



PhD labour market

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Sources



Council of Canadian Academies (CCA, 2021)

Formés pour réussir: [The Labour Market Transition of PhD Graduates](#)

Comité d'experts multidisciplinaire composé de 12 spécialistes :

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Bangali et al. (2017-2019)

Étude panquébécoise sur les compétences des titulaires d'un doctorat

- Projet financé par L'Association des Doyens et Doyennes des Études Supérieures au Québec (ADESAQ) et ses partenaires

Diversification of job market opportunities



Data for the 4 major sectors: educational services; professional, scientific and technical services (private sector); public administration; and health care and social assistance.

Activity sectors	After 1 year	After 5 years
Educational services	50 %	47 %
Professional, Scientific and Technical Services	9 %	11 %
Administration publique	8 %	10 %
Health care and social assistance	8 %	10 %
The other sectors of activity employed	Less than 5 %	

Some disciplinary specificities



Public Sector

- Social sciences: 13 %
- Health: 9 %
- Humanities: 5,4 %
- Mathematics, computer and information sciences: 4,3 %
- Engineering: 4,6 %

Some disciplinary specificities



Private Sector

- Engineering: 58 %
- Science: 35 %
- Arts, Social Sciences and Humanities: 8 %

(Université de l'Alberta, 2019)

Table 4.2 Examples of General Job Titles for PhDs in Canada, by Sector

Higher Education Sector	Private Sector	Public Sector	Not-for-Profit Sector	Self-Employment and Entrepreneurial Sector
Assistant/Associate/Full professor	Scientist Researcher	Analyst Research associate	Research associate Project director	Freelance writer Independent consultant
Sessional instructor	Analyst Sales manager	Scientist School principal	Executive director Instructor	Entrepreneur
Postdoctoral fellow (PDF)		Scientific advisor		
Director of teaching and learning		Research manager		
Facility manager				
Laboratory coordinator				
College lecturer				

(Report CCA, p.77)

Examples of functions

Analysis functions

- Geographic Information Analyst
- Economic Policy Analyst

Advisory functions

- Economic and Community Development Advisor
- Research Consultant
- Senior Social Development Advisor
- Senior Science Advisor, Federal Government
- Union Research Consultant
- Advisor, Health Policy Executive and Researcher
- Ethics Counsellor

(Bangali et al., 2019)

Examples of functions



Project Management

- Archaeologist - project manager
- Project Manager, Program Evaluation

Management functions

- Head of Division Culture and Libraries
- Practice Leader in Organizational Development
- Chief of Staff of the Minister of Tourism
- Director, product management
- Director of the care center for emergency jobs
- Director of Organizational Development and Consultant
- Director of Training and Quality Assurance
- Senior Director of Operations
- Strategy and Project Director

(Bangali et al., 2019)

Unemployment rate



Findings 3 years after graduation (2015 cohort)

- 7%: for doctoral graduates
- 4%: for those with a Master's degree
- 6%: for holders of a bachelor's degree

(1st END 2018 ; StatCan, 2020c)

Unemployment rate



Overall unemployment rate (2016 census)

	Unemployment rate
PhD	5,1 %
Master's	5,6 %
Bachelor's	5,5 %

Unemployment Rate - People Under 40

Degree	Men			Women		
	2006	2011	2016	2006	2011	2016
Bachelor's	4.3%	4.4%	5.0%	5.3%	5.3%	5.5%
Master's	5.3%	5.9%	5.5%	6.9%	6.3%	6.8%
PhD	3.0%	4.1%	4.8%	5.2%	7.4%	6.5%

Data Source: Panel analysis of PUMF data for the 2006 and 2016 Canadian censuses, and the 2011 National Household Survey

Table 5.1 Unemployment Rates Among PhD Holders in Canada

	Unemployment Rate		
	Overall	Men	Women
All Graduates	5.1%	4.8%	5.6%
Discipline (Statistics Canada Labels)			
Education	4.7%	5.3%	4.2%
Visual and performing arts, and communications technologies	8.0%	6.7%	9.3%
Humanities	6.5%	6.5%	6.5%
Social and behavioural sciences and law	3.8%	4.0%	3.6%
Business, management and public administration	5.5%	5.2%	6.0%
Physical and life sciences and technologies	5.3%	4.5%	6.6%
Mathematics, computer and information sciences	4.6%	3.8%	7.1%
Architecture, engineering, and related technologies	6.5%	5.8%	10.1%
Agriculture, natural resources and conservation	5.7%	4.8%	7.6%
Health and related fields	4.1%	3.6%	4.6%
Native Language			
English	3.6%	3.4%	4.0%
French	3.3%	3.8%	2.6%
Other	7.3%	6.4%	9.2%
Acquired Degree			
In Canada	4.3%	4.4%	4.2%
Outside Canada	6.3%	5.4%	8.0%
Age (years)			
25 to 34	7.1%	6.3%	8.1%
35 to 44	5.9%	5.4%	6.4%
45 to 54	4.4%	4.3%	4.5%

Data Source: StatCan (2019a, 2019h, 2019m)

(Report CCA, p.97)



Earnings of PhD

Table 5.3 Full-Year Full-Time Earnings (2016 CAD) by Degree and Gender, Full Sample and People Under 40

Degree	Full Population					
	Men			Women		
	2006	2011	2016	2006	2011	2016
Bachelor's	\$95,755	\$96,875	\$95,228	\$66,681	\$70,308	\$71,891
Master's	\$98,458	\$101,270	\$99,001	\$76,918	\$80,554	\$81,610
PhD	\$122,547	\$127,772	\$123,556	\$91,262	\$101,885	\$107,593

(Report CCA p.104)

Degree	People Under 40					
	Men			Women		
	2006	2011	2016	2006	2011	2016
Bachelor's	\$78,623	\$78,306	\$78,602	\$59,087	\$61,070	\$61,802
Master's	\$83,634	\$81,104	\$79,036	\$63,713	\$65,201	\$66,728
PhD	\$91,190	\$89,726	\$87,038	\$69,336	\$76,872	\$76,948

Data Source: Panel analysis of PUMF data for the 2006 and 2016 Canadian censuses, and the 2011 National Household Survey

(Report CCA p.104)

