
EMPIRICAL PROJECT II

ECN 450/550

Prof. Larry Singell

Due Date: Wednesday Nov. 22

Pick **one** of the following projects. If you are an undergraduate, you can choose to work by yourself or in groups of 2 or 3. You **may** change your group from the first project. However, while persons who keep the same group do not need to contact me, newly forming groups for the second project must be submitted to me by email no later than November 8th. Failure to sign up on time will result in a grade reduction on the project of a half of a letter grade and any project submitted individually (rather than in a group) will result in a reduction of a full letter grade for any undergraduate student. If you are a graduate student, you must work independently. Your written report for the project should be 3-4 typed, double-spaced pages with 1-3 tables and/or graphs. For each project, just description of the data and trends will not be sufficient to receive a good grade. In particular, regression analysis is expected. It is very important that, in addition to presenting data, you use what you have learned in class to **analyze** and **explain** why the data show certain trends. You are tackling issues that could take up many more pages than you are given, so spend considerable time on making your report concise and to the point. This is a report for the President of the UO or the Governor of Oregon who will have at most 10 minutes to read it. Both of these projects require more independent thought than the first, since we did not cover these topics in significant detail in class. In addition to related reading material covered in the book, it may be useful to find journal articles or books on the subject to facilitate your analyses. The results from your studies will be discussed in class on the date they are due and you will be expected to participate in class discussion. Failure to be present and participate will result in you receiving a lower grade on the project.

PROJECT A: You are working in the Office of Institutional Research for the University of Oregon (UO). The recent recession and reductions in state support for higher education have caused a significant budget shortfall for the UO, and the university is considering increasing tuition to make up for lost state funding. However, President Frohnmeyer is aware that raising tuition does not necessarily increase revenue and has commissioned a study of the elasticity of demand for a UO education. You have been provided aggregate annual time-series data on in-state and out-of-state enrollment, tuition, financial aid, and other factors that might be expected to be related to the demand for a UO education for the period between 1973 and 1997. Use these data to write a report that includes the key elements listed in (1) through (5).

- 1) Show how enrollment and tuition have changed over time. Explain what might account for the observed changes.
- 2) Discuss how basic descriptive statistics might mis-represent the demand for a UO education and how an enrollment demand regression might be used to remedy some of these shortcomings.
- 3) Explain what variables might be included in an enrollment demand regression and why.
- 4) Discuss the results of enrollment demand regressions and what the results are consistent with economic expectations. Discuss whether there are missing data that might limit the interpretation of your findings.

5) Use the information provided in 1) through 4) to explain make a policy recommendation with regard to raising tuition. Give a concrete example of how tuition revenue might increase for the proposed tuition increase of 10 percent.

PROJECT B: You are working for the Department of Labor for the state of Oregon and have been asked by Governor Ted Kulongoski to head up a commission studying the possibility of raising the Oregon minimum wage to \$7.50 next year. However, given the current state of the Oregon economy, the Governor is concerned that an increase in the minimum wage might reduce employment, particularly in low wage jobs. Your office has provided you monthly employment data for the Oregon and Washington for the period between 1994 and 1999 both for total non-farm employment and employment in particular low wage sectors. These data are particularly useful for studying the minimum wage because the minimum wage was constant in both states (\$4.50 in Oregon and \$4.75 in Washington) over the period between 1994 and 1996, but was increased by an Oregon voter initiative to \$5.50, \$6.00, and \$6.50 for 1997, 1998, and 1999. Use these data to write a report that includes the key elements listed in (1) through (5).

- 1) Show how total employment and employment in the low-wage industries has changed over time. Explain what might account for the observed changes
- 2) Discuss how basic descriptive statistics might mis-represent the effect of the minimum wage on employment and how an employment regression might be used to remedy some of these shortcomings.
- 3) Explain what variables might be included in an employment demand regression and why.
- 4) Discuss the results of employment demand regressions and what the results are consistent with economic expectations. Discuss whether there are missing data that might limit the interpretation of your findings.
- 5) Use the information provided in 1) through 4) to explain make a policy recommendation with regard to the minimum wage. Give a concrete example of the proposed increase in the minimum wage to \$7.50 might be expected to affect employment.