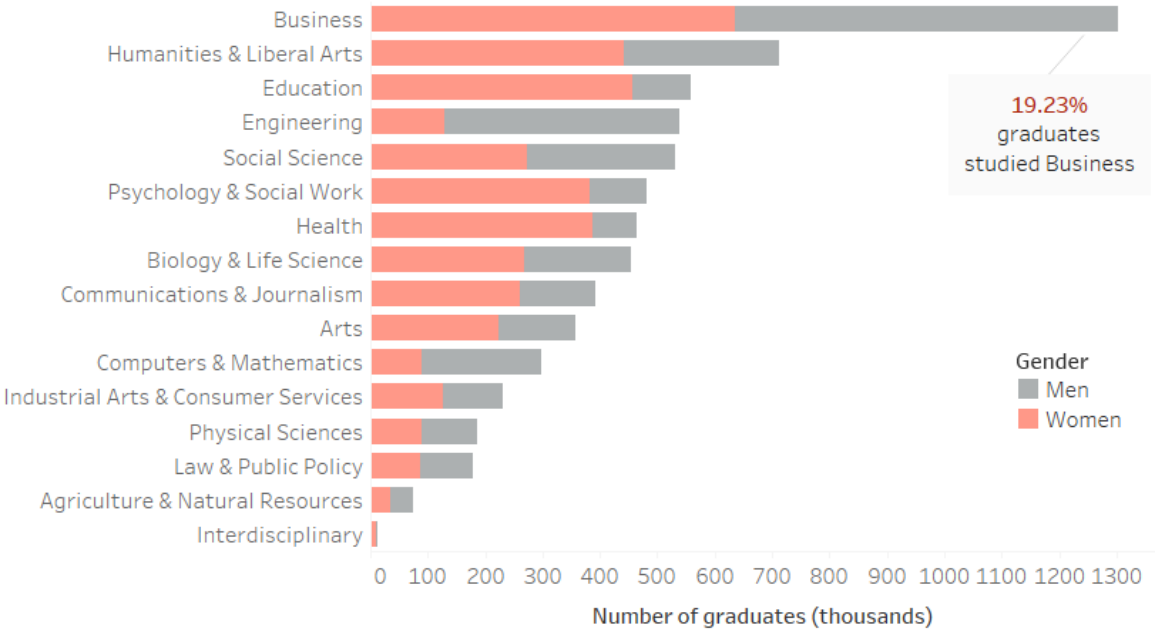
Assignment 2 – Tableau Visualization

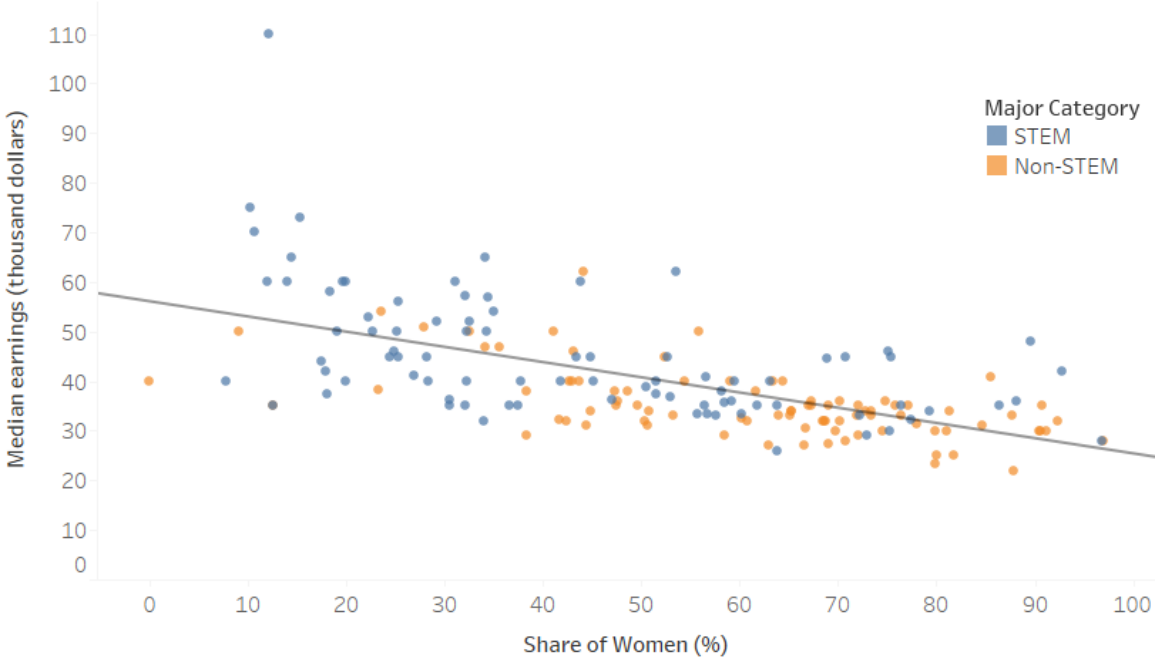
What is the most popular major category, 2010 - 2012?

Based on the data from American Community Survey (2010-2012), **Business** is **the most popular** major category for both men and women during 2010-2012.



Median earnings vs. Share of women by STEM/Non-STEM, 2010 - 2012

A **weak negative association** shows that major categories have **more women** tend to have **lower median earnings.** **Graduates with STEM** majors tend to **have higher earnings** and **more men** compare to graduates with Non-STEM majors.



Data Source: ACS Public Use Microdata Sample

Overall:

My visualization consists of two graphs based on the data of graduates during 2010-2012. The first graph illustrates the number of graduates by major categories. The main goal is trying to figure out what major categories are popular and the distribution of gender by major category. The second graph illustrates more information. It compares the relationship between median earnings and share of women by STEM/Non-STEM. Here, we found a weak negative correlation between median earnings and share of women, showing the earning gap in gender. In addition, the graph also gives us information about STEM and Non-STEM majors. We found that graduates with STEM majors tend to have higher earning and more male compare to graduates with Non-STEM majors.

1st Graph:

I used bar chart for the first graph since we have one continuous and one categorical variable. I choose horizontal bar chart since the names of major categories are long. The chart is sorted descending so we could easily tell what major categories are popular. Here, Business apparently leads among major categories. Annotation on the bar for Business emphasizes that nearly 20% of graduates in 2010-2012 choose to study Business. I used salmon pink and grey to indicate gender distribution for each major category. For example, we can tell from the graph that Education has more female graduates while Engineering has more male graduates. In Tableau, I created new calculated fields for male graduates and female graduates in thousands (Male/1000 and Female/1000) since we have large numbers (delete the 'K' after each number in axis mark).

2nd Graph:

I used scatter plot for the second graph since want to show the relationship between two variables. To present a more obvious correlation, I add trend line to the graph. I grouped the major category by STEM and Non-STEM and used different colors to indicate two different categories. The variable ShareWomen was originally displayed by decimal. I created new calculated field by multiplying ShareWomen by 100 so it could display in percentage. In Tableau, if you move to different point on the graph, you will see details about each point (STEM/Non-STEM, major, major category, sharewoman, median earnings). For both graphs, I added subtitles to deliver the major messages I'd like to deliver.