

IPAF 4900: Research Experience Opportunity

Project Title: *Robots and the Labour Market: Space-Time Considerations* **Term:** Summer 2020

Supervisor: Hashmat Khan

Unit: Economics

Description of project: Robots and computerization has made deep inroads in the production and distribution of goods and services in the economy worldwide. The effects of this structural change on the labour market continues to receive a lot of attention as it has profound implications for employment, wages, and economic outcomes. In this context, the linkage between robot penetration and computerization in different industries, geographical areas ('space') and employment gains/losses over time is not well understood or remains relatively unexplored in the literature.

The objective of this research project is to combine three different datasets to provide to determine the relationship. In addition, the project will also explore how policy responses aimed at retraining workers can benefit from incorporating a targeted geographic dimension.

Number of students required: One

Research duties:

- To prepare a literature review and organize bibliography
- To collect and organize data
- To conduct basic data analysis (making plots, figures, basic econometric analysis)
- Approximately 5 hours per week, 65 hours for a 12-week term or 10 hours per week, 65 hours for a 6-week term

Learning and reflection activities:

- Assigned readings related to the research topic
- An essay on an assigned topic related to the research project, involving data collection and econometric analysis

Learning outcomes:

- New knowledge of important research topics in macroeconomics
- New knowledge on how to initiate a research process
- Improved/Enhanced data organizing and data analysis skills
- Improved/Enhanced writing skills for describing and/or explaining economic issues

Evaluation Criteria:

- Essay on the assigned topic 50% (Suggested length: approximately 3000 words, plus tables, figures, references; due date: end of the 6-week or 12-week term). First draft due in the 5th week of the term
- Literature review for the research project 20% (Due date: end of the 6-or 12-week term). First draft due in the 3rd week of the term
- Data collection, data analysis for the research project 30%
- Deadlines on each of the above-mentioned evaluation criteria will be specified at the first meeting, and progress will be assessed via weekly scheduled meetings

Skills or knowledge required:

- Stata (required), Matlab (optional)

- Pre-requisite ECON 4706, A- or higher.

Any required health and safety training: None

Other considerations: Fluency in English required, example(s) of previous writing sample

Application instructions:

Participants are selected on the basis of merit and fit with the research project. Please submit a CV, transcript, and cover letter indicating why you are interested in and qualified for this research experience to the undergraduate administrator of the unit listed above. The application deadline is normally April 30th (for IPAF 4900 opportunities in the summer or fall term), August 15th (for fall and winter term opportunities) and November 15th (to take IPAF 4900 in the winter or summer term). Only students with a GPA of 9.5 or higher and at least third year honours standing will be considered.

To find out more about IPAF 4900, please visit: <http://carleton.ca/fpa/ipaf-main/>
