

Sector Profile

Professional, Scientific and Technical Services

Atlantic Region

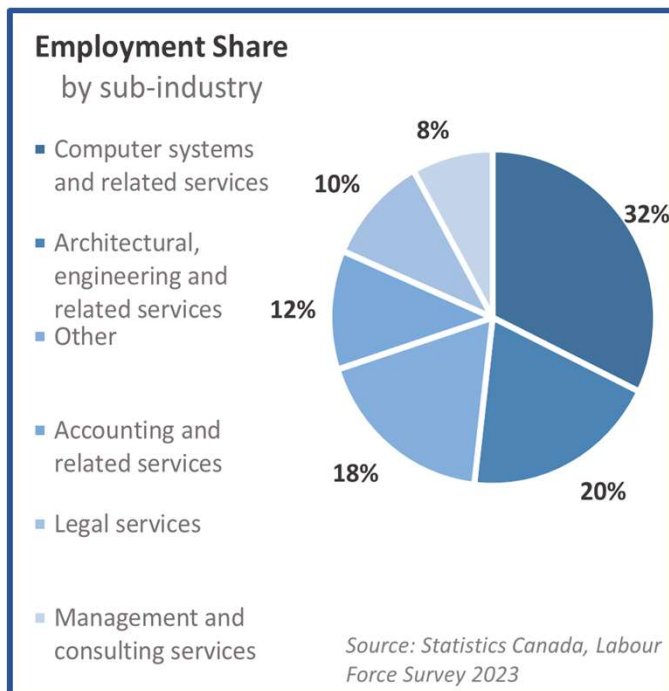
2024



HIGHLIGHTS

- The professional, scientific, and technical services sector is a diverse sector that covers a wide range of sub-industries and occupations, and accounts for 6.5% of Atlantic Canada's workforce.
- The workforce in this sector is highly educated, earns above-average wages, is relatively young, and is more than half male.
- Employment growth in this sector has been robust and stable, particularly during 2021 and 2022 when growth exceeded 10% each year. However, in 2023, job growth cooled to 3.0%.
- Job growth in this sector is projected to average 2.7% over 2024 to 2026, surpassing overall employment growth for the region by 1.0 percentage point. Prince Edward Island and Nova Scotia are expected to lead the way with growth rates of 4.2% and 3.6%, respectively.

ABOUT THE INDUSTRY



Composition and Importance of the Sector

The professional, scientific, and technical services sector is made up of nine diverse sub-industries centred around high-level expertise. The sector's production processes rely heavily on worker skills, with equipment and materials playing a secondary role. Some notable highly skilled specializations include engineering, computer systems design, accounting, law, and scientific research.

The sector employed 6.5% of Atlantic Canada's workforce in 2023, with an employment level of 78,400. A large portion of workers held full-time jobs (87.6%), exceeding the all-industry average (83.9%). The two largest sub-industries comprise more than half of employment in sector: computer systems design and related services (32%) and architectural, engineering, and related services (20%).

The sector contributed more than five billion dollars to Atlantic Canada's Gross Domestic Product (GDP) in 2023, representing 4.5% of the total output in the region.



Geographic Distribution of Employment

Nova Scotia has the highest concentration of employment in this sector and comprises almost half of the sectoral workforce in the Atlantic region. This can be attributed in large part to a growing technology hub centered in Halifax. New Brunswick has the second largest employment share in the region, at roughly one-third, where the province hosts large employers in cybersecurity. The other Atlantic provinces also have prominent sub-industries with large employers, such as bioscience in Prince Edward Island, and financial technology in Newfoundland and Labrador.

	Employed 2023	Industry Share (%)
Atlantic Canada	78,400	6.5%
Newfoundland and Labrador	11,500	4.9%
Prince Edward Island	4,700	5.3%
Nova Scotia	38,400	7.7%
New Brunswick	23,800	6.2%

Source: Statistics Canada, Labour Force Survey

WORKFORCE

Workforce Characteristics

Workers in the professional, scientific, and technical services sector tend to be highly educated. In 2023, a very small minority of workers in the sector had less than a high school degree (0.7%), while 59.7% had at least a university degree—much higher than the average share (30.4%) for all workers in Atlantic Canada. Moreover, 22.6% of individuals employed in this sector held a degree above the bachelor's level, compared to 10.1% for the all-industry average.

Wages in this sector are substantially higher than the overall median wage in each Atlantic Province. For example, in 2023, the median hourly wage for full-time employees in this sector was \$35.71 in Nova Scotia and \$32.69 in New Brunswick, compared to an overall median wage of \$26 in these provinces. This reflects the high educational requirements for employees in the sector, as well as the strong demand for its specialized services.

The workforce in this sector is relatively young, with 60% of workers falling between the ages of 15 and 44, and more than 70% in the prime working age bracket (25 to 54 years). The sector also has a higher share of self-employed individuals (23.6%), more than double that of all industry averages (10.3%). Females accounted for 44.7% of sectoral employment in 2023, narrowing the gender gap with males by 2.3 percentage points from the previous year.

Main Occupations

Occupations in the sector are widely distributed across a broad range of professional skill sets. Consequently, even the largest occupations constitute only a small share of total sectoral employment. As of 2023, the three largest occupations in this sector were software developers and programmers, lawyers, and information systems specialists, employing 13,600 workers in the region. The next two largest occupations were in professions related to financial services and software engineering and design.

Most of these occupations require several years of university or college-level education, often supplemented by industry-specific professional certifications. Tech-related skills have been in particularly high demand recently.

Top 5 largest occupations	Employed 2023	% Share of Industry
Software developers and programmers	4,700	6.0%
Lawyers and Quebec notaries	4,675	6.0%
Information systems specialists	4,225	5.4%
Financial auditors and accountants	3,550	4.5%
Software engineers and designers	2,750	3.5%

Source: ESDC/Service Canada



RECENT HISTORY

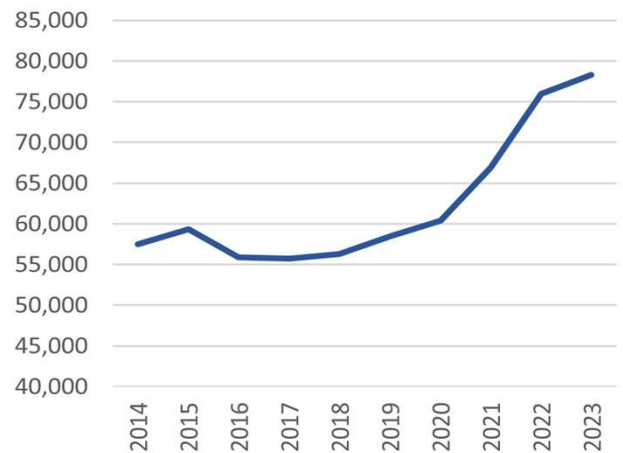
The professional, scientific, and technical services sector continued its employment growth in 2023 (+3.0%), though at a much lower rate than observed in 2022 (+13.9%). Employment declined slightly in two Atlantic provinces, Prince Edward Island (-200 workers) and Newfoundland and Labrador (-100), while it grew in Nova Scotia (+800) and New Brunswick (+1,800). Demand for specialized services provided by this sector tends to increase with population and economic growth. Recent rapid population growth and the ongoing digital transformation of the economy are sustaining and boosting activity within this sector.

Unlike sectors that were heavily impacted by COVID-19 containment measures, this sector has thrived in recent years, especially in 2021 and 2022, with employment growth exceeding 10% in both years. However, in 2023, the sector's employment growth cooled to a moderate 3.0%, below the pre-pandemic growth level. This slowdown was mostly due to reduced demand for remote support as many employers returned to office-based or hybrid work arrangements, overall global IT layoffs, slowing economic growth, and reduced sector investments, due in part to continued high interest rates and elevated inflation. Nonetheless, the sector continues to grow, albeit at a moderate rate.

As a sector that is heavily reliant on worker skills, recruiting and retaining skilled talent is essential. However, challenges persist in these areas. Industry associations highlight difficulties in filling intermediate and senior-level positions that require specialized skills, especially in tech-related occupations. Additionally, there are widespread reports of worker shortages in veterinary services. The latest data from the Canadian Survey on Business Conditions (Q2 2024) underscores these concerns, indicating that a considerable proportion of businesses and organizations in this sector in New Brunswick (20.3%) and Nova Scotia (17.1%) cite skilled worker recruitment as a major obstacle expected over the next three months, exceeding the national average of 8.1%.

However, parts of the sector are embracing emerging tech trends, particularly Artificial Intelligence (AI), of which use in businesses and workplaces has been steadily increasing. While its full impact is yet unknown, AI holds the potential to revolutionize how work is performed. Indeed, the professional, scientific, and technical services sector is among the leaders in AI adoption.

Historical Employment Trend
Atlantic Canada



Source: Statistics Canada, Labour Force Survey

According to the Canadian Survey on Business Conditions (Q2 2024), a higher percentage of businesses and organizations in this sector in the Maritimes (NB - 24%, NS - 20.2%, and PEI - 16.5%) reported using AI for production of goods and delivery of services compared to the national average (13.7%) for this sector. Businesses are leveraging AI to enhance productivity by automating and speeding up repetitive tasks. However, training employees in AI usage lags behind the increasing adoption of AI technologies. A recent initiative by St. Francis Xavier University in Nova Scotia aims to address this gap through the launch of the Practical AI Utilization Microcredential program in September 2024. This program aims to equip workers across industries with essential AI skills.

Several investments and supports relevant to this sector have been announced in recent years. These include a payroll rebate from the Province of Nova Scotia to support the creation of up to 1,000 jobs by technology services company Cognizant, and \$2.8 million in federal funding for N.B.-based TechImpact to help small and medium-sized enterprises adopt new technology. The biosciences subset of this sector has also been a bright spot and is deemed strategically important in P.E.I. Pharmaceutical company BIOVECTRA completed a \$90 million expansion in November 2023, potentially creating 125 new positions in P.E.I. and N.S., while six N.S.-based life sciences companies will receive \$2.9 million in federal funding to support further growth.



OUTLOOK

Employment growth in professional, scientific, and technical services is projected to average 2.7% from 2024 to 2026, outpacing overall employment growth in the region by 1.0 percentage point.

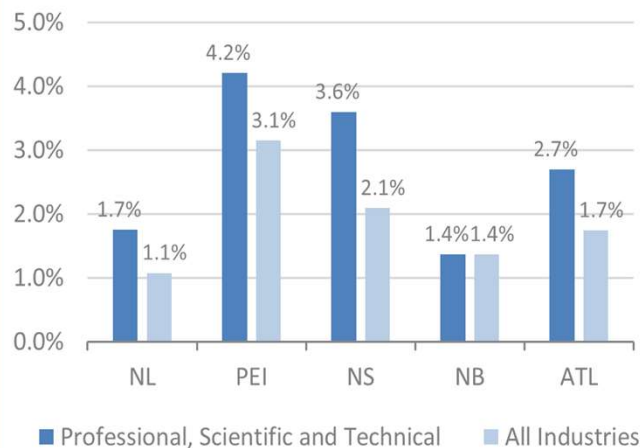
All four Atlantic provinces are expected to see employment growth in this sector. Prince Edward Island and Nova Scotia are forecasted to have the strongest average annual job growth rates at 4.2% and 3.6%, well outpacing overall employment growth. On the other hand, New Brunswick is the only province expected to experience sectoral employment growth on par with its all-industries average (1.4%) over the projection period.

Labour demand in this sector has been relatively high and stable in recent years. In the first quarter of 2024, the job vacancy rate was 4.4% in Nova Scotia and 3.4% in New Brunswick for the sector. Despite a slight decline in these rates compared to the same quarter a year prior, they remain above the total job vacancy rates in their respective provinces. With a limited pool of skilled workers, competition for talent is expected to persist through the coming years.

Recent drivers of employment growth are anticipated to continue to support the sector throughout the projection period, resulting in above-average job gains. Robust population, employment, and economic growth will continue to benefit all industries, especially legal and accounting services. High levels of activity in engineering-heavy subsets of the construction sector (supported by numerous public-sector investments) will support demand for architectural, engineering, and related services.

Projected Average Annual Employment Growth Rate (%),

Atlantic Provinces, 2024-2026



Source: ESDC/Service Canada

Emerging trends such as artificial intelligence, green technologies, automation, health records modernization (in Nova Scotia), and investment in cybersecurity (\$5.5 million in Nova Scotia) are also expected to support solid and steady job growth in this sector through 2026. However, the return of record growth rates observed in 2021 and 2022 is not expected, as the sector will also face moderating factors such as reduced international migration to the region, skilled worker shortages, and the ongoing impacts of elevated rates of interest and inflation.

Note: In preparing this document, the authors have taken care to provide clients with labour market information that is timely and accurate at the time of publication. Since labour market conditions are dynamic, some of the information presented here may have changed since this document was published. Users are encouraged to also refer to other sources for additional information on the local economy and labour market. Information contained in this document does not necessarily reflect official policies of Employment and Social Development Canada.

The analysis in this report was finalized as of **July, 2024**.

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APPENDIX

Real GDP (2023) and Employment (2023) for Atlantic Canada

	Professional, Scientific and Technical Services			All Industries		
	Number	Share of		Number	Share of	
		Total	AAGR*		Total	AAGR*
Real GDP (M\$)	\$5,158.3	100.0%	2.9%	\$114,774.4	100.0%	0.9%
Newfoundland and Labrador	\$1,259.8	24.4%	1.9%	\$28,950.2	25.2%	-0.5%
Prince Edward Island	\$254.8	4.9%	4.3%	\$7,267.1	6.3%	2.5%
Nova Scotia	\$2,360.3	45.8%	3.9%	\$43,765.1	38.1%	1.5%
New Brunswick	\$1,283.4	24.9%	1.8%	\$34,792.0	30.3%	1.1%
Employment (000s)	78.3	100.0%	3.1%	1210.0	100.0%	0.8%
Male	43.3	55.3%	2.7%	613.0	50.7%	0.8%
Female	35.0	44.7%	3.7%	597.0	49.3%	0.8%
15-24 years old	5.8	7.4%	3.2%	161.8	13.4%	0.8%
25-54 years old	55.7	71.2%	3.0%	765.4	63.3%	0.5%
55 years and older	16.8	21.4%	3.7%	282.7	23.4%	1.6%
Worked full-time	68.6	87.6%	3.1%	1015.6	83.9%	0.9%
Worked part-time	9.7	12.4%	3.5%	194.4	16.1%	0.2%
Self-employed	18.5	23.6%	1.8%	124.5	10.3%	-0.7%
Employees	59.8	76.4%	3.6%	1085.4	89.7%	1.0%
Permanent job	55.6	71.0%	4.0%	923.3	76.3%	1.4%
Temporary job	4.2	5.3%	-0.6%	162.1	13.4%	-1.1%
Less than high school	0.5	0.7%	-3.5%	92.1	7.6%	-2.6%
High school graduate	8.1	10.3%	3.0%	284.9	23.5%	-0.4%
Postsecondary cert. or diploma	22.9	29.3%	1.0%	465.0	38.4%	0.6%
University degree	46.7	59.7%	4.6%	367.9	30.4%	3.3%
Newfoundland and Labrador	11.5	14.6%	0.1%	236.8	19.6%	-0.1%
Prince Edward Island	4.6	5.9%	4.0%	89.0	7.4%	2.0%
Nova Scotia	38.4	49.0%	4.0%	497.8	41.1%	1.1%
New Brunswick	23.8	30.4%	3.4%	386.5	31.9%	0.8%

Source: Statistics Canada, Labour Force Survey - Custom Table; Table 36-10-0402-01

*Average annual growth rate for last ten years of available data (GDP 2014-23 and Employment 2014-23)

