

# Visualization 2

Jonathan Andrew Pedroza, PhD

This visualization was for a dashboard (see [here](#)) in collaboration with the University of Oregon's Division of Graduate Studies. I met with the Vice Provost to discuss what was wanted for the dashboard. It was finally decided that a dashboard with visualizations and models examining the linear relationship between graduate students as teaching instructors and a metric of undergraduate student success. My role in this project was to clean and manipulate data for the visualizations in the dashboard. I also created synthetic data of the original data and summarized the original data to remove any chance of identifying individual graduate students. Summarized data files can be found [here](#) while the synthetic data can be seen [here](#). My role also included creating the entire dashboard and conducting the growth model analyses, and interpreting and writing a summary for the Vice Provost in a manner that would be understandable to a less technical audience on the implications of having graduate students teaching rather than adjunct faculty or tenure-track faculty.

The visualization presented here shows the average amount of full-time equivalency (FTE), or amount of time that graduate students could work, across departments at the university. Graduate employment ranges from those working approximately 10 hours a week to those that have a full-time graduate employment position at 20 hours a week. The FTE around .2 is usually from faculty hiring a graduate student for assistance with research that cannot fully hire a graduate student and pay for insurance and other benefits that is required when hiring at a .49 FTE. Some colleges cannot fully support the GEs in their departments, while others are able to fully support their graduate employees with grant-funded opportunities. That is why this visualization shows that the College of Arts & Sciences, a large college at the university, has several departments that can access grant funding, with averages being brought down in some departments due to also hiring part-time graduate employees. Additional graduate employment outside of each college and/or department also requires skills that are more likely to be present in colleges outside of the College of Design and the School of Music & Dance. For instance, graduate employment through the health center and the Division of Graduate Studies want employees with training in research, writing, and working with underserved populations; something that is common in many of the departments at higher average FTE ratings.

The code and and interactive plots (intended for html files) can be found here, along with the findings for the models in html-rendered tables.

# Average Teaching Full-time Equivalent (FTE) Across Departments at the University of Oregon

