Costs of Higher Education and Inequality

Michael Sattinger

University at Albany, State University of New York
msattinger@albany.edu

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Costs of Higher Education and Inequality

Campus Conversations,
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Michael Sattinger, Department of Economics
msattinger@albany.edu
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Questions for Today

1. Why have costs of producing higher education increased over time in the U.S.?
2. How have higher costs affected student enrollment rates and the college-high school wage differential?
3. How much income inequality is explained by the higher college-high school wage differential?
4. Why are costs of producing higher education in the U.S. greater than in other countries?

Motivation: In 2007, direct costs of higher education in U.S. were twice as high as the next two countries, Canada and Japan. (OECD, 2011)

Total expenditure on educational institutions per FTE tertiary student, in 2018 US dollars using PPP. Source: OECD, Education at a Glance 2021, Figure C1.3
Why have costs gone up over time?

Robert Archibald and David Feldman, 2010

1. Technological change proceeds more rapidly in some industries (manufacturing) than in others (services). (This is generally known as the “cost disease,” described by Baumol and Bowen, 1965.)
2. Technological change favors workers with more education, so their wages increase relative to less educated workers.
3. Technological advances raise educational costs by changing the needs of college students.

Why did the College Wage Premium Increase?

• Daron Acemoglu (2002): Skill biased technological change raised the demand for college graduates relative to high school graduates, increasing the college wage premium even though the number of college graduates increased. Problem: technology is quickly shared among developed countries, but not all countries experienced the same increase in the college wage premium.
• Claudia Goldin and Lawrence Katz (2008): In a break from its educational history, the growth in educational levels slowed down in the U.S. Problem: Goldin and Katz do not fully explain why growth in educational levels slowed down. (Their explanation: U.S. schools do not provide high quality education to less advantaged students.)

Alternative answer to why costs increase over time

Absence of Incentives (Richard Vedder, Going Broke by Degrees, 2004, p. xv)
“Why is productivity falling? The basic problem is that universities are mostly nonprofit organizations, subject to only muted competitive forces, and lacking market-imposed discipline to economize and innovate. University presidents, deans, maintenance supervisors, department chairs, and other administrators do not benefit from reducing costs.”
These answers do not explain why costs are higher in the U.S. than in other countries.
What is the link between college costs and inequality?


Postsecondary Enrollment Rates for all 18-24-year-olds. Source: Ma et al (2019), Education Pays 2019, Figure 1.1B
Mean Years of Schooling Over Time
Source: Autor, Goldin and Katz (2020)

How could increasing costs of college education in the U.S. raise the college wage premium?
• The initial increase in college costs (before a change in the college wage premium) reduces the incentive to get a college education.
• With a reduced college incentive, the growth in college graduates slows down.
• Lower growth rates in numbers of college graduates would start to raise college graduate wages relative to wages for high school graduates.
• Eventually, college graduate wages rise enough so that the incentive to attend college goes back up.

Why are costs of producing higher education in the U.S. greater than in other countries?
• Archibald and Feldman: Prestige games (wasteful competition when colleges try to get into the top ten).
• Gold Plating (amenity competition when colleges provide amenities likely to attract students).
• Faculty ratchet refers to the ability of faculty to define their positions in ways that reduce their workloads (by teaching less or shifting work to professional staff).
• Administrative lattice, the expansion of support for activities outside the classroom such as academic advising and career services, information technology services, regulatory compliance, counseling and writing centers.
• Archibald and Feldman: comparisons with the dental industry suggest these explanations are less relevant.

How much do higher college wage premiums contribute to inequality?

Conjecture on the reasons for greater U.S. costs of higher education
• Higher education in the U.S. is characterized by great differentiation in the education provided by different institutions, including but not limited to location, physical structure, accommodation of different students, faculty size, course offerings, major, history, reputation, strengths, requirements, culture and amenities.
• A consequence of this differentiation is that an institution of higher education will not lose all its enrollments if it raises charges to students, nor will it gain substantial enrollments by lowering charges.
• As a result, average costs generally go down when institutions enroll more students. Fewer institutions would reduce U.S. costs of higher education per student.
• If fewer institutions and less differentiation would reduce U.S. costs of higher education, are the differentiation, opportunities to students (including access by minorities and first generation students), and choices worth the higher costs?

Numbers of Institutions of Higher Education.
Source of Data: Digest of Education Statistics 2019, Table 317.10
Summary of Conclusions

- Costs of producing higher education have gone up and are higher in the U.S. than in other countries. The "cost disease" (slower productivity growth in services than in manufacturing) is the major explanation for why costs go up over time.
- Increasing costs of higher education explain why the college wage premium would eventually go up.
- The increase in labor income inequality comes from both the increase in the college wage premium and the increase in income differences within educational levels.
- Costs of producing higher education could be greater in the U.S. because of differentiation among U.S. institutions of higher education, with average costs at individual institutions declining with enrollments.

References

- The College Board (2020). Trends in College Pricing and Student Aid.