**Rice Data Bootcamp Project 2: Texas Workforce Trends**

Texas continues to be an economic growth driver for the nation, and as of April 2019 had added 294,200 nonfarm payroll employment positions over the year before - more than any other state.[[1]](#footnote-1) Every employment category tracked by the Bureau of Labor Statistics (BLS) saw increases over the prior twelve-month period - with the notable exception of Information category jobs, which were down statewide by 0.7% (approximately 1,400 positions) over the year before, even as nationwide employment in this field increased.[[2]](#footnote-2)

Different job categories have led in different regions of our diverse state: Houston’s job growth driven most by mining and manufacturing; San Antonio’s by mining and construction; Austin’s by financial services and manufacturing; and Dallas-Fort Worth’s by mining, leisure and hospitality, and professional business services.[[3]](#footnote-3)

In Project II, to be submitted by June 22, 2019, we will draw data from the Bureau of Labor Statistics (BLS), as well as other sources as needed. We will use Web Scraping to pull data from BLS on employment by sector in each of Texas’ 25 metropolitan areas as identified by the BLS. The data will be stored on either an SQL or NoSQL database, and analyzed using Python, including the Pandas library.

We will use web visualizations to create an interactive dashboard that will allow end users to easily navigate the data, including by one or more clickable maps. The maps will have multiple layers of visualization, which will be selectable by the user, allowing for robust consideration of each of the major employment categories considered by BLS.

1. “State Employment and Unemployment Summary,” Bureau of Labor Statistics (BLS), April 2019, online at: <https://www.bls.gov/news.release/laus.nr0.htm> [↑](#footnote-ref-1)
2. “Southwest Information Office: Texas Economy at a Glance,” BLS, visited June 5, 2019, online at: <https://data.bls.gov/timeseries/SMS48000005000000001?amp%253bdata_tool=XGtable&output_view=data&include_graphs=true>. See also “Databases, Tables & Calculators by Subject, Texas Information Employees, online at: <https://data.bls.gov/timeseries/SMS48000005000000001?amp%253bdata_tool=XGtable&output_view=data&include_graphs=true> [↑](#footnote-ref-2)
3. BLS data for Texas metropolitan areas, selected from: <https://www.bls.gov/regions/southwest/texas.htm#eag_tx.f.p> [↑](#footnote-ref-3)