Profile, Employment Outcomes, and Retention of Maritime University Bachelor's Graduates

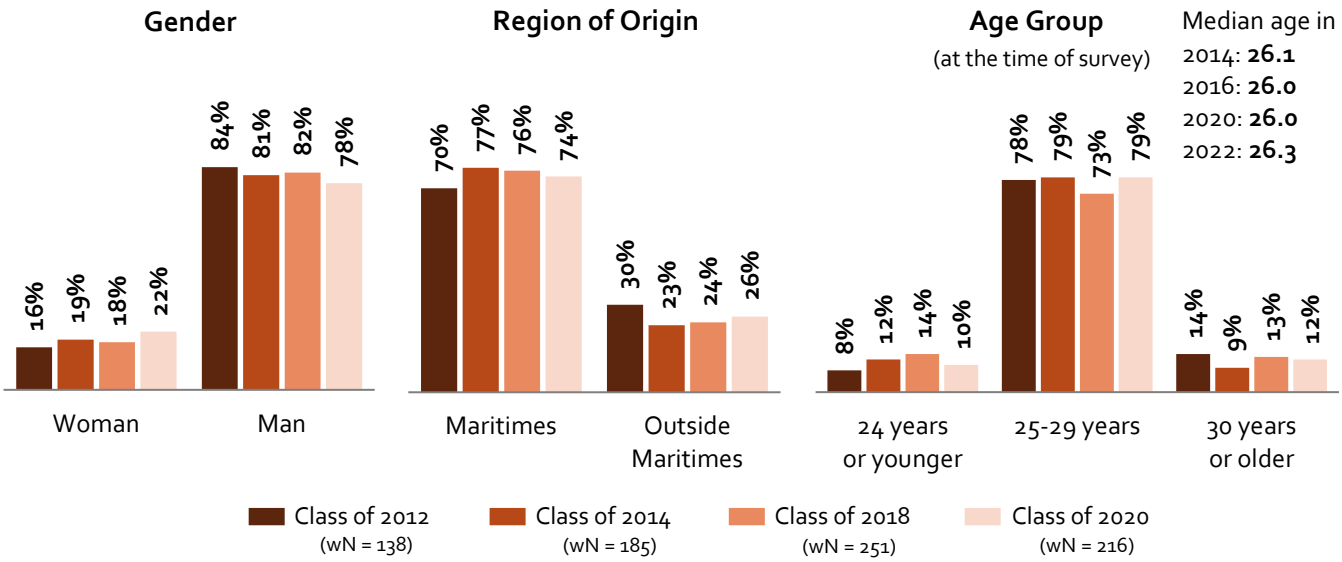
October 2024

Engineering

Highlights

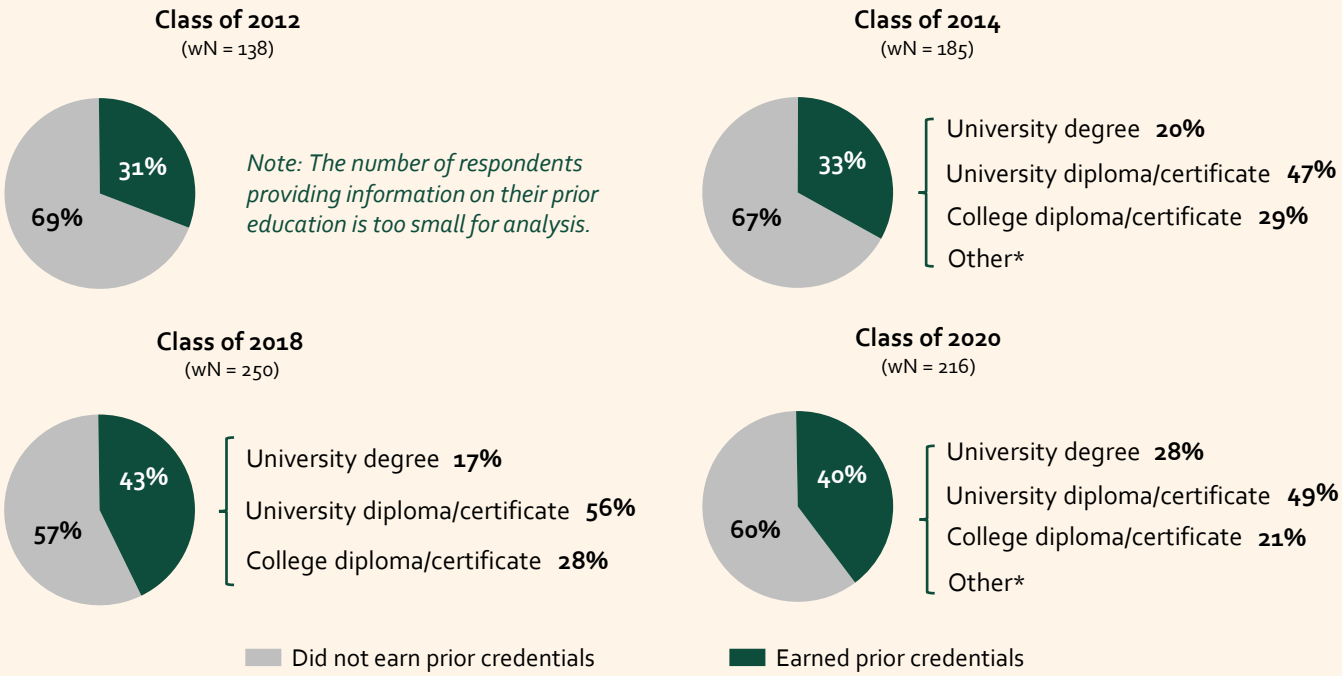
- Four classes of Maritime university bachelor's graduates were surveyed two years after graduation. This report looks at the profile of engineering program graduates, their employment outcomes, and their retention in the Maritime region.
- Eight out of ten engineering graduates from Maritime universities were men, and most graduates were originally from the Maritime provinces, with a median age of 26 at the time of the survey.
- About a third or more of graduates had earned a previous post-secondary credential before enrolling in their engineering degree. Among those with prior education, the most common credential obtained was a university diploma or certificate. A common pathway in the Maritimes is to transfer into an engineering degree after completing a diploma or certificate in engineering.
- Two years after graduation, 92% to 94% of graduates in the labour force were employed, and among employed graduates, the vast majority worked full-time and held permanent positions. The median annual income (adjusted to 2022 dollars) was highest for the Class of 2012 graduates ($75,400 compared to approximately $65,000 for the other three classes), which could be explained, at least in part, by the higher percentage of graduates from this class working outside the Maritime region at the time of the survey.
- Engineering graduates were employed in a wide variety of industry sectors, with "Professional, scientific, and technical services" being the most common sector. The "Manufacturing" and "Construction" sectors were also significant employers. Most graduates were employed in roles classified under "Professional occupations in natural and applied sciences", which accounted for 50% to 63% of the graduates across the four classes.
- Seven to eight out of ten employed graduates reported that their job was related to their program and that they were using the skills they acquired during their studies. They also felt that their education had prepared them for the workforce (i.e., to a moderate, considerable, or great extent).
- The percentage of all engineering graduates residing in the Maritimes two years after graduation increased from 49% for the Class of 2012 to 65% for the Class of 2020. Similarly, retention of graduates originally from the Maritimes increased from 58% to 80%.

Profile of Engineering Graduates



Gender: This variable is obtained from the universities' administrative data. Hence, it is possible that sometimes the only information available is "sex at birth" in which case it is used as a proxy for "gender". Also, some institutions include "non-binary person" in the "unknown gender" category which makes it impossible to publish data on the non-binary population. Region of Origin: The primary region of residence in the 12 months before enrolling in the program.

Post-Secondary Credentials Earned Prior to Enrolling in Engineering Program



* Data suppressed due to small cell size.

Prior credential: The highest credential completed by graduates before enrolling in their engineering program. Credentials are classified into the following categories: University degree (includes bachelor's, master's, PhD/doctorate, and professional health doctorate), University diploma/certificate, College diploma/certificate (includes private college or training school diploma/certificate, apprenticeship diploma/certificate, and CEGEP), Other (any other diploma or certificate).

Employment Outcomes of Engineering Graduates

	Graduates in the labour force			
	Class of 2012 (wN = 122)	Class of 2014 (wN = 171)	Class of 2018 (wN = 236)	Class of 2020 (wN = 202)
Percent employed	94%	94%	92%	93%
Percent employed full-time†	95%	92%	95%	97%
Percent employed in a permanent position†	92%	85%	84%	85%
Median earnings†**	$75,400	$64,800	$65,300	$65,000
Median full-time earnings†**	$75,800	$66,700	$66,200	$65,200

	Graduates in the labour force who were living in the Maritimes at the time of the survey			
	Class of 2012 (wN = 57)	Class of 2014 (wN = 108)	Class of 2018 (wN = 150)	Class of 2020 (wN = 126)
Percent employed	92%	94%	90%	92%
Percent employed full-time†	93%	90%	95%	97%
Percent employed in a permanent position†	86%	85%	86%	84%
Median earnings†**	$66,000	$64,000	$63,100	$62,400
Median full-time earnings†**	$66,000	$64,800	$64,000	$62,800

† Among employed graduates ** Median earnings are expressed in constant 2022 dollars and rounded to the closest $100.

Labour force: Includes graduates who, during the reference week, were either employed or unemployed. This excludes those not looking or not available for work, including full-time students. Percent employed: The number employed divided by the total number in the labour force. Percent employed full-time: The number employed full-time divided by the total number employed full- or part-time. Earnings: Annualized earnings calculated on self-reported wages recorded based on the respondents' choice (hourly, bi-weekly, monthly, etc.).

Percentage of Engineering Graduates by Industry Sector of Their Job†

	Class of 2012 (wN = 114)	Class of 2014 (wN = 160)	Class of 2018 (wN = 213)	Class of 2020 (wN = 180)
1 Professional, scientific, and technical services	24%	28%	34%	29%
2 Manufacturing	13%	14%	15%	16%
3 Construction	13%	17%	13%	12%
4 Public administration	*	8%	6%	10%
5 Mining, quarrying, and oil and gas extraction	27%	11%	10%	7%
6 Educational services	*	*	5%	*
7 Utilities	*	*	*	6%
8 Other	22%	22%	22%	21%

† Among employed graduates * Data suppressed due to small cell size.

Industry sectors: The data on industry sectors are based on the major groupings of the North American Industry Classification System (NAICS) 2012 and 2017. Industry sectors with small sample sizes (unweighted n < 10) are grouped into "Other".

Percentage of Engineering Graduates by Occupation Group of Their Job†

		Class of 2012 (wN = 111)	Class of 2014 (wN = 157)	Class of 2018 (wN = 214)	Class of 2020 (wN = 180)
1	Professional occupations in natural and applied sciences[1]	63%	50%	58%	52%
2	Technical occupations related to natural and applied sciences[2]	13%	15%	9%	12%
3	Middle management occupations in trades, transportation, production and utilities[3]	*	11%	*	6%
4	Specialized middle management occupations[4]	*	*	10%	6%
5	Professional occupations in education services[5]	*	*	6%	*
6	Other	24%	24%	17%	24%

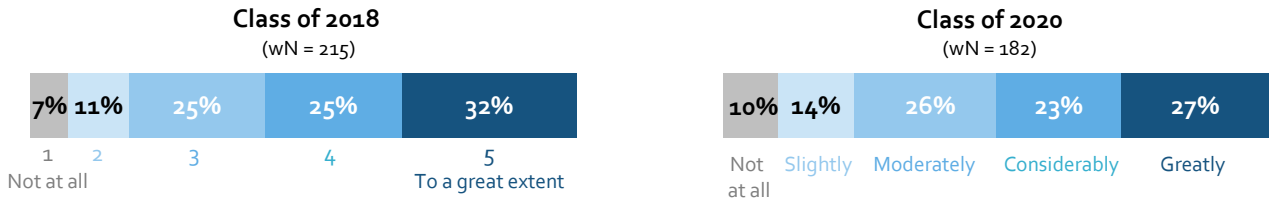
† Among employed graduates * Data suppressed due to small cell size.

Occupation groups: The data on occupations are based on the major groupings of the National Occupational Classification (NOC) 2011 and 2016. Occupation groups with small sample sizes (unweighted n < 10) are grouped into "Other".

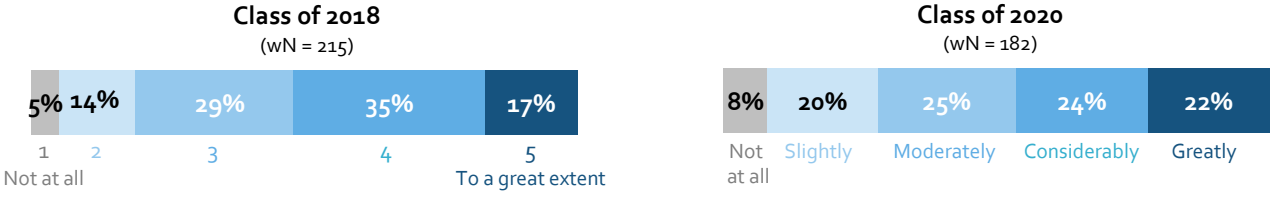
1 Includes "civil, mechanical, electrical, and chemical engineers", "architects, urban planners, and land surveyors", "computer and information systems professionals", and "other engineers". **2** Includes "technical occupations in civil, mechanical, and industrial engineering", "technical occupations in electronics and electrical engineering", "technical occupations in architecture, drafting, surveying, geomatics, and meteorology", "technical occupations in computer and information systems", "technical occupations in physical sciences", and "other technical inspectors and regulatory officers". **3** Includes "managers in construction and facility operation maintenance". **4** Includes "managers in engineering, architecture, science, and information systems" and "managers in public protection services". **5** Includes "university professors and post-secondary assistants".

The Extent to Which Engineering Graduates Think…

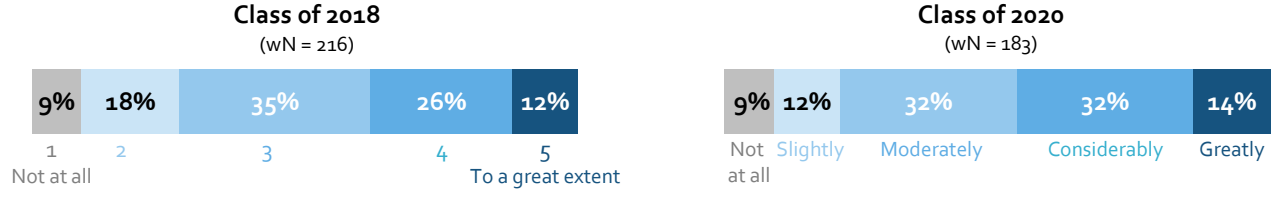
They Were Working in a Job Related to Their Program†



They Were Using the Skills Learned During Their Program†



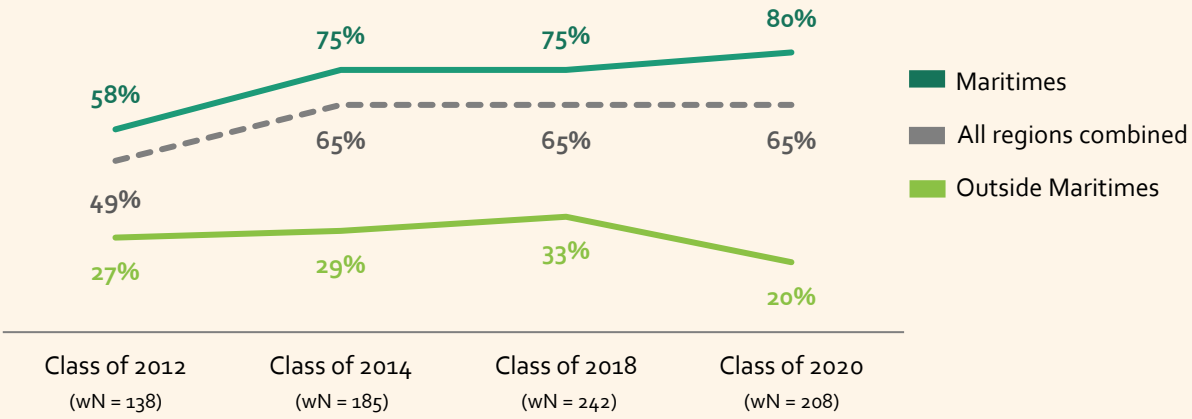
Their Education Prepared Them for the Workforce†



† Among employed graduates

Note: Data for the other two classes cannot be compared due to the use of different scales.

Percentage of Engineering Graduates Residing in the Maritimes Two Years After Graduation by Region of Origin



Data sources:

MPHEC Graduate Outcomes (GO) survey:
- Class of 2012 in 2014
- Class of 2014 in 2016
- Class of 2018 in 2020
- Class of 2020 in 2022

Research samples:

Bachelor's graduates of the following Classification of Instructional Program (2016) series:
- 14. : Engineering

Graduates from Bachelor of Engineering or Bachelor of Science in Engineering programs from the following universities are included:
- **Nova Scotia**: Dalhousie University
- **New Brunswick**: University of New Brunswick, Université de Moncton
- **Prince Edward Island**: University of Prince Edward Island

Number of graduates and response rates

Survey	Graduates	Completed surveys Unweighted (Weighted)	Response rate	Margin of error*
Class of 2012	548	118 (138)	22%	±8.0 pp
Class of 2014	681	171 (185)	25%	±6.5 pp
Class of 2018	769	227 (251)	30%	±5.5 pp
Class of 2020	803	204 (216)	25%	±5.9 pp

* Confidence interval of 95% (19 times out of 20)

All statistics presented have been generated from weighted data on the basis of the university of graduation and gender. Statistics in charts may not sum to 100% due to rounding. Non-responses have been excluded from the analyses. Data in small cell sizes (unweighted n < 10) suppressed to ensure the confidentiality of respondents.

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