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We look forward to sharing this final report with the CSA membership and wider community.



#### **Executive Summary**

This report investigates enrollment trends in Sociology departments across Canadian universities and evaluates the employment outlook for Sociology graduates at both the undergraduate and graduate levels. Drawing on data on *postsecondary enrolments, by detailed field of study and International Standard Classification of Education* from Statistics Canada (2024), the first section analyzes enrollment patterns from 2013/2014 to 2022/2023 academic years, disaggregated by gender, registration status, and geographic region. This analysis provides insight into shifting patterns of student engagement with Sociology programs and highlights broader demographic and institutional dynamics within Canadian post-secondary education.

The second section assesses employment opportunities and labor market projections for Sociology graduates, using sources such as Job Bank Canada and other publicly available employment outlook tools. It explores projected job growth over the next decade, identifies key competencies and transferable skills associated with a Sociology background, and discusses how graduates are positioned within the contemporary labor market.

The final section addresses the emerging impact of artificial intelligence (AI) on the field of social science. It examines how AI technologies are influencing research methodologies, data analysis, and knowledge production. This section also considers both the opportunities and challenges AI presents for the discipline, aiming to provide a comprehensive understanding of how technological advances may reshape Sociology as an academic field and professional pathway. Together, these sections aim to inform discussions around the future of Sociology as both an academic discipline and a professional pathway in Canada.



## Suggested Updates to CSA Resources

To enhance the CSA's career resources this report recommends:

- Incorporate Recent Labour Market Data: Update employment outlooks and salary information using the latest data from Job Bank and Statistics Canada.
- **Highlight Diverse Career Paths**: Emphasize the variety of roles Sociology graduates can pursue, including those outside traditional academic or research positions.
- Address Career Alignment: Provide guidance on how sociology graduates can leverage their skills in roles that may not be directly labeled as sociology positions but still benefit from sociological expertise.
- **Promote Career Planning Tools**: Encourage the use of resources like Job Bank's tools and university career services to assist students in navigating their career paths.



#### I. Enrollment Trends in Sociology programs across Canadian Universities

Statistics Canada classifies postsecondary instructional programs using the Classification of Instructional Programs (CIP Canada) system. Within this framework, Sociology falls under "45-Social Sciences" which includes fields focused on the systematic study of social systems, institutions and behaviour. More specifically, Sociology is classified under "45.11-Sociology", and the relevant category for most university programs is "45.1101-Sociology, general". This classification encompasses programs that examine social theory, research methods, social structure, stratification, social change, family dynamics, deviance, and broader social issues.

In this report, enrollment data are based specifically on programs coded under "45.1101–Sociology, General." As a result, the analysis focuses on Sociology programs rather than entire Sociology departments, excluding related disciplines (such as applied sociology, human ecology, rural sociology, social psychology, sociology and anthropology, sociology education, and sociology of health and aging) that may be administratively housed within Sociology departments at some universities. This approach ensures consistency across institutions when analyzing enrollment trends.

Drawing on data from Statistics Canada (2024), Figure 1 presents the percentage of students enrolled in Sociology programs relative to the total enrollment across all disciplines at three academic levels- Bachelor's (BA), Master's (MA), and Doctoral (PhD)- in Canadian universities between the 2013/2014 and 2022/2023 academic years.

At the Bachelor's level (BA), the proportion of students enrolled in Sociology programs declined from 1.56% in 2013–2014 to 1.26% in 2022–2023, indicating a gradual reduction in undergraduate interest relative to overall enrollment. At the Master's level (MA), Sociology's

share consistently remained below 0.5%, with a slight decrease from 0.45% to 0.37% over the same period. At the Doctoral level (PhD), the proportion began at 1.74% and ended at 1.41%, showing minor fluctuations but relatively greater stability compared to the BA and MA levels.

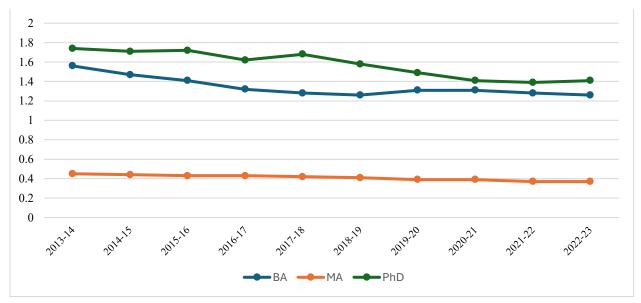
Undergraduate enrollment is the main area of concern. A 13% decline in Sociology bachelor's students- from 14,970 in 2013–2014 to 13,074 in 2022–2023 (see table1)- accounts for much of the overall drop in the discipline's share of university enrollment. To address this, departments may need to offer more engaging first-year courses, highlight career pathways more clearly, and develop interdisciplinary minors that attract a wider range of students.

Graduate programs have remained stable in absolute numbers but are losing visibility because enrollment in other fields is growing more quickly. To maintain their relevance, Sociology graduate programs may want to consider strengthening their focus on applied research or partnerships with community and policy sectors. Strategic planning should focus on Sociology's share of enrollment, not just total numbers. With total university enrollment increasing by 8% at the undergraduate level and 22% at the PhD level (see table1), simply maintaining current Sociology enrollment means the discipline is losing ground relative to others.

Therefore, while the absolute number of students enrolled in Sociology at the MA and PhD levels has remained relatively stable over the past decade, the proportion of Sociology students relative to the total graduate student population has gradually declined. This trend suggests that other disciplines may be experiencing faster enrollment growth, potentially indicating a relative decline in the visibility, appeal, or perceived relevance of Sociology as a field of study.



Figure 1, Relative Enrollment in Sociology at the Undergraduate and Graduate Levels in Canadian Universities (2013–2023), Statistics Canada 2024



To better understand gender dynamics within Sociology programs, Figures 2 and 3 present the absolute number of male and female students enrolled in Sociology programs (BA, MA, and PhD) from 2013 to 2023. A notable pattern that emerges from the data (see table2) is the persistent gender imbalance across all levels of Sociology education. Female students consistently outnumber their male counterparts, with the most significant disparity observed at the undergraduate level. While this gender gap continues into graduate studies, it becomes less pronounced in the MA and PhD programs, suggesting a slight narrowing as the level of study increases. These trends may prompt further investigation into the factors influencing gendered enrollment choices in the social sciences.



Figure 2, Trends in Female Enrollment in Sociology Programs in Canadian Universities, 2013–2023, Statistics Canada 2024

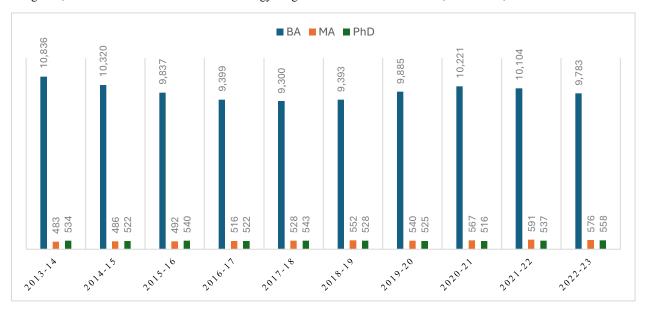
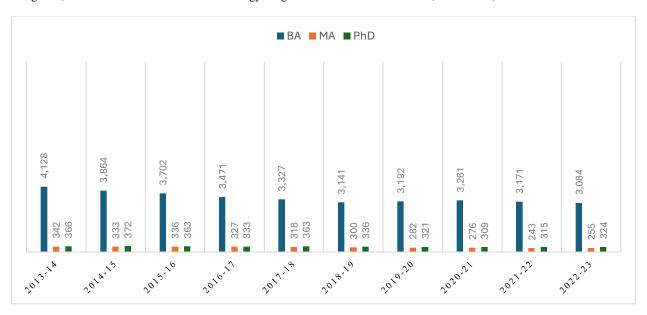


Figure 3, Trends in Male Enrollment in Sociology Programs in Canadian Universities, 2013–2023, Statistics Canada 2024





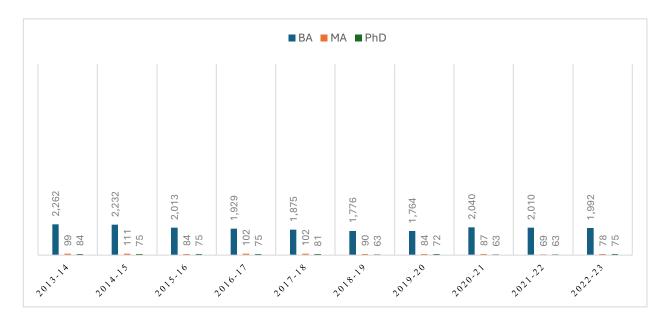
Figures 4 and 5 present the enrollment trends in Sociology programs across Canadian universities from 2013 to 2023, disaggregated by registration status (full-time and part-time) and program level (BA, MA, PhD). Across all levels, full-time enrollment is the dominant registration status in Sociology programs at Canadian universities. The gap between full-time and part-time students is especially pronounced at the undergraduate and master's levels. PhD programs show slightly more balance, though full-time study remains more common. The consistency of full-time enrollment over time may reflect institutional program structures, student funding patterns, and expectations around the pace and intensity of academic work in Sociology (see table 3).



Figure 4, Trends in Full-time Enrollment in Sociology Programs in Canadian Universities, 2013–2023, Statistics Canada 2024



Figure 5, Trends in Part-time Enrollment in Sociology Programs in Canadian Universities, 2013–2023, Statistics Canada 2024





Regional Enrolment Patterns in Sociology across Canadian Universities (2013/2014 – 2022/2023)

Central Canada (Ontario and Québec) continues to enroll the largest number of Sociology students across all levels, but it also experienced the most significant decline in undergraduate enrollment over the past decade. Between 2013/2014 and 2022/2023, BA enrollment in the region dropped by 32.8% (from 10,512 to 7,059), while MA numbers remained relatively stable and PhD enrollment increased slightly. Despite this decline at the undergraduate level, Central Canada maintains a strong position in graduate education, with its share of national PhD enrollment rising slightly from 77% to 80% (see table 4).



Figure 6, Sociology Enrollment Trends in Québec (2013–2023), Statistics Canada 2024

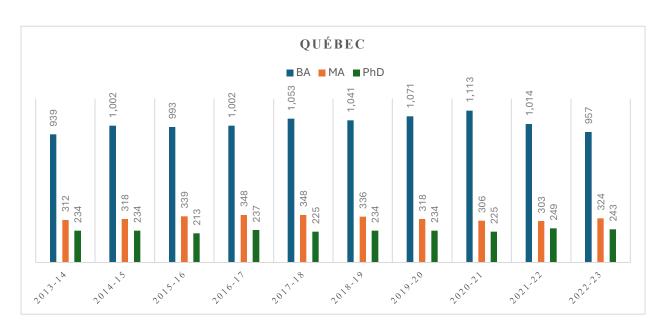
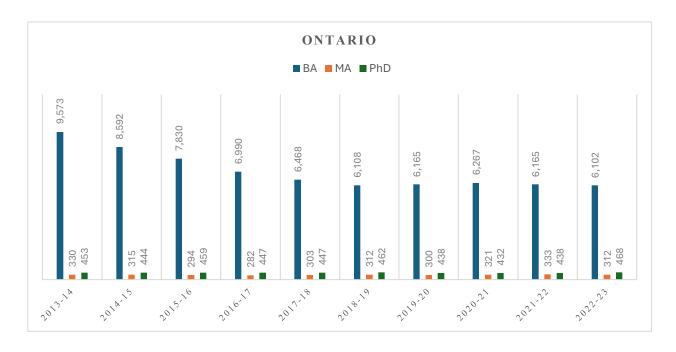


Figure 7, Sociology Enrollment Trends in Ontario (2013–2023), Statistics Canada 2024





In contrast, the Prairie provinces (Alberta, Saskatchewan, and Manitoba) saw a marked increase in BA enrollment, rising by 62.4% over the same period (from 2,511 to 4,077). This growth more than doubled the region's share of national undergraduate Sociology enrollment, from 17% to 31%, reflecting regional demographic shifts and possible investments in post-secondary education. However, MA enrollment in the Prairies showed minimal change, and PhD numbers declined, indicating that growth in the region is concentrated primarily at the undergraduate level (see table 4).

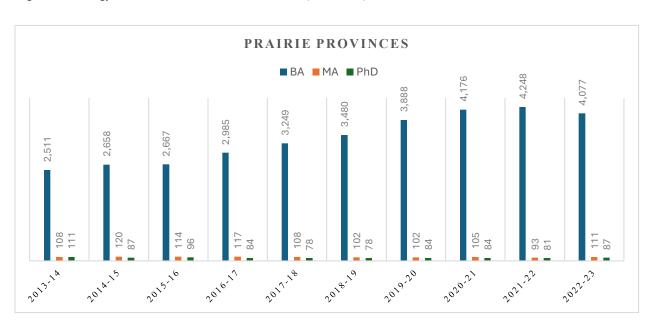
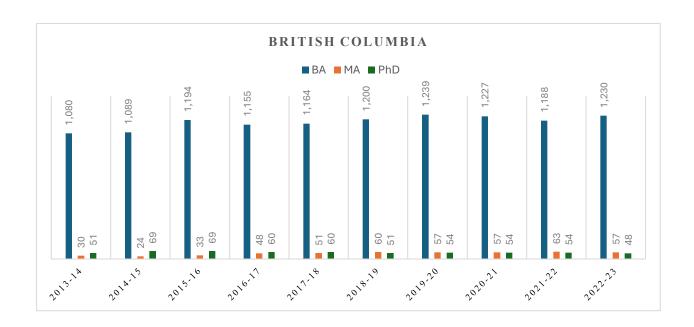


Figure 8, Sociology Enrollment Trends in Prairie Provinces (2013–2023), Statistics Canada 2024



British Columbia experienced moderate growth in BA enrollment (+13.9%) and a sharp increase in MA enrollment (+90%), albeit from a relatively small base, while PhD numbers decreased slightly by about 6%. These trends may reflect institutional efforts to expand master's-level offerings and diversify graduate pathways (see table 4).

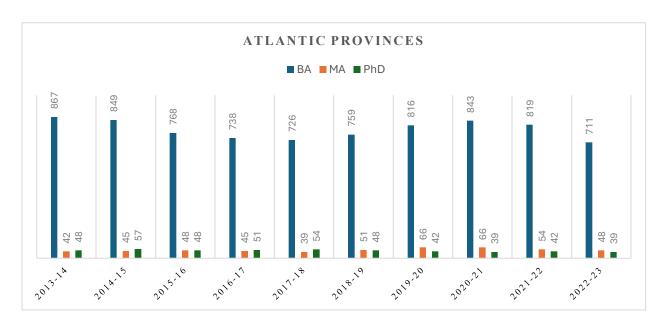
Figure 9, Sociology Enrollment Trends in British Columbia (2013-2023), Statistics Canada 2024





In the Atlantic provinces, enrollment declined across all levels except for a modest increase in MA students. The Atlantic share of national undergraduate Sociology enrollment slipped only slightly (from about 5.8 % to 5.4 %), but the absolute decline is concentrated at the BA level. The region's overall decline, particularly at the undergraduate level (–18%), may be attributed to youth out-migration and limited graduate funding opportunities (see table 4).

Figure 10, Sociology Enrollment Trends in Atlantic Provinces (2013–2023), Statistics Canada 2024





# Provincial Enrolment Patterns in Sociology across Canadian Universities (2013/2014 – 2022/2023)

Figures 11 and 12 provide provincial-level enrollment data for Sociology programs across the Atlantic region from 2013/2014 to 2022/2023. Newfoundland & Labrador experienced a gradual decline in enrollment across all levels. BA enrollment fell from 234 to 174 (–26%), while MA and PhD enrollments peaked mid-decade and then declined modestly in recent years. Prince Edward Island offers only an undergraduate Sociology program, where BA enrollment remained low and fluctuated between 60 and 111 students over the decade, with no MA or PhD programs offered. Nova Scotia maintained relatively stable BA enrollment (ranging from 264 to 336), but both MA and PhD levels saw a gradual decline, never exceeding 24 and 15 students respectively. New Brunswick showed modest participation across all levels; while BA enrollment remained relatively steady early on, it declined from 186 to 159 in the final years. MA and PhD enrollments were minimal and fluctuating, with a gradual decrease over time. Overall, the Atlantic region is characterized by small-scale Sociology programs with limited graduate-level capacity and a general pattern of declining enrollment (see table 5).



Figure 11, Sociology Enrollment Trends in Atlantic Provinces (2013–2023), Statistics Canada 2024

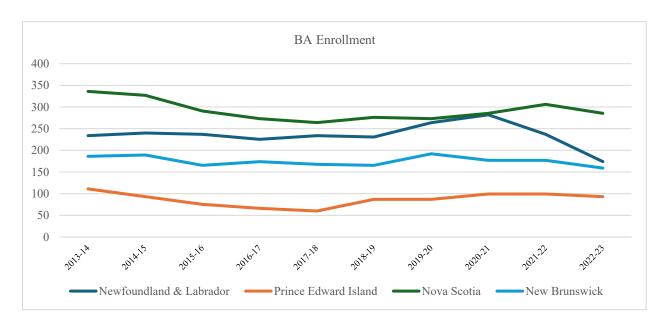
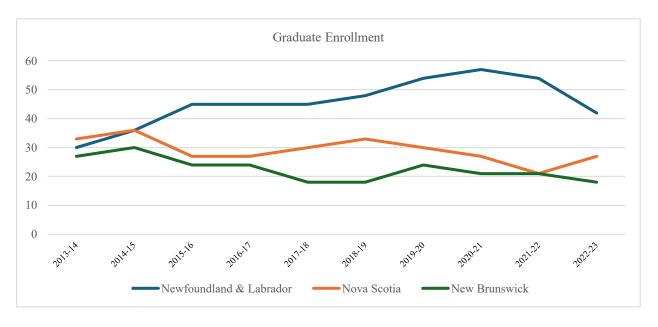


Figure 12, Sociology Enrollment Trends in Atlantic Provinces (2013–2023), Statistics Canada 2024





#### Central Canada

Figures 13 and 14 presents enrollment data for Sociology programs in Québec and Ontario from 2013/2014 to 2022/2023. **Ontario**, which accounts for the largest share of Sociology students nationally, experienced a significant decline in BA enrollment- dropping from 9,573 in 2013/2014 to 6,102 in 2022/2023, a 36% decrease over the decade. MA enrollment in Ontario remained relatively stable, fluctuating between 282 and 333 students, while PhD enrollment showed slight variation but ultimately increased from 453 to 468. In contrast, **Québec** maintained more stable undergraduate numbers, with BA enrollment peaking mid-decade and declining slightly in recent years (from 1,071 in 2019/2020 to 957 in 2022/2023). MA and PhD enrollments in Québec remained relatively consistent, with minor year-to-year fluctuations. Overall, the data indicate a pronounced decline in undergraduate enrollment in Ontario, while Québec shows greater stability across all levels. Central Canada remains the national hub for graduate-level Sociology education, despite the contraction at the undergraduate level, particularly in Ontario (see table 6).



Figure 13, Sociology Enrollment Trends in Québec & Ontario (2013-2023), Statistics Canada 2024

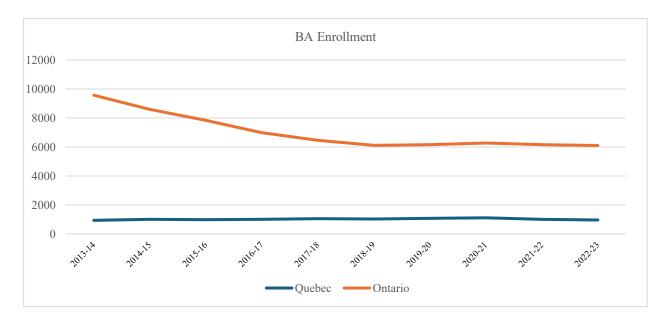
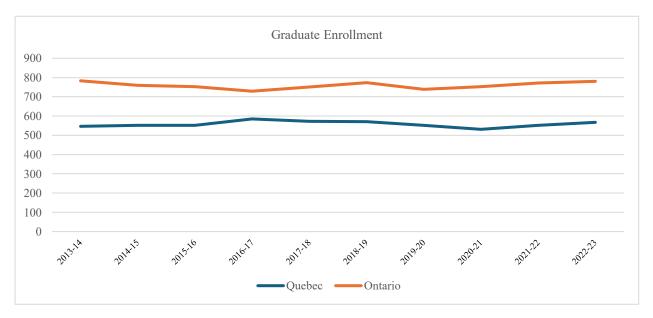


Figure 14, Sociology Enrollment Trends in Québec & Ontario (2013–2023), Statistics Canada 2024





#### Prairie Provinces

Figures 15 and 16 presents Sociology enrollment data in the Prairie provinces, showing marked growth at the undergraduate level, particularly in **Alberta**, while graduate-level enrollment remains relatively stable. Alberta experienced a substantial increase in BA enrollment, rising from 2,046 in 2013/2014 to a peak of 3,558 in 2021/2022 before a slight decline to 3,441 in 2022/2023representing a 68% increase over the decade. MA and PhD enrollments in Alberta remained relatively flat, with MA numbers fluctuating around 39-48 and PhD enrollment slightly declining overall. Saskatchewan also saw growth in BA enrollment, increasing from 306 to 411 between 2013/2014 and 2019/2020, before tapering off slightly to 321 by 2022/2023. MA and PhD enrollments remained consistently low, each ranging from 15 to 24 students over the decade. Manitoba showed a gradual increase in BA enrollment, from 159 in 2013/2014 to 315 in 2022/2023, effectively doubling over ten years. MA and PhD enrollments remained modest and relatively stable, with slight increases observed in recent years. Overall, the Prairie provinces are characterized by strong undergraduate growth, particularly in Alberta, while graduate enrollments have remained small and stable, suggesting that the expansion of Sociology in this region is largely driven by undergraduate demand (see table 7).



Figure 15, Sociology Enrollment Trends in Manitoba, Saskatchewan & Alberta (2013–2023), Statistics Canada 2024

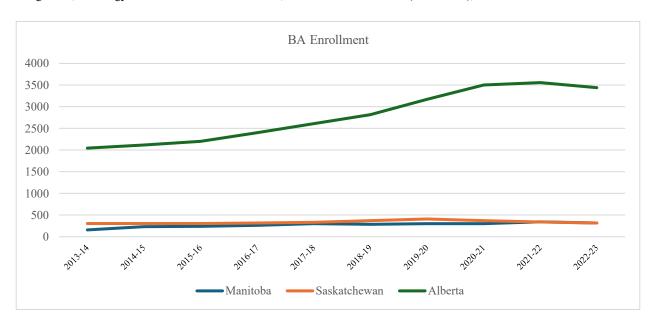
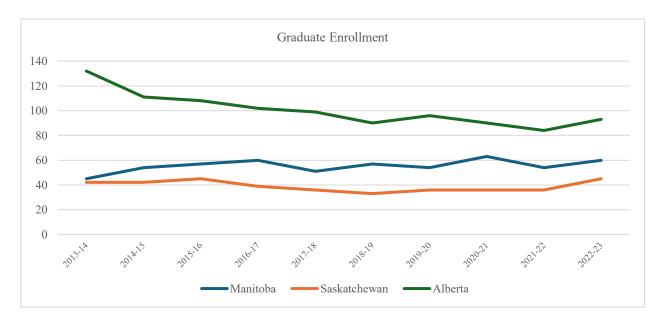


Figure 16, Sociology Enrollment Trends in Manitoba, Saskatchewan & Alberta (2013-2023), Statistics Canada 2024





### British Columbia

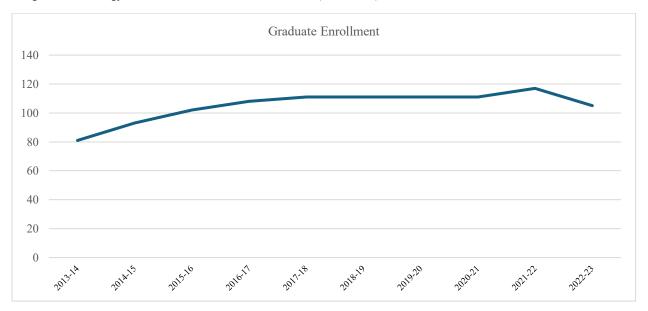
British Columbia shows modest but steady growth in Sociology enrollment over the past decade, particularly at the undergraduate and master's levels. BA enrollment increased from 1,080 in 2013/2014 to 1,230 in 2022/2023, with minor year-to-year fluctuations but an overall upward trend. MA enrollment nearly doubled, rising from 30 to a peak of 63 in 2021/2022, before slightly declining to 57 in 2022/2023- indicating growing interest in graduate-level study. PhD enrollment remained stable throughout the period, ranging between 48 and 69 students, with a slight decline in the final years. These figures suggest that British Columbia has maintained a consistent Sociology presence, with expanding master's-level participation and a stable doctoral pipeline (see table 8).



Figure 17, Sociology Enrollment Trends in British Columbia (2013–2023), Statistics Canada 2024



Figure 18, Sociology Enrollment Trends in British Columbia (2013–2023), Statistics Canada 2024





Enrollment trends in Sociology programs across Canadian universities from 2013/2014 to 2022/2023 reveal both regional variation and shifts in program levels. While undergraduate enrollment has declined in several provinces—most notably in Ontario—some regions, such as the Prairies and British Columbia, have seen modest growth. Graduate enrollment has remained relatively stable across the country, though typically small in scale outside Central Canada. These patterns reflect broader demographic and institutional dynamics and highlight the need for strategic efforts to strengthen undergraduate recruitment and support program sustainability nationwide.

The data suggests that large provinces with more institutions and broader research infrastructures attract higher numbers of students across all levels, while smaller provinces may face challenges in sustaining advanced Sociology programs. This imbalance could have long-term implications for regional capacity in Sociology research and education.



### II. Employment Opportunities for Sociology Undergraduate and Graduate Students

Figure 19 show employment rates for Social Science graduates at the bachelor's, master's, and doctoral levels across 10 Canadian regions (Statistics Canada, 2022). At the bachelor's level, employment rates ranged from 69.3% in Prince Edward Island to 75% in Saskatchewan, reflecting moderate regional variation. Master's graduates generally had slightly higher employment rates, with Saskatchewan (78.9%) and Alberta (75.7%) leading. PhD holders showed similar patterns, with most provinces between 70–75%, though Prince Edward Island reported 100%, likely due to a small sample size. Overall, higher degrees were associated with slightly improved employment outcomes, though regional differences persist (see tables 9-11).

Figure 20 presents unemployment rates for Social Science graduates at the bachelor's, master's, and doctoral levels across 10 Canadian regions (Statistics Canada, 2022). At the bachelor's level, unemployment rates ranged from 4.6% in Manitoba to 9.8% in Nova Scotia. For master's graduates, rates were generally lower, with most provinces reporting under 6%, and Manitoba (2.9%) showing the lowest. At the PhD level, unemployment remained low across regions, with several provinces—such as Saskatchewan, New Brunswick, and Newfoundland & Labrador—reporting 0%, though small sample sizes may influence these figures. Overall, higher degrees tended to be associated with lower unemployment rates, though some regional variation remains (see tables 9-11).



Figure 19, Employment Rate in Social Sciences by Region and Level of Study, Statistics Canada 2022

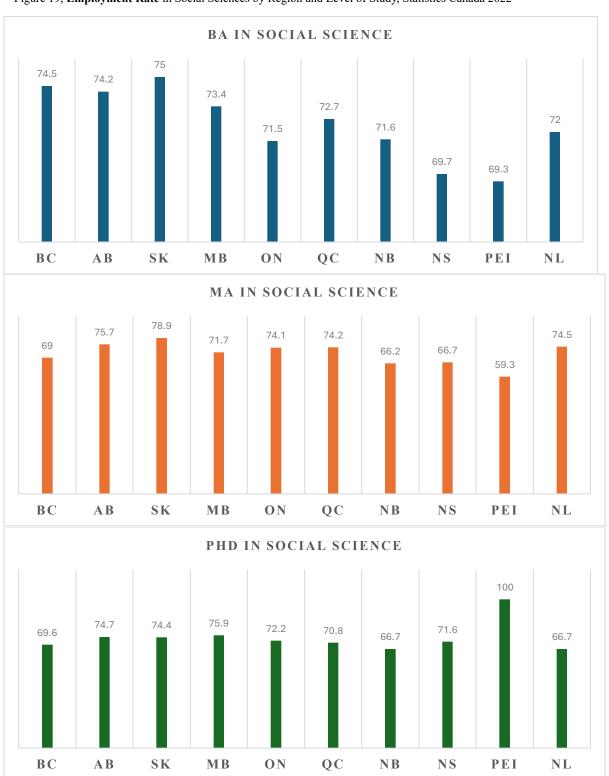
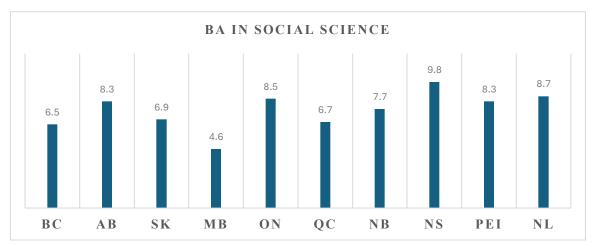
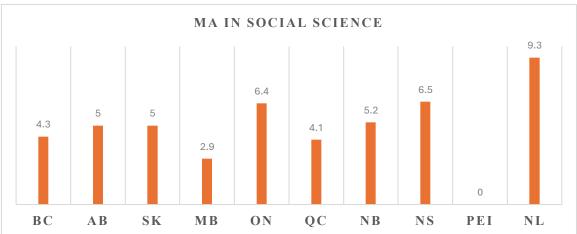
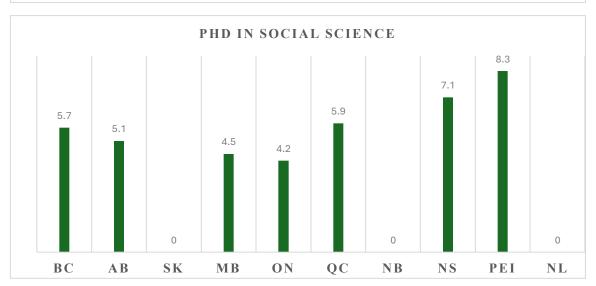




Figure 20, Unemployment Rate in Social Sciences by Region and Level of Study, Statistics Canada 2022









### National employment outlook

Over the next three years (2024–2026), the national job outlook for sociologists in Canada is generally positive but varies across provinces due to differences in employment growth, retirements, and the supply of qualified workers. In Manitoba, the outlook is very good, supported by job growth, retirements, and a small number of experienced unemployed workers. As of 2021, about 150 people were employed in this field, mostly in professional and technical services, arts and recreation, universities, and healthcare. Most worked full-time and year-round, with a high self-employment rate (40%) and balanced gender distribution (53% women, 47% men). In **British** Columbia, the outlook is good, with about 1,250 employed sociologists working primarily in professional services and public administration. The majority are full-time and year-round workers, and 22% are self-employed. Women make up 60% of the sociologist workforce in the province, while men represent 40%. In Quebec, where approximately 1,350 sociologists are employed, the outlook is also good, with many working in social assistance, professional services, and public administration. The workforce is mostly female (73% women and 27% men), and 90% hold at least a bachelor's degree. Regionally, the outlook is strong in several Quebec regions. Alberta shows a moderate outlook due to an expected balance between job openings and job seekers. Around 550 sociologists were employed there as of 2021, mostly in professional services, recreation, and public sectors. Most work full-time and year-round, with a high rate of selfemployment and a majority of workers holding graduate degrees. Women make up approximately 65% of the workforce. In other provinces and territories, data is currently insufficient to determine outlooks (Job Bank, 2024).



### Labour market conditions over the next 10 years

Over the 10-year period from 2024 to 2033, the Canadian labour market for sociologists is projected to remain balanced, with job openings expected to match the number of job seekers. As of 2023, about 3,700 sociologists were employed in Canada, with 39% aged 50 or older. With a median retirement age of 62, retirements will likely create significant openings over the next decade (Job Bank, 2024). However, these projections should be interpreted with caution, as broader structural and global uncertainties such as advances in artificial intelligence (AI) and digitization, budget constraints and institutional restructuring in higher education, as well as external factors including the climate crisis and geopolitical instability, may affect future employment conditions. Consequently, the number and nature of available positions may shift, with potential increases in lower-paid or more precarious roles compared to those currently held by retirees.

#### Employment sectors and roles

Data from 2021 indicates that sociology bachelor's degree holders commonly work as social and community service workers (5.31%), elementary school and kindergarten teachers (3.81%), human resources professionals (3.09%), administrative officers (3.07%), and retail and wholesale trade managers (2.5%). Two years after graduation, the median annual income for sociology graduates was \$40,800, increasing to \$54,500 after five years and \$63,700 after ten years, highlighting steady income growth over time. Sociology master's degree holders commonly work as post-secondary teaching and research assistants (6.1%), social policy researchers, consultants and program officers (6.03%), and college and other vocational instructors (4.71%). Two years after graduation, the median annual income for sociology master's graduates was \$56,800, increasing to \$76,700 after five years and \$77,100 after ten years (Job Bank, n.d.).



## Career alignment and field relevance

According to Statistics Canada (2021 Census), sociology bachelor's degree holders often work in a wide range of fields, many of which are not directly related to their area of study. Among female sociology graduates aged 25 to 34, 7.1% were employed as social and community service workers, 4.7% as human resources professionals, 3.6% as elementary school and kindergarten teachers, and 3.5% in advertising, marketing, and public relations. For male graduates in the same age group, 4.4% worked as retail salespersons and visual merchandisers, 3.8% as police officers, and 3.6% as social and community service workers (Statistics Canada, 2024).

### 21st-Century Skills and Career Sustainability in Social Science Graduates

Many social science graduates face challenging career transitions (Edge et al., 2018). Research indicates that they often earn lower salaries, have limited access to jobs directly related to their degree or requiring their academic skill set, and experience stress due to career uncertainty (Edge et al., 2018, Kalamatianou & Kougioumoutzaki, 2012, Robst & VanGilder, 2016). Additionally, studies reveal a relatively low level of satisfaction with their academic programs in terms of preparing them for professional practice and equipping them with relevant career skills (Rummell, 2015, Skaniakos et al., 2019, VSNU, 2022).

Building a sustainable career in the social sciences often requires graduates to draw on 21st-century skills in addition to their academic knowledge. Unlike students in fields like medicine or engineering, who typically enter careers directly aligned with their specialized training, social sciences graduates are prepared for a broader and more varied job market. Consequently, they tend to work in a wide range of sectors and roles. This diversity can lead to multiple job changes or even shifts in career paths over time, making skills such as adaptability and flexibility essential for



long-term success (Bear & Skorton, 2019, Edge et al., 2018, Greaves, 2022, Humburg & van der Velden, 2013, Lenihan & Witherspoon, 2018, Paunov et al., 2017, The British Academy, 2017, 2020).

Three interrelated indicators- health, happiness, and productivity- are central to the sustainable careers model and are considered applicable across diverse employment types. Career sustainability is achieved when individuals maintain high levels of performance (i.e., productivity) alongside well-being (i.e., happiness and health) throughout their working lives (de Vos et al., 2020). Empirical evidence suggests that, in addition to field-specific knowledge, advanced social, analytical, and lifelong learning skills significantly enhance the likelihood of social science graduates securing suitable employment (Aarts & Künn, 2019).

#### III. Artificial Intelligence (AI) and Sociology

Earlier research on technological change indicated that jobs involving routine or manual tasks were most vulnerable to automation. However, recent developments in artificial intelligence (AI) challenge this view, as AI technologies are now capable of handling non-routine and cognitive work as well. This shift suggests that a wider range of occupations across the labour market may be impacted by AI than was initially anticipated (Mehdi & Morissette, 2024).

A recent Statistics Canada study titled "Experimental Estimates of Potential Artificial Intelligence Occupational Exposure in Canada" (2024) explores how advances in AI, such as ChatGPT, are reshaping the labour market. Unlike earlier waves of automation that mainly affected less educated workers in routine tasks, today's AI technologies—capable of performing nonroutine and cognitive tasks—pose a greater impact on highly educated professionals.

The study categorizes jobs into three groups: those highly exposed and complementary to AI, those highly exposed and potentially replaceable by AI, and those not highly exposed to AI.



As of May 2021, 29% of Canadian workers had jobs highly exposed to and complementary with AI. 31% were in jobs highly exposed but not complementary, potentially at risk of replacement, and 40% held jobs with low AI exposure. The findings reveal a major shift: AI is more likely to impact highly educated workers, reversing past trends. For example, 50% of workers with a bachelor's degree or higher had jobs highly complementary with AI. 36% of these workers also held jobs at risk of replacement by AI. In total, 86% of highly educated workers were in AI-exposed roles, compared to only 38% of those with a high school diploma or less (Statistics Canada, 2024).

These results suggest a growing demand for workers who can engage effectively with AI systems, demonstrating creativity, adaptability, and critical thinking in collaboration with new technologies. As AI becomes embedded across professions, the ability to use it as a complementary "co-intelligence" rather than view it solely as a threat will likely become a key competency in the evolving labour market. Recent evidence supports this perspective, showing that labour markets increasingly value cognitive, emotional, and digital skills that enable workers to collaborate with AI rather than be replaced by it (OECD, 2024a; Mäkelä & Stephany, 2024). In particular, Mäkelä and Stephany (2024) emphasize the importance of reskilling workers in domains where human expertise remains essential, ensuring they can effectively complement and leverage emerging AI technologies. In the Canadian context, the OECD (2024b) reports that occupations highly exposed to AI require stronger problem-solving, communication, and social-interaction abilities, while the World Economic Forum (2024) emphasizes that upskilling in AI-complementary skills is essential for employability as AI becomes integrated across sectors.

As these transformations reshape the nature of work and the competencies most valued across professions, academic disciplines are also being challenged to adapt. For sociology, this

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shift introduces a disciplinary tension: on one hand, there is a need to preserve academic integrity, analytical rigor, and humanistic inquiry; on the other hand, graduates must be prepared for a job market that increasingly values AI literacy and competence. As noted in recent debates on the role of AI in higher education, this raises important questions for sociology departments about how to balance these priorities and whether taking strong anti-AI positions in teaching ultimately benefits students. Moving forward, the discipline would benefit from deeper reflection on how to integrate ethical and responsible uses of AI into sociological training and research practice. Developing clear frameworks for "co-intelligence"- working intelligently with AI while maintaining ethical and critical standards- can help sociology education align with emerging professional realities, enabling students to engage with AI as a complementary tool while preserving the discipline's humanistic and analytical values (Mollick, 2023).

Therefore, today's AI is increasingly capable of handling analytical, interpretive, and communication-based work. Social science research employs diverse methods- ranging from surveys and behavioral assessments to agent-based modeling and qualitative interviews- to understand individuals, groups, and societal dynamics. According to Grossmann et al. (2023), recent developments in artificial intelligence- particularly the emergence of large language models (LLMs)- are fundamentally transforming the landscape of social science research. These advanced models, trained on massive datasets, can generate contextually appropriate and semantically rich human-like responses. As a result, they may serve not only as tools for augmenting data analysis but also as substitutes for human participants in certain areas of data collection. For instance, LLMs have already shown the ability to produce realistic survey responses related to consumer behavior, raising the possibility of using simulated populations for hypothesis generation. While this application remains controversial, the authors argue that even preliminary AI-generated data could



guide researchers toward meaningful questions that can later be tested in real populations.

One advantage of using LLMs is their ability to produce diverse, unbiased responses that are not constrained by common human limitations such as attention span, fatigue, or response bias. Moreover, these models can be prompted to simulate ideological perspectives or theoretical viewpoints, enabling researchers to explore counterfactual scenarios and assess policy options in a controlled, reproducible environment. However, the authors caution that the successful integration of AI into social science depends on several key factors: the fidelity and representativeness of training data, transparency in model architecture and prompt design, and the implementation of ethical guidelines for responsible use. Without careful attention to these factors, there is a risk of misinterpreting or misapplying AI outputs in ways that undermine the integrity of social research. Nevertheless, the potential for AI to enhance the speed, scale, and creativity of social inquiry is significant, offering both practical tools and new methodological opportunities for the future of the field (Grossmann et al., 2023).

However, generative AI presents numerous challenges for social science research, many of which are still emerging. One major concern is that researchers who use large language models (LLMs) for tasks such as literature reviews, question generation, or summarizing large volumes of complex text may encounter similar issues, potentially leading to an increase in low-quality, unreliable outputs. This influx of substandard work could place additional strain on academic journals and funding bodies. While generative AI has the potential to enhance the external validity of research by making findings more generalizable, it may simultaneously undermine internal validity, making it more difficult for other scholars to replicate results. Given that many current studies using these tools are unreviewed preprints, the question of whether their findings will remain reproducible in the future remains a pressing concern for the field (Bail, 2024).



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# **Appendices**

Table 1: Proportion of Sociology Enrollment in Total Post-Secondary Enrollments by Degree Level in Canadian Universities, 2013/2014–2022/2023, Statistics Canada 2024

Total field of study	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23
BA	958,056	963,009	961,566	974,841	985,629	997,806	1,009,707	1,043,457	1,049,655	1,038,405
MA	183,351	185,637	194,304	198,159	202,848	208,554	216,093	219,873	228,861	231,687
PhD	51,702	52,335	52,422	52,917	54,009	54,906	56,883	58,965	61,800	63,027
Sociology										
BA	14,970	14,184	13,545	12,873	12,660	12,588	13,179	13,620	13,440	13,074
MA	822	822	828	843	849	858	840	855	852	855
PhD	900	894	903	855	906	867	849	834	861	888
Proportion										
BA	1.56	1.47	1.41	1.32	1.28	1.26	1.31	1.31	1.28	1.26
MA	0.45	0.44	0.43	0.43	0.42	0.41	0.39	0.39	0.37	0.37
PhD	1.74	1.71	1.72	1.62	1.68	1.58	1.49	1.41	1.39	1.41

Table2: Enrollment in post-secondary program in Sociology across Canadian Universities by gender, 2019/2020-2022/2023, Statistics Canada, 2024

Women	2013-14	2014-15	2015-16	<i>2016-17</i>	2017-18	2018-19	2019-20	<i>2020-21</i>	2021-22	2022-23
BA	10,836	10,320	9,837	9,399	9,300	9,393	9,885	10,221	10,104	9,783
MA	483	486	492	516	528	552	540	567	591	576
PhD	534	522	540	522	543	528	525	516	537	558
Men										
BA	4,128	3,864	3,702	3,471	3,327	3,141	3,192	3,261	3,171	3,084
MA	342	333	336	327	318	300	282	276	243	255
PhD	366	372	363	333	363	336	321	309	315	324

Table3: Enrollment in post-secondary program in Sociology across Canadian Universities by registration status, 2013/2014-2022/2023, Statistics Canada 2024

Full-time	2013-14	2014-15	2015-16	<i>2016-17</i>	<i>2017-18</i>	2018-19	2019-20	<i>2020-21</i>	<i>2021-22</i>	<i>2022-23</i>
BA	12,708	11,955	11,532	10,944	10,785	10,812	11,415	11,583	11,427	11,082
MA	723	708	747	738	750	768	759	771	783	777
<i>PhD</i>	819	819	828	780	825	801	777	771	798	816
Part-time										
BA	2,262	2,232	2,013	1,929	1,875	1,776	1,764	2,040	2,010	1,992
MA	99	111	84	102	102	90	84	87	69	78
<i>PhD</i>	84	75	75	75	81	63	72	63	63	75



Table4: Enrollment in post-secondary program in **Sociology** across **Canadian Universities** by **regions**, 2013/2014-2022/2023, Statistics Canada 2024

Atlantic	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23
<b>Provinces</b>										
BA	867	849	768	738	726	759	816	843	819	711
MA	42	45	48	45	39	51	66	66	54	48
PhD	48	57	48	51	54	48	42	39	42	39
Central										
Canada										
BA	10,512	9,594	8,823	7,992	7,521	7,149	7,236	7,380	7,179	7,059
MA	642	633	633	630	651	648	618	627	636	636
PhD	687	678	672	684	672	696	672	657	687	711
Prairie										
provinces										
BA	2,511	2,658	2,667	2,985	3,249	3,480	3,888	4,176	4,248	4,077
MA	108	120	114	117	108	102	102	105	93	111
PhD	111	87	96	84	78	78	84	84	81	87
West										
Coast										
BA	1,080	1,089	1,194	1,155	1,164	1,200	1,239	1,227	1,188	1,230
MA	30	24	33	48	51	60	57	57	63	57
PhD	51	69	69	60	60	51	54	54	54	48

Table5: Enrollment in post-secondary program in Sociology across Canadian Universities by province (Atlantic Provinces), 2019/2020-2022/2023, Statistics Canada, 2024

Newfoundland & Labrador	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23
BA	234	240	237	225	234	231	264	282	237	174
MA	12	15	21	21	21	24	30	33	30	21
PhD	18	21	24	24	24	24	24	24	24	21
Prince										
Edward Island										
BA	111	93	75	66	60	87	87	99	99	93
MA	N/A									
PhD	N/A									
Nova Scotia										
BA	336	327	291	273	264	276	273	285	306	285
MA	24	24	21	18	15	21	21	18	12	15
PhD	9	12	6	9	15	12	9	9	9	12
New										
Brunswick										
BA	186	189	165	174	168	165	192	177	177	159
MA	6	6	6	6	3	6	15	15	12	12
PhD	21	24	18	18	15	12	9	6	9	6



Table6: Enrollment in post-secondary program in Sociology across Canadian Universities by province (Central Canada), 2019/2020-2022/2023, Statistics Canada, 2024

Quebec	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23
BA	939	1,002	993	1,002	1,053	1,041	1,071	1,113	1,014	957
MA	312	318	339	348	348	336	318	306	303	324
PhD	234	234	213	237	225	234	234	225	249	243
Ontario										
BA	9,573	8,592	7,830	6,990	6,468	6,108	6,165	6,267	6,165	6,102
MA	330	315	294	282	303	312	300	321	333	312
PhD	453	444	459	447	447	462	438	432	438	468

Table 7: Enrollment in post-secondary program in Sociology across Canadian Universities by province, 2019/2020-2022/2023, Statistics Canada, 2024

Manitoba	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23
BA	159	234	243	264	300	291	303	303	345	315
MA	39	48	48	54	45	45	39	48	39	45
PhD	6	6	9	6	6	12	15	15	15	15
Saskatchewan										
BA	306	306	306	321	336	369	411	372	345	321
MA	21	24	24	18	18	18	21	18	18	24
PhD	21	18	21	21	18	15	15	18	18	21
Alberta										
BA	2,046	2,118	2,205	2,400	2,613	2,820	3,174	3,501	3,558	3,441
MA	48	48	42	45	45	39	42	39	36	42
PhD	84	63	66	57	54	51	54	51	48	51

Table 8: Enrollment in post-secondary program in Sociology across Canadian Universities by province, 2019/2020-2022/2023, Statistics Canada, 2024

British	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23
Columbia										
BA	1,080	1,089	1,194	1,155	1,164	1,200	1,239	1,227	1,188	1,230
MA	30	24	33	48	51	60	57	57	63	57
PhD	51	69	69	60	60	51	54	54	54	48



Table 9: Labour force status in Bachelor's degree in Social Sciences by region, Statistics Canada, 2022

Region	<b>Employed</b>	Unemployed	Employment rate	Unemployment rate
Newfoundland & Labrador	2,200	210	72	8.7
Prince Edward Island	825	75	69.3	8.3
Nova Scotia	6,835	745	69.7	9.8
New Brunswick	3,465	290	71.6	7.7
Quebec	38,085	2,745	72.7	6.7
Ontario	154,540	14,430	71.5	8.5
Manitoba	8,330	400	73.4	4.6
Saskatchewan	4,685	345	75	6.9
Alberta	23,950	2,180	74.2	8.3
British Columbia	45,255	3,150	74.5	6.5

Table 10: Labour force status in Master's degree in Social Sciences by region, Statistics Canada, 2022

Region	<b>Employed</b>	Unemployed	Employment rate	Unemployment rate
Newfoundland & Labrador	395	40	74.5	9.3
Prince Edward Island	80	0	59.3	0
Nova Scotia	790	55	66.7	6.5
New Brunswick	460	25	66.2	5.2
Quebec	12,655	545	74.2	4.1
Ontario	21,540	1,480	74.1	6.4
Manitoba	825	25	71.7	2.9
Saskatchewan	655	35	78.9	5
Alberta	3,220	170	75.7	5
British Columbia	4,535	205	69	4.3

Table 11: Labour force status in Doctorate's degree in Social Sciences by region, Statistics Canada, 2022

Region	<b>Employed</b>	Unemployed	Employment rate	Unemployment rate
Newfoundland & Labrador	110	0	66.7	0
Prince Edward Island	15	0	100	8.3
Nova Scotia	265	20	71.6	7.1
New Brunswick	130	0	66.7	0
Quebec	2,000	125	70.8	5.9
Ontario	3,670	160	72.2	4.2
Manitoba	205	10	75.9	4.5
Saskatchewan	160	0	74.4	0
Alberta	650	35	74.7	5.1
British Columbia	1,065	65	69.6	5.7