

Immigration and skilled labour force in Atlantic Canada: The role of employers and international students

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Ideas. Innovation. Impact.

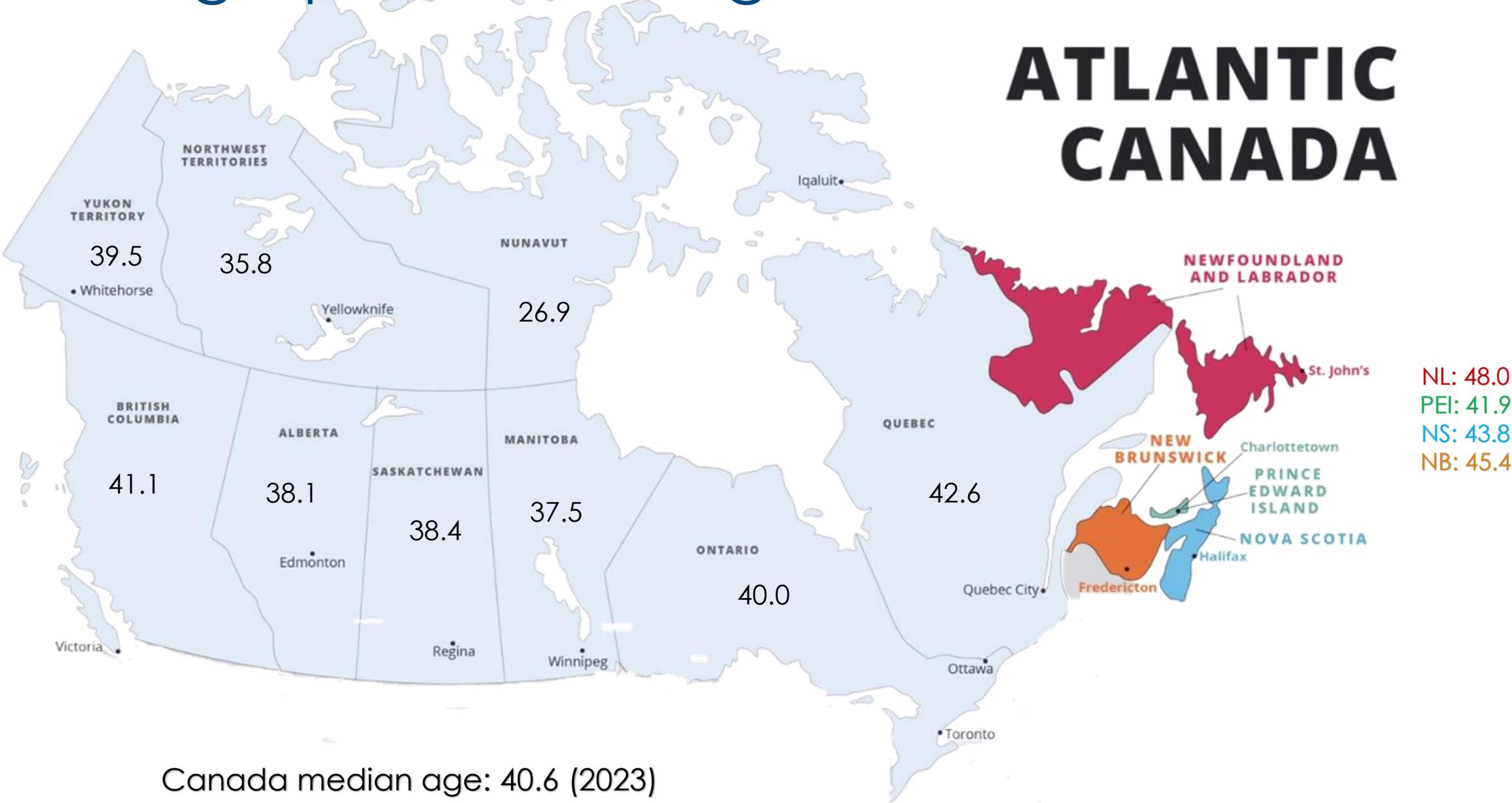


Labour market challenges in Atlantic Canada

- Demographic challenges
 - Ageing population, low fertility rate
- Low immigration rate and low retention
- Labour and skill shortages
- COVID-19 effects

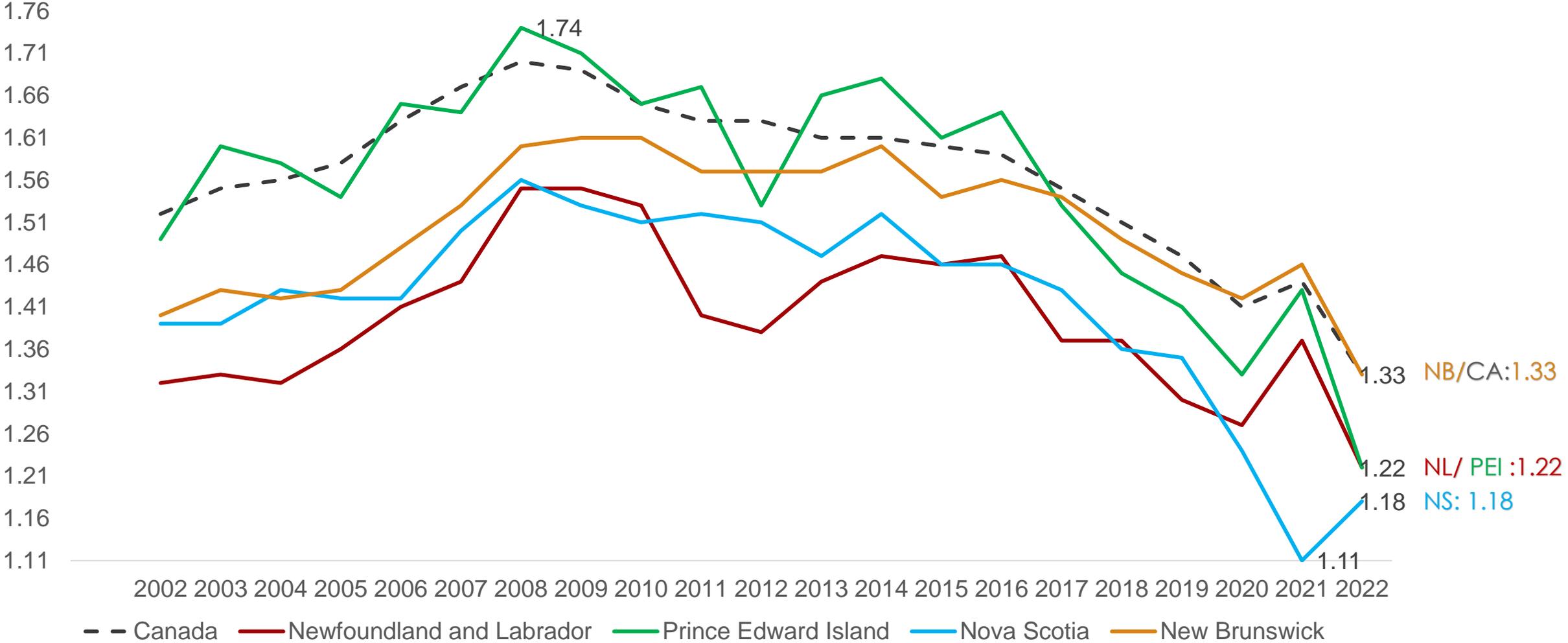
Demographic Challenges

ATLANTIC CANADA

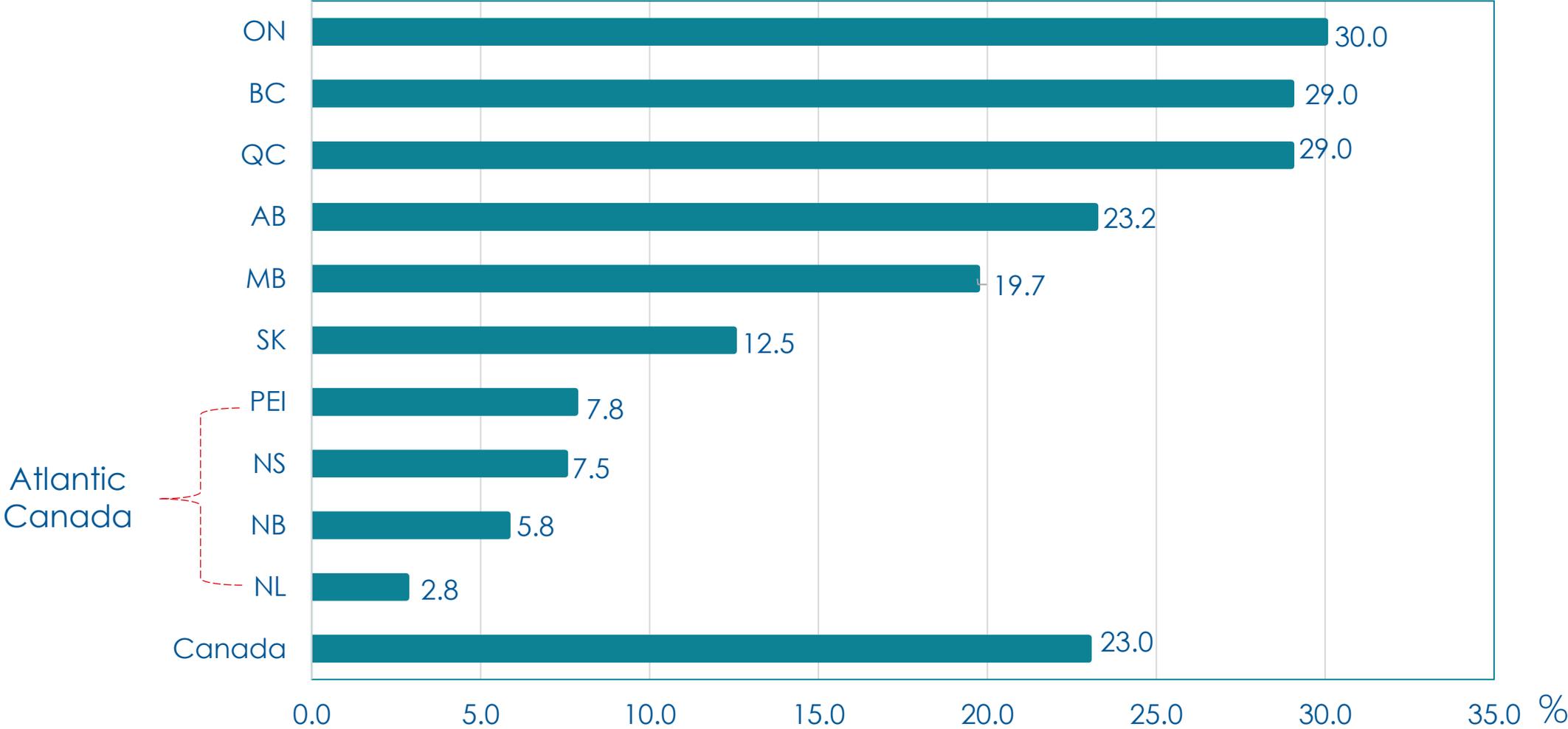


Canada median age: 40.6 (2023)

Fertility Rate in Atlantic Canada (2002-2022)



Low Immigrant Population Ratio (2021 census)



Low Immigrant Retention Ratio (5-yr)

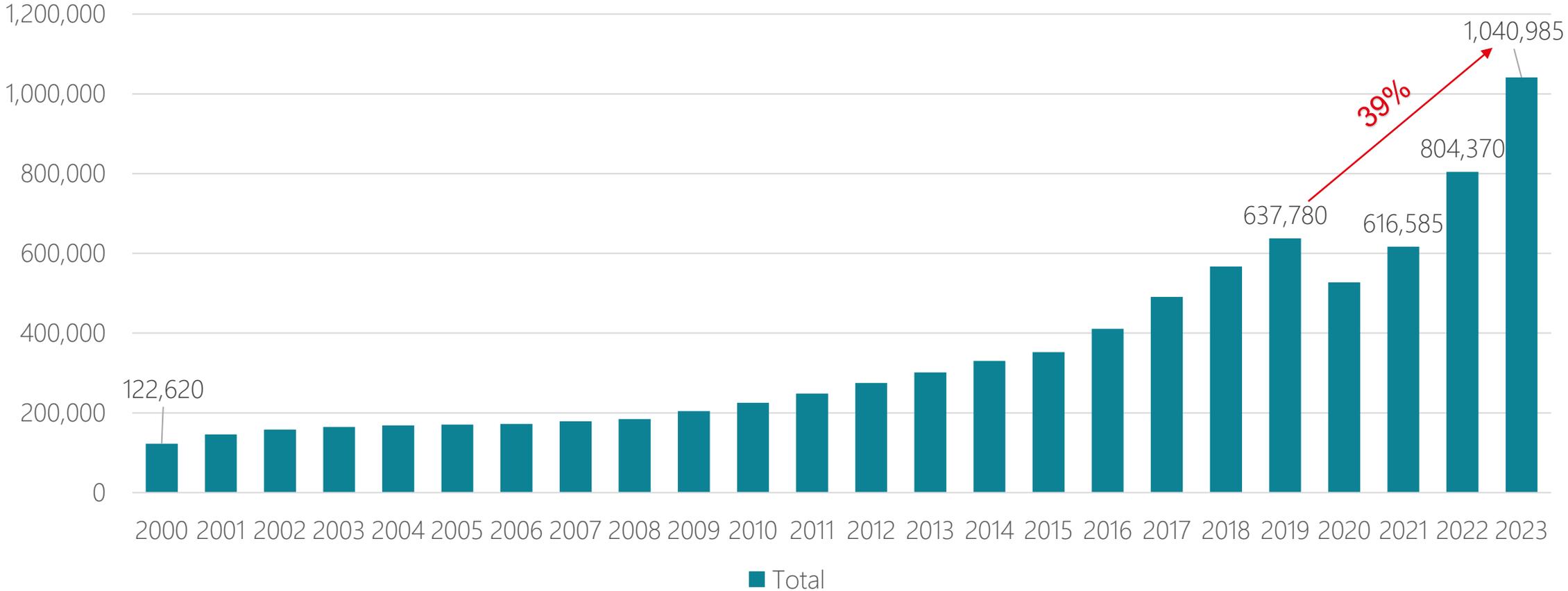
| | Admission Year | | | | |
|---------------------------|----------------|------|------|------|------|
| | 2012 | 2013 | 2014 | 2015 | 2016 |
| | % | | | | |
| Newfoundland and Labrador | 49.5 | 51.2 | 46.2 | 47.8 | 46.2 |
| Prince Edward Island | 25.2 | 39.9 | 28.1 | 28.0 | 30.9 |
| Nova Scotia | 65.8 | 61.5 | 62.5 | 55.0 | 62.7 |
| New Brunswick | 47.4 | 48.0 | 42.4 | 48.0 | 56.0 |
| Quebec | 80.7 | 82.1 | 79.1 | 80.4 | 81.0 |
| Ontario | 91.8 | 93.2 | 93.7 | 92.0 | 93.1 |
| Manitoba | 75.1 | 75.0 | 72.7 | 67.6 | 64.1 |
| Saskatchewan | 72.2 | 66.0 | 62.6 | 62.9 | 57.9 |
| Alberta | 91.5 | 90.3 | 88.9 | 84.5 | 84.5 |
| British Columbia | 87.1 | 90.1 | 89.6 | 86.5 | 87.3 |
| Territories | 73.0 | 62.7 | 67.1 | 66.7 | 64.3 |

Why International students?

International students are typically:

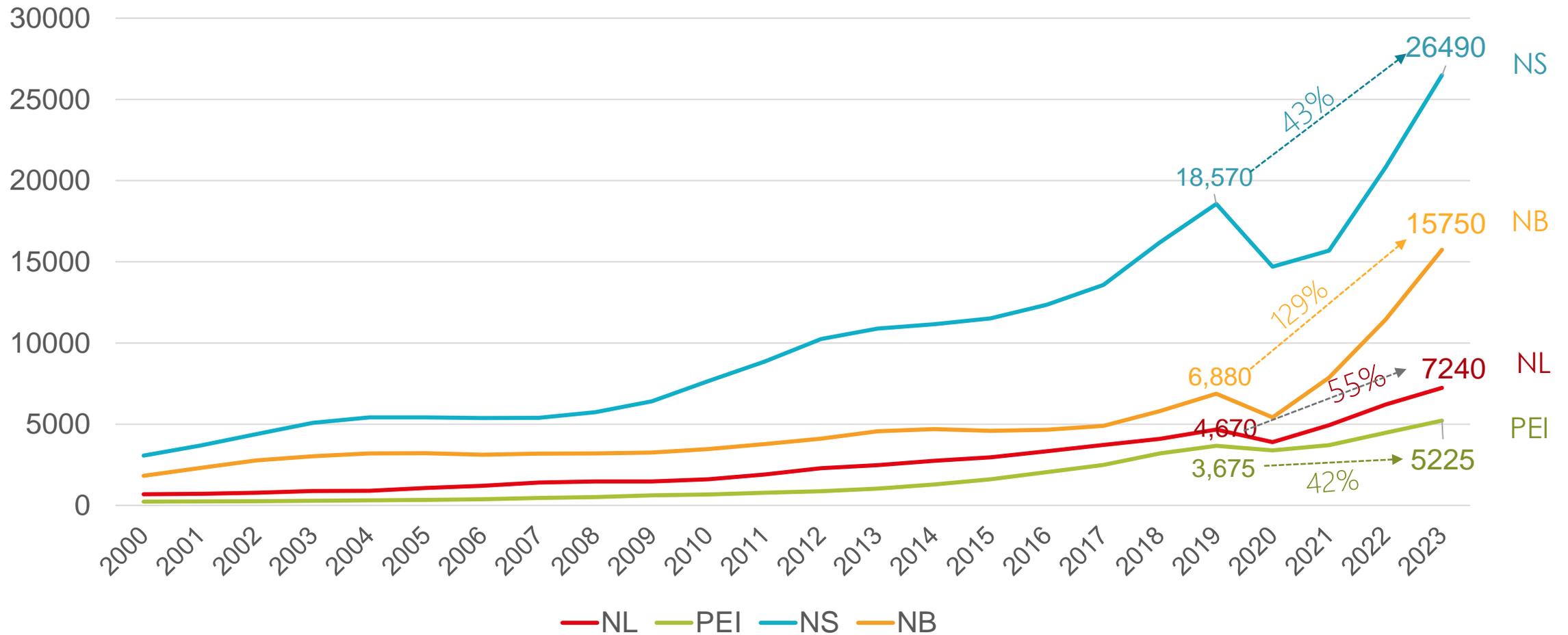
- Young
- Energetic
- Well educated
- Equipped with local experiences

Number of study permit holders with a valid permit in Canada from 2000 to 2023, Canada



Source(s): IRCC, December 31, 2023

Number of study permit holders with a valid permit in Canada from 2000 to 2023



Atlantic Canada can Attract Newcomers because of...

- Lower than average cost of living
- Affordable housing
- Life style choices
- Safe and welcoming community

- According to a report from the the Association of Atlantic Universities, 65% of international students would like to stay after graduation.

However...

The Association of Atlantic Universities (2019)



ASSOCIATION OF
ATLANTIC
UNIVERSITIES
ASSOCIATION DES
UNIVERSITÉS DE
L'ATLANTIQUE

Conditional Retention Rates International and Domestic Students in the First and Fifth Year after Graduation, by Province of Study

(2010-2016)

| Province of study | Year 1 | | Year 5 | |
|----------------------------------|-------------------|------------------------|-------------------|------------------------|
| | Domestic Students | International students | Domestic Students | International students |
| | | | % | |
| Canada | 90 | 81 | 87 | 73 |
| Newfoundland and Labrador | 81 | 49 | 77 | 30 |
| Prince Edward Island | 64 | 55 | 57 | 19 |
| Nova Scotia | 68 | 52 | 62 | 29 |
| New Brunswick | 75 | 47 | 68 | 28 |
| Quebec | 94 | 85 | 93 | 78 |
| Ontario | 92 | 82 | 90 | 76 |
| Manitoba | 89 | 84 | 83 | 58 |
| Saskatchewan | 87 | 76 | 82 | 53 |
| Alberta | 88 | 87 | 84 | 80 |
| British Columbia | 89 | 86 | 86 | 79 |

Main Reasons for Low Retention Rates in Atlantic Canada

- Labour market opportunities and meaningful employment
- Small city size and ethnic communities
- Family and social ties

According to our focus group discussions with international students:

“I graduated one year ago from my PhD program. I had sent out more than 100 job applications and didn’t secured a job. So, I decided to come back to my country.”

- Student #1

“This is a small city with less entertainment. So, I decided to move to Vancouver.”

- Student #2

Labour Market Integration and the Role of Employers

- **Short-term:** The importance of labour market integration and the role of employers- Economic Integration
- Recent immigration policy innovations all give priority to job offers (**AIP-Regional**, **PNP-Provincial**, Express Entry-Federal (Federal Skilled Worker Program, **the Federal Skilled Trades Program**, and the Canadian Experience Class)
- **Long-term:** Social and cultural integration (access to social networks, community support, sense of belonging, etc.)

- Study 1: Employer Hiring Attitude Towards Newcomers (Atlantic Canada: 2019; NL 2021)
- Study 2: The COVID Effect on Business Operations (Atlantic Canada: 2022)

Survey Description

- Sample size :
 - 801 organizations (with 5 or more employees): 301 in NL; 200 in NS; 200 in NB; 100 in PEI, in 2019
 - 301 NL organizations (with 2 or more employees) in 2021
 - 805 organizations (with 2 or more employees): 201 in NL; 308 in NS; 201 in NB; 95 in PEI, in 2022
- Survey method: 15-20 minute semi-structure telephone interview
- 2019 Sampling strategy: Stratified random sampling by industry (18 industries), firm size (33% - small, 55% - medium, and 12% - large), and location (64% - Urban and 36%- rural)
- 2019 Survey time : July 31- Aug 6 (Pre-test) & Sep 4 – Oct 18 (Full survey)
- Survey company : Narrative Research (formerly Corporate Research Associates)









2019 Sample Description

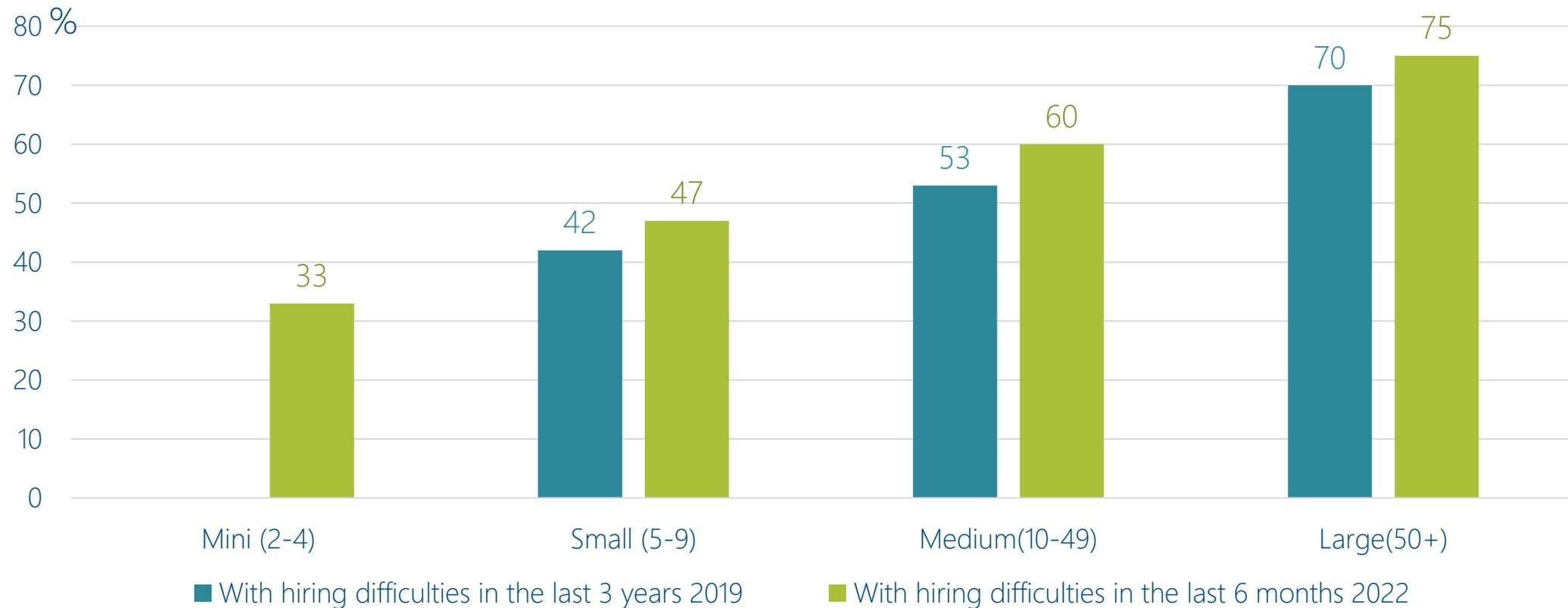
| Industry | Percent |
|--|-------------|
| Retail Trade | 24.0 |
| Construction | 8.1 |
| Health Care and Social Assistance | 11.4 |
| Agriculture, Forestry, Fishing and Hunting | 2.0 |
| Mining, Quarrying, Oil & Gas Extraction | 1.0 |
| Manufacturing | 5.6 |
| Wholesale Trade | 3.4 |
| Transportation and Warehousing | 4.0 |
| Information and Cultural Industries | 1.8 |
| Finance and Insurance | 2.3 |
| Real Estate Rental and Leasing | 1.1 |
| Professional, Scientific, Technical Services | 4.6 |
| Management of Companies and Enterprises | 0.5 |
| Administrative and Support and Waste Management and Remediation Services | 2.5 |
| Educational Services | 2.0 |
| Arts, Entertainment and Recreation | 2.5 |
| Accommodation and Food Services | 14.5 |
| Other Services | 7.6 |
| Public Administration | 1.3 |
| Total | 100% |

| Characteristics | Percent |
|------------------------|---------|
| Private Sector Company | 84.4 |
| Government | 2.1 |
| Not-for-profit | 13.5 |

| Organizational Size | Percent |
|---------------------|---------|
| Small (5-9) | 33.3 |
| Medium (10-49) | 54.6 |
| Large (50+) | 12.0 |

| Location | Percent |
|----------|---------|
| Urban | 63.6 |
| Rural | 36.4 |

Hiring Difficulties in Atlantic Canada (2019 for the last 3 years; 2022 for the last 6 months)



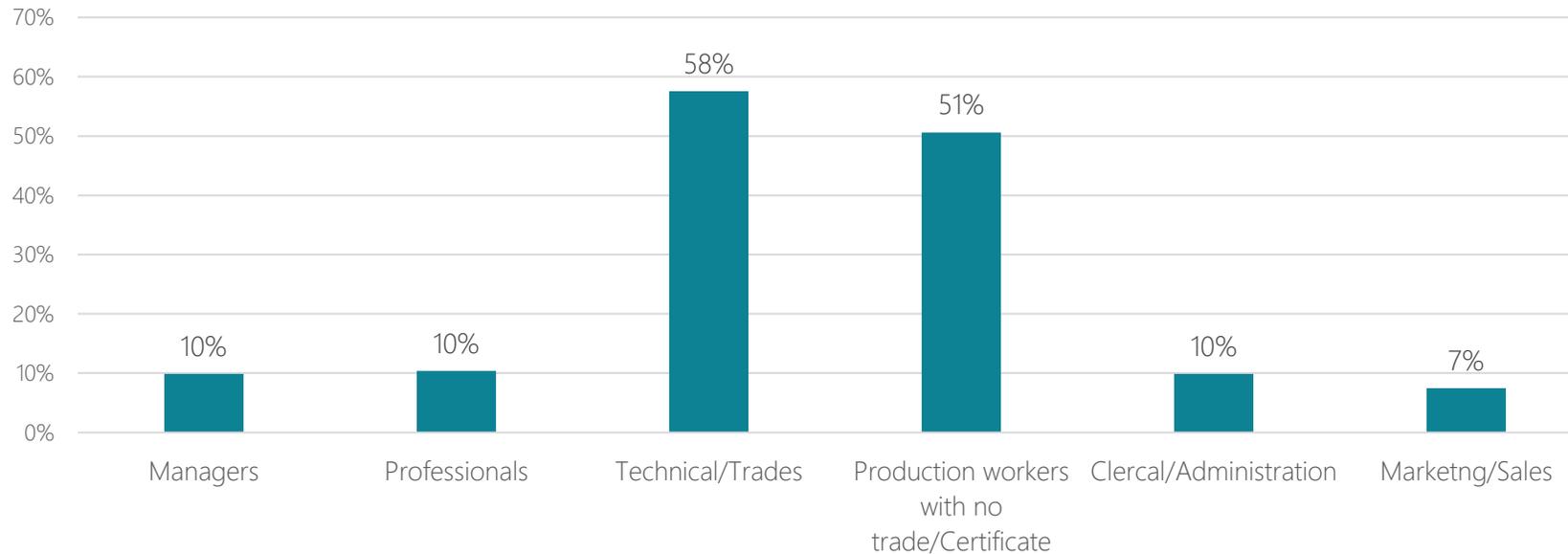
Labour and Skill Shortages (in the last 3 years, Atlantic Canada 2019)

Shortage by industry



Labour and Skill Shortages (in the last 3 years, Atlantic Canada 2019)

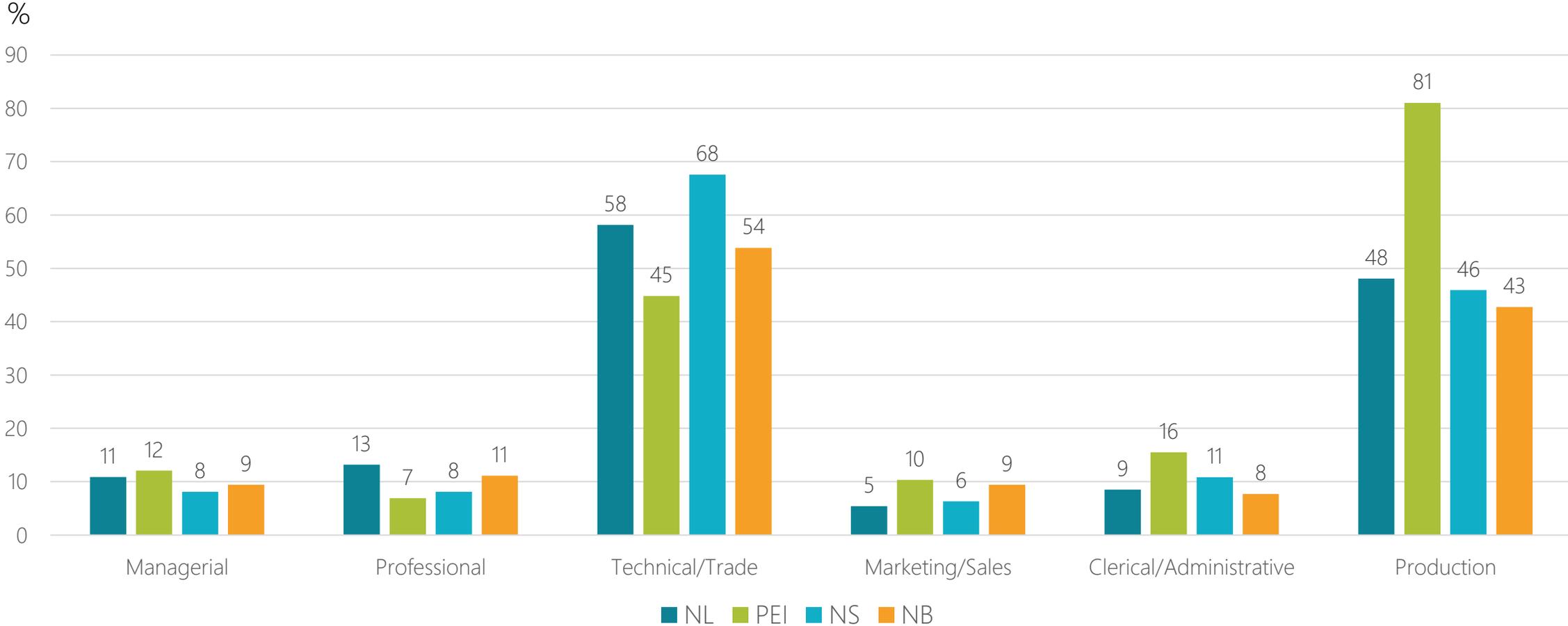
Shortage by position



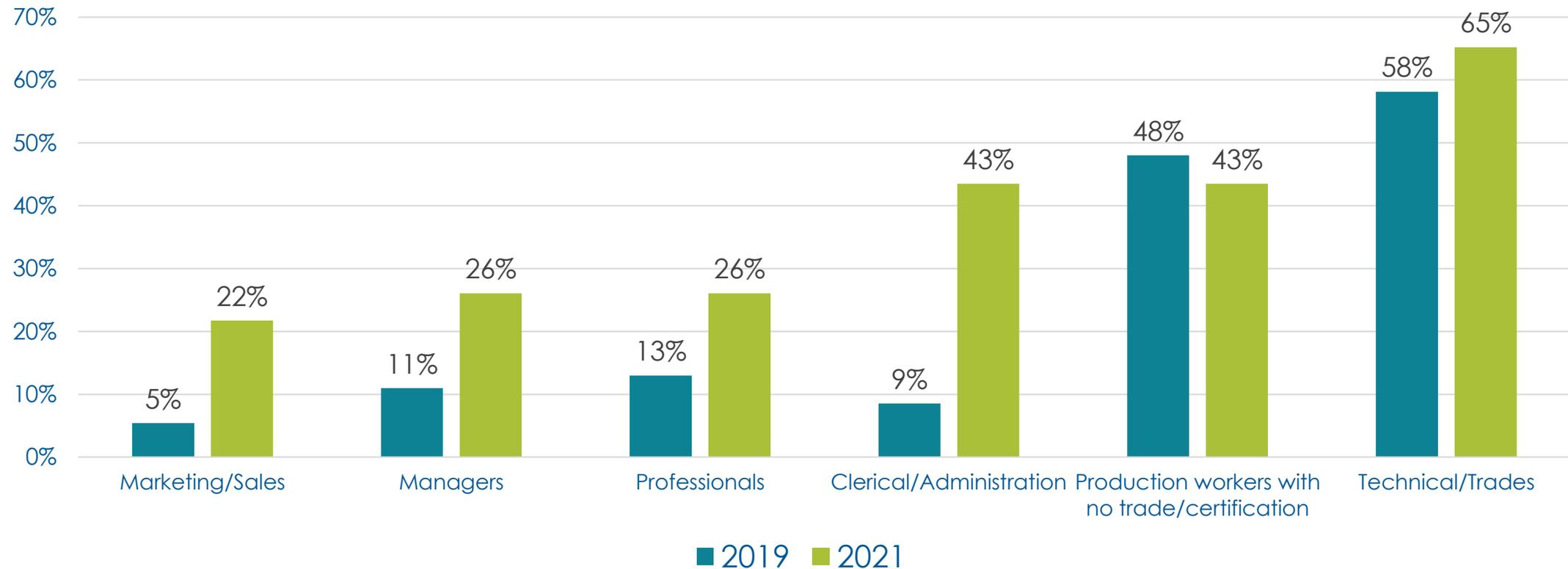
The duration for filling vacancies

- 64% of employers in rural area reported hiring difficulties in production workers, only 42% in urban area.
- 40% of large-sized employers reported hiring difficulties in managers/ professionals while 12% and 17% in small- and medium- sized employers reported such difficulties, respectively.

The Main Types of Positions with Hiring Difficulties (In the last 3 year, Atlantic Canada, 2019)



The Main Types of Positions with Hiring Difficulties (In the last 3 year, NL)



Top 5 Reasons for Hiring Difficulties (Atlantic Canada)

| 2019 survey (In the last 3 years) | | 2022 Survey (In the last 6 months) | |
|--------------------------------------|-------------------|--|-------------------|
| Too few applicants | <u>27%</u> | Too few applicants | <u>53%</u> |
| Lack of necessary experience | <u>21%</u> | Lack of necessary skills | <u>28%</u> |
| Lack of necessary skills | <u>20%</u> | Too many unqualified applicants to review | 19% |
| Lack of strong work ethic | 7% | Lack of applicants with necessary experience | <u>19%</u> |
| Salary issues | 5% | Covid/pandemic related/CERB | 12% |

Top 5 Reasons for Hiring Difficulties (NL)

| 2019 survey (In the last 3 years) | | 2021 survey (In the last 3 years) | | 2022 Survey (In the last 6 months) | |
|--------------------------------------|------------|---|------------|--|------------|
| Too few applicants | <u>27%</u> | Too few applicants | <u>40%</u> | Too few applicants | <u>51%</u> |
| Lack of necessary experience | <u>25%</u> | <u>Covid/pandemic related/CERB</u> | <u>13%</u> | Lack of necessary skills | <u>18%</u> |
| Lack of necessary skills | <u>21%</u> | Lack of necessary experience | 11% | Too many unqualified applicants to review | 10% |
| Salary issues | 9% | Lack of necessary skills | 9% | Lack of applicants with necessary experience | 4% |
| Work ethic | 9% | High turnover/Difficult retaining qualified workers | 9% | Lack of applicants with necessary education | 4% |

Potential solutions

- Providing timely labour market info
- Hiring immigrants and international students
- Changing workplace practices
- Investment in advanced digital tech

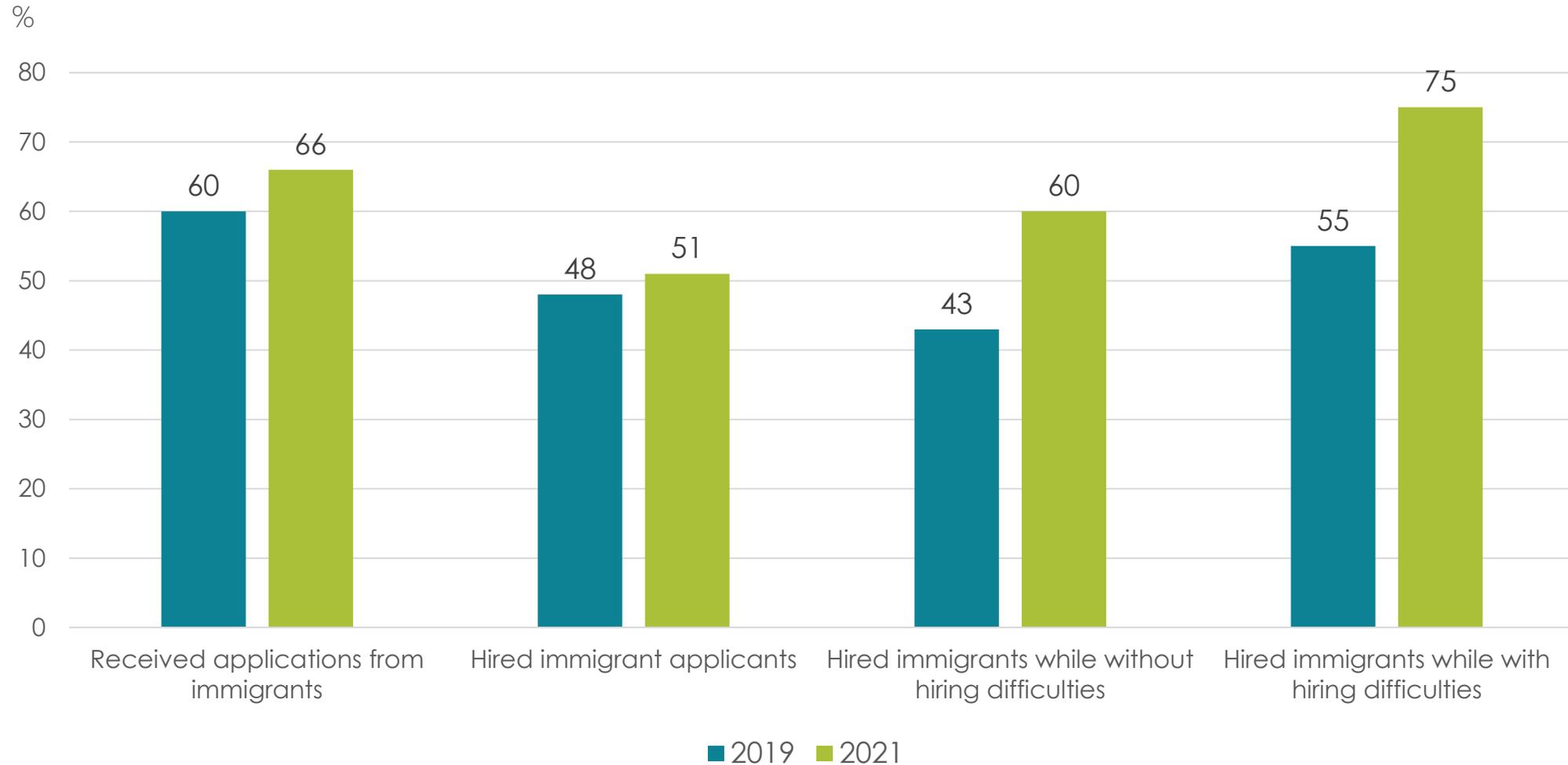
Intl Students' Labour Market Engagement

| % of Employers Received applications | Permanent or landed residents | International students | Temporary foreign workers | Refugees |
|--------------------------------------|-------------------------------|------------------------|---------------------------|----------|
| 2019 (last 36 months) | 38.8% | 33.4% | 18.8% | 12.0% |
| 2022 (last 6 months) | 19.2% | 19.4% | 10.6% | 3.8% |

- Approximately, immigrants account for 6% of the population in Atlantic Canada, while it is around 1.3% of international students.
- Over the 2000-to-2019 period, the share of new economic principal applicant immigrants with Canadian study experience increased from 6% to 38%.

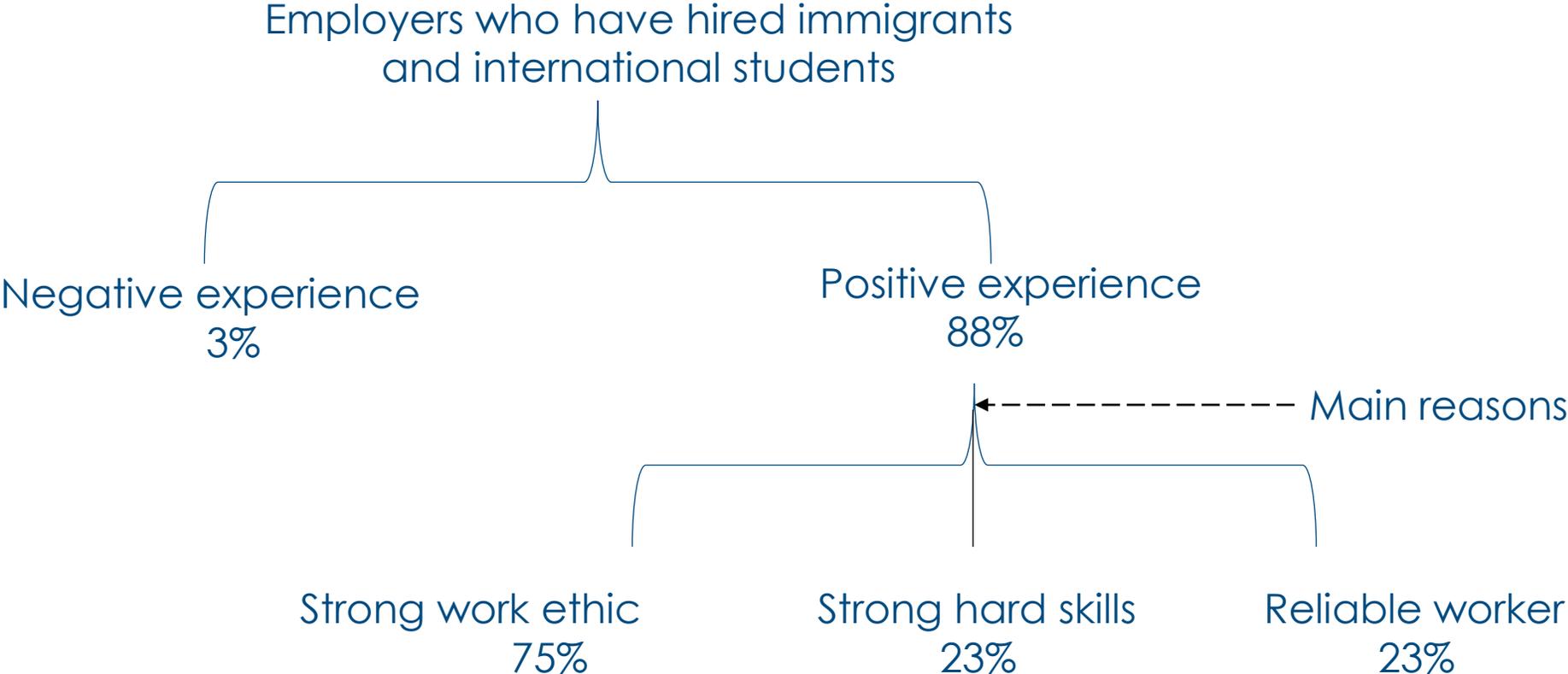
Hiring Newcomers (2019 & 2021 - NL)

Applying & Hiring Without Hiring Difficulties VS. Hiring Difficulties

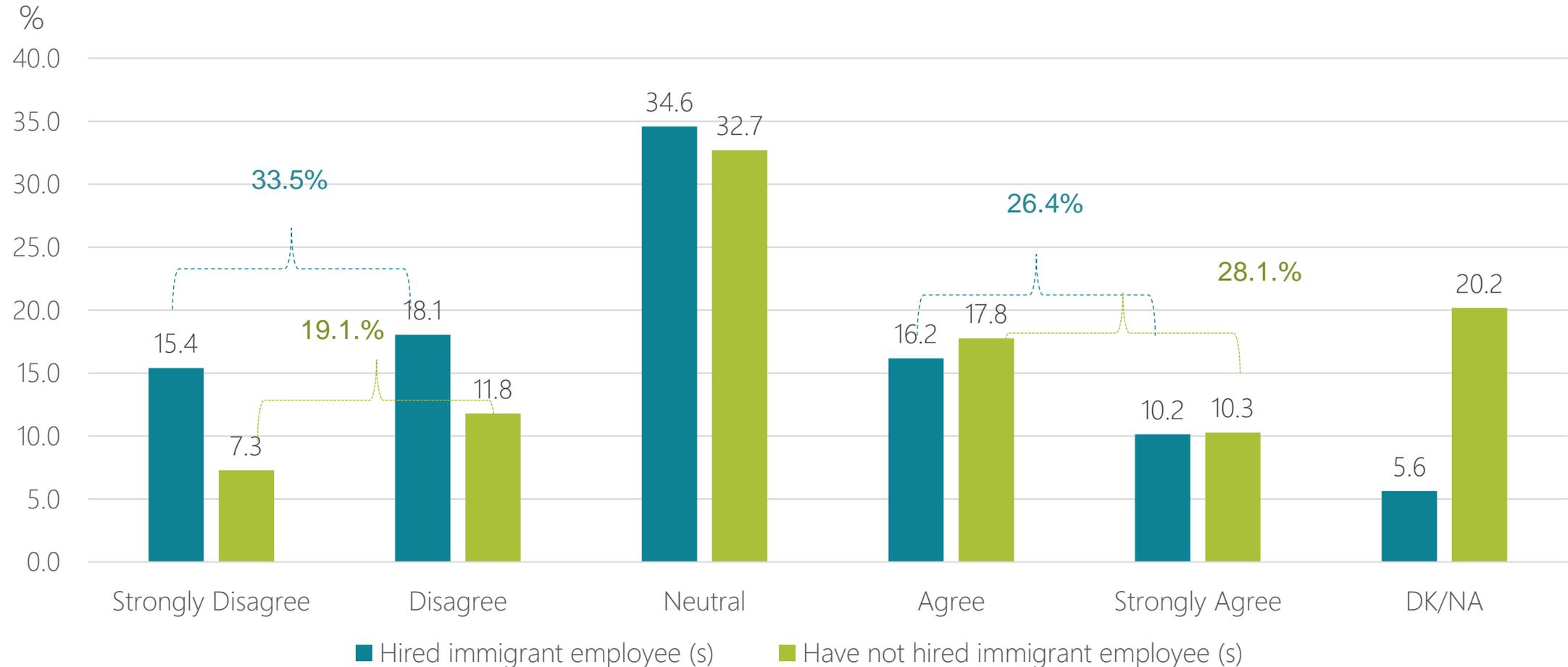


The Experience with Newcomers

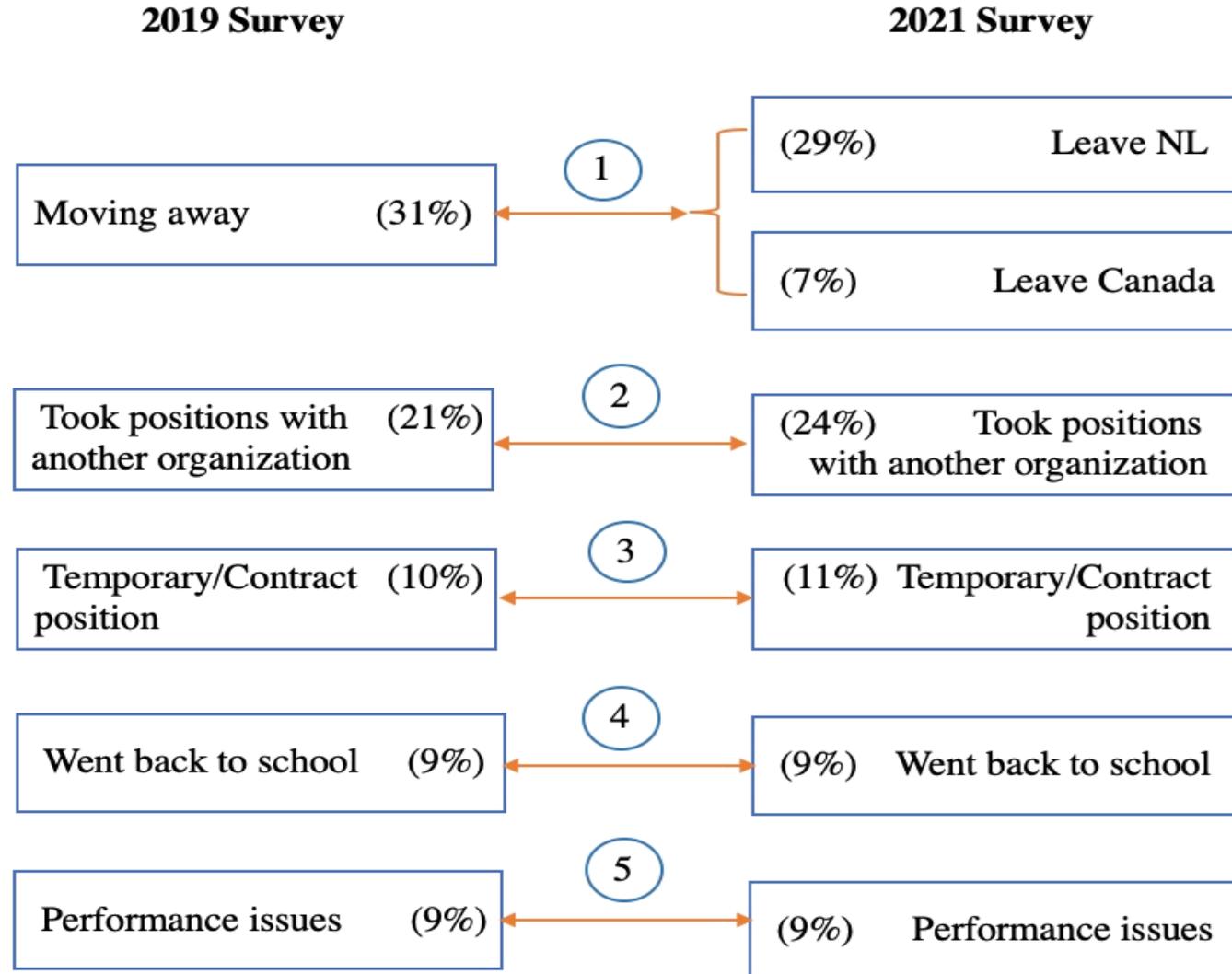
(in the last 3 years, Atlantic Canada 2019)



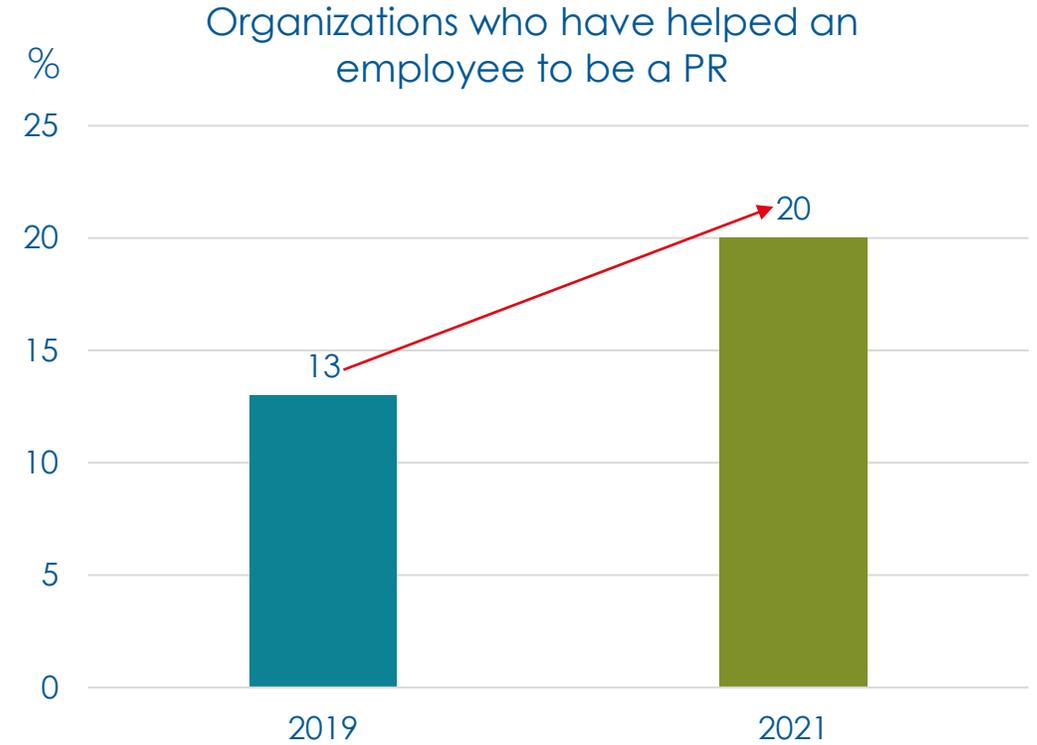
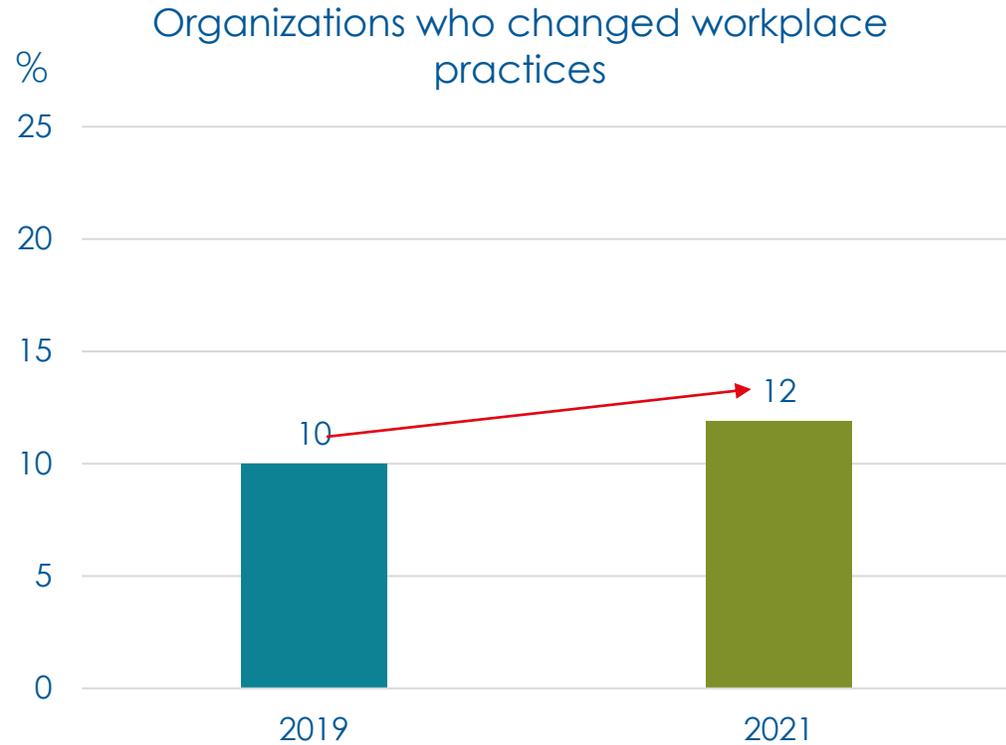
Immigrant Employees will Leave for Another Part of the Country within a Short Period of Time (2019)



Main reasons for the immigrant employees to leave an organization (NL)



Employers' Help Behaviors (NL)



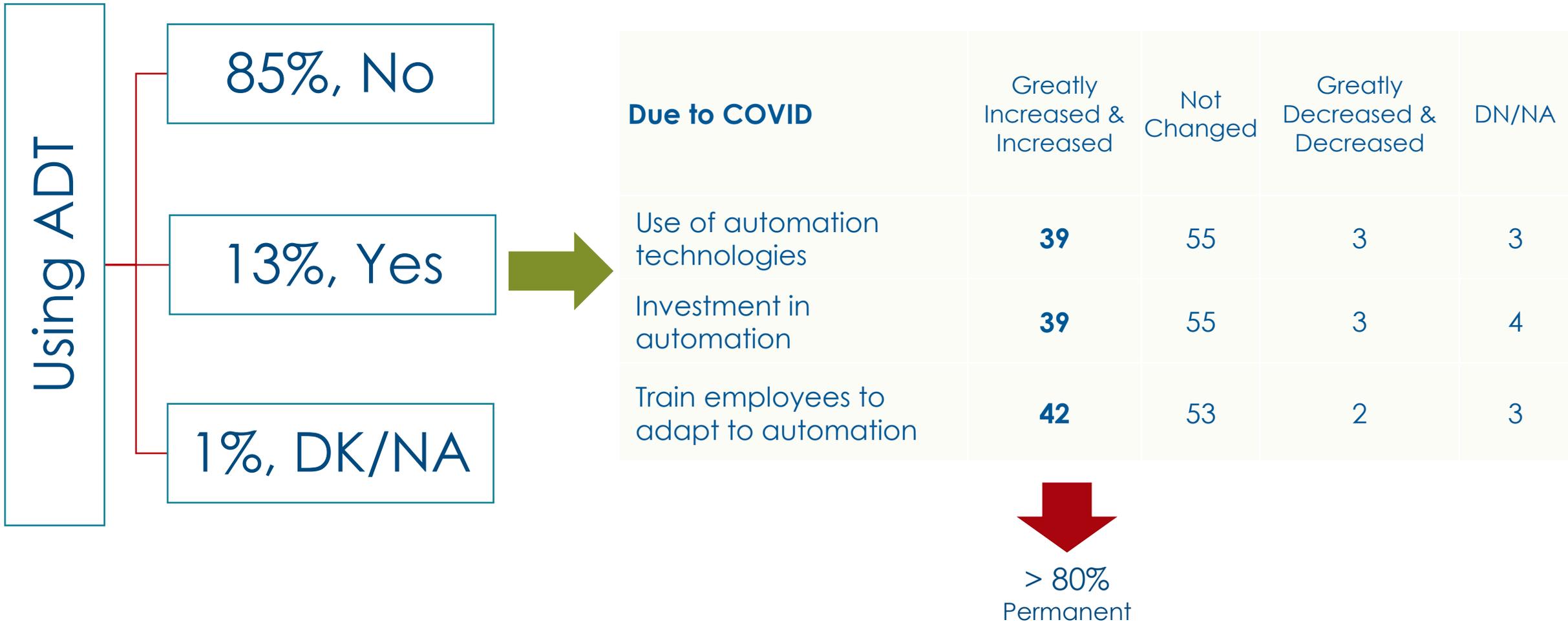
Changes in HR Practices to Fill Job Vacancies (2022)

| Practices (%) | Yes (With hiring difficulties) | Yes (Without hiring difficulties) |
|---|-----------------------------------|--------------------------------------|
| Increased wages | 78% | 52% |
| Added or increased non-wage benefits | 41% | 14% |
| Raised wages but reduce non-wage benefits | 20% | 6% |
| Provided signing bonuses | 23% | 12% |
| | | |
| Increased working hours of current employees but not using overtime | 67% | 41% |
| Increased the use of overtime | 52% | 23% |
| Increased use of flexible working hours and scheduling | 36% | 15% |
| Increased use of part-time workers | 28% | 7% |

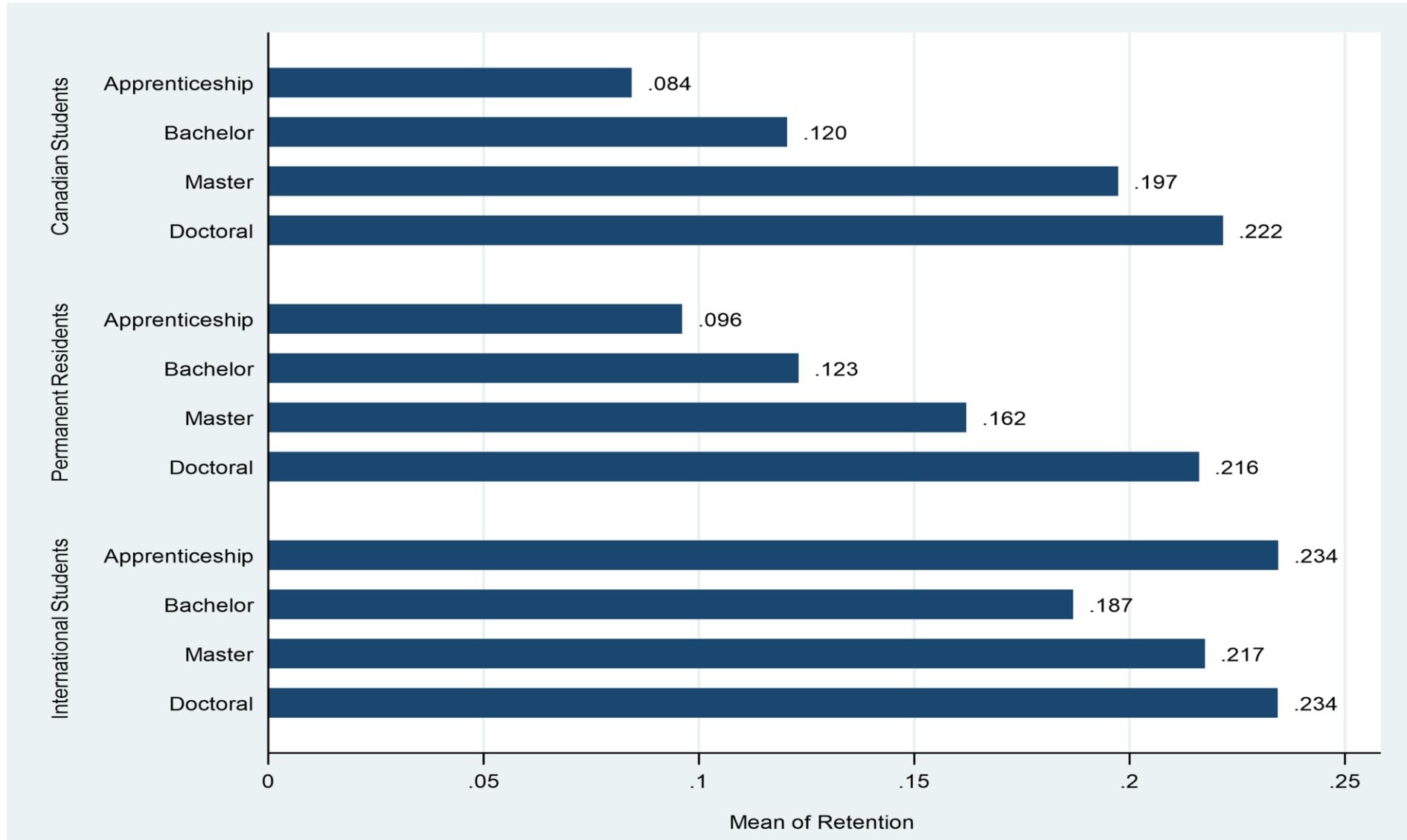
Changes in HR Practices to Fill Job Vacancies

| HR Practices (%) | Yes (With hiring difficulties) | Yes (Without hiring difficulties) |
|---|-----------------------------------|--------------------------------------|
| increase teamwork | 69% | 41% |
| Implemented flexible job design | 40% | 24% |
| Allowed remote work | 21% | 25% |
| | | |
| Relied more on employee referrals | 63% | 15% |
| Undertook different, or more intensive, job advertising methods | 61% | 26% |
| | | |
| Hired unqualified personnel at a lower wage than a qualified employee | 64% | 20% |
| Hired unqualified personnel at the wage of a qualified employee | 41% | 9% |
| Hired unqualified personnel and provided more training than usual | 32% | 7% |

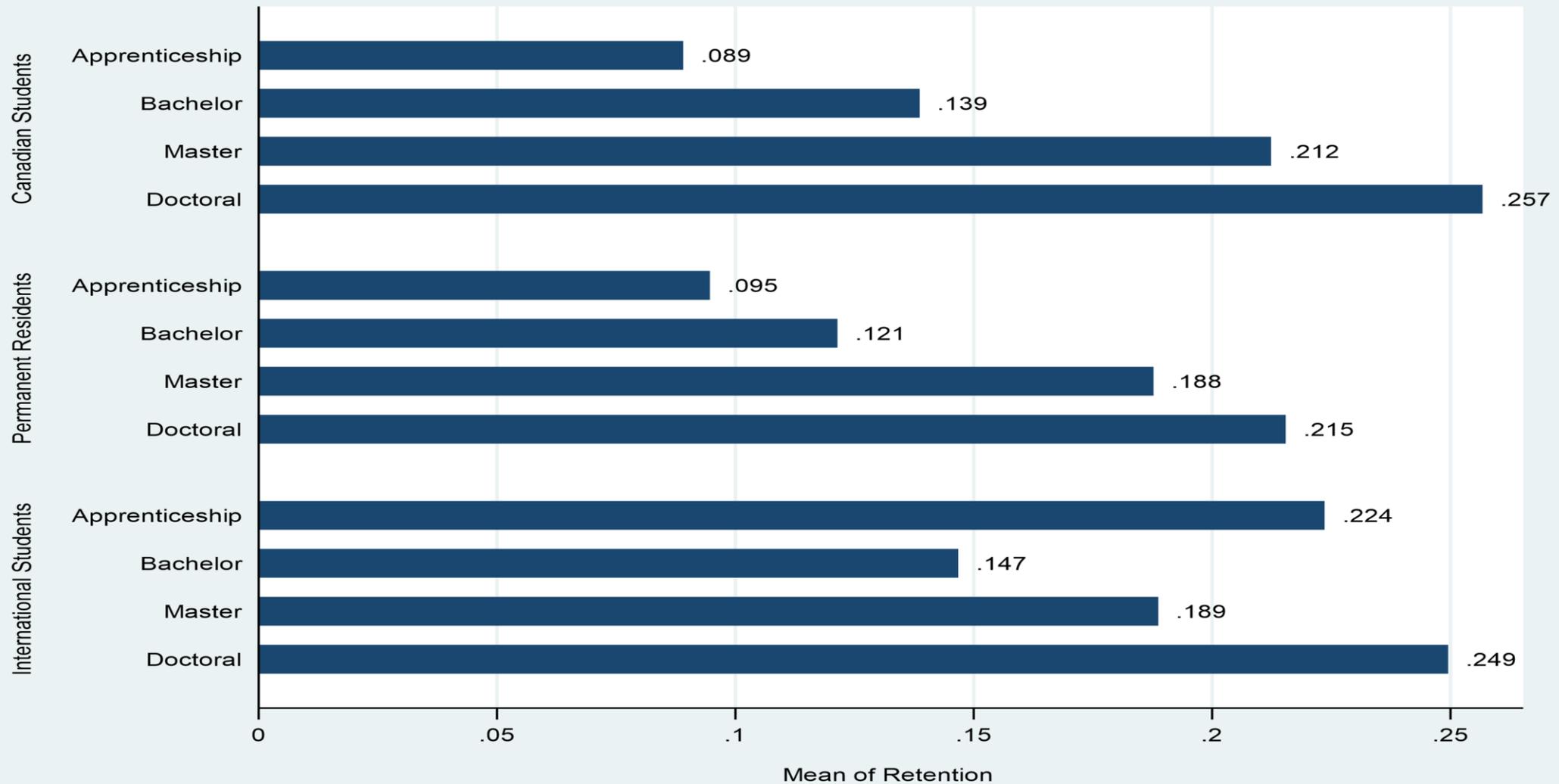
Adoption of Advanced Digital Technologies (ADT)



Postsecondary Students Probability of Moving After Graduation by Educational Attainment



Average Marginal Effects by Canadian Regions (Unmatched Sample)



Average Marginal Effects by Canadian Regions (Unmatched Sample)

| Variables | (1) Atlantic Canada | (2) Quebec | (3) Ontario | (4) Prairies | (5) British Columbia |
|----------------------|---------------------------|--------------------------|--------------------------|-------------------------|--------------------------|
| RAIS | -0.238*** (0.00159) | -0.0618*** (0.000590) | -0.0237*** (0.000593) | -0.0422*** (0.00108) | -0.0608*** (0.000870) |
| Canadian Students | -0.165*** (0.00274) | -0.104*** (0.00138) | -0.0472*** (0.00105) | -0.0612*** (0.00174) | -0.0276*** (0.00155) |
| Permanent Residents | -0.0132*** (0.00461) | -0.00302* (0.00177) | -0.0335*** (0.00122) | -0.0818*** (0.00209) | -0.0560*** (0.00194) |
| Observations | 658,240 | 1,719,730 | 3,290,450 | 1,281,700 | 1,088,520 |
| Tax Year | ✓ | ✓ | ✓ | ✓ | ✓ |
| Demographic Controls | ✓ | ✓ | ✓ | ✓ | ✓ |
| Graduation Year | ✓ | ✓ | ✓ | ✓ | ✓ |
| Additional Controls | ✓ | ✓ | ✓ | ✓ | ✓ |

Standard errors in parentheses
 *** p<0.01, ** p<0.05, * p<0.1

Average Marginal Effects by Canadian Regions (Matched Sample)

| Variables | (1) Atlantic Canada | (2) Quebec | (3) Ontario | (4) Prairies | (5) British Columbia |
|----------------------|---------------------------|-------------------------|-------------------------|-------------------------|-------------------------|
| RAIS | -0.153*** (0.00350) | -0.0712*** (0.00151) | -0.0284*** (0.00113) | -0.0406*** (0.00183) | -0.0578*** (0.00162) |
| Canadian Students | -0.309*** (0.0193) | -0.146*** (0.0106) | -0.141*** (0.00460) | -0.0380*** (0.00760) | -0.0280*** (0.00578) |
| Permanent Residents | -0.0480* (0.0270) | -0.0244** (0.0115) | -0.0985*** (0.00539) | -0.0693*** (0.00829) | -0.0359*** (0.00651) |
| Observations | 90,370 | 139,490 | 326,430 | 171,510 | 214,810 |
| Tax Year | ✓ | ✓ | ✓ | ✓ | ✓ |
| Demographic Controls | ✓ | ✓ | ✓ | ✓ | ✓ |
| Graduation Year | ✓ | ✓ | ✓ | ✓ | ✓ |
| Additional Controls | ✓ | ✓ | ✓ | ✓ | ✓ |

Standard errors in parentheses
 *** p<0.01, ** p<0.05, * p<0.1

Practical measures to retain international graduates in Atlantic Canada

- Employment networking and information
 - University
 - Alumni Network
 - Community
- Employment Services
 - University
 - Study and Stay program
 - Youth Employment and Skills Strategy (YESS)
- Employment opportunities
 - On-campus job opportunity (MUCEP/ISWECP at MUN)
 - Co-op positions
 - Paid internships– Mitacs, Magnet etc.

Successful Stories

“My supervisor in the university referred me to my current job.”

- A government employee

“I found my permanent job after attending the paid internship provided by ANC through its employment program.”

- A MUN employee

“I got connected with my current employer in a event organized by the university.”

- A KPMG employee

“I got my job through one of my friends who I met in my volunteer work in the community.”

- A employee for a public-listed design company

“80% of international students from this program stay in the province after their graduation”

- “Study and Stay program coordinator” (NL)

Policy Implications

- International students are becoming importance source of labour supply (young, energetic, well educated, have local experiences)
- Labour market engagement of international students is quite high, based on our employer survey of 800 employers in Atlantic Canada
- However, retention rate is relatively low in Atlantic Canada, suggesting lack of meaningful employment that match their qualifications (education and experience) and possible skill mismatches, consistent with our qualitative interviews with ISs
- Programs such as “study-and-stay”, co-op, internships, apprenticeship training, and wage subsidy programs may enhance labour market integration and retention of international students/graduates in Atlantic Canada

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