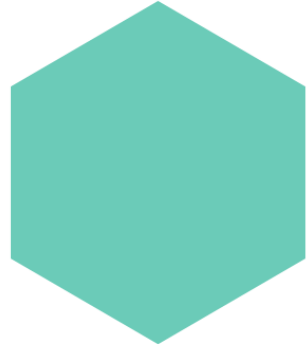
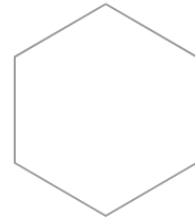


Social Worker Recruitment and Retention in New Brunswick

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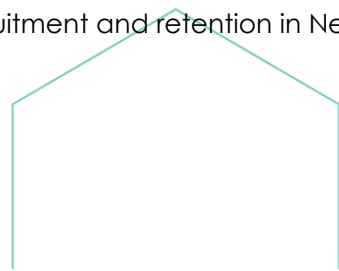


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Executive Summary

Social workers provide critical support to individuals, families, and communities across New Brunswick (NB), yet the province continues to face ongoing challenges in maintaining a stable workforce. With persistent shortages expected to continue, the NB Association of Social Workers has emphasized the importance of boosting social worker recruitment and retention in the province (NBASW, 2023). To support these efforts, evidence on the underlying patterns shaping recruitment and retention is needed to help identify priority areas for intervention and to inform future workforce planning.

This study provides that evidence by linking social worker registry data, university graduation records, and provincial Medicare data from 2010-2024 to examine trends and factors associated with individual decisions to begin and continue working as registered social workers in NB. Specific questions considered in this report include:

- 1) What proportion of graduates with a Bachelor of Social Work from NB universities go on to register as social workers in the province, and what factors are associated with that decision?
- 2) What proportion of registered social workers in NB discontinue their registration with the province, and what factors are associated with this decision?
- 3) What proportion of social workers who unregistered in the province remain in NB after doing so, and what are the factors associated with the decision to remain in the province?

Summary of Findings

Workforce Composition

- Over the 2010-2023 period, the number of registered social workers in the province increased by 39% (from 1,635 to 2,275). On a per capita basis, the number of social workers per 100,000 New Brunswickers rose by 25% (from 217 to 271).
- The share of social workers who reported working in frontline roles decreased (from 73% to 67% of the workforce) while the percentage of workers who reported non-frontline roles went up (from 16% to 22%). The remaining share did not report their roles.
 - This means that over time, a smaller share of social workers may have worked directly with clients and communities, while a growing share may have been employed in supervisory or administrative roles.

Graduate Recruitment

- 53% of graduates who received a Bachelor of Social Work (BSW) in NB went on to register as social workers in NB within a year of graduation. When we consider those who went on to register outside that 1-year time frame, the total recruitment rate rises to 67% – that is, two-thirds of BSW graduates eventually became social workers in NB.

Employment Patterns: Retention and Attrition

- Among new registrants, 97% of social workers were retained within one year of registering as a social worker in NB. After three and five years, the average rates were 85% and 75%, respectively.
- On average, the 1-year attrition rate for social workers was 5%. This means 5% of social workers who were registered in NB in a given year chose not to renew their registration the following year – though they may have returned in a later year. In comparison, the “No Return” rate (for those who did not register again in the study period) was 4%.
 - Of the social workers who eventually re-registered, the majority did so quickly: 40% returned within the first year, and 70% came back within three years.
 - The 1-year attrition rates of frontline and non-frontline social workers were only 3%, with those in “Unknown” roles (many of whom may have been unemployed) having a larger rate (14%), which would have driven up overall attrition to 5%.
- The proportion of social workers who stopped practicing (either by unregistering or by re-registering with a “non-practicing” status) surged after 2019, rising from 5-6% a year to a new, sustained high of around 10%.

Statistical Analyses: Risk of Leaving

Statistical models on the risk of a social worker leaving the profession in NB (that is, unregistering) highlight factors that significantly impact this risk:

- Social workers with a “practicing” membership status exhibit a 57% lower risk of leaving compared to those with a non-practicing status.
- New registrants have a 54% lower risk of leaving the profession than registrants who were already in the system.
- Not being born in NB results in a 26% higher risk of leaving compared to those from NB.

A logistic regression estimates factors behind the provincial retention of former social workers:

- Social workers who unregister after the COVID-19 period have 59% lower odds of leaving NB compared to those who unregistered pre-COVID, other things equal.

- Among those social workers who ceased registration, those who were not employed as social workers the year before they unregistered show 58% lower odds of leaving the province after unregistering compared to those who were employed. This suggests that those not actively working in the profession – such as retirees, those furthering their education, or those working in other fields – may be more settled, with fewer professional or economic drivers pushing them to relocate.

Key Takeaways

NB has seen substantial growth in the number of registered social workers over the past decade. However, this growth can mask gaps in the province's ability to meet current and emerging needs. Although both the number and per capita share of registered social workers have risen, a smaller percentage are practicing, and fewer may be working in frontline roles. These shifts are unfolding in a context where social workers report persistent short-staffing, rising caseload complexity, and heightened burnout (NBASW, 2022) – conditions that intensified during the COVID-19 period and have continued to shape service delivery ever since (Alaggia et al., 2023).

These capacity pressures are compounded by challenges in bringing new practitioners into the profession. Only about half of BSW graduates register to practice in NB within a year of graduation, and overall BSW graduate numbers have declined since 2020. Although two-thirds eventually enter the profession, this delayed and shrinking inflow places additional pressure on a workforce already stretched by increasing demands.

Even among those who do enter the profession, recent trends point to mounting strain. Most social workers stay in the profession (signaled by the renewal of their registration each year). Yet, a higher proportion are stepping away from active practice, with exits nearly doubling during the pandemic period and staying elevated. While some who leave practice return within a few years, the sustained increase in exits underscores ongoing challenges in maintaining a stable frontline workforce.

Understanding who is most likely to stay or leave the profession provides further insight into where the system is most vulnerable. Differences across demographic and employment groups show that some social workers are far more likely to remain in the profession than others. Practicing members and new registrants are more likely to remain, whereas those born outside NB, and those in more temporary roles, face higher risks of leaving. These dynamics suggest retention is shaped by ties to the province, employment stability, and role type, rather than individual preference alone.

Taken together, the findings reveal a workforce that is expanding numerically but may be growing more strained in its capacity to meet frontline needs. Recruitment challenges, elevated exits from practice since the COVID-19 period, and uneven retention across demographic and employment groups point to a system that depends heavily on a core group of workers with strong provincial and institutional ties. Strengthening both recruitment and retention – particularly in frontline roles – will be essential to ensuring a stable, responsive workforce for NB.

Introduction

Social work is a demanding yet crucial profession. In Canada, social workers are responsible for delivering clinical services (such as assessments of needs and services), advocating for human rights and against systemic inequalities, and analyzing and addressing community needs, along with supervising and managing the delivery of programs and services (Canadian Association of Social Workers [CASW], 2024). As highly trained and regulated health professionals, they must meet rigorous educational and licensing requirements – a level of preparation that underscores the complexity and importance of the work, but which also limits how quickly the workforce can expand when shortages arise.

In the province of New Brunswick (NB), concerns about the recruitment and retention of social workers have intensified in recent years. Social workers play a critical role in supporting families and strengthening community well-being, yet the province continues to face challenges in attracting and sustaining a stable workforce.

The purpose of this study is to examine the patterns in and underlying factors associated with social worker recruitment and retention in NB. Using linked, individual-level administrative data from 2010-2024, we examine employment and retention decisions across the workforce. Through a combination of both descriptive and statistical analyses, we focus on how recruitment and retention outcomes have changed over time. This evidence is intended to support ongoing efforts to strengthen workforce planning and improve the sustainability of social work services in the province.

Background: Social Workers in New Brunswick

All registered social workers and social work technicians in NB are registered with the New Brunswick Association of Social Workers (NBASW), the regulatory authority responsible for implementing and establishing professional practices and practice requirements for the social work profession and the social work technician profession.¹

The NBASW acknowledges a gap between the need for social workers and the services currently offered in NB. Yet the demands of the job can make it difficult to recruit and retain social workers.

In 2022, the NBASW conducted a survey of its members, which revealed that social workers regularly operate under stressful conditions where they are short-staffed. Among the respondents, 16.67% "strongly agreed" and another 28.42% "agreed" they were either at or near burnout (NBASW, 2022). These strenuous conditions have been exacerbated by a shortage of social workers, with over half (57.01%) of survey respondents stating it was "extremely important"

¹ Because the NBASW received the legislative authority to regulate social work technicians so recently (on June 7, 2024), social work technician data are not captured in the current analyses. They will, however, be included in future work.

to “recruit social workers in/to New Brunswick” (NBASW, 2022). This pattern is not unique to NB, either. Nationally, the years encompassing the COVID-19 pandemic saw rising levels of depression among social workers in Canada (Alaggia et al., 2023).

Although the NBASW predicts the shortage of social workers will continue to be problematic in the foreseeable future, the association has outlined steps in its 2023-2028 strategy report to address the problem (NBASW, 2023). Our analysis focuses on the first two pillars of this strategy: recruitment and retention.

As Canada's only officially bilingual province, NB requires a workforce capable of serving both English- and French-speaking communities, making the availability of training programs in both official languages particularly important for long-term recruitment and retention. St. Thomas University (STU) offers an English-language BSW program, and Université de Moncton (UMoncton) offers a French-language BSW program.² Both STU and UMoncton offer Master of Social Work (MSW)³ programs as well, with STU launching its MSW program in 2021. Avenues for training social workers in NB have expanded, with the addition of the University of New Brunswick's (UNB's) Bachelor of Social Work (BSW) program, which welcomed its first cohort of 35 students in the fall of 2024.

Although a BSW is the minimum credential required to work as a social worker in NB, diploma programs related to the field of social work are also available through colleges in NB.⁴ New Brunswick Community College (NBCC) offers a Social Service Community Worker program, and Collège communautaire du Nouveau-Brunswick (CCNB) offers the Technique en service social et communautaire program. The NBASW recognizes both programs and allows an individual who completes one to register as a social work technician.

Social work technicians are professionals who have been trained to work with social workers and are regulated in much the same way social workers are under the guidance of the NBASW. The regulation of social work technicians and the recognition of these college-level programs were included in the NBASW's *Social Work Recruitment and Retention Strategy (2023)*, along with the development of college-to-university bridging programs. Through these bridging programs, such as the one offered by UNB Saint John, college graduates can have their diploma credits recognized toward a BSW degree.

While these initiatives strengthen the province's capacity to recruit new social workers, recruitment represents only one side of the workforce challenge. Ensuring that social workers remain in the profession is equally critical. This brings the focus to retention, an area where previous research in NB provides important context.

² Although some universities may abbreviate their program names differently, this report uses “BSW” throughout to refer to the minimum education required to work in NB as a social worker.

³ “MSW” is used throughout this report to refer to any master's-level university program in social work.

⁴ The terms “university” and “college” are used to differentiate between individuals that attended post-secondary institutions to acquire a BSW or MSW versus other credentials in the field of social work.

Graduate Retention of Social Workers in New Brunswick

DataNB has conducted previous research on social worker retention in NB, with a focus on graduates staying in the province after graduation.

Note: In the previous research, 'graduate retention' refers to the proportion of graduates in any given cohort that remain in NB for a given period of time after graduation. For example, the 1-year graduate retention rate is the proportion of graduates who remain in NB for at least a year after their graduation. The retention rate definitions used in the current report are provided in the [Methodology](#).

This prior research found that social work graduates – at both the college and university levels – had higher 1-year retention rates than the overall retention rate for post-secondary graduates in NB. In other words, graduates trained in social work were more likely to remain in the province after one year than the average across all fields (McDonald et al., 2023). From 2010-2020, 72.2% of graduates with a BSW were retained for at least one year, compared to 65.8% of university graduates overall. From 2019-2020, 91.5% of college graduates with a social work diploma were retained, compared to 89.2% of college graduates overall (Balzer et al., 2023; McDonald et al., 2023).

Retention rates also varied by institution, with social work graduates from UMoncton having a 1-year retention rate of 91.2%, compared to a 54.7% retention rate for graduates from STU (McDonald et al., 2023). These results may be partly explained by the composition of students at each university. Graduates who were born outside the province are more likely to leave NB after graduation, whereas students originally from NB are more likely to stay (Bhuiyan et al., 2021). UMoncton has a lower share of students born outside NB than STU (Bhuiyan et al., 2021), which may contribute to the higher retention rate among its graduates.

Male university social work graduates were deemed more likely to leave NB after graduation than female graduates, but this was also true for the overall population of graduates, not just those studying social work (Balzer et al., 2023).

Because of data limitations, our earlier studies were only able to examine whether graduates remained in the province. They could not distinguish between those who stayed and worked as social workers and those who pursued employment or further education in other fields. As a result, our prior research provides important insight into *geographic* retention but offers a limited picture of *occupational* retention – whether graduates remain in the profession after completing their training.

The current study addresses this gap by incorporating social worker registry data to identify the status of working as a registered social worker. This allows us to move beyond geographic outcomes and examine both recruitment into the profession and retention within it, providing a more complete understanding of workforce dynamics in NB.

Data

The administrative data sets used in this analysis were accessed through DataNB and are listed in Table 1 below.

Table 1: Data Sets from DataNB

Data Set Name	Start Date	End Date
Social Worker Data	Jan 01, 2010	Jun 01, 2024
Citizen Data	Jan 01, 2010	Jan 19, 2024
NB University Graduates	Jan 01, 2010	Nov 01, 2022

As the sole administrative data custodian for the province of NB, DataNB holds and manages pseudonymous (i.e., de-identified), person-level administrative data sets in the service of population research. All data sets have unique identifying codes for individuals that allow for matching (or linking) across data sets while protecting individuals' privacy. For example, social workers in the Social Worker Data are matched to their records in the Citizen Data by the NB Department of Health based on their name, gender, and birth date. All data sets are stripped of names, addresses, and other personal identifiers before being transferred to DataNB for analysis.

In some cases, individuals cannot be matched between data sets. This occurs when values are missing from the identifying code fields in one or more of the source data sets. Unmatched records can occur either because an individual left NB before they could establish Medicare eligibility (and therefore are absent from the Citizen Data), or possibly because of mismatched or incomplete information in one of the records (e.g., a different spelling of a name). For the small proportion of registered social workers for whom occupational registration data could not be matched to the Citizen Data (which contains data on NB Medicare cardholders), these observations are excluded from the analysis.

The average matching rate between the Social Worker Data and the Citizen Data is 97%. [Table 3](#) in Appendix 1 shows the corresponding data on yearly matching rates from 2010 to 2024.

Social Workers Data

The Social Workers Data is a yearly registry of social workers based on NBASW membership from 2008 to 2024. The data set was provided by the NB Department of Health with the agreement of the NBASW.

Social workers must be registered with the NBASW to use the social worker title and/or to practice in NB. Registration renewal for the upcoming year typically occurs between January 1 and March 31 of the calendar year, though late renewals can occur after this period. Yearly registration requirements allow us to track the status of NBASW members from year to year,

including those who cease to register or declare themselves non-practicing. Many late or new registrants that registered after March 31, 2024, are not included in our data.

Descriptions of an individual social worker's role (frontline, supervisory, administrative, etc.) are available each year, as well as descriptions of their current employment status (including unemployed or retired) and registration status. Each social worker can select the descriptions that best describe the clients they work with (children, adolescents, adults, seniors, etc.), the language in which they provide their services, and their areas of expertise/practice. Additionally, their education history is tracked, with variables providing information on the locations of post-secondary institutions attended and degrees acquired, allowing for the identification of both BSW and MSW degree holders. Demographic descriptors such as age and gender are also available. For new registrants, fields for characteristics of the job or field of work are typically left blank at the point of registration.

Registry data from 2008 and 2009 have more missing values than other years and are therefore excluded from much of this report. The data for 2024 do not extend to the end of the year and therefore are excluded from some tables where annual figures are reported.

Citizen Data

Information on NB Medicare cardholders is stored in the Citizen Data. NB Medicare cardholders are required to provide up-to-date address information, allowing for changes in place of residence to be captured. For each individual, the postal code of reference is available, and these are used to assign neighbourhood-level socioeconomic and demographic characteristics from the 2021 Census of Canada. Because an individual's Medicare eligibility ends when they move out of NB, changes in eligibility status allow us to identify when someone has left the province.

The Citizen Data includes variables that may change over time, but these are tracked longitudinally as the data set is updated. Because this report examines the period from 2010 to 2024, we assigned variable values appropriate for the given year.

NB University Graduates

The NB University Graduates data set is provided by the Maritime Provinces Higher Education Commission (MPHEC) and contains data pertaining to all graduates from public universities in the Maritime provinces. This includes information on the degree and post-secondary institution, date of graduation, and age at graduation. In this report, our analysis focuses on BSW graduates from the two universities that had graduating cohorts during the study period: St. Thomas University (STU) and Université de Moncton (UMoncton). UNB's BSW program, which began in 2024, did not have graduates within this time frame.

It should be noted that not all enrolled students in the NB University Graduates file have a Medicare number and therefore are not necessarily linkable to the other data sources. In particular, students who are official residents of other provinces and territories are not eligible for

NB Medicare coverage and instead receive care through their home provinces' health insurance plans.⁵ However, any graduate who stays in NB to work will enroll in Medicare and can therefore be linked back to their student record. Interprovincial students who leave NB after finishing their studies will not appear in later administrative data; in the absence of a record, we treat these individuals as having left the province.

Methodology

The analyses that follow are composed of descriptive and analytical modeling methods. Before proceeding, we define some terms and metrics that appear in their application.

Terms and Definitions

Registered Social Workers

First, we define inclusion criteria for identifying the study sample of social workers from the Social Workers Data. Analysis is restricted to the years 2010 to 2024. Due to 2024 registration data not extending to the end of the year, it is excluded in some instances, and a note is provided when the date range is cut off at 2023. Filters are applied each year; though removal in one year does not preclude an individual appearing in another year. The analysis filters out social workers with missing identifying codes⁶.

The term “registered social worker” is used to refer to individuals who are registered with the NBASW in a given year. (For example, registered social workers in 2015 include all individuals registered with the NBASW as indicated in the Social Workers Data with a registration or re-registration year of 2015).

Occupational Attrition Rate

The rate at which registered social workers do not appear again as registered social workers in the year(s) that follow(s) is referred to as the occupational attrition rate. The 1-year attrition rate for year i is defined as:

⁵ Eligibility requirements for NB Medicare can be found online: <https://www2.gnb.ca/content/gnb/en/departments/health/DrugPlans/content/medicare/ApplyingforaCard.html>

⁶ Membership status does not have any missing values in the Social Workers Data, but other variables describing role type do frequently have missing values.

$$\frac{\text{Count of social workers registered in year } i \text{ and unregistered in year } i + 1}{\text{Count of total registered social workers in year } i}$$

Social workers who unregister may re-register again later. If they unregister and become registered again after a year of being unregistered (the earliest they could re-register would be year $i+2$), they are again included in the numerator for the later year. The last full calendar year of 1-year attrition rates available is 2023, since a follow-up year of registration data is required to capture all social workers who may have become unregistered. We also examine the occupational attrition rate for social workers who never return after becoming unregistered, as described by the following formulation:

$$\frac{\text{Count of social workers registered in year } i \text{ that never become registered again after year } i}{\text{Count of total registered social workers in year } i}$$

The attrition rate for registered social workers who leave and do not register again is biased towards more recent years since the observed window of time to return is shorter.

Provincial Retention Rate of Social Workers Who Unregister

The social worker provincial retention rate refers to the rate at which social workers who unregister end up remaining in NB for a period of time. The n -year social worker provincial retention rate for year i is given by the following formula:

$$\frac{\text{Count of social workers registered in year } i \text{ and unregistered but still in NB during years } i + 1, i + 2, \dots i + n}{\text{Count of total registered social workers in year } i \text{ and unregistered in years } i + 1, i + 2, \dots i + n}$$

Social Worker Occupational Retention Rate

The social worker occupational retention rate is the rate at which social workers remain registered as social workers in NB for a given period. The n -year social worker occupational retention rate for year i is given by:

$$\frac{\text{Count of social workers registered in year } i \text{ still registered in years } i + 1, i + 2, \dots i + n}{\text{Count of total registered social workers in year } i}$$

The relationship between the 1-year social worker retention rate R and 1-year occupational attrition rate C is given by $R_i = (1 - C_i)$.

Social Worker Recruitment Rate

The social worker recruitment rate is the rate at which BSW graduates from NB post-secondary institutions become registered social workers within one year of graduation.⁷ Interprovincial BSW graduates who do not register for Medicare and have no identifying codes are assumed to have left the province. Therefore, any BSW graduate may be considered successfully recruited if they have their first registered year in NB within a year of graduation. The social worker recruitment rate in year i is given by:

$$\frac{\text{Count of BSW grads in year } i \text{ registering as a social worker within a year of graduation}}{\text{Count of BSW grads in year } i}$$

Note the similarities between this new definition and the graduate retention rates discussed in the [Introduction](#). Previous studies defined the graduate retention rate as the rate at which BSW graduates remained in NB after graduation, whereas this new definition quantifies the rate at which BSW graduates transition into being registered social workers.

Provincial Retention Rate of BSW Graduates Who Do Not Register With the NBASW

The BSW graduate provincial retention rate estimates how many BSW graduates who do not become social workers in NB stay in the province for a period after their graduation. As with the social worker recruitment rate, we count individuals who had their first year of registration in the year prior to graduation as recruited, and therefore not a part of this calculation. The n -year BSW graduate provincial retention rate is given by the formula:

$$\frac{\text{Count of BSW grads in year } i \text{ remaining in NB for 3 years while not appearing as a registered social worker}}{\text{Count of BSW grads in year } i \text{ that do not become registered social workers 3 years after graduation}}$$

To protect confidentiality, all counts in this study have been randomly rounded to the nearest 5.

Statistical Analyses

We employ three types of statistical methods to model social worker recruitment and retention in NB. These models include multivariate logistic regression, Cox Proportional Hazards (CoxPH), and Random Survival Forest (RSF).

⁷ Figures for the proportion of individuals who ever re-register will be provided in a subsequent iteration of this report.

NB Social Work Graduates Becoming Social Workers in NB

The multivariate logistic regression examines the factors associated with whether social work graduates from NB universities stay in the province to work as social workers after finishing their degrees. It uses linked data from the NB University Graduates data set and the Social Workers Data to track who becomes a social worker in NB within a year of graduation. Graduates are counted as "staying" if they register as a social worker up to one year before or after graduation. The analysis pays special attention to whether students were originally from NB when they started their program, as this might affect their likelihood of staying and working in the province after graduating. However, very few international students or permanent residents were in the program. Only demographic student information (such as gender, age, and whether they were originally from NB) is used in the model.

Social Worker Occupational Duration

Survival Analysis

To study how long social workers remain registered in NB, we conduct a survival analysis that represents the probability of an event (i.e., social worker unregistering) occurring at time t . Only new tenures beginning from 2011 onward are included. If a person works continuously until 2023, they are right-censored (that is, we do not observe them leaving). We focus on each worker's first continuous period of employment; if someone left and returned later, we only analyze their initial tenure.

Cox Proportional Hazard Model

We use a Cox Proportional Hazards (CoxPH) model to analyze factors that influence the duration of registration for social workers. This model estimates the risk of a social worker unregistering at any given time while accounting for multiple factors simultaneously – such as their role type or education level.

Random Survival Forest

As a robustness check, we use a machine learning approach called Random Survival Forest (RSF) to predict how long social workers stay registered. Like the CoxPH model, it examines factors such as education and job type but uses an ensemble of decision trees for more flexible predictions.

Concordance Index

We measure how well our models predict retention using the concordance index (C-index), which checks whether workers who leave earlier are correctly assigned higher risk scores than those who stay longer, helping us determine whether the CoxPH model or RSF model better forecasts retention patterns. The closer the result is to 1.0, the better the model identifies which social workers leave earlier compared with those who stay longer.

Social Workers Leaving NB After Becoming Unregistered

We use multivariate logistic regression to examine what happens to social workers who stop practicing in NB and whether they leave the province afterward. We track social workers who were registered one year but not the next, and flag if they moved out of NB within a year of their last registration. Each worker is counted only once; if they left and returned multiple times, we look at their most recent departure. The study considers factors such as their last known job role, income, previous work location, and demographic characteristics to identify patterns in who chooses to leave NB.

Technical details of all these models are included in [Appendix 2](#).

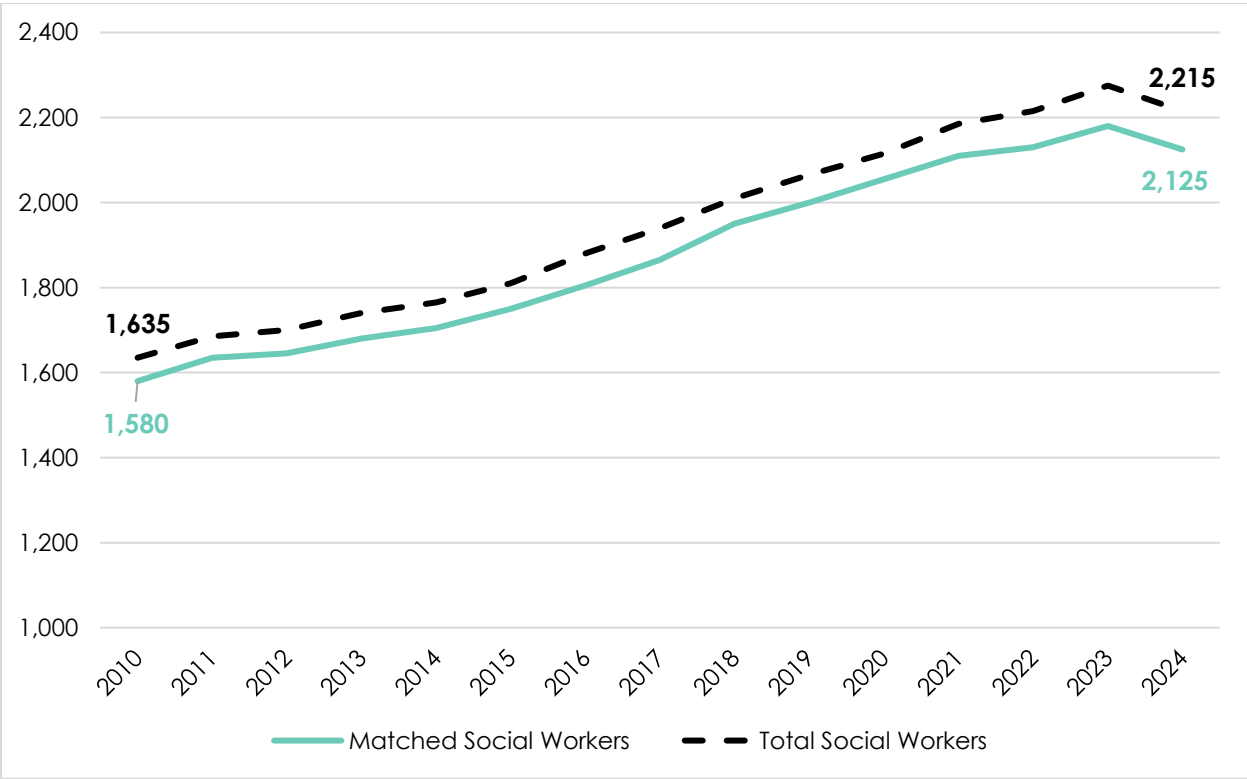
Results: Descriptive Statistics

Registered Social Workers

Figure 1 shows the number of social workers registered⁸ with the NBASW between 2010 and 2024. The annual number of registered social workers in NB increased steadily from 1,635 in 2010 to 2,275 in 2023, an increase of 39%. However, the count slightly declined to 2,125 in 2024, likely due to incomplete data for that year.

It should be noted that Figure 1 presents both the total counts of social workers reflected in the NBASW registry data and the counts of social workers who could be matched⁹ to the Citizen Data (NB Medicare Registry). From the figure, it can be seen that patterns over time are very similar between the two series, suggesting that results based on the matched subsample should be comparable to what is the case for all registered social workers.

Figure 1: Registered Social Workers in NB by Registration Year



⁸ Excludes social workers with missing IDs (3% of social workers have missing IDs).

⁹ Around 97% of social workers (active between 2010 and 2024) are matched to the Citizen Data.

Figure 2 contextualizes workforce growth relative to population change in the province. While the raw count of social workers increased between 2010 and 2023 (Figure 1), the per capita ratio in Figure 2 is also important to consider, as it provides insight into whether supply kept pace with population change.

During the same period, the number of social workers per 100,000 population increased by 25%, rising from 217 in 2010 to 271 in 2023. Again, the 2024 figure is somewhat lower because of incomplete registration data for that year.

Figure 2: Registered Social Workers in NB per 100,000 Population

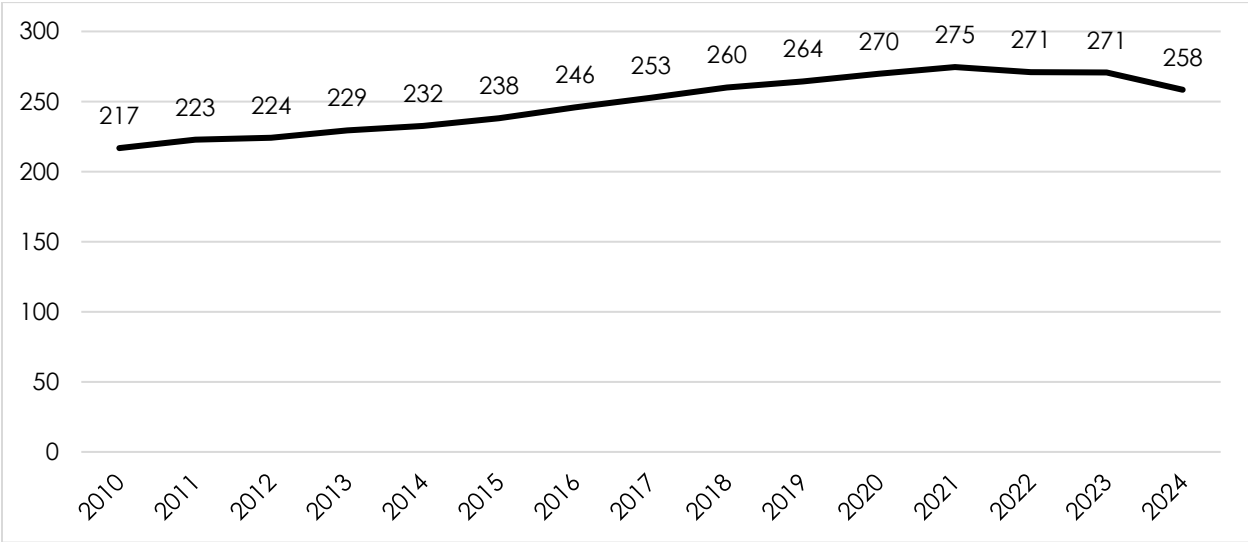
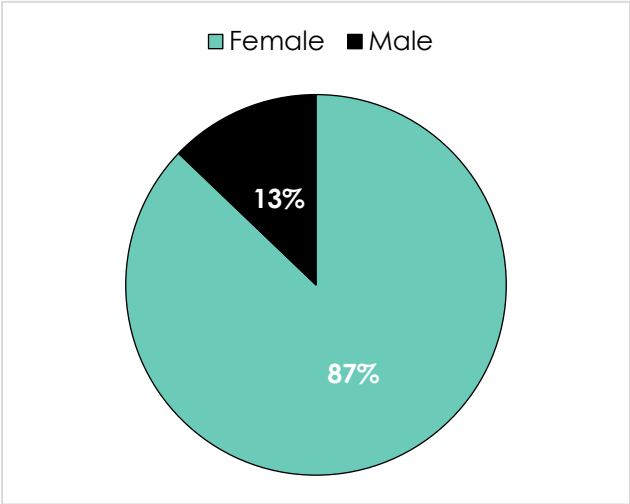


Figure 3: Gender of Registered Social Workers (Pooled Registration Years: 2010-2024)



In **Figure 3**, we observe that the majority of social workers are female, making up about 87% of the workforce between 2010 and 2024.

In general, the ratio of male to female social workers has remained similar from year to year. In earlier years (i.e., in 2010), female social workers accounted for 84% of the workforce, and this proportion steadily increased to 89% in 2024 (see [Table 4](#) in Appendix 1 for a breakdown of yearly counts).¹⁰

¹⁰ Although the Social Workers Data includes a non-binary gender category, non-binary results are not presented because the low counts pose a privacy risk. Instead, non-binary results have been combined with the female results.

Employment Profile

Figure 4: Highest Education Background of Registered Social Workers (Pooled Registration Years: 2010-2024)

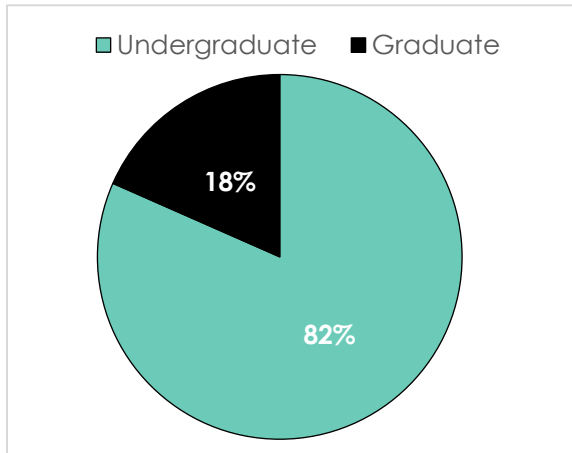


Figure 4 illustrates the highest degree held by registered social workers in NB during the period between 2010 and 2024.

Overall, the majority of social workers hold undergraduate (Bachelor of Social Work) degrees (82%).

The proportion with graduate qualifications grew from 17% to 21% between 2010 and 2024 (see [Table 5](#) in Appendix 1 for yearly results).

It is important to note that some social workers can be registered but not practicing in a given year, indicated by a “non-practicing” status in the Social Workers Data.

Figure 5 reveals a distinct two-phase trend in the proportion of practicing social workers. For the first decade (2010-2019), the share of practicing social workers increased from 91% (1,440 out of 1,580 social workers) to 93% (1,855 out of 2,000 social workers) and remained stable at similar levels. However, a clear shift began around 2020, when the share of practicing social workers started to decline and hovered between 86% and 89% for the 2021-2023 period, even as the total number of registered social workers continued to grow.

[Table 6](#) in Appendix 1 shows the corresponding yearly data on practicing social workers from 2010 to 2024.

Figure 5: Share of Practicing Social Workers Among All Registrants by Registration Year

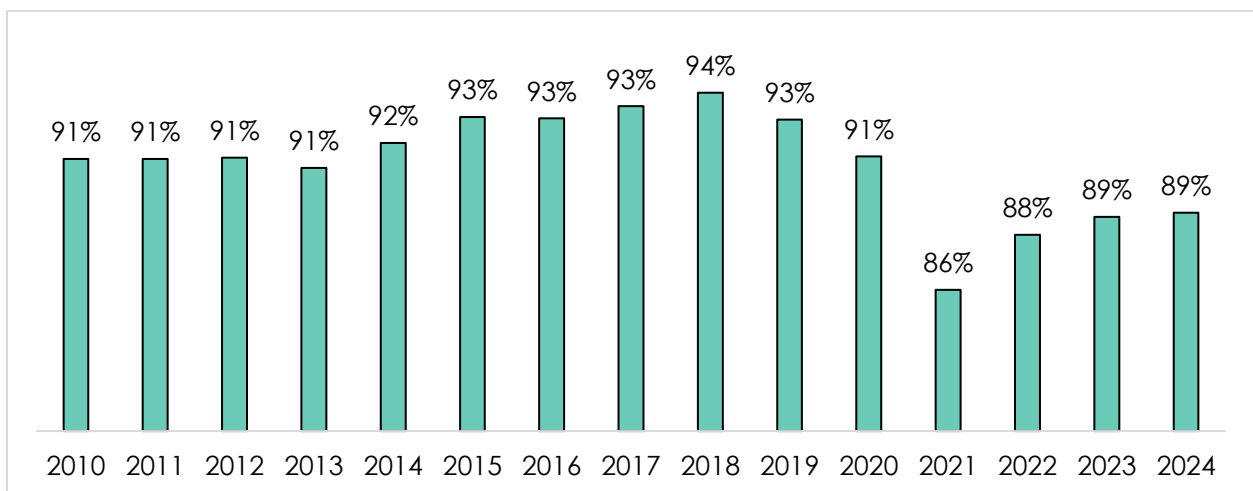


Figure 6 illustrates the distribution of social workers by role type over time. A social worker may select multiple types of roles, but we only report their first answer due to second roles frequently being left blank in the registration data.

- **Frontline** social workers provide direct services to clients, families, and communities.
- **Non-frontline** social workers include individuals in the roles of supervision, administration, program coordination, or consultation (system coordinator, planner, etc.).
- The **“Unknown”** group includes individuals who left the current employment status field blank in the registry. Most of these respondents would have been new registrants or those re-registering after a number of years of being unregistered.

Frontline roles consistently account for the majority of positions, though the proportion of social workers in these roles declined over the years, from 73% in 2010 to 67% in 2024. On average, over the 2010-2024 study period, nearly one-fifth (18%) of social workers were in non-frontline roles, and the remaining 13% were in the Unknown category.¹¹

Figure 6: Role of Registered Social Workers in NB By Registration Year

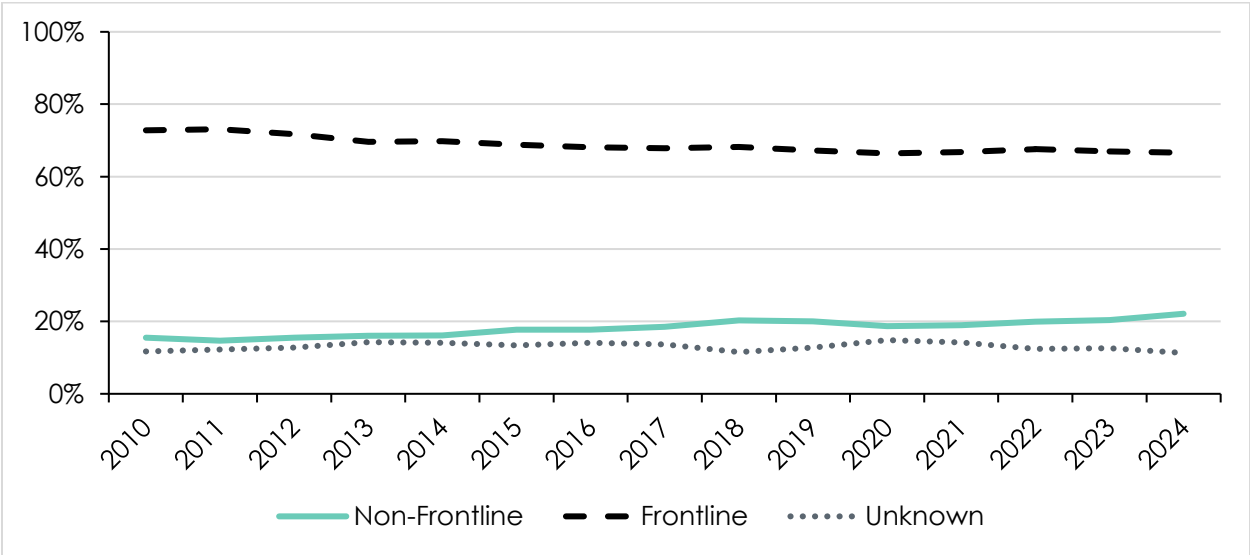


Figure 7 below shows the pooled distribution of registered social workers in NB by their employer type between 2010 and 2023.

Nearly half (46%) of social workers in the province are employed by the Government of New Brunswick (GNB), and close to one-fifth (23%) are employed by the province’s Regional Health Authorities. Around 13% of registered social workers left their employer type blank (i.e., unknown), which likely indicates that these registrants may not have been employed during

¹¹ 60% of social workers registering for the first time had an Unknown role type.

registration. The remaining six employer categories are relatively minor, each representing 5% or less of the overall total.

While the overall distribution of employer types is stable over the study period, year-to-year distributions show a notable trend for those working in private practice, as this employer type shows a clear upward trajectory, more than doubling from 3% in 2010 to 8% in 2023 (see [Table 7](#) in Appendix 1).

Figure 7: Employer Type of Registered Social Workers in NB (Pooled Registration Years: 2010-2023)

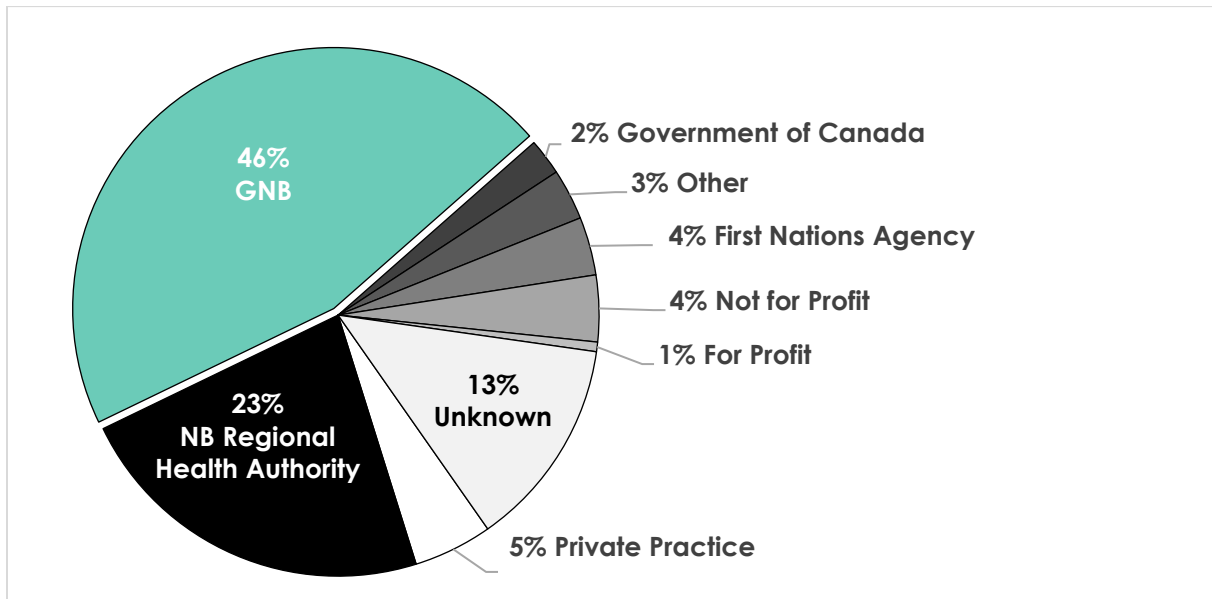


Figure 8 below shows the share of new registrants among active social workers each year. New registrants are defined as social workers who are in their first year¹² with the NBASW.

Between 2010 and 2023, about 4-5% of active social workers were new registrants. The lower rate of 2% in 2024 can be attributed to partial data (available only until June 2024), as more BSW students are expected to have graduated and registered with the NBASW in the latter half of 2024.

It should also be noted that approximately 1% of registered social workers each year are returning social workers.¹³

¹² That is, new registrants are defined as having had no prior registration in NB. This includes both new BSW graduates and individuals previously registered in other jurisdictions.

¹³ Returning social workers include those who were registered in NB prior to the previous year but not in the previous year.

Figure 8: Share of New Registrants Among All Registrants by Registration Year

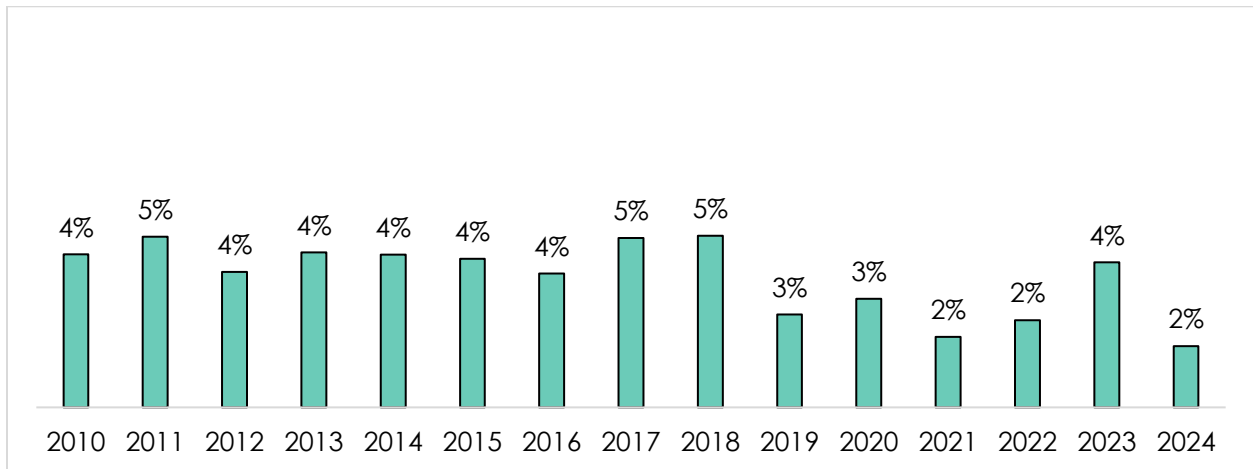
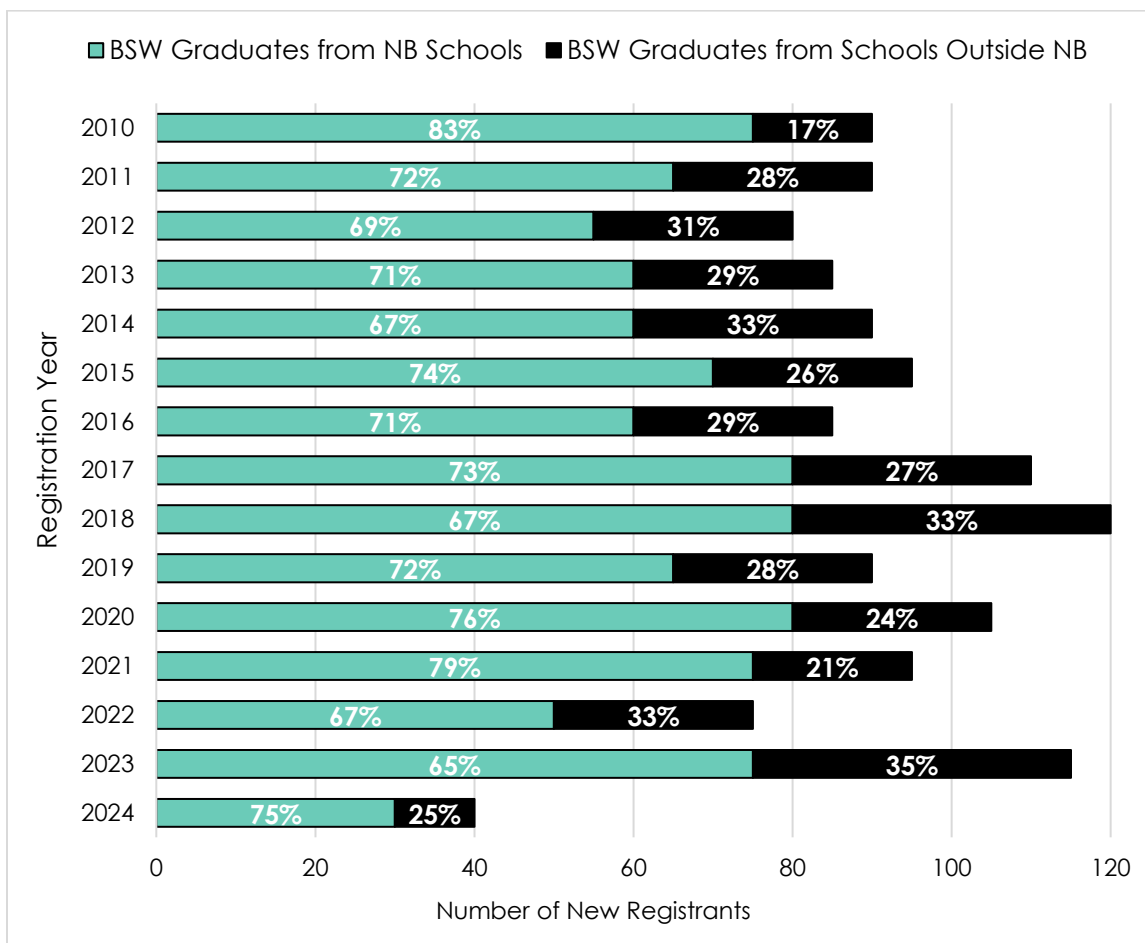


Figure 9 compares the proportion of new registrants educated in NB versus outside the province. On average, 71% of new registrants are BSW graduates from NB universities. Over the years, the share of NB BSW graduates fluctuated between a low of 65% (2023) and a high of 83% (2010).

Figure 9: New Registrants by Location of Schooling & Registration Year

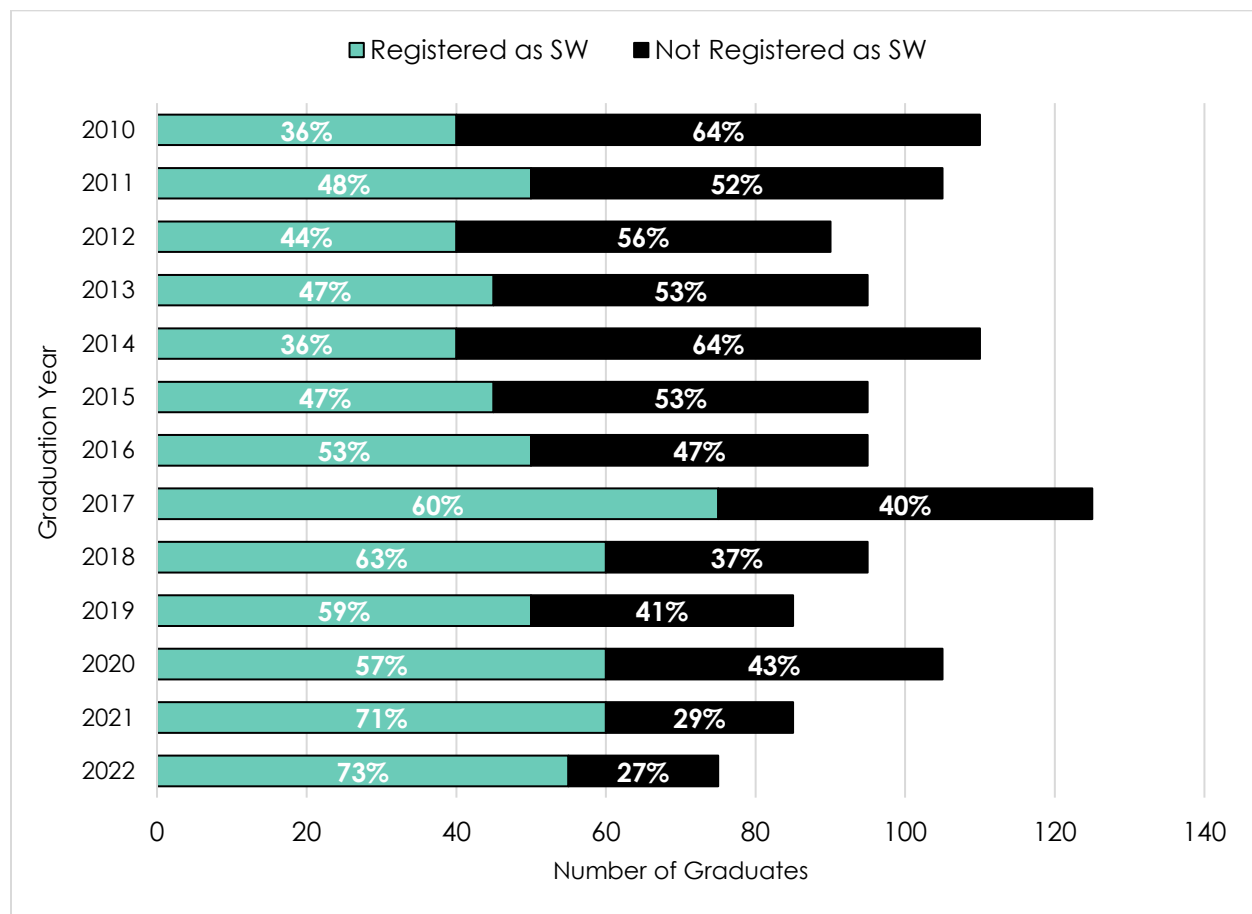


Becoming a Social Worker in NB After Graduation

This section examines the number of BSW graduates from public universities in NB and whether they registered as social workers with the NBASW. At the time of analysis, only graduates from STU and UMoncton could be observed.¹⁴ Any BSW graduate who could be found in the Social Workers Data is flagged as registered with the NBASW.

Figure 10 presents annual counts of BSW graduates (2010-2022) and the share that transitioned into social work registration within a year of graduation.

Figure 10: Bachelor of Social Work Graduates from NB Institutions Who Registered with the NBASW Within One Year, by Graduation Year



The number of BSW graduates peaked in 2017 at a total of 125. In other years, the number of BSW graduates ranged from 75 to 110. For the period of 2010-2015, the proportion of BSW graduates who registered with the NBASW was less than 50% each year. However, in 2021 and 2022, that proportion jumped to over 70% in both years.

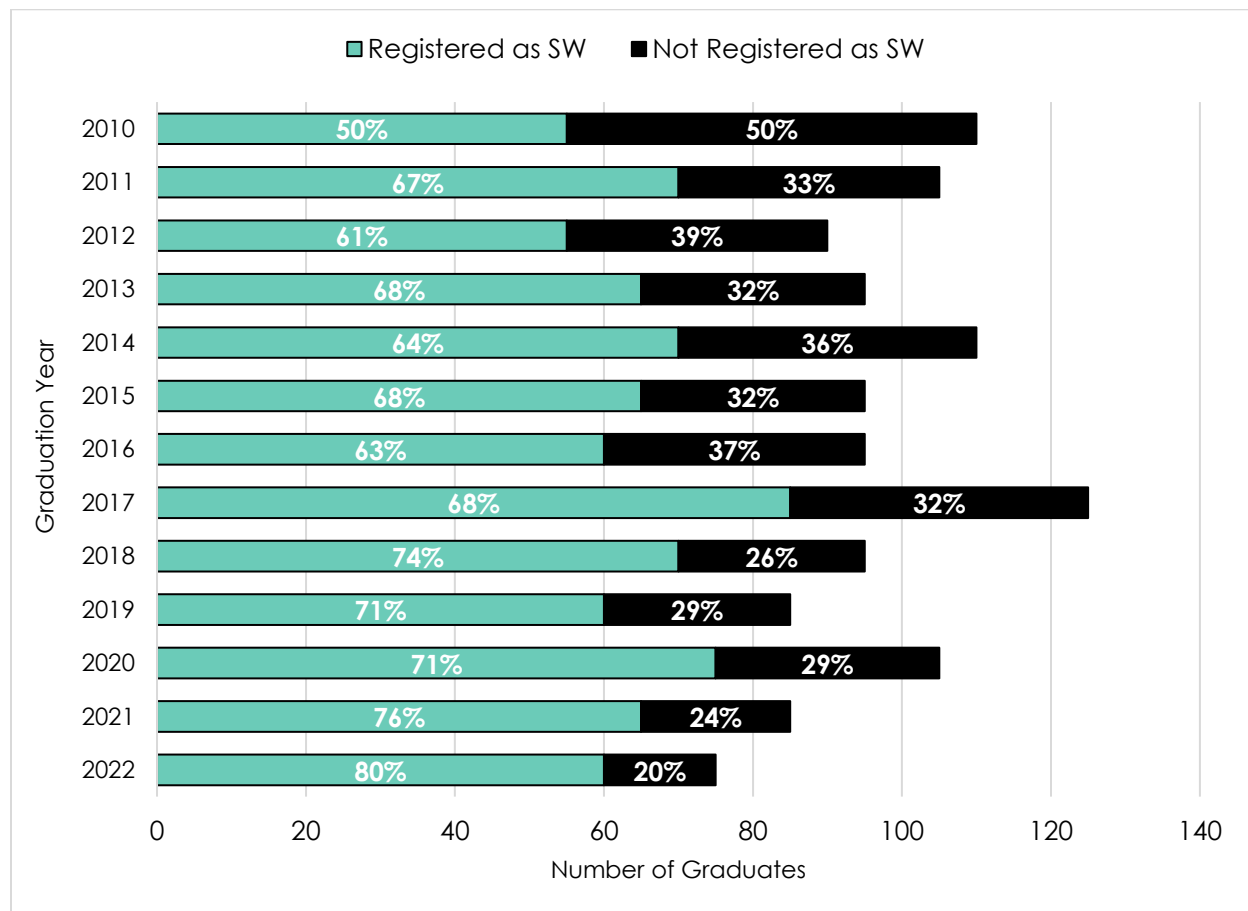
¹⁴ UNB started a BSW program on its Saint John campus in 2024, but data from this program were not available at the time of analysis.

On average, about 53% of BSW graduates register as social workers in NB within a year of graduation. The remaining 47% have either left the province to work as social workers elsewhere in Canada or stayed in NB but worked in different sectors.

Over the same period (2010-2022), about 56% (45 out of 80) of MSW graduates registered in NB as social workers within one year of graduation (data not shown).

Figure 11 shows the rate at which BSW graduates register with the NBASW any time after graduation.

Figure 11: Bachelor of Social Work Graduates from NB Institutions Registered with the NBASW Anytime After Graduation, by Graduation Year



On average, about two-thirds (67%) of BSW graduates from NB institutions register as social workers at some point after graduation, while one-third (33%) do not. The figure reveals a clear positive trend in registration rates over time. About 50% of the 2010 BSW cohort registered with the NBASW. In the following years, the rate showed a general increase, with noticeable year-to-year fluctuations, before reaching its highest point of 80% for the 2022 graduating cohort. These estimates indicate that recent graduates are entering the provincial social work registry at a notably higher rate than their counterparts from over a decade ago.

It should also be noted that for earlier graduation cohorts, a longer period of time post-graduation is observed in the data. Thus, for more recent graduate cohorts, the proportion of individuals eventually registering as social workers will be even higher than currently shown.

Figure 12 shows the proportion of BSW graduates from NB institutions who were originally from NB compared to the proportion from outside NB (that is, Canadian graduates from other provinces or international graduates from other countries).¹⁵ The results show a growing share of graduates who indicated that NB was their permanent residence prior to their enrolment.

Figure 12: Bachelor of Social Work Graduates by Previous Residence and Graduation Year

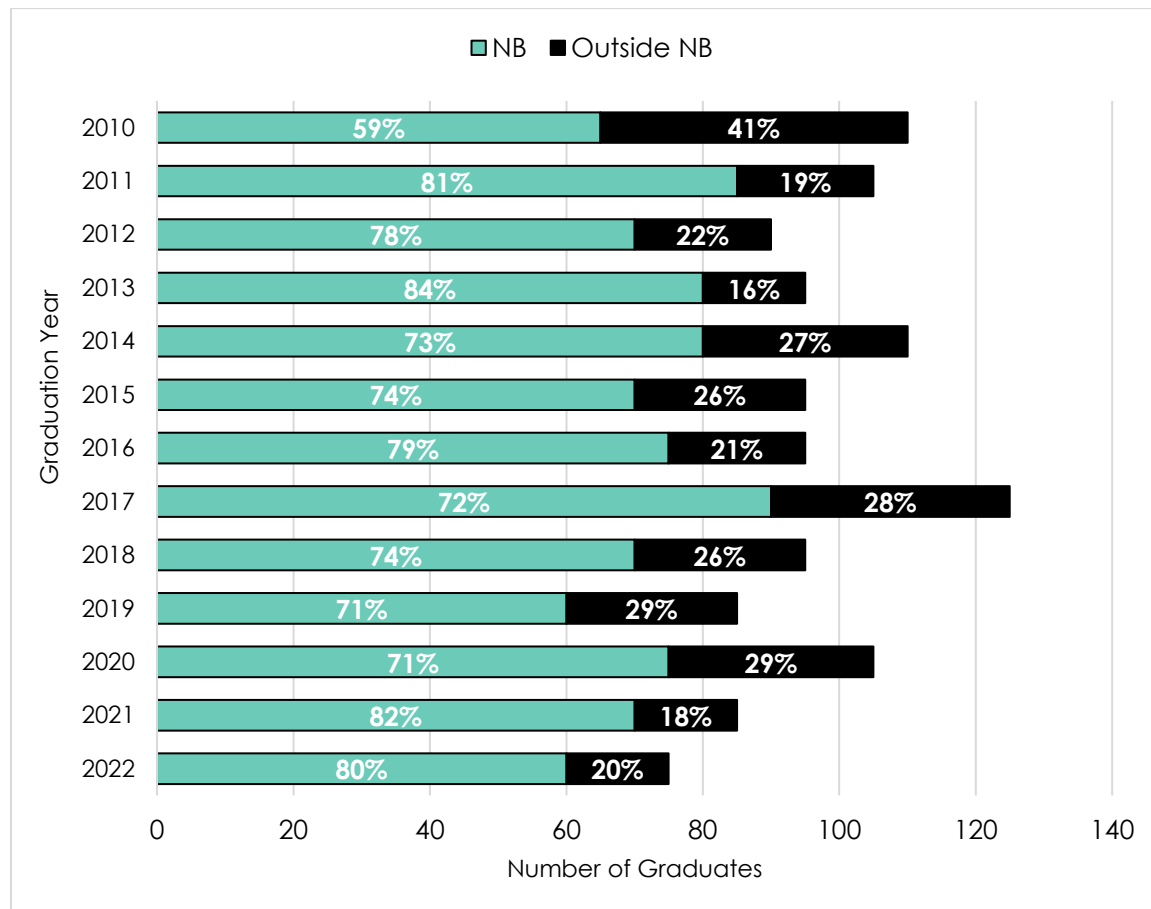


Figure 13 shows that, on average, 60% of BSW graduates from UMoncton register as social workers in NB within a year of graduation. Although the rate fluctuates from year to year, the two most recent cohorts (2021 and 2022) exhibit the highest rates of NBASW registration by UMoncton graduates – at 78% and 86%, respectively.

Meanwhile, on average, 44% of STU BSW graduates register as social workers in NB one year post-graduation, a share that is consistently lower than that of UMoncton.

¹⁵ Note: 99% of BSW graduates from NB universities are Canadian citizens.

The disparity between the two institutions' rates of post-graduate registration can be attributed to the higher proportion of students from outside NB among STU graduates (67%) compared to UMoncton (10%).

Figure 13: Bachelor of Social Work Graduates Registered with the NBASW Within One Year of Graduation by NB Institution

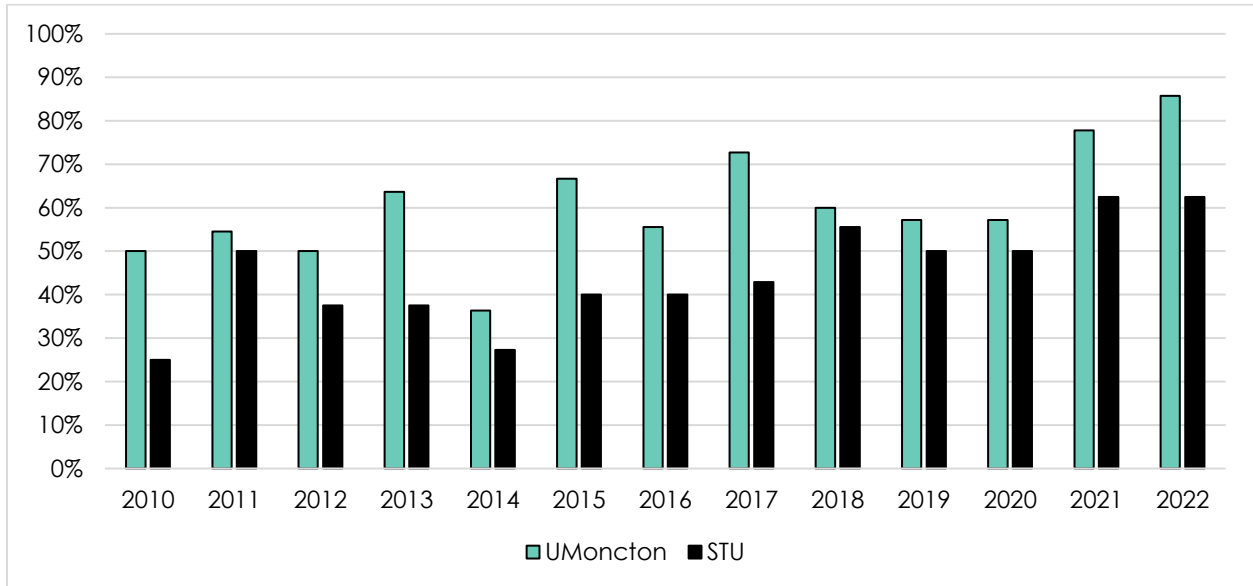


Figure 14 shows the registration rates of BSW graduates who indicated they were originally from NB prior to enrolment. Despite yearly fluctuations between the institutions, an average of 65% of NB-born graduates from both STU and UMoncton register as social workers in the province.

Figure 14: Bachelor of Social Work Graduates from NB that Register with the NBASW Within One Year of Graduation by NB Institution

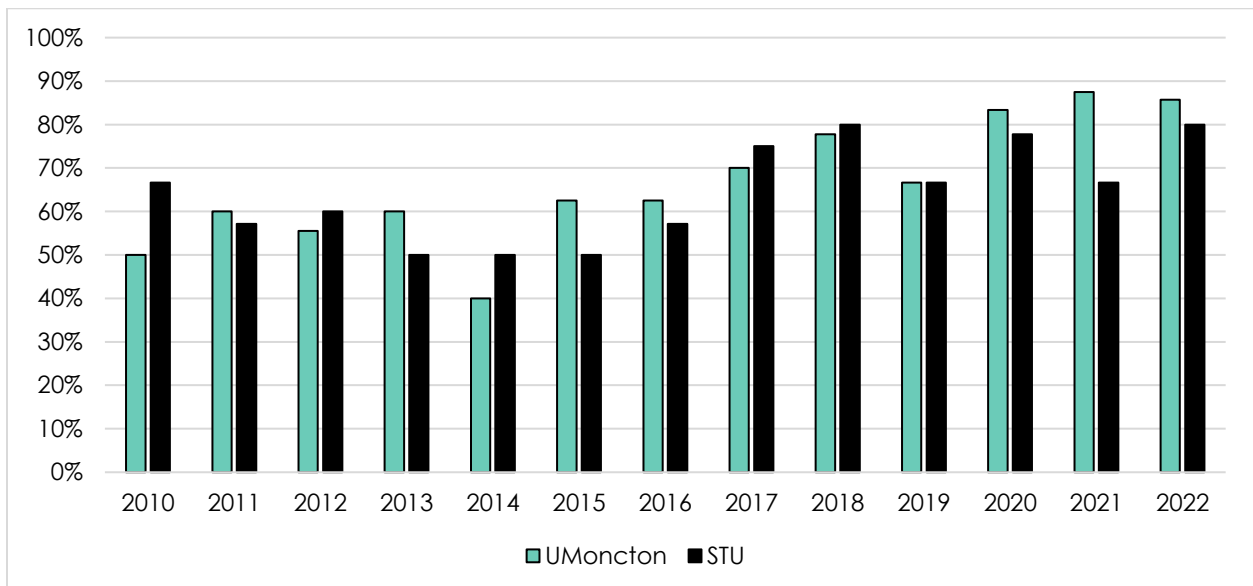
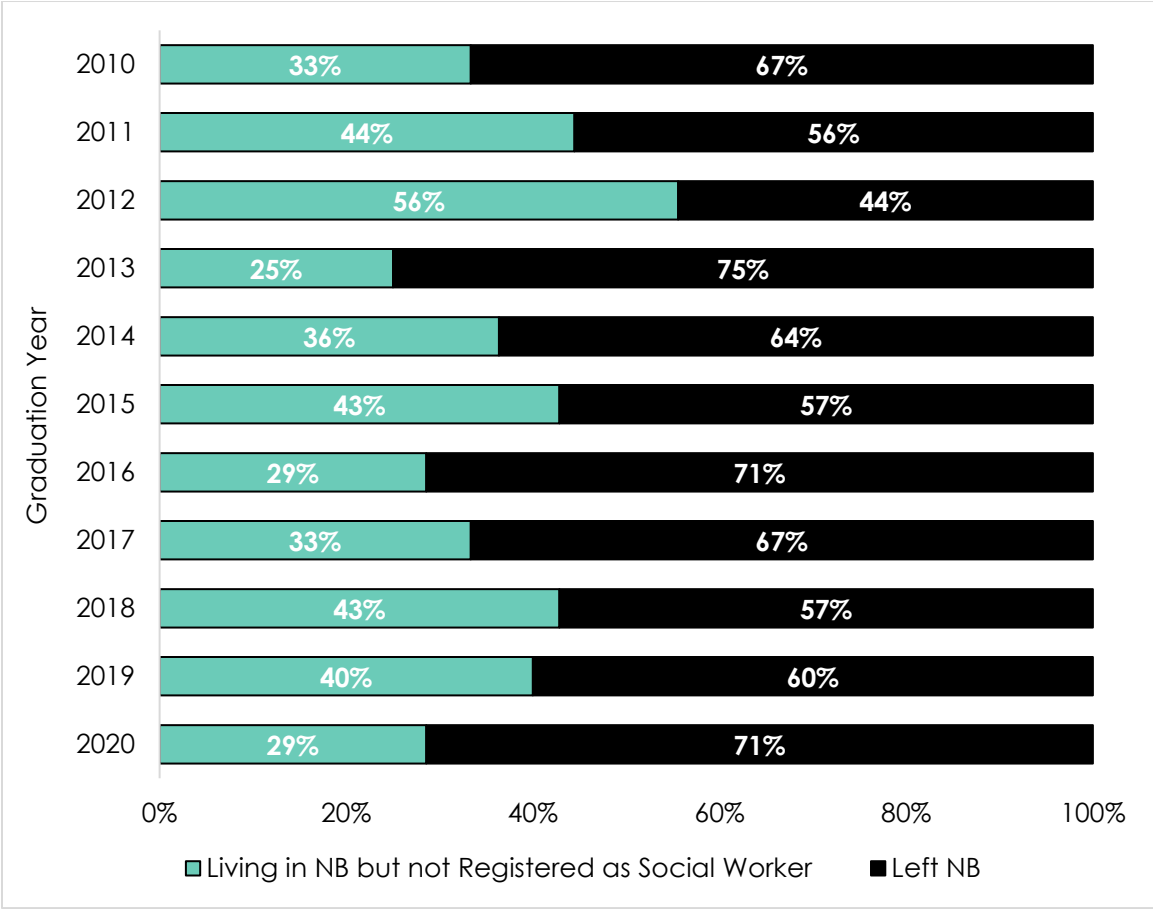


Figure 15 focuses on BSW graduates who did not enter NB's social work sector within one year of graduation and estimates how many remain in the province three years after graduation from NB universities.

Overall, about 37% of BSW graduates not registered as social workers in NB still reside in the province three years after graduation. This implies that these graduates might be working in other sectors in NB.

Figure 15: 3-Year Provincial Retention Rates of Bachelor of Social Work Graduates Not Registered as Social Workers in NB



Social Worker Employment: Attrition and Duration

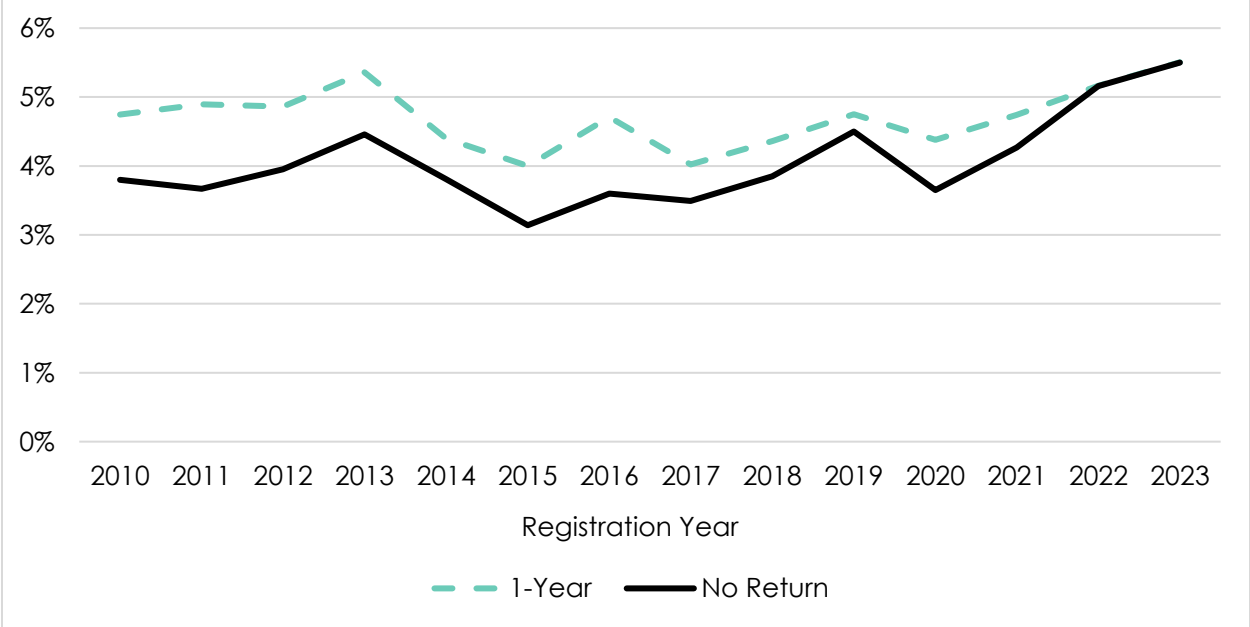
This section estimates annual attrition rates (i.e., removal from the registry) of registered social workers in NB.

It should be noted that the attrition rates for the 2023 cohort are based on a truncated follow-up period and should be interpreted with caution, as complete registration data for the 2024 year are not yet available.

Figure 16 shows yearly attrition rates among social workers in NB. The 1-year attrition rate counts workers who were active in one year (e.g., 2015) but who did not renew their registration the next year (e.g., 2016) – though some may return in future years. The "No Return" category specifically tracks those who left permanently (observed until the end of the study period), counting workers who were active in a given year (e.g., 2015) and who did not register again in subsequent years.

Between 2010 and 2023, the 1-year attrition rate averaged 5%. As a reminder, this rate captures workers who were active in one year but did not renew their registration the following year, regardless of whether they later returned to the profession. In comparison, we see a 4% "No Return" attrition rate for those who did not return to social work over the sample period. Both rates remained relatively stable from 2010 to 2018, fluctuating between 4-6% for 1-year attrition and 3-6% for No Return. The two rates were the same in 2023 because both the 1-year and No Return categories measure attrition for the same period (that is, until 2024). In general, the results indicate that a large proportion of those not renewing their registration do not subsequently return to an active registration status.

Figure 16: Annual Attrition Rates of Registered NB Social Workers



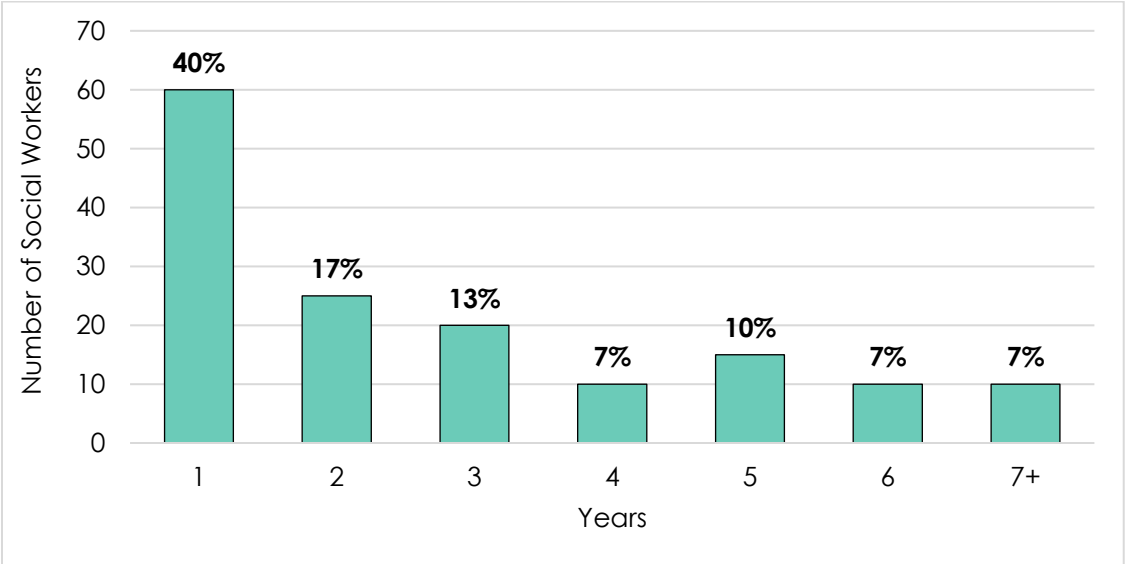
Note: The 2023 follow-up window includes partial data for the 2024 registration year.

It is important to be cautious when interpreting the attrition rates for the No Return category in more recent years due to insufficient follow-up time in the data. When fewer years are available to observe whether individuals returned, the gap between the two measures is naturally expected to be narrower.

Figure 17 shows the duration of gaps between registration years for social workers who unregistered and then registered again (i.e., returned), from 2010 to 2023.

Analyses of return patterns show that 40% of social workers who eventually return do so within one year, 57% return within two years, and 70% return within three years. This means No Return rates are likely overstated for 2021-2023, with the bias being most pronounced in the most recent years. Trends in permanent attrition are most reliably assessed through 2020, but no later.

Figure 17: Duration of Gaps Between Registration Spells (Pooled Years: 2010-2023)

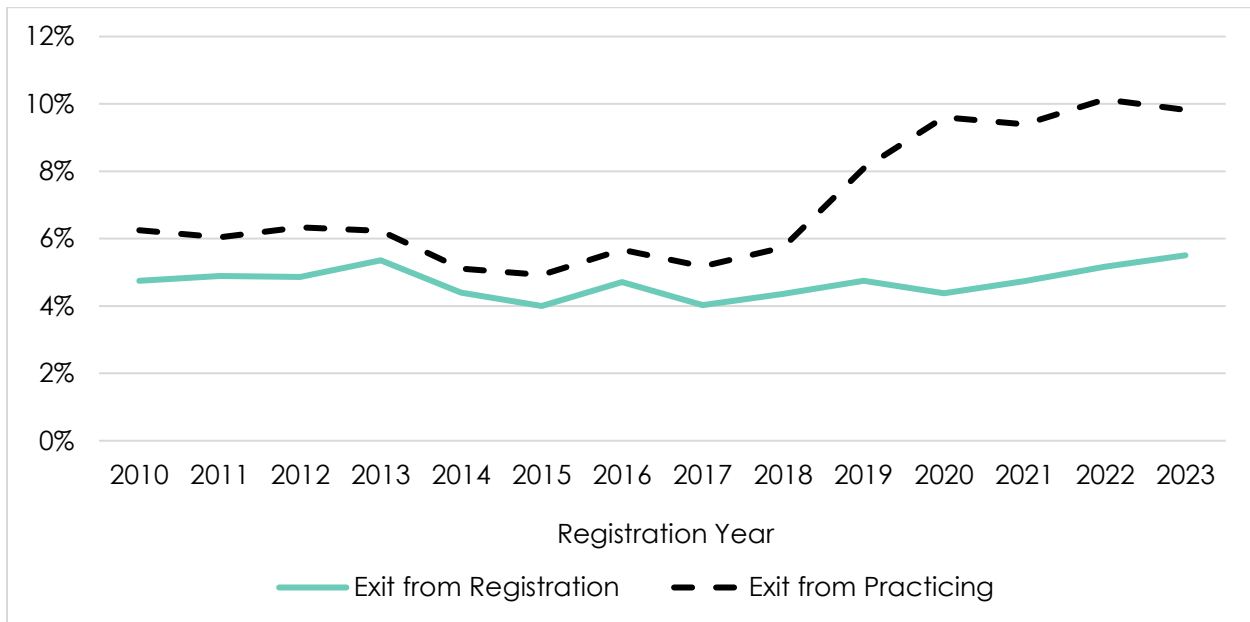


As mentioned earlier, registration with the NBASW is necessary to practice as a social worker in the province; however, social workers can be registered but not practicing in a given year. A social worker can exit from practice either by unregistering or by re-registering with a “non-practicing” status.

Figure 18 reveals a clear two-phase trend in the proportion of registered social workers exiting practice. For the first nine years of the sample period (2010-2018), the exit rate hovered between 5% and 6%. However, starting in 2019, the 1-year exit rate from practice jumped to 8%, reaching and remaining around 10% since 2020. This aligns with the dip in the share of practicing social workers observed around the same time earlier in the report (see [Figure 5](#)).

The post-2019 surge in exit rates may reflect compounding workforce pressures, with the pandemic period (2020-2022) potentially exacerbating existing patterns of departure from practice.

Figure 18: 1-Year Exit Rate of Registered Social Workers from Practice and from Registration



Note: The 2023 follow-up window includes partial data for the 2024 registration year.

Figure 19 shows 1-year annual occupational attrition rates of NB social workers by role. The social workers whose roles are “Unknown”¹⁶ generally exhibit the highest attrition rates (14% on average). This is expected, as these are individuals who may not have been employed as social workers at the time of their registration.

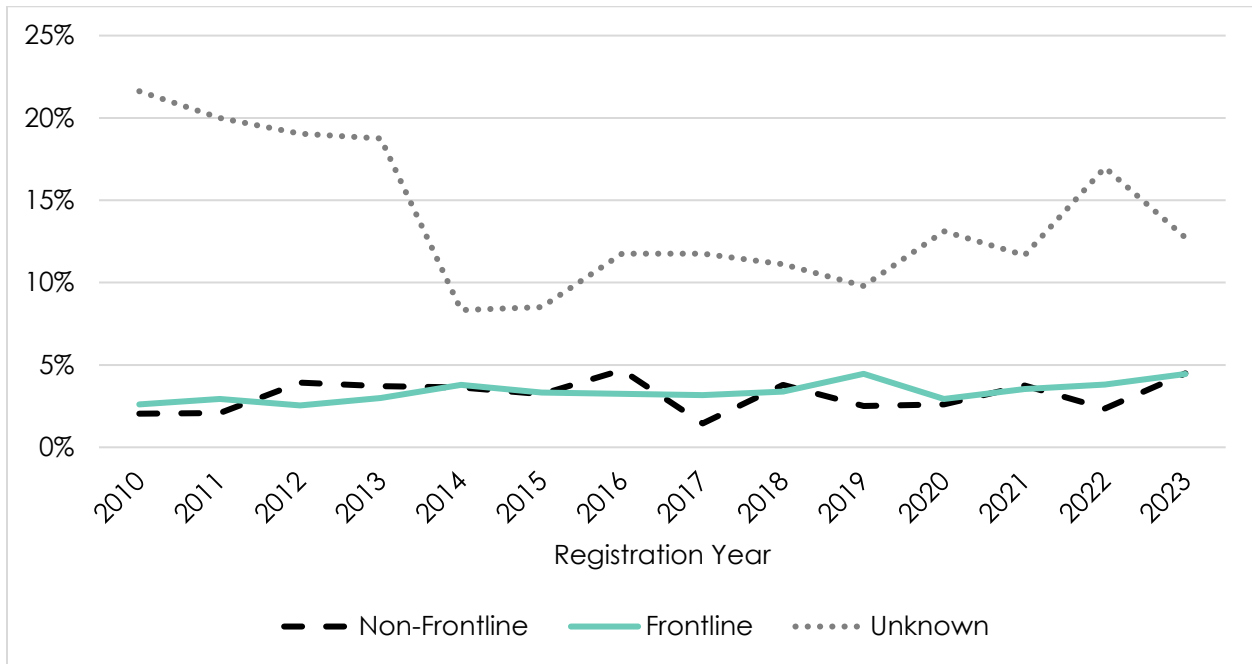
On average, the attrition rates for both frontline and non-frontline workers are around 3%. The attrition rates over time display relative stability for both groups, with rates typically ranging between 2-4%. Since a majority of social workers would typically begin working as frontline workers and then move on to non-frontline roles, the similar attrition rates of non-frontline positions may reflect tenure as a social worker (i.e., individuals with more experience or closer to retirement).

Figure 27 (Appendix 1) shows that 36% of new registrants (social workers in their first year of registration) start as frontline workers, while only 4% are in non-frontline roles, and the remaining 60% are in “Unknown” roles.

When cross-referencing roles with the age of active social workers in Figure 28 (Appendix 1), we see that 8-13% of social workers in younger age categories (20-29 and 30-39 years) are in non-frontline roles, while at least 16% of those in older age categories (age 50 and above) are in non-frontline roles.

¹⁶ As a reminder, social workers in this category did not fill in the registration field describing their role type.

Figure 19: 1-Year Annual Occupational Attrition Rates of Registered NB Social Workers by Role



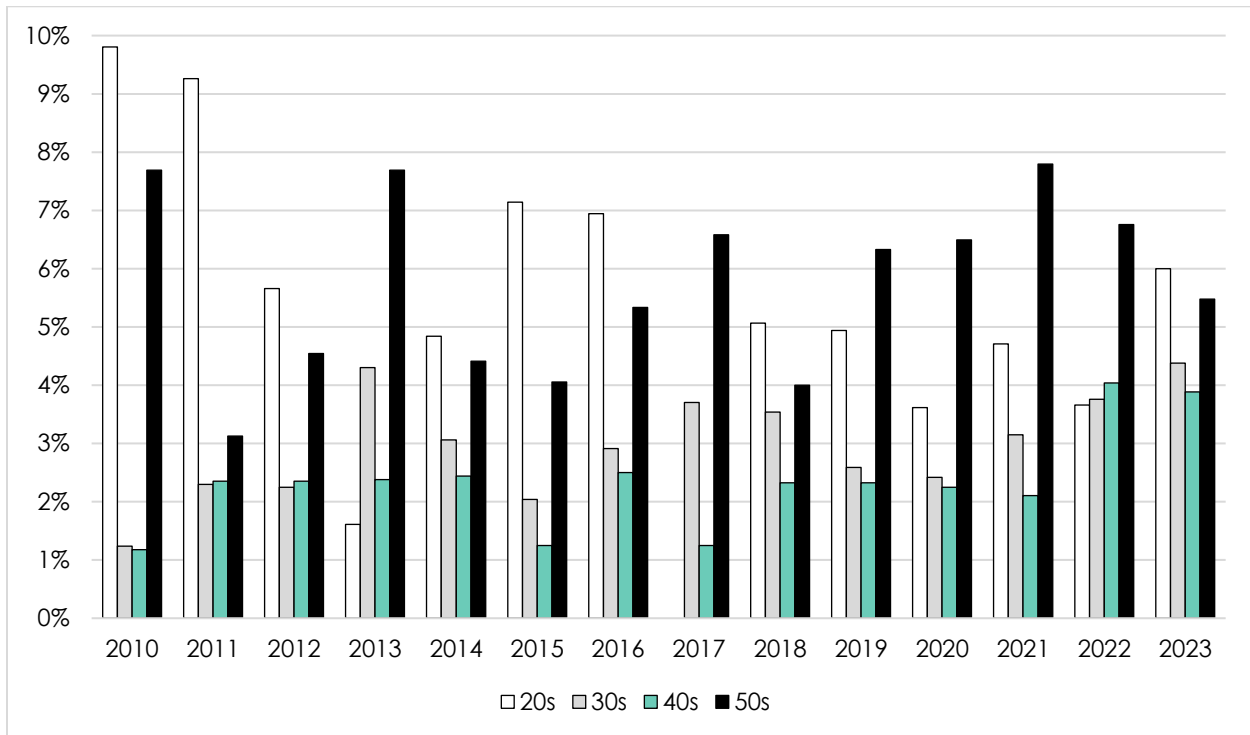
Note: The 2023 follow-up window includes partial data for the 2024 registration year.

Figure 20 below shows a moderate decline in average attrition rates for social workers by age for those in their 20s to their 50s – starting at 5% for those in their 20s and declining to 2% for those in their 40s before rising slightly to 6% for the 50s cohort.

In general, annual attrition rates for the 20s, 30s, and 40s hovered near their long-term averages with minimal fluctuation, while those in the 50s group also remained within a narrow band close to their 6% average. However, for the social workers in their 20s, 1-year attrition rates in 2010 and 2011 were 10% and 9%, respectively. Following this initial 2-year spike, the rates dropped near the average.

The average attrition rate jumps markedly to 12% for those in their 60s and to 17% for those aged 70 and above (see [Table 8](#) in Appendix 1).

Figure 20: 1-Year Annual Occupational Attrition Rates of Registered NB Social Workers by Age

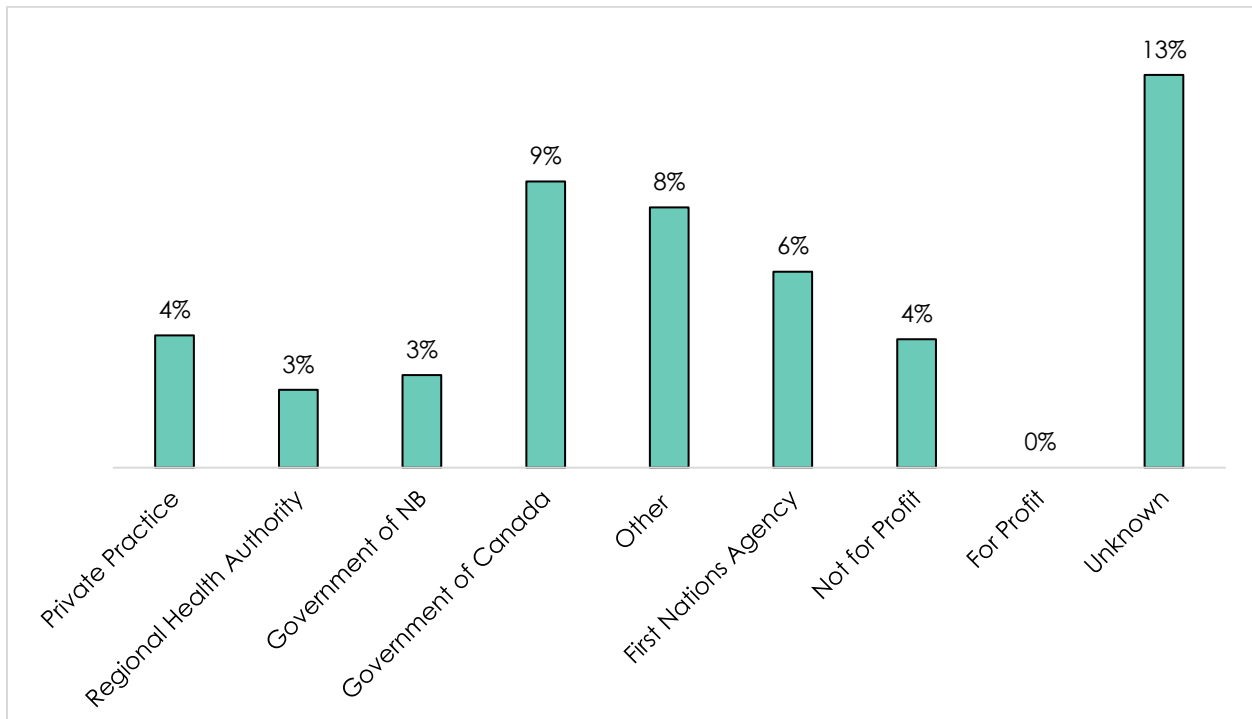


Note: The 2023 follow-up window includes partial data for the 2024 registration year.

In **Figure 12**, we see that the average annual attrition rate for social workers with an “Unknown” employer type is at 13%. This is likely due to these social workers being unemployed at the time of registration and thus leaving the employer type field blank. Those working for the Government of Canada exhibit the next highest attrition rate at 9% – likely due to being temporarily assigned to work in the province. The average annual attrition rates for social workers working for one of the two regional health authorities (RHAs) or for GNB are at 3% each. The “For Profit” category exhibits rates of 0%; however, underlying case counts for this category are low.

Year-to-year attrition rates by employer type are presented in [Table 9](#) (Appendix 1). Categories with larger counts (i.e., RHAs and GNB) show a relatively stable rate at 3% each year. Other categories consist of smaller underlying counts, which make them more sensitive to minor changes in actual numbers, resulting in yearly fluctuations in rates.

Figure 21: Average 1-Year Annual Occupational Attrition Rates of Registered NB Social Workers by Employer Type (Pooled Registration Years: 2010-2023)

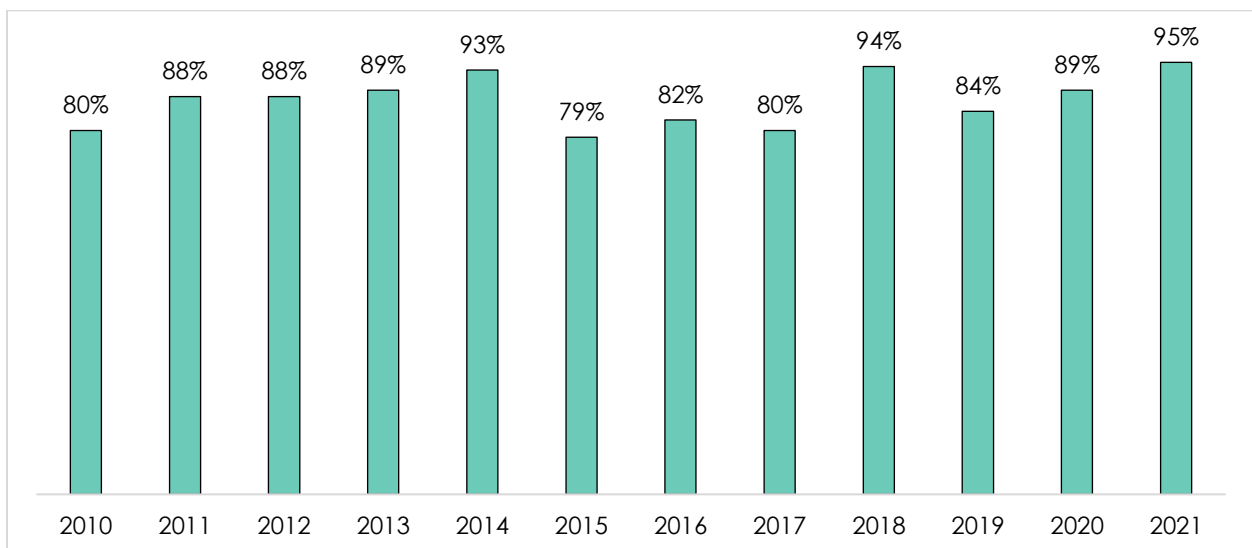


Note: The 2023 follow-up window includes partial data for the 2024 registration year.

Provincial Retention of Former NB Social Workers

Figure 22 measures how many social workers who ceased their registration with the NBASW remained in NB three years after doing so.

Figure 22: 3-Year Provincial Retention Rates of Former Registered NB Social Workers



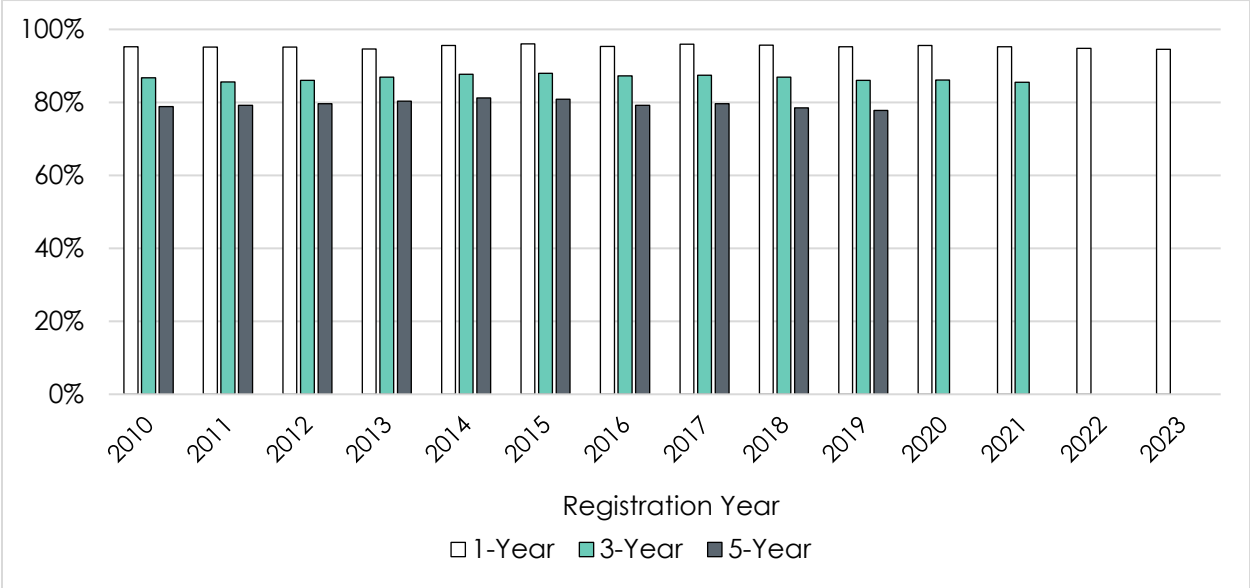
On average, about 90% of former social workers remain in NB three years after leaving the profession. Most years (2010-2016) maintained retention rates above 84%, with notable drops between 2015 and 2017 (rates were 79%, 82%, and 80%, respectively, in those years). Because of the likelihood that retired social workers will remain in NB, future work will break down retention rates following the end of registration based on age and other characteristics.

In contrast, 95% of social workers who were registered in 2020 but not in 2021 remained in the province for at least three years, likely due to pandemic-related reductions in mobility. Because the Citizen Data is truncated in 2024, it is also possible that there are uncaptured exits from NB in that year, which could affect the retention rate in 2021, given the 3-year window.

Occupational Retention of Social Workers

Figure 23 shows that, on average, 95% of all registered social workers remain registered in NB the following year. The 3-year occupational retention rates also stayed relatively stable (86-88%) over the 2010-2023 period. On average, 79% of social workers are retained in their occupation over the 5-year period following their registration.

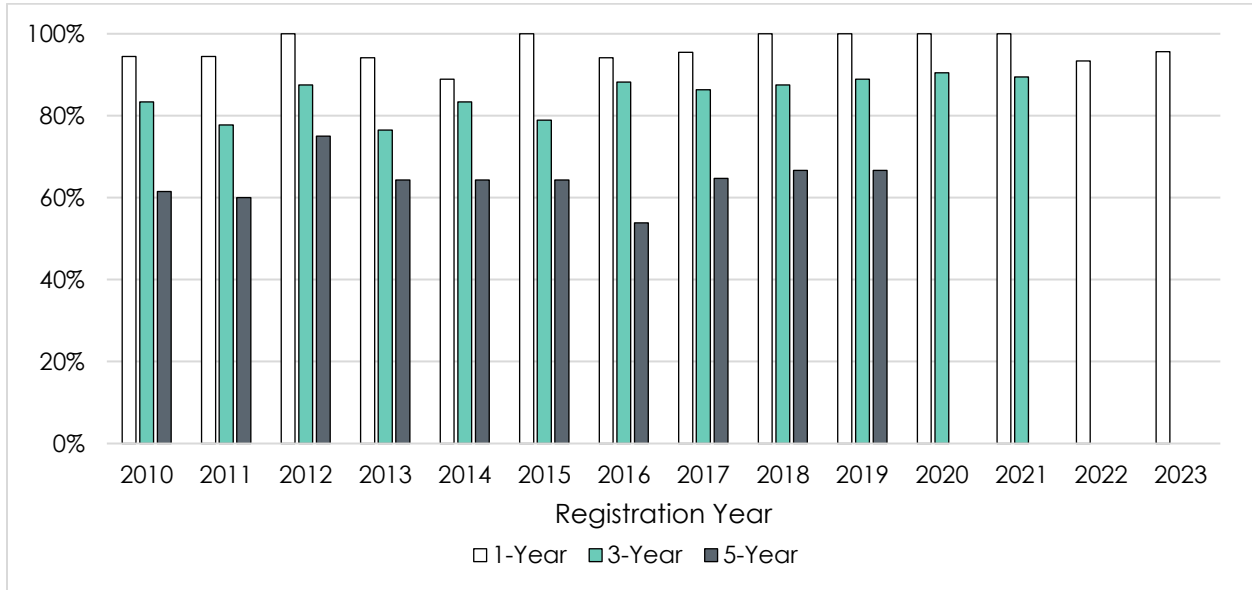
Figure 23: Annual Occupational Retention Rates of Registered NB Social Workers



In **Figure 24**, we see that approximately 97% of newly registered social workers are retained one year after their first year of registration in NB. Due to relatively small counts, the yearly rates fluctuated but were generally above 90%. About 85% of newly registered social workers stayed registered in NB for at least three years, with notable yearly fluctuations. The 3-year occupational retention of new registrants was at its lowest in 2013 (76%) but peaked at 90% in 2020.

Five years after joining, about three-quarters of new registrants continue their tenure as a social worker in NB. The 5-year occupational rates have also fluctuated over the years, with the lowest rate at 60% in 2011.

Figure 24: Annual Occupational Retention Rates of Newly Registered NB Social Workers



Transition Probability Matrix

Our focus so far has been on registered and unregistered social workers, but we also examine the prevalence of social workers moving between registered practicing, registered non-practicing, and unregistered statuses.

The transition probability matrix in **Table 2** displays how social workers transition between the three states year over year. The matrix shows the probability that a social worker with one status (e.g., practicing) in the current year will have another (or the same) status the next year. Each row adds up to 100% (or 1.0) because each individual must end up in one of these three states.

Table 2: Transition Probability Matrix of Registered Social Workers

		Status in Following Year		
		Practicing	Non-Practicing	Unregistered
Status in Current Year	Practicing	0.9303	0.0365	0.033
	Non-Practicing	0.2304	0.5819	0.1876
	Unregistered	0.0222	0.0036	0.9742

The table shows that practicing social workers in a certain year have a high probability (93%) of practicing in the following year. Those who are non-practicing show significant mobility in status, with a 23% chance of returning to practice and a 19% chance of leaving the system entirely (unregistering). Those who are unregistered have a 97% probability of staying unregistered in the following year, indicating that once someone leaves, they are highly unlikely to return.

Statistical Analyses

NB Social Work Graduates Becoming Social Workers in NB

We conducted a logistic regression to estimate factors influencing the likelihood that an NB BSW graduate will stay and work as a social worker in NB within one year of graduation.

The full result of the regression is available in [Table 10](#) (Appendix 1).

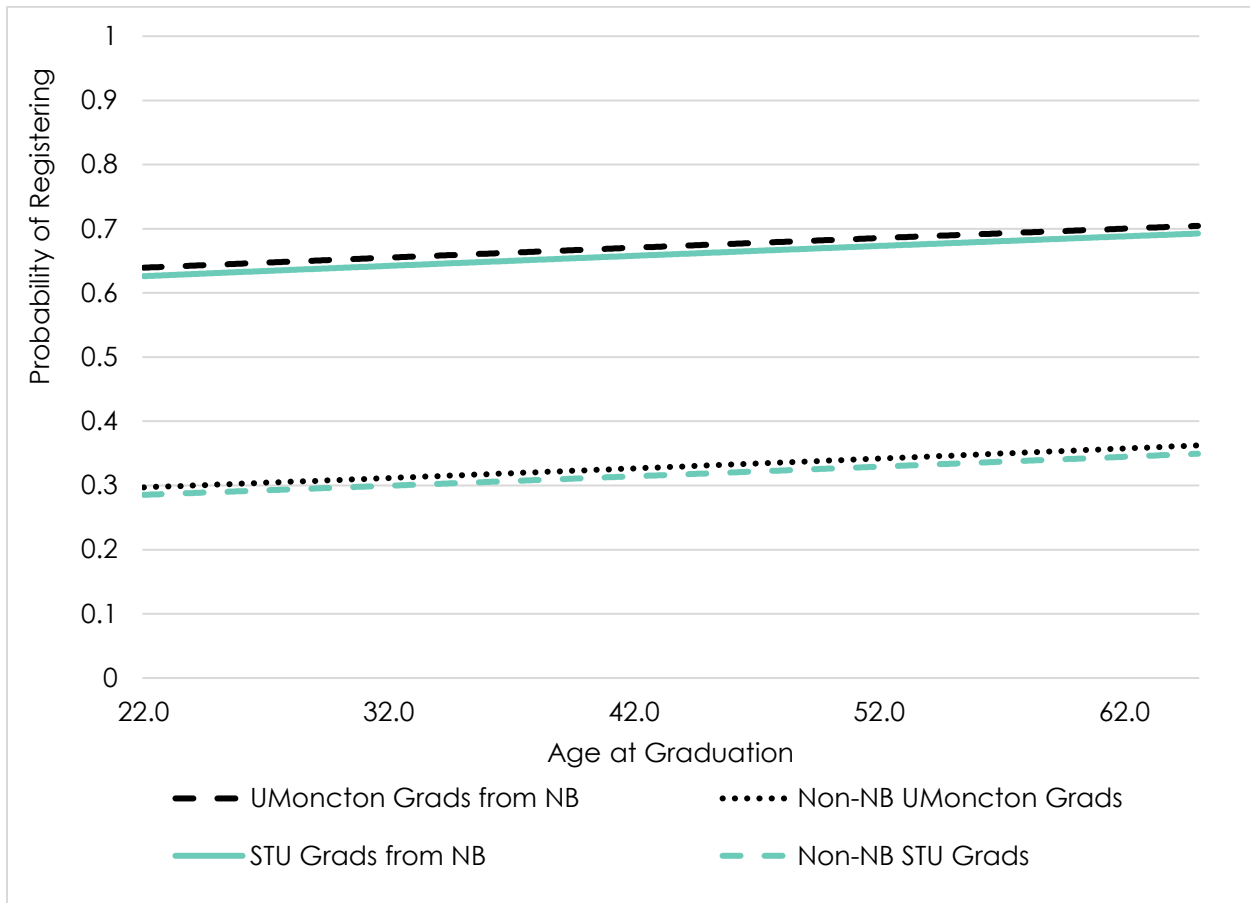
When other factors are held constant, the analysis reveals the following:

- Gender, age at graduation, and graduating institutions are not statistically significant covariates.
 - Descriptive statistics from earlier in this report ([Figure 13](#)) show that graduates from UMoncton have higher rates of recruitment than those from STU. We attribute this outcome to UMoncton's larger proportion of graduates originally from NB. After accounting for place of residence in the logistic regression, we observe that there are no statistically significant differences in transition into employment in NB by university of graduation.
- BSW graduates from NB institutions who were originally from outside NB have 76% lower odds of staying and working in NB than graduates who were born in NB.

Figure 25 below isolates the effects of NB university and student origin by breaking down the probability of registering in NB after accounting for differences in age and sex. For example, if we look at the results for female graduates in the province, we see the following:

- A 22-year-old female UMoncton BSW graduate from NB has a 64% probability of registering in NB, compared to a 30% probability for her non-NB counterparts.
- We observe similar gaps among graduates from STU: a 22-year-old female BSW graduate from NB has a 63% probability of registering as a social worker in NB one year after graduation. In comparison, her non-NB counterparts have a 29% probability of doing the same.

Figure 25: Predicted Probabilities of Female BSW Graduates Registering in NB One Year Post-Graduation



Social Worker Occupational Duration

Cox Proportional Hazard Model

We also ran a time-dependent¹⁷ Cox Proportional Hazard (CoxPH) model to estimate the risk of a social worker unregistering with the NBASW at any given time, while considering multiple factors simultaneously – such as their role type, education level, or work location.

A hazard ratio estimate of greater than 1 implies higher risk of exit, while a ratio lower than 1 signifies lower risk (i.e., longer duration registering as a social worker in NB).

The full set of results is available in [Table 11](#) (Appendix 1).

¹⁷ A time-dependent model incorporates covariates that change with time (i.e., tracking certain variables that vary with time for each year of registration). For example, employment status can change over time.

Other things being equal:

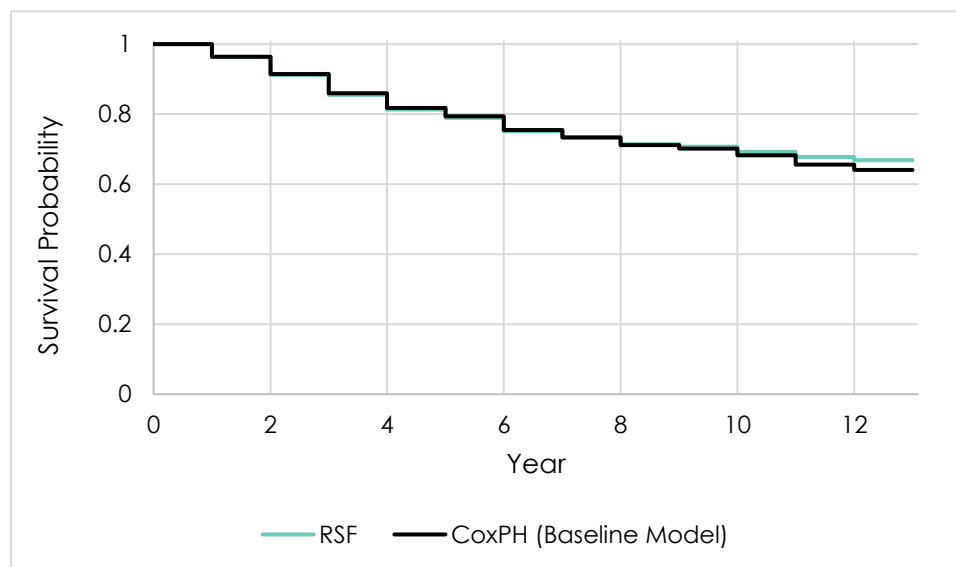
- Social workers with a “practicing” membership status have a 57% lower risk of leaving the profession in NB compared to “non-practicing” social workers (HR = 0.43).
- Those who are registering in NB for the first time exhibit a 54% lower risk of unregistering than social workers who are renewing their registration (HR = 0.46).
- Social workers whose employer types are “Government of Canada,” “Other,” or “Unknown” exhibit a higher risk of leaving than those employed by “Government of NB.”
- Male social workers have a 37% higher risk of not re-registering compared to females (HR = 1.37).
- Social workers who were not born in NB have a 26% higher risk of leaving the social work profession in NB compared to those born in NB.

Random Survival Forest

As a robustness check, we also used Random Survival Forest (RSF) and baseline¹⁸ CoxPH models to predict the occupational duration of social workers appearing in the NBASW registry for the first time.

Figure 26 shows the predicted survival probabilities for both the RSF and baseline CoxPH models.

Figure 26: Predicted Survival Probabilities of Social Worker Retention in NB



¹⁸ A baseline model only includes covariates that were measured during the first year of active membership and therefore do not change over time.

Both models predict close 1-year retention rates (approximately 96% survival probability) until Year 10 (RSF = 69.3% vs. CoxPH = 68.2%). The gap between the two models' retention rates widens between Year 10 and Year 12 (RSF: 66.9% vs. CoxPH: 64.1%).

Concordance Index

We used the Concordance Index (Somers's D rank correlation) to evaluate how well each model predicts social worker retention. A C value (from Somers's D) closer to 1.0 indicates better predictive accuracy – specifically, better differentiation between those who leave earlier versus those who stay longer (technical details are available in [Appendix 2](#)).

Using the full data set, the C value was 0.82 for RSF and 0.61 for the baseline CoxPH model, indicating that either of the models can be used to predict social worker retention, but RSF performs slightly better. Both models confirm observable risks (e.g., frontline roles, language) but likely miss the effects of unobservable risks.

Social Workers Leaving NB After Unregistering

We conducted a multivariate logistic regression to estimate the factors correlated with the provincial retention of social workers following the cessation of their registration with the NBASW. The full result of the regression is available in [Table 12](#) (Appendix 1).

When other factors are held constant, the results show that:

- Those who unregistered post-COVID exhibit 59% lower odds (coefficient = -0.899) of leaving NB compared to social workers who unregistered pre-COVID. In other words, post-pandemic, social workers were far less likely to leave the province after becoming unregistered.
- Males have 69% lower odds of leaving NB compared to females (coefficient = -1.16)
- Each year of age decreases one's odds of leaving NB after unregistering by 4.4% (coefficient = -0.0447), indicating that older social workers are more likely to stay in NB after unregistering.
- Social workers who report not being employed in the year prior to no longer being registered have 58% lower odds of leaving NB compared to those who were employed (coefficient = -0.8622).
- Those not born in NB have 5.9% higher odds (coefficient = 1.776) of leaving the province after unregistering compared to those born in NB.

Discussion and Conclusion

The aim of this study was to investigate the trends in social worker recruitment and retention in New Brunswick (NB), and various factors associated with them.

The Overall Picture: Registered and Practicing Social Workers in NB

Between 2010 and 2023, the number of registered social workers in NB increased by 39%. Meanwhile, the per capita ratio – which adjusts for provincial population growth – shows an increase of 25%. However, registering as a social worker does not necessarily mean one is practicing as a social worker, as registered workers may have a “non-practicing” status.

The proportion of practicing social workers in NB declined from 91-94% during the 2010-2019 period to 86-89% in subsequent years, even as the total number of registrants continued to increase. This reflects a recent change in registration dynamics, where a growing share of the total registrant pool is non-practicing – a pattern that aligns with concerns raised by the NBASW (2022) about service gaps. Similarly, non-frontline (i.e., administrative) roles, which initially represented 16% of the workforce, grew to 22% by 2024, suggesting a shift in workforce composition.

Recruitment: Social Work Graduates Entering the Profession

On average, about two-thirds (67%) of BSW graduates from NB institutions registered as social workers in NB at some point after their graduation, while 53% registered within one year of graduation. However, there has been a decline in BSW graduates from NB universities since 2020, underscoring challenges in workforce replenishment, as predicted by the NBASW (2022). The growing proportion of NB-born graduates may reflect the declining enrolment of non-NB students, which could further strain workforce numbers over time.

Retention: Social Workers Who Stay in the Profession

Occupational retention among social workers in NB remained fairly strong over the study period. On average, about 95% of social workers who were registered in one year were still working in the profession the next year, and roughly 86-88% remained over a three-year span, with close to four in five still practicing after five years. Newly registered social workers showed a similar pattern, though with slight variations: their short-term retention was even higher – about 97% remained after their first year – but their longer-term retention tended to be slightly lower than the overall registry, with around 85% staying for at least three years and roughly three-quarters remaining after five.

Attrition: Social Workers Who Leave the Profession or Stop Practicing

1-year attrition rates were relatively stable at around 5%. In other words, about 5% of social workers who were registered with the NBASW in a given year (e.g., 2015) did not renew their

registration the following year (e.g., 2016) – though this does not mean they permanently left the profession.

That being said, we see a jump in exit rates from practice around the time of the COVID-19 pandemic. (As a reminder, these rates reflect the share of registered social workers that stopped practicing either by unregistering or by registering with a “non-practicing” status). After a decade of hovering at around 5-6%, 1-year exit rates jumped to around 10% in 2020. These higher exit rates could be attributable to the time covering the COVID-19 pandemic, when an increase in cases of depression and near-burnout among social workers in Canada could be observed (Alaggia et al., 2023; NBASW, 2022). This trend is similar to findings from the provinces of Ontario and British Columbia, where burnout and workload pressures intensified occupational attrition among healthcare workers broadly, and among social workers more specifically (Ashcroft et al., 2022; Orr et al., 2024).

Further analysis shows that social workers who are practicing in one year are highly likely (93%) to remain active the next year, while non-practicing individuals are in a more fluid state, with a significant chance of either returning to practice (23%) or leaving the system entirely (19%). Once unregistered, individuals are almost certain (97%) not to return.

Statistical Analysis: Factors Associated with Staying or Leaving the Profession and the Province

Our time-dependent CoxPH model highlights some factors that indicate a significantly reduced risk of leaving the profession in NB (unregistering). These include having a practicing membership status (57% lower risk) and being a new registrant (54% lower risk). While the descriptive retention results mentioned above show that new registrants have short-term retention rates similar to the overall registry, and only slightly lower long-term retention, the CoxPH model adjusts for other characteristics – such as practicing status, employer type, and demographic factors – that influence the likelihood of leaving. Once these factors are taken into account, new registrants demonstrate a substantially lower year-to-year risk of unregistering.

Meanwhile, not being born in the province results in a 26% higher risk of unregistering – aligning with broader trends observed in graduate retention studies (Bhuiyan et al., 2021). Being male is associated with a 37% higher risk of attrition. Further, employment with the Government of Canada or in “Other” or “Unknown” sectors presents a significantly higher risk of unregistering compared to being employed by GNB, which may reflect the often temporary nature of these roles.

Among social workers who discontinue their registration with the NBASW, the logistic regression highlights several factors associated with remaining in or leaving the province. Those who unregistered after the COVID-19 period have substantially lower odds of leaving NB compared to those who unregistered pre-COVID, suggesting a post-pandemic shift toward greater provincial stability. Males also have lower odds of leaving the province than females, and older social workers are more likely to remain in NB after unregistering. Individuals who were not employed in the year prior to unregistering – such as retirees, students, or those working outside the profession – are also less likely to leave the province. In contrast, those not born in NB have

higher odds of relocating after unregistering, underscoring the continued importance of provincial ties in shaping long-term retention.

This study underscores that social worker retention is influenced by a combination of institutional, demographic, and role-specific factors. While workforce growth has occurred, persistent attrition may indicate unmet needs for workplace supports and targeted recruitment. These findings align with broader Canadian literature on retention challenges but highlight unique regional dynamics, such as the role of membership status, employer type, and institutional affiliations.

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Appendix 1

Table 3: Matching Rate of Registered Social Workers by Year

Registration Year	Total Registered Social Workers	Matched Social Workers	Matching Rate
2010	1,635	1,580	97%
2011	1,685	1,635	97%
2012	1,700	1,645	97%
2013	1,740	1,680	97%
2014	1,765	1,705	97%
2015	1,810	1,750	97%
2016	1,880	1,805	96%
2017	1,940	1,865	96%
2018	2,010	1,950	97%
2019	2,065	2,000	97%
2020	2,115	2,055	97%
2021	2,185	2,110	97%
2022	2,215	2,130	96%
2023	2,275	2,180	96%
2024	2,215	2,125	96%
Overall	29,235	28,215	97%

Table 4: Gender of Registered Social Workers by Year

Registration Year	Total	Female	Male
2010	1,580	84%	16%
2011	1,635	85%	15%
2012	1,645	86%	14%
2013	1,680	87%	13%
2014	1,705	88%	12%
2015	1,750	88%	12%
2016	1,805	87%	13%
2017	1,865	88%	12%
2018	1,950	88%	12%
2019	2,000	88%	12%
2020	2,055	88%	12%
2021	2,110	89%	11%
2022	2,130	89%	11%
2023	2,180	89%	11%
2024	2,125	89%	11%

Table 5: Highest Education Background of Registered Social Workers by Year

Registration Year	Total	Undergraduate	Graduate
2010	1,580	83%	17%
2011	1,635	83%	17%
2012	1,645	83%	17%
2013	1,680	83%	17%
2014	1,705	82%	18%
2015	1,750	82%	18%
2016	1,805	83%	17%
2017	1,865	83%	17%
2018	1,950	83%	17%
2019	2,000	83%	17%
2020	2,055	83%	17%
2021	2,110	82%	19%
2022	2,130	81%	19%
2023	2,180	80%	20%
2024	2,125	79%	21%

Table 6: Number of Practicing and Matched Registered Social Workers by Year

Registration Year	Matched Registered Social Workers	Practicing Social Workers	Share of Practicing
2010	1,580	1,440	91%
2011	1,635	1,490	91%
2012	1,645	1,500	91%
2013	1,680	1,525	91%
2014	1,705	1,565	92%
2015	1,750	1,625	93%
2016	1,805	1,675	93%
2017	1,865	1,740	93%
2018	1,950	1,830	94%
2019	2,000	1,855	93%
2020	2,055	1,875	91%
2021	2,110	1,810	86%
2022	2,130	1,875	88%
2023	2,180	1,935	89%
2024	2,125	1,890	89%

Table 7: Employer Type of Registered Social Workers by Year

Year	Private Practice	Regional Health Authority	Government of NB	Government of Canada	Other	First Nations Agency	Not for Profit	For Profit	Unknown
2010	3%	23%	50%	2%	5%	2%	3%	0%	11%
2011	3%	22%	49%	2%	4%	2%	4%	0%	13%
2012	3%	22%	49%	2%	4%	3%	5%	0%	12%
2013	4%	23%	46%	2%	4%	3%	5%	0%	14%
2014	3%	21%	48%	2%	4%	3%	4%	1%	14%
2015	5%	21%	47%	2%	3%	3%	5%	1%	13%
2016	4%	21%	46%	2%	3%	3%	5%	1%	14%
2017	4%	21%	46%	2%	3%	4%	5%	1%	14%
2018	5%	23%	46%	3%	3%	5%	4%	1%	11%
2019	5%	23%	46%	3%	3%	4%	4%	1%	13%
2020	5%	23%	44%	2%	2%	4%	3%	1%	15%
2021	6%	24%	43%	2%	2%	4%	4%	1%	14%
2022	7%	24%	42%	2%	3%	4%	4%	1%	13%
2023	8%	24%	41%	2%	3%	5%	3%	1%	13%
Overall	5%	23%	46%	2%	3%	4%	4%	1%	13%

Figure 27: Distribution of New Registrants by Role (Pooled First Registration Years: 2010-2024)

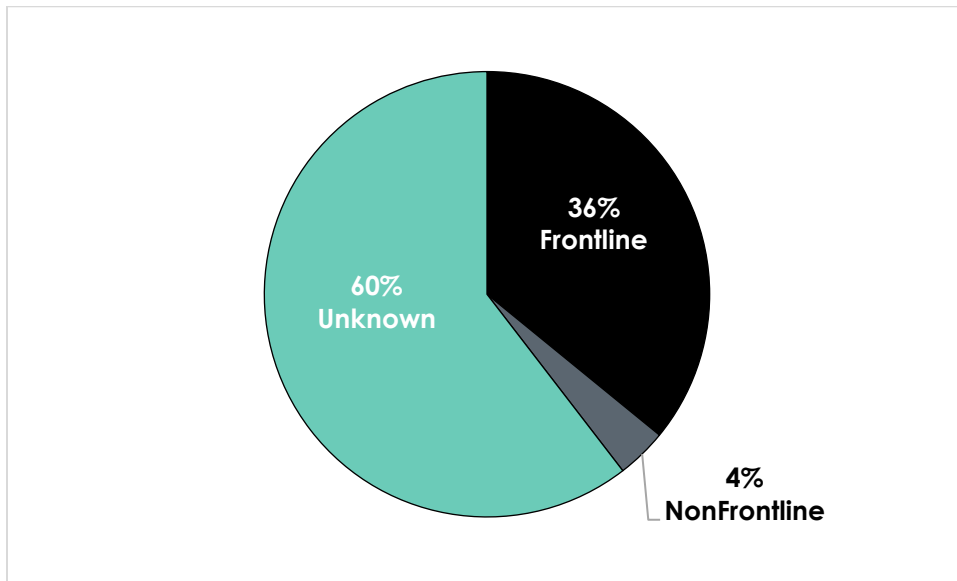


Figure 28: Distribution of New Registrants by Role (Pooled First Registration Years: 2010-2024)

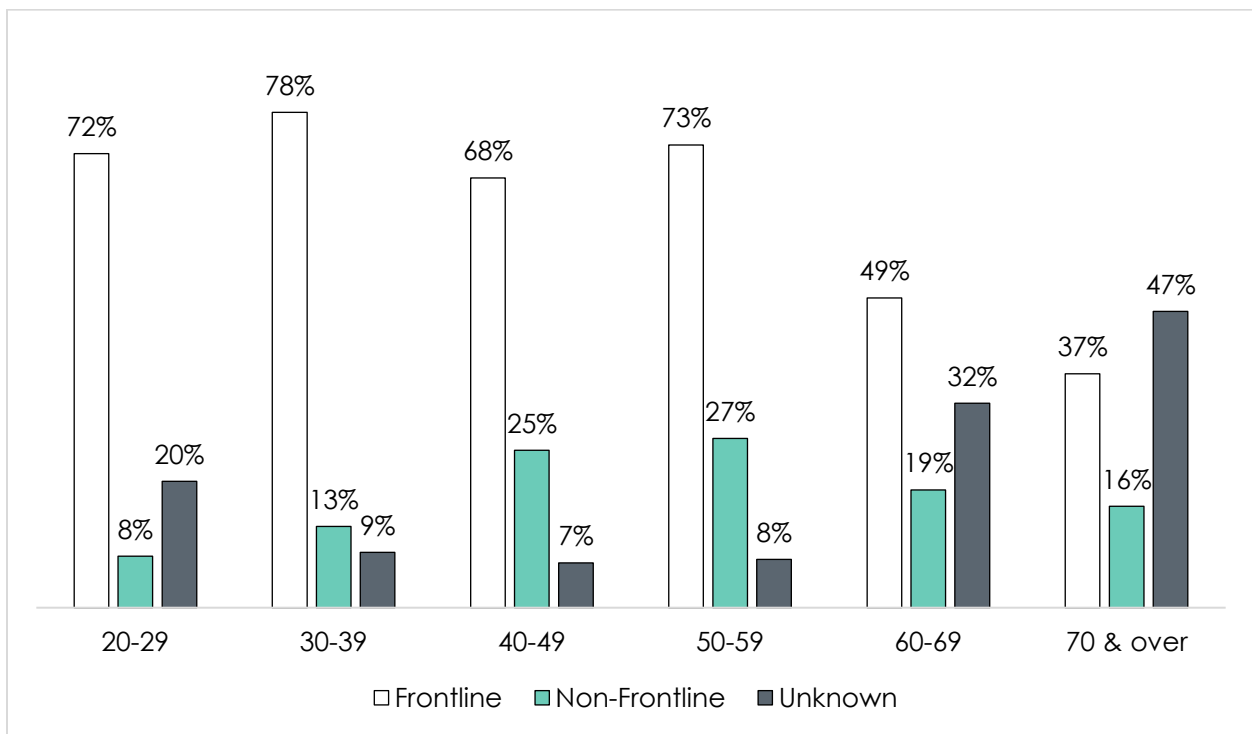


Table 8: 1-Year Attrition Rate of Registered NB Social Workers by Age

Year	20s	30s	40s	50s	60s	70+
2010	10%	1%	1%	8%	10%	0%
2011	9%	2%	2%	3%	12%	25%
2012	6%	2%	2%	5%	18%	0%
2013	2%	4%	2%	8%	17%	50%
2014	5%	3%	2%	4%	14%	0%
2015	7%	2%	1%	4%	12%	0%
2016	7%	3%	3%	5%	11%	0%
2017	0%	4%	1%	7%	10%	40%
2018	5%	4%	2%	4%	10%	17%
2019	5%	3%	2%	6%	9%	33%
2020	4%	2%	2%	6%	10%	29%
2021	5%	3%	2%	8%	10%	13%
2022	4%	4%	4%	7%	13%	14%
2023	6%	4%	4%	5%	13%	11%
Overall	5%	3%	2%	6%	12%	17%

Table 9: 1-Year Attrition Rate of Registered NB Social Workers by Employer Type

Year	Private Practice	Regional Health Authority	Government of NB	Government of Canada	Other	First Nations Agency	Not for Profit	For Profit	Unknown
2010	9%	1%	3%	0%	6%	0%	10%	0%	20%
2011	9%	3%	3%	14%	8%	13%	7%	NA	12%
2012	0%	1%	3%	14%	8%	0%	0%	0%	22%
2013	0%	3%	3%	14%	8%	0%	0%	0%	20%
2014	0%	3%	2%	0%	8%	10%	7%	0%	13%
2015	0%	4%	2%	13%	8%	8%	0%	0%	9%
2016	6%	3%	3%	17%	17%	8%	6%	0%	8%
2017	0%	1%	3%	11%	8%	7%	6%	0%	10%
2018	6%	3%	3%	9%	8%	6%	0%	0%	12%
2019	5%	3%	4%	10%	10%	13%	7%	0%	6%
2020	10%	1%	2%	10%	11%	6%	0%	0%	13%
2021	4%	2%	4%	0%	0%	6%	6%	0%	14%
2022	3%	3%	3%	10%	9%	5%	7%	0%	15%
2023	6%	4%	4%	10%	9%	5%	7%	0%	11%
Overall	4%	3%	3%	9%	8%	6%	4%	0%	13%

Table 10: Factors Associated with NB Social Work Graduates Becoming Social Workers in NB

Variables	Coefficient	Standard Error	P-Value
Comparison Category: Gender = Female			
Male	0.0533	0.2060	0.796
Age at graduation (continuous in years)	0.0068	0.0103	0.505
Comparison Category: Post-secondary Institution = STU			
UMoncton	0.0565	0.1355	0.677
Comparison Category: Previous Residence = NB			
Non-NB	-1.4336	0.1527	< 0.001***

*** p<0.01, ** p<0.05, * p<0.1

Table 11: Factors Associated with NB Social Worker Occupational Duration – Time Dependent Cox Proportional Hazard Model

Variables	Hazard Ratio	95% Confidence Interval	P-Value
Comparison Category: Membership Status = Non-Practicing			
Practicing	0.4251	0.3226 - 0.5600	< 0.001***
Comparison Category: Language of Correspondence = English			
French	1.0419	0.8357 - 1.2992	0.7150
Comparison Category: Gender = Female			
Male	1.3698	1.0057 - 1.8658	0.0459*
Comparison Category: Registration Status = Registration Renewal			
Registered in NB prior to last year	0.9862	0.4851 - 2.0052	0.9694
First Year in NB	0.4598	0.2493 - 0.8478	0.0128*
Previously registered in another province	0.3565	0.1016 - 1.2515	0.1075
Comparison Category: Current Employment Status = Employed			
Not Employed	1.0107	0.7609 - 1.3424	0.9415
Comparison Category: Employer Type = Government of NB			
Private	1.1085	0.5920 - 2.0758	0.7476
Regional Health Authority	0.7578	0.5355 - 1.0724	0.1175
Government of Canada	2.8656	1.7926 - 4.5808	< 0.001***
Other	2.6422	1.5858 - 4.4025	0.0002***
First Nations Agency	1.6788	1.0662 - 2.6435	0.0253*
Not for Profit	1.3336	0.8174 - 2.1758	0.2491
For Profit	1.7018	0.6204 - 4.6678	0.3017
Unknown	2.4014	1.6939 - 3.4045	< 0.001***
Comparison Category: NB Born = Born in NB			
Born outside NB	1.2645	1.0173 - 1.5717	0.0345*
Comparison Category: Education Level = Bachelor in Social Work			
Master's in Social Work	0.9656	0.1126	0.8203

*** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$

Table 12: Factors Associated with Interprovincial Retention of former Social Workers in NB

Variables	Coefficient	Standard Error	P-Value
Comparison Category: Pre v Post COVID-19 = Pre-COVID-19			
Post-COVID-19	-0.8990	0.3423	0.0086**
Comparison Category: Gender = Female			
Male	-1.1600	0.5046	0.0215*
Age (continuous in years)	-0.0447	0.0106	< 0.001***
Comparison Category: Education Level = Bachelor in Social Work			
Master's in Social Work	0.4895	0.3183	0.1241
Comparison Category: Membership Status = Non-Practicing			
Practicing	0.6016	0.3895	0.1224
Comparison Category: Current Employment Status = Employed			
Not Employed	-0.8622	0.3937	0.0285*
Comparison Category: Role Type = Frontline			
Non-Frontline	0.1299	0.3968	0.7434
Unknown	0.4284	0.4392	0.3293
Income Neighbourhood (continuous)	0.000012	0.000008	0.1141
Comparison Category: CMA vs Non-CMA = CMA Resident			
Non-CMA Resident	-0.4148	0.2642	0.1164
Comparison Category: NB Born = Born in NB			
Born outside NB	1.7760	0.2825	< 0.001***
Comparison Category: Language of Correspondence = English			
French	-0.5875	0.3110	0.0588

*** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$

Appendix 2

NB Social Work Graduates Becoming Social Workers in NB

The goal of the social worker recruitment model is to examine the probability of BSW graduates staying to work in NB as social workers after graduating.

The covariates are all taken from the NB University Graduates data set. As mentioned in the [Data](#) section, linking NB University Graduates to other data sets such as the Social Workers Data and Citizen Data is difficult because not every student has Medicare and therefore cannot be assigned unique codes used to link their records across data sets. While it would be possible to use covariates taken from the Social Workers Data and Citizen Data, the missing values introduced from incomplete linking would greatly affect results.

The binary dependent variable for the social workers recruitment model is coded as "1" if a BSW graduate ends up registering as a social worker within a year of graduation, and "0" if they do not. Like the method used in calculating social worker recruitment rates, if a BSW graduate appears as a registered social worker in the year following their graduation, they are considered recruited.

Table 13 shows the covariates for the model, most of which are simple. "Orig Prov" indicates whether the student had NB as their permanent province of residence when they first began their program. Individuals from outside NB, which may include out-of-province students and international students, are classified as "Not NB." Permanent residents are counted as domestic students, meaning they may have NB as their province of residence (the counts for the number of international students and permanent residents with BSW degrees is low).

Table 13: Covariates in Social Workers Recruitment Model

Covariate	Type	Description
Gender	Categorical	Either male or female
Age	Continuous	Age in years
Education School	Categorical	Either STU or UMoncton
Orig Prov	Categorical	Either NB or NotNB

The formula for the social workers recruitment model is as follows:

$$\log \frac{P(\text{BecomesSW}_i)}{1-P(\text{BecomesSW}_i)} = \beta_0 + \beta_1 \text{Gender}_i + \beta_2 \text{Age}_i + \beta_3 \text{EducationSchool}_i + \beta_4 \text{OrigProv}_i + \epsilon_i$$

where for observation i ,

- **P(BecomesSW)** is the probability of the BSW graduate being recruited to work as a social worker in NB within a year of graduation.
- **Gender, Age, Education School,** and **Orig Prov** are covariates as described in Table 13.
- β_0 is the intercept, and $\{\beta_1, \beta_2, \beta_3, \beta_4\}$ is the set of coefficients for the covariates.

Social Worker Occupational Duration

Survival Analysis

Survival analysis models the time until an event occurs – in this case, when a social worker becomes unregistered. The hazard function forms the basis for this type of analysis and takes the form $h(t)$. It represents the probability of an event occurring at time t . The cumulative hazard function $H(t)$ is the sum of the hazard function evaluated at all unique event times.

We analyze data from 2011 to 2023, focusing only on social workers who began a new tenure during this period. While 2010 data are available, 2010 is used as a "burner" year to help identify new tenures: workers registered in 2011 but not in 2010 are assumed to be starting a new period of employment. We exclude earlier records since we cannot confirm whether someone was registered before 2010.

Each worker is included only once, based on their first observed tenure (i.e., consecutive years of being registered). For example, a worker registered from 2015 to 2019 would have a 5-year tenure.

Although registration data allow workers to self-report whether they are registering for the first time or re-registering, this can be subjective. The burner-year method offers a more consistent and objective approach, while also increasing the sample size.

Cox Proportional Hazards

The CoxPH model with k covariates takes the form:

$$h_i(t_i) = h_0(t_i) \times \exp(\beta_1 X_{1,i} + \beta_2 X_{2,i} + \dots + \beta_{k-1} X_{k-1,i} + \beta_k X_{k,i})$$

where t is the time of survival for observation i . Additionally:

- The covariates are denoted by $X_{1,i}, X_{2,i}, \dots, X_{k-1,i}, X_{k,i}$.
- β_0 is the intercept, and $\{\beta_1, \beta_2, \dots, \beta_{k-1}, \beta_k\}$ is the set of coefficients for the covariates.

The CoxPH model does not specify a baseline hazard function h_0 . It may vary with time, hence the $h_0(t_i)$ notation. Suppose for two different observations we have $h_j(t_i)$ and $h_j(t_i')$. The CoxPH model is said to be proportional because, for any set of covariates, the hazard ratio $\frac{h_j(t_i)}{h_j(t_i')}$ is independent of t .

Baseline Model

The baseline model uses data taken from a registered social worker's first year during a new tenure as a reference point. If a registered social worker is registered through 2023, then their status will be right-censored since the event of interest (i.e., their departure from the list of registered social workers) is not observed. The survival time of their tenure is the number of consecutive registration years where they appear as registered. Each registered social worker has one observation in the baseline model. A full list of covariates can be seen in the [Results](#); many are shared from the previously described logistic regression models.

Time-Dependent Model

The time-dependent model effectively incorporates covariates that change with time. Since the Social Workers Data has membership data for each year of registration, we can track changes in certain variables that vary with time. The baseline model only includes covariates that were measured during the first year of registration and therefore do not change over time.

In this configuration, each year of registration is included in the model, meaning each individual social worker may be represented with multiple observations. The first observation year of a new tenure for a registered social worker will have a start and end time of 0 and 1, respectively. The second observation year, if it exists for the social worker, will have a start and end time of 1 and 2. By following this formulation each year a social worker remains registered, we can capture changes in time-dependent covariates.

Random Survival Forest

A standard random forest is an ensemble machine learning algorithm. It utilizes multiple decision trees and is flexible in the data it can handle. Random survival forests (RSFs) adopt the essential tenets of random forests for the survival analysis setting. The essential aspects of the RSF algorithm are described by Ishwaran et al. (2008).

The covariates and data used in the RSF model will be the same as those found in the CoxPH baseline model. RSF models are not equipped to handle time-dependent variables the way CoxPH models are, at least not with the *ranger* package from R being used for this analysis. Therefore, we limit the comparison of RSF results to the similarly non-time-dependent CoxPH baseline model.

An RSF, like the standard random forest, requires hyperparameter tuning to configure the model to best fit the data. The observations are split into training and test data, with 75% of the data being randomly selected for training and the remainder used for testing to evaluate the model's performance on novel data previously unseen by the model. Hyperparameter tuning is performed on training data. Note that the CoxPH model is re-fit with the same training data so a fair comparison between its performance and the RSF can be made regarding both models' handling of novel test data.

A grid search aids in the tuning of hyperparameters by finding the combination of hyperparameters that provides the best performance on a chosen metric. For random forests and its variants, the goal is often to minimize the out-of-bag (OOB) error rate (refer to [Appendix 1](#) for details). The default OOB metric for survival models in the *ranger* package in the R statistical programming language is Harrell's concordance index, or C-index. Details on this and other concordance metrics can be found in the section that follows.

The hyperparameter values to be tried in the hyperparameter tuning process can be seen in **Table 14**. The number of trees in the model is set to 500. Further details on parameters and their default values can be found in [ranger documentation](#) (Wright, n.d.).

Table 14: Hyperparameter Values for RSF Grid Search

Hyperparameter Name in R	Description	Hyperparameter Values in Grid Search
min.node.size	Minimum node size	1, 2, 3, 4, 5
mtry	Number of variables considered to split at each node	1, 2, 3, 4, 5

Concordance Index

The concordance index is a metric first seen in Harrell et al. (1982). It is frequently used in survival analysis to compare predicted survival outcomes with real outcomes. The concordance index creates pairs of observations and then calculates the proportion of pairings that successfully predict a higher risk score (often the cumulative hazard function) for the observation with a lower survival time. In other words, we are estimating the model's ability to rank real survival times based on the probability of survival outputted from the model. A pair that is ranked properly is said to be concordant.

In situations where either one or both observations in a pair are censored, the pair may be omitted from the calculation. The exception would be if a censored observation is paired with an uncensored one, and the uncensored observation has a lower survival time. In such a case, we know that the censored observation survived longer than the uncensored one.

Due to the censoring present in our data causing many pairs to be excluded in the concordance index calculation, we compute Somers' D rank correlation instead. Somers' D rank correlation better handles censored data; all pairs where different outcomes have occurred are included, regardless of censoring. Recall, this event outcome is binary. The cumulative hazard is taken as a risk score to judge whether the model can predict social workers becoming unregistered. A [formula](#) is given by Harrell (n.d.) that relates the Somers' D rank correlation to the concordance index. It is:

$$D = 2(C - 0.5)$$

The concordance index C of the formula is our metric for evaluating the CoxPH baseline model and RSF.

Social Workers Leaving NB After Becoming Unregistered

The second multivariate logistic regression model makes use of the Social Workers Data and the Citizen Data to create a binary variable that indicates, among registered social workers that become unregistered, if they then leave NB. We have shortened its name to the “social workers leaving” model. Once a registered social worker moves to being unregistered, a 1-year window is created starting from the date of entry of their last registered year. If their eligibility status in the Citizen Data indicates they have left the province within this window of time, then they are flagged with a “1” as having left NB. Those that remain in NB during the 1-year window are denoted with a “0.” This is our binary dependent variable of interest.

It is possible for a registered social worker to become unregistered more than once from the years 2010 to 2023. They may exit the list of registered social workers and then return as registered later. In such cases, only the most recent time they became unregistered is included. Each registered social worker that becomes unregistered only appears once in the sample.

The goal with this model is to find indicators for qualified social workers choosing to leave the province for employment opportunities in other provinces. The covariates taken from the Social Workers Data have values from their last year before becoming unregistered. The address at the time of their last date of entry in the Social Workers Data is utilized for geographic covariates in the Citizen Data.

The full list of covariates for the social workers leaving model can be seen below in **Table 15**.

Table 15: Covariates in Social Workers Leaving Model

Covariate	Type	Description
Membership Status	Categorical	Either Practicing or Non-Practicing
Employment Status*	Categorical	Either Employed or Not Employed
Covid	Categorical	Either Pre-COVID (date of entry before March 1, 2020) or Post-COVID
Gender	Categorical	Either male or female
Age	Continuous	Age in years
Education Level	Categorical	Either Undergraduate or Graduate
Role Type	Categorical	Either Frontline or Non-Frontline
Before Tax Income Per Person Equivalent (BTIPPE)	Continuous	Before tax income per person equivalent for Dissemination Area of residence
CMA	Categorical	Either CMA or Non-CMA
NB Born	Categorical	Either NB Born or Non-NB Born
Language of Correspondence	Categorical	One of English or French, French and English (Bilingual), or Other

**Note: This is based on current employment status field; if the field is left blank, it indicates the registrant is employed.*