

**ECO 103, Winter 2021, Required Homework Assignment #1**  
**Due by the start of class on Friday, April 16**

This assignment covers the microeconomic overview of the course. There are two objectives: 1) to have you collect some economic data and work with it, and 2) to have you apply these data to a basic model of supply and demand.

The topic for this assignment is the rising cost of higher education in the United States. We want to understand whether this is being caused by supply or demand.

**Instructions:** Answer all questions. In most cases, one or two concise paragraphs are sufficient and you should avoid the temptation to write more.

1. The National Center for Education Statistics has publicly available data on the cost of higher education in the United States and the number of students. Go to their website, find these data, and paste them into a spreadsheet (I recommend Microsoft Excel). Try to find annual data (reported every year) and get as close the present as possible. In your writeup, explain what you found and why you chose your data.
2. In your spreadsheet, calculate average values for both of your variables. Report the results.
3. Calculate the annual growth rate of the cost of attending institutions of higher education. Do the data suggest that the growth rate of college costs is slowing down?
4. One explanation for the rising costs of higher education is “cost disease.” Find a reference that discusses cost disease in higher education. Your writeup should define cost disease and provide a proper citation.
5. Using a graph of supply and demand, show how cost disease could help explain the growing cost of higher education. If cost disease is the only explanation, what should happen to college enrollments?
6. Another explanation for rising tuition costs is the increased availability of student loans and other forms of financial aid. Provide a source that discusses this possibility. Your write-up should very briefly summarize your source while also providing a proper citation.
7. Using a graph of supply and demand, show how the increased availability of financial aid could help help explain the growing cost of higher education. If this is the only explanation, what should happen to college enrollments?

8. Another explanation is that macroeconomic forces have made the earnings premium from higher education (the extra income a college graduate can expect to receive from having a college degree) higher. Would this factor work through supply or demand? If correct, does it suggest that college is a normal or inferior good?

9. A final explanation is that colleges and universities have chosen (or have been compelled by increased regulation) to hire more administrative and support personnel. Would this factor work to increase tuition through supply or demand.

10. Suppose policy makers identify a positive externality where college graduates provide benefits to the rest of society (*e.g* more innovation, lower crime, etc.). Provide a policy that could improve efficiency by increasing college attendance.

Bonus: Locate and briefly discuss a scholarly article that attempts to disentangle the effects of #4-9. Explain how the authors use empirical methods (as best you can, you are unlikely to fully grasp the technical details) to test among these different theories. What are their main conclusions for what has caused higher tuition growth?