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Data Visualization

Spring 2017

Portfolio Proposal

On Tuesday January 17, 2017, Mrs. Betsy DeVos underwent a four hour confirmation hearing to be President Donald Trump's Secretary of Education. The role of vocational programs, the validity of voucher programs, guns in schools, college campus sexual assaults, gainful employment, and grizzly bear walls are but a few of the topics discussed. Senator Sanders (I-VT) spent a moment talking about his tuition free proposal. Senator Elizabeth Warren (D-MA) spent time talking about the Federal Application for Federal Student Aid (FAFSA). Glaringly absent from this hearing, however, was a detailed discussion on access to higher education. This is surprising given so much of the 2016 election cycle was given to a debate between "tuition free" Bernie Sanders and "debt free" Hillary Clinton, to say nothing of their myriad Republican counterparts' various recommendations.

The questions I had after that hearing were as follows: What is the data on access to higher education? What factors do we measure? What does the data on these factors tell us? Is the university where I work addressing the issue of access? My proposal for this class is to produce work that visualizes available data in an attempt to begin answering the questions presented.

Research into the topic of accessing higher education has varied over many years. I am attempting to locate and use data collected within the last five years, except where historical data is necessary. Data sources include The Equality of Opportunity Project, the Council of Public Liberal Arts Colleges (COPLAC), data collected through the Census, University of Michigan’s Institute for Social Research (ICPSR), Duke University’s North Carolina Education Research Data Center (NCERDC), National Center for Education Statistics (NCES), University of North Carolina (UNC) Dataverse, and the Pew Research Center. Available at each of these sources are datasets that can be downloaded into .csv files.

In addition to these listed sources, I am working closely with the Office of the Provost, Institutional Research, and the Internal Review Board at the institution where I work (University of North Carolina Asheville) to obtain data that looks only at UNC Asheville’s work to increase access.

The data I have found has a wide range. While some sources such as UNC Dataverse looks primarily at the state of North Carolina, most of the data looks at the country as a whole. The factors included in datasets vary as well. Through the Equality of Opportunity Project alone, I have access to data that looks at race, socio-economic status, and gender. The Census data will allow me to look geographically at differences and then drill down to look at more localized data points. The NCES has a dataset that looks at first generation college students. This is of particular interest to me as I belong to that group.

Admittedly, I am limited in my exposure to various data visualizations. Instinctively, I think of these data types as bar graphs, histograms, pie charts, and line graphs. However, I was intrigued by Alex Engler’s syllabus lecture, and I would be interested to see the information done through a map visualization.