

# Assignment 3

## Applied Econometrics

### ECON 5645 \ 6645

Due: February 23rd, 2022 (by midnight)

Please use the provided subset of data from the 2010 Survey of Labour and Income Dynamics (SLID) to solve this assignment.

#### **Question** [10 marks]

Performing a Blinder-Oaxaca decomposition, determine the extent to which there is an unexplained gender wage gap. More specifically, examine the wage of a hypothetical female with the mean observable characteristics of a male (i.e., go from  $W$  to  $Z$ ). To explore this issue, the outcome variable will be wage (in dollars), and the explanatory variables will include years of schooling, years of experience, firm size, being in a union, being a manager, being married, and region of residence. For region of residence, use Ontario as the reference category and note that you will have to create a dummy variable for being married. Because this survey is based on a stratified sampling design, apply population weights.

In exploring the gender wage gap, present your work in a table similar to what is shown on Slide 24 of your lecture notes. However, also provide the detailed results, by variable, underneath the “Difference”, “Explained”, and “Unexplained” rows of estimates. What are the primary reasons for an explained wage gap? What are the primary reasons for the unexplained gap?