = 0.11, p <.01, respectively).
- Need versus do not need accessible materials (OR = 3.71, p <.05 and OR = 0.09, p. <.01 respectively).
- Need versus do not need accessible curriculum/procedures (OR = 22.24, p <.001 and OR = 0.1, p <.001, respectively).
- Need versus do not need human support (OR = 5.65, p <.001 and OR = 0.04, p <.001), respectively).
- Need versus do not need miscellaneous "other" supports for disability (OR = 16.09, p <.001 and OR = 0.02, p <.001, respectively).
- Have not had additional expenses versus those have had additional expenses for education because of disability (OR = 6.63, p <.001 and OR = 0.04, p <.001, respectively).
- Have never felt avoided versus those who have felt avoided at school because of disability (OR = 4.45, p <.001 and OR = 0.02, p <.001, respectively).
- Have never felt left out versus those who have felt left out at school because of disability (OR = 9.42, p <.001 and OR = 0.01, p <.001, respectively) and
- Have never been bullied versus those have been bullied at school because of disability (OR = 7.37, p <.001 and OR = 0.01, p <.001, respectively).

Young adults with disabilities who have significantly low odds of experiencing low-quality PSE but without a significant increase in the odds of experiencing high-quality PSE are:

- Young adults whose disabilities are in the severe range of complexity as compared with those with mild complexity of disability (OR = .35, p <.01).
- Those with moderate and very severe complexity of disability as compared with those with mild complexity, although the data for moderate and very severe are a little shy of meeting the standard p <.05 test of statistical significance (respectively, OR = .54, p = .063 and OR = .31, p = .062).

Negative scenarios

Except for one ambivalent scenario, discussed below, the regression models did not point to young adults with disabilities with significantly high odds of experiencing low-quality PSE. However, young adults with disabilities and significantly low odds of experiencing high-quality PSE are:

- Young adults with disabilities who live in low-income as compared with higher income households (OR = .46, p <.01) and
- Those with a hearing disability versus those without a hearing disability, although the data for those with a hearing disability do not quite rise to the usual p <.05 standard for statistical significance (OR = .41, p = .06).

Ambivalent scenarios

An ambivalent situation prevails for people who live with others but not Census (nuclear) family members. These individuals may live with unrelated others in shared accommodation or with extended family members beyond the parental home.

- On the one hand, those who live with unrelated others or extended family have high odds of experiencing high-quality PSE (OR = 2.13, p <.05). On the other hand, they also have high odds of experiencing low-quality PSE (OR = 2.85, p <.05). For these individuals, PSE seems to be an "either-or" proposition in which it can be difficult to find a middle ground between high-quality and low-quality PSE.

To some extent the findings above, especially those on the matched low likelihoods of experiencing low-quality PSE *and* high likelihoods of experiencing high-quality PSE, are results of how the PSE quality index was derived. For instance, those with needs for various disability-related supports are likely to have such needs fully or at least partly met if they attend classes. Otherwise, they probably would not be able to attend classes at all and would not be in the research subsample. Such students tend to have comparatively high scores on the PSE quality index because higher scores were allocated where various needs for disability-related support have been met. Similarly, those with comparatively high scores on the PSE quality index are students who have not had additional expenses, and have not felt avoided, left out, or bullied at school because of disability. This is because higher scores on the PSE quality index were allocated where students have not experienced such difficulties.

However, an interesting point of observation is that the patterns of high and low odds shown on Table 5.7 and described above hold up, despite all the other variables on gender, BIPOC status, geographic region, type of community, income, living arrangements, types of disability, and complexities of disability that are also included in the regression models.

Another point of interest is that all the statistically significant results shown on Table 5.7 reflect "substantial" differences from the reference categories in that the significantly different odds are higher than 1.2 times and lower than 0.8 times the standard (baseline) odds of 1 for the reference categories.

Summary

In summary, the young adults with disabilities and current or recent schooling who are significantly more likely than others to experience high-quality PSE as defined in this research, or who are significantly less likely to experience low-quality PSE, are those who:

- Live in the prairie or Atlantic provinces
- Live alone
- Need accessible buildings, technology, learning materials, curriculum/procedures, human support, or miscellaneous other supports for disability while studying
- Have not had additional expenses for education because of disability

- Have never felt avoided, left out, or bullied at school because of disability and
- Have disabilities of moderate, severe, or very severe complexity.

Except for one ambivalent scenario, the regression models did not point to young adults with disabilities with significantly high odds of experiencing low-quality PSE. However, those who are significantly less likely than the others to experience high-quality PSE are:

- Those who live in low-income households and
- Those with a hearing disability.

Young adults with disabilities and currently or recently attending school who live with unrelated others or with non-Census family members face an ambivalent situation because, on the one hand, they have significantly high odds of experiencing high-quality PSE *and* significantly high odds of experiencing low-quality PSE. A middle ground between these two extremes appears difficult for such individuals to find.

Table 5.7. The odds of experiencing low-quality and high-quality PSE among young adults with disabilities who attended school at some point from 2012 to 2017, were at least 18 years old when attending and younger than 35 when the CSD was conducted

	Low quality PSE	Sig.	High quality PSE	Sig.
Males (reference)				
Females	0.98		0.75	
Non-BIPOC (reference)				
BIPOC	1.16		0.91	
Ontario and northern territories (reference)				
British Columbia	0.85		1.08	
Prairie provinces	0.60		1.72	*
Quebec	1.35		1.14	
Atlantic provinces	0.67		1.89	*
Large urban population centres (reference)				
Small and mid-sized urban population centres	1.83		0.66	
Rural communities	0.76		0.62	
Above the poverty line (reference)				
Below the poverty line	1.48		0.46	**
Adult sons/daughters (reference)				
Members of couples, no children	1.94		1.54	
Parents (themselves)	2.15		0.60	
Unattached, living alone	2.05		1.76	†
Others (non-Census family mbrs, shared accommodation)	2.85	*	2.13	*
Physical disability with pain (reference)				
Vision disability	0.99		0.98	
Hearing disability	2.55		0.41	+
Cognitive disability	1.10		0.70	

Table 5.7. The odds of experiencing low-quality and high-quality PSE among young adults with disabilities who attended school at some point from 2012 to 2017, were at least 18 years old when attending and younger than 35 when the CSD was conducted				
	Low quality PSE	**Sig.**	**High quality PSE**	**Sig.**
Psychosocial disability	1.41		0.83	
Disability without pain	0.61		1.27	
Mild complexity of disability (reference)				
Moderate complexity	0.54	†	0.65	
Severe complexity	0.35	**	0.66	
Very severe complexity	0.31	†	0.54	
No need of accessible buildings (reference)				
Any need of accessible buildings	0.11	**	5.53	***
No need of accessible technology (reference)				
Any need of accessible technology	0.38		4.87	***
No need of accessible materials (reference)				
Any need of accessible materials	0.09	**	3.71	*
No need of accessible curriculum or procedures (reference)				
Any need of accessible curriculum or procedures	0.10	***	22.24	***
No need of human support (reference)				
Any need of human support	0.04	***	5.65	***
No misc. other needs for disability (reference)				
Any misc. other needs for disability	0.02	***	16.09	***
Have had additional expenses bcs of disability (reference)				
No additional expenses bcs of disability	0.04	***	6.63	***
Have felt avoided at school bcs of disability (reference)				
Never felt avoided at school bcs of disability	0.02	***	4.45	***
Have felt left out at school bcs of disability (reference)				
Never felt left out at school bcs of disability	0.01	***	9.42	***
Have been bullied at school bcs of disability (reference)				
Never bullied at school bcs of disability	0.01	***	7.37	***

Note on significance: * p <.05; ** p <.01; *** p <.001; († p <.08)

6. Those Most and Least Likely to Graduate From College/CEGEP/Trade School or University

Table 6.1 provides a baseline snapshot of the extent to which young adults 18 to 34 years old with disabilities and current or recent school attendance have graduated from college or university. These are young adults who attended school at some point from 2012 to 2017, and were at least 18 years old when attending, and younger than 35 when the CSD was conducted.

Non-graduation does not necessarily equate to "failure" because many of the people on which Table 6.1 is based were still studying at college/CEGEP/trade school or university when the CSD was conducted.

In earlier sections of this report, the Census variable for the highest level of educational attainment (HCDD) was used to facilitate comparisons between young adults with and without disabilities. For the present section, the information for graduation was from a variable in the disability component of the CSD master file (EDB_05). This information is slightly more up to date than the Census information but was gathered from people with disabilities only.

Consistent with the methodology in previous sections of this report, "substantially" higher and lower rates of graduation are indicated by "H" and "L" and are based, respectively, on at least 1.2 times the overall graduation rate or 0.8 times or less than the overall graduation rate. "Notably" higher and lower levels (1.15 times the average or higher or 0.85 times the average or less) are flagged by italicized letters in slightly smaller font. In the discussion after Table 6.1, "substantial" and "notable" differences have been combined into "marked" differences.

Table 6.1. Percentages of young adult current or recent (2012–2017) school attendees with disabilities who have graduated from college/CEGEP/trade school or university (Source: CSD 2017)

	College/ CEGEP certificate		University degree (undergrad or grad)	
TOTAL	**26.4%**		**27.0%**	
Male	26.1%		19.5%	L
Female	26.6%		31.3%	*H*
Not BIPOC	28.6%		26.6%	
BIPOC	20.6%	L	28.2%	
British Columbia	24.8%		30.8%	
Prairies (AB, SK, MB)	30.3%		23.3%	
Ontario	21.9%	*L*	30.7%	
Quebec	33.5%	H	20.6%	L
Atlantic (NB, NS, PE, NL)	26.9%		24.8%	
Northern territories (YU, NT, NU)	30.7%	*H*	19.0%	L
Rural	29.5%		21.6%	L
Small and mid-sized pop. ctrs	33.2%	H	17.5%	L
Large urban pop. ctrs	24.1%		30.5%	
Low income	22.4%	*L*	22.5%	*L*

Table 6.1. Percentages of young adult current or recent (2012–2017) school attendees with disabilities who have graduated from college/CEGEP/trade school or university (Source: CSD 2017)				
	College/ CEGEP certificate		**University degree (undergrad or grad)**	
TOTAL	**26.4%**		**27.0%**	
Not low income	27.8%		28.6%	
Members of couples, no children	35.3%	H	37.3%	H
Parents (themselves)	35.6%	H	9.6%	L
Sons/daughters (inc. grand & foster)	20.5%	L	18.9%	L
Unattached, alone	22.6%		40.9%	H
Others (non-Census family mbrs, shared accommodation)	29.0%		27.4%	
Vision disability	28.7%		26.6%	
Not vision disability	26.0%		27.1%	
Hearing disability	34.5%	H	23.3%	
Not a hearing disability	25.7%		27.3%	
Cognitive disability	25.5%		13.5%	L
Not a cognitive disability	27.0%		35.9%	H
Psychosocial disability	27.5%		24.7%	
Not a psychosocial disability	25.0%		30.1%	
Pain-related disability	30.3%		26.8%	
Not pain-related disability	23.9%		27.2%	
Mild complexity	27.0%		31.7%	*H*
Moderate complexity	24.6%		27.8%	
Severe complexity	24.2%		15.1%	L
Very severe complexity	30.9%	*H*	14.8%	L
Any need for accessible buildings	30.0%		24.3%	
No need for accessible buildings	26.3%		27.1%	
Any need for modified curriculum or procedures	24.0%		17.0%	L
No need for modified curriculum or procedures	27.1%		29.9%	
Any need for human support	19.3%	L	6.9%	L
No need for human support	27.1%		28.9%	
Any need for accessible materials	9.2%	L	25.1%	
No need for accessible materials	27.3%		27.1%	
Any need for accessible technology	19.7%	L	16.4%	L
No need for accessible technology	27.1%		28.0%	
Any need for misc. other supports	22.4%	*L*	29.7%	
No need for misc. other supports	26.6%		26.9%	
No additional costs bcs of disability	26.3%		28.1%	
Additional costs bcs of disability	26.9%		23.4%	
Never felt avoided at school bcs of disability	26.9%		32.0%	*H*
Avoided at school bcs of disability	24.9%		11.2%	L
Never felt left out at school bcs of disability	29.7%		30.1%	
Left out at school bcs of disability	21.3%	*L*	22.2%	*L*
Was never bullied at school bcs of disability	27.7%		32.3%	H
Bullied at school bcs of disability	23.9%		16.2%	L

Total current and recent attendees: 456,650

Total college/CEGEP/trade school graduates from current/recent attendees: 120,660

Total university graduates from current/recent attendees: 123,310

Rates of Graduation

Graduation from college/CEGEP/trade school

Looking at graduation from college/CEGEP/trade school, Table 6.1 shows that the young adults with disabilities and markedly higher graduation rates than the 26.4% overall rate are:

- Those who live in Quebec (33.5%)
- Those who live in the northern territories (30.7%)
- Those who live in small and mid-sized population centres (33.2%)
- Members of couples without children (35.3%)
- Those who are themselves parents (35.6%)
- Those who have a hearing disability (34.5%) and
- Those whose disability is in the very severe range of complexity (30.9%).

Young adults with disabilities and markedly lower-than-typical college/CEGEP/trade school graduation rates than the 26.4% overall rate are:

- BIPOC individuals (20.6%)
- Those who live in Ontario (21.9%)
- Those in low-income households (22.4%)
- Adult sons/daughters living with one or both parents (including grandsons/daughters and foster sons/daughters – 20.5%). However, their non-graduation may be largely due to their continuing to be at college/CEGEP/trade school while living with their parent(s).
- Those with any need of human support (19.3%), accessible learning materials (9.2%), accessible technology (19.7%), or any miscellaneous support for PSE, aside from the built environmental, curricular/procedural, human, material, or technological support shown on the table (22.4%) and
- Those who have felt left out at school because of disability (21.3%).

Graduation from university

Shifting the focus to university, Table 6.1 shows that the young adults with disabilities and markedly higher university graduation rates than the 27% overall rate are:

- Females (31.3%)
- Members of couples without children (37.3%)
- Those who live alone (40.9%)
- Those who do not have a cognitive disability (35.9%)
- Those whose disability is in the mild range of complexity (31.7%)

- Those who were never bullied at school because of disability (32.3%) and
- Those who have never felt avoided at school because of disability (32.0%).

The young adults with disabilities with markedly lower-than-typical rates of university graduation are:

- Males (19.5%)
- Those who live in Quebec (20.6%)
- Those who live in the northern territories (19.0%)
- Those who live in rural communities (21.6%)
- Those who live in small and mid-sized population centres (17.5%)
- Those in low-income households (22.5%)
- Adult sons/daughters living with one or both parents (including grandsons/daughters and foster sons/daughters – 18.9%). However, their non-graduation may be largely due to their continuing to be at university while living with their parent(s).
- Those with a cognitive disability (13.5%)
- Those whose disability is in the severe range of complexity (15.1%) or of very severe complexity (14.8%)
- Those who need any modified curriculum or procedures (17.0%), human support (6.9%), or accessible technology for education (16.4%) and
- Those who have felt avoided at school (11.2%), left out at school (22.2%) or have been bullied at school because of disability (16.2%).

Common patterns in graduation

Looking across patterns in graduation from college/CEGEP/trade school and university, the following young adults with disabilities and current or recent schooling are markedly *more likely* to graduate from both types of institutions:

- Members of couples without children

The following are markedly *less likely* to graduate from both kinds of institutions:

- Those in low-income households
- Adult sons/daughters living with one or both parents (including grandsons/daughters and foster sons/daughters). However, such individuals may simply be continuing their studies while living with their parent(s).
- Those who need any human support or accessible technology for education and
- Those who have felt left out at school because of disability.

Converse patterns in graduation from college/CEGEP/trade school and university

Some young adults with disabilities and current or recent schooling are markedly more likely to graduate from college and are markedly less likely to graduate from university. These individuals are:

- Those who live in Quebec or in the northern territories
- Those who live in small and mid-sized population centres
- Those who themselves are parents and
- Those whose disability is of very severe complexity.

This research did not find characteristics associated with of very low rates of graduation from college that were paired with very rates of high graduation from university.

Intersectionality and the Odds of Graduating

Table 6.2 shows logistic regression odds of young adults with disabilities graduating from college/CEGEP/trade school or university by a range of sociodemographic characteristics. For both types of institutions, a "simple" and "more robust" model are provided. Four regressions were run in total. Essentially, both models address the question:

- Holding constant the diverse characteristics and socioeconomic locations that influence the experiences of young adults with disabilities in PSE, who is most and least likely to graduate from college/CEGEP/trade school or university?

The simple models focus on basic sociodemographic characteristics. The more robust models include those basic sociodemographic factors but also include the living arrangements of current or recent school attendees when the CSD was conducted, and the key components of PSE quality that Section 5 examined. As with college/CEGEP/trade school and university attendance (see Section 3), only a few characteristics were found to be statistically significant predictors of graduation from college/CEGEP/trade school or university. In the discussion that follows, the odds ratios are indicated by "OR =." Where statistical significance (p) values are close to but slightly higher than the standard value of 0.05, the exact p-values have been reported.

Table 6.2. The odds of young adults with disabilities graduating from college or university, by selected sociodemographic characteristics, showing simple and more robust models, for current attendees and recent attendees of schooling (previous 5 years), who were at least 18 years old when attending, and younger than 35 when the CSD was conducted (Source: CSD 2017)

	Graduate from college – Simple model	Sig.	Graduate from college – More robust model	Sig.	Graduate from university – Simple model	Sig.	Graduate from university – More robust model	Sig.
Male (reference)								
Females	0.93		0.90		1.82	**	1.79	**
Non-BIPOC (reference)								
BIPOC	0.74		0.73		0.94		1.11	
Ontario and northern territories (reference)								
British Columbia	1.10		1.07		0.92		0.83	
Prairie provinces	1.33		1.16		0.63	*	0.54	**
Quebec	1.74	*	1.54	†	0.58	*	0.55	*
Atlantic provinces	1.09		1.03		0.81		0.77	
Adult sons/daughters (reference)								
Members of couples with no children			1.83	**			2.54	***
Parents (themselves)			2.19	*			0.73	
Unattached, living alone			1.31				3.37	***
Others (non-Census family mbrs, shared accommodation)			1.74	†			2.25	**
Large urban population centres (reference)								
Small and mid-sized urban pop. ctrs	1.50	*	1.42		0.48	***	0.49	**
Rural communities	1.21		1.31		0.57		0.67	
Above the poverty line (reference)								
Below the poverty line	0.78		0.67		0.66	*	0.53	*
Physical disability—with pain-related disability (reference)								
Vision disability	1.33		1.33		0.94		1.04	
Hearing disability	1.57		1.50		1.03		0.96	
Cognitive disability	1.00		1.10		0.33	***	0.42	***
Psychosocial disability	1.37		1.37		0.67	*	0.71	†
Disability but not pain-related	0.66	*	0.73	†	1.10		1.20	
Mild complexity of disability (reference)								
Moderate complexity	0.75		0.78		1.13		1.05	
Severe complexity	0.66		0.71		0.67		0.76	
Very severe complexity	0.87		0.96		0.77		0.86	
All others – Mostly not needing accessible bldgs (reference)								

Table 6.2. The odds of young adults with disabilities graduating from college or university, by selected sociodemographic characteristics, showing simple and more robust models, for current attendees and recent attendees of schooling (previous 5 years), who were at least 18 years old when attending, and younger than 35 when the CSD was conducted (Source: CSD 2017)

	Graduate from college – Simple model	Sig.	Graduate from college – More robust model	Sig.	Graduate from university – Simple model	Sig.	Graduate from university – More robust model	Sig.
Need accessible bldgs			1.32				1.23	
All others – Mostly not needing accessible curric./procedures (reference)								
Need modified curric/procedures – All needs met			1.16				0.69	
All others – Mostly not needing human support (reference)								
Need human support – All needs met			0.80				0.29	*
All others – Mostly not needing accessible materials (reference)								
Need accessible materials – All needs met			0.33	*			1.95	
All others – Mostly not needing accessible technology (reference)								
Need accessible technology – All needs met			0.95				1.12	
All others – Mostly not needing misc. other supports (reference)								
Need misc. other sup'ts – All needs met			1.14				2.20	
Had costs for education bcs of disability (reference)								
No additional costs for education bcs of disability			0.80				0.90	
Felt avoided at school bcs of disability (reference)								
Never felt avoided at school bcs of disability			0.71				2.46	**
Felt left out at school bcs of disability (reference)								
Never felt left out at school bcs of disability			1.60	*			0.68	†
Felt bullied at school bcs of disability (reference)								
Never bullied at school bcs of disability			1.15				1.34	

Table 6.2. The odds of young adults with disabilities graduating from college or university, by selected sociodemographic characteristics, showing simple and more robust models, for current attendees and recent attendees of schooling (previous 5 years), who were at least 18 years old when attending, and younger than 35 when the CSD was conducted (Source: CSD 2017)

	Graduate from college – Simple model	Sig.	Graduate from college – More robust model	Sig.	Graduate from university – Simple model	Sig.	Graduate from university – More robust model	Sig.

Note on significance: * p <.05; ** p <.01; *** p <.001; († p <.08)

The odds of graduating from college/CEGEP/trade school

Simple model

The simple regression model for college shows that the young adults with disabilities and current or recent schooling who have significantly high odds of graduating from college/CEGEP/trade school are:

- Those who live in Quebec, who are about one and three-quarter times more likely to graduate from college than their counterparts in Ontario or the northern territories (OR = 1.74, p <.05)[4] and
- Those who live in small to mid-sized urban population centres, who are one and a half times more likely to attend college than their counterparts in large urban centres (OR = 1.5, p <.05).

Those who the simple model pinpoints as having low odds of graduating from college/CEGEP/trade school are:

- Those with a disability that is not pain-related, who are only about two-thirds as likely to graduate as their counterparts with physical disabilities that involve pain (OR = .66, p <.05).

More robust model

The more robust regression model for college/CEGEP/trade school graduation helps draw attention to other relevant sociodemographic and education-related factors. Overall, these overshadow some of the factors associated with location (e.g., small to mid-sized urban centres) that the simple model pinpointed.

In the more robust model, the young adults with disabilities and current or recent school attendance who are most likely to graduate from college/CEGEP/trade school are:

[4] Ontario and the northern territories were grouped because the number of young adults with disabilities in the northern territories for these regressions was very low.

- Living in Quebec, although the finding did not quite meet the standard p <.05 test for statistical significance (OR = 1.54, p = .062)
- Members of couples without children, who are nearly twice as likely to graduate as adult sons and daughters living with one or both parents (OR = 1.83, p <.01).
- Those who themselves are parents, who are more than twice as likely to graduate from college/CEGEP/trade school than adult sons and daughters living with one or both parents (OR = 2.19, p <.05).
- Those who live with extended family members or unrelated others, who are one and three-quarters more likely to graduate from college/CEGEP/trade school than adult sons and daughters living with one or both parents, although the finding did not quite meet the standard p <.05 test for statistical significance (OR = 1.74, p = .052) and
- Those who have never felt left out at school because of disability, who are more than one and a half times more likely to graduate from college/CEGEP/trade school than those who have experienced that problem (OR = 1.6, p <.05).

Those in the more robust regression model who are significantly less likely to graduate from college/CEGEP/trade school are:

- Those whose disability does not involve pain, who are only about two-thirds as likely to graduate as their counterparts with disabilities that involve pain, although the data are a little shy of meeting the usual standard of statistical significance (OR = 0.73, p = .078).
- Those who need accessible instructional materials, who are only one-third as likely to o graduate from college/CEGEP/trade school as those who do not need such materials (OR = 0.33, p <.05).

The odds of graduating from university

Simple model

Focusing now on the simple regression model for university graduation, the young adults with disabilities and current or recent schooling who are most likely to graduate from university are:

- Women, who are nearly twice as likely to graduate from university as their male counterparts (OR = 1.82, p <.01).

The other statistically significant predictors in the simple model highlight factors that are associated with young adults with disabilities being significantly *less* likely to graduate from university. These students are:

- Those who live in the prairie provinces, who are about two-thirds as likely to graduate as their counterparts in Ontario and the northern territories (OR = 0.63, p <.05).
- Those who live in Quebec, who are slightly above half as likely to graduate as their counterparts in Ontario and the northern territories (OR = 0.58, p <.05).

- Those living in small to mid-sized population centres, who are about half as likely to graduate from university as their counterparts in large urban centres (OR = 0.48, p<.001).
- Those living below the poverty line, who are only about two-thirds as likely to graduate from university as those living above the line (OR = .66, p <.05).
- Those with a cognitive disability (mainly learning disability), who are only about a third as likely to graduate as those with a physical disability that involves pain (OR = 0.33, p <.001) and
- Those with a psychosocial disability, who are only two-thirds as likely as those with a physical disability that involves pain to graduate from university (OR = 0.67, p <.05).

More robust model

The more robust regression model for university graduation shows patterns similar to the simple model but with some additionally relevant predictors. Young adults with disabilities and current or recent schooling who are most likely to graduate from university are:

- Women, who approach being twice as likely to graduate from university as males (OR = 1.79, p <.01)
- Members of couples without children, who are about two and a half times more likely to graduate from university than adult sons/daughters living with one or both parents (OR = 2.54, p <.001).
- Those who live alone, who are more than three times more likely to graduate from university than adult sons/daughters living with one or both parents (OR = 3.37, p <.001).
- Those who live with unrelated others or extended family beyond the parental home, who are more than twice as likely to graduate from university than adult sons/daughters living with one or both (OR = 2.25, p <.01).
- Those who have never felt avoided at school because of disability, who are more than twice as likely to graduate from university than those who have experienced that problem (OR = 2.46, p <.01).

The more robust regression model also points to the following young adults with disabilities and current or recent school attendance, who have significantly low odds of graduating from university:

- Those who live in the prairie provinces, who are about half as likely to graduate from university as those in Ontario and the northern territories (OR = .54, p <.01).
- Those who live in Quebec, who are also about half as likely to graduate from university as those in Ontario and the northern territories (OR = .55, p <.05).
- Those who live in small to mid-sized population centres, who are about half as likely to graduate from university as those living in large urban centres (OR = .49, p <.01).

- Those living below the poverty line, who are about half as likely to graduate from university as those living above the line (OR = .53, p <.05).
- Those with a cognitive disability, who are less than half as likely to graduate from university as young adults with physical disabilities that involve pain (OR = 0.42, p <.001).
- Those with psychosocial disabilities, who are also considerably less likely to graduate from university than young adults with physical disabilities that involve pain, although the finding does not quite meet the standard p <.05 test for statistical significance (OR=.71, p=0.07.).
- Those who need human support, who are much less likely to graduate from university than those without such needs (OR = 0.29, p <.05) and
- Those who have never felt left out at school, are less likely to graduate from university than those who have felt left out, although the data do not quite meet the standard test for significance (OR = 0.68, p =.06).

Common patterns of odds

Pulling back and looking at common patterns for college/CEGEP/trade school and university graduates:

- Young adults with disabilities are more likely to graduate from college/CEGEP/trade school in Quebec than in Ontario and the northern territories but are less likely to graduate from university in Quebec.
- Compared with young adults with disabilities who live in large urban centres, those in small and mid-sized urban centres are more likely to graduate from college and less likely to graduate from university.
- Compared with adult sons/daughters living with one or both parents, those most likely to graduate from college/CEGEP/trade school and university are members of couples without children, and perhaps those living with unrelated others or extended family beyond the parental home.

A discrepancy

A curious pattern shown on Table 6.2 is that, for young adult university students with disabilities, never feeling avoided at school because of disability is a strong predictor of graduation whereas students who have never felt left out are less likely to graduate. It is not immediately clear why these two predictors, which seem similar on the surface, would yield such discrepant results. Perhaps a tendency among those who have never felt left out has been to sacrifice their studies for their social life while at university.

In contrast, while never feeling avoided at college/CEGEP/trade school is not a statistically significant predictor of graduation, those who have never felt left out have strong odds of

graduating. However, that pattern is the reverse of the situation for university students. Perhaps college/CEGEP/trade school programs attach greater importance than university programs to students socially connecting with one another.

Summary of the odds of graduating

Based on the more robust of the two regression models, the young adults with disabilities currently or recently attending school who have high odds of graduating from college/CEGEP/trade school are:

- Living in Quebec
- Members of couples without children
- Those who themselves are parents
- Those who live with extended family members or unrelated others, and
- Those who have never felt left out at school because of disability.

Those with low odds of graduating from college/CEGEP/trade school are:

- Those whose disability does not involve pain, and
- Those who need accessible instructional materials.

Again, based on the more robust of the two regression models, those with high odds of graduating from university are:

- Young women
- Members of couples without children
- Those who live alone
- Those who live with unrelated others or extended family beyond the parental home, and
- Those who have never felt avoided at school because of disability.

Those with low odds of graduating from university are:

- Those who live in the prairie provinces or Quebec
- Those who live in small and mid-sized population centres
- Those living below the poverty line
- Those with a cognitive disability
- Those with a psychosocial disability
- Those who need human support for their studies, and
- Those who have never felt left out at school because of disability.

Those most likely to graduate from college/CEGEP/trade school *and* university are members of couples without children, and perhaps those in shared living arrangements with extended (non-nuclear) family or unrelated others.

7. The Relationship Between "Decent Work" and Other Factors, Including the Quality of PSE

Defining "Decent Work"

An important aim of this project was to examine the relationship between, on the one hand, the quality of PSE that young adults with disabilities experience and, on the other, the quality of work they obtain—if any employment at all − while studying or after graduation. This section of the report examines the quality of work held by young adults with disabilities in light of the definition of "decent work" the International Labour Organization has operationally defined. Part 2 of the Methodology subsection in the Appendix explains in some detail the approach that was used to derive a composite measure of work quality.[5] Essentially, however, decent work can be defined as work that satisfies the ILO's requirements across several major domains that the ILO calls the Substantive Elements of decent work. Generally, work can be considered "decent" or of high quality to the extent that it includes and supports all workers to thrive and succeed, whether with private-sector or public-sector employers. In high-quality work, inclusion and support prevail regardless of a person's age, gender, race, ethnicity, income, region of the country, type of community, type or degree of disability, occupation, industry, or other differences. Low-quality work fails across many of these domains.

The ILO's Substantive Elements are, in effect, major areas of concern that all need to be addressed to further decent work. The Substantive Elements, within each of which there are several discrete measures, are:

1. The economic and social context for decent work
2. Employment opportunities
3. Adequate earnings and productive work
4. Decent working time
5. Combining work, family, and personal life
6. Work that should be abolished
7. Stability and security of work
8. Equal opportunity and treatment in employment
9. Safe work environment
10. Social security and
11. Social dialogue, workers' and employers' representation.

The CSD includes data that allow for the development of measures of work quality that are similar to those the ILO has articulated for Substantive Elements 2 − 4, and 7 – 11. It was not possible to develop useful measures of decent work for three of the ILO's Substantive Elements

[5] The approach was directly informed by Crawford's postdoctoral research on decent work and people with disabilities (Crawford, 2021 – unpublished paper).

(1, 5, and 6). For instance, high-level indicators of a society's general economic and social contributions to decent work (Substantive Element 1) apply to society as a whole. Such measures include the overall employment rate and other macroeconomic information. While some macroeconomic information can be calculated based on the CSD, the present research did not use that information "as is" for individual workplace-level measures congruent with decent work. Instead, Part 2 of the Methodology in the Appendix explains how the employment rates of men and women across industries and occupations were used to develop a measure of equitable work distribution for Substantive Element 8. Concerning family and personal life in relation to work (Substantive Element 5), the CSD does not have useful information for developing specific measures in that area. Similarly, work that should be abolished (Substantive Element 6) pertains mainly to child labour and forced adult labour. As the CSD of late has been conducted for adults only and has no information on whether the jobs held by adults with disabilities are performed freely, the survey could not be used to develop measures of decent work for Substantive Element 6.

With the information available from the CSD for the present research, the quality of work approaches meeting the "decent work" standard to the extent that it meets all the following criteria:

Substantive Element 2. Employment opportunities (four components)

a. Youth can be employed while studying (i.e., the employer accommodates a young adult's working *and* studying)
b. Labour is appropriately utilized (i.e., the job gives opportunities for the worker to use all their education, skills, or work experience).
c. The type of work is with an employer rather than unpaid or in self-employment, and
d. The worker fully receives all or most of modified job duties they require and/or can work from home if they need such arrangements.

Substantive Element 3. Adequate earning and productive work (six components)

a. Work provides enough income to lift the worker out of poverty
b. The worker obtains decent earnings for work, defined as at least two thirds of the median income, controlling for gender and the amount of time worked in the reference year
c. The worker has received work-related training in a classroom or on the job in the past year
d. The worker has received all or most of the assistive and other technologies they require for productive work
e. The worker has received all or most of the human assistance they require for productive work, and
f. The worker has received various other forms of support needed for productive work with a disability.

Substantive Element 4. Decent working time (three components)

a. The person works less than 49 hours per week
b. The worker receives modified hours/days of work if needed, and
c. The person works the number of hours they prefer, including excess hours (49 or more), regular full-time hours (30 to 48), or part-time hours (less than 30) if they seemed comfortable with these arrangements. Low scores were assigned where people did not seem comfortable with working long hours, regular, or part-time hours. See Part 2 of the Methodology subsection in the Appendix for detailed explanations.

Substantive Element 7. Stability and security of work (two components)

a. The work is permanent versus temporary, term, contract, casual, or seasonal, unless the work was a student job or the worker was an apprentice, intern, or articling, and
b. The job has lasted for at least two years.

Substantive Element 8. Equal opportunity and treatment in employment (five components)

a) The worker has not recently experienced discrimination based on disability (a prohibited ground of discrimination under all human rights legislation in Canada)
b) The worker's employer is aware of the worker's need(s) for job accommodation(s)
c) The worker's employer has not refused to provide the worker a needed job accommodation
d) The worker's job reflects gender equity in the distribution of work across occupations and industries, and
e) The job provides gender-based pay equity by occupation and by industry.

Substantive Element 9. Safe (and inclusive) work environment (two components)

a) The worksite/job is not a cause of the worker's disability, and
b) The worker has received all or most of the ergonomic features and accessible built environmental features they need for work.

Substantive Element 10. Social security (one component that draws from 10 sources of income support for people with disabilities).

a) Whether the worker received income from the public or private income support "system" in the past year to ameliorate the lack of employment, or to address reduced working hours/days because of disability, or for reasons aside from retirement (i.e., not a retirement pension). A "yes" was taken as an indicator of employer support for hiring/rehiring individuals who have recently been attached to the income security "system."

Substantive Element 11. Social dialogue, workers' and employers' representation (one component)

The worker is in a workplace that supports social dialogue and workers' representation as indicated by:

a. Any recent payment of union dues by the worker or
b. The worker's membership in a union or coverage by a collective agreement in their present job.

A single master index was developed to summarize equally weighted sub-index scores across each of the eight substantive elements summarized above. Part two of the Methodology subsection in the Appendix provides details on the scoring. Briefly, however, for young adults with disabilities who had a job when the CSD was conducted, the master index for the quality of work had a maximum score of 1 and a minimum usable score of slightly above 0.[6] The scores on the quality of work master index were then grouped into a three-point categorical scale. The bottom 25% of scores represent low-quality work, the midrange 50% represent midrange quality, and the top 25% represent high-quality work. Young adults who were not working comprise the fourth category on the quality of work scale.[7] When the four categories are taken together, the respective overall percentages are:

- Low-quality employment: 14.1%
- Midrange quality employment: 28.7%
- High-quality employment: 14.5%
- Not working: 42.7%

Industries, Occupations, and the Quality of Work

Table 7.1 shows the distribution of young adults with disabilities and low-quality, midrange, and high-quality work across occupations and industries. Of the nearly 457,000 individuals represented in the table, data on 83,500 individuals are included who were not working in 2017 but who worked in 2016 and about whom the Census captured data on the kinds of work they held. However, as these individuals were not working when the CSD was conducted in 2017, the CSD did not collect data relevant to the quality of their employment; those data are for jobs held in 2017 only.

[6] Those who were working could have still been in PSE, or could have graduated, or could have completed their studies without graduating.

[7] As employment-related data were not available for young adults who were not working, missing data for jobless individuals were scored accordingly for the master index on the quality of work. See Part 2 of the Methodology in the Appendix for details on the approach to scoring the variables for the master index.

Table 7.1. Industries and occupations of young adults with disabilities and any current or recent school attendance, showing row percentages and total numbers (Source: Canadian Survey on Disability 2017 and Census 2016 Component)						
	Decent work scale					
	Employed					
	Low-quality jobs	Midrange quality jobs	High-quality jobs	Not employed (1)	Row %	Total Number
Industries						
Primary industries	23.2%	28.7%	--	--	100.0%	4,390
Construction & manufacturing	16.4%	27.9%	15.8%	39.9%	100.0%	34,210
Wholesale, warehousing & transportation	--	33.6%	25.5%	--	100.0%	15,510
Retail trade	17.4%	39.2%	15.9%	27.5%	100.0%	65,690
Info, culture, arts, entertainment & recreation	24.7%	20.5%	12.6%	42.1%	100.0%	19,810
Admin & sup't/waste manag. & remediation svcs	15.2%	26.3%	18.2%	40.2%	100.0%	19,410
Education svcs	24.0%	22.8%	26.0%	27.3%	100.0%	42,340
Health care & social assistance	6.5%	42.8%	30.2%	20.5%	100.0%	39,640
Other professional	11.3%	48.1%	10.2%	30.5%	100.0%	31,210
Accommodation & food svcs	21.0%	40.8%	7.5%	30.8%	100.0%	55,580
Utilities & other svcs (except public admin)	11.4%	31.4%	17.0%	40.2%	100.0%	19,540
Public administration	8.4%	43.0%	33.7%	14.9%	100.0%	17,070
Did not work 2015–2016; present industry unknown	--	2.8%	--	90.5%	100.0%	92,250
Total	**14.1%**	**28.7%**	**14.5%**	**42.7%**	**100.0%**	**456,650**
Occupations						
Management occupations	--	26.6%	--	47.8%	100.0%	11,810
Business, finance & admin occupations	14.0%	42.9%	18.7%	24.5%	100.0%	42,820
Natural and applied sciences and related occupations	16.6%	41.9%	7.7%	33.9%	100.0%	14,900
Occupations in health, education, law, and social, community and…	11.8%	36.8%	28.9%	22.4%	100.0%	90,320
Occupations in art, culture, recreation and sport	25.7%	26.1%	11.5%	36.7%	100.0%	21,520
Sales and service occupations	18.7%	37.6%	12.7%	31.0%	100.0%	140,140
Trades, transport and equipment operators and related...	10.1%	20.2%	19.7%	50.0%	100.0%	31,990
Occupations in manufacturing, utilities, natural resources, agriculture and related production...	33.5%	25.5%	17.4%	23.6%	100.0%	10,900
Did not work in 2015 and 2016; present occupation unknown	--	2.8%	--	90.5%	100.0%	92,250
Total	**14.1%**	**28.7%**	**14.5%**	**42.7%**	**100.0%**	**456,650**

Note: 1. Those not employed include some who worked in 2015 or 2016 whose industry or occupation the Census of 2016 captured.

Table 7.1 shows the following patterns in terms of substantially more or fewer than expected numbers of jobs held by young adults with disabilities in various industries and occupations. “Substantially more” is defined as at least 1.2 times the expected percentages shown on the Total rows. “Substantially fewer” is defined as 0.8 times those percentages or less.

Focusing on industries, Table 7.1 shows that there are:

- Substantially more high-quality *and* midrange quality jobs in health care and social assistance, and in public administration
- Substantially more high-quality jobs in wholesale, warehousing, and transportation, in (non-public) administration and support services, and in waste management and remediation services
- Substantially fewer than expected high-quality jobs in miscellaneous professional services
- Substantially more low-quality jobs in the retail trade, in primary industries, and in information, culture, arts, entertainment, and recreation services
- Substantially more low-quality jobs, but also substantially more midrange quality jobs, in accommodation and food services
- A split between substantially more low-quality and high-quality jobs in education services
- More midrange quality jobs, and fewer high-quality and low-quality jobs than expected in various and sundry professions not specifically listed in Table 7.1
- About the numbers of expected high-quality, midrange, and low-quality jobs in construction and manufacturing, and in utilities and various other services.

In terms of occupations, Table 7.1 shows that there are:

- Substantially more high-quality jobs *and* substantially more midrange quality jobs in business, finance and administrative occupations, and in occupations in health, education, law, and social, community and government services
- Substantially more high-quality jobs in trades, transportation, and equipment operations and related occupations
- Substantially fewer than expected high-quality jobs in natural and applied sciences and related occupations
- Substantially more low-quality jobs in art, culture, recreation, and sports occupations
- Substantially more low-quality jobs, but also substantially more midrange quality jobs, in sales and service occupations
- Splits between substantially more low-quality and high-quality jobs in manufacturing, utilities, natural resources, and in agriculture and related production occupations.

Positive patterns

In terms of industries, the prospects of holding high-quality jobs are strongest in healthcare and social assistance, public administration, in (non-public sector) administration and support services, in wholesale, warehousing, and transportation, and in waste management and remediation services. In terms of occupations, the prospects of holding high-quality work are strongest in business, finance, and administrative occupations, in health, education, law, and social, community and government service occupations, and in trades, transportation, and equipment operation and related occupations.

Negative patterns

The industries where the prospects are strongest for holding low-quality work are in the retail trade, in primary industries, in the information, culture, arts, entertainment, and recreation services, and in accommodation and food services. The occupations most likely to involve low-quality work are art, culture, recreation, and sports occupations, and sales and service occupations.

Mixed and ambivalent patterns

Industries where low-quality or high-quality work may be substantially more or less common, but where there are substantially more jobs than expected of midrange quality, are in health care and social assistance, public administration, in the accommodation and food services, in wholesale, warehousing, and transportation, the retail trade, and in various other professional services. Occupations where a similar pattern prevails are in business, finance and administration, health, education, law, in social, community and government services, and in sales and service occupations.

Industries where jobs tend to be polarized between high-quality and low-quality, with less middle ground in between, are education services. Occupations where this kind of polarization occurs are those in manufacturing, utilities, and natural resources, and in agriculture and related production occupations.

The Quality of Work, Joblessness, and Selected Characteristics of Young Adults with Disabilities

Appendix Table 7.1 shows the relationship between the quality of work and selected sociodemographic characteristics of young adults with disabilities currently attending or who recently attended school, who were at least 18 years old when attending and younger than 35 when the CSD was conducted. As that table provides a considerable amount of information, it has been simplified in the in-text Table 7.2 (below) to focus on key details.

The focus in Table 7.2 has been placed on substantial departures from the expected percentages for all young adults taken together (top row). “H” represents percentages that are

substantially higher, and "L" represents substantially lower, than the expected percentages. As in other sections of this report, a substantially different value is here defined as one that is at least 1.2 times higher than or at most 0.8 times as high as the expected value. For instance, 42.7% of young adults with disabilities in the research subsample were not working when the CSD was conducted, which is the expected value if specific sociodemographic characteristics were not relevant. In comparison, 52.3% of young BIPOC adults with disabilities were not working, which is 1.24 times higher than the expected value. That value has been shown in Table 7.2, flagged with an "H" for substantially "higher" than expected. Similarly, 10.8% of young adults with disabilities in Quebec had low-quality jobs, compared with 14.1% overall. The 10.8% for Quebec is flagged with an "L" to indicate that the percentage is substantially "lower" than expected. See Appendix Table 7.1 for the full details. A discussion of key patterns in substantially positive and negative differences follow Table 7.2.

Table 7.2. Substantial variations from expected quality of work and non-work percentages in cross-tabulations by the sociodemographic characteristics of young adults with disabilities currently or recently attending school

Characteristics	Quality of work			Not working
	Lowest 25% quality of jobs	Midrange 50% quality of jobs	Highest 25% quality of jobs	
All (baseline)	**14.1%**	**28.7%**	**14.5%**	**42.7%**
BIPOC				H (52.3%)
Prairies (AB, SK, MB)	L (11.0%)		H (23.4%)	
Ontario and the northern territories			L (11.4%)	
Quebec	L (10.8%)			
Rural	L (9.9%)			
Small and mid-sized pop. ctrs	L (11.2%)			
Not low income and a few missing			H (19.1%)	
Low income		L (21.8%)	L (1.3%)	H (60.3%)
Members of couples with no children	L (9.8%)		H (24.3%)	L (33.8%)
Parents (themselves)		L (11.7%)	H (19.9%)	H (56.3%)
Sons/daughters (inc. grand & foster)	H (17.1%)		L (8.6%)	
Unattached, alone	L (10.3%)			
Other living arrangements			L (10.7%)	
Hearing			H (24.1%)	
Cognitive	L (10.9%)			H (51.3%)
Not psychosocial				
Mild complexity of disability	H (17.7%)			
Moderate complexity of disability	L (10.6%)			
Severe complexity of disability	L (9.7%)			H (52.9%)

Table 7.2. Substantial variations from expected quality of work and non-work percentages in cross-tabulations by the sociodemographic characteristics of young adults with disabilities currently or recently attending school

Characteristics	Quality of work			Not working
	Lowest 25% quality of jobs	Midrange 50% quality of jobs	Highest 25% quality of jobs	
All (baseline)	**14.1%**	**28.7%**	**14.5%**	**42.7%**
Very severe complexity of disability	L (6.5%)	L (10.8%)		H (68.6%)
Current/recent college, CEGEP, or trade school		L (22.5%)		H (51.8%)
Currently/recently attending, but not university	L (10.9%)			
Current/recent university	H (21.0%)		L (11.4%)	
No certification or high school grad only (1)		L (21.6%)	L (8.3%)	H (56.6%)
College/CEGEP, trades cert.		H (35.1%)	H (20.8%)	L (32.3%)
University degree	H (17.6%)	H (34.8%)	H (18.9%)	L (28.7%)
Lowest PSE quality			L (11.3%)	
Highest PSE quality			H (19.8%)	

Note: 1. Includes a few with a university certificate less than a degree.

Positive patterns

The positive patterns include substantially higher-than-expected rates of participation in high-quality jobs, substantially lower participation in low-quality jobs, and substantially lower joblessness. It is important to clarify at this point, however, that a substantially lower-than-expected likelihood of having a low-quality job may be due in part to a substantially lower-than-expected likelihood of having *any* job at all, i.e., a substantially higher likelihood of being jobless. Such a situation is discussed as a negative pattern after the present subsection.

Young adults with disabilities are substantially more likely to hold high-quality jobs, which are held by 14.5% overall, if:

- They live in the prairie provinces (23.4%)
- They do not live in a low-income household (19.1%)
- They are a member of a couple without children (24.3%)
- They have a hearing disability (24.1%)
- They have a college/CEGEP/trade school certificate (20.8%) or a university degree (18.9%) or
- They have recently experienced high-quality PSE (19.8%).

Young adults with disabilities are substantially less likely to hold low quality jobs, which are held by 14.1% overall, if:

- They live in the prairie provinces (11.0%) or in Quebec (10.8%)
- They live in a rural community (9.9%) or small to mid-sized population centre (11.2%)
- They are a member of a couple without children (9.8%) or living alone (10.3%)
- They have a cognitive disability (10.9%). While such individuals are substantially more likely to be jobless, where working their jobs are most likely to be of midrange and high quality.
- Their disability is in the moderate range of complexity (10.6%) or
- They are currently or were recently attending school, but not university (10.9%).

Young adults with disabilities are substantially less likely to be jobless, which affects 42.7% overall, if:

- They are a member of a couple without children (33.8%)
- They have a college/CEGEP/trade school certificate (32.3%) or
- They have a university degree (28.7%).

Negative patterns

In contrast to the positive patterns, young adults with disabilities are substantially more likely to have low-quality jobs, which applies to 14.1% overall, if:

- Their disability is in the mild range of complexity (17.7%). However, although not shown on Table 7.1, only 34.3% with disabilities of mild complexity are jobless compared with 42.7% of young adults with disabilities in the research subsample overall (Appendix Table 7.1). Those with mild-level disabilities are on the cusp of being substantially less likely than expected to be jobless. They are more likely to have low-quality jobs than to be altogether jobless
- They are currently attending or recently attended university (21.0%). Perhaps the demands of university limit the kinds of job options these young adults were prepared to consider or that they could realistically undertake. For example, perhaps they could only afford to take on relatively few hours or days of work while also participating in a university program, or
- They have a university degree (17.6%). However, as with those with disabilities in the mild range of complexity, these individuals are substantially less likely to be jobless. They are also substantially more likely to have midrange- and high-quality jobs. That is, because they are considerably less likely to be jobless, they are considerably more likely to have some sort of job. It just so happens that they are substantially more likely to have low-, midrange, *and* high-quality jobs, which clearly points to the value of a university degree in the job market.

Young adults with disabilities are substantially less likely to have high-quality jobs, which applies to 14.5% overall, if:

- They live in Ontario or the northern territories (11.4%). These two regions had to be grouped because very few young adults with disabilities living in the northern territories are included in the research subsample. The 11.4% in low-quality jobs reflects mainly the situation for those who live in Ontario
- They live in a low-income household (1.3%). This percentage is very low indeed
- They are adult sons/daughters living with one or both parents (8.6%)
- They live with unrelated others or with extended family beyond the parental home (10.7%)
- They are currently attending or recently attended university (11.4%). Perhaps the demands of university limit the kinds of job options these young adults were prepared to consider or that they could realistically undertake.
- They have no educational certification, or high school graduation only (8.3%) or
- They have recently participated in low-quality PSE (11.3%).

Young adults with disabilities are substantially more likely to be jobless, which applies to 42.7% overall, if:

- They are BIPOC individuals (52.3%)
- They live in a low-income household (60.3%). These individuals are also substantially less likely to have midrange-quality jobs (21.8% vs. 28.7% expected) and high-quality jobs (1.3% vs. 14.5% expected), in part because they are substantially less likely to have any jobs at all
- They are themselves parents (56.3%). However, young adults with disabilities who are parents are also substantially more likely to have high-quality jobs (19.9%) and substantially less likely to hold jobs of midrange quality (11.7%). Here the picture is of parents generally obtaining good-quality jobs versus a lower-quality jobs if they are going to be working at all
- They have a cognitive disability (51.3%). Such individuals are also substantially less likely to have low-quality jobs, in part because they are less likely to be working at all
- Their disability is in the severe (52.9%) or very severe range of complexity (68.6%). These individuals are also substantially less likely to have lower-quality jobs because they are less likely to be working at all
- They currently attend or recently attended college/CEGEP/trade school (51.8%). As with young adults with several other characteristics, these individuals are less likely to have any work at all, or
- They have no educational certification, or high school graduation only (56.6%).

The role of educational factors

Some clear patterns emerge when the focus is shifted towards the education-related factors on Table 7.2.

- Young adults with some recent school attendance but with low formal educational attainment (i.e., no certification, high school graduation only) generally do poorly in the job market. They are substantially more likely than others to be jobless and are substantially less likely to hold high-quality or even medium-quality jobs
- Young adults with disabilities who are currently studying at college/CEGEP/trade school are substantially more likely than most others to be jobless. However, many do have jobs, which tend to be in the lower and upper ranges of job quality and less in the midrange
- University students with disabilities are about as likely as expected to be jobless and to have midrange jobs. However, they are substantially more likely to have low-quality jobs and are substantially less likely to hold high-quality jobs. As discussed above, perhaps the demands of their university programs prevent many university students with disabilities from taking on more hours or days of work
- While obtaining and working at a good job is a challenge for postsecondary students with disabilities, those with a university degree, or a certificate from a college/CEGEP/trade school or trade school, are substantially less likely to be jobless than would otherwise be expected. They are also substantially more likely than expected to have high-quality and midrange-quality jobs. University graduates are also more likely to have low-quality jobs, in part because they are even less likely than college/CEGEP/trade school graduates to be jobless
- Importantly for the present study,
    - Those who are undergoing or have recently undergone low-quality PSE are substantially less likely to have high-quality jobs than would otherwise be expected
    - In contrast, those who are undergoing or have recently undergone high-quality PSE are substantially more likely than expected to have high-quality jobs.

Intersectionality and the Odds of Experiencing Joblessness or Decent Work

Appendix Table 7.1 and even in-text Table 7.2 above provide a considerable amount of information. As many of the factors shown in Appendix Table 7.1 interact with one another, their cumulative impacts on employment cannot be determined through descriptive statistics alone. This begs the question:

- Which of the factors shown on the tables − relating to gender, BIPOC status, region of the country, type of community, income, types and complexities of disability, needs for various supports in education, and having additional expenses for education because of

disability, the quality of PSE that young adults with disabilities have experienced − are most and least strongly associated with joblessness, low-quality, and high-quality work?

Table 7.3 is based on three logistic regression models that include those sociodemographic factors and which show the strongest predictors of 1) joblessness, 2) holding low-quality employment, and 3) holding high-quality employment. Appendix Table 7.1 provides descriptive statistics as context. The three regression models have been consolidated in Table 7.3. A few results on the cusp of the standard p <.05 for statistical significance are indicated by "†" rather than asterisks and are also presented in the discussion below. Those estimated p-values are reported, rounded to the nearest thousandth.

High-quality work

Holding all factors in Table 7.3 constant, the following young adults with disabilities, who presently attend or recently attended school, have significantly high odds of holding high-quality jobs:

- Members of couples without children (OR = 2.71, p <0.001)
- Parents (OR = 5.29, p <0.001)
- Those who live alone (OR = 4.20, p <0.001)
- Those who live with unrelated others or with extended family beyond the parental home (OR = 2.45, p <0.01)
- Those with a hearing disability (OR = 2.19, p <0.05) or cognitive disability (OR = 1.63, p <0.05) versus physical disability with pain. Here, those with cognitive disability would generally be those with a learning disability versus those with an intellectual/ developmental disability
- Those with a college/CEGEP/trade school diploma or certificate (OR = 1.94, p <0.01) or university degree (OR = 1.92, p <0.05) versus those with lower educational certification or no educational certification at all
- Those who were undergoing or had recently undergone high-quality postsecondary education (OR = 1.60, p = 0.055) versus midrange-quality PSE.

Holding all factors in Table 7.3 constant, those with low odds of having high-quality jobs are:

- Those who live in low-income households (OR = 0.04, p <0.001).

Low-quality work

Holding all factors in Table 7.3 constant, the following young adults with disabilities, who presently attend or recently attended school, have significantly high odds of holding low quality jobs:

- Those with a psychosocial disability (OR = 1.78, p <.01)
- Those currently attending or who recently attended university (OR = 1.68, p <.05).

Holding all factors in Table 7.3 constant, those with low odds of having low-quality jobs are:

- Those who live in rural communities (OR = 0.55, p = 0.079) rather than in large urban population centres
- Members of couples with no children (OR = 0.49, p <0.05) and those who live alone (OR = 0.38, p <0.001) versus adult sons/daughters living with one or both parents
- Those whose disability is in the moderate (OR = 0.54, p <0.05), severe (OR = 0.44, p <0.05), or very severe range of complexity (OR = 0.29, p <0.001) versus those whose disability is in the mild range of complexity. However, for these individuals the odds of having low-quality work are matched with high odds of being jobless. Accordingly, the finding indicates that these individuals are significantly less likely than others to have any employment and, where employed at all, they are significantly more likely to have low-quality jobs.

Joblessness

Holding all factors in the table constant, Table 7.3 shows that the following young adults with disabilities, who presently attend or recently attended school, face significantly high odds of being jobless:

- BIPOC individuals versus those who are not BIPOC (OR = 1.70, p <0.01)
- Those who live in low-income versus higher-income households (OR = 3.29, p <0.001)
- Those whose disability is in the moderate range of complexity (OR = 1.99, p <0.001), severe range of complexity (OR = 2.27, p <0.01), or very severe range of complexity (OR = 5.47, p <0.001) versus those whose disability is in the mild range of complexity
- Those currently attending or who recently attended college/CEGEP/trade school (OR = 1.71, p <0.01) versus those who were not attending or had not recently attended college/CEGEP, trade school, or university.

Holding all factors in Table 7.3 constant, those least likely to be jobless are the following:

- Females versus males (OR = 0.65, p <0.01)
- Those who are live alone (OR = 0.57, p = 0.052) or with unrelated others or extended family beyond the parental home (non-Census family) living arrangements (OR = 0.55, p <0.05) versus adult sons/daughters living with one or both parents
- Those with a vision disability (OR = 0.69, p = 0.062) or hearing disability (OR = 0.53, p <0.05) versus those with a physical disability accompanied by pain
- Those with a college/CEGEP/trade school diploma or certificate (OR = 0.41, p <0.001) and those with a university degree (OR = 0.45, p <0.001) versus those with lower types of educational certification or no educational certification at all. These findings again point to the importance of PSE certification in the labour market

Overall summary of the patterns in odds

Overarching positive and negative patterns that can be garnered from Table 7.3 are as follows.

Positive patterns. Generally, young adults with disabilities are most likely to have high-quality work *and* least likely to be jobless *and* to have low-quality employment if they live alone or with unrelated others or with extended family members beyond the parental home. Others with strong likelihoods of obtaining high-quality jobs and low odds of being jobless are those with a hearing disability, those with a college/CEGEP/trade school diploma or certificate, and those with a university degree.

Negative patterns. Those with increasingly complex levels of disability (moderate through very severe) are more likely than others to be jobless. If working, they are significantly less likely than many others to have low-quality jobs in part because they are less likely to have any work at all. Those who live in low-income households are also significantly more likely than others to be jobless and are less likely to have high-quality employment. For a young adult with a disability to live in a low-income household is, to some extent, a result of their not having any employment or having only a low-quality job. However, many young adults with disabilities who currently attend or recently attended school live with parents (42.3%), and the majority (73.9%) live in households with incomes above the poverty line. The joblessness and low-quality work of these young adults is not a major contributor to low household income in the parental home. See Appendix Table 7.1 for the numbers of young adults with disabilities in the research subsample who were in low- and higher-income households and in various in-family and non-family living arrangements.

Low- and high-quality PSE as predictors of decent work

Table 7.3 provides support for the idea that, when a variety of sociodemographic factors are weighed in the balance, the overall quality of PSE is itself a significant contributor to obtaining high-quality work. All other factors held constant, those who have undergone high-quality PSE are over one and a half times more likely than those with medium-quality PSE to obtain high-quality jobs.

A follow-up regression was conducted to explore the dimensions of PSE that most strongly predict high-quality work. Detailed results are not shown, here. However, from within the mix of factors included in the quality-of-PSE measure, not having additional expenses for education because of disability, and never having felt avoided at school because of disability, stand out as the two statistically significant predictors of obtaining high-quality employment.

Table 7.3 shows the strong role that postsecondary certification – or the lack of it – plays in employment trajectories. Here, graduates with a college/CEGEP/trade school diploma or a university degree are a) nearly twice as likely as those with a lower-status educational certificate or no educational certification to have high-quality jobs, and b) less than half as likely to be jobless.

For its part, Table 6.2 shows that two "cultural ingredients" of high-quality PSE are strongly positive predictors of young adults with disabilities graduating from PSE: a) never feeling left out at college/CEGEP/trade school because of disability, and b) never feeling avoided at university because of disability. A "culture of inclusion and respect" in PSE, then, is an important condition for moving young adults with disabilities successfully through the postsecondary system and eventually into better-than-average jobs rather than into joblessness or low-quality employment.

One takeaway message is that these components of high-quality PSE contribute strongly to successful graduation from PSE, which in turn increases the odds of obtaining high-quality employment. While the other components of PSE quality may not be so clearly associated with positive employment outcomes, it is difficult to imagine how a young adult with a disability who needs various supports in education because of disability could survive their postsecondary education and graduate if the specific mix of supports they need were not in place. Regardless of the specific mixes of support that individual students may require, feeling included and connected with others seem to be of overriding importance.

Living arrangements as predictors of positive PSE *and* employment outcomes

Table 7.3 shows that young adults with disabilities and recent schooling who are members of couples with no children, or who themselves are parents, or who live alone, or who live with extended family or unrelated others have strong odds of obtaining high-quality work. Table 6.2 shows that, except for those who are themselves parents, those living arrangements are also associated with high odds of graduating from university. Those who are parents have high odds of graduating from college/CEGEP/trade school. Table 7.3 reinforces that those with college/CEGEP/trade school certification or a university degree have high odds of obtaining high-quality work. One clear conclusion is that young adults with disabilities, who are in diverse living arrangements beyond living at home with their parents have the capacity to graduate from PSE and obtain high-quality work.

Table 7.3. The odds of experiencing joblessness, low-quality, and high-quality work among young adults with disabilities who attended school at some point from 2012 to 2017, were at least 18 years old when attending and not older than 34 when the CSD was conducted

	Jobless	Sig.	Low-quality work	Sig.	High-quality work	Sig.
Male (reference)						
Female	0.65	**	0.87		1.17	
Non-BIPOC (reference)						
BIPOC	1.70	**	0.65		0.85	
Ontario and the northern territories (reference)						
British Columbia	0.78		0.85		0.87	
Prairies (AB, SK, MB)	0.92		0.69		1.53	
Quebec	1.14		0.68		1.02	
Atlantic (NB, NS, PE, NL)	0.98		0.96		0.93	
Large urban pop. ctrs (reference)						
Small and mid-sized pop. ctrs	1.04		0.76		0.95	
Rural communities	1.02		0.55	†	1.04	
Not low-income households (reference)						
Low-income households	3.29	***	1.47		0.04	***
Sons/daughters, inc. grand & foster (reference)						
Members of couples with no children	0.90		0.49	*	2.71	***
Parents (themselves)	1.10		0.77		5.29	***
Unattached, alone	0.57	†	0.38	**	4.20	***
Other living arrangements	0.55	*	0.72		2.45	**
Physical disability with pain (reference)						
Vision disability	0.69	†	1.09		1.09	
Hearing disability	0.53	*	1.33		2.19	*
Cognitive disability	0.94		0.88		1.63	*
Psychosocial disability	0.82		1.78	**	1.14	
Disability without pain	1.07		1.01		0.91	
Mild complexity of disability (reference)						
Moderate complexity of disability	1.99	***	0.54	*	0.72	
Severe complexity of disability	2.27	**	0.44	*	0.69	
Very severe complexity of disability	5.47	***	0.29	**	0.71	
No current/recent attendance at college or university (reference)						
Current or recent attendance at college/CEGEP/trade school	1.71	**	0.98		1.15	
Current or recent attendance at university	1.09		1.68	*	0.84	
Less than college/CEGEP/trade school diploma/certificate, incl. no high school graduation (reference)						
College/CEGEP/trade school diploma/certificate	0.41	***	1.03		1.94	**
University degree	0.45	***	1.42		1.92	*
Medium-quality postsecondary education (reference)						
High-quality postsecondary education	0.88		0.98		1.60	†
Low-quality postsecondary education	1.00		1.16		1.02	

Note on significance: * p <.05; ** p <.01; *** p <.001; († p <.08)

Summary

Holding a range of sociodemographic factors constant, factors strongly associated with positive employment outcomes for young adults with disabilities currently or recently attending PSE are being female, living alone, living with unrelated others or extended family beyond the parental home, being a member of a couple without children, having a hearing, cognitive (mainly learning), or vision disability, living in a rural community, having a college/CEGEP/trade school diploma or certificate or a university degree, and experiencing high-quality PSE.

Factors strongly associated with not-so-positive employment outcomes for young adults with disabilities currently or recently attending PSE are being BIPOC, living in a low-income household, having a psychosocial disability, having a disability of moderate, severe, or very severe complexity, and presently attending college/CEGEP/trade school or university.

8. Key Findings—Highlights

Young Adults With and Without Disabilities

Based on the Census of 2017, young adults with disabilities make up 13.5% (slightly over 1 million) of the nearly 7.5 million young adults 18 to 34 years old in Canada. Young adults with physical disabilities make up nearly half of the population with disabilities at the focus of this research. Almost nine out of 10 of these individuals also have a disability related to pain. However, it is very common for young adults with any disability to have two or more types. Slightly over half of the young adults at the focus of this study have disability that presents a comparatively mild level of complexity. About two in 10, respectively, have disabilities in the moderate or severe range of complexity, and about one in ten have disabilities in the very severe range of complexity. Compared with young adults without disabilities, those with disabilities are a little less likely to be younger than 30 years old and a little more likely to be 30 to 34 years of age.

Young men and women make up about the same shares of those without disabilities, but young women make up about six out of 10 young adults with disabilities.

Consistent with other research for adults with disabilities, a lower-than-expected share of young adults with disabilities resides in Quebec and a higher-than-expected share resides in the Atlantic provinces. The percentages of young adults with disabilities who live in BC, the prairies, Ontario, and the northern territories are only slightly higher than the expected shares given the distributions of young adults without disabilities across those regions.

The share of BIPOC individuals among young adults with disabilities is considerably lower than among young adults without disabilities. However, BIPOC individuals with disabilities are much more likely to be Indigenous than BIPOC individuals who do not have disabilities.

Young adults with disabilities are slightly more likely to be out of school than their counterparts without disabilities. Those with disabilities are slightly more likely to be in elementary or high school, are nearly as likely to be attending a non-university postsecondary institution such as a college, CEGEP, or trade school, but are considerably less likely to attend university. Those with disabilities are twice as likely as to be jobless and not attending school.

Young adults with disabilities are more than twice as likely as young adults without disabilities to have no educational certification at all. They are more likely to have a high school diploma as their highest educational credential, are somewhat less likely to have a college/CEGEP/trade school certificate, and they are much less likely to hold a university degree.

Education and Employment Patterns Among Young Adults with Disabilities

Patterns in education among young adults with disabilities

Attendance

College/CEGEP/trade school. Young adults with disabilities and markedly high rates of attendance in college/CEGEP/trade school are Indigenous, racialized, and BIPOC individuals, residents of Quebec, and those who live in low-income households. Young adults with disabilities who have significantly high odds of attending college/CEGEP/trade school when a range of factors are considered are females, those who live in low-income households, young adults with learning disabilities, and residents of Quebec.

Young adults with disabilities and markedly low rates of college/CEGEP/trade school attendance are males, residents of Atlantic Canada, those who live in small and mid-sized population centres, and those who have a hearing disability. Those with significantly low odds of attending college/CEGEP/trade school have disabilities of moderate or very severe complexity.

University. Young adults with disabilities and markedly high rates of attendance in university are racialized, residents of British Columbia, living in large urban population centres, in low-income households, and have disabilities that are not pain related. Those who have significantly high odds of attending university when a range of factors are considered are those with disabilities that are not pain related.

Young adults with disabilities and markedly low rates of attendance at university are Indigenous, those who live in the northern territories, and those who live in rural or small-to-mid-sized population centres. They are more likely to have a cognitive disability, a disability that includes pain, and that is of very severe range complexity. Young adults with disabilities who have significantly low odds of attending university live in small to mid-sized urban and rural communities and have a developmental/intellectual disability.

Disability-related supports for PSE

Young adults with disabilities have a range of disability specific needs that must be addressed for ongoing attendance and success at college/CEGEP/trade school and university. Young adults with cognitive (learning and developmental/intellectual) disabilities, and those whose disabilities of severe and very severe complexity, are in substantially greater need than others of *all* the supports explored in this study.

Young adults with vision and hearing disabilities also face substantially higher-than-typical levels of need for several supports, as do BIPOC young adults with disabilities. The supports substantially more widely needed by these individuals are accessible building features, suitable materials for learning, and human support. The human supports will vary according to disability-related need, such as for a sign language interpreter, a tutor, a personal attendant, etc.

Young adults in low-income households, together with those whose disabilities are of moderate complexity, are substantially more likely than others to need accessible curriculum and procedures and accessible technologies.

Difficult social and economic experiences in PSE

Many young adults with disabilities currently or recently attending PSE have felt avoided, left out, or bullied at school because of disability – including verbal and digital bullying − and have had additional expenses for their education because of disability. Young adults with cognitive disabilities, and disabilities of severe and very severe complexity are much more likely than most students to have had all these experiences. However, those with psychosocial disabilities are also highly likely to have felt left out or avoided at school because of disability. Those living in low-income households are particularly likely to have felt avoided and those with hearing disabilities are particularly likely to have been bullied. BIPOC young adults with disabilities and those with seeing disabilities are particularly likely to have additional expenses for education because of disability.

Even if they have not experienced bulling in PSE, many students with disabilities – nearly a third − have been subjected to bullying at some point in their educational history. Many have *also* experienced being avoided *and* left out because of disability *and* have had to deal with additional costs of education because of disability. Accordingly, many may be struggling with difficult emotional and other aftermaths. These can include depression, damaged self-image, diminished self-confidence, substance use, tendency to self-isolate, impaired academic performance, financial uncertainties, etc. (e.g., Wolpert, 2010; U.S. Department of Health and Human Services, 2021; Centers for Disease Control and Prevention, 2021).

Equity in distribution across fields of study

There are notable successes among the relatively few young adults who study in the STEM fields and in the business and administration fields. The numbers of certificate holders are considerably higher in the arts, humanities, social, and behavioural sciences, and in disciplines associated with legal, health, and education professions. Taking into account disability, gender and BIPOC identity, however, young adults with disabilities are disproportionately likely to hold certificates in the latter fields and to find themselves competing with many others with and without disabilities in the labour market who hold similar qualifications.

Odds of experiencing high-quality and low-quality PSE

Section 5 provides details on the characteristics of young adults with disabilities and current or recent schooling who experience low-quality, midrange quality, and high-quality PSE. Holding a range of sociodemographic factors constant, however, those who are significantly more likely than others to experience high-quality PSE as defined in this research, or who are significantly less likely to experience low-quality PSE, tend to live in the prairie or Atlantic provinces, live alone, and have needs that have been largely met for accessible buildings, technology, learning materials, curriculum/procedures, human support, or miscellaneous other supports for disability while studying. They have not had additional expenses for education because of

disability, have never felt avoided, left out, or bullied at school because of disability, and have disabilities of moderate, severe, or very severe complexity. Those who are significantly less likely than others to experience high-quality PSE are those who live in low-income households and those with a hearing disability. Young adults with disabilities who live with unrelated others or with non-family members beyond the parental home face an ambivalent situation because they have significantly high odds of experiencing both high-quality *and* low-quality PSE.

Recap of linkages between PSE and the quality of work

Section 7 showed that postsecondary certification – and the lack of it – plays a vital role in defining the employment trajectories of young adults with disabilities. Other factors held constant, graduates with a college/CEGEP/trade school diploma or a university degree are a) nearly twice as likely as those with a lower-status educational certificate or no educational certification to have high-quality jobs, and b) less than half as likely to be jobless.

The prospects of holding high-quality jobs are strongest in healthcare and social assistance, public administration, in (non-public sector) administration and support services, in wholesale, warehousing, and transportation, in and in waste management and remediation services. In terms of occupations, the prospects of holding high-quality work are strongest in business, finance, and administrative occupations, in health, education, law, and social, community and government service occupations, and in trades, transportation, and equipment operation and related occupations.

The industries where young adults with disabilities are most likely to obtain low-quality work are in the retail trade, in primary industries, in the information, culture, arts, entertainment, and recreation services, and in accommodation and food services. The occupations most likely to involve low-quality work are those in art, culture, recreation, and sports occupations, and sales and service.

Industries where the numbers of low-quality and high-quality jobs are about as expected, but where there are substantially more jobs than expected of midrange quality, are in health care and social assistance, public administration, and the accommodation and food services. Occupations where a similar pattern prevails are in business, finance and administration, in health, education, law, social, community, and government services, in natural and applied sciences and related occupations, and in sales and service occupations.

Industries where jobs tend to be polarized between high-quality and low-quality, with less middle ground in between, are education services. Occupations where this kind of polarization occurs are those in manufacturing, utilities, and natural resources, and in agriculture and related production occupations.

Holding a range of sociodemographic factors constant, factors strongly associated with positive employment outcomes for young adults with disabilities currently or recently attending PSE are being female, living alone, living with unrelated others or extended family beyond the parental

home, being a member of a couple without children, having a hearing, cognitive (mainly learning), or vision disability, living in a rural community, having a college/CEGEP/trade school diploma or certificate or a university degree, and experiencing high-quality PSE.

Factors strongly associated with not-so-positive employment outcomes for young adults with disabilities currently or recently attending PSE are being BIPOC, living in a low-income household, having a psychosocial disability, having a disability of moderate, severe, or very severe complexity, and presently attending college/CEGEP/trade school or university.

Section 6 provided details on the characteristics of young adults with disabilities who graduate from college/CEGEP/trade school and university. Section 6 also showed that those currently or recently attending school who have high odds of graduating from college/CEGEP/trade school live in Quebec, are members of couples without children, those who themselves are parents, those who live with extended family members or unrelated others, and those who have never felt left out at school because of disability. Those with low odds of graduating from college/CEGEP/trade school are those whose disability does not involve pain and those who need accessible instructional materials.

Those with high odds of graduating from university are young women, members of couples without children, those who live alone, those who live with extended family or unrelated others, and those who have never felt avoided at school because of disability. Those with low odds of graduating from university are those who live in the prairie provinces or Quebec, those who live in small and mid-sized population centres, those living below the poverty line, those with a cognitive disability, those with a psychosocial disability, those who need human support for their studies, and those who have never felt left out at school because of disability.

Those most likely to graduate from college/CEGEP/trade school *and* university are members of couples without children, and perhaps those in shared living arrangements with extended (non-nuclear) family or unrelated others.

Two “cultural ingredients” of high-quality PSE are strong predictors of young adults with disabilities graduating from PSE. These are a) never feeling left out at college/CEGEP/trade school because of disability, and b) never feeling avoided at university because of disability. A culture of inclusion, respect, and safety in PSE, then, is an important condition for moving young adults with disabilities successfully through the postsecondary system and eventually into high-quality jobs rather than into joblessness or low-quality employment.

Other important predictors of the quality of PSE that young adults with disabilities experience are the availability of adequate financial assistance, and accessible built environmental features, technologies, learning materials, and curriculum and procedures as well as the availability of the human support and various other disability-related supports needed for PSE.

When a variety of sociodemographic factors are weighed in the balance, the overall quality of PSE is itself a significant contributor to obtaining high-quality work. Those who have

experienced low-quality PSE are much less likely than others to obtain high-quality work. All other factors held constant, those who have undergone high-quality PSE are over one and a half times more likely than those with medium-quality PSE to obtain high-quality jobs.

Putting the Key Patterns Together

The remainder of this section provides a summary of the key findings from Sections 2 through 7 of this report, which pertain to nearly 457,000 young adults with disabilities who attended school at some point from 2012 to 2015, who were at least 18 years old when attending, and younger than 35 when the CSD was conducted. Appendix Table 8.a-b provides a large matrix that shows the key patterns from which the present section draws. That table is itself a summary of other findings and tables, most importantly the in-text Tables 3.2, 5.1 − 5.7, 6.1, 6.2, 7.2, 7.3 and Appendix Tables 3.13, 5.1-5.3, and 7.1.

The strategy for organizing the present discussion was to observe whether there were significantly high or low odds of young adults with disabilities attending college or university, or experiencing high-quality or low-quality PSE, or of graduating from college/CEGEP/trade school or university, or of obtaining high-quality or low-quality employment, or of being jobless. The present summary points to those odds and, to help explain them and provide context, incorporates other marked departures from expected patterns in PSE attendance, experiences of PSE quality and graduation, in the quality of jobs held, and in the extent of joblessness. The discussion begins with scenarios that are positive on balance, followed by negative and ambivalent scenarios; those terms are explained in context, below.

The internal organization within the positive, negative, and ambivalent scenarios focuses first on where strong patterns in PSE seem implicated in employment outcomes, followed by a discussion of where there are markedly unusual patterns within PSE but where the connections between PSE and employment are unclear.

While many cells on Appendix Table 8.a-b are blank, this does not mean they are irrelevant. They indicate that the patterns are within the expected range of probabilities (generally within ±0.15 of the expected values), or that the odds of young adults with disabilities being in a positive or negative PSE or employment situation are not significantly strong one way or the other.

The discussion below often compares young adults with disabilities with what might be "expected." To avoid repetition, the other people implied as a basis for comparison are young adults with disabilities aside from those at the focus of attention. Generally, these are young adults currently or recently attending PSE who have characteristics like people at the focus of attention, and who were at least 18 years old when attending, and younger than 35 when the CSD was conducted. However, when exploring basic attendance at college/CEGEP/trade school or university, the others are all young adults with disabilities 18 to 34 years of age who have

characteristics similar as those of young adults at the focus of attention, regardless of the others' current or recent school attendance.

Positive scenarios

The positive scenarios that follow are generally those where young adults with disabilities have

- Positive odds of attending college/CEGEP/trade school or university or are much more likely than expected (as a simple probability) to attend those PSE schools
- Positive odds of experiencing high-quality PSE or are much more likely than expected to experience high-quality PSE (or much less likely to experience low-quality PSE)
- Positive odds of graduating from college/CEGEP/trade school or university or are much more likely than expected to graduate from such PSE schools
- Positive odds of obtaining high-quality work or are much more likely than expected to have high-quality work
- Low odds of obtaining low-quality work or are much less likely than expected to have low-quality work
- Low odds of being jobless or are much less likely than expected to be jobless.

Positive scenarios may include some negative elements but were judged to be positive on balance.

Positive scenarios with linkages to employment

- *Young women* with disabilities are more likely than their male counterparts to attend and graduate from university. Other factors held constant, young women have high odds of graduating from university and have low odds of being jobless. However, young women with disabilities are much more likely to experience low-quality PSE at college/CEGEP/trade school and at university (or are much less likely to experience high-quality PSE).

- Young adults with disabilities who live in the *prairie provinces* are very likely to experience high-quality PSE at college/trade school and, other factors held constant, have high odds of experiencing high-quality PSE. They are much more likely on average to hold high-quality jobs and are markedly less likely to hold low-quality jobs. However on the negative side, they face low odds of graduating from university.

- Young adults with disabilities who live in *rural communities* are much less likely than expected to hold low-quality employment and, when other factors are held constant, face low odds of obtaining low-quality work. However, they are much less likely to attend university and, when other factors are held constant, have low odds of attending *or* graduating from university. They are also much less likely to experience high-quality PSE at college/CEGEP/trade school.

- Young adults with disabilities who are members of *couples without children* are much more likely than expected to graduate from college/CEGEP/trade school *and* university. Other factors held constant, they are also at high odds of graduating from college/CEGEP/trade school *and* university. They are much more likely than expected to hold high-quality jobs and are much less likely to be jobless. Other factors held constant, they have high odds of obtaining high-quality work and face only low odds of obtaining low-quality work.

- Those who *live alone* have high odds of experiencing high-quality PSE. They are much more likely than expected to graduate from university and, other factors held constant, they have high odds of graduating from university. They also have high odds of obtaining high-quality employment and low odds of joblessness.

- Those who *live with unrelated others or with extended family members* beyond the parental home have high odds of graduating from college/CEGEP/trade school *and* university. They also have high odds of obtaining high-quality work and face low odds of joblessness.

- Those with a *vision impairment* face low odds of joblessness. This is somewhat surprising because, overall, their experiences in PSE tend not to be markedly different than the experiences of other young adults with disabilities. That said, however, those with vision impairments are much more likely than expected to experience low-quality PSE at college/CEGEP/trade school, which makes their low odds of joblessness that much more surprising.

- Those who have *obtained a college/CEGEP or trades certificate* are much more likely than expected to obtain high-quality work and are much less likely to be jobless. Other factors held constant, college/CEGEP/trade school graduates are at high odds of obtaining high-quality work and at low odds of being jobless.

- Those who have *obtained a university degree* are much more likely than expected to have experienced high-quality PSE at university. Other factors held constant, university graduates are at high odds of obtaining high-quality work and at low odds of being jobless.

- Those who have *experienced high-quality PSE* are much more likely than expected to obtain high-quality jobs and, when other factors are held constant, are at high odds of obtaining high-quality jobs. In contrast, those who have recently undergone low-quality PSE are much less likely than expected to obtain high-quality employment.

Positive scenarios with unclear linkages between PSE and employment

- Those who live in the *Atlantic provinces* are much more likely than expected to experience high-quality PSE at university (or are much less likely to experience low-quality PSE). Other factors held constant, those in the Atlantic provinces have high odds of experiencing high-quality PSE overall. However, they are markedly more likely to experience low-quality PSE at college/trade school.

- Those who have *never felt avoided at school* because of disability are much more likely than expected to experience high-quality PSE at college/CEGEP/trade school *and* university. Other factors held constant, such students are also at high odds of graduating from *both* kinds of PSE schools.

Negative scenarios

Negative scenarios are where those at the focus of attention are highly unlikely to be in positive scenarios or highly likely to be in negative scenarios. Either way, the odds are not favourable for the individuals at the focus of attention. Negative scenarios also include likelihoods (simple probabilities) that are markedly low for being in positive scenarios or markedly high of being in negative ones. Occasionally, there are some positive features mixed with negative features but, on balance, the scenarios were judged negatively overall.

Negative scenarios with linkages to employment

- *BIPOC* young adults with disabilities are much more likely than expected on average to experience low-quality PSE in college/CEGEP/trade school (or much less likely to experience high-quality PSE) and are much less likely to graduate from those PSE schools. They are much more likely to be jobless and, holding other factors constant, are at high odds of being jobless. Those outcomes accrue, despite that BIPOC young adults – Indigenous and racialized − are much more likely than their non-BIPOC counterparts to attend college/CEGEP/trade school and that racialized individuals are more likely to attend university.

- Young adults with a *psychosocial disability* are much more likely than expected to experience low-quality PSE at college/CEGEP/trade school *and* university (or much less likely to experience high-quality PSE). Other factors held constant, they face low odds of graduating from university and high odds of working in low-quality jobs.

- Those presently or very recently *attending college/CEGEP/trade school* are much more likely than expected to be jobless and, holding other factors constant, face high odds of joblessness. Perhaps the demands of studying at college/CEGEP/trade school prevent many such students from holding jobs. Those who do graduate from college/CEGEP/trade school have high odds of good employment.

- Those presently or very recently *attending university* are much less likely to than expected to have high-quality employment and, holding other factors constant, they face high odds of working in low-quality jobs. As with college/CEGEP/trade school students, perhaps the demands of studying prevent many university students from holding better jobs, e.g., ones that would provide better pay and more job security but would require more hours of work. Those who do graduate from university have high odds of good employment.

Negative scenarios with unclear linkages between PSE and employment

- Young adults with disabilities who live in *small and mid-sized towns and cities* face low odds of graduating from university. In part this is due to their markedly lower-than-average attendance at university. However, the regressions performed for the present research also took other factors into account, so low attendance at university is not the only or main factor that contributes to these students' low odds of graduation from university. Young adults who live in small and mid-sized population centres are also much less likely to attend college/CEGEP/trade school.

- Those who *need human support* for their PSE studies are much less likely than expected to graduate from college/CEGEP/trade school, although they do not seem to face significantly low odds of graduating from those PSE schools when other factors are held constant. That said, those who need human support are much less likely than expected to graduate from university and, other factors held constant, face low odds of graduating from university.

- Those who *need accessible materials* for PSE are much less likely than expected to graduate from college/CEGEP/trade school and, other factors held constant, face low odds of graduating from those PSE schools.

- Those who need accessible *technologies* are markedly less likely on average to graduate from either college/CEGEP/trade school or university.

- Those who have *felt avoided at school* because of disability are much more likely than expected to experience low-quality PSE at college/CEGEP/trade school and university (or much less likely to experience high-quality PSE). They are much less likely than expected to graduate from university. Other factors held constant, those who have not felt avoided at school because of disability have high odds of graduating from university. Those who have not felt avoided at school because of disability are much more likely than on average to graduate from college/CEGEP/trade school *and* university.

- Those who have *felt left out at school* because of disability are much more likely than expected to experience low-quality PSE at college/CEGEP/trade school *and* university (or

much less likely to experience high-quality PSE). They are much less likely to graduate from college or university. Paradoxically, however, when a range of factors are held constant, those who have not felt left out at school because of disability have low odds of graduating from university.

- Those who have been *bullied* at school because of disability are much more likely to experience low-quality PSE at college/CEGEP/trade school and university. Those who have not been bullied are much more likely than on average to graduate from university.

- Those who need human support, accessible materials, or technologies, or who have felt avoided or left out at school because of disability, or have been bullied at school because of disability, were not markedly more or less likely to obtain high-quality or low-quality jobs or be jobless when the CSD data were gathered for the present study. However, such individuals are much less likely to graduate from some forms of PSE, which is not a good omen for their long-term job prospects.

Ambivalent scenarios

Ambivalent scenarios reflect a mix of positive and negative elements that render them difficult to categorize as more positive than negative, or *vice versa.* Typically, ambivalent scenarios are more complex than positive or negative ones.

Ambivalent scenarios with linkages to employment

- Young adults with disabilities who live in *low-income households* are much more likely than expected to attend college/CEGEP/trade school and university and, other factors held constant, have high odds of attending college/CEGEP/trade school. However, those in low-income households are much more likely to experience low-quality PSE (or much less likely to experience high-quality PSE) at college/CEGEP/trade school *and* university. Holding other factors constant, they face low odds of graduating from either kind of PSE school. They are much less likely to hold high-quality work and, other factors held constant, face high odds of being jobless.

- Young adults with disabilities who live in *Quebec* are much more likely than expected to attend college/CEGEP/trade school. Other factors held constant, they have high odds of attending *and* graduating from such PSE schools. Those in Quebec are much more likely than expected to experience high-quality PSE if at university. Paradoxically, however, they are much less likely than expected to graduate from university and, when other factors are held constant, face low odds of graduating from university. Those in Quebec are much less likely than expected to obtain low-quality employment, although their odds of being in positive or negative employment situations are not significant when

other factors are held constant.

- Young adults with disabilities who are *parents* are much more likely than expected to graduate from college/CEGEP/trade school. Other factors held constant, they are also at high odds of graduating from those PSE schools and of obtaining high-quality work. However, they are much less likely on average to graduate from university and, when other factors are held constant, face low odds of graduating from university. They are much more likely on average to be jobless.

- Those with a *cognitive disability* (generally a learning disability in the PSE context) are much more likely than expected to experience high-quality PSE at university (or are much less likely to experience low-quality PSE). However, they are much less likely to graduate from university and, other factors held constant, face low odds of graduating. They are much more likely on average to experience low-quality PSE at college/CEGEP/trade school (or are much less likely to experience high-quality PSE, there). Somewhat surprisingly, when other factors are held constant, they have high odds of obtaining high-quality employment. However, they are also much more likely than expected to be jobless, even if not at significantly higher odds of that outcome when other factors are held constant.

- Those with a *hearing disability* are much less likely than expected to attend college/CEGEP/trade school. However, they are much more likely than expected to graduate from such schools and to obtain high-quality work. Other factors held constant, they have high odds of obtaining high-quality work and low odds of being jobless. However, if attending university, they are much more likely to experience low-quality PSE (or much less likely to experience high-quality PSE). Other factors held constant, their odds of experiencing high-quality PSE are low overall.

- Those whose disability is of *mild complexity* are much more likely than expected on average to attend university, to experience high-quality PSE at university, and to graduate from university. However, they are much less likely to attend college/CEGEP/trade school and are much more likely to work in low-quality jobs.

- Those whose disabilities are of *moderate complexity* have low odds of attending college/CEGEP/trade school. However, those who do manage to attend such schools are much more likely than expected to experience high-quality PSE (or much less likely to experience low-quality PSE). They are also much more likely than expected to have positive experiences of PSE quality if they attend university. They have low odds of obtaining low-quality work. However, they also face high odds of joblessness. Perhaps their high odds of joblessness are due in part to their high odds of not attending

college/CEGEP/trade school, other factors held constant. Their low odds of holding low-quality jobs in part reflect their low likelihood of holding *any* employment.

- Those whose disabilities are of *severe complexity* have low odds of attending college/CEGEP/trade school. While they are much more likely than expected to attend university, they are much less likely than expected to graduate from university. They have low odds of obtaining low-quality work when other factors are held constant. However, they also face high odds of joblessness.

- Those whose disabilities are of *very severe complexity* are much less likely than expected to attend university, are much more likely to have negative experiences of PSE quality, there, and are much less likely than expected to graduate from university. In contrast, they are much more likely than expected to graduate from college/CEGEP/trade school. When other factors are held constant, they have low odds of obtaining low-quality work but are also at high odds of joblessness.

Ambivalent scenarios with unclear linkages between PSE and employment

- Young adults whose *disability does not involve disabling pain* are much more likely than expected to attend university and, other factors held constant, have high odds of attending university. In contrast, they are much more likely to experience low-quality PSE at college/CEGEP/trade school and face low odds of graduating from those PSE schools.

9. Directions for Policy and Practice

General Directions for PSE Schools

Several general directions for policy and practice can be distilled from this research, particularly from the positive, negative, and ambivalent scenarios discussed in Section 8. Appendix Tables 8.1.a-b provide further details on those scenarios, as do the summaries at the ends of Sections 3 – 7.

As general context, the following points should be remembered:

- Those who have graduated from college/CEGEP/trade school with a diploma or certificate, and those who have graduated from university with a degree, are much more likely on average to have high-quality jobs and are much less likely to be jobless. When other factors are held constant, graduates from college/CEGEP/trade school and graduates from university have high odds of holding high-quality jobs and low odds of joblessness.

- Those with greater exposure to high-quality PSE are much more likely to hold high-quality employment and, holding other factors constant, have strong odds of obtaining high-quality employment.

- In sharp contrast, those who do not hold a PSE certificate or degree are much more likely than others on average to be jobless and are much less likely to hold high-quality work.

- Those who have had greater-than-average exposure to low-quality PSE (or less high-quality PSE) are much less likely than others on average to have high-quality jobs.

Clear takeaway messages from those findings are that governments, PSE administrators, professors, instructors, and other PSE staff should try to optimize opportunities for young adults with disabilities to:

a) Attend college/CEGEP/trade school and university
b) Experience high-quality PSE in these schools or, at the very least, midrange quality PSE
c) Successfully graduate from these schools, and
d) Move along well-defined pathways from PSE into employment, that would consist of not just any jobs, but good-quality jobs.

The following directions for policy, programs, and practice focus on increasing the attendance of young adults with disabilities in PSE schools, ensuring experiences of good quality PSE once attending, and fostering positive linkages with industries and occupations with the strongest likelihoods of providing high-quality employment.

Increase the rates of attendance in PSE

An effective strategy for increasing the high rate of joblessness among young adults with disabilities will focus not only on increasing their comparatively low attendance in PSE, but also on supporting their successful *graduation* from college/CEGEP/trade school and university.

The research findings point to the need for measures to increase the attendance of young adults with disabilities at college/CEGEP/trade school. Those requiring specific attention are young adult males with disabilities, and young adults with disabilities who live in Atlantic Canada, those who live in small and mid-sized population centres, and those who have a hearing disability. Particular attention is needed to increase the attendance of young adults with more complex forms of disability at college/CEGEP/trade school. Those measures could build on the successes that are being realized in furthering the college/CEGEP/trade school attendance of young adults with disabilities in Quebec, of Indigenous and racialized individuals, and among those who have learning disabilities. Good practices in furthering college/CEGEP/trade school attendance by young adults with disabilities in low-income households might be applicable to those who live in small and mid-sized population centres.

Measures are also needed to boost university attendance among Indigenous young adults with disabilities, those who live in the northern territories, and those who live in rural and small-to-mid-sized population centres. Young adults with disabilities who require particular attention are those with complex disabilities, particularly those whose disability involves pain and those with a cognitive disability, including young adults with a developmental/intellectual disability. Good practices for Indigenous young adults with disabilities at university might be drawn from practices that support their presently high attendance at college/CEGEP/trade school. Lessons for Indigenous individuals at university might also be drawn from good practices that support the high attendance of racialized young adults with disabilities, who are highly likely to attend university and college/CEGEP/trade school. Lessons about how university education is being furthered for young adults with disabilities who live in low-income households might be applicable to those who live in northern, rural, and small-to-mid-sized urban communities.

All PSE schools − colleges, CEGEPs, trade schools and universities − should prioritize finding new ways of supporting the attendance of young adults with more complex forms of disability.

Ensure provision of the supports needed for successful learning and graduation

Consistent with these aims, colleges, CEGEPS, trade and technical schools, and universities should be making available the array of supports that young adults with disabilities need to learn and graduate. Young adults with disabilities of mild complexity have relatively low needs for support and should not be made a major focus of attention, here. Instead, provision should be made for a full array of supports to address the markedly high needs for supports experienced by young adults with cognitive (learning and developmental/ intellectual)

disabilities, and those with disabilities of severe and very severe complexity. Such supports include accessible PSE school buildings, flexible curricula and procedures, suitable learning materials, accessible technologies, appropriate human support, and miscellaneous other supports for disability in PSE.

Young adults with vision and hearing disabilities, and BIPOC young adults with disabilities, are also considerably more likely than many others to need accessible building features, learning materials, and human support in PSE. Postsecondary schools aiming to support the attendance and graduation of these individuals should ensure adequate provision to meet their requirements. Concerning human support, the postsecondary institution's role may at times involve ensuring direct provision on campus (e.g., sign language interpreters, tutors) and at other times facilitating the involvement of the student's own support person (e.g., attendant).

Postsecondary schools should also ensure that curricula and procedures are flexible, and that accessible learning technologies are available, so young adults in low-income households and those with disabilities of moderate complexity can attend and graduate.

Attention to the needs of BIPOC young adults with disabilities, those with seeing and hearing disabilities, those in low-income households, and those with disabilities of moderate complexity will be important steps towards closing gaps in disability-related support for PSE experienced by young adults with cognitive and more complex forms of disability. Student surveys, focus groups, and other measures to gauge the adequacy of the supports available to diverse students are important steps postsecondary schools can take towards identifying specific gaps in support that should be closed for their students.

Foster positive social and economic experiences in PSE

As well, colleges, CEGEPS, trade and technical schools, and universities should be fostering built, social, procedural, and digital spaces that are welcoming and supportive for all students, including diverse students with disabilities. PSE schools should be particularly attentive to the present impacts and aftermaths of the negative social experiences that many young adults with disabilities may be dealing with and which may be compromising their capacity to thrive in PSE. Students with cognitive, psychosocial, and hearing disabilities, those with complex forms of disability, and students with disabilities who live on low incomes require particular attention and sensitivity in disability-related accommodation policies for PSE. Colleges, CEGEPs, trade and technical schools, and universities should be making counselling, peer support, and fully inclusive classes and extracurricular activities readily available to students with disabilities so they can participate as valued equals and graduate. Adequate student financing would also help lessen the disproportionate difficulties many young adults with disabilities experience in PSE.

Ensure provision of good-quality PSE for all students

Colleges/CEGEPS/trade schools and universities should continue their efforts to ensure *all* young adults obtain the highest quality postsecondary education possible. Major progress will be achieved by ensuring that young adults who need accessible buildings, technology, learning materials, curriculum/procedures, human support, and miscellaneous other supports for disability have the supports they require for their studies. Importantly, however, will be to ensure that young adults with such needs are encouraged, welcomed, and supported to participate fully in PSE and are not under-represented among students. Vigilance by PSE leaders, flexible academic accommodation policies, and peer-support and peer-mentoring programs will also be needed to ensure that all students, including those with disabilities, feel safe and valued as equal members of the academic community.

Those particularly in need of attention are young adults with disabilities living away from the parental home with unrelated others or with extended family members, those living on low incomes, those with a hearing disability, and those studying in the broad grouping of disciplines that includes the arts and humanities, and social and behavioural sciences. Lessons on how to ensure appropriate academic and other support for these students could be drawn from successes that are presently being realized in the prairie and Atlantic provinces to ensure students have all or most of the supports they require for studying at college/CEGEP/trade school or university and also have positive experiences of safety and inclusion as members of the academic community. For students living on low incomes, difficulties obtaining disability-related supports are in many cases due to the unaffordability of the supports (Morris, Fawcett, Brisebois, & Hughes (2018). Lessons could be drawn from the experiences of students who have managed to obtain the level of financing they need for their studies, particularly by those who live alone or who live beyond the parental home with others. While the support requirements of students with hearing disabilities are somewhat unique, many young adults with hearing disabilities and complex other disabilities and support requirements are studying at college/CEGEP/trade school and university. Administrators, educators, and diversity specialists in PSE should try to learn from those students' experiences to glean lessons about how to effectively support young adults to succeed in PSE who d/Deaf, deafened, or hard of hearing.

Maximize the likelihoods of graduating from college/CEGEP/trade school and university

Postsecondary schools should continue providing high-quality education that will encourage and support all qualified students to graduate. Notable successes of young adults with disabilities graduating from college/CEGEP/trade school can be found in Quebec, whose lessons should be documented and adapted for other provinces and territories. While pain is a widespread experience among young adults with disabilities, why students who *do not* experience pain face significantly low odds of graduating from college/CEGEP/trade school requires better understanding through focused conversations and research involving students

who experience difficulties graduating. Those with complex disabilities may make up a large share of such students.

Lessons learned about the supports needed and being provided to support the high odds of young women with disabilities graduating from university should be mined and, with suitable adjustments, applied to young men with disabilities. Similarly, lessons on how young adults with disabilities are likely to graduate from college/CEGEP/trade school in Quebec should be mined and applied to universities in that province, where young adults with disabilities face low odds of graduating from university. Those lessons could also be applied to the prairie provinces, where young adults with disabilities also face low odds of graduating from university. Student financing for university students with disabilities requires attention because, while young adults with disabilities are markedly more likely than expected to attend university, they are markedly less likely to graduate and face low odds of graduating from university.

No specific type of disability stands out for attention among the factors that account for high odds of graduating from university. However, lessons learned about how young adults with cognitive and psychosocial disabilities graduate from university need to be better understood. Indeed, so do the lessons learned about the graduation of students with any complex disabilities and who need human support in PSE. Those lessons should be adapted and applied so students with cognitive and psychosocial disabilities, and others who need human support, can be offered better than low odds of graduating from university.

Encourage and support paths of study in which young adults with disabilities stand to benefit

Although the numbers of young adults with disabilities who hold PSE certificates are low in the STEM fields and in the business and administration fields, there are notable graduation successes among young adults with disabilities who study in those fields. Studies in such fields should be encouraged and supported for interested young adults with disabilities. Taking into account disability, gender and BIPOC identity, young adults with disabilities are disproportionately likely to hold certificates in the arts, humanities, social, and behavioural sciences, and in disciplines associated with legal, health, and education professions. They are also likely to find themselves competing with many others with and without disabilities in the labour market who hold similar qualifications. Young adult students with disabilities should be encouraged and supported to pursue studies for which they have a passion. But they should also be provided with good information about labour market trends in their geographic region and more broadly and should be invited to critically assess their job prospects in fields where there are already many PSE certificate holders with and without disabilities.

Provide linkages to good jobs

This study found that, in terms of *industries*, the prospects of holding high-quality jobs are strongest in healthcare and social assistance, public administration, in (non-public sector)

administration and support services, in the wholesale, warehousing, and transportation industries, in and in waste management and remediation services. In terms of *occupations,* the prospects of holding high-quality work are strongest in business, finance, and administrative occupations, in health, education, law, and social, community and government service occupations, and in trades, transportation, and equipment operation and related occupations.

The *industries* where the prospects are strongest for holding low-quality work are in the retail trade, in primary industries, in the information, culture, arts, entertainment, and recreation services, and in accommodation and food services. The *occupations* most likely to involve low-quality work are art, culture, recreation, and sports occupations, and sales and service occupations. PSE schools would do well to exercise caution about encouraging young adult students with disabilities to prepare for jobs in these industries and occupations.

Industries where the numbers of low-quality or high-quality jobs are about as expected, but where there are substantially more jobs than expected of midrange quality, are in health care and social assistance, public administration, in the accommodation and food services, in wholesale, warehousing, and transportation, the retail trade, and in various and sundry professional jobs. *Occupations* where a similar pattern prevails are in business, finance and administration, in health, education, law, social, community and government services, in natural and applied sciences and related occupations, and in sales and service occupations. *Industries* where jobs tend to be polarized between high-quality and low-quality, with less middle ground in between, are education services. *Occupations* where this kind of polarization occurs are those in manufacturing, utilities, and natural resources, and in agriculture and related production occupations. In all these industries and occupations, young adults with disabilities are engaged in high-quality work, despite the prevalence of lower-quality jobs.

Colleges/CEGEPs/trade schools and universities should conduct or obtain good, fine-toothed industrial and occupational assessments of regional labour market trends and employment prospects. PSE schools should help establish positive links between young adult students with disabilities and representatives from industries and occupations where high-quality and midrange quality versus low-quality jobs are most likely to be found. The information and connections will help the students make informed decisions about fields of study and career directions based on their own realistic assessments of their prospects for jobs that would interest them and that would best engage their experiences, knowledge, and skills.

Other employment-related considerations

To further positive employment trajectories among young adults with disabilities, colleges, CEGEPs, trade schools and universities should maximize opportunities and supports for young adults with disabilities to experience high-quality PSE and graduate. PSE schools should also establish post-graduation follow-up with young women and those with hearing, learning, and

vision disabilities who have managed to obtain reasonably good-quality jobs. Such follow-up would serve as a basis for learning how these young adults managed to graduate and make positive transitions from PSE to the labour market. Key lessons for PSE schools to help share with their wider student bodies will be about how these students developed the social connections, academic and social skills, and obtained the financial resources and other supports they needed to graduate and make positive transitions to employment.

Of particular interest will be the strategies graduates with disabilities have developed—particularly those with more complex disabilities—who live away from the parental home and who have obtained reasonably good-quality jobs. In that living in a rural community is a factor associated with positive employment trajectories, and that those who live in the prairie provinces are markedly more likely than others on average to obtain high-quality jobs, young adults living in rural communities in those provinces may have particularly useful lessons to teach about how to graduate and make successful transitions from PSE to employment, which colleges/CEGEPs/trade schools and universities should learn from and help to broadcast.

Young adults with disabilities who are presently attending college/CEGEP/trade school or university may find it difficult to undertake any paid work or take on the hours and demands of better-quality work while also maintaining a focus on their PSE studies. However, low income is strongly associated with unfavourable employment trajectories. Particularly vulnerable to stresses, disruptions, and even failure in PSE are young adults with disabilities who do not have employment earnings or have only low employment earnings and limited funding from family and other sources. Governments, PSE schools, and private benefactors should collaborate to ensure that young adults with disabilities are made a priority and have the financial resources they need to meet their basic costs of living as well as the costs of the disability-related and other requirements for successful graduation from PSE. For many young adults with psychosocial and more complex disabilities, disruptions in PSE are more common, the duration of PSE is longer, and the costs of attending are higher over time. Measures are therefore needed to ensure longer-term funding will be available for such students without levying disproportionate debt loads through student and other loans.

Targeted measures may be required to ensure that BIPOC students (racialized and Indigenous) have adequate access to the financial, disability-related, and other resources needed for successful graduation and transition to reasonably good-quality employment. Again, graduating from college/CEGEP/trade school and university and receiving the supports needed through high-quality PSE are positive conditions for supporting transitions from PSE to good-quality employment.

Specific Directions for Colleges/CEGEPS/Trade Schools, and Universities.

The directions for policy, programs, and practices in the discussion that follows generally point to the need for further research and analysis for better understandings of the factors that are contributing to the PSE and employment successes that many young adults with disabilities are experiencing. Better understanding is also needed to address the difficulties that many other young adults with disabilities experience in PSE and in transitioning to decent work. The discussion explores key successes that can be built upon and difficulties that need to be addressed.

College/CEGEP/trade school

Positives to build upon

- To better understand and build on positive situations discussed in Section 8 and presented in Appendix Table 8.1.a, researchers, policy analysts, postsecondary administrators, and government officials could compare the Government of Quebec's CEGEP policies and programs, and those of individual CEGEPs in that province, with the policies and programs of other governments and colleges/trade schools. An aim would be to discern how *Quebec* seems to be attracting, including, and furthering the success of relatively large numbers of young adults with disabilities in these PSE schools. Policy and program features of particular interest would be those that support the inclusion, participation, and success of *lower-income* and *BIPOC* students. Policies, programs, and practices for colleges/trade schools in other jurisdictions could be analyzed with a view to identifying features that need strengthening to encourage and support greater inclusion and success among these young adults. In that analysis, consideration would ideally be given to the factors that are contributing to inclusion and success for young adults with disabilities of moderate to more severe complexity and who need accessible buildings or instructional supports for PSE.

  The lived experiences and voices of racialized, Indigenous, and (other) lower-income students would be important to include in efforts to better understand the "success factors" behind the basic attendance of these students in Quebec's colleges/CEGEPs/trade schools.

- Other young adults with disabilities whose experiences in college/CEGEP/trade school need to be better understood are those who are *members of couples without children*, those who are themselves *parents*, and those who *live with others beyond the parental home*, such as with extended family members or with unrelated others in shared living arrangements. Holding other factors constant, these individuals are all at high odds of graduating from college/CEGEP/trade school *and* of experiencing positive employment outcomes, whether in the form of greater likelihood of high-quality work or low odds of joblessness. Surveys and other research could be conducted at colleges/CEGEPs/trade schools to capture the living arrangements of young adults with disabilities *and* to

explore the factors that are most strongly supporting their graduation and employment. Those factors could be examined, compared, contrasted, and key points identified considering the living arrangements of young adults with disabilities who are/were or were not living with their parent(s) while studying at college/CEGEP/trade school. Attention should be given to the factors that have proven effective for young adults who are parents as distinct from, or in addition to, the factors that have proven effective for those who live alone or with others not in their nuclear family.

- Also requiring a better understanding are the factors that are contributing to the markedly high rates of graduation from colleges/CEGEPs/trade schools among students whose disabilities are of *very severe complexity* and students with *hearing disabilities*. Particularly noteworthy is that college/CEGEP/trade school graduates with hearing disabilities are much more likely than expected to graduate and to obtain high-quality work. When other factors are held constant, they have strong odds of obtaining high-quality work and are at low odds of joblessness. The college/CEGEP/trade school and employment experiences, and the inter-relationships between those situations and experiences, warrant attention and should be included within the scope of the above-mentioned policy scans and research. However, also needing attention for students with hearing disabilities, are their greater likelihood of experiencing low-quality PSE at university and, holding other factors constant, their low odds of experiencing high-quality PSE, despite rates of graduation from university that are within the expected range.

Negatives to address

- In contrast to building on positives, several negative situations also need attention and are presented on Appendix Table 8.1.b. A better listening to and understanding of the voices and experiences of young adult *BIPOC* and *low-income* students with disabilities is warranted. For example, how is it that BIPOC and low-income young adults with disabilities are, on the one hand, much more likely to *attend* college/CEGEP/trade school but, on the other hand, much less likely to *graduate* from those schools? Are financing and student equity policies having good effects in bringing young adults with disabilities into colleges/CEGEPs/trade schools, but falling short in terms of delivering ongoing financial assistance and support for BIPOC and low-income individuals with disabilities after these students begin their studies?

  It would make sense to begin this listening process in *Atlantic Canada*, where attendance *and* PSE quality are low at college/trade school for young adults with disabilities, and in *Ontario*, where PSE quality *and* graduation from college/trade school are low for these individuals. The research should be attentive to issues of basic attendance, which seem to be most problematic for those who live in *small and mid-sized urban centres*, and PSE quality, which seems to be most problematic for those who

live in *rural and large urban communities.* Once the basic dynamics and factors contributing to low attendance, low-PSE quality, and non-graduation are better understood, the listening process could extend to other provinces. National and regional disability organizations, the National Education Association of Disabled Students (NEADS) and its affiliates, as well as on-campus student groups, should be engaged to help tap into the experiences of young adults with disabilities in all regions of the country who attend colleges/CEGEPS/trade schools—or who want to attend but are blocked from doing so.

Of some interest, PSE quality in *Quebec* has been flagged as markedly low for students with disabilities in colleges/CEGEPs/trade schools. So, despite the strong likelihood that young adults with disabilities will attend and graduate from college/CEGEP/trade school in that province, some attention is needed on whether young adults who need various built environmental and curricular/procedural modifications for PSE are included and participate equitably with others in those PSE schools. The lack of equitable participation and disability-related supports for those who need such supports would help account for the low-quality of PSE many young adults with disabilities experience in those schools in Quebec.

University

Positives to build upon

- Positive situations to build upon for university students include those for *young women* with disabilities. They are more likely than their male counterparts to attend university. Although they are much more likely to experience low-quality PSE at university (or much less likely to experience high-quality PSE), they are not only much more likely to graduate but, holding other factors constant, have high odds of graduating from university. They also have low odds of being jobless. What are the strategies, then, that young women with disabilities are using to not only "survive" but thrive, despite markedly more widespread experiences of low-quality PSE at university? Such experiences would include not having all the disability-related supports needed or having additional costs or negative social experiences at university. In contrast, why are young men with disabilities markedly less likely than expected to graduate from university, despite being markedly more likely to experience high-quality PSE, there?

- Young adults with disabilities who are *members of couples without children*, or who *live alone*, or who *live with others beyond the parental home*, are very likely to graduate from university and are much more likely than others to experience positive employment outcomes. However, they are neither markedly more nor less likely than others to attend university on average. Nor are they markedly more nor less likely to experience low-quality or high-quality PSE at university. No province or territory, nor type of community, stands out as having disproportionately high university graduation rates for

young adults with disabilities overall. It would appear, then, that individuals in the above-mentioned living arrangements are dispersed within the general population and, so to speak, disappear along with others in the general population. This raises the research question: why are the university and employment outcomes so favourable for these individuals? To answer that question, it will be important to listen directly to their experiences and, based on those experiences, to reveal the policy, program, instructional, and other conditions that are contributing to their successes.

- Those with a *cognitive disability* (mainly learning disability in the university context) have a low probability of attending university, and low probability and low odds of graduating from university. However, they are more likely than others on average to experience high-quality PSE at university and have high odds of obtaining high-quality employment. How these individuals manage to obtain good jobs is something of a mystery. Does the quality of PSE they experience while at university somehow overshadow or compensate for their low likelihood and low odds of graduating? For instance, do the skills and dispositions they acquire in orchestrating the supports they require for university somehow benefit employers? Again, listening to the experiences of such students will be an important basis for finding out the practical connections between what are, on the one hand, not altogether positive experiences at university and, on the other hand, positive employment outcomes despite the experienced shortcomings in university education.

- Those who live in *small and mid-sized population centres* are much less likely than others to attend university and, holding other factors constant, have low odds of attending university. They are also much less likely than others to graduate from university, in part because they are less likely to attend in the first place. However, if attending university, these young adults are much more likely than others on average to experience high-quality PSE, there. They are also much less likely to hold low-quality jobs. This complex picture raises the question: does the hard-to-obtain experience of high-quality PSE at university for these students somehow contribute to their positive employment trajectories? For instance, have they had to develop unusual tenacity, planning capacities, coordination and management skills, or other skills to ensure their disability-related needs have been suitably met at university? Have they developed social skills and perhaps social capital that have helped buffer them from adverse social experiences at university and which pay dividends in employment settings with coworkers and when dealing with customers and clients?

- Those who *have not felt avoided* at school because of disability are much more likely than expected to experience high-quality PSE at university and are at strong odds of graduating from university. Similarly, those who have *never felt left out or bullied* at

school because of disability are much more likely than expected to experience positive PSE quality at university and are much more likely than expected to graduate. If these individuals are neither markedly more nor less likely to experience positive or negative employment outcomes, they are about as likely as others to have jobs and for those jobs to be of good or midrange quality. This raises the research question: how are university administrators, professors, other instructors, and other staff creating learning and extracurricular environments at university in which students with disabilities feel included and safe?

Negatives to Address

- Young adults with disabilities who are *themselves parents* are very likely to graduate from college/CEGEP/trade school and are very likely to hold high-quality jobs. However, young parents with disabilities are *very unlikely* to graduate from university and face high odds of joblessness. Attention is required to find out what is preventing these individuals from graduating from university and setting them up for joblessness. The demands of parenthood in and of themselves do not seem to be the determining factor because their counterparts at college/CEGEP/trade school face similar demands but experience quite different outcomes. What factors are enabling one group of parents to succeed in PSE and the labour market while young parents with disabilities at university are frustrated from experiencing similar outcomes? Here it will be important to understand the "success factors" at college/CEGEP/trade school as context for exploring the difficulties young parents with disabilities are experiencing at university.

- Young adults with *psychosocial* disabilities are, on the one hand, much more likely on average than others to attend university. However, they are much less likely than expected to have positive experiences of PSE quality at university and, when holding other factors constant, they have low odds of graduating from university. They also face high odds of working in low-quality jobs. Is the lack of effective support for these students at university itself a major contributor to their poor prospects of graduation and positive employment? Which are the needed supports that are not available at university? Is it a lack of the assistance from others or modified curriculum and procedures that are quite widely needed among those with psychosocial disabilities? Or is it the sense of being avoided, left out, or bullied at school, to which young adults with psychosocial disability are particularly prone? Those issues are explored in Section 4 of this report. No doubt university students with psychosocial disabilities would have much to say about why they have difficulties graduating from university and making the transition to decent work.

- Young adults whose disabilities are of *mild complexity* are, on the one hand, much more likely than expected to attend university, and to experience high-quality PSE and graduate, there. However, they are much more likely than expected to have low-quality

jobs. Why would young people, who to all appearances seem not to be dealing with major impacts of disability and who seem to be "successful" at university, have poor employment outcomes? Is the low-quality work the price they are prepared to pay while still studying at university? Or is low-quality work the *only* kind of work they have been able to obtain despite their university degree? If the latter is the case, what factors have contributed to the poor employment outcome? Factors to explore include the access of students with disabilities to effective employment counselling while at university, and the degree of connectedness between these students and employers in the community before graduation. Also warranting attention are patterns of graduation in fields of study for which there is presently low demand for labour, and the nature of the jobs available for graduates with degrees in various disciplines (e.g., the jobs' levels of pay, hours of work, capacity for inclusion and accommodation, precarity, etc.).

- Those with disabilities of *severe complexity*[8] are much more likely than others on average to be dealing with significant "impairment effects" (Thomas, 1999). They are also much more likely than expected to experience high-quality PSE at university. However, they are much less likely to graduate from university. They are also much more likely to be jobless and, when other factors are held constant, have high odds of joblessness. Where is the breakdown, then? Despite the fairly widespread experiences of good quality PSE at university among students with disabilities of severe complexity – which generally involves having the needed disability-related supports for PSE and being at least partly insulated from financial and social difficulties – why are students with complex needs so much less likely than others to graduate from university? Is the complexity and unpredictability of disability the major factor, or are other factors the main culprits? Here it will be important to listen firsthand to the experiences of young adults with complex disabilities about the challenges they experience at university, and how those contribute to poor employment outcomes. In that context it will also be important to listen to the experiences of young adults with disabilities of very severe complexity, who are much less likely than others to attend university, very likely to experience low-quality PSE if they do manage to attend, are very unlikely to graduate, and who are at high odds of joblessness.

- Students in *low-income* households are, on the one hand, much more likely than expected to attend university. However, they are also much more likely than expected to experience low-quality PSE, there (or are less likely to experience high-quality PSE). They are much less likely to graduate from university than expected, have low odds of graduating when other factors are held constant, are much less likely to hold high-

[8] Young adults with disabilities of severe complexity would include those with two or more overlapping disabilities and/or who experience significant and frequent difficulties doing basic activities such as seeing, hearing, communicating, problem-solving, learning, remembering, moving about, reaching, grasping, bending, etc.

quality work, are much more likely to be jobless and, when other factors are held constant, have low odds of holding high-quality work and face high odds of joblessness.

To some extent, this is a "chicken and egg" situation: students without jobs or without lower-quality jobs are more likely to be poor. However, that interdependency does not explain the markedly low probability of low-income students with disabilities experiencing good-quality PSE at university, their low probability of graduating and, holding other factors constant, their low odds of graduating. Perhaps student financing programs are opening doors to university for low-income students. However, attention is warranted on the factors that become operative once such students are at university that render their university experiences and employment outcomes disproportionately poor.

- University students with disabilities in *Quebec* are much less likely than expected to graduate and, when other factors are held constant, they have low odds of graduating from university in that province. Their fairly low likelihood of holding low-quality work may have more to do with their high likelihood of graduating from college/CEGEP/trade school than with university education. But that is a question to be answered—in part, at least—by listening to the experiences of young adults with disabilities who have difficulties graduating from university in Quebec.

10. Conclusion and Executive Summary

This report has explored the experiences of young adults with disabilities in postsecondary education and linkages between PSE and employment. Of particular interest have been the linkages between the quality of PSE and the quality of work. PSE can be considered high-quality, and work can be considered decent, where they include and support all PSE students or workers to thrive and succeed. High-quality PSE is realized in colleges, CEGEPs, trade schools, universities, and other PSE institutions. Decent work can be realized in private-sector and public-sector places of employment. In high-quality PSE and work, inclusion and the availability of support prevail regardless of a person's age, gender, race, ethnicity, income, region of the country, type of community, type or degree of disability, field of study or work, or other differences. Low-quality PSE and work fail across many of those domains.

The report has drawn from the Canadian Survey on Disability (CSD) of 2017, including Census data for people with disabilities. After providing a few demographic details for general context, the report shifted to an exploration of who is most and least likely to attend college/CEGEP/trade school and university. A comparison of young adults with and without disabilities has been provided along a few basic lines of intersectional difference. These include gender, racialization, Indigeneity, BIPOC status, and province/territory of residence. In looking in more detail at the attendance of young adults with disabilities, the report has also considered a wider array of sociodemographic characteristics that include those five basic dimensions as well as three types of communities in which young adults with disabilities live, high- and low-income levels, six major types of disability, and four levels of disability complexity with which young adults live.

Following those discussions, attention shifted to the supports that young adults with disabilities say they need for their PSE studies. Such needs include accessible school buildings, accessible curricula and procedures, human support, suitable learning materials, accessible technologies, and various other supports for PSE. Those broad categories of support were based on twenty-three discrete types of support required for PSE.

Following the discussion on supports needed for PSE, the discussion shifted to the quality of PSE that young adults with disabilities experience overall, and more specifically while attending college/CEGEP/trade school or university. The measure of PSE quality was based on the extent to which various needs for support in PSE have been met, student experiences of being left out, avoided, or bullied at school because of disability, whether students have had additional expenses for school because of disability, and the equity of participation by students with disabilities in various fields of study taking into account disability, gender, and BIPOC status. The study explored the quality of PSE in relation to the diverse sociodemographic characteristics and social locations of students with disabilities.

Following the examination of PSE quality, the study explored those who are most and least likely to graduate from college/CEGEP/trade school and university. That analysis considered students' diverse socioeconomic characteristics, their needs for support in PSE, and the quality of PSE they have experienced. The analysis introduced a further level of detail: several familial and non-familial living arrangements of young adults with disabilities.

The study then focused on the relationship between the quality of PSE that young adults with disabilities experience and their likelihood of obtaining "decent work" as the International Labour Organization has defined it. A complex measure was developed to tap into and scope out the quality of employment that young adults with disabilities obtain. The analysis focused on those who are markedly more and markedly less likely than expected to work in high-quality versus low-quality jobs, and those who are markedly more and markedly less likely than expected to be jobless. Key findings have been summarized in Section 8 and high-level directions for policy, programming, and practice have been provided in Section 9.

The research has pointed to positive situations that would ideally be scaled up to make favourable PSE experiences and employment outcomes more widespread for young adults with disabilities. For colleges/CEGEPs/trade schools, the young adults with disabilities who are most likely to be in positive situations that warrant attention are residents of Quebec, members of couples without children, those who live with others beyond the parental home, and students with hearing disabilities. Some positives have also been identified for BIPOC individuals, those from low-income households, and those whose disability is of severe complexity. However, some negative issues also need to be addressed for these individuals, for which this study has proposed recommendations.

Negative situations that warrant attention are those that mar experiences of PSE quality, undermine graduation from college/CEGEP/trade school, and result in undesirable employment outcomes. These situations are most likely to affect young adults with disabilities who are BIPOC, live in low-income households, live in Atlantic Canada or Ontario, live in small and mid-sized urban centres for those seeking basic attendance, and live in rural and large urban communities for those seeking higher-quality PSE. Quebec's colleges/CEGEPs/trade schools also warrant attention for the markedly low quality of PSE they provide to students with disabilities, despite the relatively high attendance and graduation of students with disabilities in these schools.

Young adult university students with disabilities who are most likely to have favourable PSE experiences and employment outcomes are young women, members of couples without children, those who live alone, those who live with others beyond the parental home, those with a cognitive disability (mainly a learning disability), those who live in small and mid-sized population centres, and those who have not felt avoided, left out, or bullied at school because of a disability.

Negative situations at university with adverse implications for employment also warrant attention. These situations are most likely to affect young parents with disabilities, students with psychosocial disabilities, students whose disabilities are of mild complexity (who are markedly more likely than expected to have positive PSE experiences at university but are much more likely to have low-quality jobs), students with disabilities of severe complexity, students in low-income households, and university students in Quebec with disabilities. The latter are markedly less than expected to graduate from university and, all things considered, face low odds of university graduation.

This study has generated many questions and points to potential lines of enquiry that warrant further investigation for scaling up the positive experiences and scaling back the negative ones of young adults with disabilities in postsecondary education. Key findings based on what this study discovered, however, are that:

- Graduates with a college/CEGEP/trade school diploma or a university degree are a) nearly twice as likely as those with a lower-status educational certificate or no educational certification to have high-quality jobs and are b) less than half as likely to be jobless.

- When a variety of sociodemographic factors are weighed in the balance, the overall quality of PSE is itself a significant contributor to obtaining high-quality work. Those who have experienced low-quality PSE are much less likely than others to obtain high-quality work. All other factors held constant, those who have undergone high-quality PSE are over one and a half times more likely than those with medium-quality PSE to obtain high-quality jobs.

    - Two aspects of high-quality PSE that are strong predictors of young adults with disabilities graduating from PSE are a) never feeling left out at college/CEGEP/trade school because of disability, and b) never feeling avoided at university because of disability. A culture of inclusion, respect, and safety in PSE is an important condition for moving young adults with disabilities successfully through the postsecondary system and eventually into high-quality jobs rather than into joblessness or low-quality employment.

    - Other important predictors of the quality of PSE that young adults with disabilities experience are the availability of adequate financial assistance, and accessible built environmental features, technologies, learning materials, and curriculum and procedures as well as the availability of the human support and various other disability-related supports needed for PSE.

Given that PSE is a critically important pathway to employment, ideally PSE would be serving as a pathway to decent work instead of to low-quality jobs or to joblessness. That many young adults with disabilities are faring well in PSE *and* in the labour market is a strong indication that what sometimes may seem like a difficult-to-achieve ideal is actually being realized and can be scaled up. After all, many positive things are already occurring, as this report has shown. With intentional efforts by senior political and other leaders in postsecondary education, by PSE educators and other staffs, together with active engagement and collaboration with young adults with disabilities, the good things that are presently taking place can be better understood, built upon, and made more widely available. Those positive things are pointing in the direction of ensuring all young adults with disabilities have equitable opportunities and adequate support to:

- Attend college/CEGEP/trade school and university
- Experience high-quality PSE in these schools or, at the very least, midrange quality PSE
- Successfully graduate from these schools, and
- Move along well-defined pathways from PSE into employment, that would consist of not just any jobs, but good-quality jobs.

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Appendix

Key Complex Concepts

Canadian Survey on Disability (CSD)

The 2017 Canadian Survey on Disability (CSD) is Statistics Canada's national "flagship" survey of Canadians aged 15 and over whose everyday activities are limited because of a long-term condition or health-related problem. The CSD was developed by Statistics Canada in collaboration with Employment and Social Development Canada (ESDC), with input from a Persons with Disabilities Technical Advisory Group (TAG). The TAG consisted of experts in the field of disability, including academics and representatives with disabilities from various community organizations across Canada. The CSD of 2017 was conducted from March 1 to August 31, 2017.

The CSD's sample was drawn from the Census of 2016, which included people who lived in private households as of May 10, 2016, and excluded people living on First Nations reserves, Armed Forces bases, institutions, and other collective dwellings. Historically, the CSD (and its predecessor surveys) have been conducted within a year of the Census, beginning in 1986, with the exception of the Census of 1996. In some years Statistics Canada has conducted a child component on people younger than 16 years of age. From 2012 to the present, the CSD has focused only on adults 15 and older. The survey includes data on the need for and use of disability-related aids and assistive devices, help with everyday activities, use of various therapies, social and government services, Internet usage, as well as a range of information on education and employment experiences (including the need for and availability of accommodations for learning and work), labour force activity, employment-related discrimination, and income. More information about the CSD is provided by Cloutier, Grondin, and Lévesque (2018).

Disability

Disability can be defined as the social disadvantage that unsupportive environments, that is, barriers (which include physical and social barriers) impose upon individuals' impairments. The barriers make it more difficult for people with impairments to function day-to-day (Mackenzie, Hurst, & Crompton, 2009). For the purposes of this research with the Canadian Survey on Disability (CSD), disability means the difficulties people experience in doing everyday activities that are associated with one or more long-term conditions or health-related problems that produce impairments or functional limitations. The CSD of 2017 gathered information by asking numerous questions that probed ten major types of disability. These categories include people whose daily activities are limited because of long-term conditions that affect the following areas:

- Mobility (moving around, including walking or using stairs)
- Flexibility (bending or reaching)

- Dexterity (using of fingers to grasp small objects)
- Pain (that limits daily activities, and which is always present or recurs)
- Hearing (difficulties with the ability to hear)
- Seeing (difficulties with the ability to see)
- Learning (self-identified learning difficulty or a learning disability diagnosed by a health care professional)
- Development and/or overall intellectual functioning (a diagnosis of a developmental/intellectual disability, regardless of the level of difficulty or the frequency of the activity limitations reported in the CSD)
- Memory (ongoing memory problems or periods of confusion that limit daily activities) and
- Mental health/psychosocial domain (limitations in daily activities due to difficulties with an emotional, psychological, or mental health condition).

Statistics Canada also developed a small, residual, "unknown" category for individuals who indicated a limitation in their everyday activities because of a long-term condition, but where the condition was not covered by any of the questions that enquired about the 10 major kinds of disability.

It is common for people to report more than one disability. For instance, pain-related disability is widespread and is often reported along with a mobility or flexibility disability. Many people who report a developmental/intellectual disability also report a disability related to learning and mobility. A more detailed discussion is provided by Cloutier, Grondin, and Lévesque (2018).

Market Basket Measure (MBM)

The Market Basket Measure (MBM) is based on the cost of a specific set ("basket") of goods and services representing a modest, basic standard of living for a given region and economic family size. The threshold represents the costs of specified qualities and quantities of food, clothing, footwear, transportation, shelter, and other expenses. The disposable income of a family is then compared against this threshold to determine whether the family is "at or above" versus "below" the threshold. Individuals in a family living below the threshold are considered to have low income or be living in poverty (Statistics Canada 2017a & b).

The MBM takes account of differences in the cost of the basket between similar-sized communities in different provinces and between different geographical regions within provinces. Accordingly, the MBM is calculated for 50 different geographic areas that consist of 19 specific communities and 31 other areas based on population centre size and province.

The "economic family" refers to two or more persons who live in the same dwelling and are related to each other by blood, marriage, common-law union, adoption, or a foster relationship. A couple may be of opposite or same sex. People living alone are considered their own economic family.

The MBM for a given family size can be calculated by taking the MBM for people living alone in a given geographic region and multiplying that figure by the square root of family size of interest. For instance, the MBM for a family of five people living rural Newfoundland and Labrador is ($19,876 X √ 5) = ($19,876 X 2.236) = $44,443. For details, see Statistics Canada 2017aand 2017b.

Weighted estimates

The CSD is a sample survey, meaning that many fewer people are asked the survey's questions than the actual number of people with disabilities in the population. The Census information contained in the CSD's microdata file is also a sample of data drawn from answers given by respondents to the Census Long Form. The Census Long Form is itself is a sample that captures more detailed information about the population at large than the general information the Census captures from (or about) all residents of Canada.

To "scale up" the number of people who answer a given question in the CSD to reflect a reasonable estimate of the number of people who probably would have answered if everyone with disabilities were asked the same question, Statistics Canada assigns "weights" to individual respondents. Weights vary considerably depending on the characteristics of respondents. Weighting is a complex procedure that takes many factors into account and that is beyond scope for the present report. (See Cloutier, Grondin, and Lévesque, 2018 on weights for the CSD.) Essentially, however, a respondent's sample weight represents the number of people in the population who would have answered a question asked in a sample survey like the CSD if everyone in the population were asked the same question. To illustrate, assume a weight of 250 on average for all people included in a survey. Some weights would be higher and some lower than the average weight. If 100 people were asked a question in the survey, the estimated number of people in the population who would have answered the same question would be 25,000 (250 X 100 = 25,000).

Statistics Canada has strict confidentiality requirements concerning the minimum number of survey respondents (unweighted) who provide a given piece of information. Statistics Canada only releases weighted estimates from the CSD. Where fewer than 10 people (unweighted) provide a piece of information, the weighted estimate must be suppressed. In addition, all other information must be suppressed that would allow a reasonable person to reconstruct the suppressed information. The present research met all these requirements. In addition, wherever possible it uses information that at least 35 (unweighted) survey respondents provided and draws attention to where estimated counts are low even though they were large enough for Statistics Canada to release.

Detailed Methodology

Part 1. Working with the Canadian Survey on Disability to focus on postsecondary education (PSE)

Overview

Aims for the statistical research component of this project include using the Canadian Survey on Disability (CSD) to draw from a wide range of variables to develop several measures that will provide methodologically rigorous yet simple and intuitively meaningful insight into "good quality" versus "less-than-good quality" postsecondary education (PSE) for young adults with disabilities aged 18 to 34 years. A related aim is to do the same for employment that meets – or fails to meet – the International Labour Organization's (ILO) definition of "decent work." In particular, the research will examine the relationship between good quality PSE and decent work for young adults with disabilities.

In the discussion that follows, key terms are briefly defined, namely 1) inclusive, supportive, and good-quality PSE, and 2) decent work. The definitions are followed by a brief discussion of key hypotheses, and then by a discussion of how variables were derived and used for the PSE component of the statistical research. Details on the derivation and use of variables for the employment-focused aspects of the statistical research is provided in Part 2 of the Methodology.

Key definitions

Inclusive, supportive, and good-quality postsecondary education (PSE)

As conceptualized for the statistical component of the SDG research project, participation in PSE that is inclusive, supportive, and of good quality will be participation in PSE that meets one or more of the following features (the more the better), irrespective of a student's gender, racialization, ethnicity, indigeneity, main language, region of the country (including rural/urban community), socioeconomic status, or disability (including type and complexity of disability). Regardless of such differences, good quality and fully inclusive PSE:

- Is equally available, inclusive, and supportive
- Provides equal opportunity and support to participate in all programs of study (e.g., STEM, business, arts and social sciences, professional degrees, etc.).
- Provides appropriate and sufficient support to gain access to and participate fully in all programs of study (e.g., human support, technological, curriculum and materials, built environmental, procedural, etc.).
- Is affordable
- Yields successful completion with suitable certification
- Contributes to students' experiences of inclusion and belonging in the PSE institution and its culture, and

- Is emotionally and physically safe and free from social segregation/isolation, discrimination, harassment, bullying, assault, and other attitudes and behaviours inconsistent with human rights principles and values.

For the purposes of the statistical research with the CSD, where PSE reflects many of the above-mentioned characteristics, it can be considered of better quality than PSE that reflects only a few of the characteristics.

For brevity, PSE that meets many of these conditions will be referred to as "good quality PSE" for the remainder of this discussion.

"Decent work"

Participation in employment that can be characterized as "decent," according to the ILO's formulation, will be participation in work that meets one or more of the following features (the more the better), irrespective of the worker's gender, racialization, ethnicity, indigeneity, main language, region of the country (including rural/urban community), socioeconomic status, or disability (including type and complexity of disability). Regardless of such differences, decent work:

- Is equally available, open, inclusive, supportive, and productive for all who meet the job requirements
- Provides opportunities for professional and career development (e.g., employer-sponsored/provided and accessible training, flexibility to study while working, opportunities for promotion, etc.)
- Is productive (e.g., fully uses the individual's skills, education, and experience) and pays at least two thirds of the average earned income for about the same number of hours of effort in the same or similar occupation and industry
- Provides decent (adequate and sustainable) hours of work
- Is stable and secure (e.g., is not just short-term, contract, seasonal, or "precarious" in other ways)
- Given the nature of the workplace and its purposes, provides equal opportunities to participate in, and equal treatment in, various occupations and industries.
    - To allow for comparisons between young adults with and without disabilities, occupations for the present research include those summarized in the CSD's NOC16BRD variable, which is based on the National Occupational Classification (NOC). The NOC has been developed and maintained in collaboration between Employment and Social Development Canada and Statistics Canada and is the nationally accepted taxonomy and organizational framework of occupations in the Canadian labour market. An occupation is defined as a collection of jobs, sufficiently similar in work performed to be grouped under a common label for classification purposes. A job, in turn, encompasses all the tasks carried out by a particular worker to complete their duties. The full NOC contains numerous

detailed classifications. Broadly classified occupations included in NOC16BRD are:

- Management occupations
- Business, finance, and administration occupations
- Natural and applied sciences and related occupations
- Health occupations
- Occupations in education, law and social, community and government services
- Occupations in art, culture, recreation, and sport
- Sales and service occupations
- Trades, transport and equipment operators and related occupations
- Natural resources, agriculture, and related production occupations
- Occupations in manufacturing and utilities.

- To allow for comparisons between young adults with and without disabilities, industries for the present research include those summarized in the CSD's NAIC12S variable, which is based on the North America Industry Classification System (NAICS). NAICS is a common industry classification system developed between Canada, the United States, and Mexico. The full NAICS includes numerous detailed classifications. The broadly classified industries in NAIC12S are:
  - Agriculture, forestry, fishing and hunting
  - Mining, quarrying and oil and gas extraction
  - Utilities
  - Construction
  - Manufacturing
  - Wholesale trade
  - Retail trade
  - Transportation and warehousing
  - Information and cultural industries
  - Finance and insurance
  - Real estate and rental and leasing
  - Professional, scientific and technical services
  - Management of companies and enterprises
  - Administrative and support, waste management and remediation services
  - Educational services
  - Health care and social assistance
  - Arts, entertainment and recreation
  - Accommodation and food services
  - Other services (except public administration)
  - Public administration.

    - Decent work does not shunt people into gender- or disability-based job ghettos, dead-end jobs, etc.
- Is physically and emotionally safe (e.g., safeguards against work-related injury and illness, social segregation/isolation, discrimination, harassment, bullying, assault, and other attitudes and behaviours inconsistent with human rights principles and values).
- Is available to people who have been recently attached to the income security system, and provides equitable access to income security in the event of job loss
- Provides for union membership or other forms of worker association/collective bargaining.
- Provides appropriate and sufficient support to gain access to and participate fully in the present job (e.g., makes available suitable disability-related human support, technological support, accessible built environmental features, and procedural support; provides flexible and inclusive health benefits plans; may provide employer-sponsored childcare; etc.)

For the purposes of the statistical research with the CSD, employment can be considered of better quality where it reflects many of the above-mentioned characteristics than employment that reflects only a few of those characteristics.

Hypotheses

The statistical analysis with the CSD is examining four hypotheses for young adults with disabilities 18 to 34 years of age. Three of the hypotheses are directly related to the central hypothesis.

Central hypothesis

Hypothesis 1. There is a direct (positive) relationship between engagement in good-quality PSE and engagement in good-quality employment during or after PSE. That is, good PSE is positively associated with increased chances of obtaining a good job.

Related hypotheses

Hypothesis 2. Engagement in good-quality PSE may be mediated by intervening factors such as gender, geographic region, Indigenous person status, racialized person/visible minority status, type of disability, complexity (severity) of disability, total household income, main language spoken at home, and whether PSE occurs at university or college (or in other non-university PSE institutions).

Hypothesis 2 can therefore be subdivided into discrete but interrelated component parts. These can be formulated as follows:

2. Engagement in good-quality PSE may be mediated by intervening factors such as:

    a) Gender
    b) Geographic region

c) Indigenous person status
d) Racialized person/visible minority status
e) Type of disability
f) Complexity (severity) of disability
g) Total household income
h) In-family and non-family living arrangements
i) Whether PSE occurs at university or college/CEGEP/trade school
j) Other factors to be determined.

Hypothesis 3. Participation in decent work may be mediated by intervening factors such as gender, geographic region, Indigenous person status, racialized person/visible minority status, type of disability, complexity (severity) of disability, total household income, living arrangements, and whether PSE occurs at university or college/CEGEP/trade school.

Hypothesis 3 can therefore be subdivided along the same lines as Hypothesis 2. However, as employment is not a major stand-alone focus of the research, the lines of enquiry for descriptive statistics to test Hypothesis 3 will be restricted to those found to be most salient in the testing of Hypotheses 2.

Hypothesis 4. The *relationship between* good-quality PSE and good-quality employment may also be mediated by intervening factors such as gender, geographic region, Indigenous person status, racialized person/visible minority status, type of disability, complexity (severity) of disability, total household income, and whether PSE occurs at university or college/CEGEP/trade school. However, even across those markers of sociodemographic difference, the chances will remain better of good quality versus low-quality PSE contributing to good-quality employment.

Hypothesis 4 can therefore be subdivided along the same lines as Hypotheses 2 and 3. Again, detailed descriptive statistical analysis has been restricted to the lines of enquiry found to be most rfelevant in the testing of Hypotheses 2 and 3.

Variables for the PSE component of this research

The need for recodes of some CSD "yes/no" questions

To develop several measures that would provide methodologically rigorous yet simple and intuitively meaningful insight into the quality of PSE, the statistical research with the CSD needed to draw from a wide range of variables that independently shed partial light on the subject matter but which together could shed a more encompassing light. As detailed in the definition above, "good quality PSE" can be summarized as PSE that provides a safe and socially inclusive culture, suitable built environmental, curricular, procedural, material, technological, human, and other supports for the participation of students with disabilities, a PSE experience that is affordable, and which equitably engages students across a full range of academic programs.

The CSD typically assigns a number value of "1'' for "yes" in variables that capture "yes/no" responses. Where "yes" indicates that a positive feature of PSE is in place, the 1's can be added together across the features to yield a count of the number of positive conditions that are in place for a person who needs those features. For instance, a person may need any of the following technologies for instruction:

- Mobile/smart phone with specialized features
- Computer/tablet with specialized software/adaptation
- Recording equipment/portable note-taking device
- Device for playing audio/e-books
- Magnifier
- Closed-circuit devices.

Hypothetically, a person may need and could receive *all* those supports. If "yes" responses for "received" are coded as "1," then this person receives (1 + 1 + 1 + 1 + 1 + 1) = 6 of the broad types of technology they needed out of the 6 types they were asked about. A high score across those variables would indicate that many positive conditions are in place in response to needs for technologies for instruction.

However, the original CSD variables assign the numeral "2" to "no" responses. The 2's cannot be readily added to the 1's to yield a meaningful composite score of the extent to which needed supports are available. If the value of "0" instead of "2" is assigned where a person does not receive a needed support, then the addition of scores is straightforward. If a person were to need all 6 supports but received only 2 of them, then their score would be (1 + 1 + 0 + 0 + 0 + 0) = 2 out of 6, = 2 ÷ 6 = 33%.

A person has none of the technological supports they require where they need all six forms of technology (or fewer, but at least one) and score "0" across all variables that capture whether they have received the supports needed. A person who receives all the technological supports they require (e.g., all 6, 5, 4… etc.) receives 100% of the supports they require.

A complicating factor is that a person who does not need a given support is not asked whether they received it. Accordingly, their record on the variable for receiving the support is classified as "valid skip" and the person is assigned the number "6." A person who doesn't know (or cannot remember) if they have needed or received a support is assigned a number value of "7." People who refused to answer a question are assigned "8" and people who did not answer a question are assigned "9." The numbers six through nine cannot be easily added in a meaningful way to 0's and 1's in a simple "yes/no" counting scheme. Alternatively, classifying and then dealing with individual CSD respondents (cases) with values of six through nine on a variable as "missing" would mean dropping a very large number of cases from the statistical

analysis with the CSD,[9] which in turn would have resulted in significant difficulties in developing broadly applicable measures of PSE quality (discussed below). However, where all such "missing" cases on variables are instead assigned a numeric value of "-.00001," those values can be added to 1's and 0's across variables without appreciably affecting the person's overall score for the supports they needed and received.

For instance, each CSD respondent who attended school at some point from 2012 through 2017 was asked about six types of technology they may have needed to attend classes. Suppose a person only needed a cell/smart phone with specialized features for learning. Suppose also that this person received the cell/smart phone they needed. The person's score would be 1 in the variable for needing a mobile phone and 1 in the variable for whether the mobile phone was received. However, as the person did not need the other technological supports, they would not have been asked whether they received those supports. Accordingly, they would be classified as "valid skip" on the original CSD variables pertaining to the receipt of technologies. Instead of using the original CSD numbers, their score on each of those variables can be recoded to -.00001. In this case the person who received the mobile phone, they needed received all the technology they needed. That is, they received 1 + (-.00001 + -.00001 + -.00001 + -.00001 + -.00001) mobile phones divided by the 1 + (0 + 0 + 0 + 0 + 0) mobile phones they needed = 0.99995 ÷ 1 = 100% of the technology they needed, rounded to the nearest whole percentage point.

However, if the person did not receive the mobile phone they needed, and this was the only technology they needed, they received none of the support they required. That is, their score would have been 0 + (-.00001 + -.00001 + -.00001 + -.00001 + -.00001) mobile phones received divided by the 1 + (0 + 0 + 0 + 0 + 0) mobile phones they needed = -.00005 ÷ 1 = 0%, rounded to the nearest whole percentage point.

As another example, take a person who needed five of the possible six technological supports but received only three. This person received (1 + 1 + 1 + 0 + -0 + -.00001) supports divided by the (1 + 1 + 1 + 1 + 1 + 0) supports they needed = 2.99999 ÷ 5 = 60%, rounded to the nearest whole percentage point.

The following values have been used in many of the recodes of basic CSD "yes/no" variables for the present research:

[9] This would have occurred because many people need one or two supports and relatively few people need more. Similarly, many people receive all the few supports they require while others receive some or none. Across the approximately 50 variables that ask about need and receipt of various supports, there are dozens of possible combinations across which many CSD respondents could be classified as "missing" on one or more of the variables.

CSD Original values	Label	Recoded values
1	Yes	1
2	No	0
6	Valid skip	-.00001
7	Don't know	-.00001
8	Refusal	-.00001
9	Not stated	-.00001

Reverse coding

For a few measures, a value of "1" was assigned where the *absence* of a feature was considered desirable and "0" where its presence was considered undesirable. For instance, if a person said they had experienced bullying at school, their original CSD value was "1" for "yes" on that variable and "2" for "no." The coding was reversed for the present research so that a score of "1" indicated the absence of bullying and "0" its presence. "Yes/no" variables for feeling isolated at school, feeling left out by others, and experiencing additional costs for PSE in relation disability were also recoded in the same way.

"Yes/no" variables used

"Yes/no" variables in the thematic areas 1 – 6 below were recoded to capture:

a) The disability-related supports for PSE that the CSD respondent *needed or did not need* per categories 1 through 6 below (25 variables)
b) The disability-related supports for PSE that the CSD respondent needed and either *received or did not receive* per categories 1 through 6 below (another 25 variables).

The 11 broad subject matters and their associated individual variables are as follows:

1. Accessible built environmental features

- Accessible classrooms
- Adapted washrooms
- Accessible residences
- Accessible buildings, excluding residences
- Other features of the built environment.

2. Accessible technologies for instruction

- Mobile/smart phone with specialized features
- Computer/tablet with specialized software/adaptation
- Recording equipment/portable note-taking device
- Device for playing audio/e-books
- Magnifier
- Closed-circuit devices.

3. Accessible curriculum and procedures

- Accessible materials
- Textbooks in e-format
- Large print reading materials
- Braille reading materials or manual Brailler.

4. Human support for participation in PSE

- Teacher's aide or tutor
- Sign language interpreter
- Attendant service
- Speech therapist.

5. Accessible curriculum and procedures

- Special education classes
- Individualized Education Plan (IEP)
- Modified or adapted course curriculum
- Extended time to take tests and exams.

6. Other instructional supports

- Another aid or service not otherwise specified in one through five above.

In addition, variables in the following areas were recoded to capture whether CSD respondents experienced any of the following:

7. PSE culture of inclusion # 1

- Feeling/never feeling avoided at school because of disability.

8. PSE culture of inclusion # 2

- Feeling/never feeling left out at school because of disability.

9. PSE culture of safety

- Feeling/never being bullied at school because of disability.

10. Additional cost of education because of disability

- Has not had additional costs related to disability for PSE.

A further variable was developed to capture:

11. Equitability of distribution across major fields of academic study

- Sensitive to issues of disability, gender, and racialization, the measure assigns values for substantial underrepresented and overrepresentation in fields of study. The development of this measure is explained separately, below.

The feasibility was explored of using around 75 other variables that indicate cost as a factor that prevented CSD respondents from using various disability supports. Some of these are identical with, while others are only similar to, supports required for PSE. None were exclusively for use in PSE. The individual recoding and regrouping of those variables would have required more time and resources than were available for this research.

Indices and scales

The following variables were constructed:

1. Separate sub-indices for each of the items one to six (above). Separate indices were created for all items one through six on the list above. The six sub-indices calculated the proportion of supports the CSD respondent received (as percentages) in relation to the supports needed in each theme areas.

The maximum score they received on each sub-index was 1, which signifies that all needs covered by the sub-index for a given theme area had been met for the individual. A score of 0 meant that none of the needed supports had been received. Minus scores indicated that the individual did not need one or more of the items covered in the sub-index.

2. Separate sub-indices for each item 7 through 10 (above). Concerning social and economic experiences (items 7 through 10, above), CSD respondents were assigned the maximum score of 1 on each of the sub-indices if they had *not* experienced being left out, avoided, or bullied at school because of disability, or *did not have costs* relating to disability for their education. People who had experienced the opposite of these conditions were assigned a score of 0 on the sub-indices. These sub-indices are binary in that respondents could only answer "yes" or "no" instead of how much or how little of those things they had experienced. Accordingly, the scores were typically 0 or 1. Exceptions were for individuals who did not answer the questions, who were assigned -.00001.

3. A sub-index for assessing equity of distribution across major fields of academic study (item 11, above). The construction of this index is explained below. It allowed for a maximum score of 1 for students whose field of study is in an area where there is a marked shortage of students with disabilities, and a 0 where there is marked over-representation of people with disabilities. As the sub-index comprises three separate measures, scores between 0 and 1 were common.

4. A single roll-up master index of the sub-indexes constructed for items 1 through 11. A master index was constructed that included the 11 separate sub-index scores and divided by 11, to yield a single measure whose maximum value was 1 and whose minimum usable value was a little above 0.

5. A three-part categoric variable. This measure subdivided scores in the master index into "high quality," "midrange" and "low quality" groups as a powerful yet simple and intuitively meaningful measure of PSE quality. Cases were filtered for young adults who a) were at least 18 years old when attending classes at any point from 2012 through 2017, b) were no older than

34 years of age when the CSD was conducted, c) had a disability when they were attending classes. Those included in "high quality" group are CSD respondents with the top 25 percent of scores on the master index. Those in the "low quality" group are those with the bottom 25 percent of scores. Those in the "midrange-quality" group have scores that fall between 25 and 75 percent.

Other Descriptive Variables

In addition to the above variables, recodes (variables derived on the basis of other variables) were developed to organize the following information about young adults with disabilities 18 to 34 years of age. These variables have been used various comparative and other analyses:

- Young adults with disabilities who were attending PSE when the CSD was conducted
- Young adults with disabilities who were not attending PSE when the CSD was conducted but attended in 2016 – 2017, had a disability when attending, provided information about instructional and other supports they needed and received, and were at least 18 years old when they attended (i.e., they were 20 to 34 years old when the CSD was conducted)
- Young adults with disabilities who were not attending PSE when the CSD was conducted but attended from 2012 to 2015, had a disability when attending, provided information about instructional and other supports they needed and received, and were at least 18 years old when they attended (i.e., they were 23 to 34 years old when the CSD was conducted)
- Young adults with disabilities who were attending the following types of PSE institutions when the CSD was conducted in 2017 or who were not then attending but attended in 2016–2017[10] a) university or b) college (or other non-university PSE)
- Other flags/groupings include:
    - Census-based age groupings
    - Census-based flag for rural and urban community of residence
    - Census-based flag for Indigenous person status
    - Census-based flag for racialized/visible minority status
    - CSD disability component flags for major types of disability
        - Cognitive disability (including formally or self-assessed learning disability, and/or "diagnosed" developmental/intellectual disability, and/or activity-limiting difficulties related to memory or confusion).
        - Physical disability (disabilities related to mobility and/or flexibility and/or dexterity and/or or pain)
        - Sensorial disability (including seeing and/or hearing)
        - Psychosocial (mental health-related)

[10] The CSD did not capture information about the types of school students attended from 2012 to 2015.

- Census province/territory of residence grouped into regions where unweighted counts were low
- Grouped Census variable on type of PSE institution attended
- Grouped census variable on the highest level of educational certification obtained
- Census variable on major fields of study, regrouped according to 1) Science, technology, mathematics and engineering—STEM, 2) Arts, humanities, social and behavioural sciences, 3) Business and administration, 4) Legal, health and education professions, and 5) Trades, services, natural resources and conservation (for selected comparisons between young adults with and without disabilities).

Detail on the index for assessing diversity equity in participation across major fields of academic study

A measure was developed to assign values for the equitability of CSD respondents' participation in various fields of study. Three identity dyads were developed for this measure: disability, gender, and BIPOC status.

- The disability dyad was subdivided into a) people with a disability, and b) people without a disability. For this dyad, the Census component of the CSD was used for people without disabilities, and the disability component of the CSD was used for people with disabilities
- The gender dyad was subdivided into a) males; and b) females. The Census component of the CSD for people without disabilities was used for this dyad. The 2017 Census did not provide for any other gender distinctions.
- The BIPOC dyad was subdivided into a) people in the BIPOC group, and b) people not in the BIPOC group. The Census component of the CSD for people without disabilities was used for this dyad.

Major use was made of Census variables. This approach was adopted so the broad patterns of study among young adults without disabilities would be used as the standard of comparison for assigning assign values to the areas of study among young adults with disabilities. The reasoning was that equitable access to various fields of study ought to be available to young adults, irrespective of disability. Accordingly, the equitability of distributions across fields of study was calculated in the first instance for young adults without disabilities, then applied to young adults with disabilities.

The variable "CIPSTEM" was used to capture CSD respondents' major fields of academic study. A "major field of study" refers to the main discipline or area of learning or training of a person's highest postsecondary certificate, diploma or degree. The CIPSTEM variable encompasses the following academic fields:

- No postsecondary certificate, diploma or degree
- Physical and chemical sciences
- Biological sciences

- General and integrated sciences
- Engineering
- Engineering technology
- Mathematics and related studies
- Computer and information science
- Business and related studies
- Public administration
- Arts
- Humanities
- Social and behavioural sciences
- Law
- Other legal professions and studies
- Medicine, dentistry, optometry and veterinary medicine (including residencies)
- Nursing
- Pharmacy and related programs
- Health care, not elsewhere classified
- Education and teaching
- Agriculture and natural resources operations and management
- Mechanics and repair, architecture, construction and precision production
- Personal, security and transport services
- Social work and related programs
- Non-credit [not included in the CSD Census or disability component data files]
- BHASE (non-STEM)[11] programs not elsewhere classified.

A problem with using CIPSTEM is that it presumes some level of postsecondary certification has been obtained. As many young adults are still studying, they lack such certification. However, the CIPSTEM category for "No postsecondary certificate, diploma or degree" encompasses students who are still studying and lack any certification. That category can be used to assess the extent to which young adult males and females, BIPOC and non-BIPOC individuals, and individuals with and without disabilities are substantially overrepresented and underrepresented in that category, or roughly on par with their comparator group in a dyad, e.g., females compared with males in the gender dyad.

[11] BHASE refers to the business, humanities, health, arts, social science, and education fields of study. STEM refers to the science, technology, engineering, and mathematics fields. BHASE includes all non-STEM fields, including business and administration, arts and humanities, social and behavioural sciences, legal professions and studies, health care, education and teaching and trades, services, natural resources and conservation. For more information, see https://www12.statcan.gc.ca/census-recensement/2016/dp-pd/dt-td/Rp-eng.cfm?TABID=2&Lang=E&APATH=3&DETAIL=0&DIM=0&FL=A&FREE=0&GC=0&GID=1334853&GK=0&GRP=1&PID=111346&PRID=10&PTYPE=109445&S=0&SHOWALL=0&SUB=0&Temporal=2017&THEME=123&VID=0&VNAMEE=&VNAMEF=&D1=0&D2=0&D3=0&D4=0&D5=0&D6=0

Within each identity dyad, percentage distributions were found across all fields of study, which resulted in two distributions per dyad (e.g., one distribution for people of BIPOC identity and one for non-BIPOC individuals). A maximum score of "1" was assigned where a person is disproportionately underrepresented in a field of study. This was where a person's selected characteristic (e.g., BIPOC identity) is 0.8 times or less than the comparator identity's distributed percentage (e.g., non-BIPOC) in the same field of study. So, for instance, if 7% of those of BIPOC identity studied in a field compared with 10% of their non-BIPOC counterparts, people in the BIPOC group were assigned a score of "1" because they are substantially under-represented in that field of study. In contrast, respondents were assigned a score of "0" where the distribution according to their characteristic was substantially above (at least 1.2 times) the percentage distribution for the comparator group in the same field of study. That is, a "0" was assigned where a person's studies were in a field where there is a disproportionately large number of people with the same personal characteristic. A "0.5" was assigned where the distribution according to a person's characteristic was roughly equivalent to the distribution for the comparator group, that is, within ±0.2 of the percentage of the comparator group in the same field of study.

The logic behind the scoring was, so to speak, to "reward" educational arrangements where people are substantially under-represented in a given field of study (by assigning the maximum score of 1), to accord a low score (0) to educational arrangements where people are substantially overrepresented in a field of study, and to recognize average performance (0.5, which is halfway between 0 and 1) where the representation of people is about on par with the representation of their dyad's comparator group in the same field of study.

The age group for running these distributions captured individuals from 18 to 70 years of age. People older than 34 were included as they are among all the people in society at large who are potentially active in the labour force, who typically possess credentials in various fields of study, and with whom young adults with disabilities will in effect be competing for employment. For details on the aging of the Canadian labour force, see Pignal, Arrowsmith, and Ness (2010) and Employment and Social Development Canada (2018b).

A corollary to assigning 1 to one identity group in a dyad for a given field of study is the assignment of 0 to the comparator identity in the dyad for the same field of study, and vice versa. For instance, if females are substantially overrepresented in a field of study (1), it follows that males are substantially under-represented in the same field (0).

Using the CIPSTEM variable in the non-disabled Census component of the CSD, this procedure was performed for males and females and for BIPOC and non-BIPOC individuals. The same procedure was performed for disabled and non-disabled people using a combination of the disability and non-disability components of the CSD.[12]

[12] In the disability measure of equity, only the scores for people with disabilities were used for subsequent phases of the present research. This was because the final equity measure that was derived for the research was rolled

Once those procedures were performed, three newly derived variables were then constructed and coded in the disability component of the CSD. The variables are for a) people with any disability on a derived CIPSTEM-based variable for disability, b) males and females with disabilities on a second-derived CIPSTEM-based variable for gender, and c) BIPOC and non-BIPOC individuals with disabilities on a third-derived CIPSTEM-based variable for BIPOC identity. As an example of the scoring, where females with a disability have obtained certification in a field of study where females without disabilities are substantially underrepresented as compared with males, the females with disabilities were assigned a value of 1 for their field of study in the newly derived CIPSTEM-based variable for gender identity. Females were assigned a value of 0 where a great many females without disabilities also have the same certification, and a 0.5 if women without disabilities are roughly equally represented along with males without disabilities in a given field of study.

All individuals with disabilities had one score on all three variables: one for having a disability, one for being male or female, and one for being in the BIPOC or non-BIPOC group.

Scores on all three equity variables were then added together and divided by 3 on a newly derived composite variable for diversity equity. The lowest possible score was 0 and the highest was 1, with all other values falling between 0 and 1. A 0 represents low equitability for a person's field of study because they are substantially over-represented in that field as person with a disability, *and* as a male or female, *and* as a member or non-member of the BIPOC group. A 1 represents high equitability for a person's field of study because they are substantially under-represented in that field of study as a person with a disability, *and* as a male or female, *and* as a member or non-member of the BIPOC group. Other scores group around 0.5 in the derived diversity variable, with some approaching 0 and others approaching 1.

Types of analysis performed

Most of the analyses performed for the present research were in the form of descriptive statistics (e.g., analytical reporting based on frequency runs, crosstabs, etc.). However, several logistical regression analyses were also performed to isolate the general socio-demographic factors (e.g., gender, Indigenous person status, etc.) and disability-specific factors (e.g., type of disability, degree of disability complexity, need for accessible technological supports, etc.) most strongly associated with attendance at college/CEGEP/trade school or university, successful completion of a non-university certificate or university degree, and receipt of good quality versus low-quality PSE.

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together with other measures of PSE quality based on information described in Section 4. That information was captured *only* from people with disabilities. Accordingly, it would have been impossible to develop a comparable measure of PSE quality for people without disabilities.

Analytical methods for the dimension of this research that examine decent work are discussed in Part 2 of this discussion on Methodology (below).

Part 2. Working with the Canadian Survey on Disability to focus on decent work

The following discussion explains the theoretical basis for the measure of "decent work" that was developed for the present research and describes how the discrete and summary measures of decent work were derived. Much of the research literature that was drawn upon in this subsection of the methodology pertains to distinct features of decent work and required highly selective search strategies to obtain. As such, some of the material has not been included in the higher-level literature review that was conducted and produced as a stand-alone document on PSE and employment for this research project.

Conceptualizing decent dork: The ILO's formulation

The CSD provides an enormous wealth of information that can be drawn upon for research on people with disabilities. Included in the CSD are numerous questions on the type of employment individuals hold, how long they have had their job, discrimination they may have experienced in obtaining or progressing in their job, work-related training, union membership, work-related cause(s) of disability, work-based income, the procedural, human, technological, built environmental, and other supports people need to do their job, and many other details on work. It is possible to use the CSD to develop statistical measures of the essential features of decent work.

The International Labour Organization (ILO) has developed a conceptual framework (2012) and specific measures for assessing the quality of work in light of that organization's formulation of "decent work." The ILO's formulation of decent work has a considerable history behind it. Background documents, country reports, and other resources are available at the ILO's website dedicated to decent work: https://www.ilo.org/global/topics/decent-work/lang--en/index.htm. The ILO's decent work standard is complex and involves a great many measures across several major domains. The ILO refers to these domains as Substantive Elements. The Substantive Elements are, in effect, major areas of concern that *all* need to be addressed to further decent work. The Substantive Elements, within which there are numerous measures, are:

1. The economic and social context for decent work
2. Employment opportunities
3. Adequate earnings and productive work
4. Decent working time
5. Combining work, family and personal life
6. Work that should be abolished
7. Stability and security of work
8. Equal opportunity and treatment in employment
9. Safe work environment
10. Social security and
11. Social dialogue, workers' and employers' representation.

The Substantive Elements of decent work align with the ILO's strategic objectives, which are the furtherance of employment and the pursuit of standards, fundamental principles and rights at work, social protection for people without work, and social dialogue between and among workers and employers.

Operationalizing measures of decent work

Approach to developing discrete measures

The CSD includes data that make it possible to develop measures of work quality that are similar to those the ILO has articulated. As discussed below, the present research used the CSD to develop specific measures of decent work for Substantive Elements 2 – 4, and 7 – 11. The approach is directly informed by Crawford's postdoctoral research on decent work and people with disabilities (unpublished paper, 2021).

As the present study focuses on the relationship between the quality of PSE and the quality of work held by individual PSE students and graduates with disabilities, it was not possible to develop measures of decent work for three of the ILO's Substantive Elements. For instance, high-level indicators of the contributions of the economic and social context to decent work (Substantive Element 1) apply to society as a whole. Such measures include the overall employment rate. While that information can be calculated based on the CSD, the present research did not use that information "as is" for individual workplace-level measures of practice congruence with decent work. Instead, the research adapted high-level information on employment by developing the gender distributions across occupations and industries as a measure of the equitable distribution of work for Substantive Element 8, which is discussed below. Concerning family and personal life in relation to work (Substantive Element 5), the CSD does not have much useful information and could not be used to develop specific measures in that area. Similarly, work that should be abolished (Substantive Element 6) pertains mainly to child labour and forced adult labour. As the CSD is presently conducted for adults only and has no information on whether the jobs held by people with disabilities are performed freely, the survey could not be used to develop measures of decent work for Substantive Element 6, either.

To operationalize a sizeable number of measures of decent work, bivariate and ordinal variables were derived that indicated the complete presence of an ILO-valued workplace characteristic (indicated by "1"), its complete absence (indicated by "0"), and, in some instances its partial presence (indicated by one or more numbers between 0 and 1). Some of these discrete measures of facets of decent work were summary composites made up of several source variables. As explained more fully below, missing data were given a very low score ("–.00001") rather than being dropped from the analysis or scored as 0 in order to retain as much useful information as possible across the variables and cases.

All data were filtered to capture various facets of the jobs of young adults with disabilities who were recently attending or who had recently attended school, and who were at least 18 years old when attending and younger than 35 when the CSD was conducted.

Design of a decent work index and three-point categorical measure

Filtering all data for the young adults with disabilities in the selected age range, the research then used the discrete measures of work quality to derive a separate sub-index for each of the Substantive Elements of decent work. This action was performed by adding the values for the source variables for a given Substantive Element and dividing by the highest score obtained, which yielded sub-indexes with a maximum value of 1 for each Substantive Element. The research then added all those Substantive Element scores and divided by the total actual score to derive a master index of decent work with a maximum value of 1. On this measure, 1 indicated the highest score that anyone achieved, taking account of all the scores across all the Substantive Elements.

The CSD variable was then used to identify young adults with disabilities who were working or not working when the CSD was conducted. The non-working group included those who were unemployed (i.e., actively looking for or available for work), non-participants in the labour force (i.e., neither available nor looking for work), and a few individuals for whom the employment data were missing in the CSD.

To facilitate descriptive statistics, the master index was then calibrated into ordinal categories that reflected a low, medium, and high degree of congruence with decent work, hereafter described as low-quality, midrange quality, and high-quality work. In constructing the three categories, the research filtered the data for young adults with disabilities who were working when the CSD was conducted. Breakpoints for three categories were developed that reflected the highest 25% of master index scores, the midrange 50% of cases, and the lowest 25% of cases. A fourth category was developed to include all non-working young adults with disabilities.

The measures based on the CSD for constructing the Substantive Elements are as explained in the discussion below, with supporting research and other scholarly literature as applicable.

Substantive Element 1. The economic and social context for decent work

Not directly applicable to individual workplaces and jobs.

Substantive Element 2. Employment opportunities (four components)

For measures of employment opportunities as contributors to decent work, four variables were derived and combined into a fifth summary variable, as follows.

1) Youth employment while studying

Two of the ILO's concerns about employment opportunities revolve around youth, schooling, and work (ILO, 2012). Specific concerns are a) youth not in education *and* not in employment, and b) the unemployment rate among youth. The underlying values assumptions are that it is good for youth to be working (or to be gaining work experience) and to be pursuing their education. The corollary is that it is not good for youth to be out of school and work, and less than ideal for school-aged youth to have work and not be attending school.

A single variable was derived to capture young adults with disabilities 18 to 34 years old who were working and attending school when the CSD was conducted (1) and respondents who were working but not attending school (0). All others (whose employment and/or education data were missing employment data or who were not working) were classified as − .00001.

2) Effective utilization of labour

Another ILO concern in the area of employment opportunities is the underutilization of labour. For the purposes of macro-level analysis and economic management, the ILO has stated that, "the unemployment rate continues to prove its usefulness as an important indicator of labour market performance, and specifically, as a key measure of labour underutilization" (ILO, 2012: 50). However, the ILO qualifies that statement by pointing out its insensitivity to issues such as gender-based over- and under-representation in some industries and occupations, and low employment hours in the context of people's desire for more work.

Issues of gender under- and over-representation in various industries and occupations are addressed below in the subsection on equal opportunity and treatment in employment. Concerning optimal utilization of labour, the 2017 CSD captured data from a question that explored the "fit" between individuals' education, skills and work experience and the work they were doing when the survey was conducted. The question asked, "Does your job give you the opportunity to use all your education, skills or work experience?" Accordingly, 1 was assigned where respondents said "yes" and 0 where they said "no." All others (whose employment data were missing and who were not working) were classified as −.00001.

3) Type of work

The ILO has included informal employment, own account (self-employment), and unpaid work for families among its concerns in the area of employment opportunities (ILO, 2012). For the present study, a variable was derived that captured simply whether people with disabilities were working for an employer (1) or in some other arrangement (0), which included self-employment for most of these individuals and a few who worked without pay for family businesses. All others (whose employment data were missing and who were not working) were classified as −.00001.

4) Modified job duties and work from home

Consistent with employment opportunities and optimal utilization of labour is whether needed supports are in place which enable workers with disabilities to perform their work. A variety of supports may be required for job retention and career progression, which, if not available, can result in job loss or underperformance even if equal opportunity policies are in place (Wilson-Kovacs, Ryan, Haslam, & Rabinovich, 2008). The need for modified job duties is one of the most widespread of all the job accommodations required by people of working-age with disabilities. It is also an accommodation for which there is considerable unmet need (Till, et al., 2015). That unmet need is itself a strong predictor of disabled people not working at all (Crawford, 2016). The present research derived a variable that captured whether workplaces were making the modified job duties and/or work from home available to employed CSD respondents who needed one or both accommodations (1), workplaces that were making neither accommodation available to those who needed one or both (0), and workplaces that made one but not both accommodations available to those who needed both of them (0.5).

Derivation to combine these four measures of employment opportunities

A measure was derived to combine the above four measures for Substantive Element 2. The values across the four measures were added together and divided by 4 to yield a single measure for employment opportunities whose maximum value was 1 and whose minimum usable values were 0 and several scores below 0 which indicated that none of the employment opportunities measures were in place. The very lowest value indicated missing data on all the source variables.

Substantive Element 3. Adequate earnings and productive work (six core components)

For measures of adequate earnings and productive work as contributors to decent work, six variables were derived and combined into a seventh summary variable, as follows.

1) Working poor

A guiding concern for the ILO is wages that are sufficient to lift workers out of poverty. Wall's (2017) logistic regression for the full population, found that, after controlling for factors such as education level, age, sex, region of residence, and family composition, the probability of having low income was nearly three times higher for people with disabilities than for people without disabilities (16% versus 6% – Wall, 2017). The present research derived a variable that captured whether employed people had total household incomes above or below the "poverty line" in the reference year, i.e., whether the earnings of the disabled worker brought their total household income above the Market Basket Measure of low income, which is Canada's new and official measure of poverty. The present research used Statistics Canada's LOMBM variable. Where a young adult with a disability had a job and their total household income was above the poverty line, a value of 1 was assigned. Where they were working but the household was living in poverty, a value of 0 was assigned. All others were assigned −.00001.

2) Decent earnings

A related ILO concern with adequate earnings and productive work is low pay, which the ILO defines as a rate of pay below two thirds the median hourly earnings for society at large. As earnings data captured in the CSD were for the entire reference year instead of hourly wages, the data in effect were the same as hourly wages multiplied by the total hours worked in the reference year.

Recent research has not dedicated much attention to the comparative earnings of people with and without disabilities. Research by Morris, Fawcett, Brisebois, and Hughes (2018) explores total personal incomes of people with and without disabilities by employment status but does not address earnings as a component of total personal income.[13] Their research, however, shows the significantly higher total personal incomes of people without disabilities versus with disabilities who work full-time all year. Total incomes are particularly low where disability is in the severe to very severe range of complexity. Earlier research shows that there is a gendered earnings gap in Canada, regardless of disability. For instance, non-disabled men 25 to 64 years earned $67,599 on average in 2011 compared with $49,565 among non-disabled women in this age group (Turcotte, 2014). Men and women earn progressively less than their non-disabled counterparts as the severity of disability increases.

In part, the earnings gap reflects the different amounts of time men and women typically work per year in their respective occupations and industries, across which men and women are distributed quite differently. That distribution issue is addressed below in the discussion on equal opportunity and treatment in employment (Substantive Element 8). The gap is in part due to practice inertia based on gender stereotypes and discrimination that occupationally

segregates women, devalues their performance, and denies them credit for successes (Heilman, 2001; Blau & Kahn, 2017).[14]

To develop a measure of earnings adequacy, the present research used the CSD's WAGES variable, which captures gross wages and salaries before deductions in the reference year (2015). First, the median total wages were found for a total of 20 working-time increments for young adults without disabilities 18 to 34 years old. Ten of these increments were for young men and ten were for young women. The working-time increments ranged from two periods at the upper end, namely, 49 to 52 weeks full-time or 49 to 52 weeks part time, down to two increments at the lower end, namely, one to 13 weeks full-time and one to 13 weeks' part time. In between these extremes, there were six working-time increments: 14 to 26 weeks full-and part-time, 27 to 39 weeks full- and part-time, and 40 to 48 weeks full- and part-time.

The research then calculated two thirds the median wages received from the jobs held, respectively, by young men and women without disabilities in these 20 working-time increments. An algorithm was developed to assign a value of 1 where a person's total wages were at least two thirds of the median. A value of 0 was assigned where a person's wages were less than two thirds of the median. A value of −.00001 was assigned where earnings data were not provided, which included where young adults did not work in the reference period.

The algorithm was then applied to young adult men and women with disabilities. For instance, a value of 1 was assigned where a young woman with a disability worked 49 to 52 weeks full-time in the reference period and whose gross wages were at least two thirds the wages of a young woman without disabilities who worked the same amount of time. A 0 was assigned if the young woman with a disability's wages fell short of two thirds of the wages of her non-disabled counterpart who worked about the same number of hours in the reference year.

That the reference year was 2015 for the data that were used is an unavoidable limitation of the CSD as with many other large Statistics Canada data sets, which often report earnings and other forms of income for the year before the year when the surveys are conducted.

3) Job training

Another ILO concern and indicator of productive work is whether workers participate in work-related training (ILO, 2012). Based on the CSD, Till et al. (2015) found that people with disabilities who were not in the labour force reported inadequate training or work experience as a significant barrier to searching for a job. They also found that many of the people with disabilities classified as "potential workers" wanted to take work-related training to increase their employability. Similar findings have been corroborated for people outside of the labour

[14] In addition, earnings are lower for Indigenous (Aboriginal) people, visible minorities and immigrants than for others (Gunderson & Lee, 2016; see also Lightman & Gingrich, 2018). The gap in earnings between visible minorities and others is most pronounced in the private sector versus public sector (i.e., government) employment (Hou & Coloumbe, 2010).

force with intellectual/developmental disabilities (Bizier, Fawcett, Gilbert & Marshall, 2015), mental health disabilities (Bizier, Marshall and Fawcett, 2014) and seeing disabilities (Bizier, Contreras & Walpole, 2016a). The present research was unable to find much recent Canadian research on the extent of training received by, and the level of unmet need for training among, employed people with disabilities. However, drawing from the CSD 2017, Berrigan, Scott, and Zwicker (2020) have provided some useful information on the extent of unmet need for training among people with developmental/intellectual disabilities, as have Gupta, Sukhai, and Wittich (2021) for people with a seeing disability.

The CSD's questions asked whether the respondent had received training related to their job in the past 12 months. Accordingly, it was not possible to settle with certainty whether the training was for the CSD respondent's then-present employment or for a job with another employer in the past 12 months. The research assumed that most people who received such training were with their then-present employer when the CSD was conducted. If an employed person received classroom-based training in the past year, the case was assigned a value of 1. If they received no such training, the case was assigned a value of 0. Cases with missing data (e.g., they were not asked about classroom training) were assigned a value of –.00001. The same procedure was followed for on-the-job training in the past year. Both variables were then collapsed into a single variable by adding the values and dividing by 2. This procedure yielded a measure with a value of 1 where individuals received both kinds of training, a value of 0.5 if they received one form, and 0 if they received no training. All other values were assigned a value of –.00001.

4) Assistive and other technologies

For the present research, it was reasoned that assistive technologies and similar supports are basic requirements of productive work for the individuals who require such job supports. These work-related technological features include technical aids (e.g., voice synthesizer, TTY, infrared system, or portable note taker), a computer, laptop or tablet with specialized software or other adaptations (e.g., Braille, screen magnification software, voice recognition software or a screen reader), and communication aids (e.g., Braille or large print reading material or recording equipment). Following several years where not much research had been produced on job accommodations in Canada aside from a piece by Ripat and Woodgate (2017),[15] Morris (2019) has provided a useful addition to the research that draws from the 2017 CSD. That research shows considerable unmet needs for technical aids, computers, laptops, or tablets with specialized software/adaptations, communication aids, and human support for work.

For the present research, a complex variable was derived that captured CSD respondents who needed any of the assistive and other technologies described above and whose employment provided for all those needs, for only some of the needs, or for none of them. The three variables that were used for this research on the need were EMO_05E for technical aids,

[15] For earlier research see Turcotte, 2014, and Till et al., 2015.

EMO_05F for computers and related technologies, and EMO_05G for communication. The corresponding CSD variables that were used for whether such supports were provided were EMO_10E, F and G. The research assigned a 1 for each variable where a person indicated a need for support, a 0 where they did not have any such need, and −.00001 for all other cases. A similar approach was adopted for reception of supports needed: 1 if yes, 0 if no, and −.00001 for all other cases. The values for need of these assistive and other technologies were then added across the three variables, as were the values for reception of these supports.

A derivation was then constructed that assigned a value of −.00001 where there was no need of any assistive and other technologies or where information on such technologies was missing. The derivation then divided the number of supports received by the number of supports needed. The maximum value was 1 and the minimum usable value was 0. For instance, the workplace of a person who needed two of the three types of support and which provided both types obtained a value of 1 on the derivation (i.e., the workplace provided for 100% of the individual's two kinds of need for assistive and other technology). The workplace of a person who needed two of the three types of support and provided only 1 obtained a value of 0.5 (i.e., the workplace provided for 50% of the individual's needs for the support). The workplace of a person who needed two types of support and received none was assigned a value of 0 (i.e., it provided for 0% of the individual's needs for the support). The same logic was applied in the derivation where the person needed one type of assistive /other technology or three types. For example, the workplace of a person who needed three of these types of support and which provided only one was assigned a value of .333 (i.e., the workplace provided for only 33.3% of the individual's needs for support).

5) Human support

The same logic as for technical supports (d, above) was applied to the workplaces of individuals who need human support at work. Here, only one CSD variable is available for human support needed at work (EMO_05D) and one variable for whether the human support has been received (EMO_10D). Human supports include readers, sign language interpreters, job coaches or personal assistants. The variable that was constructed yielded a maximum score of 1 for a workplace that has provided the human support that an individual needs, 0 if the workplace has not provided that form of support, and −.00001 for all other cases.

6) Miscellaneous "other" support

The same logic was applied for miscellaneous "other supports" required at work. As with human support, there is only one variable for needed miscellaneous supports (EMO_05O) and one for miscellaneous work-related supports received (EMO_10O), The derived variable yielded a score of 1 for a workplace that provided the miscellaneous support needed, 0 if it did not, and −.00001 for all other cases.

Derivation to combine these six measures of adequate earnings and productive work

The research derived a single measure of adequate earnings and productive work by adding the values across the six measures (1—6) described above and by dividing by 6. The maximum possible value was therefore 1 and the lowest usable values were 0 and several scores below 0 which indicated that none of the required measures for earnings and productive work were in place. The very lowest score represented missing cases across all six variables.

Accessible built environments for work

While accessible built workplace environments contribute to productivity at work, the present research also considered such features as some of the minimal requirements for safe workplaces and safe places of commerce for customers. Accordingly, the research deals with accessible built environments for workplaces in the subsection on safe work environment, below.

Substantive Element 4. Decent working time (three components)

The ILO (2012) has suggested five statistical indicators for characterizing decent working time or the lack of it (1) employment in excessive working time, which the ILO defines as more than 48 hours per week, (2) employment by weekly hours worked, (3) average annual working time per employed person; (4) the time-related underemployment rate, and (5) paid annual leave. The CSD does not have information on all these matters and some of the ILO criteria pertain to overall societal macroeconomics. However, the most widely needed of all job accommodations is for modified hours or days of work, which is also an area of considerable unmet need (Till et al., 2015; Morris, 2019). The provision of modified or reduced hours or days of work to people who needed this accommodation was found in one large study based on the CSD to be the single most positively impactful predictor of people with disabilities obtaining good-quality work. The same study showed that the unmet need for modified hours or days of work was among the factors that most strongly predicted people with disabilities not obtaining good-quality employment (Crawford, 2016).

The present research derived three measures to capture whether people's work hours were consistent with decent working time as the ILO has defined it. The measures take account of individuals' preferences for hours of work and the availability of modified work hours if they need that kind of job support. The measures are 1) whether the workplace of the CSD respondent usually required from 1 to 48 hours of work per week rather than requiring more work, 2) whether employers and jobs provided the modified hours or days of work that young adults with disabilities required and 3) whether employers and jobs provided CSD respondents working the number of hours they seemed to prefer, taking account of their other responsibilities and needs.

1) Less than 49 hours per week

One simple variable was constructed (using CSD variable HOURS) that captured whether the work hours of young adults with disabilities were usually from 1 to 48 hours per week (1) or 49 hours or more per week (0). Other cases were classified as −.00001.

2) Receipt of modified hours/days of work if needed

A variable was derived that captured the extent to which young adults with disabilities who needed modified hours or days of work (CSD variable EMO_05C) and received that kind of support (CSD variable EMO_10C). Workplaces for which that condition was met were assigned a value of 1 and, where the condition was not met, 0. All other cases were classified as −.00001.

3) Preferred hours of work

i) Excess hours that the individual seemed to prefer

A variable was derived to capture the work situations of individuals who worked 49 or more hours per week, required modified hours of work, and received that accommodation. It was reasoned that these individuals perhaps preferred to work long hours and seemed to be receiving the support they needed to do so. Accordingly, their jobs were assigned a value of 1. Individuals who worked such long hours and needed modified hours of work but did not receive that support were presumed to be working an unacceptable number of hours. Their jobs were assigned a value of 0. All other cases were assigned a value of −.00001.

ii) Full-time work hours that seem agreeable

A variable was derived to capture the work situations of individuals who worked the generally accepted minimum number of hours required for full-time work (30 hours) to the number of hours the ILO suggests is a reasonable upper limit (48 hours). If a person worked this number of hours and did not need modified work hours, or needed and received modified work hours, the number of hours they were working seemed agreeable and their job was assigned a value of 1. If they worked full-time, needed modified work hours, and did not receive that support, their work hours seemed unacceptable, and their workplace/job was assigned a value of 0. All other cases were assigned a value of −.00001.

iii) Part-time work hours that seem agreeable

Many people with disabilities work part-time (less than 30 hours per week) and seem to be doing so as a matter of preference, or because they have received the modified hours that enable them to work that many hours despite the impact of their disability, or for any number of other reasons. In other words, there are many reasons aside from the nature of the work to be done and the employer that have a bearing on why people with disabilities often work part-time. The present research derived a variable that assigned a person's job a value of 1 if any of the following reasons for working part-time: temporary illness, a health condition, caring for their own children, other personal or family responsibilities, going to school, personal preference, retirement/preretirement, self-employment, and some other personal reason for working 30 hours or less per week. A person's job was assigned a value of 0 if: they could not find work with 30 or more hours per week (i.e., because a part-time job was all that was

available, or because the job was on contract, or does not provide more hours of work, or because economic conditions which often determine the nature and amount of work an employer can or chooses to make available, despite what a worker may need or prefer.

iv) Derivation of a summary variable for preferred hours as a sub-component of decent working time

The three variables immediately above on part-time, full-time, and more-than-full-time work were derived into a single variable that summarized the degree to which the CSD respondent's work hours seemed consistent with their needs and preferences. The derivation was constructed by adding the three values together, which all pertained to units of time for which there was no overlap. The maximum value was 1, which indicated the work hours seemed consistent with the person's preferences and needs. The minimum usable value of 0 indicated that the work hours did not seem consistent with preferences and needs. Other values below 0 indicate missing data.

Derivation to combine the three major measures of decent working time

The research derived a single measure of decent working time by adding the values across the three major measures described above (1—3) and by dividing by 3. The maximum possible value was therefore 1 and the lowest usable values were 0 and several scores below 0 which indicated that none of the required measures for decent working time were in place. The very lowest score represented missing cases across all three source variables.

Substantive Element 5. Combining work, family and personal life

No usable information is available from the CSD on striking a healthy balance between work, and family and personal life.

Substantive Element 6. Work that should be abolished

No usable information is available from the CSD on work that should be abolished.

Substantive Element 7. Stability and security of work (two components)

The ILO's concerns and indicators for the stability and security of work revolve around precarious employment, job tenure, casual work, and the adequacy of earnings (ILO, 2012). As earnings have been addressed in the discussion on adequate earnings and productive work (Substantive Element 3), the derived measures for stability and security of work focus on job tenure (permanent vs. temporary) and the duration (number of years) of work. The derived measures address precarious and casual work.

Recent research is scarce on the stability and security of disabled people's work in Canada. However, Turcotte (2014) has found that, where working at all, and depending on the severity of their disability, men with disabilities are from 0.7 to 0.8 times as likely as men without disabilities to work full-time all year and are from 2.3 to 2.6 times more likely to work part-time for only part of the year. Again, and depending on the severity of their disabilities, women with disabilities are from 0.8 to 0.9 times as likely as women without disabilities to work full-time all year, and from 1.3 to 1.6 times more likely to work part-time for only part of the year (Turcotte, 2014). Tompa et al. (2006) have reported on the disproportionate precarity of disabled people's work, as has Wilton (2006).

For measures on the stability and security of work as contributors to decent work, two variables were derived and combined into a third summary variable, as follows.

1) Job permanence

Concerning job tenure, cases were coded as 1 on a derived variable where CSD respondents' work was permanent, and 0 where the work was anything other than permanent, i.e., it was temporary, term, contract, casual or seasonal. CSD variable PW_05 was used as the source variable. A few cases were coded as 1 where the work was not permanent but where the worker had a student job or was an apprentice, intern, or articling (variable PW_10 was used for this detail). The reasoning for including these jobs as permanent is that the employer was contributing to the likelihood of the worker obtaining permanent employment in the future, either with the same employer or with some other. Cases were coded as 0 if the work was not permanent. Reasons for the lack of permanency include that the job was seasonal, or a temporary, short-term or contract job, or a casual job, or done through a temporary help agency, or for some other reason other than being a student job, apprenticeship, internship, or articling position.

2) Job duration

A variable was derived (using JT_05) to code jobs with a value of 1 if CSD respondents began working at those jobs sometime before 2015. The jobs lasted for at least two years and in many cases for about two and one-half years up to when the CSD was conducted in 2017. Jobs were classified as 0 if respondents began working in them in 2015 through 2017.

Derivation to combine these two measures of work stability and security

The two variables described immediately above (1—2) were combined into a single variable by adding their values and dividing by 2. This yielded a single measure of work stability and security where 1 signified that the job has lasted at least two years and is permanent, 0 signifies that the job was neither permanent nor had not lasted for at least two years, and scores in between that indicate that the job may in theory be permanent but has not lasted very long, or is temporary in theory but has lasted for two years or more. The lowest value indicated missing data on the variables that were used. Scores above the lowest value and below zero were reclassified as 0 because they indicated impermanence in at least one of the two measures and had missing data in the other.

Substantive Element 8. Equal opportunity and treatment in employment (five components)

The ILO's concerns in the area of equal opportunity and treatment in employment revolve around the equal remuneration of men and women for work of equal value. Related gender themes are occupational segregation by sex, the female share of employment in senior and middle management, the gender wage gap, and the share of women in wage employment in the non-agricultural sector. Still other themes related to this Substantive Element are the elimination of discrimination in respect of employment and occupation (including measures for discrimination by race, ethnicity, indigenous person status, recent migrant workers, and rural workers), sectoral/occupational distribution of recent migrant workers, and a measure yet to be developed for the employment of people with disabilities (ILO, 2012).

A variety of general socio-demographic and disability-specific factors have been associated in the research literature with the low employment of people with disabilities. These include:

- The gendered employment gap (e.g., Turcotte, 2014; Johnson & Sasso, 2006; Sinha, 2013; Timpson, 2001; Brooks, 2005; Statistics Canada, 2018c; Statistics Canada, 2008d; Fawcett, 2000)

- The greater likelihood unemployment and low-paid, precarious work among racialized people (e.g., Samuel & Basavarajappa, 2006; Hasmath, 2016; Tompa et al., 2006)

- Poorer job prospects for Indigenous people than for others (e.g., Statistics Canada, 2011b, First Nations Governance Centre [Chapter 1], 2011; Canada, Office for Disability Issues, 2004)

- The need for greater programmatic attention to issues of disability, gender, race/ethnicity, *and* culture in labour force interventions (e.g., Hogansen, Powers, Geenen, Gill-Kashiwabara, & Powers, 2008; Anderson, Fawcett, Rexe, Smith, & Tsoukala,

2003; Jones, 1997 citing other; Aylward, 2010; Ontario Human Rights Commission, 2001a & b)

- Employer discrimination based on disability, which has been a longstanding problem and which takes different forms depending on the nature of disability (e.g., Turcotte, 2014; Shier, Graham & Jones, 2009; Statistics Canada, 2008c, Thornton & Lunt, 1997; Wilson–Kovacs, Ryan, Haslam & Rabinovich, 2008; Bizier, Marshall & Fawcett, 2014); Bizier, Contreras & Walpole, 2016a; Bizier, Contreras & Walpole, 2016b; Bizier, Fawcett, Gilbert & Marshall, 2015; Bizier, Till & Nicholls, 2014)

- Employment as the consistently largest social area of complaints under the human rights legislation along with disability as the most widely reported prohibited ground of discrimination (e.g., Social Justice Tribunal of Ontario, 2017; Canadian Human Rights Commission, 2018; Ontario Human Rights Commission, 2008; Roeher Institute, 1993)

- Systemic discrimination manifested in part through employer lack of awareness of the needs of workers with disabilities (e.g., Till et al., 2015; Public Service Commission of Canada, 2011).

- Geographic location and the vagaries of regional and local economic conditions (e.g., Morgan & Alexander, 2005; Rumrill & Fitzgerald, 2010)

- The types of industries and occupations in which jobs are held (e.g., Bjelland, Bruyère, von Schrader, Houtenville, Ruiz-Quintanilla, & Webber, 2010; Davidson, 2011; Hand & Tryssenaar, 2006; Jasper & Waldhart, 2013; Morgan & Alexander, 2005; Nietupski, Hamre-Nietupski, Vanderhart, & Fishback, 1996; Rumrill & Fitzgerald, 2010; Shier et al., 2009)

- The organizational culture of employers and workplaces (Kirsh & Gewurtz, 2011; Schur, Kruse, Blasi, & Blanck, 2009)

- The size of employers, with larger firms tending to have fewer concerns about employing people with disabilities than small and mid-sized firms (e.g., Domzal, Houtenville, & Sharma, 2008; Houtenville & Kalargyrou, 2012; Jasper and Waldhart, 2012; Levy, Jessop, Rimmerman, & Levy, 1992; Morgan & Alexander, 2005; Nietupski, Hamre-Nietupski, Vanderhart, & Fishback, 1996; Unger, 2002). Research by Chi and Qu (2004) in the foodservice industry, however, contradicts this claim.

Equal opportunity and treatment in employment, then, is a complex area with many layered and interacting (intersectional) elements. The present research developed several measures for this Substantive Element, as follows.

1) Non-discrimination based on disability as a prohibited ground

The research developed three variables that captured the presence (coded 0) and absence (coded 1) of discrimination based on disability in three distinct areas of work activity a) the job interview b) hiring, and c) the job promotion processes.

In all cases for these variables, the respondents indicated that disability (i.e., their "condition") was the perceived ground of discrimination that had occurred at any time in the five years before the CSD was conducted. A person who had been with their employer for more than five years or less than five years could have experienced what they perceived as discrimination in an interview, hiring, or job promotion process with the then-present employer.[16]

The values across these three variables were added together and divided by 3. The highest possible score on the summary variable was therefore 1, which signifies no discrimination in any of the three areas measured. A score of 0 signifies discrimination in all three areas. Scores between 0 and 1 signify the absence of discrimination in one or two of these areas. The lowest possible score (-.00001) signifies missing data on all three source variables. Scores between the lowest value and 0 signified discrimination in one or two areas and missing data in the other area(s).

Consideration was given to developing further measures of discrimination that take racialization and Indigeneity into account. However, as the composite measure described above already captured the greater likelihood of racialized and Indigenous people with disabilities experiencing discrimination, that single derived measure was considered sufficient.

2) Employer-awareness of employees' needs for job accommodations

Consistent with anti-discrimination in employment is the employer's awareness of an employee's needs for job accommodations. Such employer awareness (classified as 1) indicates a workplace culture and procedures that support the disclosure of such needs, which in turn suggest at least the possibility that the needs will be addressed, which in turn can be important antidotes to systemic discrimination based on employer ignorance. Cases with missing data on this variable (classified as -.00001) were mainly people who were not working for an employer, or did not need any job accommodations or, if they needed one, their CSD interview was answered by a proxy respondent who was not asked about this issue. Cases classified as 0 were for workplaces where the employer was not aware of the worker's need for one or more job accommodations. That is, the person did not tell their employer about the need or ask for it to be addressed. Reasons for self-censoring and not telling the employer include that the employee felt uncomfortable asking, did not want to cause difficulty, did not think the

[16] In some cases, people worked at two or more jobs concurrently, or at more than one job in the previous five years. They may have experienced discrimination from any of these employers. As it was not possible with the CSD data to determine the "offending" employer in such cases, the assumption was made that it was the then-employer of the CSD respondent who was responsible for the perceived discrimination.

employer could afford to meet the need, simply did not want to disclose the need, was concerned about co-worker reactions, or feared negative outcomes, or felt that the condition was not severe enough, or that the employer lacked awareness about accommodation issues, or for some other unspecified reason.

3) Employer non-refusal of job accommodations

Various subsections of this discussion on methodology address employers and workplaces that have provided job accommodations to young adults with disabilities. However, in some cases people do not receive the accommodations they require. Sometimes this is because an accommodation is not available locally or because the worker is on a waiting list for it (e.g., for a piece of technology or a service). In some cases, however, an employer refuses to make an accommodation available. The employer may believe the accommodation would be too expensive, could cause problems among other co-workers, could affect general productivity, and so on. If the worker has expressed the need for an accommodation and has not received it, but this was not because the employer refused to provide it (EMO_20b=2), the employer and workplace were assigned a value of 1. If the employer refused to make one or more accommodations available and there was no indication that the person was on a waiting list or that the accommodation was simply not available locally, the employer was assigned a value of 0 (EMO_20B = 1 and EMO_20C = 2 and EMO_20D = 2). It is understood that employers frequently give the perceived high cost as a reason for refusing an accommodation. The present research included such employers and workplaces among those classified as 0. All other cases were classified as -.00001 (missing data). Most of these cases are individuals who did not need any job accommodations, or were self-employed, or were individuals for whom proxy respondents answered the CSD. Self-employed individuals and proxy respondents were not asked why accommodations were not available.

4) Gender equity in the distribution of jobs across occupations and industries

The ILO's concerns in the area of equal opportunity and treatment revolve around occupational segregation by gender and various other occupational distributions that suggest a lack of gender equity in employment (ILO, 2012). Accordingly, a variable was derived to flag where the gender of young adults with disabilities is substantially underrepresented or overrepresented in a mix of occupations and industries. The reasoning behind the derivation was that it would be a positive thing in favour of gender equity for a person's job to be in an occupation and industry intersection where their gender is substantially underrepresented (classified as 1). Similarly, it would do little to advance gender equity in employment if the person's job is in an occupation and industry mix where their gender is substantially overrepresented (i.e., the job is a "gender preserve" or "gender ghetto" – classified as 0). Where a person is working in a job (an industry-occupation mix) in which the gender breakdown is fairly typical, that job was assigned a value of 0.5.

In flagging for substantial over- and under-representation, several steps were taken. First, a matrix was constructed of the occupations-by-industries of young adults 18 to 34 years old without disabilities. The CSD variable containing information about jobs according to ten broad occupational groupings was used (NOC16BRD), as was the variable with information about jobs according to twenty broad groupings of industries (NAIC12S). Using weighted data, the gender distributions (in percentages) for working people without disabilities 18 to 34 years old were then obtained at the intersections of these two variables. For example, the research found the percentage of young men and women without disabilities who worked as a) trades, transport and equipment operators, and related occupations, in b) the wholesale trade industry. This method was replicated across all the occupations and industries in the two variables that were used, which yielded four hundred usable cells of information about young adults' jobs. The four hundred cells consisted of two hundred occupation-by-industry intersections, each further subdivided into two for respective percentages of young men and women without disabilities who held those jobs.

A value of 1 was then assigned to cells where a young woman without disabilities held a job in an occupation-industry intersection where the percentage of all jobs held by young women without disabilities was 0.8 times or less than the percentage of all jobs held by non-disabled women. For instance, the general share of all jobs held by young women without disabilities regardless of occupation or industry is 47%; young men hold the other 53% of all jobs for this age group among young adults without disabilities. If a young woman held a job in an occupation-industry intersection where young women make up less than 0.8 X 47% of all jobs held in that intersection by young adults without disabilities, the assigned 1 signified the young woman's very low probability of holding a job in that mix of occupations and industries. This would happen, for example, where a young woman without disabilities held a job in an occupation-industry mix where young women without disabilities held 37.6% or fewer of all the jobs held by young adults without disabilities in that intersection (i.e., 0.8 X 47% = 37.6% of the jobs or less). Other percentages were accorded a value of 0.5 to signify the average between 0 and 1.

Similarly, where a young woman without disabilities held a job where young women without disabilities held at least 1.2 X 47% (56.4%) of the jobs among young adults without disabilities, a value of 0 was assigned. The 0 indicates that the job was in an occupation-industry intersection that was a kind of female dominated preserve—or job ghetto.

Jobs that fell within what this research defines as a fairly "typical" job distribution range were jobs in occupation-industry intersections where the percentage of all jobs held by all young women without disabilities represented greater than 0.8 and less than 1.2 of the overall percentage of jobs held by women without disabilities. Such jobs were assigned a value of 0.5, connoting the average between 0 and 1.

The same procedures as described above were then applied to young men without disabilities. In total, 400 values were assigned on this gender equity flag.

The resulting algorithm was then applied to young men and women with disabilities. The assumption, here, was that a job held by a young woman with disabilities in an occupation-industry mix that is seldom occupied by their non-disabled female counterparts is a job that helps address the substantial under-representation of young women in that occupation and industry. Similarly, a job held by a young woman with disabilities in an occupation-industry intersection where young women without disabilities are substantially overrepresented does little to advance gender equity in employment. The job of a young woman with disabilities in occupation-industry intersection that has about the share of young women without disabilities as would be typical in such jobs, lies somewhere between the substantial under- and over-representation poles of the gender equity measure. The same holds true for young men with disabilities in comparison to their counterparts without disabilities.

However, before any of these procedures were followed, the method required an unweighted count of at least 35 cases in a given occupation-industry-gender intersection for young adults without disabilities. For instance, where the unweighted number of young women without disabilities in a given occupation-industry intersection was less than 35, a value of 0.5 was assigned. This procedure was adopted for all occupation-industry-gender intersections because counts below 35 in a sample survey would have been unreliable indicators of the extent to which young women or men without disabilities were represented in a given occupation-industry mix. In such cases, the average

The basic standard for using the ≤0.8 and ≥1.2 thresholds for substantial under- and over-representation of young men and women without disabilities in various occupation-industry mixes does not deal with the basic issue of more young men than young women holding jobs overall. However, the reasons for this basic imbalance cannot be attributed solely to employers or the labour market but also reflects gender differences in childbearing, child rearing, and other issues which were beyond scope for the present study to address.

5) Gender-based pay equity

The discussion in the section on the adequacy of pay (Substantive Element 3.2) showed how one of the derived variables for the decent work scale used high-level measures of the earnings of young men and women without disabilities as benchmarks for assessing the adequacy of the earnings of young men and women with disabilities. Data in that measure were controlled for gender and for the number of weeks worked full-time or part-time in the reference year. As the ILO (2012) has specified that decent work should provide at least two thirds of the median earnings, results were used to determine whether people with disabilities received at least two thirds of the median earnings as their counterparts without disabilities, controlled for gender and for approximately the same number of hours of work in the reference year.

However, while these measures took differences in earnings into account between men with and without disabilities, and women with and without disabilities, the measures did not take more fundamental gender inequities in pay into account. To address that issue given that men

generally earn more than women irrespective of disability, two further variables were derived to flag young adults with disabilities according to whether their pay was equitable according to a non-disabled male standard. One variable was based on the CSD respondent's occupation. The other was based on the industry in which they worked.

i) Gender-based pay equity by occupation

The derivation on pay equity by occupation captured 20 baseline median earnings groupings (using the NOC16BRD variable) for young men 18 to 34 years old without disabilities who reported earnings in the CSD data file. Each median represented the wages and salaries of non-disabled men (using the WAGES variable) in each of ten broad occupational groupings, by whether the young men worked mainly full-time or mainly part-time in the reference year (i.e., two further subdivisions within each of the ten occupational groupings). The ILO defines decent pay as at least two thirds of the overall median earnings. Accordingly, each of the twenty occupational groups' full-time and part-time median wages for non-disabled men were multiplied by two thirds. Wages or salaries equal to or above those amounts for people who worked the same amounts of time in the same occupations were understood to be decent pay and were classified as 1. Earnings below those levels were classified as 0. Cases for which data were missing were assigned a value of -.00001. The algorithm was then applied to young men and young women without disabilities who reported employment earnings, by occupation and full-time or part-time hours of work.

ii) Gender-based pay equity by industry

Essentially the same procedure as above was followed for the industries in which people worked (using the NAIC12S variable). For this derivation, median mainly-full-time and mainly part-time earnings for young men without disabilities were calculated as benchmarks across 20 industrial groupings (40 benchmark earnings in total). Where young adult CSD respondents with disabilities worked mainly full-time or part-time hours in a given industry and earned, respectively, at least two thirds of the benchmark earnings of non-disabled men in the same industries, the cases were coded as 1. Where young adults with disabilities earned less, cases were coded as 0; cases without reported earnings were coded as –.00001.

iii) Derivation to combine the measures of pay equity by occupation and industry

A summary variable was then constructed to gauge the extent of gender-based pay equity among young adults with disabilities by occupation *and* industry. The variable was derived by adding the values across the pay equity flags for occupations and industries described above and then dividing by two. This procedure yielded a variable whose maximum value was 1, which represents earnings that reflected pay equity according to a non-disabled male standard for a job's occupation *and* industry. A value of 0 represents the complete lack of pay equity in either the occupation or industry of a person's job. A value between 0 and 1 represents pay equity for the occupation or industry of a person's job, but not both. Cases where data were missing on the occupation and industry pay equity flag were assigned a value of -.00001.

Substantive Element 9. Safe (and inclusive) work environment (two components)

The ILO's (2012) concerns and indicators for a safe work environment as a Substantive Element of decent work revolve around rates of fatal and non-fatal occupational injuries, time lost due to occupational injuries, and the number of occupational health and safety inspectors per 10,000 employed people. Fatalities due to occupational injuries and the numbers of inspectors were not captured by the CSD. Nor does the CSD have data on the number of work hours lost because of disability. Other data were mined, however, to operationalize safe and accessible work environments for the present research.

1) Worksite/job not a cause of disability

Reduced hours of work as a result of disabling injury are not presented directly in the CSD data. However, Census data and administrative data from workers' compensation boards on time-loss injuries indicate that the most hazardous *industries* in Canada are in health and social services, manufacturing, transportation and warehousing, and construction. The most hazardous *occupations* are in manufacturing and utilities, trades, transport, equipment operation and related jobs, and occupations in health (Association of Workers' Compensation Boards of Canada, 2022).

The present research derived a variable that captured whether the person's main or secondary disability was caused by a factor related to the person's job or workplace, *and* whether the onset of such disability occurred within the same timeframe of the CSD respondent's job with their present employer when the CSD was conducted. Where the disabled worker's disability was not caused by their present job or work environment, the case was coded as 1. Where the disabled worker's present job or workplace *was* the cause of disability, the case was coded as 0. Cases with missing data were coded as –.00001. These were mainly people who did not know or did not report the cause of their disability, did not provide information about when they first experienced disability, or did not provide information about when they began working with their then-present employer when the CSD was conducted.

2) Physically accessible features and environments for work

In addition to the hazardousness of work and workplaces, researchers (e.g., Kennedy et al., 2010; Westgaard & Winkel, 1997) and practitioners (e.g., Micheelsen & Williams, 2011) have drawn links between the accessibility of workplaces and the health and safety of workers and customers.

i) Ergonomic features for work

For the present research it was reasoned that ergonomic workstations, chairs and backrests are not only needed for productivity purposes, but as matters of occupational health and safety which can help to prevent, slow, manage, or ameliorate impairment effects for some individuals. A variable was derived that captured the extent to which all CSD respondents' needs for such features had been met (coded as 1), where some of the needed features had

been met (coded as 0.5) and where none of the needed features were available (coded as 0). Cases where respondents did not need such supports, or did not report whether the supports they needed were available, were coded as –.00001 (i.e., missing). CSD variables EMO_05H and EMO_05I were used to derive need for such features, and EMO_10H and EMO_10I were used to derive the extent to which those needs had been met. The derivation procedure was essentially the same as for the derivation of the summary variable on assistive and other technologies (Substantive Element 3.4), except the denominator for dividing the sum of the variables was 2 instead of 3.

ii) Accessible built environments for work

It is not only more possible to get into and successfully navigate an accessible work environment than an inaccessible one, especially for workers with mobility and vision impairments, but an accessible work environment is also less likely to cause strains and other injuries arising from navigational barriers and can be exited more quickly in the event of an emergency. In this sense, a built work environment that is accessible is safer than an inaccessible one, irrespective of workers' disabilities (see Shaw, Kristman & Vézina, 2013).

In deriving a variable for accessible built environments for work, the research categorized cases as 1 where workplaces made available all the built-environmental accessibility features that CSD respondents required, 0 where none of the needed features were available, and various scores between 0 and 1 where some but not all the needed features were available. Cases with missing data (coded as –.00001) represented people either who did not need any such features or who declined to indicate whether the features they needed were available. The variables used for the need for job-related built environmental features were EMO_05J (for handrails, ramps, and wide doorways and hallways), EMO_05K (for adapted/accessible parking), EMO_05L (for accessible elevators), and EMO_05M (for adapted washrooms). Corresponding variables EMO_10J through EMO10M were used to capture the availability of these features. The method for deriving this variable was essentially the same as for deriving the summary variable on the extent of needs met for assistive and similar technologies (Substantive Element 3.4), but the denominator for dividing the sum of the values across the variables was 4 instead of 3.

Substantive Element 10. Social security (i.e., employer support for it and for people who have received it—one component that draws from ten sources of income support)

In the context of decent work, the ILO's concern about social security is that it should be available for people who are unemployed (ILO, 2012). In recent years, jobless working-age people with disabilities have increasingly had to rely on general social assistance for income for necessities of life rather than income support from programs for people with disabilities (Stapleton, Tweddle, & Gibson, 2014). Furrie, Lero, D'Aubin and Ewles (2016) have traced how many "potential workers" with disabilities, who may look or who intend to look for work in the next 12 months, have been disincentivized from doing so out of concern about losing some or

all of the income, housing or drug benefits they receive while attached to the income security system. Governments in British Columbia (Cohen, Goldberg, Istvánffy, Stainton, Wasik, & Woods, 2008) and New Brunswick (2012) have recognized and have begun to address the disincentive effects of their income security programs. Ontario had also recognized the problem and began to deal with it (Lankin, & Sheikh, 2015; Monsebraaten, 2018), but the provincial government cancelled the province's major Basic Income pilot projects in Thunder Bay, Hamilton, Brantford and Lindsay (Werner, 2018).

The difficulty is not confined to provincial/territorial social assistance programs, however. Crawford (2016) found that, in addition to provincial social assistance, there was little movement into decent work for recipients of the Canada Pension Plan disability and regular benefits in 2011–2012, from the Quebec Pension Plan regular benefits, or from private long-term disability insurance. That earlier research found no statistically significant evidence of movement or lack of movement among people with disabilities into decent work from Employment Insurance, auto insurance benefits or Veterans Affairs pensions.

These patterns indicate something about the functioning of social security programs as well as about the preparedness of employers to hire people who have been recently attached to such programs. For the present research, an employer that hired someone with a disability and a recent attachment to the social security system was considered supportive of a person who would otherwise have been at risk of disadvantage or stigma in employment because of his or her disability and attachment to the income system. Such employers/workplaces were classified as 1. These were employers/workplaces that provided employment to CSD respondents who received income from the public or private "system" to ameliorate the lack of employment, or address reduced working hours/days because of disability, or for reasons aside from retirement (i.e., not a retirement pension). Source variables for these programs include the following:

- Workers' Compensation (SNC_05AC, GOVWKCP)
- Employment Insurance Benefits (SNC_05AD, SNC_05CB, EICBN)
- Disability Benefits (any, but not source not specified—SNC_05A)
- Provincial/territorial disability programs (SNC_05CC)
- Canada Pension Plan or Quebec Pension Plan Disability benefit (SNC_05CA, CQPPBDIS)
- Social assistance or welfare (SNC_05AG, GOVSOCAS)
- Private/employment disability insurance (SNC_05CD)
- Motor vehicle accident insurance (SNC_05CE)
- Veterans Affairs Disability Pension (SNC_05CF).

Cases where individuals were employed but without a recent history of attachment to the any of the above programs were classified as 0. All other cases were classified as -00001. The latter were mainly cases where individuals were not working for employers or did not report whether

they received any of the forms of income captured in this variable.

Substantive Element 11. Social dialogue, workers' and employers' representation (2 components)

The ILO's interests with respect to social dialogue and workers' and employers' representation include the scope of a workforce's coverage by unions and collective bargaining, freedom of workers' associations, and collective bargaining rights (ILO, 2012).

Based on the 2006 forerunner to the CSD, Hall and Wilton (2011) observed that people with disabilities are slightly more likely than people without disabilities are to be members of unions or otherwise covered by collective agreements. Those researchers speculated that unionized work might reduce the precariousness of workers with disabilities in the labour market and help them obtain positions or promotions that might not otherwise be available to them.

Finer inspection of the raw data for the 2006 survey reveals some interesting details. Among working-age people with disabilities who did not feel limited at work because of disability when that survey was conducted, a third (33.4%) were unionized workers or covered by a collective agreement. Among those who felt limited and were with their present employer when they first experienced work limitations, unions protected 54.1%. In effect, these people were retained in their jobs after the onset of work-limiting disability. However, among people who approached prospective employers for work after the onset of work-limiting disability,[17] only 22.2% found work that was protected by a union or collective agreement. In other words, unionized workplaces seem to do more to promote job retention after the onset of work-limiting disability than to promote the new hiring of people with work-limiting disabilities. Crawford (2016) found much the same results based on analysis of the CSD of 2012. Galer (2018) has also reported that organized labour in Canada has been cool to the idea of widening access to employment for people whose disabilities are not somehow caused by work-related factors and who lack union seniority. However, that situation has been the focus of attention within organized labour and may be changing. For instance, Shuey and Jovic (2013) found that unionized part-time workers with disabilities are more likely than non-protected workers in non-standardized jobs to receive the job accommodations they require.

The CSD has two variables that touch on protections afforded by unions or collective agreements. One of these variables (UNIOND) captures the amount of money a worker recently paid for union and other professional dues associated with employment, such as union dues, fees associated with collective agreements, professional membership dues, and liability or malpractice insurance premiums. The other variable (WKPL_05) is based on a question that asked individuals working for employers, "In this job, are you a union member or covered by a

[17] These people were working elsewhere than with their then-current employer when the CSD was conducted, or were not working at all, when they first experienced work-limiting disability.

union contract or collective agreement?" The present research classified as 1 "yes" responses on the latter variable or valid counts greater than one on the first as indicators of whether the employer allowed for organized labour or collective agreement coverage for its workers. Cases where workers did not pay dues or where employers/workplaces were without union memberships of collective agreement coverage were classified as 0. All other cases were classified as -.00001. These were mainly cases where individuals did not work for an employer (i.e., they were self-employed, working without pay in a family business, or were not working at all), or were not asked or did not provide answers for either of the source variables.

Appendix Tables

For Section 2

Appendix Table 2.a. Young adults without and with disability, by disability and selected other characteristics, counts (Source: CSD 2017 – Census 2016 component)			
	Without disability	**With disability**	**Total**
Age groups			
18 - 24 yrs	2,596,970	383,790	2,980,760
25 - 29 yrs	1,932,580	284,150	2,216,730
30 - 34 yrs	1,940,270	341,520	2,281,790
Gender			
Male	3,350,950	399,890	3,750,840
Female	3,118,860	609,560	3,728,420
Province/territory			
British Columbia	824,530	145,670	970,200
Prairies (AB, SK, MB)	1,259,060	209,750	1,468,810
Ontario	2,523,680	400,680	2,924,360
Quebec	1,485,870	167,730	1,653,600
Atlantic (NB, NS, PE, NL)	351,850	81,570	433,420
Northern territories (YU, NT, NU)	24,820	4,060	28,880
Diversity			
Indigenous	261,080	79,860	340,940
Racialized	1,872,150	154,400	2,026,550
BIPOC	2,133,150	234,160	2,367,310
Highest level of school attended, and employment status			
Did not attend	4,143,620	671,560	4,815,180
Elem or high school	266,440	62,410	328,850
College/CEGEP/trade school	885,880	133,710	1,019,590
University	1,173,870	141,770	1,315,640
Jobless and not in school	707,030	209,880	916,910
Any school attendance			
Did not attend school	4,143,620	671,560	4,815,180
Attended school	2,326,190	337,900	2,664,090
Highest level of educational certification			
No educational certification	565,320	179,750	745,070
High school diploma	2,162,740	377,380	2,540,120
Trades certificate	536,800	62,340	599,140
College cert or univ cert less than bachelor's degree	1,423,290	196,160	1,619,450
University degree	1,781,670	193,830	1,975,500
Canada	**6,469,810**	**1,009,460**	**7,479,270**

Appendix Table 2.b. Young adults without and with disability, by disability and selected other characteristics, column percentages (Source: CSD 2017 – Census 2016 component)			
	Without disability	**With disability**	**Total**
Age groups			
18 - 24 yrs	40.1%	38.0%	39.9%
25 - 29 yrs	29.9%	28.1%	29.6%
30 - 34 yrs	30.0%	33.8%	30.5%
Gender			
Male	51.8%	39.6%	50.1%
Female	48.2%	60.4%	49.9%
Province/territory			
British Columbia	12.7%	14.4%	13.0%
Prairies (AB, SK, MB)	19.5%	20.8%	19.6%
Ontario	39.0%	39.7%	39.1%
Quebec	23.0%	16.6%	22.1%
Atlantic (NB, NS, PE, NL)	5.4%	8.1%	5.8%
Northern territories (YU, NT, NU)	0.4%	0.4%	0.4%
Diversity			
Indigenous	4.0%	7.9%	4.6%
Racialized	28.9%	15.3%	27.1%
BIPOC	33.0%	23.2%	31.7%
Highest level of school attended, and employment status			
Did not attend	64.0%	66.5%	64.4%
Elem or high school	4.1%	6.2%	4.4%
College/CEGEP/trade school	13.7%	13.2%	13.6%
University	18.1%	14.0%	17.6%
Jobless and not in school	10.9%	20.8%	12.3%
Any school attendance			
Did not attend school	64.0%	66.5%	64.4%
Attended school	36.0%	33.5%	35.6%
Highest level of educational certification			
No educational certification	8.7%	17.8%	10.0%
High school diploma	33.4%	37.4%	34.0%
Trades certificate	8.3%	6.2%	8.0%
College cert or univ cert less than bachelor's degree	22.0%	19.4%	21.7%
University degree	27.5%	19.2%	26.4%
Canada	**100.0%**	**100.0%**	**100.0%**

For Section 3

Appendix Table 3.1. Any school attendance in the reference period by young adults (18 to 34 years old), by gender and disability (Source: CSD 2017 – Census 2016 component)						
	Male			Female		
	Without disability	With disability	Total	Without disability	With disability	Total
Did not attend	65.6%	68.2%	65.9%	62.3%	65.5%	62.8%
Attended any form of schooling	34.4%	31.8%	34.1%	37.7%	34.5%	37.2%
Total %	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Total N	3,350,950	399,890	3,750,840	3,118,860	609,560	3,728,420

Appendix Table 3.2. Highest level of school attended in the reference period by young adults (18 to 34 years old), by gender and disability, attendees only (Source: CSD 2017 – Census 2016 component)						
	Male			Female		
	Without disability	With disability	Total	Without disability	With disability	Total
Elementary or high school	12.9%	23.1%	13.9%	10.1%	15.6%	10.9%
College/CEGEP/trade school	39.9%	39.4%	39.9%	36.3%	39.7%	36.8%
University	47.2%	37.5%	46.2%	53.6%	44.7%	52.3%
Total %	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Total N	1,151,480	127,350	1,278,830	1,174,710	210,560	1,385,270

Appendix Table 3.3. Any school attendance in the reference period by young adults (18 to 34 years old), by Indigenous identity and disability (Source: CSD 2017 – Census 2016 component)						
	Indigenous			Non-Indigenous		
	Without disability	With disability	Total	Without disability	With disability	Total
Did not attend	72.2%	65.2%	70.5%	63.7%	66.6%	64.1%
Attended any form of schooling	27.8%	34.8%	29.5%	36.3%	33.4%	35.9%
Total %	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Total N	261,080	79,860	340,940	6,208,730	929,590	7,138,320

Appendix Table 3.4. Highest level of school attended in the reference year by young adults (18 to 34 years old), by Indigenous identity and disability, attendees only (Source: CSD 2017 – Census 2016 component)						
	Indigenous			Non-Indigenous		
	Without disability	With disability	Total	Without disability	With disability	Total
Elementary or high school	19.8%	30.9%	22.9%	11.2%	17.4%	11.9%
College/CEGEP/trade school	46.7%	39.4%	44.7%	37.8%	39.6%	38.0%
University	33.5%	29.7%	32.4%	51.0%	43.1%	50.0%
Total %	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Total N	72,650	27,790	100,440	2,253,550	310,120	2,563,670

Appendix Table 3.5. Any school attendance in the reference period by young adults (18 to 34 years old), by racialized identity and disability (Source: CSD 2017 – Census 2016 component)

	Racialized			Non-Racialized		
	Without disability	With disability	Total	Without disability	With disability	Total
Did not attend	56.3%	56.0%	56.2%	67.2%	68.4%	67.4%
Attended any form of schooling	43.7%	44.0%	43.8%	32.8%	31.6%	32.6%
Total %	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Total N	1,872,150	154,400	2,026,550	4,597,660	855,060	5,452,720

Appendix Table 3.6. Highest level of school attended in the reference period by young adults (18 to 34 years old), by racialized identity and disability, attendees only (Source: CSD 2017 – Census 2016 component)

	Racialized			Non-Racialized		
	Without disability	With disability	Total	Without disability	With disability	Total
Elementary or high school	12.0%	18.2%	12.5%	11.2%	18.5%	12.3%
College/CEGEP/trade school	33.6%	36.6%	33.9%	40.5%	40.3%	40.5%
University	54.4%	45.2%	53.7%	48.3%	41.1%	47.2%
Total %	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Total N	818,750	67,860	886,610	1,507,430	270,030	1,777,460

Appendix Table 3.7. Any school attendance in the reference period by young adults (18 to 34 years old), by BIPOC identity and disability (Source: CSD 2017 – Census 2016 component)

	BIPOC			Non-BIPOC		
	Without disability	With disability	Total	Without disability	With disability	Total
Did not attend	58.2%	59.2%	58.3%	66.9%	68.7%	67.2%
Attended any form of schooling	41.8%	40.8%	41.7%	33.1%	31.3%	32.8%
Total %	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Total N	2,133,150	234,160	2,367,310	4,336,670	775,300	5,111,970

Appendix Table 3.8. Highest level of school attended in the reference period by young adults (18 to 34 years old), by BIPOC identity and disability, attendees only (Source: CSD 2017 – Census 2016 component)

	BIPOC			Non-BIPOC		
	Without disability	With disability	Total	Without disability	With disability	Total
Elementary or high school	12.6%	21.8%	13.5%	10.7%	17.1%	11.6%
College/CEGEP/trade school	34.7%	37.4%	35.0%	40.2%	40.4%	40.2%
University	52.7%	40.7%	51.5%	49.1%	42.4%	48.1%
Total %	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Total N	891,400	95,550	986,950	1,434,800	242,350	1,677,150

Appendix Table 3.9. Any school attendance in the reference period by young adults (18 to 34 years old), by geographic region and disability (Source: CSD 2017 – Census 2016 component)

	Without disability						With disability					
	British Columbia	Prairies	Ontario	Quebec	Atlantic	Canada	British Columbia	Prairies	Ontario	Quebec	Atlantic	Canada
Did not attend	63.5%	69.6%	63.1%	60.2%	67.8%	64.0%	67.7%	70.3%	66.0%	59.8%	70.6%	66.5%
Attended any form of schooling	36.5%	30.4%	36.9%	39.8%	32.2%	36.0%	32.3%	29.7%	34.0%	40.2%	29.4%	33.5%
Total %	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Total N	824,530	1,259,060	2,523,680	1,485,870	351,860	6,469,810	145,660	209,750	400,680	167,730	81,580	1,009,450

Appendix Table 3.10. Highest level of school attended in the reference period by young adults (18 to 34 years old), by geographic region and disability, attendees only (Source: CSD 2017 – Census 2016 component)

	Without disability						With disability					
	British Columbia	Prairies	Ontario	Quebec	Atlantic	Canada	British Columbia	Prairies	Ontario	Quebec	Atlantic	Canada
Elementary or high school	11.5%	13.7%	12.5%	8.1%	12.0%	11.5%	15.9%	18.5%	18.6%	19.9%	17.7%	18.5%
College/CEGEP/trade school	34.8%	35.8%	34.8%	47.8%	30.8%	38.1%	36.3%	40.4%	37.3%	47.4%	34.4%	39.6%
University	53.7%	50.4%	52.8%	44.2%	57.2%	50.5%	47.8%	41.0%	44.0%	32.7%	47.8%	42.0%
Total %	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Total N	300,600	382,270	932,060	591,940	113,320	2,326,190	47,090	62,400	136,160	67,450	23,980	337,890

Appendix Table 3.11. Highest level of schooling young adults (18 to 34) attended in the reference period, by disability and other characteristics, counts (Source: CSD 2017 – Census 2016 component)

	Without disability					With disability				
	Did not attend	Elementary or high school	College/ CEGEP, trade, or technical school	University	Total	Did not attend	Elementary or high school	College/ CEGEP, trade, or technical school	University	Total
Male	2,199,470	148,160	459,600	543,720	3,350,950	272,550	29,470	50,170	47,710	399,890
Female	1,944,150	118,280	426,280	630,150	3,118,860	399,010	32,950	83,540	94,070	609,560
Indigenous	188,440	14,420	33,920	24,310	261,080	52,080	8,600	10,940	8,250	79,860
Racialized	1,053,400	98,300	275,300	445,150	1,872,150	86,530	12,350	24,840	30,670	154,400
BIPOC	1,241,750	112,720	309,220	469,460	2,133,150	138,610	20,850	35,780	38,920	234,160
Province										
British Columbia	523,930	34,660	104,480	161,460	824,530	98,570	7,510	17,080	22,500	145,670
Prairies (AB, SK, MB)	876,790	52,550	136,930	192,790	1,259,060	147,350	11,570	25,230	25,600	209,750
Ontario	1,591,620	116,150	323,950	491,960	2,523,680	264,520	25,390	50,810	59,960	400,680
Quebec	893,930	47,840	282,730	261,370	1,485,870	100,280	13,410	31,980	22,060	167,730
Atlantic (NB, NS, PE, NL)	238,540	13,630	34,870	64,820	351,850	57,600	4,250	8,260	11,470	81,570
Northern territories (YU, NT, NU)	18,810	1,620	2,930	1,470	24,820	3,240	←— 640†—→		190	4,060
Canada	**4,143,620**	**266,440**	**885,880**	**1,173,870**	**6,469,810**	**671,560**	**62,410**	**133,710**	**141,770**	**1,009,460**

† Low-count cells for the northern territories required combining the number of attendees at elementary or high school with the number at technical, trade school, or college/CEGEP.

Appendix Table 3.12.* Highest level of schooling young adults (18 to 34) attended in 2016, by disability and other characteristics, showing row percentages based on Appendix Table 3.11.b (Source: CSD 2017 – Census 2016 component)

	Without disability					With disability				
	Did not attend	Elementary or high school	College/ CEGEP, trade, or technical school	University	Total	Did not attend	Elementary or high school	College/ CEGEP, trade, or technical school	University	Total
Male	65.6%	4.4%	13.7%	16.2%	100.0%	68.2%	7.4%	12.5%	11.9%	100.0%
Female	62.3%	3.8%	13.7%	20.2%	100.0%	65.5%	5.4%	13.7%	15.4%	100.0%
Indigenous	72.2%	5.5%	13.0%	9.3%	100.0%	65.2%	10.8%	13.7%	10.3%	100.0%
Racialized	56.3%	5.3%	14.7%	23.8%	100.0%	56.0%	8.0%	16.1%	19.9%	100.0%
BIPOC	58.2%	5.3%	14.5%	22.0%	100.0%	59.2%	8.9%	15.3%	16.6%	100.0%
Province										
British Columbia	63.5%	4.2%	12.7%	19.6%	100.0%	67.7%	5.2%	11.7%	15.4%	100.0%
Prairies (AB, SK, MB)	69.6%	4.2%	10.9%	15.3%	100.0%	70.3%	5.5%	12.0%	12.2%	100.0%
Ontario	63.1%	4.6%	12.8%	19.5%	100.0%	66.0%	6.3%	12.7%	15.0%	100.0%
Quebec	60.2%	3.2%	19.0%	17.6%	100.0%	59.8%	8.0%	19.1%	13.2%	100.0%
Atlantic (NB, NS, PE, NL)	67.8%	3.9%	9.9%	18.4%	100.0%	70.6%	5.2%	10.1%	14.1%	100.0%
Northern territories (YU, NT, NU)	75.8%	6.5%	11.8%	5.9%	100.0%	79.8%	|–-–— 15.8%†——|		4.7%	100.0%
Canada	**64.0%**	**4.1%**	**13.7%**	**18.1%**	**100.0%**	**66.5%**	**6.2%**	**13.2%**	**14.0%**	**100.0%**

* Appendix Table 3.12 provides row percentages for the numbers shown in Appendix Table 3.11, which includes students who were and were not attending school when the Census of 2016 was conducted. The table is provided as a convenience and was not used in Section 3 of the report. Instead, the Census-based Figures and discussion in Section 3 draw from the column percentages in Appendix Tables 3.1 – 3.10.

† Low-count cells for the northern territories required combining the number of attendees at elementary or high school with the number at college/CEGEP, trade, or technical school.

Appendix Table 3.13 (below) provides a considerable amount of information about sociodemographic factors associated with the attendance of young adults with disabilities in college/CEGEP/trade school and university. To assist with analysis, attention is drawn to attendance rates that are considerably higher (marked with “H”) and lower (marked with “L”) than the overall (total) attendance rates for college/CEGEP/trade school and university, which are 12.7% and 14.4% respectively.

Figures shown in the second and third columns from the left are total numbers and percentages of young adults with disabilities, 18 to 34 years old, with various sociodemographic characteristics. Other counts shown in the table are for young adults who attended college or university at some point in 2016 or 2017, who were at least 18 years old when attending and younger than 35 when the CSD was conducted. Columns immediately to the right of those two columns of counts provide the percentages of young adults with a given characteristic who attended college or university. The other two columns of percentages show the “internal” distribution of college/CEGEP/trade school and university attendees with disabilities by their sociodemographic characteristics.

Non-italicized flags indicate substantially higher (“H”) attendance rates that are at least 1.2 times the overall rates. Substantially lower (“L”) attendance rates are 0.8 times or lower than the overall rates. Items flagged by italicized letters in slightly smaller font are rates that are not substantially different than the overall attendance rates but still markedly higher (1.15 times or more) or lower (0.85 times or less). In the discussion that follows the table, “marked” includes both “substantial” and “notable”.

Appendix Table 3.13 Numbers and percentages of young adults with disabilities 18–34 years old (N=1,009,460) who attended college (N=127,800) or university (N=145,320) at some point in 2016–2017, by sociodemographic characteristic (Source: CSD 2017, Census and education components)

Young adults, 18 to 34 years old, with disabilities	Total Number	Total %	The number of young adults with disabilities attending college/ CEGEP / trade school, 2016–2017	Characteristic percentage attending college / CEGEP / trade school		% Within those w/ disabilities attending college / CEGEP / trade school	Number of young adults with disabilities attending university, 2016–2017	Characteristic percentage attending university		% Within those w/ disabilities attending university
All	1,009,460	100.0%	127,800	12.7%		100.0%	145,320	14.4%		100.0%
Male	399,890	39.6%	42,470	10.6%	*L*	33.2%	52,480	13.1%		36.1%
Female	609,560	60.4%	85,330	14.0%		66.8%	92,830	15.2%		63.9%
BIPOC	234,160	23.2%	36,080	15.4%	H	28.2%	36,880	15.7%		25.4%
Not BIPOC	775,300	76.8%	91,730	11.8%		71.8%	108,430	14.0%		74.6%
Indigenous	79,860	7.9%	11,800	14.8%	H	9.2%	7,930	9.9%	L	5.5%
Not Indigenous	929,590	92.1%	116,000	12.5%		90.8%	137,380	14.8%		94.5%
Racialized	154,400	15.3%	24,280	15.7%	H	19.0%	28,950	18.8%	H	19.9%
Not racialized	855,060	84.7%	103,520	12.1%		81.0%	116,370	13.6%		80.1%
British Columbia	145,670	14.4%	17,810	12.2%		13.9%	24,160	16.6%	*H*	16.6%
Prairies (AB, SK, MB)	209,750	20.8%	24,450	11.7%		19.1%	28,270	13.5%		19.5%
Ontario	400,680	39.7%	50,440	12.6%		39.5%	58,520	14.6%		40.3%
Quebec	167,730	16.6%	26,830	16.0%	H	21.0%	22,800	13.6%		15.7%
Atlantic (NB, NS, PE, NL)	81,570	8.1%	7,840	9.6%	L	6.1%	11,280	13.8%		7.8%
Northern territories	4,060	0.4%	450	11.1%		0.4%	290	7.1%	L	0.2%
Rural	125,040	12.4%	15,570	12.5%		12.2%	11,180	8.9%	L	7.7%
Small and mid-sized pop. ctrs	247,630	24.5%	24,980	10.1%	L	19.5%	20,660	8.3%	L	14.2%
Large urban pop. ctrs	636,790	63.1%	87,250	13.7%		68.3%	113,480	17.8%	H	78.1%
Low income	232,480	23.0%	35,750	15.4%	H	28.0%	39,770	17.1%	*H*	27.4%
Not low income	776,980	77.0%	92,060	11.8%		72.0%	105,540	13.6%		72.6%
Cognitive disability	399,650	39.6%	56,180	14.1%		44.0%	48,010	12.0%	*L*	33.0%
Not cognitive disability	609,810	60.4%	71,630	11.7%		56.0%	97,310	16.0%		67.0%
Physical disability w/pain	497,820	49.3%	60,360	12.1%		47.2%	50,970	10.2%	L	35.1%

Appendix Table 3.13 Numbers and percentages of young adults with disabilities 18–34 years old (N=1,009,460) who attended college (N=127,800) or university (N=145,320) at some point in 2016–2017, by sociodemographic characteristic (Source: CSD 2017, Census and education components)

Young adults, 18 to 34 years old, with disabilities	Total Number	Total %	The number of young adults with disabilities attending college/ CEGEP / trade school, 2016–2017	Characteristic percentage attending college / CEGEP / trade school		% Within those w/ disabilities attending college / CEGEP / trade school	Number of young adults with disabilities attending university, 2016–2017	Characteristic percentage attending university		% Within those w/ disabilities attending university
All	1,009,460	100.0%	127,800	12.7%		100.0%	145,320	14.4%		100.0%
Disability but not w/pain	511,640	50.7%	67,440	13.2%		52.8%	94,350	18.4%	H	64.9%
Psychosocial disability	546,170	54.1%	72,150	13.2%		56.5%	87,980	16.1%		60.5%
Not psychosocial disability	463,290	45.9%	55,650	12.0%		43.5%	57,330	12.4%		39.5%
Sensorial disability	257,970	25.6%	30,940	12.0%		24.2%	34,740	13.5%		23.9%
Not sensorial disability	751,490	74.4%	96,870	12.9%		75.8%	110,570	14.7%		76.1%
Hearing disability	84,710	8.4%	8,940	10.6%	L	7.0%	11,210	13.2%		7.7%
Not hearing disability	924,750	91.6%	118,870	12.9%		93.0%	134,110	14.5%		92.3%
Vision disability	193,270	19.1%	24,710	12.8%		19.3%	26,860	13.9%		18.5%
Not vision disability	816,190	80.9%	103,090	12.6%		80.7%	118,460	14.5%		81.5%
Mild complexity	522,820	51.8%	72,810	13.9%		57.0%	85,820	16.4%		59.1%
Moderate complexity	203,660	20.2%	22,180	10.9%		17.4%	28,950	14.2%		19.9%
Severe complexity	174,290	17.3%	20,280	11.6%		15.9%	21,770	12.5%		15.0%
Very severe complexity	108,690	10.8%	12,540	11.5%		9.8%	8,780	8.1%	L	6.0%

Summary of Marked Differences

Rates of college/CEGEP/trade school attendance

Looking at college attendance, the young adults with disabilities and markedly higher-than-typical attendance rates (1.15 times or higher) than the 12.7% overall rate are:

- Individuals who are BIPOC (15.4%)
- Indigenous people (14.8%)
- Racialized people (16.1%)
- Residents of Quebec (16.0%) and
- People in low-income households (15.4%).

Young adults with disabilities and markedly lower-than-typical college attendance rates (0.85 times or lower than the 12.7% average) are:

- Males (10.6%) and
- Residents of Atlantic Canada (NB, NS, PE, NL) (9.6%) and
- Those who live in small and mid-sized population centres (10.1%), and
- Those with a hearing disability (10.6%).

Rates of university attendance

Shifting the focus to university attendance, young adults with disabilities and markedly higher-than-typical attendance rates (1.15 times or higher) than the 14.4% overall rate are:

- Racialized people (19.9%)
- Residents of British Columbia (16.6%)
- Those who live in large urban population centres (17.8%)
- Those in low-income households (17.1%) and
- Those with a disability that is not pain-related (18.4%).

Young adults with disabilities and lower-than-typical university attendance rates (0.85 times or lower) than the 14.4% overall rate are:

- Indigenous people (9.9%)
- Those who live in the northern territories (7.1%)
- Those who live in rural communities (8.9%) or in small and mid-sized population centres (8.3%)
- Those with a cognitive disability (12%) or physical disability that includes pain (10.2%) and
- Those whose disability is in the very severe range of complexity (8.1%).

Common patterns in college/CEGEP/trade school and university attendance

Young adults with disabilities who are markedly more likely than others on average to attend college or university are:

- Individuals who are BIPOC, specifically if they are racialized.
- Those who live in low-income households.

Young adults with disabilities who are markedly less likely than average to attend college or university are:

- Those who live in small and mid-sized population centres.

Contrary patterns in attendance

At least theoretically, people with some characteristics could attend college/CEGEP/trade school at a much higher-than-typical rate and attend university at much lower-than-typical rate, *or vice versa.* The present research did not find such individuals, however. Instead, it was much more common that, where a group has a much higher-than-typical rate of attendance at college, their rates of attendance at university are also high or within ±0.15 times the average university attendance rate. The same was also true for high university versus college attendance rates.

For Section 4

Appendix Table 4.1. Need for accessible built environmental features at place of learning (Source: Canadian Survey on Disability, 2017)				
		No %	**Yes %**	**Total N**
TOTAL		**92.6%**	**7.4%**	**456,340**
Diversity	Male	92.1%	7.9%	165,750
	Female	92.9%	7.1%	290,590
	BIPOC	90.8%	9.2%	122,380
	Not BIPOC	93.2%	6.8%	333,960
Types of disability	Cognitive	88.2%	11.8%	180,970
	Physical	88.2%	11.8%	203,640
	Psychosocial	94.0%	6.0%	260,250
	Sensorial	90.3%	9.7%	105,540
	Seeing	89.4%	10.6%	78,180
	Hearing *	89.9%	10.1%	35,030
Complexity of disability	Mild *	96.6%	3.4%	256,660
	Moderate	91.8%	8.2%	92,020
	Severe	89.3%	10.7%	70,540
	Very severe	73.2%	26.8%	37,120
Low-income status	Not low income	92.3%	7.7%	335,790
	Low income *	93.2%	6.8%	119,180

* Low counts. Use data with caution.

Appendix Table 4.2. Need for modified curriculum or procedures for disability (Source: Canadian Survey on Disability, 2017)				
		No	**Yes**	**Total**
TOTAL		**67.4%**	**32.6%**	**453,640**
Diversity	Male	63.7%	36.3%	165,240
	Female	69.5%	30.5%	288,400
	BIPOC	62.0%	38.0%	120,720
	Not BIPOC	69.3%	30.7%	332,930
Types of disability	Cognitive	41.6%	58.4%	178,640
	Physical	68.3%	31.7%	201,890
	Psychosocial	64.5%	35.5%	257,640
	Sensorial	68.2%	31.8%	105,570
	Seeing	70.6%	29.4%	78,300
	Hearing	60.8%	39.1%	34,840
Complexity of disability	Mild	78.6%	21.4%	254,790
	Moderate	59.2%	40.8%	92,140
	Severe	52.4%	47.6%	69,930
	Very severe	38.7%	61.4%	36,790
Low-income status	Not low income	69.8%	30.2%	333,290
	Low income	60.3%	39.7%	118,980

Appendix Table 4.3. Need of suitable materials for learning with disability (Source: Canadian Survey on Disability, 2017)				
		No	**Yes**	**Total**
TOTAL		**91.4%**	**8.6%**	**453,640**
Diversity	Male	91.8%	8.2%	165,240
	Female	91.1%	8.9%	288,400
	BIPOC	88.4%	11.6%	120,720
	Not BIPOC	92.5%	7.5%	332,930
Types of disability	Cognitive	81.6%	18.4%	178,640
	Physical	92.1%	7.9%	201,890
	Psychosocial	91.6%	8.4%	257,630
	Sensorial	88.8%	11.2%	105,570
	Seeing	88.4%	11.6%	78,290
	Hearing *	86.5%	13.4%	34,840
Complexity of disability	Mild	96.3%	3.7%	254,790
	Moderate	92.4%	7.6%	92,140
	Severe	79.5%	20.5%	69,930
	Very severe	77.3%	22.7%	36,790
Low-income status	Not low income	92.0%	8.0%	333,290
	Low income *	89.7%	10.3%	118,980

* Low counts. Use data with caution.

Appendix Table 4.4. Need of suitable technologies for learning with disability (Source: Canadian Survey on Disability, 2017)				
		No	**Yes**	**Total**
TOTAL		**81.0%**	**19.0%**	**453,640**
Diversity	Male	77.8%	22.2%	165,240
	Female	82.8%	17.2%	288,400
	BIPOC	79.4%	20.6%	120,720
	Not BIPOC	81.6%	18.4%	332,920
Types of disability	Cognitive	60.9%	39.1%	178,640
	Physical	79.9%	20.1%	201,890
	Psychosocial	80.5%	19.5%	257,640
	Sensorial	76.5%	23.5%	105,570
	Seeing	79.3%	20.7%	78,290
	Hearing	68.5%	31.5%	34,840
Complexity of disability	Mild	89.8%	10.2%	254,790
	Moderate	76.2%	23.8%	92,140
	Severe	68.5%	31.5%	69,930
	Very severe	55.7%	44.3%	36,790
Low-income status	Not low income	82.6%	17.4%	333,290
	Low income	76.6%	23.4%	118,980

Appendix Table 4.5. Need of human support for learning with disability (Source: Canadian Survey on Disability, 2017)				
		No	**Yes**	**Total**
TOTAL		**85.8%**	**14.2%**	**453,640**
Diversity	Male	84.9%	15.1%	165,240
	Female	86.3%	13.7%	288,400
	BIPOC	82.7%	17.3%	120,720
	Not BIPOC	86.9%	13.1%	332,920
Types of disability	Cognitive	69.1%	30.9%	178,640
	Physical	84.1%	15.9%	201,890
	Psychosocial	84.3%	15.7%	257,630
	Sensorial	80.5%	19.5%	105,570
	Seeing	82.9%	17.1%	78,290
	Hearing	72.2%	27.8%	34,840
Complexity of disability	Mild	93.7%	6.3%	254,790
	Moderate	85.3%	14.7%	92,140
	Severe	71.0%	29.0%	69,930
	Very severe	60.3%	39.7%	36,790
Low-income status	Not low income	86.3%	13.7%	333,290
	Low income	84.3%	15.7%	118,980

Appendix Table 4.6. Need of various other supports for learning with disability (Source: Canadian Survey on Disability, 2017)				
		No	**Yes**	**Total**
TOTAL		**95.1%**	**4.9%**	**453,640**
Diversity	Male	95.7%	4.3%	165,240
	Female	94.8%	5.2%	288,400
	BIPOC *	97.6%	2.4%	120,720
	Not BIPOC	94.2%	5.8%	332,920
Types of disability	Cognitive	92.2%	7.8%	178,640
	Physical	94.8%	5.3%	201,890
	Psychosocial	95.0%	5.0%	257,630
	Sensorial *	95.2%	4.8%	105,570
	Seeing *	94.9%	5.1%	78,290
	Hearing *	95.1%	4.9%	34,840
Complexity of disability	Mild	96.5%	3.5%	254,790
	Moderate *	94.7%	5.3%	92,140
	Severe *	93.7%	6.3%	69,930
	Very severe *	89.3%	10.7%	36,790
Low-income status	Not low income	96.1%	3.9%	333,290
	Low income *	92.3%	7.7%	118,980

* Low counts. Use data with caution.

Appendix Table 4.7. Experience of feeling avoided at school because of disability (Source: Canadian Survey on Disability, 2017)				
		Yes	**No**	**Total**
TOTAL		**24.2%**	**75.8%**	**454,530**
Diversity	Male	27.2%	72.8%	165,140
	Female	22.5%	77.5%	289,390
	BIPOC	24.6%	75.4%	122,030
	Not BIPOC	24.1%	75.9%	332,500
Types of disability	Cognitive	39.5%	60.5%	180,440
	Physical	24.3%	75.7%	203,150
	Psychosocial	30.2%	69.8%	258,660
	Sensorial	26.1%	73.9%	105,450
	Seeing	27.4%	72.6%	78,370
	Hearing	22.1%	77.9%	34,720
Complexity of disability	Mild	15.9%	84.1%	255,550
	Moderate	21.2%	78.8%	91,690
	Severe	44.1%	55.9%	70,540
	Very severe	51.3%	48.7%	36,760
Low-income status	Not low income	21.3%	78.7%	334,500
	Low income	32.4%	67.6%	118,670

Appendix Table 4.8. Experience of feeling left out at school because of disability (Source: Canadian Survey on Disability, 2017)				
		Yes	**No**	**Total**
TOTAL		**39.0%**	**61.0%**	**455,860**
Diversity	Male	37.7%	62.3%	165,520
	Female	39.8%	60.2%	290,350
	BIPOC	36.0%	64.0%	122,030
	Not BIPOC	40.1%	59.9%	333,830
Types of disability	Cognitive	53.0%	47.0%	180,510
	Physical	37.5%	62.5%	203,630
	Psychosocial	47.2%	52.8%	260,070
	Sensorial	39.8%	60.2%	105,760
	Seeing	42.2%	57.8%	78,400
	Hearing	39.6%	60.4%	35,030
Complexity of disability	Mild	30.4%	69.6%	256,420
	Moderate	38.8%	61.2%	92,280
	Severe	56.3%	43.7%	70,540
	Very severe	66.9%	33.1%	36,630
Low-income status	Not low income	36.9%	63.1%	335,720
	Low income	45.1%	54.9%	118,780

Appendix Table 4.9. Experience of being bullied at school because of disability (Source: Canadian Survey on Disability, 2017)				
		Yes	**No**	**Total**
TOTAL		**32.9%**	**67.1%**	**455,450**
Diversity	Male	33.1%	66.9%	165,850
	Female	32.9%	67.1%	289,610
	BIPOC	33.0%	67.0%	122,340
	Not BIPOC	32.9%	67.1%	333,110
Types of disability	Cognitive	49.9%	50.1%	180,840
	Physical	29.9%	70.1%	203,620
	Psychosocial	38.1%	61.9%	259,480
	Sensorial	37.6%	62.4%	105,760
	Seeing	36.3%	63.7%	78,400
	Hearing	41.1%	58.9%	35,030
Complexity of disability	Mild	26.6%	73.4%	255,700
	Moderate	32.3%	67.7%	92,280
	Severe	48.4%	51.6%	70,420
	Very severe	48.8%	51.2%	37,060
Low-income status	Not low income	31.2%	68.8%	335,010
	Low income	37.8%	62.2%	119,070

Appendix Table 4.10. Having additional expenses for education because of disability (Source: Canadian Survey on Disability, 2017)				
		Yes	**No**	**Total**
TOTAL		**22.4%**	**77.6%**	**455,230**
Diversity	Male	20.9%	79.1%	165,780
	Female	23.3%	76.7%	289,450
	BIPOC	27.6%	72.4%	122,380
	Not BIPOC	20.6%	79.4%	332,850
Types of disability	Cognitive	31.0%	69.0%	179,830
	Physical	25.0%	75.0%	203,900
	Psychosocial	24.6%	75.4%	260,090
	Sensorial	25.5%	74.5%	105,610
	Seeing	27.8%	72.2%	78,440
	Hearing	22.4%	77.6%	34,830
Complexity of disability	Mild	15.4%	84.6%	255,490
	Moderate	25.6%	74.4%	92,280
	Severe	38.6%	61.4%	70,340
	Very severe	32.2%	67.8%	37,120
Low-income status	Not low income	21.0%	79.0%	335,840
	Low income	26.6%	73.4%	118,020

Appendix Table 5.1.a. Basic demographics, by quality of education for young adults with disabilities presently or recently attending any form of schooling

	Any recent schooling		
	Lowest	**Midrange**	**Highest**
Common standard	**25.0%**	**50.0%**	**25.0%**
All	24.3%	50.7%	25.0%
Male	23.4%	48.4%	28.2%
Female	24.8%	52.0%	23.2%
BIPOC	22.6%	52.2%	25.2%
Not BIPOC	24.9%	50.2%	24.9%
Low income	33.4%	47.4%	19.3%
Not low income	21.1%	51.9%	27.0%
British Columbia	25.5%	56.6%	17.9%
Prairies (AB, SK, MB)	21.4%	53.2%	25.5%
Ontario	24.9%	49.5%	25.6%
Quebec	26.0%	45.3%	28.7%
Atlantic (NB, NS, PE, NL)	22.7%	52.2%	25.1%
Northern territories (YU, NT, NU)	14.6%	63.5%	21.2%
Rural	22.8%	53.2%	24.1%
Small and mid-sized pop. centres	26.4%	51.0%	22.6%
Large urban pop. centres	23.9%	50.3%	25.8%

Appendix Table 5.1.b. (Cont'd) Type and severity of disability complexity, by type and severity of disability complexity—Quality of education for young adults with disabilities presently or recently attending any form of schooling

	Any recent schooling		
	Lowest	**Midrange**	**Highest**
Common standard	**25.0%**	**50.0%**	**25.0%**
Cognitive disability	31.2%	37.2%	31.6%
Physical disability	22.6%	52.6%	24.8%
No physical disability	25.7%	49.2%	25.2%
Psychosocial disability	29.8%	48.2%	22.0%
Sensorial disability	26.4%	50.2%	23.4%
Vision disability	28.0%	48.6%	23.4%
Hearing disability	22.5%	54.3%	23.2%
Mild complexity	21.4%	54.5%	24.1%
Moderate complexity	21.8%	51.3%	26.9%
Severe complexity	34.8%	41.8%	23.4%
Very severe complexity	30.6%	39.7%	29.7%

Appendix Table 5.1.c. (Cont'd) Need for built environmental and instructional support, by quality of education for young adults with disabilities presently or recently attending any form of schooling			
	Any recent schooling		
	Lowest	Midrange	Highest
Common standard	**25.0%**	**50.0%**	**25.0%**
Need accessible bldgs or instruct supts	25.3%	27.8%	46.9%
Do not need supts for disab	23.7%	64.4%	11.9%
Need accessible bldgs only	18.8%	68.1%	13.3%
Need instructional supts only	28.8%	27.8%	43.4%
Need accessible bldgs and instruct supts	9.5%	18.7%	71.8%
Built environmental:			
Need accessible buildings	11.2%	28.1%	60.7%
Do not need accessible. buildings	25.4%	52.5%	22.1%
Instructional supports:			
Need accessible. curriculum and procedures	23.5%	26.2%	50.3%
Do not need accessible curriculum and procedures	24.7%	62.5%	12.9%
Need human support	16.9%	28.2%	54.8%
Do not need human support	25.5%	54.4%	20.1%
Need accessible materials	21.5%	20.8%	57.7%
Do not need accessible materials	24.6%	53.5%	21.9%
Need accessible technologies	24.1%	22.3%	53.6%
Do not need accessible technologies	24.4%	57.3%	18.3%
Need misc. other sup'ts	11.0%	17.8%	71.2%
Do not need misc. other sup'ts	25.0%	52.4%	22.6%

Appendix Table 5.1.d. (Cont'd) Selected social and economic experiences, by quality of education for young adults with disabilities presently or recently attending any form of schooling			
	Any recent schooling		
	Lowest	Midrange	Highest
Common standard	**25.0%**	**50.0%**	**25.0%**
Have had additional costs bcs of disability	43.6%	35.7%	20.7%
No additional costs bcs of disability	18.7%	55.0%	26.2%
Have felt avoided bcs of disability	68.9%	17.4%	13.7%
Never felt avoided bcs of disability	10.1%	61.3%	28.6%
Have felt left out bcs of disability	55.4%	29.3%	15.3%
Never felt left out bcs of disability	4.5%	64.4%	31.2%
Have been bullied bcs of disability	58.0%	25.9%	16.1%
Never bullied bcs of disability	7.8%	62.8%	29.3%

Appendix Table 5.1.e. (Cont'd) Highest level and type of postsecondary certification, by quality of education for young adults with disabilities presently or recently attending any form of schooling			
	Any recent schooling		
	Lowest	Midrange	Highest
Common standard	**25.0%**	**50.0%**	**25.0%**
Any educational certification:			
None or high school dipl only	27.8%	52.3%	19.9%
College cert/dipl, univ cert less than bachelor, or trades cert	23.3%	45.6%	31.1%
University degree	17.9%	52.3%	29.7%
Postsecondary certification:			
No postsec. cert, dipl., or degree	27.8%	52.3%	19.9%
STEM, business and admin, and legal, health and education	18.4%	44.3%	37.3%
Arts, humanities, soc. and behav. sciences, trades, services, natural resources and conservation	22.8%	53.4%	23.8%

Appendix Table 5.2.a. Basic demographics, by quality of education for young adults with disabilities presently or recently attending college/CEGEP/trade school			
	College/CEGEP/trade school - Current or previous year		
	Lowest	Midrange	Highest
Common standard	**25.0%**	**50.0%**	**25.0%**
All	29.4%	49.9%	20.7%
Male	24.7%	54.8%	20.5%
Female	31.7%	47.5%	20.8%
BIPOC	29.5%	50.5%	20.0%
Not BIPOC	29.3%	49.7%	21.0%
Low income	41.5%	47.2%	11.3%
Not low income	24.6%	51.0%	24.4%
British Columbia	39.0%	51.7%	9.3%
Prairies (AB, SK, MB)	20.0%	55.6%	24.4%
Ontario	31.9%	44.5%	23.6%
Quebec	28.1%	51.7%	20.3%
Atlantic (NB, NS, PE, NL)	25.6%	56.1%	18.2%
Northern territories (YU, NT, NU)	–	–	–
Rural	31.1%	44.5%	24.5%
Small and mid-sized pop. centres	22.4%	54.9%	22.7%
Large urban pop. centres	31.0%	49.5%	19.5%

Appendix Table 5.2.b. (Cont'd) Type and severity of disability complexity, by type and severity of disability complexity – Quality of education for young adults with disabilities presently or recently attending college/CEGEP/trade school			
	College/CEGEP/trade school - Current or previous year		
	Lowest	Midrange	Highest
Common standard	**25.0%**	**50.0%**	**25.0%**
Cognitive disability	35.4%	38.3%	26.4%
Physical disability	27.2%	53.1%	19.6%
No physical disability	31.3%	47.0%	21.7%
Psychosocial disability	37.1%	42.9%	20.0%
Sensorial disability	30.3%	48.3%	21.4%
Vision disability	33.1%	46.9%	20.0%
Hearing disability	19.5%	60.4%	20.2%
Mild complexity	26.2%	54.7%	19.1%
Moderate complexity	23.7%	46.1%	30.2%
Severe complexity	45.2%	44.2%	10.6%
Very severe complexity	32.1%	38.4%	29.6%

Appendix Table 5.2.c. (Cont'd) Need for built environmental and instructional support, by quality of education for young adults with disabilities presently or recently attending college/CEGEP/trade school			
	College/CEGEP/trade school - Current or previous year		
	Lowest	Midrange	Highest
Common standard	**25.0%**	**50.0%**	**25.0%**
Need accessible bldgs or instruct supts	29.4%	24.9%	45.7%
Do not need supts for disability	29.3%	64.7%	6.0%
Need accessible bldgs only	–	–	–
Need instructional supts only	–	–	–
Need accessible bldgs and instruct supts	–	–	–
Built environmental:			
Need accessible buildings	–	–	67.3%
Do not need accessible buildings	–	–	17.3%
Instructional supports:			
Need accessible curriculum and procedures	25.0%	24.9%	50.1%
Do not need accessible curriculum and procedures	31.5%	62.2%	6.3%
Need human support	14.6%	35.6%	49.8%
Do not need human support	31.6%	52.1%	16.4%
Need accessible materials	34.7%	27.2%	38.2%
Do not need accessible materials	28.7%	52.9%	18.5%
Need accessible technologies	31.3%	22.2%	46.4%
Do not need accessible technologies	28.7%	58.4%	12.9%
Need misc. other sup'ts	–	–	–
Do not need misc. other sup'ts	–	–	–

Appendix Table 5.2.d. (Cont'd) Selected social and economic experiences, by quality of education for young adults with disabilities presently or recently attending college/CEGEP/trade school			
	College/CEGEP/trade school - Current or previous year		
	Lowest	Midrange	Highest
Common standard	**25.0%**	**50.0%**	**25.0%**
Have had additional costs bcs of disability	48.5%	36.7%	14.7%
No additional costs bcs of disability	22.5%	54.7%	22.9%
Have felt avoided bcs of disability	73.5%	15.0%	11.4%
Never felt avoided bcs of disability	11.0%	64.4%	24.6%
Have felt left out bcs of disability	63.4%	23.5%	13.0%
Never felt left out bcs of disability	6.3%	67.8%	25.9%
Have been bullied bcs of disability	62.6%	26.6%	10.8%
Never bullied bcs of disability	10.3%	63.3%	26.4%

Appendix Table 5.2.e. (Cont'd) Highest level and type of postsecondary certification, by quality of education for young adults with disabilities presently or recently attending college/CEGEP/trade school

	College/CEGEP/trade school - Current or previous year		
	Lowest	**Midrange**	**Highest**
Common standard	**25.0%**	**50.0%**	**25.0%**
Any educational certification:			
None or high school dipl only	27.0%	55.6%	17.4%
College cert/dipl, univ cert less than bachelor, or trades cert	36.5%	33.3%	30.2%
University degree	24.7%	58.9%	16.4%
Postsecondary certification:			
No postsec. cert, dipl., or degree	27.0%	55.6%	17.4%
STEM, business and admin, and legal, health and education	25.1%	45.8%	29.1%
Arts, humanities, soc. and behav. sciences, trades, services, natural resources and conservation	38.4%	39.8%	21.9%

Appendix Table 5.3.a. Basic demographics, by quality of education for young adults with disabilities presently or recently attending university

	University - Current or previous year		
	Lowest	**Midrange**	**Highest**
Common standard	**25.0%**	**50.0%**	**25.0%**
All	21.7%	52.9%	25.4%
Male	15.6%	49.0%	35.4%
Female	25.1%	55.1%	19.8%
BIPOC	17.3%	62.4%	20.3%
Not BIPOC	23.1%	49.7%	27.2%
Low income	26.6%	54.3%	19.2%
Not low income	19.8%	52.4%	27.8%
British Columbia	22.5%	65.4%	12.2%
Prairies (AB, SK, MB)	22.7%	51.5%	25.8%
Ontario	20.5%	51.2%	28.2%
Quebec	24.3%	43.6%	32.1%
Atlantic (NB, NS, PE, NL)	18.2%	56.9%	25.0%
Northern territories (YU, NT, NU)	–	–	–
Rural	20.8%	59.1%	20.1%
Small and mid-sized pop. centres	20.2%	51.6%	28.2%
Large urban pop. centres	22.0%	52.5%	25.4%

Appendix Table 5.3.b. (Cont'd) Type and severity of disability complexity, by type and severity of disability complexity – Quality of education for young adults with disabilities presently or recently attending university

	University - Current or previous year		
	Lowest	**Midrange**	**Highest**
Common standard	**25.0%**	**50.0%**	**25.0%**
Cognitive disability	28.0%	41.2%	30.8%
Physical disability	21.3%	52.0%	26.6%
No physical disability	21.8%	53.4%	24.7%
Psychosocial disability	28.3%	51.4%	20.3%
Sensorial disability	28.9%	46.8%	24.4%
Vision disability	28.0%	48.3%	23.7%
Hearing disability	33.5%	39.9%	26.7%
Mild complexity	19.4%	56.3%	24.3%
Moderate complexity	18.0%	57.3%	24.7%
Severe complexity	26.8%	40.8%	32.3%
Very severe complexity	43.6%	35.1%	21.3%

Appendix Table 5.3.c. (Cont'd) Need for built environmental and instructional support, by quality of education for young adults with disabilities presently or recently attending university			
	University - Current or previous year		
	Lowest	Midrange	Highest
Common standard	**25.0%**	**50.0%**	**25.0%**
Need accessible bldgs or instruct supts	23.7%	29.0%	47.3%
Do not need supts for disability	20.5%	66.5%	13.0%
Need accessible bldgs only	–	–	–
Need instructional supts only	–	–	–
Need accessible bldgs and instruct supts	–	–	–
Built environmental:			
Need accessible buildings	12.6%	24.8%	62.7%
Do not need accessible buildings	22.2%	54.7%	23.1%
Instructional supports:			
Need accessible curriculum and procedures	21.9%	28.9%	49.2%
Do not need accessible curriculum and procedures	21.6%	64.5%	13.9%
Need human support	23.0%	22.9%	54.2%
Do not need human support	21.5%	56.9%	21.6%
Need accessible materials	–	–	76.4%
Do not need accessible materials	–	–	21.6%
Need accessible technologies	18.8%	13.6%	67.6%
Do not need accessible technologies	22.2%	60.7%	17.1%
Need misc. other sup'ts	–	–	–
Do not need misc. other sup'ts	–	–	–

Appendix Table 5.3.d. (Cont'd) Selected social and economic experiences, by quality of education for young adults with disabilities presently or recently attending university			
	University - Current or previous year		
	Lowest	Midrange	Highest
Common standard	**25.0%**	**50.0%**	**25.0%**
Have had additional costs bcs of disability	42.8%	37.2%	20.0%
No additional costs bcs of disability	15.6%	57.4%	27.0%
Have felt avoided bcs of disability	71.4%	14.2%	14.3%
Never felt avoided bcs of disability	8.8%	62.9%	28.3%
Have felt left out bcs of disability	48.6%	36.5%	14.9%
Never felt left out bcs of disability	2.7%	64.5%	32.8%
Have been bullied bcs of disability	55.5%	26.4%	18.0%
Never bullied bcs of disability	8.0%	63.6%	28.4%

Appendix Table 5.3.e. (Cont'd) Highest level and type of postsecondary certification, by quality of education for young adults with disabilities presently or recently attending university			
	University - Current or previous year		
	Lowest	Midrange	Highest
Common standard	**25.0%**	**50.0%**	**25.0%**
Any educational certification:			
None or high school dipl only	21.1%	57.3%	21.6%
College cert/dipl, univ cert less than bachelor, or trades cert	32.4%	36.7%	30.9%
University degree	15.8%	55.5%	28.7%
Postsecondary certification:			
No postsec. cert, dipl., or degree	21.1%	57.3%	21.6%
STEM, business and admin, and legal, health and education	16.1%	30.8%	53.1%
Arts, humanities, soc. and behav. sciences, trades, services, natural resources and conservation	23.2%	58.3%	18.5%

Appendix Table 7.1. Cross-tabulations of the quality of work and non-work status by selected sociodemographic characteristics of young adults with disabilities currently or recently attending school, showing percentages and total counts

	Working: Quality of work					
	Lowest 25% quality of jobs	Midrange 50% quality of jobs	Highest 25% quality of jobs	Not working	Total %	Total N
All	**14.1%**	**28.7%**	**14.5%**	**42.7%**	**100.0%**	**456,650**
Male	13.9%	24.0%	11.9%	50.2%	100.0%	166,030
Female	14.3%	31.5%	15.9%	38.4%	100.0%	290,620
Not BIPOC	15.0%	30.4%	15.4%	39.1%	100.0%	334,270
BIPOC	11.7%	24.1%	11.9%	52.3%	100.0%	122,380
British Columbia	14.7%	34.0%	12.7%	38.6%	100.0%	63,070
Prairies (AB, SK, MB)	11.0%	27.4%	23.4%	38.2%	100.0%	90,520
Ontario and the northern territories	16.5%	26.5%	11.4%	45.6%	100.0%	190,000
Quebec	10.8%	30.5%	13.9%	44.8%	100.0%	81,410
Atlantic (NB, NS, PE, NL)	16.2%	31.1%	12.5%	40.3%	100.0%	31,650
Rural	9.9%	33.8%	15.9%	40.4%	100.0%	43,680
Small and mid-sized population centres	11.2%	29.2%	16.6%	43.0%	100.0%	92,250
Large urban population centres	15.5%	27.9%	13.7%	42.9%	100.0%	320,710
Not low income and a few missing	13.2%	31.2%	19.1%	36.4%	100.0%	337,470
Low income	16.6%	21.8%	1.3%	60.3%	100.0%	119,180
Members of couples with no children	9.8%	32.0%	24.3%	33.8%	100.0%	109,280
Parents (themselves)	12.2%	11.7%	19.9%	56.3%	100.0%	25,920
Sons/daughters (inc. grand & foster)	17.1%	27.3%	8.6%	47.0%	100.0%	193,230
Unattached, alone	10.3%	33.7%	17.1%	39.0%	100.0%	61,480
Other living arrangements (e.g., with unrelated others, extended family beyond the parental home)	16.9%	29.6%	10.7%	42.7%	100.0%	66,740
Not vision disability	14.4%	28.4%	14.5%	42.7%	100.0%	378,210
Vision disability	12.6%	30.4%	14.2%	42.7%	100.0%	78,440
Not hearing disability	14.2%	28.8%	13.7%	43.3%	100.0%	421,620
Hearing disability	13.0%	27.5%	24.1%	35.3%	100.0%	35,030
Not cognitive disability	16.3%	32.5%	14.3%	37.0%	100.0%	275,400
Cognitive disability	10.9%	23.0%	14.8%	51.3%	100.0%	181,250
Not psychosocial disability	11.4%	31.3%	14.5%	42.9%	100.0%	196,370
Psychosocial disability	16.2%	26.8%	14.5%	42.5%	100.0%	260,280
Disability without pain disability	15.9%	28.5%	14.0%	41.5%	100.0%	277,410
Physical disability with pain	11.3%	29.1%	15.2%	44.4%	100.0%	179,240
Mild complexity of disability	17.7%	32.5%	15.5%	34.3%	100.0%	256,710
Moderate complexity of disability	10.6%	28.5%	13.2%	47.6%	100.0%	92,280
Severe complexity of disability	9.7%	24.7%	12.7%	52.9%	100.0%	70,540
Very severe complexity of disability	6.5%	10.8%	14.0%	68.6%	100.0%	37,120
Currently/recently attending, but not college/CEGEP, or trade school	15.1%	31.2%	14.6%	39.1%	100.0%	328,840
Current/recent college, CEGEP, or trade school	11.6%	22.5%	14.1%	51.8%	100.0%	127,800

Appendix Table 7.1. Cross-tabulations of the quality of work and non-work status by selected sociodemographic characteristics of young adults with disabilities currently or recently attending school, showing percentages and total counts

	Working: Quality of work					
	Lowest 25% quality of jobs	Midrange 50% quality of jobs	Highest 25% quality of jobs	Not working	Total %	Total N
All	**14.1%**	**28.7%**	**14.5%**	**42.7%**	**100.0%**	**456,650**
Currently/recently attending, but not university	10.9%	29.1%	15.9%	44.1%	100.0%	311,330
Current/recent university	21.0%	28.0%	11.4%	39.7%	100.0%	145,320
No certification or high school grad only	13.5%	21.6%	8.3%	56.6%	100.0%	212,680
College/CEGEP diploma or trades certificate	11.8%	35.1%	20.8%	32.3%	100.0%	120,660
University degree	17.6%	34.8%	18.9%	28.7%	100.0%	123,310
Lowest PSE quality	15.4%	25.0%	11.3%	48.3%	100.0%	111,010
Middle PSE quality	14.4%	30.6%	13.4%	41.7%	100.0%	231,500
Highest PSE quality	12.4%	28.6%	19.8%	39.2%	100.0%	114,140

For Section 8

Appendix Table 8.a. Positive scenarios: Summary of probabilities and odds of attendance, PSE quality, graduation, and the quality of work (1)																	
	Among all young adults with disabilities, 18 to 34 years old				Among current or recent young adult students with disabilities, at least 18 years old when attending and younger than 35 when the CSD was conducted												
	Very likely to attend PSE				Very likely to experience high-quality PSE (or very unlikely to experience low-quality PSE)			Very likely to graduate from PSE				Highly positive employment scenarios					
												Substantially different Probabilities			Significant odds		
Basic sociodemographic characteristics	College, etc. Prob.	College, etc. Odds	University Prob.	University Odds	College, etc. Prob.	University Prob.	PSE Odds	College, etc. Prob.	College, etc. Odds	University Prob.	University Odds	Much more likely to hold high-quality work	Much less likely to hold low-quality work	Much less likely to be jobless	High odds of high quality work	Low odds of low-quality work	Low odds of joblessness
Male						X											
Female		X								X	X						X
BIPOC	X																
Indigenous	X				–	–	–	–	–	–	–	–	–	–	–	–	–
Racialized	X		X		–	–	–	–	–	–	–	–	–	–	–	–	–
Not BIPOC																	
Low income	X	X	X														
Not low income						X						X					
British Columbia			X														
Prairies (AB, SK, MB)					X		X					X	X				
Ontario						X											
Quebec	X	X				X		X	X				X				

Appendix Table 8.a. Positive scenarios: Summary of probabilities and odds of attendance, PSE quality, graduation, and the quality of work (1)																	
	Among all young adults with disabilities, 18 to 34 years old				Among current or recent young adult students with disabilities, at least 18 years old when attending and younger than 35 when the CSD was conducted												
	Very likely to attend PSE				Very likely to experience high-quality PSE (or very unlikely to experience low-quality PSE)			Very likely to graduate from PSE				Highly positive employment scenarios					
												Substantially different Probabilities			Significant odds		
Basic sociodemographic characteristics	College, etc. Prob.	College, etc. Odds	University Prob.	University Odds	College, etc. Prob.	University Prob.	PSE Odds	College, etc. Prob.	College, etc. Odds	University Prob.	University Odds	Much more likely to hold high-quality work	Much less likely to hold low-quality work	Much less likely to be jobless	High odds of high quality work	Low odds of low-quality work	Low odds of joblessness
Atlantic (NB, NS, PE, NL)						X	X										
Northern territories								X									
Rural													X			X	
Small and mid-sized population centres						X		X					X				
Large urban population centres			X														
Living Arrangements																	
Adult sons/daughters																	
Members of couples, no children								X	X	X	X	X		X	X	X	
Parents (themselves)								X	X						X		
Unattached, living alone							X			X	X				X		X
Others (extended family mbrs, shared accommodation)							X		X		X				X		X

Appendix Table 8.a. Positive scenarios: Summary of probabilities and odds of attendance, PSE quality, graduation, and the quality of work (1)																	
	Among all young adults with disabilities, 18 to 34 years old				Among current or recent young adult students with disabilities, at least 18 years old when attending and younger than 35 when the CSD was conducted												
	Very likely to attend PSE				Very likely to experience high-quality PSE (or very unlikely to experience low-quality PSE)			Very likely to graduate from PSE				Highly positive employment scenarios					
												Substantially different Probabilities			Significant odds		
Basic sociodemographic characteristics	College, etc. Prob.	College, etc. Odds	University Prob.	University Odds	College, etc. Prob.	University Prob.	PSE Odds	College, etc. Prob.	College, etc. Odds	University Prob.	University Odds	Much more likely to hold high-quality work	Much less likely to hold low-quality work	Much less likely to be jobless	High odds of high quality work	Low odds of low-quality work	Low odds of joblessness
Disability characteristics																	
Not cognitive disability										X			X				
Cognitive disability						X									X		
Learning disability																	
Intellectual/developmental disability																	
Physical disability with pain																	
Disability without pain			X	X													
Psychosocial disability																	
Not sensorial																	
Sensorial disability																	
Vision disability																	X
Hearing disability								X				X			X		X
Mild complexity						X				X							

Appendix Table 8.a. Positive scenarios: Summary of probabilities and odds of attendance, PSE quality, graduation, and the quality of work (1)																	
	Among all young adults with disabilities, 18 to 34 years old				Among current or recent young adult students with disabilities, at least 18 years old when attending and younger than 35 when the CSD was conducted												
	Very likely to attend PSE				Very likely to experience high-quality PSE (or very unlikely to experience low-quality PSE)			Very likely to graduate from PSE				Highly positive employment scenarios					
												Substantially different Probabilities			Significant odds		
Basic sociodemographic characteristics	**College, etc. Prob.**	**College, etc. Odds**	**University Prob.**	**University Odds**	**College, etc. Prob.**	**University Prob.**	**PSE Odds**	**College, etc. Prob.**	**College, etc. Odds**	**University Prob.**	**University Odds**	**Much more likely to hold high-quality work**	**Much less likely to hold low-quality work**	**Much less likely to be jobless**	**High odds of high quality work**	**Low odds of low-quality work**	**Low odds of joblessness**
Moderate complexity					X	X										X	
Severe complexity						X										X	
Very severe complexity								X								X	
Instructional and built-environmental supports																	
Grouped																	
Need accessible bldgs or instructional supports					X	X											
Do not need any accessible buildings or instructional supports for education																	
Among those needing support:																	
Need accessible buildings only																	
Need instructional supports only																	

Appendix Table 8.a. Positive scenarios: Summary of probabilities and odds of attendance, PSE quality, graduation, and the quality of work (1)																	
	Among all young adults with disabilities, 18 to 34 years old				Among current or recent young adult students with disabilities, at least 18 years old when attending and younger than 35 when the CSD was conducted												
	Very likely to attend PSE				Very likely to experience high-quality PSE (or very unlikely to experience low-quality PSE)			Very likely to graduate from PSE				Highly positive employment scenarios					
												Substantially different Probabilities			Significant odds		
Basic sociodemographic characteristics	College, etc. Prob.	College, etc. Odds	University Prob.	University Odds	College, etc. Prob.	University Prob.	PSE Odds	College, etc. Prob.	College, etc. Odds	University Prob.	University Odds	Much more likely to hold high-quality work	Much less likely to hold low-quality work	Much less likely to be jobless	High odds of high quality work	Low odds of low-quality work	Low odds of joblessness
Need both kinds of support																	
Specific supports																	
Need accessible bldgs					X	X											
Do not need accessible bldgs																	
Need accessible curric/procedures					X	X											
Do not need accessible curric/procedures																	
Need human support					X	X											
Do not need human support																	
Need accessible materials					X	X											
Do not need accessible materials																	
Need accessible technologies						X											

Appendix Table 8.a. Positive scenarios: Summary of probabilities and odds of attendance, PSE quality, graduation, and the quality of work (1)																	
	Among all young adults with disabilities, 18 to 34 years old				Among current or recent young adult students with disabilities, at least 18 years old when attending and younger than 35 when the CSD was conducted												
	Very likely to attend PSE				Very likely to experience high-quality PSE (or very unlikely to experience low-quality PSE)			Very likely to graduate from PSE				Highly positive employment scenarios					
												Substantially different Probabilities			Significant odds		
Basic sociodemographic characteristics	**College, etc. Prob.**	**College, etc. Odds**	**University Prob.**	**University Odds**	**College, etc. Prob.**	**University Prob.**	**PSE Odds**	**College, etc. Prob.**	**College, etc. Odds**	**University Prob.**	**University Odds**	**Much more likely to hold high-quality work**	**Much less likely to hold low-quality work**	**Much less likely to be jobless**	**High odds of high quality work**	**Low odds of low-quality work**	**Low odds of joblessness**
Do not need accessible technologies																	
Need misc other support																	
Do not need misc other support																	
Socioeconomic factors related to education																	
Have additional costs because of disability																	
No additional costs because of disability						X											
Felt avoided at school because of disability										X							
Never felt avoided at school because of disability					X	X			X		X						

Appendix Table 8.a. Positive scenarios: Summary of probabilities and odds of attendance, PSE quality, graduation, and the quality of work (1)																	
	Among all young adults with disabilities, 18 to 34 years old				Among current or recent young adult students with disabilities, at least 18 years old when attending and younger than 35 when the CSD was conducted												
	Very likely to attend PSE				Very likely to experience high-quality PSE (or very unlikely to experience low-quality PSE)			Very likely to graduate from PSE				Highly positive employment scenarios					
												Substantially different Probabilities			Significant odds		
Basic sociodemographic characteristics	**College, etc. Prob.**	**College, etc. Odds**	**University Prob.**	**University Odds**	**College, etc. Prob.**	**University Prob.**	**PSE Odds**	**College, etc. Prob.**	**College, etc. Odds**	**University Prob.**	**University Odds**	**Much more likely to hold high-quality work**	**Much less likely to hold low-quality work**	**Much less likely to be jobless**	**High odds of high quality work**	**Low odds of low-quality work**	**Low odds of joblessness**
Felt left out at school because of disability																	
Never felt left out at school because of disability					X	X				X							
Was bullied at school because of disability																	
Never bullied at school because of disability					X	X				X							
Certification and programs of study																	
Educational certification:																	
No certification or high school graduation as highest certificate (2)	–	–	–	–		X		–	–	–	–						

Appendix Table 8.a. Positive scenarios: Summary of probabilities and odds of attendance, PSE quality, graduation, and the quality of work (1)																	
	Among all young adults with disabilities, 18 to 34 years old				Among current or recent young adult students with disabilities, at least 18 years old when attending and younger than 35 when the CSD was conducted												
	Very likely to attend PSE				Very likely to experience high-quality PSE (or very unlikely to experience low-quality PSE)			Very likely to graduate from PSE				Highly positive employment scenarios					
												Substantially different Probabilities			Significant odds		
Basic sociodemographic characteristics	**College, etc. Prob.**	**College, etc. Odds**	**University Prob.**	**University Odds**	**College, etc. Prob.**	**University Prob.**	**PSE Odds**	**College, etc. Prob.**	**College, etc. Odds**	**University Prob.**	**University Odds**	**Much more likely to hold high-quality work**	**Much less likely to hold low-quality work**	**Much less likely to be jobless**	**High odds of high quality work**	**Low odds of low-quality work**	**Low odds of joblessness**
College/CEGEP or trades certificate	–	–	–	–				–	–	–	–	X		X	X		X
University degree	–	–	–	–		X		–	–	–	–	X		X	X		X
Postsecondary certification:																	
No postsecondary certificate, diploma or degree	–	–	–	–		X		–	–	–	–	–	–	–	–	–	–
STEM, Business and admin, and Legal, Health and Education professions	–	–	–	–	X	X		–	–	–	–	–	–	–	–	–	–
Arts, Humanities, social and Behavioural sciences; and Trades, Services, Natural resources and Conservation	–	–	–	–				–	–	–	–	–	–	–	–	–	–
Recent/current PSE attendance	–	–	–	–	–	–	–	–	–	–	–						

Appendix Table 8.a. Positive scenarios: Summary of probabilities and odds of attendance, PSE quality, graduation, and the quality of work (1)																	
	Among all young adults with disabilities, 18 to 34 years old				Among current or recent young adult students with disabilities, at least 18 years old when attending and younger than 35 when the CSD was conducted												
	Very likely to attend PSE				Very likely to experience high-quality PSE (or very unlikely to experience low-quality PSE)			Very likely to graduate from PSE				Highly positive employment scenarios					
												Substantially different Probabilities			Significant odds		
Basic sociodemographic characteristics	College, etc. Prob.	College, etc. Odds	University Prob.	University Odds	College, etc. Prob.	University Prob.	PSE Odds	College, etc. Prob.	College, etc. Odds	University Prob.	University Odds	Much more likely to hold high-quality work	Much less likely to hold low-quality work	Much less likely to be jobless	High odds of high quality work	Low odds of low-quality work	Low odds of joblessness
College/CEGEP/trade school sometime in 2016–2017	–	–	–	–	–	–	–	–	–	–	–						
Attended school 2012–2015, but not college/CEGEP/trade school in 2016–2017	–	–	–	–													
University sometime in 2016–2017	–	–	–	–													
Attended school 2012–2015, but not university in 2016–2017	–	–	–	–									X				
in high-quality PSE	–	–	–	–								X			X		
In low-quality PSE	–	–	–	–													

Notes:

1. Blank cells represent percentages that are within ±0.15 of the expected percentages, or odds that are not statistically significant. Data were not gathered for cells with dashes.

2. Includes a few with no certificate and a few with a university certificate less than a bachelor's degree.

Appendix Table 8.b. Negative scenarios: Summary of probabilities and odds of attendance, PSE quality, graduation, and the quality of work (1)																	
	Among all young adults with disabilities, 18 to 34 years old				Among current or recent young adult students with disabilities, at least 18 years old when attending and younger than 35 when the CSD was conducted												
	Very low likelihood of attending				Very likely to experience low-quality PSE (or very unlikely to experience high-quality PSE)			Very low likelihood of graduating from PSE				Very negative employment scenarios					
												Substantially different probabilities			Significant Odds		
Basic sociodemographic characteristics	**College, etc. Prob.**	**College, etc. Odds**	**University Prob.**	**University Odds**	**College, etc. Prob.**	**University Prob.**	**PSE Odds**	**College, etc. Prob.**	**College, etc. Odds**	**University Prob.**	**University Odds**	**Much more likely to hold low quality work**	**Much less likely to hold high-quality work**	**Much more likely to be jobless**	**High odds of low quality work**	**Low odds of high-quality work**	**High odds of joblessness**
Male	X				X					X							
Female					X	X											
BIPOC					X			X						X			X
Indigenous			X		–	–	–	–	–	–	–	–	–	–	–	–	–
Racialized					–	–	–	–	–	–	–	–	–	–	–	–	–
Not BIPOC																	
Low income					X	X	X	X		X	X		X	X		X	X
Not low income										X							
British Columbia					X	X											
Prairies (AB, SK, MB)											X						

Appendix Table 8.b. Negative scenarios: Summary of probabilities and odds of attendance, PSE quality, graduation, and the quality of work (1)																	
	Among all young adults with disabilities, 18 to 34 years old				Among current or recent young adult students with disabilities, at least 18 years old when attending and younger than 35 when the CSD was conducted												
	Very low likelihood of attending				Very likely to experience low-quality PSE (or very unlikely to experience high-quality PSE)			Very low likelihood of graduating from PSE				Very negative employment scenarios					
												Substantially different probabilities			Significant Odds		
Basic sociodemographic characteristics	**College, etc. Prob.**	**College, etc. Odds**	**University Prob.**	**University Odds**	**College, etc. Prob.**	**University Prob.**	**PSE Odds**	**College, etc. Prob.**	**College, etc. Odds**	**University Prob.**	**University Odds**	**Much more likely to hold low quality work**	**Much less likely to hold high-quality work**	**Much more likely to be jobless**	**High odds of low quality work**	**Low odds of high-quality work**	**High odds of joblessness**
Ontario					X			X					X				
Quebec					X					X	X						
Atlantic (NB, NS, PE, NL)	X				X												
Northern territories			X							X			X				
Rural			X	X	X					X							
Small and mid-sized population centres	X		X	X						X							
Large urban population centres					X												
Living Arrangements																	
Adult sons/daughters								X		X			X				
Members of couples, no children																	
Parents (themselves)										X	X			X			
Unattached, living alone																	

Appendix Table 8.b. Negative scenarios: Summary of probabilities and odds of attendance, PSE quality, graduation, and the quality of work (1)																	
	Among all young adults with disabilities, 18 to 34 years old				Among current or recent young adult students with disabilities, at least 18 years old when attending and younger than 35 when the CSD was conducted												
	Very low likelihood of attending				Very likely to experience low-quality PSE (or very unlikely to experience high-quality PSE)			Very low likelihood of graduating from PSE				Very negative employment scenarios					
												Substantially different probabilities			Significant Odds		
Basic sociodemographic characteristics	**College, etc. Prob.**	**College, etc. Odds**	**University Prob.**	**University Odds**	**College, etc. Prob.**	**University Prob.**	**PSE Odds**	**College, etc. Prob.**	**College, etc. Odds**	**University Prob.**	**University Odds**	**Much more likely to hold low quality work**	**Much less likely to hold high-quality work**	**Much more likely to be jobless**	**High odds of low quality work**	**Low odds of high-quality work**	**High odds of joblessness**
Others (extended family mbrs, shared accommodation)							X						X				
Disability characteristics																	
Not cognitive disability																	
Cognitive disability			X		X					X	X			X			
Learning disability																	
Intellectual/developmental disability																	
Physical disability with pain			X		X												
Disability without pain					X				X								
Psychosocial disability					X	X					X				X		
Not sensorial																	
Sensorial disability					X	X											

Appendix Table 8.b. Negative scenarios: Summary of probabilities and odds of attendance, PSE quality, graduation, and the quality of work (1)																	
	Among all young adults with disabilities, 18 to 34 years old				Among current or recent young adult students with disabilities, at least 18 years old when attending and younger than 35 when the CSD was conducted												
	Very low likelihood of attending				Very likely to experience low-quality PSE (or very unlikely to experience high-quality PSE)			Very low likelihood of graduating from PSE				Very negative employment scenarios					
												Substantially different probabilities			Significant Odds		
Basic sociodemographic characteristics	**College, etc. Prob.**	**College, etc. Odds**	**University Prob.**	**University Odds**	**College, etc. Prob.**	**University Prob.**	**PSE Odds**	**College, etc. Prob.**	**College, etc. Odds**	**University Prob.**	**University Odds**	**Much more likely to hold low quality work**	**Much less likely to hold high-quality work**	**Much more likely to be jobless**	**High odds of low quality work**	**Low odds of high-quality work**	**High odds of joblessness**
Vision disability					X												
Hearing disability	X					X	X										
Mild complexity					X							X					
Moderate complexity		X															X
Severe complexity		X								X				X			X
Very severe complexity			X			X				X				X			X
Instructional and built-environmental supports																	
Grouped																	
Need accessible bldgs or instructional supports	–	–	–	–													
Do not need any accessible buildings or instructional supports for education	–	–	–	–													

Appendix Table 8.b. Negative scenarios: Summary of probabilities and odds of attendance, PSE quality, graduation, and the quality of work (1)																	
	Among all young adults with disabilities, 18 to 34 years old				Among current or recent young adult students with disabilities, at least 18 years old when attending and younger than 35 when the CSD was conducted												
	Very low likelihood of attending				Very likely to experience low-quality PSE (or very unlikely to experience high-quality PSE)			Very low likelihood of graduating from PSE				Very negative employment scenarios					
												Substantially different probabilities			Significant Odds		
Basic sociodemographic characteristics	**College, etc. Prob.**	**College, etc. Odds**	**University Prob.**	**University Odds**	**College, etc. Prob.**	**University Prob.**	**PSE Odds**	**College, etc. Prob.**	**College, etc. Odds**	**University Prob.**	**University Odds**	**Much more likely to hold low quality work**	**Much less likely to hold high-quality work**	**Much more likely to be jobless**	**High odds of low quality work**	**Low odds of high-quality work**	**High odds of joblessness**
Among those needing support:	–	–	–	–													
Need accessible buildings only	–	–	–	–													
Need instructional supports only	–	–	–	–													
Need both kinds of support	–	–	–	–													
Specific supports	–	–	–	–													
Need accessible bldgs	–	–	–	–													
Do not need accessible bldgs	–	–	–	–	X												
Need accessible curric/procedures	–	–	–	–						X							
Do not need accessible curric/procedures	–	–	–	–	X	X											
Need human support	–	–	–	–				X		X	X						
Do not need human support	–	–	–	–	X												

Appendix Table 8.b. Negative scenarios: Summary of probabilities and odds of attendance, PSE quality, graduation, and the quality of work (1)																	
	Among all young adults with disabilities, 18 to 34 years old				Among current or recent young adult students with disabilities, at least 18 years old when attending and younger than 35 when the CSD was conducted												
	Very low likelihood of attending				Very likely to experience low-quality PSE (or very unlikely to experience high-quality PSE)			Very low likelihood of graduating from PSE				Very negative employment scenarios					
												Substantially different probabilities			Significant Odds		
Basic sociodemographic characteristics	**College, etc. Prob.**	**College, etc. Odds**	**University Prob.**	**University Odds**	**College, etc. Prob.**	**University Prob.**	**PSE Odds**	**College, etc. Prob.**	**College, etc. Odds**	**University Prob.**	**University Odds**	**Much more likely to hold low quality work**	**Much less likely to hold high-quality work**	**Much more likely to be jobless**	**High odds of low quality work**	**Low odds of high-quality work**	**High odds of joblessness**
Need accessible materials	–	–	–	–				X	X								
Do not need accessible materials	–	–	–	–	X												
Need accessible technologies	–	–	–	–				X		X							
Do not need accessible technologies	–	–	–	–	X	X											
Need misc other support	–	–	–	–				X									
Do not need misc other support	–	–	–	–													
Socioeconomic factors related to education																	
Have additional costs because of disability					X	X											

Appendix Table 8.b. Negative scenarios: Summary of probabilities and odds of attendance, PSE quality, graduation, and the quality of work (1)																	
	Among all young adults with disabilities, 18 to 34 years old				Among current or recent young adult students with disabilities, at least 18 years old when attending and younger than 35 when the CSD was conducted												
	Very low likelihood of attending				Very likely to experience low-quality PSE (or very unlikely to experience high-quality PSE)			Very low likelihood of graduating from PSE				Very negative employment scenarios					
												Substantially different probabilities			Significant Odds		
Basic sociodemographic characteristics	**College, etc. Prob.**	**College, etc. Odds**	**University Prob.**	**University Odds**	**College, etc. Prob.**	**University Prob.**	**PSE Odds**	**College, etc. Prob.**	**College, etc. Odds**	**University Prob.**	**University Odds**	**Much more likely to hold low quality work**	**Much less likely to hold high-quality work**	**Much more likely to be jobless**	**High odds of low quality work**	**Low odds of high-quality work**	**High odds of joblessness**
No additional costs because of disability																	
Felt avoided because of disability					X	X				X							
Never felt avoided at school because of disability																	
Felt left out at school because of disability					X	X		X		X							
Never felt left out at school because of disability											X						
Was bullied at school because of disability					X	X				X							
Never bullied at school because of disability																	

Appendix Table 8.b. Negative scenarios: Summary of probabilities and odds of attendance, PSE quality, graduation, and the quality of work (1)																	
	Among all young adults with disabilities, 18 to 34 years old				Among current or recent young adult students with disabilities, at least 18 years old when attending and younger than 35 when the CSD was conducted												
	Very low likelihood of attending				Very likely to experience low-quality PSE (or very unlikely to experience high-quality PSE)			Very low likelihood of graduating from PSE				Very negative employment scenarios					
												Substantially different probabilities			Significant Odds		
Basic sociodemographic characteristics	**College, etc. Prob.**	**College, etc. Odds**	**University Prob.**	**University Odds**	**College, etc. Prob.**	**University Prob.**	**PSE Odds**	**College, etc. Prob.**	**College, etc. Odds**	**University Prob.**	**University Odds**	**Much more likely to hold low quality work**	**Much less likely to hold high-quality work**	**Much more likely to be jobless**	**High odds of low quality work**	**Low odds of high-quality work**	**High odds of joblessness**
Certification and programs of study																	
Educational certification:																	
No certification or high school graduation as highest certificate (2)	–	–	–	–	X			–	–	–	–		X	X			
College/CEGEP or trades certificate	–	–	–	–	X	X		–	–	–	–						
University degree	–	–	–	–	X			–	–	–	–	X					
Postsecondary certification:																	
No postsecondary certificate, diploma or degree	–	–	–	–	X			–	–	–	–	–	–	–	–	–	–

Appendix Table 8.b. Negative scenarios: Summary of probabilities and odds of attendance, PSE quality, graduation, and the quality of work (1)																	
	Among all young adults with disabilities, 18 to 34 years old				Among current or recent young adult students with disabilities, at least 18 years old when attending and younger than 35 when the CSD was conducted												
	Very low likelihood of attending				Very likely to experience low-quality PSE (or very unlikely to experience high-quality PSE)			Very low likelihood of graduating from PSE				Very negative employment scenarios					
												Substantially different probabilities			Significant Odds		
Basic sociodemographic characteristics	**College, etc. Prob.**	**College, etc. Odds**	**University Prob.**	**University Odds**	**College, etc. Prob.**	**University Prob.**	**PSE Odds**	**College, etc. Prob.**	**College, etc. Odds**	**University Prob.**	**University Odds**	**Much more likely to hold low quality work**	**Much less likely to hold high-quality work**	**Much more likely to be jobless**	**High odds of low quality work**	**Low odds of high-quality work**	**High odds of joblessness**
STEM, Business and admin, and Legal, Health and Education professions	–	–	–	–				–	–	–	–	–	–	–	–	–	–
Arts, Humanities, social and Behavioural sciences; and Trades, Services, Natural resources and Conservation	–	–	–	–	X	X		–	–	–	–	–	–	–	–	–	–
Recent/current PSE attendance	–	–	–	–								–					
College/CEGEP/trade school sometime in 2016–2017	–	–	–	–										X			X
Attended school 2012–2015, but not college/CEGEP/trade school in 2016–2017	–	–	–	–													

Appendix Table 8.b. Negative scenarios: Summary of probabilities and odds of attendance, PSE quality, graduation, and the quality of work (1)																	
	Among all young adults with disabilities, 18 to 34 years old				Among current or recent young adult students with disabilities, at least 18 years old when attending and younger than 35 when the CSD was conducted												
	Very low likelihood of attending				Very likely to experience low-quality PSE (or very unlikely to experience high-quality PSE)			Very low likelihood of graduating from PSE				Very negative employment scenarios					
												Substantially different probabilities			Significant Odds		
Basic sociodemographic characteristics	**College, etc. Prob.**	**College, etc. Odds**	**University Prob.**	**University Odds**	**College, etc. Prob.**	**University Prob.**	**PSE Odds**	**College, etc. Prob.**	**College, etc. Odds**	**University Prob.**	**University Odds**	**Much more likely to hold low quality work**	**Much less likely to hold high-quality work**	**Much more likely to be jobless**	**High odds of low quality work**	**Low odds of high-quality work**	**High odds of joblessness**
University sometime in 2016–2017	–	–	–	–								X	X		X		
Attended school 2012–2015, but not university in 2016–2017	–	–	–	–													
in high-quality PSE	–	–	–	–													
In low-quality PSE	–	–	–	–									X				

Notes:

1. Blank cells represent percentages that are within ±0.15 of the expected percentages, or odds that are not statistically significant. Data were not gathered for cells with dashes.

2. Includes a few with no certificate and a few with a university certificate less than a bachelor's degree.