Graduates of selective colleges earn more, but how much more? Should students consider choosing majors that seem less satisfying but offer a more secure financial future? Is attending a selective college less important for certain majors?

A new report from the Center on Law, Business, and Economics at Northwestern Pritzker School of Law examines these questions. The report, authored by Deborah M. Weiss, Matthew L. Spitzer, Colton Cronin, and Neil Chin, provides an in-depth exploration of the relationship between earnings, undergraduate major, and the decision to attend a selective school. The findings from this report provide insight that can help students decide where they want to go to school and what they want to study.

Admission to a selective college is viewed by some as a prerequisite for long-term economic success and is dismissed by others as irrelevant compared with choice of major. The truth, of course, is much more complex. Not surprisingly, earnings vary greatly by major and school selectivity, but in ways that are sometimes unexpected and that are different at less and more selective schools. Engineering and Computer Science majors seem like they would have similar earnings potential, but the study finds that at less selective schools the earnings of Engineering majors are much higher than average while the earnings of Computer Science majors are lower than average. As schools get more selective, the earnings of Computer Science majors increase at a higher rate than those of Engineering majors. At the most selective schools, graduates who majored in Computer Science earn more. (See diagram.)

The study finds that business administration, the most popular college major in the country, leads to far below-average earnings at schools of low selectivity, though it yields average earnings for graduates of more selective schools. Surprisingly, at these selective schools, the top-earning majors are not business or STEM-related but are a group of social science subjects that include economics, political science, and international relations.

Why do some majors have a higher premium than others? Why are some majors more remunerative when studied at a selective school? To answer these questions, the report identifies key characteristics of majors that are associated with earnings.

One important characteristic of an undergraduate major is whether it is occupation-specific—that is, the extent to which its graduates go into a relatively
small set of jobs, suggesting that the major provides a high degree of vocationally-relevant skills. Perhaps not surprisingly, occupationally-specific majors tend to produce higher earnings than less specific majors. However, this association becomes much weaker at more selective schools. In other words, it appears that obtaining a degree from a selective school reduces the need for an occupationally-specific major. Simply graduating from a selective school signals to an employer that a job candidate is “high quality.”

Majors that feed into jobs where mathematical skills are important receive higher earnings. Majors that lead to jobs that require strong writing skills are also associated with higher earnings, though less than math majors. Yet even a major that is strong with respect to these two academic skills is not a complete substitute for a selective school. The value of majors leading to both math-intensive and writing-intensive jobs rises at more selective colleges.

These principles explain in part the pattern of earnings by major that the report describes. Humanities majors are usually considered quintessentially impractical, but the research finds that they are about about as occupationally specific as relatively applied majors like clinical psychology and industrial/organizational psychology. Humanities majors are often assumed to be weak in math skills, but the report finds that these majors lead to more math-intensive jobs than five other groups of majors. Since Humanities majors can also lead to writing-intensive fields, their earnings-selectivity profile compares well to both the typical Social Science major and to a number of other more “practical” majors, including Communications and Engineering/Info Tech.

Overall the report’s findings show that the return on college selectivity varies greatly by major and the return on major varies greatly by selectivity. No simple generalizations accurately capture these relationships. In making educational decisions at both the individual and policy level, there is no substitute for careful examination of the relationship between major characteristics, individual majors, and selectivity.

We are grateful to Microsoft for its generous support of this research. The full report can be downloaded at https://www.law.northwestern.edu/research-faculty/clbe/workforcescience/documents/clbe_workforce_report_college_majors_22_nov_2021.pdf Questions can be addressed to Deborah M. Weiss, deborah.weiss@northwestern.edu.