



## PUTTING YOUR MAJOR TO WORK: CAREER PATHS AFTER COLLEGE

### TECHNICAL APPENDIX

The earnings data in this analysis are drawn from the U.S. Census Bureau’s American Community Survey (ACS) 3-year file encompassing 2011 through 2013. The ACS samples approximately 1 percent of all U.S. residents each year, creating a 3-in-100 national random sample of the population. The ACS records the highest degree completed, collecting information on major field of study for those residents who completed bachelor’s degrees. Individuals with a degree beyond a bachelor’s are included, but categorized by their bachelor’s degree major. Individuals without a bachelor’s degree are dropped from the sample, as are individuals without a recorded occupation except where otherwise noted.

The ACS data are cross-sectional, meaning they record the earnings of individuals of various ages in a given year but do not follow the same individuals over time nor record how their earnings change from year to year. Census-imputed values are included in the analysis.

Earnings are defined as the sum of wages and self-employment income over the 12 months prior to the time of survey. Since the ACS is fielded continuously throughout the year, earnings from the 2011 through 2013 waves actually cover the years 2010 through 2013. For example, a respondent interviewed in January of 2011 would report earnings almost entirely in 2010, while a respondent interviewed in December of 2013 would report earnings almost entirely in 2013. Earnings data are adjusted for inflation to 2016 dollars using the CPI-U-RS price deflator.

All data, including for earnings, occupation, and additional schooling, are restricted to those people who are employed. In the accompanying interactive feature, users can get a sense of the complete employment picture by viewing the shares of people with a particular major that are: employed full-time, employed part-time, seeking work (unemployed), or not working or seeking work (not in labor force). This information is not restricted by occupation and those without recorded occupations are included.

In the accompanying interactive feature, users can also customize the earnings and employment data further by restricting the results by sex and four designated age groups (25–34, 35–44, 45–54, and 55–64). Users will notice that in some cases certain combinations of age and sex are excluded. This is due to insufficient data for that particular combination of age, sex, major, and occupation. Some majors and major-occupation combinations have very few respondents. For each age-sex combination, we exclude those majors with less than 75 respondents, as well as those major-occupation combinations with less than 15 respondents. Finally, those major-occupation combinations that account for less than one percent of all of the occupations entered into for a particular major are excluded from the analysis. (In the interactive feature, major-occupation combinations that make up 3 percent or more of a particular major and are in the eight largest occupations for that major are given a color and appear in both the “Most Common Jobs” chart and the “Annual Earnings” chart; those composing one to three percent of a particular major [or those outside the eight largest occupations for that major] are shown only in the “Most Common Jobs” chart, in gray.)

Due to the large number of majors, figure 1 and appendix figure 2 use categories provided by the U.S. Census Bureau to group individual majors into broader major fields. For figure 1, all of the workers in the



top occupations for each detailed major in each major field are summed and then divided by the total number of workers in each major field.

Figures 2, 3, and appendix figure 1 report earnings and/or occupations' share of individual majors by selected majors. Figure 2 shows earnings information for the common occupations between anthropology and CIS majors, as well as for occupations unique to each major. The bubbles in this figure are proportional to the particular occupation's share of all workers within that major.

Figure 3 compares earnings by major, restricting to those for which at least 1 percent of graduates in the major become financial managers. It shows median earnings for all occupations by major, as well earnings for financial managers by major. Again, the bubbles for the financial managers series are scaled to their share of all workers within each major.

Appendix figure 1 shows each occupation's share of all workers with anthropology and CIS majors. The bar chart is shaded to illustrate what proportion of each occupation has additional schooling beyond a bachelor's degree.

With the exception of earnings by major for all occupations, data for figures 2, 3, and appendix figure 1 are also available in the accompanying interactive.