

Statistics Canada Project Proposal:
Evolution of the Union Wage Premium in Canada

**Directed Research Projects on Canadian Economic Policy for 4th
Year Students in Economics, University of Ottawa**

Name and address of organization:

Social Analysis and Modelling Division
Statistics Canada
100 Tunney's Pasture Driveway
Ottawa, Ontario, K1A 0T6

Name and title of manager and the economist that will supervise the student:

Supervisor:

Derek Messacar
Senior Research Analyst

Manager:

Rubab Arim
Chief

Short description of project or functions and how it fits in Canadian economic policy:

Preliminary analysis using Labour Force Survey (LFS) data shows the union wage premium has declined significantly over the past few decades in both the public and private sectors. The goal of this project is to explore the role of unions in wage determination and how this role has evolved over time. The student will learn to work with public-use microdata files of the LFS to estimate the union wage premium using multivariate regression and explore how this premium has evolved across sectors of the economy and demographic groups.

The role that unions play in wage formation is of renewed policy interest. For example, in 2023, there were 730 work stoppages started and 6.5 million person-days not worked due strikes, up from only 152 work stoppages and 1.8 million person-days not worked in the previous year.¹ Unions are not well-represented in sectors in which contract and gig work is the most prevalent, which may have implications for income inequality and redistribution.

Narrative about how the participating student will benefit from doing the project:

The project will be designed with the following learning objectives in mind:

- Become proficient analyzing repeated cross-sectional microdata files and summarizing complex datasets using descriptive statistics and regression-based techniques (ordinary least squares).
- Become fluent in basic statistical programming using Stata or a related software.
- Become more familiar with summarizing complex data in graphical and tabular output.
- Improve written communication skills by writing a brief report on the motivation, data, methods and results of the analysis.

¹ <https://www.canada.ca/en/employment-social-development/services/collective-bargaining-data/work-stoppages/work-stoppages-year-sector.html>.

The goal will be to produce a short report that will be suitable for publication by Statistics Canada in the *Economic and Social Reports* coauthored by the student and supervisor. A key contribution of this project is the opportunity to publish a government report. Students who are considering graduate school and particularly doctoral studies are encouraged to apply. Publication is not guaranteed.

List of clear and accessible commitments, tasks and deliverables the student is expected to meet during the term:

- Weeks 1-3: Introduction to Stata and the LFS; descriptive analysis of union vs. non-union workers, preparation of a brief literature review.
- Week 4: Replication of existing LFS analysis of union premium using regression-based analysis.
- Weeks 5-6: Preliminary analysis of union wage premium across sectors of the economy, demographic group, and effects of unions on related labour market outcomes.
- Week 7: Reading Week
- Weeks 8-10: Extended analysis building on the findings from Weeks 5-6.
- Weeks 11-12: Preparation of the written report (4-5 pages of written text).
- Week 13: Revisions to paper and final assessment.

Identification of any specific qualifications required from the student to be able to perform the research project:

Experience with Stata or a related software is required. Stata is preferred. Experience working with the Labour Force Survey or a related public use microdata file is an asset.