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The Cost of College: Student Centered Reforms to Bring Higher Education Within Reach
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Chairman Scott, Ranking Member Foxx, and distinguished members of the Committee, thank you for inviting me to this important hearing. As a researcher who strives to do policy relevant work in the area of higher education, this is truly an honor. I commend you all for your focus on this important issue. I hope that you find my testimony today useful. If I can be of any help at all to you or your staffs during the legislative process, I would be delighted to contribute in whatever way I can.

I come before you today to discuss the statistics, facts, and research surrounding college affordability and student debt. I begin by providing an overview of the price of attending college, how those prices have changed over time, and the factors which have driven those increases. I then briefly discuss our student financial aid system, including how students finance their education and the impact that various programs have on student outcomes. Finally, I discuss student outcomes both in terms of debt and the return on investment to college.

Trends in College Pricing

It is well known that the price of attending college has far outpaced inflation over the past several decades. Published tuition rates (adjusted for inflation), known as “sticker prices”, have risen by 177% (\$3,690 to \$10,230) at public four-year schools and 94% (\$18,500 to \$35,830) at comparable private institutions since 1990. Net prices, what students actually pay after receiving financial aid have risen more slowly, 75% (\$2,130 to \$3,740) at public four-year schools and 18% (\$12,390 to \$14,610) at private institutions

While it is tempting to focus entirely on net prices, the advertised sticker prices are important as well. One crucial aspect of affordability is the perception of access. There are low-income, high-achieving students who don't apply to college in part because they assume they could never afford to attend.¹ This sticker shock, and a broader difficulty navigating our complex financial aid system, is especially pronounced among students whose parents did not attend college.²

¹ Russell, Lauren and Phillip Levine and Jennifer Ma “Do College Applicants Respond to Changes in Sticker Prices Even When They Don't Matter?”

² Goldrick-Rab, Sara. Paying the price: College costs, financial aid, and the betrayal of the American dream. University of Chicago Press, 2016.

Schools often offer generous financial aid packages to students, in some cases only a very small percentage of those enrolled actually pay the full sticker price. However, since institutional financial aid typically does not include things like housing and food, low income students have been fully exposed to price increases in these markets. It is very important to keep in mind that tuition expenses make up a minority of the total price of attending college, at public four-year schools for instance tuition and fees account for only 25% of the net price.

All of this combines to give a significant advantage to students from wealthy backgrounds. In one striking example, a study³ found that high-achieving students from the low-income families were less likely to graduate from college than low-achieving students from wealthy families

Why have prices increased?

So prices have increased over time, causing particular stress among students from low and middle-income backgrounds, but what is behind these price increases? There is no single answer, and the mix of factors differs greatly across schools. Among public schools, state divestment has certainly been a contributing factor. On average, per-student support from state and local sources has declined by about a quarter (\$9,489 to \$7,152) over the past 30 years. There has been a rebound in recent years as states have recovered from the Great Recession. One trend has been the institution of “Promise” programs,⁴ aimed at keeping college affordable for low income residents.

Although the degree and reason for divestment are different for each state, the main destination of this formerly higher education spending has been the Medicaid program.⁵ By my most conservative estimates, this accounts for 50-75% of the decline in per-student higher education support. This presents a difficult budgetary challenge to states, since Medicaid has had such large, positive impacts on the well-being⁶ of recipients. States are using these funds in

³ <https://tcf.org/assets/downloads/tcf-CarnevaleStrivers.pdf>

⁴ <https://www.northcarolina.edu/prospective-students/nc-promise>

⁵ <https://www.educationnext.org/higher-ed-lower-spending-as-states-cut-back-where-has-money-gone/>

⁶ Goodman-Bacon, Andrew. "Public insurance and mortality: evidence from Medicaid implementation." *Journal of Political Economy* 126.1 (2018): 216-262.

a way which benefits the less fortunate, so there is no obvious fix from a social welfare perspective.

For this reason, we can expect states to divest further in the near future as healthcare costs continue to rise. Further complicating matters, states which expanded Medicaid as part of the Affordable Care Act are only now just starting to see declines in federal subsidies, a trend that will continue over the next few years.

In prior work⁷ I estimate that in recent years there is a pass-through rate of about a third following state divestment (e.g. a \$1,000 budget cut would lead to \$318 in increased tuition), with the remaining deficit financed through lower spending. State divestment can explain 30% of tuition increases at public institutions since the year 2000, and 41% since 2008. Importantly for students, the reduction in spending may actually be more damaging than the tuition hike, as recent work has found that spending reductions following state budget cuts led to lower graduation rates.⁸

One of the biggest drivers of price increases in higher education is known as Baumol's cost disease.⁹ The returns to very high levels of education (e.g., PhDs) outside of academia have increased dramatically over time. A big reason is that the combination of increased technology and lots of education leads to very productive workers. For example, in my field of Economics the combination of modern computing technology and econometric skills taught in most PhD programs have caused private sector salaries for economics PhDs to rise substantially. This increased competition from the private sector pushes up the salary that a university must offer to hire an economist.

This is the central problem with Baumol's cost disease, rising instructional costs are driven by market forces completely outside the control of universities. A very similar story can explain rising healthcare costs. In effect, the only way to break the cost disease is to become more productive: provide the same quality education to a greater number of students without

⁷ Webber, Douglas A. "State divestment and tuition at public institutions." *Economics of Education Review* 60 (2017): 1-4.

⁸ Deming, David J., and Christopher R. Walters. *The impact of price caps and spending cuts on US postsecondary attainment*. No. w23736. National Bureau of Economic Research, 2017.

⁹ See here for a detailed analysis of all of the factors which have led to increases in college pricing: Archibald, Robert B., and David H. Feldman. *Why does college cost so much?*. Oxford University Press, 2014.

needing to hire more professors. While many efforts involving online courses and other technology/software have tried, to date I am not aware of any substantial breakthroughs which maintain high levels of quality.

Another potential driver of price increases is the so-called “Bennett Hypothesis”, which posits that the availability of federal financial aid drives tuition higher as schools attempt to capture the benefits. Research suggests this is only a small contributing factor to the overall affordability problem in higher education. There is modest evidence¹⁰ to support this type of behavior among schools, with recent work¹¹ finding a much greater rate of capture in the private sector (50-60%) than at public institutions (25-35%).

Data limitations prevent the research community from being able to convincingly say what impact the existence of financial aid programs has on tuition levels, instead we can only evaluate the impacts of small changes over the last several decades. Given the magnitude of the changes and the rates of capture, it seems that Bennett Hypothesis-type behavior is likely responsible for some small to modest proportion of price increases (depending on the sector), but overall is not a dominant factor. The most recent work, which to my knowledge is the only study able to examine a very large change in loan generosity (looking at the market for students attending law school), found¹² no significant evidence of Bennett behavior.

Other forms of spending have increased as well, academic (tutoring, advising, etc.) and other support services (mental healthcare) have increased over time. This sort of spending¹³ does seem to improve student outcomes like graduation.

This brings me to the hot button issue of truly wasteful spending, often embodied in the press as a lazy river. Such spending is problematic on both a practical (it does not improve student outcomes) and political level. However, it is not a major factor behind the rising price of most colleges. Very few students attend the ‘fancy’ universities which are covered in the

¹⁰ https://www.newyorkfed.org/medialibrary/media/research/staff_reports/sr733.pdf

¹¹ Lau, Christopher V. "The Incidence of Federal Subsidies in For-profit Higher Education," Working Paper, Department of Economics, Northwestern University, 2014.

¹² Kelchen, Robert. "An Empirical Examination of the Bennett Hypothesis in Law School Prices." *AccessLex Institute Research Paper* 17-09 (2017).

¹³ Webber, Douglas A., and Ronald G. Ehrenberg. "Do expenditures other than instructional expenditures affect graduation and persistence rates in American higher education?." *Economics of Education Review* 29.6 (2010): 947-958.

popular press. Most students attend community colleges or regional comprehensive four-year institutions which are decidedly not glamorous schools. So, while I would be personally supportive of efforts to reduce or eliminate such spending, doing so would make little to no difference in the overall affordability picture.

Financial aid basics

So prices have gone up, for a variety of reasons, how are students paying for school? More than 40% of full time students and nearly 80% of part time students work while attending school, the majority in each category work more than 20 hours per week. 60% of college graduate leave school with some debt (averaging \$30,000), but only about 30% borrow in any given year (it is more common to borrow in later years).

The Pell grant program covers students from low-income backgrounds, currently 32% of students receive some level of Pell grants (the maximum possible annual award is \$6,095, the average grant is about \$4,000). The purchasing power of the Pell grant has declined considerably over time. In the 1970's, the maximum Pell grant covered 80% of the total cost of attendance at the average public school, today that figure is closer to 30%.¹⁴ While the proportion of students receiving Pell grants has generally increased over time, this trend is due to two different factors: increased eligibility of the program and a larger share of students from low-income backgrounds attending college.

Financial aid and student outcomes

Taking out debt to pay for college, so long as you wind up graduating, is not a bad investment. Research has shown that access to loans improves a wide range of outcomes, including attendance, GPA¹⁵, persistence, and graduation.¹⁶

Need-based aid, such as the Pell grant program (and other state/local programs), is very strongly associated with increased college enrollment. The effects on longer-term outcomes are positive, but more modest in size. A recent meta-analysis¹⁷ finds that receiving grant aid

¹⁴ <https://www.cbpp.org/research/federal-budget/pell-grants-a-key-tool-for-expanding-college-access-and-economic-opportunity>

¹⁵ http://econweb.umd.edu/~turner/Marx_Turner_Nudges_Borrowing.pdf

¹⁶ <https://asu.pure.elsevier.com/en/publications/denying-loan-access-the-student-level-consequences-when-community>

¹⁷ <https://cepa.stanford.edu/sites/default/files/wp18-04-v201803.pdf>

increases persistence and graduation by 2-3 percentage points (for comparison, the average Pell graduation rate is about 50%). The same analysis found that each additional \$1,000 in aid increases persistence by 1.2 percentage points. The impact of need-based aid appears to be highly context specific, as some well-done randomized control trials have found small to nonexistent longterm effects.¹⁸ The impact of merit aid on student outcomes is similarly context specific, but overall the impacts are smaller than that of need-based aid. Merit aid can even harm student outcomes such as graduation if it induces students to enter a lower quality college.¹⁹

Not all subsidies are created equal, however. For example, tax-credit based programs generally have little effect on behavior and are generally targeted more toward high-income households.²⁰ So any revenue generated from such programs might be better allocated towards something like the Pell grant program.

Student debt metrics

Historically, the most common way to measure the performance of loans from a given school was the cohort default rate (CDR), defined as the fraction of students who left school in a given year who defaulted within three years. Recent CDRs average 10.8% nationally, 10.3% at public four-year universities, 7.1% at private non-profit four-year universities, 15.6% at private for-profit four-year universities.

These are not apples-to-apples comparisons, as the type of student in each of these sectors can be quite different across a range of factors that are likely related to default rates. See, for instance, the recent work by Judith Scott-Clayton²¹ which examines default rates after controlling for differences in student populations.

Return on investment in higher education

The median college graduate will out-earn the median high school graduate by \$900,000 over their lifetime. Factoring in future discounting and adjusting for student characteristics, the

¹⁸ https://hope4college.com/wp-content/uploads/2018/09/Anderson_et_al_2018_Experimental-Evidence-on-the-Impacts-of-Need-Based-Financial-Aid_Longitudinal-Assessment-of-the-Wisconsin-Scholars-Grant.pdf

¹⁹ Cohodes, Sarah R., and Joshua S. Goodman. "Merit aid, college quality, and college completion: Massachusetts' Adams scholarship as an in-kind subsidy." *American Economic Journal: Applied Economics* 6.4 (2014): 251-85.

²⁰ Dynarski, Susan. "Who benefits from the education saving incentives? Income, educational expectations and the value of the 529 and Coverdell." *National Tax Journal* 57.2 (2004): 359-384.

²¹ Scott-Clayton, Judith E. "What accounts for gaps in student loan default, and what happens after." (2018).

average net present value (NPV) of a degree is still \$344,000. This return certainly differs greatly across majors²² but for the vast majority of college graduates, even academically²³ marginal²⁴ students,²⁵ college is worth the investment! I would much rather be a college graduate with \$30,000 in debt than a high school graduate with no debt.

This brings up the important notion of risk. First, college graduates will not all receive the same earnings premium. The college earnings boost will depend on many factors, including school quality, major, individual ability, and random chance. Framed in this way, college is on average a great investment, which pays off for the majority of students, but it will not pay off for everyone. My work puts²⁶ the success rate between 80% and 90% overall (this range may be higher or lower depending on school attended and major). College is a good investment which is likely to pay off, but it is not a guaranteed windfall.

Probably the biggest ‘risk’ associated with attending college is that of not graduating. Only 60% of students at four-year schools will earn a degree within six year of initial enrollment. This figure is lower at two-year schools, but is difficult to pin down precisely because a high proportion of the two-year school student population is composed of part-time and transfer students.

The majority of the financial benefits of college are tied up in attaining the degree. Students who do not complete college earn only slightly more than their counterparts with high school diplomas. This feature of the college earnings boost puts college dropouts in a particularly bad position: these students hold non-dischargeable debt and have poor prospects for paying off the debt.

The popular press likes to focus on students who have amassed extremely large sums of debt, often greater than \$100,000. While these stories are often heart-wrenching, they are

²² Webber, Douglas A. "The lifetime earnings premia of different majors: Correcting for selection based on cognitive, noncognitive, and unobserved factors." *Labour economics* 28 (2014): 14-23.

²³ Goodman, Joshua, Michael Hurwitz, and Jonathan Smith. "Access to 4-year public colleges and degree completion." *Journal of Labor Economics* 35.3 (2017): 829-867.

²⁴ Ost, Ben, Weixiang Pan, and Douglas Webber. "The returns to college persistence for marginal students: Regression discontinuity evidence from university dismissal policies." *Journal of Labor Economics* 36.3 (2018): 779-805.

²⁵ Canaan, Serena, and Pierre Mouganie. "Returns to education quality for low-skilled students: Evidence from a discontinuity." *Journal of Labor Economics* 36.2 (2018): 395-436.

²⁶ <https://www.thirdway.org/report/is-college-worth-it-going-beyond-averages>

extreme outliers and not representative of the larger student debt problem. Holding over \$100,000 in student debt is uncommon – about 5% of borrowers and 3% of students overall. Moreover, many students who amass this amount of debt attend graduate and professional schools and will obtain good jobs that enable them to pay down their debt. This is reflected in the lower default rates among individuals with \$100,000 in debt relative to those with small debt loads (\$5,000 to \$10,000).²⁷

The excessive focus on borrowers with very large debt loads can be a problem for public policy because it distracts focus away from the larger problem of non-completion. The true student debt crisis is concentrated among those borrowers who did not obtain the degree. Addressing non-completion should be a top priority for future research and policy, and will allow us to provide real solutions to the most vulnerable college-attenders.

Thank you again for the chance to testify, and for the time you are spending as a committee examining this important topic. Higher education is an investment in the future, and I think that in general there is broad and bipartisan agreement on what the problems are with respect to affordability and the ways that we can move forward.

²⁷

https://libertystreeteconomics.newyorkfed.org/2015/02/looking_at_student_loan_defaults_through_a_larger_window.html