# STUDENT PATHWAYS DESTINATIONS IN ONTARIO

Jinli Yang, Research Associate, OISE Dr. Gavin Moodie, Professor, OISE Dr. Ruth Childs, Professor, OISE Dr. Leesa Wheelahan, Professor, OISE

Student Pathways in Higher Education Conference Conférence sur le parcours des étudiants dans les études supérieures





Our research team investigates the nature of pathways within and between colleges and universities, and between postsecondary education and the labour market.

Our research program also examines the many aspects of building pathways, including postsecondary education policy, credit transfer, relationships between sending and receiving institutions, and emerging models of pathways and collaboration.

We are committed to using social justice frameworks when exploring implications for qualifications, students, teachers, and institutional identity.

The Group is affiliated with OISE's Centre for the Study of Canadian and International Higher Education and is a founding member of the International Pathways Collaborative.



# OISE PATHWAYS GROUP



Dr. Leesa Wheelahan



Jinli Yang



Dr. Ruth Childs



Eric Lavigne



Dr. Gavin Moodie



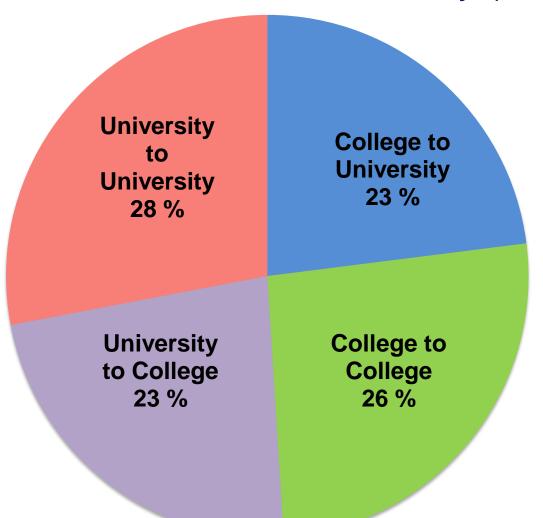
Amanda Brijmohan



### Previous Findings



# Sector-to-sector student mobility, Ontario (Extracted from National Graduate Survey (NGS) 2013)



2010-11 cohort



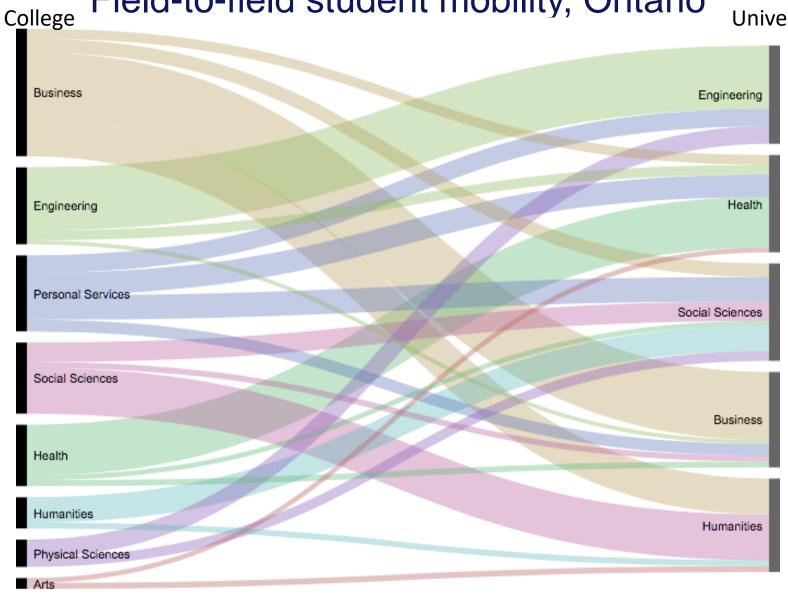
#### **Assumed Student Mobility**





Field-to-field student mobility, Ontario

University





#### This presentation



#### Purposes

NHS 2011

To examine the pathway landscape within the higher education sector

Canadians withpostsecondaryeducation credentials

To investigate the links between higher education sector and the labour market





#### Structure

Provincial distribution (Ontario vs. Other big provinces

By field of study of highest crediential

By industry sector

Postsecondary eudcation credential combinations

By occupation

By job skill level

By income decile



#### National Household Survey (NHS) 2011

- A random sample conducted by Statistics Canada of 4.5 million households.
- People over age 15 with a postsecondary education qualification (level of qualification & field of education of highest credential).
- Statistics Canada derived combinations of qualifications.



# Postsecondary certificates, diplomas and degrees, types obtained (PSCDDSUM)

University qualification above bachelor level, and trades or college qualifications

University qualification above bachelor level, no trades or college qualifications

Bachelor's degree, and trades or college qualifications

Bachelor's degree, no trades or college qualifications

University certificate below bachelor level and trades and/or college qualifications

University certificate below bachelor level only

Both trades and college qualifications, no university qualifications

College qualifications only

Trades qualifications only

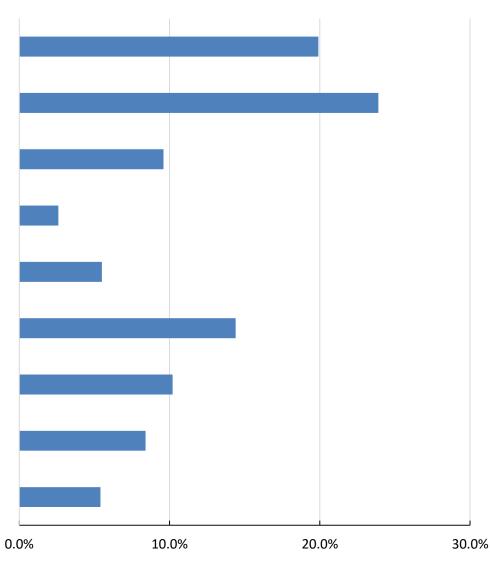


# Findings



## Proportion of people over 15 years with a postsecondary qualification by combination of qualification, Canada

Trades qualifications only College qualifications only Both trades and college qualifications, no university qualifications University certificate below bachelor level only University certificate below bachelor level and trades and/or college qualifications Bachelor's degree, no trade or college qualifications Bachelor's degree and trades and/or college qualifications University qualification above bachelor level, no trade or college qualifications University qualification above bachelor level & trades and/or college qualifications





# Groupings of qualifications combinations

Trades qualifications only

College qualifications only

Both trades and college qualifications, no university qualifications

University certificate below bachelor level and trades and/or college qualifications

Bachelor's degree and trades and/or college qualifications

University qualification above bachelor level and trades and/ or college qualifications

University certificate below bachelor level only

Bachelor's degree, no trade or college qualifications

University qualification above bachelor level, no trade or college qualifications

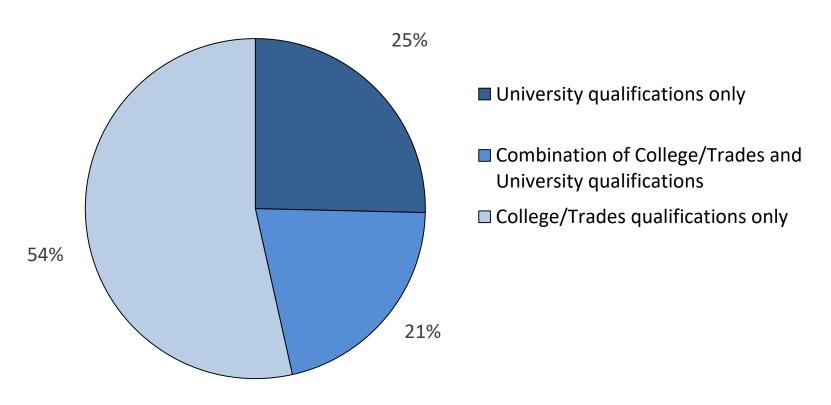
College/trades qualifications only

Combination of college/trades and university qualifications

University qualifications only



# Proportion of people over 15 years with a postsecondary qualification by combination of qualification, Canada

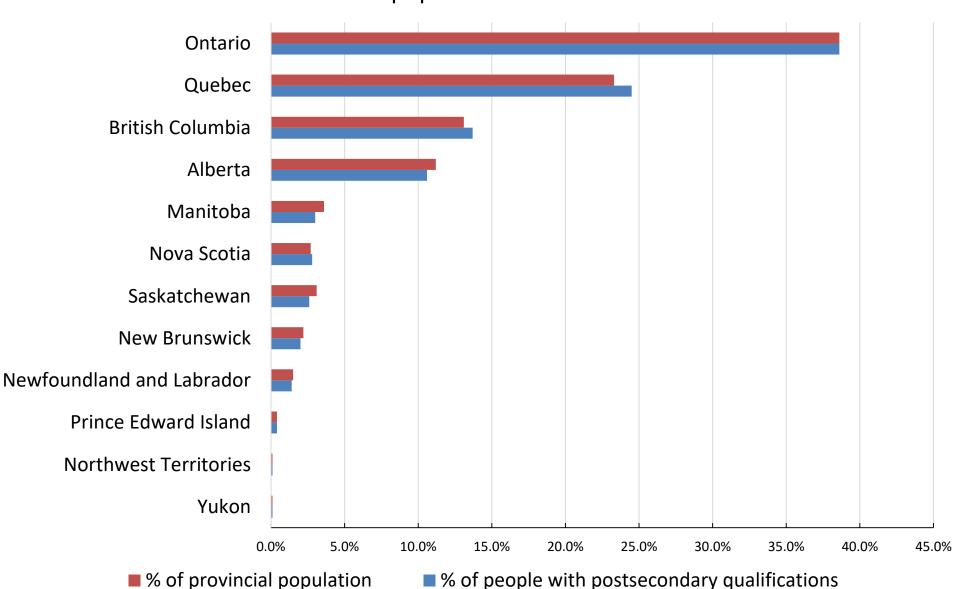




### By province

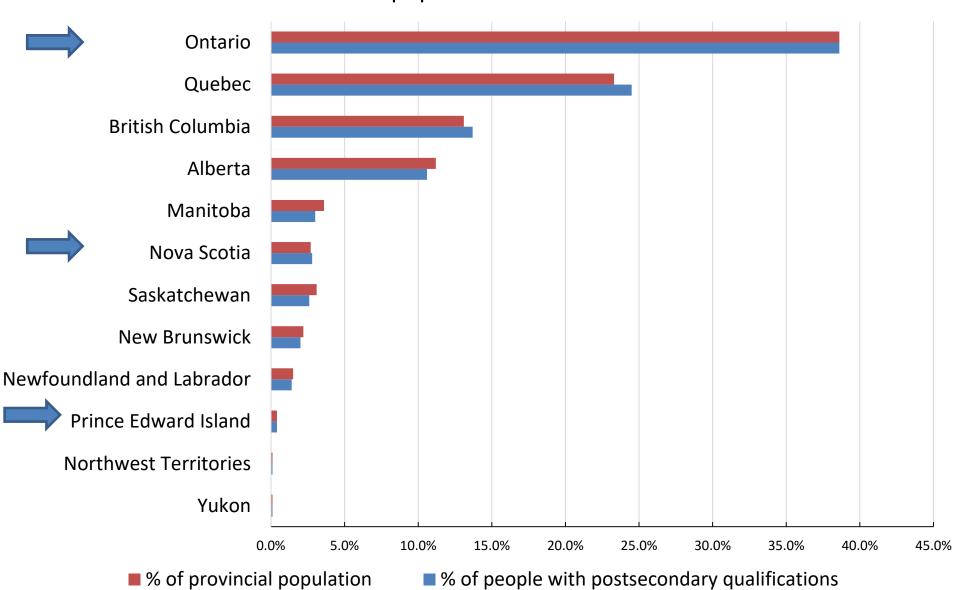


#### Jurisdiction's number and share of graduates 2011 and share of total population 2012



FOR STUDIES IN EDUCATION

#### Jurisdiction's number and share of graduates 2011 and share of total population 2012



#### Legend

**Trades/college only** 

Trades/college and university

**University only** 

> 15%	> 15%	> 15%
5% to 15%	5% to 15%	5% to 15%
< 5%	< 5%	< 5%



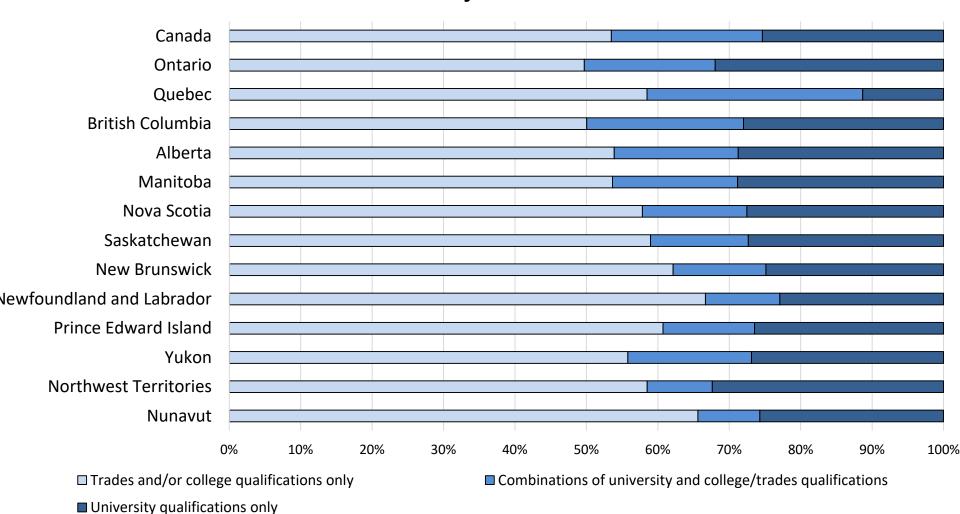
	Trades/college only	Trades/college and university	University only	Total
Ontario	35.9%	33.5%	48.7%	38.6%
Quebec	26.8%	35.1%	10.9%	24.5%
British Columbia	12.8%	14.3%	15.1%	13.7%
Alberta	10.7%	8.7%	12.0%	10.6%
Manitoba	3.0%	2.5%	3.4%	3.0%
Nova Scotia	3.0%	1.9%	3.0%	2.8%
Saskatchewan	2.9%	1.7%	2.8%	2.6%
New Brunswick	2.4%	1.2%	2.0%	2.0%
Newfoundland and Labrador	1.8%	0.7%	1.3%	1.4%
Prince Edward Island	0.5%	0.2%	0.4%	0.4%
Yukon	0.1%	0.1%	0.1%	0.1%
Northwest Territories	0.1%	0.0%	0.1%	0.1%
Nunavut	0.1%	0.0%	0.0%	0.0%
Grand Total	100.0%	100.0%	100.0%	100.0%



	Trades/college only	Trades/college and university	University only	Total
Ontario	35.9%	33.5%	48.7%	38.6%
Quebec	26.8%	35.1%	10.9%	24.5%
British Columbia	12.8%	14.3%	15.1%	13.7%
Alberta	10.7%	8.7%	12.0%	10.6%
Manitoba	3.0%	2.5%	3.4%	3.0%
Nova Scotia	3.0%	1.9%	3.0%	2.8%
Saskatchewan	2.9%	1.7%	2.8%	2.6%
New Brunswick	2.4%	1.2%	2.0%	2.0%
Newfoundland and Labrador	1.8%	0.7%	1.3%	1.4%
Prince Edward Island	0.5%	0.2%	0.4%	0.4%
Yukon	0.1%	0.1%	0.1%	0.1%
Northwest Territories	0.1%	0.0%	0.1%	0.1%
Nunavut	0.1%	0.0%	0.0%	0.0%
Grand Total	100.0%	100.0%	100.0%	100.0%

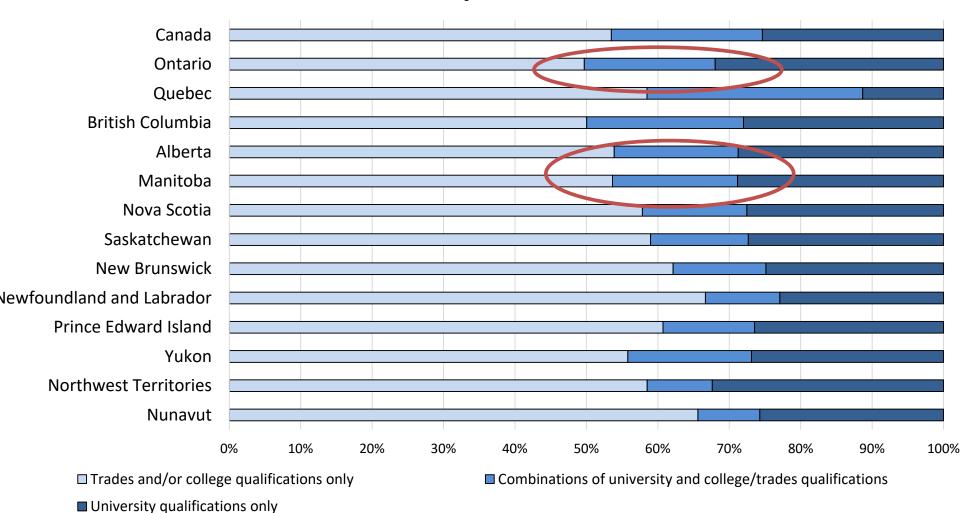


## % of graduates over 15 years qualifications combinations by Canadian jurisdictions





## % of graduates over 15 years qualifications combinations by Canadian jurisdictions

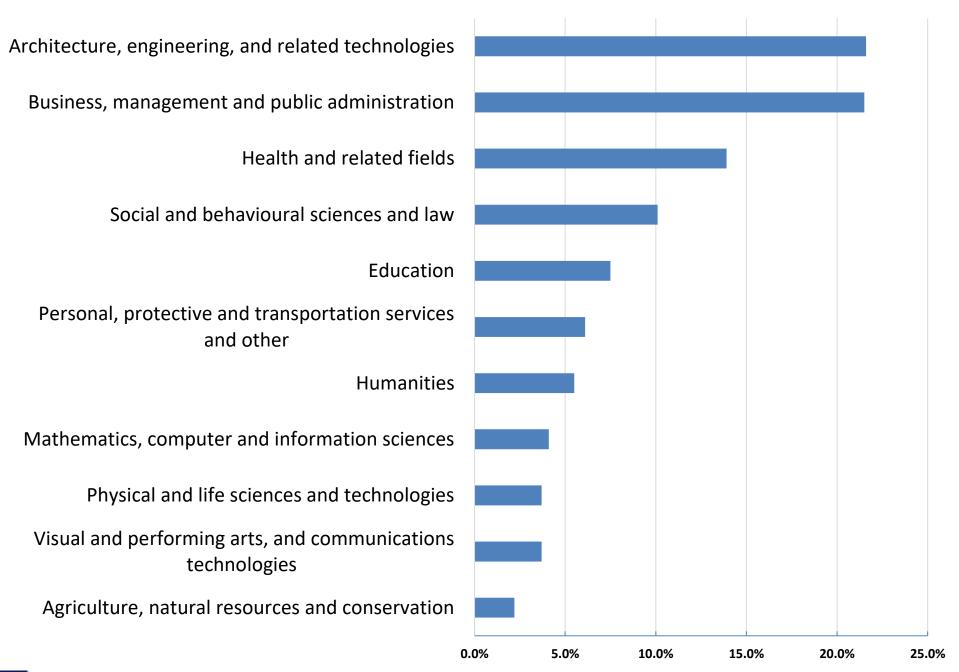




### By major field of study



#### Proportion of graduates by major field of study, Canada



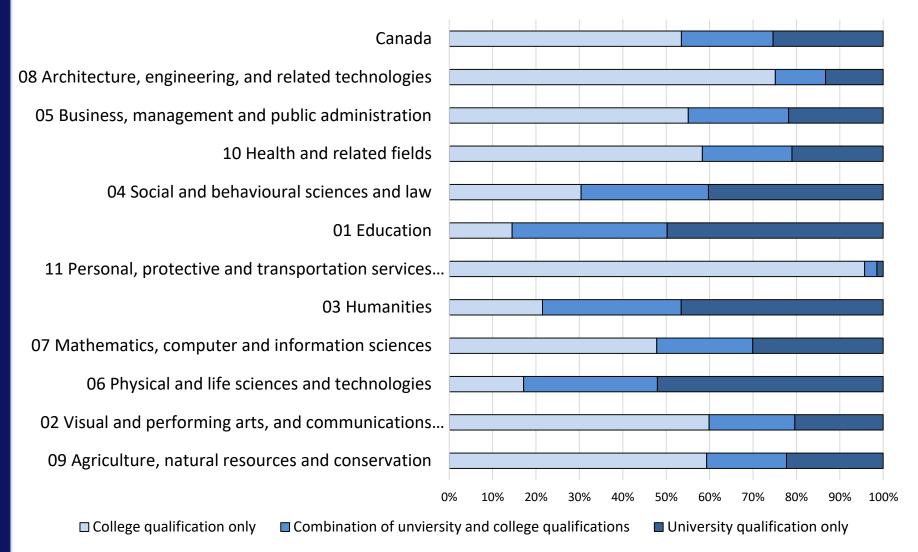
	Col/trades only	Uni and col/trades	Uni only	% by field of study
Architecture, engineering,	30.3%	11.8%	11.3%	21.6%
Business,	22.2%	23.6%	18.5%	21.5%
Health	15.2%	13.6%	11.5%	13.9%
Social and behavioural sciences and law	5.7%	14.1%	16.0%	10.1%
Education	2.0%	12.7%	14.7%	7.5%
Personal, protective and transportation services	10.9%	0.8%	0.3%	6.1%
Humanities	2.2%	8.4%	10.2%	5.5%
Mathematics, computer and information	3.6%	4.3%	4.8%	4.1%
Physical and life sciences	1.2%	5.5%	7.7%	3.7%
Visual and communications	4.1%	3.5%	3.0%	3.7%
Agriculture	2.4%	1.9%	1.9%	2.2%
Total	100%	100%	100%	



	Col/trades only	Col/trades and uni	Uni only	% by field of study
Architecture, engineering,	30.3%	11.8%	11.3%	21.6%
Business	22.2%	23.6%	18.5%	21.5%
Health	15.2%	13.6%	11.5%	13.9%
Social and behavioural sciences and law	5.7%	14.1%	16.0%	10.1%
Education	2.0%	12.7%	14.7%	7.5%
Personal, protective and transportation services	10.9%	0.8%	0.3%	6.1%
Humanities	2.2%	8.4%	10.2%	5.5%
Mathematics, computer and information	3.6%	4.3%	4.8%	4.1%
Physical and life sciences	1.2%	5.5%	7.7%	3.7%
Visual and communications	4.1%	3.5%	3.0%	3.7%
Agriculture	2.4%	1.9%	1.9%	2.2%
Total	100%	100%	100%	

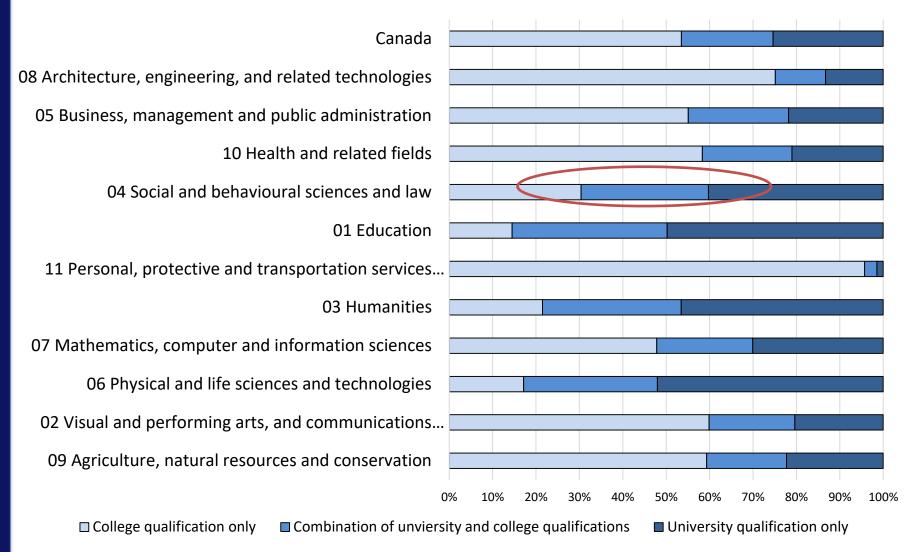


# % of graduates over 15 years major field of study by qualifications combinations





# % of graduates over 15 years major field of study by qualifications combinations

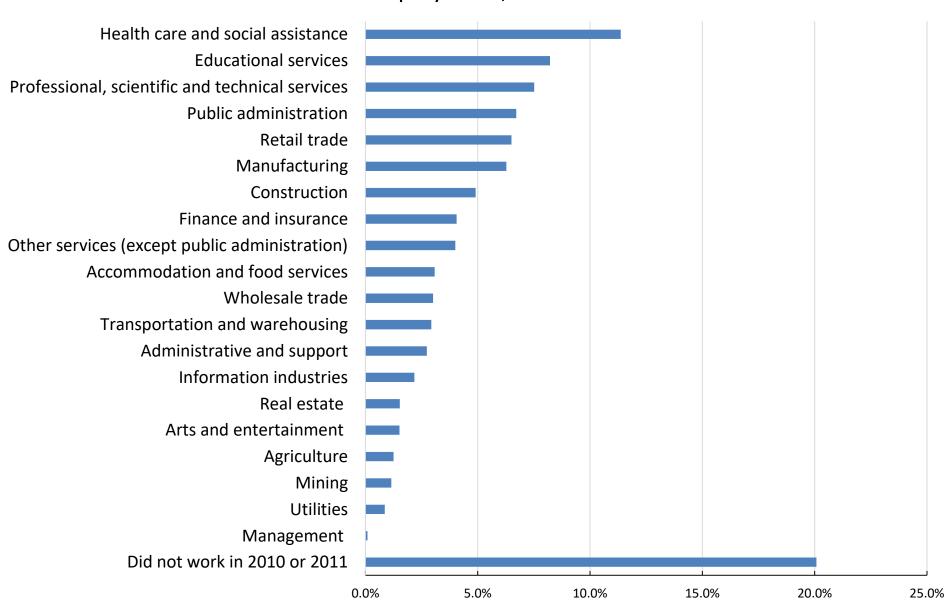




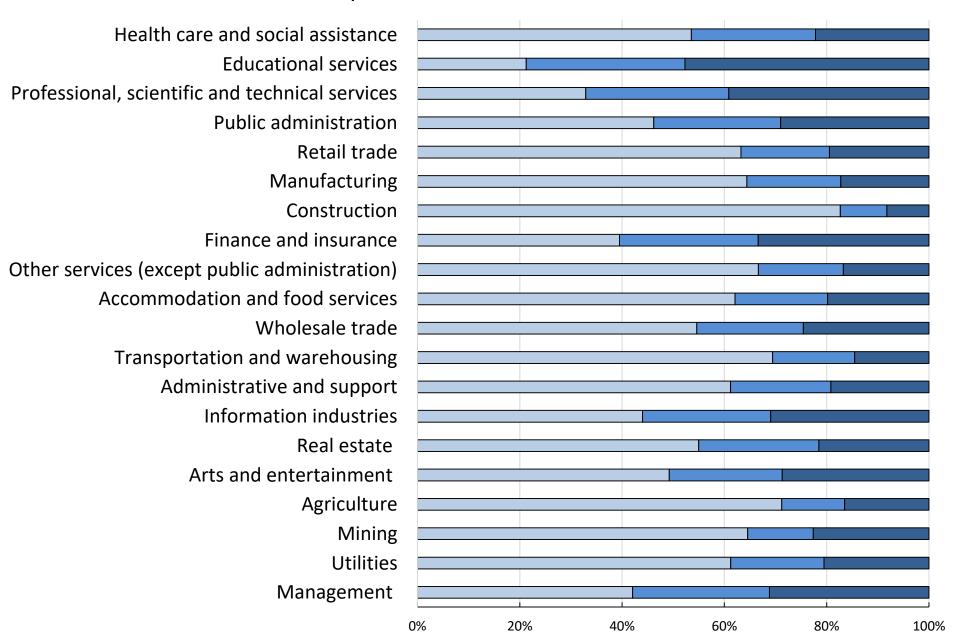
#### By industry sector



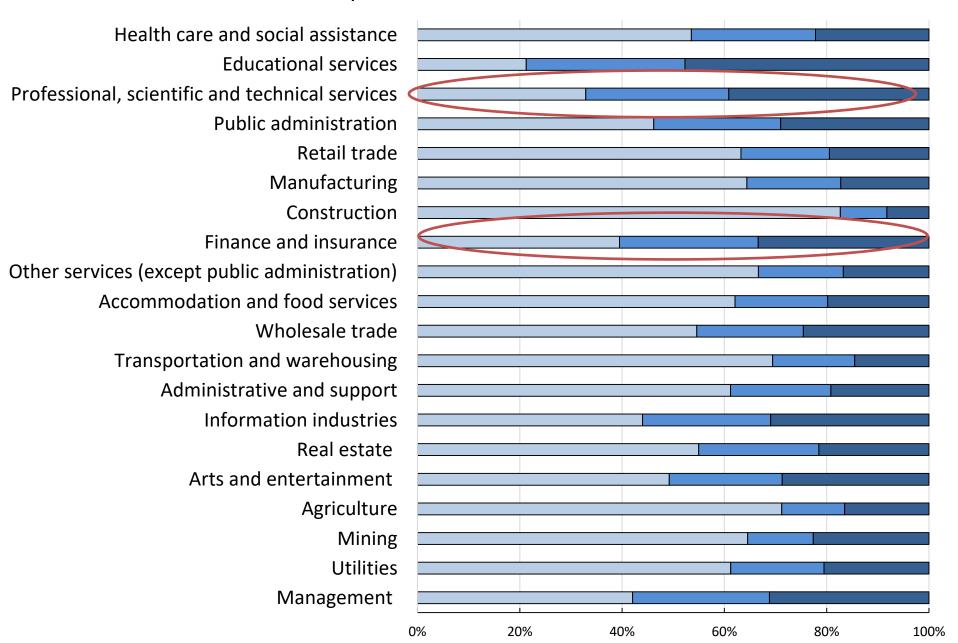
#### Proportion of graduates over 15 years by industry sector of employment, Canada



#### % of graduates over 15 years industry sector's employment by qualification combination



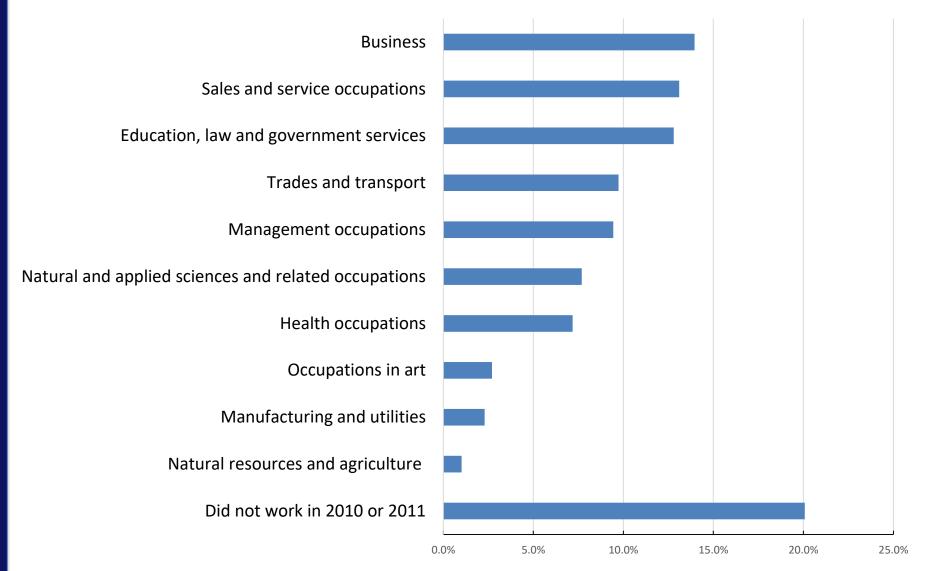
#### % of graduates over 15 years industry sector's employment by qualification combination



### By occupation

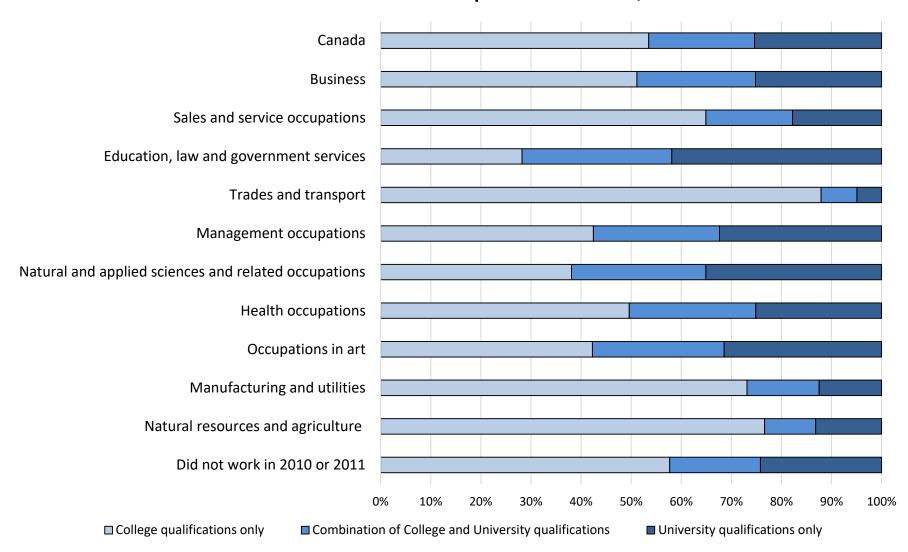


#### % of graduates by broad occupation of employment





### Graduates over 15 years broad occupations by combinations of qualifications, %





#### By job skill level



Skill level	Education requirement
Skill Level A Managers	None
Skill Level A Professionals	Usually university
Skill Level B	Usually college education or apprenticeship training
Skill Level C	Usually secondary and/or occupation specific training
Skill Level D	Usually on the job training



#### Proportion of graduates over 15 years by skill level





	Col/trades only	Col/trades and Uni	Uni only	Total
Skill level A Managers	7.5%	11.2%	12.0%	9.4%
Skill level A Professionals	7.2%	33.7%	40.1%	21.1%
Skill level B College or apprenticeship training	35.4%	21.0%	14.8%	27.1%
Skill level C High school or job- specific training	22.1%	13.7%	11.1%	17.5%
Skill level D On-the-job training	6.2%	3.2%	2.8%	4.7%
Did not work in 2010 or 2011	21.7%	17.2%	19.2%	20.1%
Grand Total	100.0%	100.0%	100.0%	100.0%



	Col/trades only	Col/trades and Uni	Uni only	Total
Skill level A Managers	7.5%	11.2%	12.0%	9.4%
Skill level A Professionals	1.2%	33.7%	40.1%	21.1%
Skill level B College or apprenticeship training	35.4%	21.0%	14.8%	27.1%
Skill level C High school or job- specific training	22.1%	13.7%	11.1%	17.5%
Skill level D On-the-job training	6.2%	3.2%	2.8%	4.7%
Did not work in 2010 or 2011	21.7%	17.2%	19.2%	20.1%
Grand Total	100.0%	100.0%	100.0%	100.0%





□ College qualifications only □ Combination of College and University qualifications □ University qualifications only





□ College qualifications only □ Combination of College and University qualifications ■ University qualifications only





□ College qualifications only □ Combination of College and University qualifications ■ University qualifications only





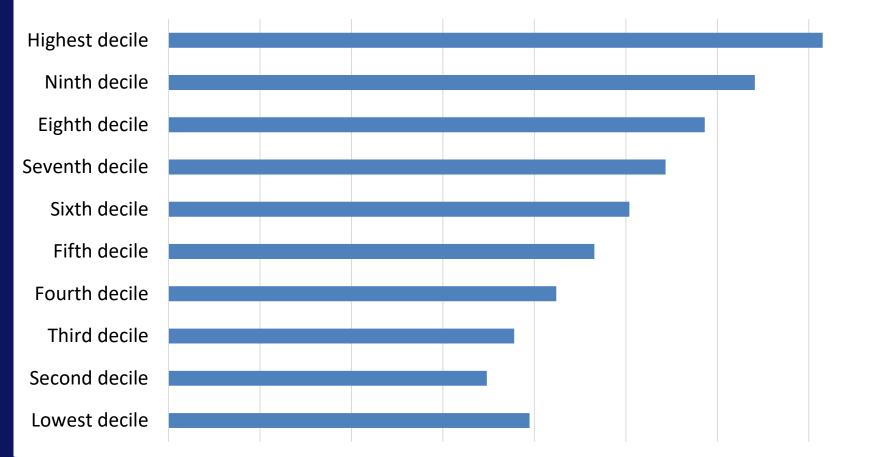
□ College qualifications only □ Combination of College and University qualifications ■ University qualifications only



#### By income decile



# Proportion of each income decile, graduates over 15 years, Canada





	Col/trades only	Col/trades and Uni	Uni only	Total
Highest decile	9.0%	16.3%	23.9%	14.3%
Ninth decile	10.8%	14.3%	15.9%	12.8%
Eighth decile	11.2%	12.6%	12.1%	11.7%
Seventh decile	11.3%	11.1%	9.7%	10.9%
Sixth decile	11.2%	9.7%	8.0%	10.1%
Fifth decile	10.8%	8.5%	6.8%	9.3%
Fourth decile	10.3%	7.2%	5.7%	8.5%
Third decile	9.2%	6.4%	5.1%	7.6%
Second decile	8.1%	6.0%	5.3%	7.0%
Lowest decile	8.0%	8.0%	7.5%	7.9%
Grand total	100.0%	100.0%	100.0%	



	Col/trades only	Col/trades and Uni	Uni only	Total
Highest decile	9.0%	16.3%	23.9%	14.3%
Ninth decile	10.8%	14.3%	15.9%	12.8%
Eighth decile	11.2%	12.6%	12.1%	11.7%
Seventh decile	11.3%	11.1%	9.7%	10.9%
Sixth decile	11.2%	9.7%	8.0%	10.1%
Fifth decile	10.8%	8.5%	6.8%	9.3%
Fourth decile	10.3%	7.2%	5.7%	8.5%
Third decile	9.2%	6.4%	5.1%	7.6%
Second decile	8.1%	6.0%	5.3%	7.0%
Lowest decile	8.0%	8.0%	7.5%	7.9%
Grand total	100.0%	100.0%	100.0%	



	Col/trades only	Col/trades and Uni	Uni only	Total
Highest decile	9.0%	16.3%	23.9%	14.3%
Ninth decile	10.8%	14.3%	15.9%	12.8%
Eighth decile	11.2%	12.6%	12.1%	11.7%
Seventh decile	11.3%	11.1%	9.7%	10.9%
Sixth decile	11.2%	9.7%	8.0%	10.1%
Fifth decile	10.8%	8.5%	6.8%	9.3%
Fourth decile	10.3%	7.2%	5.7%	8.5%
Third decile	9.2%	6.4%	5.1%	7.6%
Second decile	8.1%	6.0%	5.3%	7.0%
Lowest decile	8.0%	8.0%	7.5%	7.9%
Grand total	100.0%	100.0%	100.0%	



	Col/trades only	Col/trades and Uni	Uni only	Total
Highest decile	9.0%	16.3%	23.9%	14.3%
Ninth decile	10.8%	14.3%	15.9%	12.8%
Eighth decile	11.2%	12.6%	12.1%	11.7%
Seventh decile	11.3%	11.1%	9.7%	10.9%
Sixth decile	11.2%	9.7%	8.0%	10.1%
Fifth decile	10.8%	8.5%	6.8%	9.3%
Fourth decile	10.3%	7.2%	5.7%	8.5%
Third decile	9.2%	6.4%	5.1%	7.6%
Second decile	8.1%	6.0%	5.3%	7.0%
Lowest decile	8.0%	8.0%	7.5%	7.9%
Grand total	100.0%	100.0%	100.0%	



#### Conclusion



Combinations of credentials differ markedly by province, major field of study, industry sector of employment, occupation, skill level and income decile.

Some of these variations would be expected, but others less so and warrant further investigation.



Graduates with combinations of college/trades and university credentials have better outcomes than graduates with college credentials only.



Graduates with combinations of college/trades and university credentials have better outcomes than graduates with college credentials only.

Graduates with combinations of college/trades and university credentials don't have better employment outcomes than graduates with university credentials only.



Graduates with combinations of college/trades and university credentials have better outcomes than graduates with college credentials only.

Graduates with combinations of college/trades and university credentials don't have better employment outcomes than graduates with university credentials only.

Combinations of college/trades and university credentials is a transition from college to university, and provide modest social mobility.



#### Thank you!

Work in progress Comments and input?

**URL**:

https://www.oise.utoronto.ca/pew/About/index.html

Leesa.wheelahan@utoronto.ca

