

Predicting Salary After College

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What Should You Really Expect to Earn Five Years After College?

1. Introduction

Choosing a college major or stressing over grades can feel like decisions that will shape the rest of your life, and many students wonder what these choices actually mean for their future income. To help answer these questions, we analyzed real data from the American Community Survey to understand how college graduates are doing five years after earning their degree.

In this article, we walk through how factors like GPA, major, and gender relate to early-career salary. Whether you're a current student, recent graduate, or someone advising the next generation, this guide is meant to give you a clear, data-driven look at what influences earnings and what matters less than you might think.

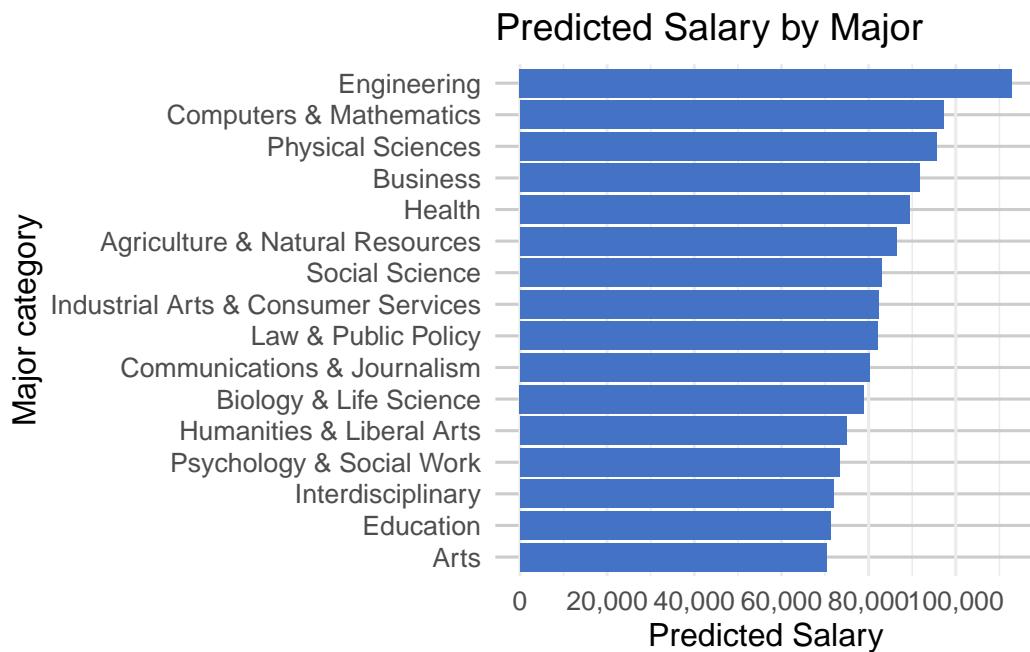
2. Impact of GPA

When looking at how grades relate to future earnings, the data shows a real, though not overwhelming, connection. On average, each one-point increase in GPA is linked to earning about **\$5,400 more per year**, with the true impact ranging between \$4,700 and \$6,100 for a person. So yes, GPA does matter, but not in the "your life depends on perfect grades" way that many students fear. A strong GPA can give you a meaningful boost, but it's far from the only thing shaping your salary after graduation.

Interestingly, the importance of GPA shifts depending on what you study. While differences across majors aren't huge, some fields seem to reward high academic performance more consistently than others. In those majors, employers may view GPA as a stronger signal of technical skill or work ethic. In other areas, experience, internships, or a strong portfolio speak louder than a transcript.

Overall, GPA matters—but it's just one piece of a much larger puzzle.

3. Salaries Across Majors



Our analysis shows clear salary differences across major categories. Five years after graduating, the highest-earning fields tend to be:

Engineering, Computers and Mathematics, and Physical Sciences

These majors consistently lead to higher predicted salaries. While salary shouldn't be the only factor when choosing a field of study, it's helpful context for students planning their path toward financial stability.

4. Salaries for Women and Men

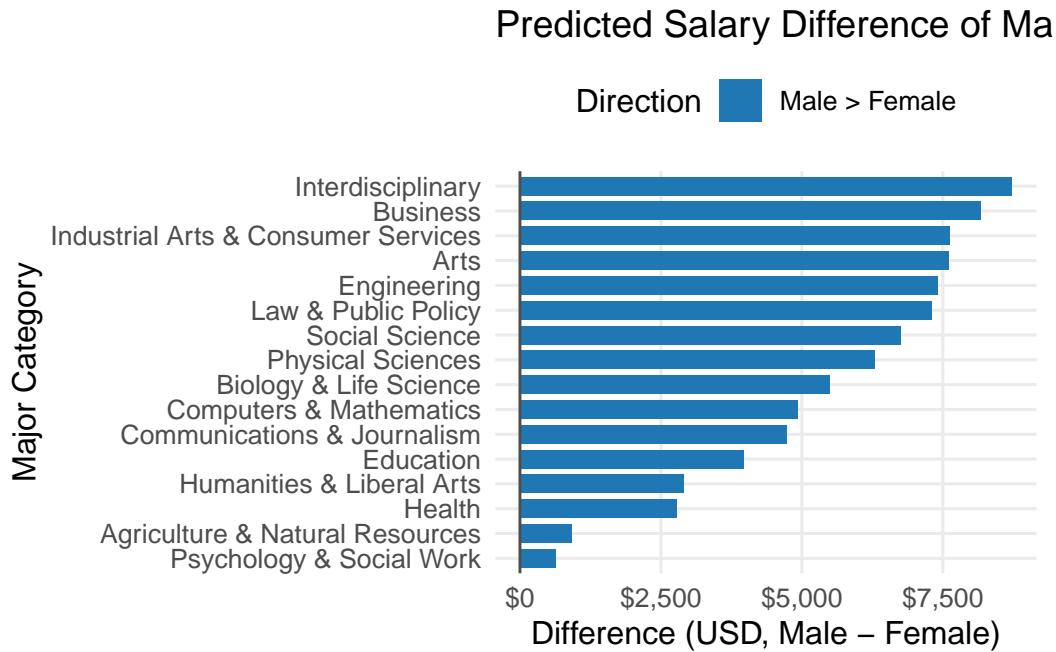
When comparing salaries between men and women within the same major category, we see a persistent difference. Even after accounting for GPA and field of study, **women earn about \$2,700 less per year** than men on average.

This gap isn't identical in every field. Some majors show very small differences, while others have noticeably larger ones. In fact, the interaction between gender and major shows that in certain categories, the salary gap can **widen or narrow** by an **additional \$1,000–\$2,300**, depending on the nature of the work and industry norms.

Looking within your own major category, these patterns highlight whether your field tends to reward men and women similarly or whether a meaningful difference exists. While the exact

reasons behind these gaps are complex, the takeaway is clear: gender-based salary differences do exist, and they don't look the same across all majors.

Understanding these patterns can help students make more informed decisions and advocate confidently when entering the job market. Here is a graph that indicates the average difference in salary between men and women for each major.



5. Other Factors — The Value of a College Education

Our model predicts a graduate's salary using only three variables—Major, GPA, and Sex—and on average is off by about \$5,700. That tells us that while these factors do matter, there's a lot more influencing income after college.

Other variables that likely play a role include: Changing industries, Further education (like a master's degree), Geographic location, Work experience and internships, and Personal interest or satisfaction with the field

To give one example of how our model performs, we randomly selected a graduate from the dataset: A **female Communications & Journalism major** with a **GPA of 3.76**. - **Predicted salary:** \$81,694 - **Actual salary:** \$77,300 - **Difference:** We over-estimated by **\$4,394**

This example shows that while our model can capture general trends well, individual outcomes still vary based on many real-life factors.

6. Conclusions

College decisions like choosing a major or caring about GPA truly do influence earnings, but they don't tell the whole story. GPA provides a helpful salary boost, but it isn't everything. Your choice of major matters, with fields like engineering and computer science leading to higher early-career earnings. Gender differences in salary persist across most majors, though the size of the gap varies widely. And finally, many factors we couldn't measure like experience, location, and personal motivation play meaningful roles in shaping future income.

Overall, students should feel empowered, not stressed: your future salary isn't determined by any single choice. Instead, it's shaped by a combination of your education, experiences, and the opportunities you pursue along the way.