

Exam 2

PA 515

Coupet

35 Points

For this exam, please use the dataset called “CPS Data Exam 2” and the accompanying data dictionary. Please answer each question thoroughly (answering every part of the question with precision) but concisely (in no more than two paragraphs per answer). Please submit answers on Moodle. The exam is designed to take an hour or so, but you have all day to do it. It is due for submission on Monday 11/30/21 at 11:59 pm. You can use your notes and anything from the course, but please complete the exam by yourself. Nice to have y’all in class! You should have everything you need in the prompt and data file but you can email me at jacoupet@ncsu.edu with exam questions and I’ll do my best to get back to you promptly. The data are divided into two sets in tabs: one tab is employee data from 1992, the other from 2012.

In 1993, your home state launched an Equity Pay Program (EPP) designed to remediate any gender gaps in compensation that might exist for public sector employees. The year is 2013. You are Director of Diversity, Equity and Inclusion in a very large public agency. The Governor of your state wants to know if the EPP has been working. The Governor has instructed all agency heads to report on the effectiveness of the EPP within 24 hours. The Director, to whom you report, has given this task to you. The Director wants to know, and report to the governor **a) whether there is a gender gap in compensation** and if there is, and **b) if this gap has improved since 1992.**

- 1) Using the 1992 data, the regression below in Excel (or another platform). **In your own words, interpret the R2 and the coefficient of each independent variable, and note the statistical significance.** Pay special attention to the **female** variable. (7 points)

Dependent variable: **AHE**

Independent variables: **Bachelor, Female, Age**

- 2) Now, Using the 2012 data, the regression below in Excel (or another platform). **In your own words, interpret the R2 and the coefficient of each independent variable, and note the statistical significance.** Pay special attention to the **female** variable. (7 points)

Dependent variable: **AHE**

Independent variables: **Bachelor, Female, Age**

- 3) In a memo one page or less and in accessible language, summarize your findings for the Director. Has the EPP worked? Explain the findings, other factors that may be involved, and make a recommendation about whether the EPP should continue. Is it still needed? Should it be replaced with another program? Explain. (21 points).