

Postsecondary education, a Maritime perspective

Talking Stats: A discussion series with
Statistics Canada

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STATISTICS CANADA

ONE HUNDRED YEARS AND COUNTING

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Canada

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Outline



Who we are



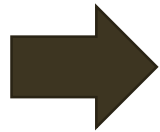
- Mandate and Objective
- Statistics Canada Centre for Education Statistics

Maritime perspective



- Historical perspective
- Education in the 21st century: postsecondary education enrolments, graduates and outcomes

Moving forward: Statistics Canada data strategies



- Modernization
- Education and Labour Market Longitudinal Platform
- Comprehensive system of education statistics

Who we are

*Connecting
quality statistics
to Canadians'
decision-making*

Leader in providing quality indicators and
supporting responsible use of data

Capacity-building nation wide and government
wide on the use of statistics

Good
data

Good
evidence

Good
policy



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The Centre for Education Statistics provides data:

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On the four pillars of learning



and the systems that support them.

Governments

Institutions

Teachers

Education in the late 19th century: In the Maritime provinces *only half* *of the children are in class*

A portrait of 1891:

Expenditures are
\$1.28 million

Cost per attending
student is \$13

192,000 pupils enrolled,
but average daily
attendance only 96,600



4,464 teachers

1 out of 7 adults cannot
read or write

University enrolment:
642 students

125 years later...Expenditures are \$2.5B; 236,000 pupils enrolled;
17,000 teachers in the classroom

Source: Department of Agriculture, Canada Year Book (1891), Census (1891)



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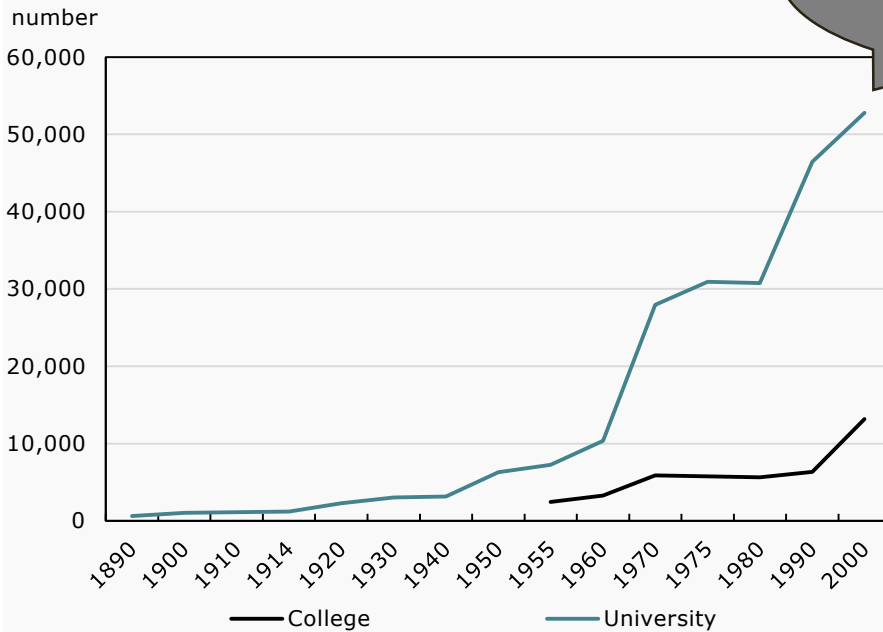
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The mid-20th century brought a rapid rise of education in the Maritime provinces

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College and University Enrolments



Baby Boom
Knowledge economy
High-tech

- Elementary/secondary attendance and enrolment figures converged by the 1960's.
- Demographic growth and changing demand in the labour market led to a rapid rise in postsecondary enrolments.
- By the end of the 20th century, growth in postsecondary education showed signs of slowing down.

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Source: Department of Agriculture and Dominion Bureau of Statistics, Canada Year Book (various years); Statistics Canada, Historical Compendium of Education Statistics (1978), PSIS, USIS, CSIS



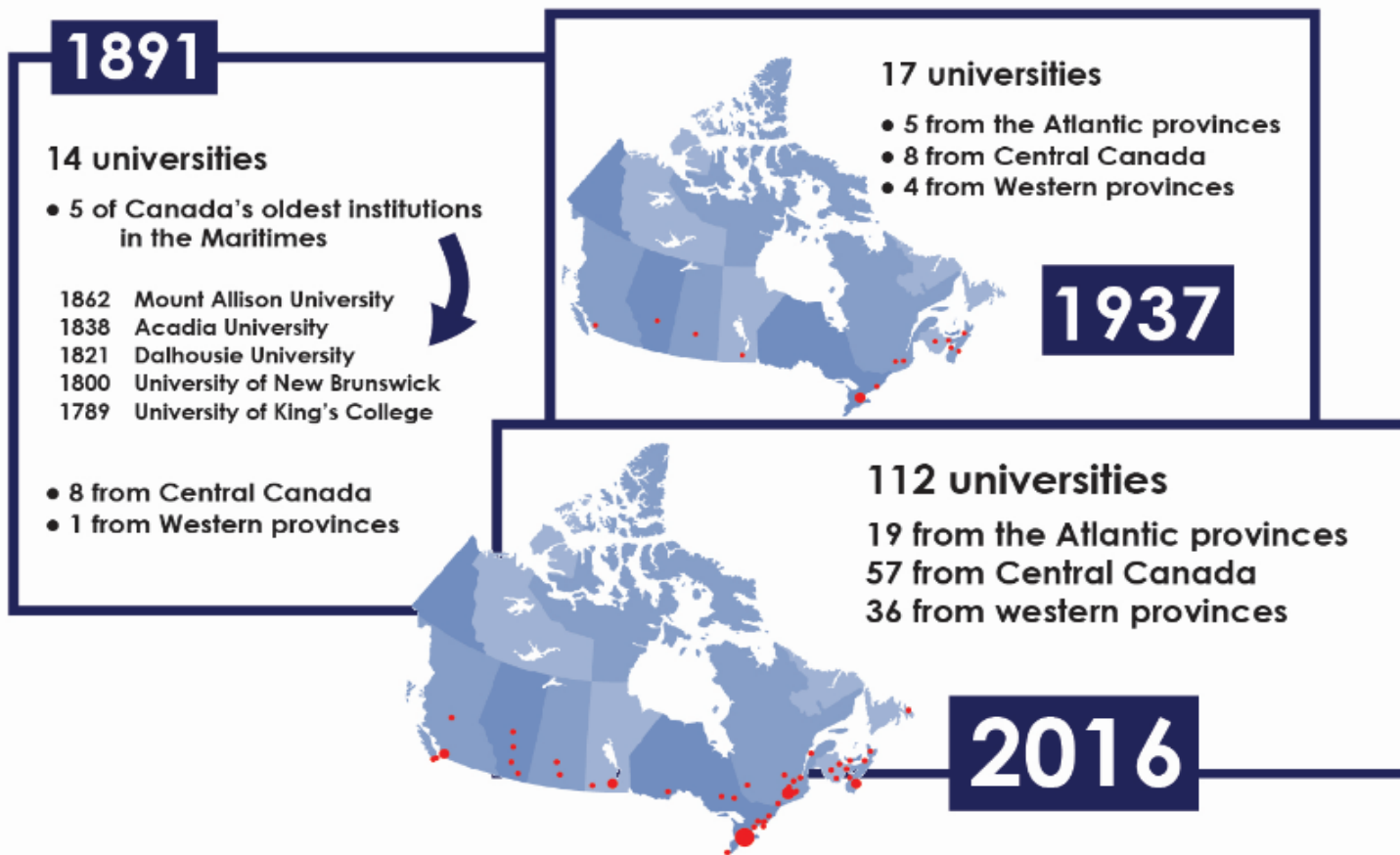
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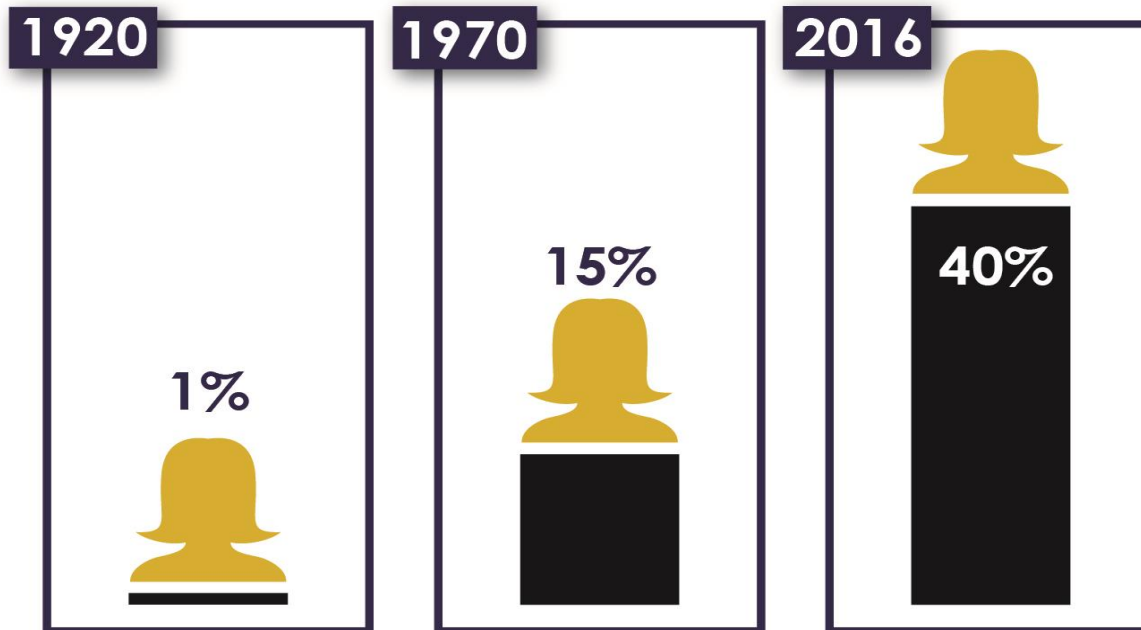
The number of universities in the Maritimes quadrupled since the 19th century and five of Canada's oldest are located there



Source: Department of Agriculture, Canada Year Book (1891); Statistics Canada, UCASS

And the proportion of female professors in Maritimes universities has increased from 1% in 1920 to over 40% in 2016

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Source: Dominion Bureau of Statistics, Canada Year book (1921); Statistics Canada, University and College Academic Staff System

Present-day Maritimes institutions: centralized colleges and numerous smaller universities



- **\$760 M** combined public and private expenditures on 9 colleges
- **\$1.9 B** combined public and private on 19 universities expenditures

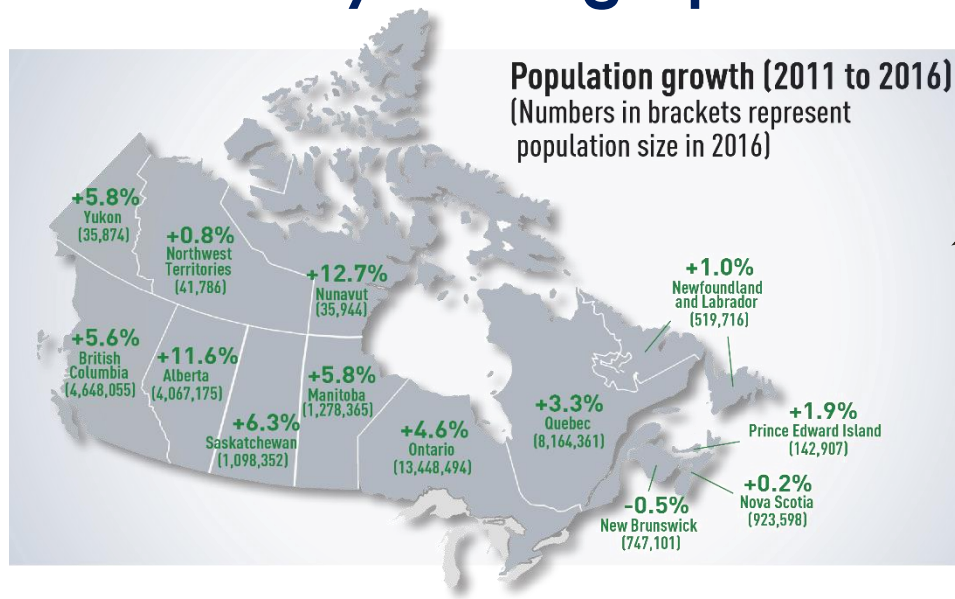
Source: Statistics Canada, Education at a Glance, 2017



- **67,100** university students
 - PEI: 4,200
 - NS: 43,100
 - NB: 19,800
- **21,300** college students
 - PEI: 1,900
 - NS: 11,700
 - NB: 7,700



Maritimes postsecondary institutions are affected by demographic trends

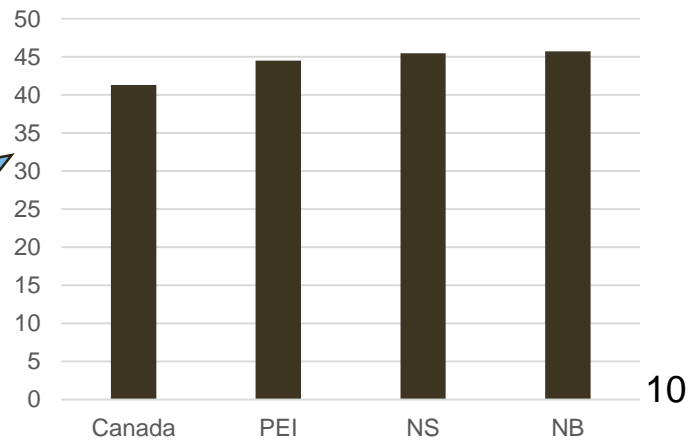


Population growth was below the Canadian average

Rapid population aging and slow demographic growth in the Maritimes

For the first time in Census history, in the Maritimes the share of seniors 65+ (20%) now exceeds the share of children 14 years and under (14%). This is also the case for Canada on the whole.

The median age in the Maritimes is higher than the Canadian median age

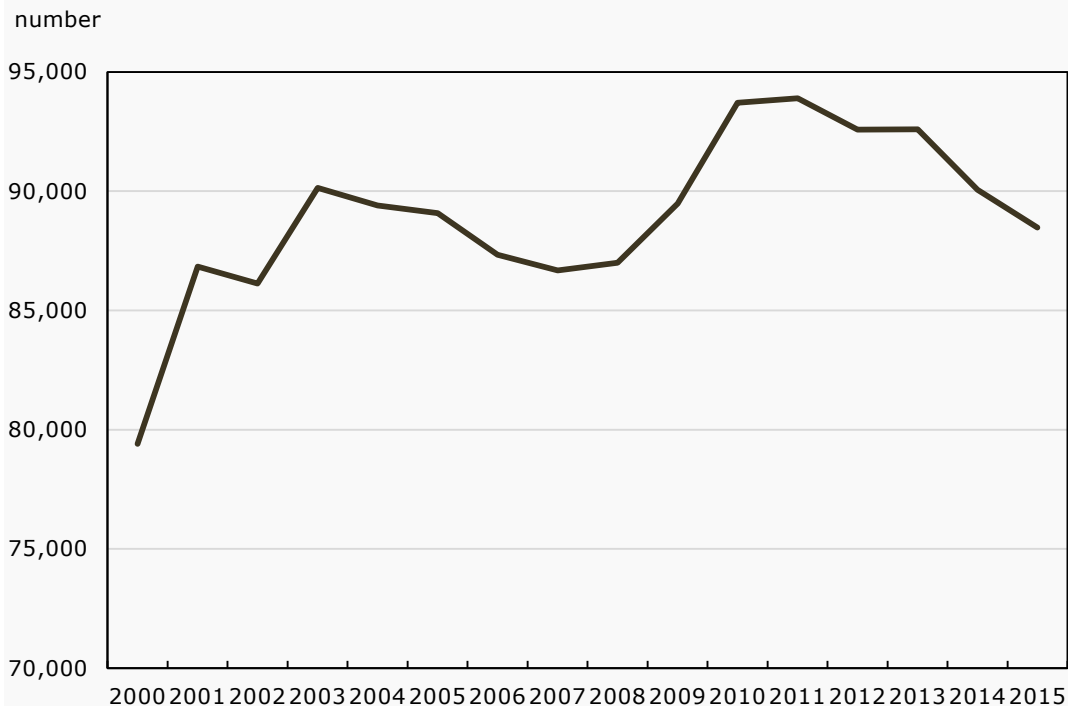


Source: Statistics Canada, Census of Population 2016

In recent years, college and university enrolments decreased in the Maritimes

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Enrolments in the Maritimes



...unlike in the rest of
Canada (ROC)

Enrolments in 2015 expressed as a percentage
of 2011 enrolments



94% Maritimes

- 85.8% NB
- 99.6% NS
- 90.6% PEI



102% Rest of Canada

Source: Statistics Canada, Postsecondary Student Information System (PSIS)

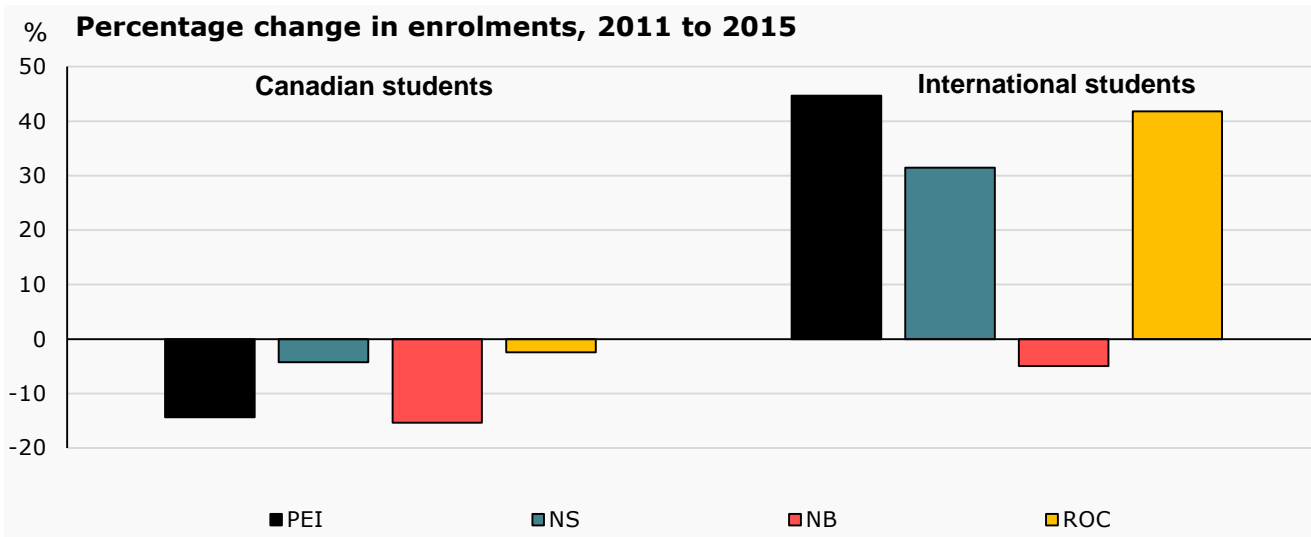


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Increasing enrolments for international students have offset the overall decline



Just over 10,000 residents left the Maritimes to attend PSE

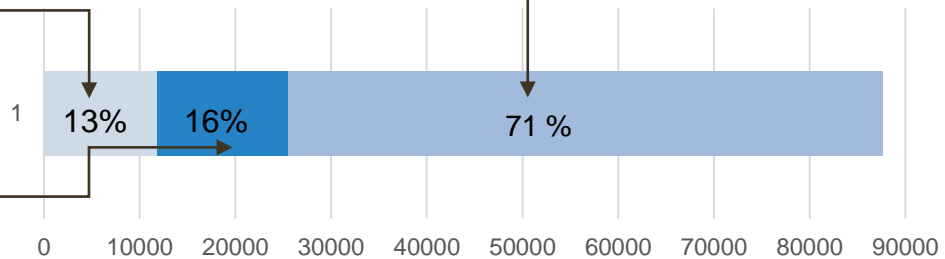
Just under 12,000 international students attended Maritimes postsecondary institutions in 2015



About 62,000 Maritime residents attended PSE in Maritimes



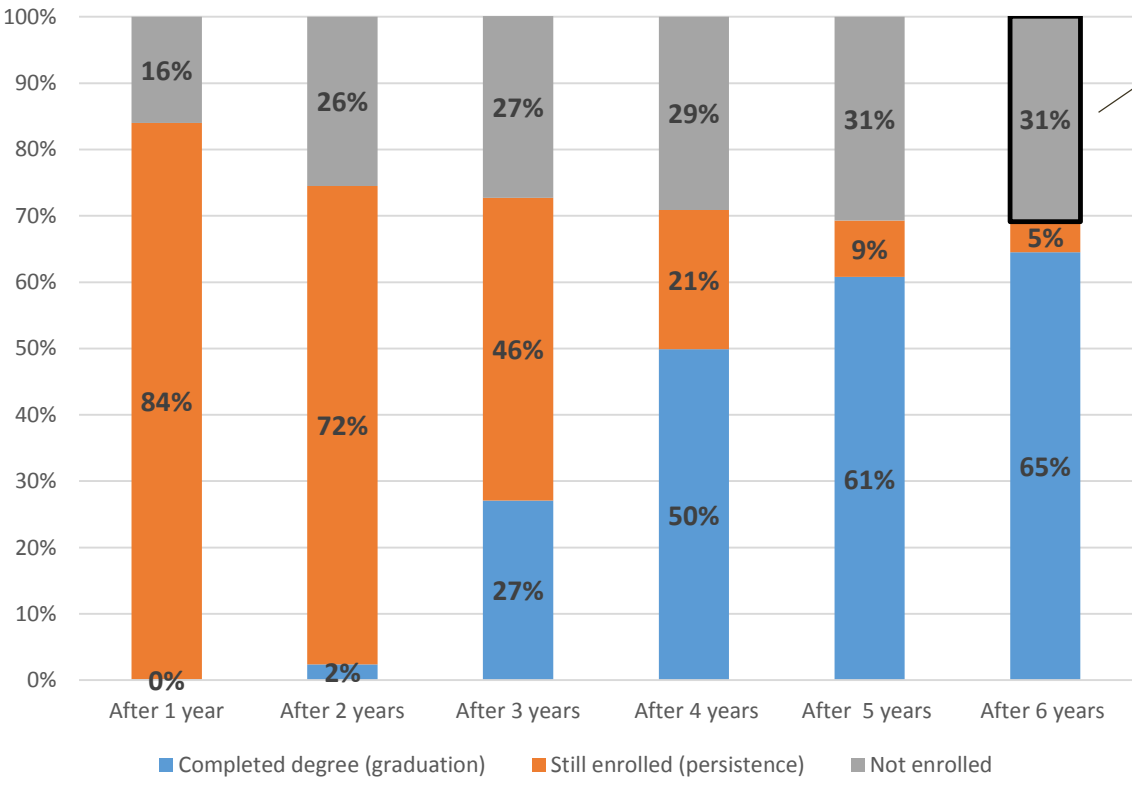
Almost 14,000 Canadian students came from outside the Maritimes to attend PSE





Once entering colleges and universities, student pathways are complex

Completion status by number of years after starting undergraduate program, 2006 cohort, Maritime institutions



Status of students who did not complete and were not enrolled in a Maritime university after 6 years

- 7% Left university, studying other PSE
- 17% Left university, employed
- 2% Left university, not employed or in school
- 6% Status unknown

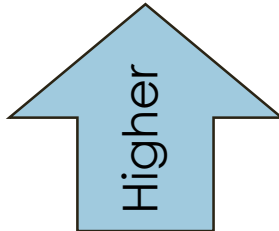
Source: Statistics Canada, Postsecondary Student Information System (PSIS)

Once completing their studies, most university and college graduates from the Maritimes are working in the region



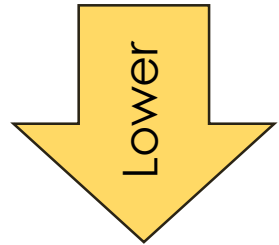
But field of study matters!

Proportion of **Maritimes graduates** who stay in the Maritimes to work: **77%**



- Education
- Math and computers
- Physical sciences
- Humanities
- Health

Proportion of **non-Maritimes graduates** who stay in the Maritimes to work: **10%**



- Architecture and Engineering
- Agriculture
- Visual Arts
- Social Sciences
- Business

Source: Statistics Canada, Education and Labour Market Longitudinal Platform (ELMLP)

Registered apprentices also contribute to the skilled workforce



Maritimes vs. ROC registrations of apprentices 2001=100

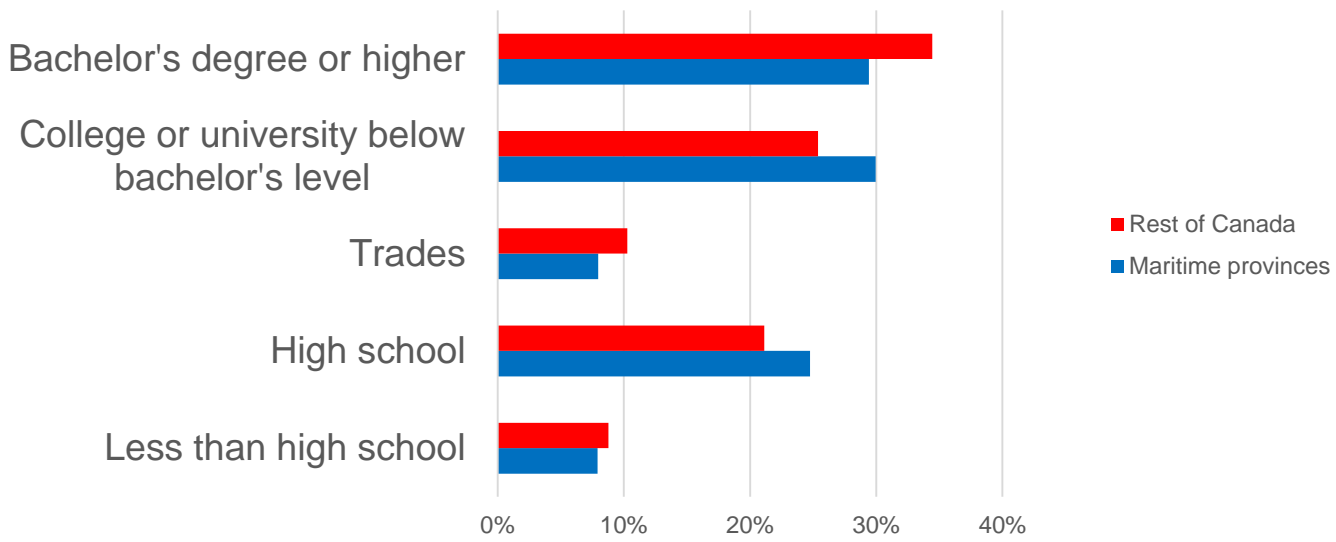


New apprenticeship registrations in the Maritimes have been stable, while in the rest of Canada, they vary with economic cycles

Source: Statistics Canada, Register Apprentice Information System (RAIS)

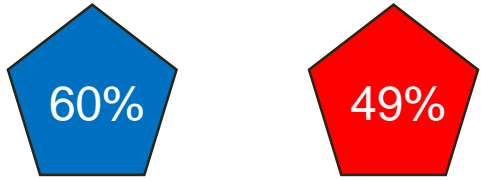


Overall, young adults in the Maritimes are as likely to have post-secondary education as young adults in the rest of Canada



While the Aboriginal population in the Maritimes is more likely to have postsecondary education

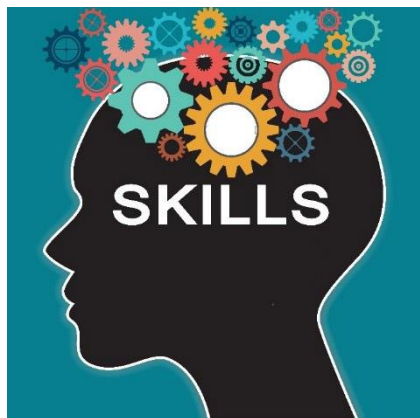
Proportion of the Aboriginal population aged 29 to 45 years with a PSE credential



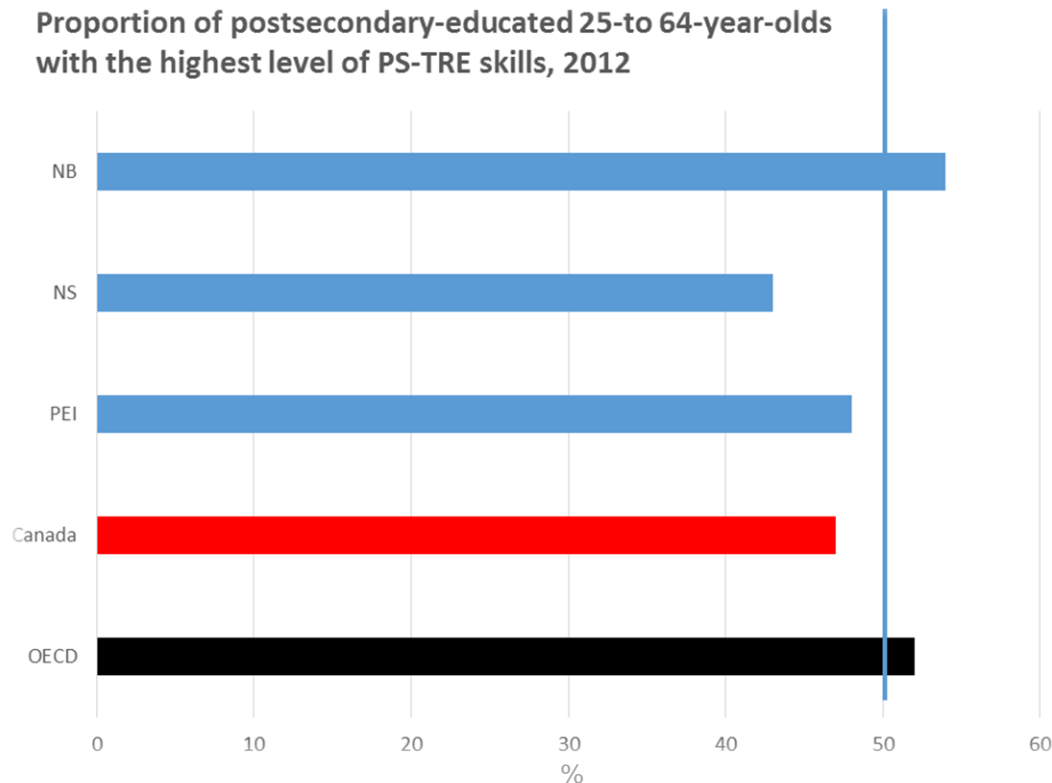
Source: Statistics Canada, Census of Population, 2016

And those with a postsecondary education are more likely to have the problem-solving in technology-rich environments (PS-TRE) required for the digital economy

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Proportion of postsecondary-educated 25-to 64-year-olds with the highest level of PS-TRE skills, 2012



Proportion of 25-64 year olds with less than high school with highest level of PS-TRE skills:
Canada: 5%
OECD: 7%

Source: Statistics Canada, Program for International Assessment of Adult Competencies (PIAAC)



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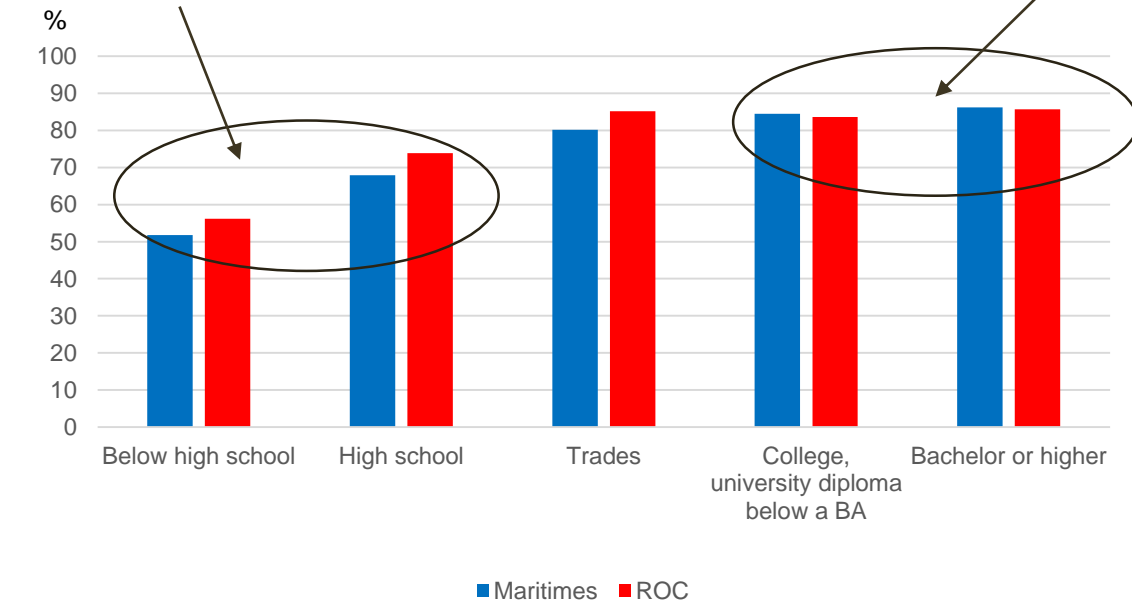
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Postsecondary education provides an advantage in the labour market, and more so in the Maritimes than in the rest of Canada



Employment rates for those without postsecondary education is lower in the Maritimes compared to the rest of Canada

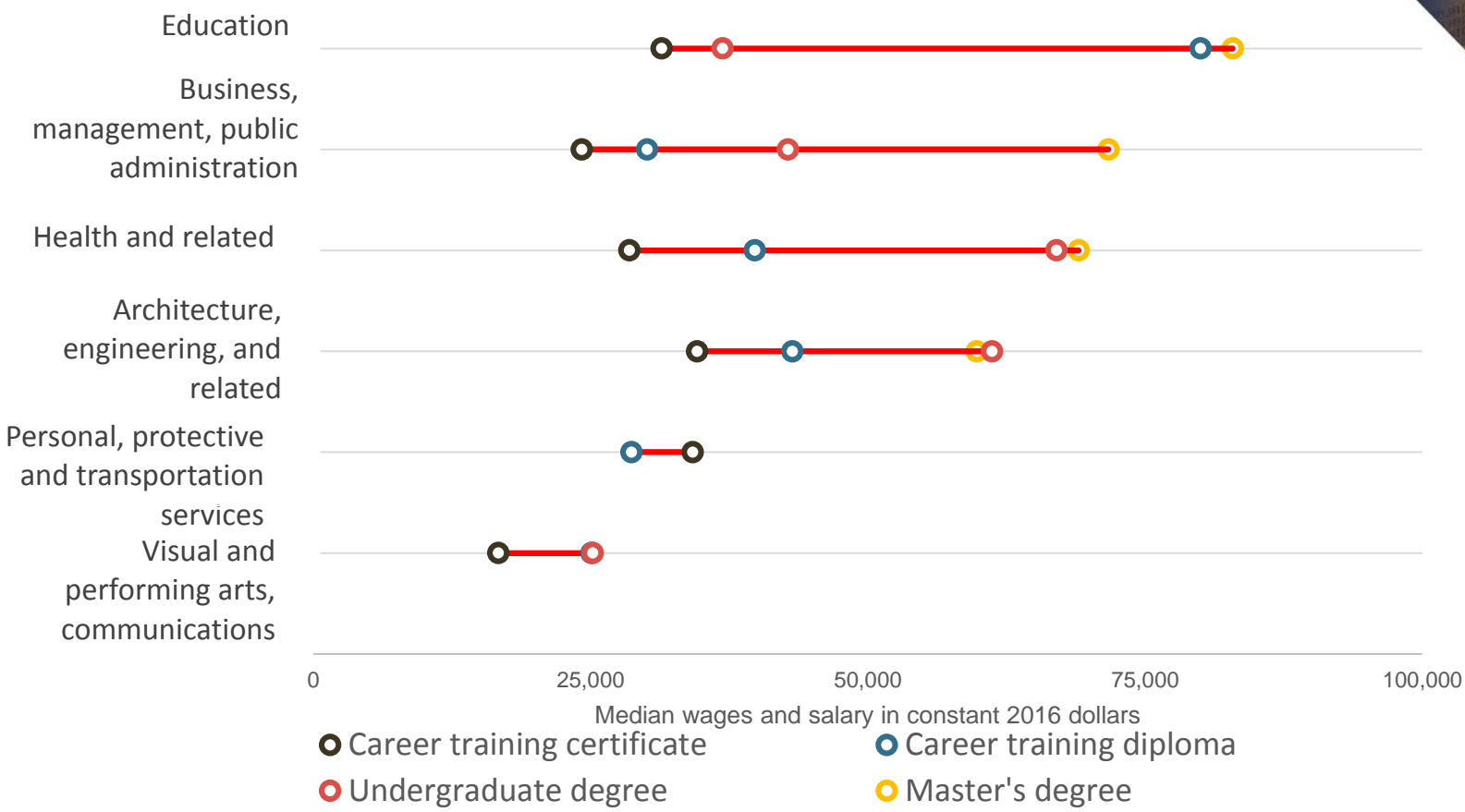
Employment rates for those with postsecondary education above the trades is similar in the Maritimes and the rest of Canada



Source: Statistics Canada, Education at a Glance, 2017



Higher education levels lead to higher wages and salaries in the Maritimes in most fields of study

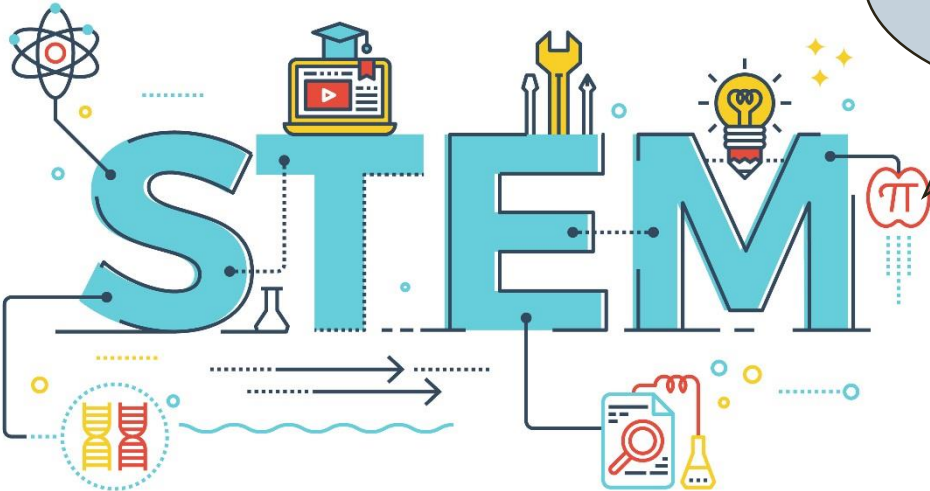


Source: Statistics Canada, Education and Labour Market Longitudinal Platform (ELMLP)

And choice of field of study has an effect on earnings as well...



\$48,000
Maritimes
\$53,800 ROC

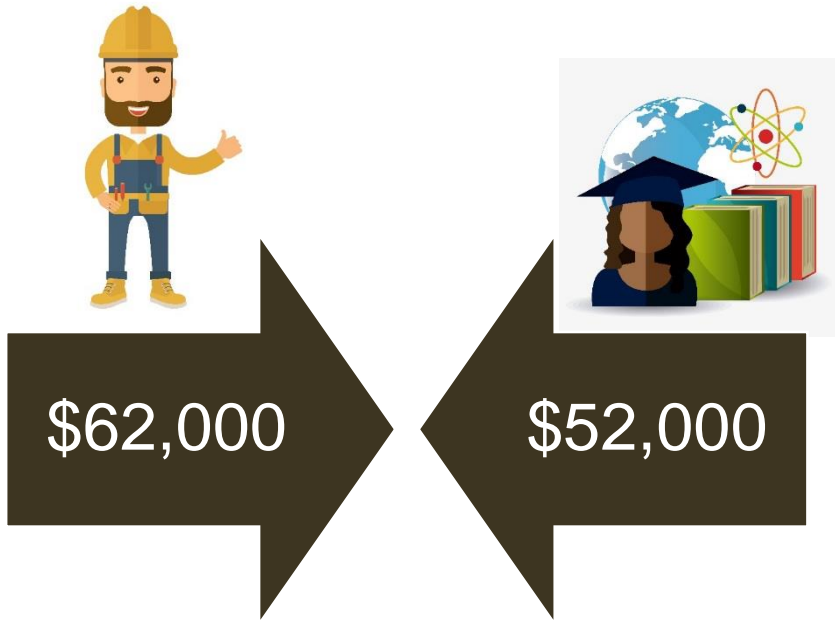


\$40,400 Maritimes
\$42,800 ROC

OTHER FIELDS OF STUDY

Source: Statistics Canada, Education and Labour Market Longitudinal Platform (ELMLP)

Several years after obtaining certification, earnings for Red Seal trade apprentices in the Maritimes were higher than earnings for undergraduate degree graduates

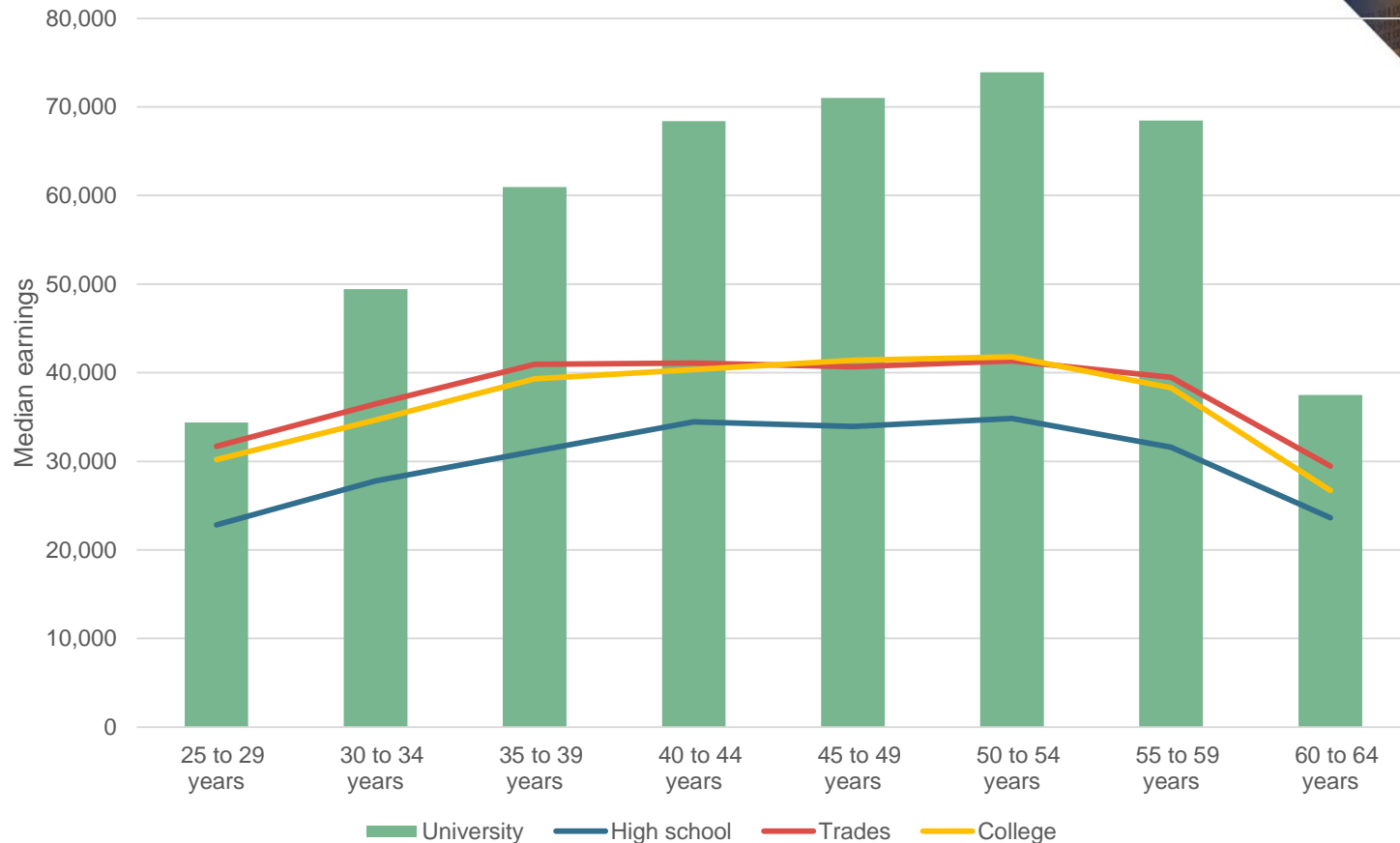


Average median earnings five years after obtaining certification or after graduating

Source: Statistics Canada, Education and Labour Market Longitudinal Platform (ELMLP)

However, overall earnings trajectories are more favourable for Maritime university graduates

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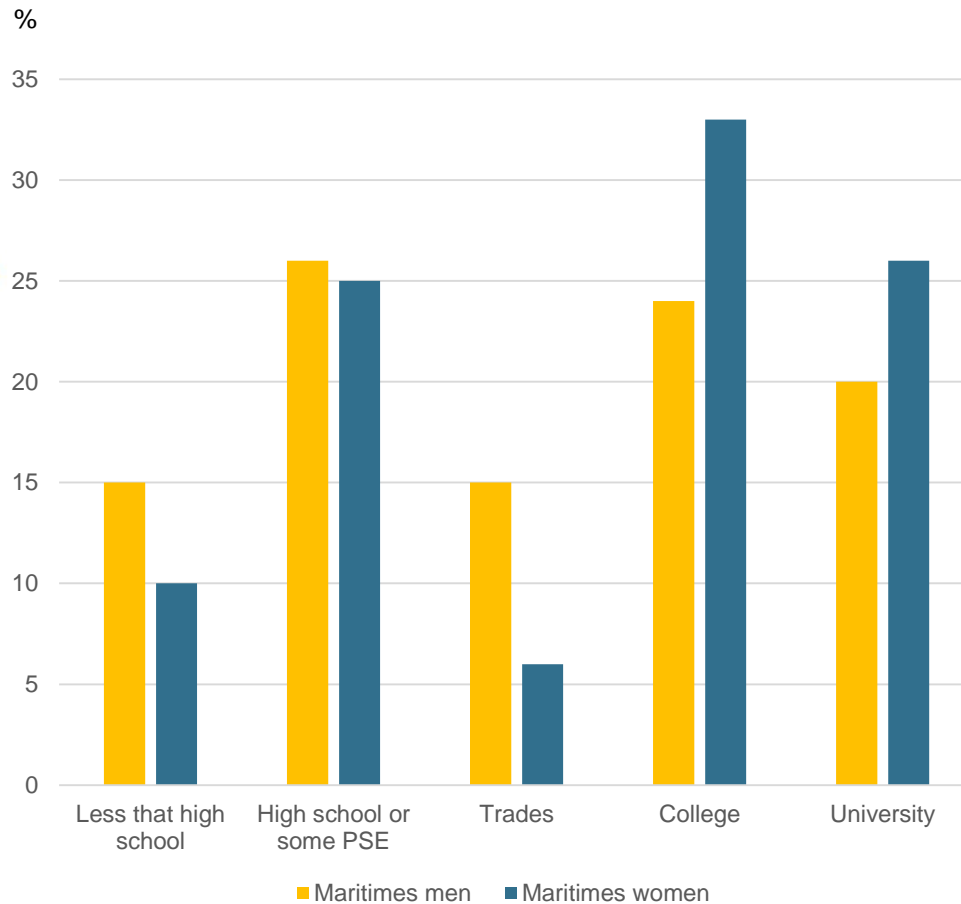


Source: Statistics Canada, Census of population, 2016



From a gender perspective in the Maritimes, as in the rest of Canada, women have higher levels of education, except in the trades

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Source: Statistics Canada, Census of population 2016

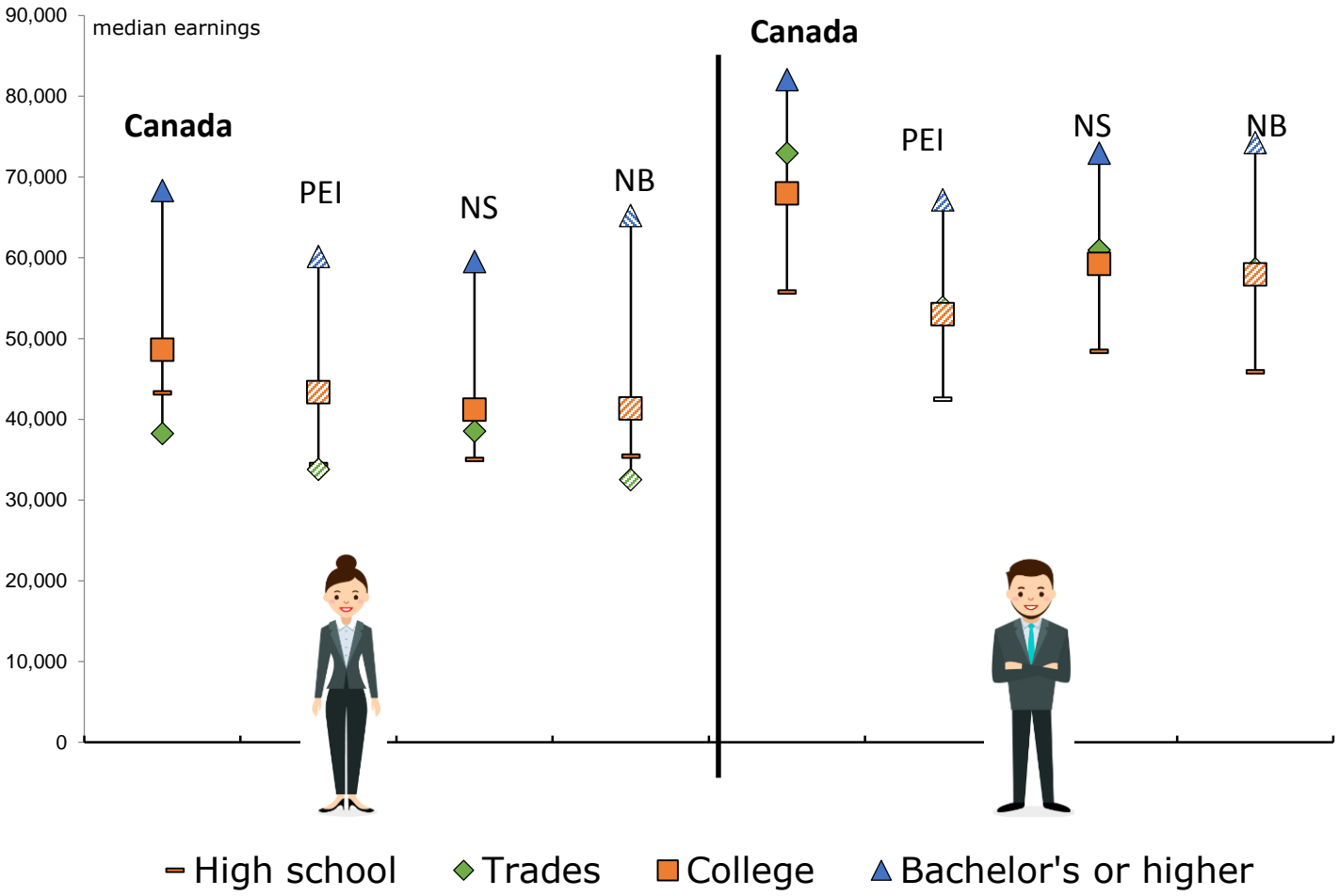


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Men earn more at every level of educational attainment

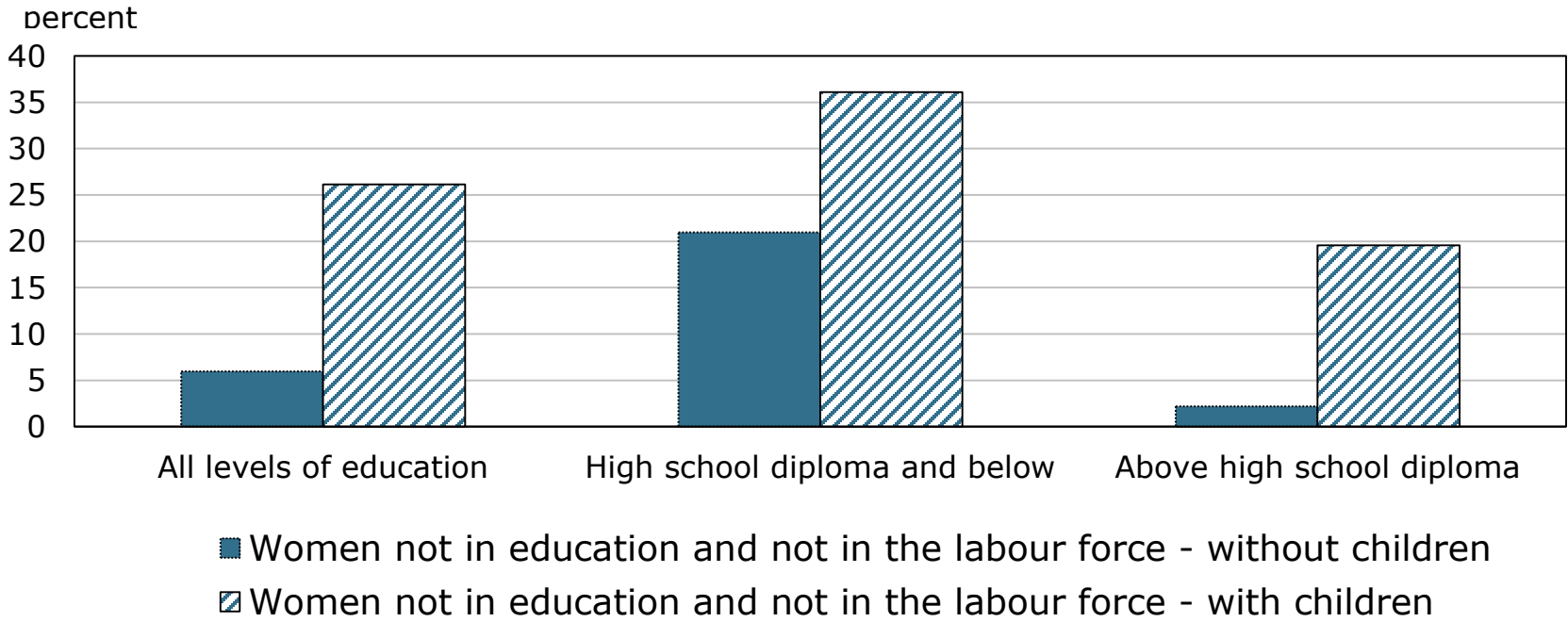


Source: Statistics Canada, Census of population 2016



Having children affects young women's participation in the labour market regardless of their education level in the Maritimes, as well as elsewhere in Canada

Proportion of 25 to 29 year-old women not in education and not in the labour force, by highest level of education attained and the presence or not of children in the household, Maritimes, 2016-2018

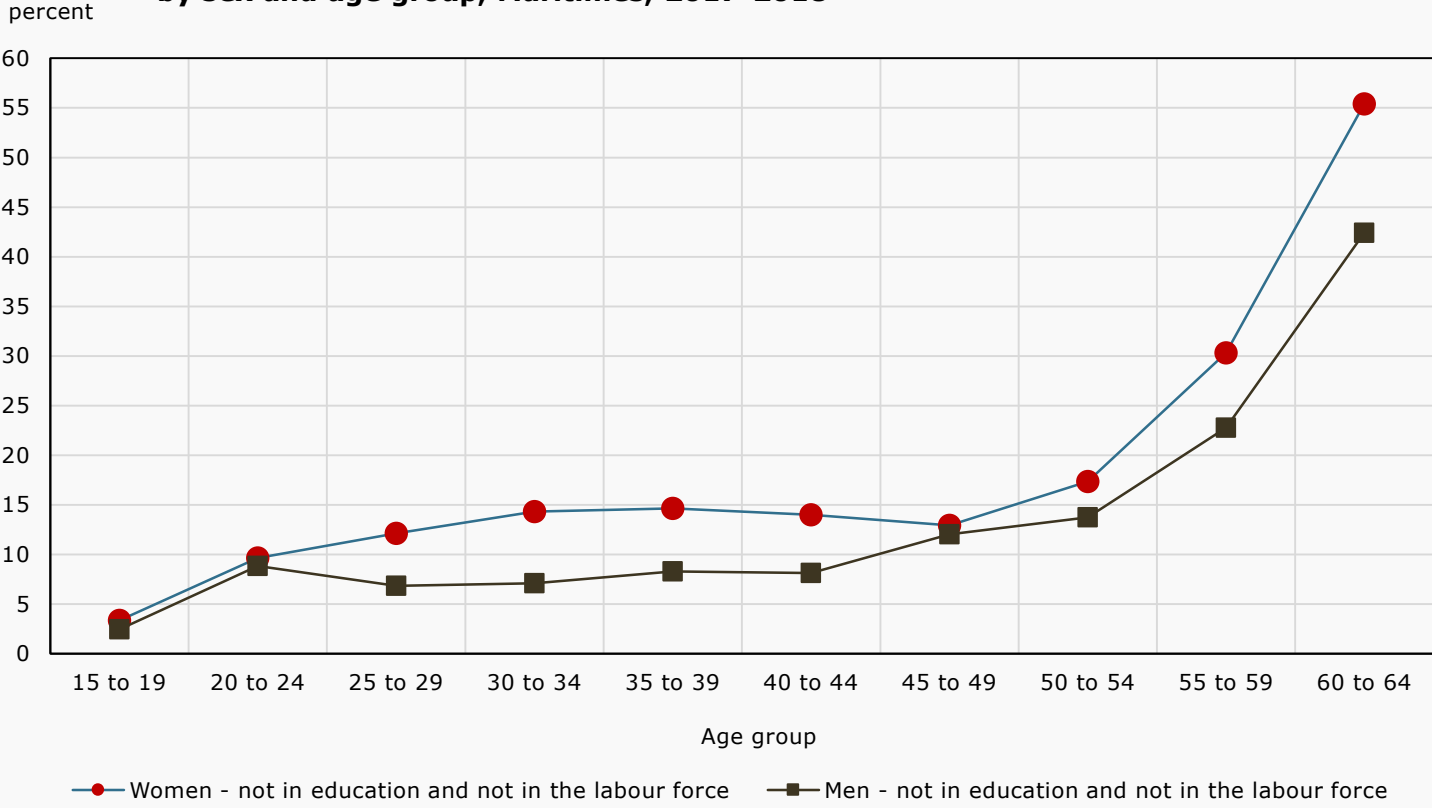


Source: Statistics Canada, Labour Force Survey

Lower rates of participation in the labour market last throughout a woman's working life in the Maritimes



Proportion of Canadians not in education and not in the labour force, by sex and age group, Maritimes, 2017-2018

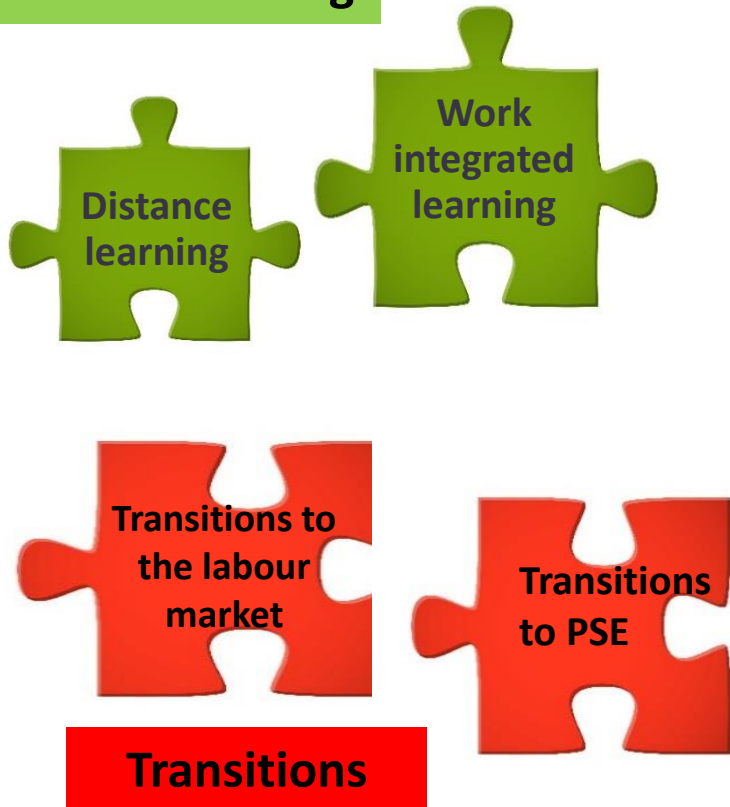


Source: Statistics Canada, Labour Force Survey

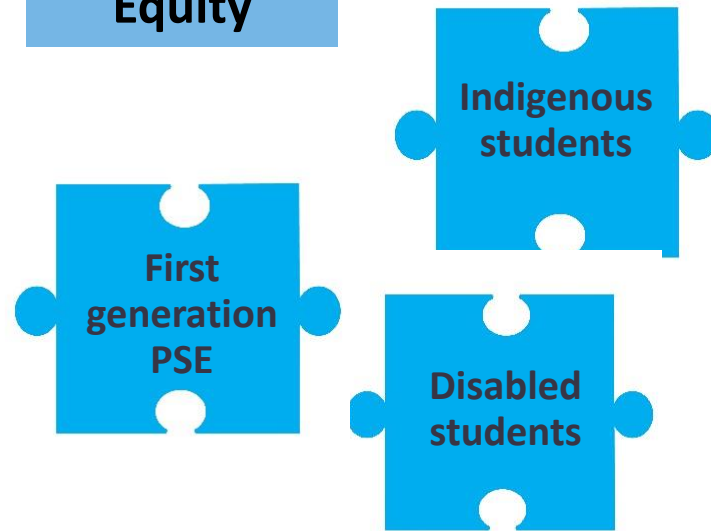
When taking stock, while rich education data exists, some missing pieces remain...

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Modes of learning



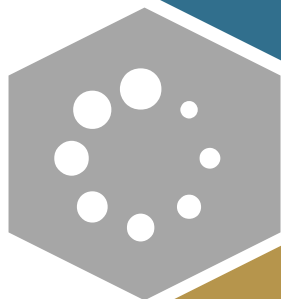
Equity



Moving Forward: Modernization at Statistics Canada



Moving beyond a survey-first approach with **new methods** and **integrating data** from a variety of existing sources



Making our data **easier to access** and use by adopting **new tools and capacity building** to analyze and visualize data



Helping more Canadians use data to make **evidence-based decisions**

Enabling efficient data management and access

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Partnerships are the foundation

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And new partnerships are being build:

Labour market

Employers

Industry

CAUT CAUBO OECD HEQCO UIS

CICAN UNIVERSITIES CANADA CIRPA MPHEC

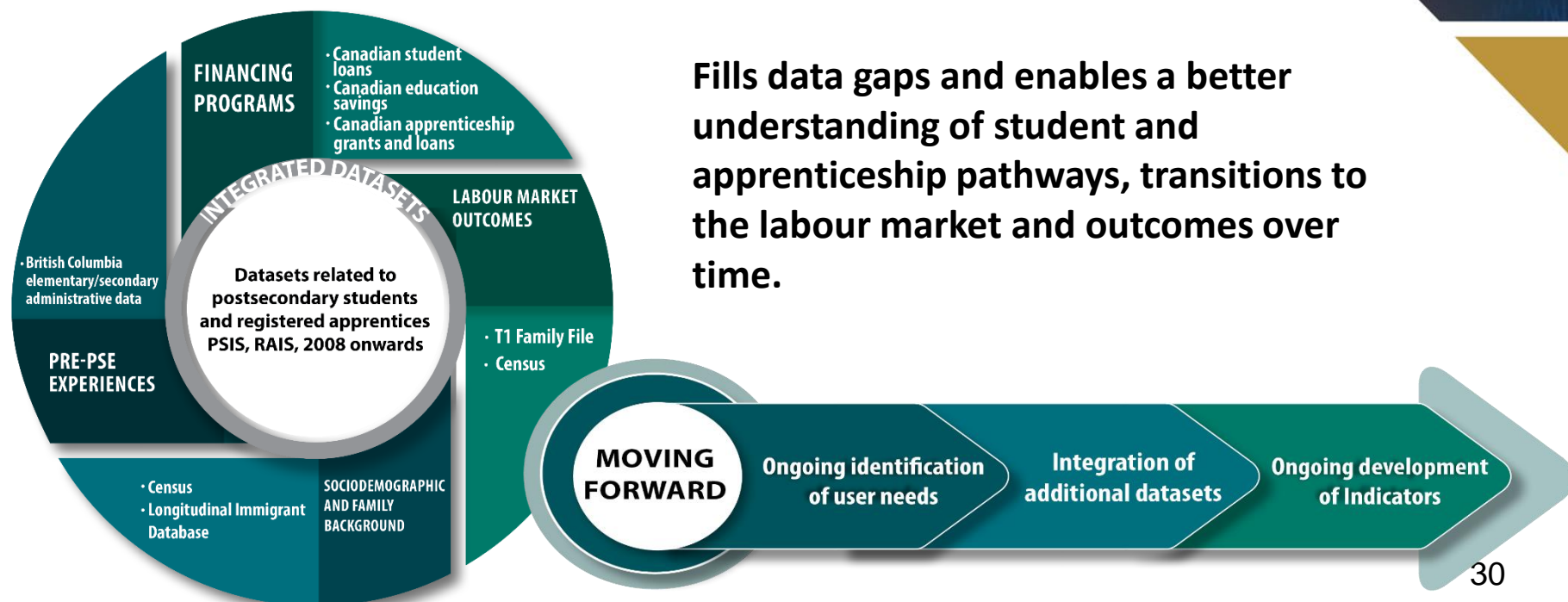
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MINISTRIES OF EDUCATION CCDA ISED POLYTECHNICS CANADA

We are well-advanced on the path to modernize education information



Education and Labour Market Longitudinal Platform (ELMLP)



Fills data gaps and enables a better understanding of student and apprenticeship pathways, transitions to the labour market and outcomes over time.



And we continue to move forward on this path

100

Data integration

Administrative data is our core

Supplement with survey data

- Census
- Household surveys
- Rapid stats

Linkages make all data more powerful

To fill knowledge gaps



Vision for a comprehensive system of education statistics

Quality, detailed, relevant and accessible information for decision-making



Canadians



Governments



Businesses

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Preschool

Elementary/secondary

Postsecondary

Labour market

Adult learning

Stages of life-long learning



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