



Statement before the United States Congress Joint Economic Committee
Hearing on Financing Higher Education:
Exploring Current Challenges and Potential Alternatives

Reforming Higher Education Finance to Align the Incentives of Colleges, Students, and Taxpayers

Dr. Andrew P. Kelly
Director, Center on Higher Education Reform
American Enterprise Institute

Wednesday, September 30, 2015

The views expressed in this testimony are those of the author alone and do not necessarily represent those of the American Enterprise Institute.

Good morning, Chairman Coats, Ranking Member Maloney, and distinguished Members of the Committee, and thank you for giving me the opportunity to share my views on the concept of financing higher education.

My name is Andrew Kelly and I am the director of the Center on Higher Education Reform at the American Enterprise Institute, a non-profit, non-partisan public policy research organization based here in Washington, DC. My comments today are my own and do not necessarily reflect the views of AEI.

I'm here today to discuss important concerns about our current approach to student financial aid and to identify some possible solutions, both reforms to current policy and opportunities to leverage private financing more effectively.

The federal government now hands out more than \$150 billion a year in grants, loans, and tax credits—up from \$93 billion just ten years earlier.¹ On a per-pupil basis, federal aid disbursements increased from just over \$7,450 in 2003-04 to more than \$10,900 in 2013-14 (in constant 2013 dollars).² Yet net prices—what students pay after grants and scholarships—and out-of-pocket costs are at all-time highs.³ Though we are spending about twice as much on the Pell Grant program as we did prior to the Great Recession, the purchasing power of the grant is at an all-time low.⁴ Meanwhile, new data on loan repayment suggests that many students are borrowing too much for programs that do not pay off in the labor market.⁵

What explains these trends? Many analysts have argued that the problem is not that federal aid has failed to keep up with the price of tuition, but that federal aid itself may be one of the forces driving those increases. Grants, loans, and tax credits bring down the out-of-pocket price for students, thereby enabling them to afford more than they would have in the absence of the aid. But these programs provide colleges with little incentive to contain their costs, and may provide reason to increase them. How much a student can borrow is based on the cost of attendance, which is set by colleges themselves; the higher their prices, the more aid their students are eligible for. While undergraduate loans have annual and lifetime borrowing limits, federal loans to parents and graduate students allow for unlimited borrowing up to the cost of attendance.

Research on the causal effect of federal aid on tuition prices—popularly named the “Bennett Hypothesis” after former Secretary of Education William Bennett—has tended to produce mixed findings across sectors, aid programs, and time periods. A handful of recent, well-designed studies suggest that federal aid does lead at least some types of colleges to change their sticker and net prices. This literature suggests that different aid programs—loans versus grants, for instance—have different effects on tuition prices, and that different types of colleges will vary in their response to changes in federal aid programs.

In this testimony, I will argue that while the Bennett Hypothesis has been a useful lens in explaining why expansions in federal aid have failed to keep out-of-pocket prices low, it examines just one facet of the challenges facing federal policymakers. On the positive

side, it has helped to clarify the incentives colleges face and why simply spending more is unlikely to bend the cost curve. In the extreme, it warns us that federal aid is doing the opposite of what it was designed to do: inflating prices rather than reducing them.

But the focus on price increases pays too little attention to a more pressing problem—the failure of student aid policy to promote educational quality. Put another way, tuition inflation is one important symptom of a broader problem: federal aid provides loans to high school graduates with essentially no questions asked, and allows those loan dollars to flow to any accredited college regardless of whether they provide a valuable education. Easy credit with no underwriting and imperfect information leads to a scenario where—per the Bennett Hypothesis—colleges can raise tuition prices without changing the quality of the education and still attract paying customers. Federal loans also allow students to enroll in low-value programs—those that are overpriced relative to their quality. Even if these institutions do not *raise* their prices in response to changes in federal aid, the availability of loans enables them to charge more for their programs than they would be able to in the absence of that aid.

Note that in both scenarios—Bennett’s “greedy colleges” that raise tuition to capture federal aid and the poor programs that are able to overcharge—public money designed to make college more affordable only serves to make it more expensive than it should be. But while solutions to the former—stricter loan limits or an elimination of the loan programs altogether—may reduce tuition prices, they may not help students navigate to the most valuable options.

In the remainder of this document, I discuss the four major design flaws in the student aid system before summarizing the evidence on the so-called Bennett Hypothesis. I then discuss what I see as a crisis of value in American higher education and conclude with a discussion of potential solutions to these problems: stricter loan limits, better data for prospective students, improved federal accountability policies, and private sector financing alternatives.

Four Design Flaws in the Federal Student Aid System

Before discussing the existing evidence on the relationship between federal aid and tuition prices, it is useful to take a step back and examine the way the federal aid system distorts the higher education market. In theory, federal grants, loans, and tax credits should finance a market where consumers “vote with their feet” for the schools that provide a quality education at a reasonable price. In the aggregate, these market forces should give colleges incentive to contain their costs and improve their programs.

Unfortunately, the market does not operate as designers hoped it would for four main reasons.

First, the federal aid system essentially empowers colleges to capture as much federal aid as they can—both by increasing sticker prices of tuition but also through price discrimination. Federal aid programs determine how much aid a student is eligible to

receive by comparing a students' "Expected Family Contribution" (generated by a formula that incorporates family income and family size) to the cost of attendance. Institutions set their own cost of attendance, and as it increases, so does the amount of aid students receive. Researcher Andrew Gillen has described this as "an invitation to raise tuition" and a main driver of the Bennett Hypothesis.⁶ Undergraduate loans feature annual and lifetime limits, but loans for parents and graduate students (PLUS Loans) allow for unlimited borrowing up to the cost of attendance.

But a college's ability to capture aid goes further. The government provides colleges with detailed financial information for every prospective student who fills out a Free Application for Federal Student Aid (FAFSA), empowering colleges to price discriminate, or tailor net tuition prices to how much a family is able to pay. Colleges are able to use that information to identify which students will receive federal need-based grants and can then shift institutional resources away from those grant recipients and toward other students. In other words, they can use federal grant aid to supplant, rather than supplement, their own resources. Instead of bringing down net prices, then, federal grants crowd out institutional aid.

Second, a lack of clear, comparable information on costs and quality makes it difficult for consumers to identify the most valuable options, reducing market pressure to keep tuition prices low. Consumers typically lack the information necessary to assess the value of different programs—that is, the cost relative to the quality. Systematic data on student outcomes like learning, job placement, and earnings are still nonexistent or rare, while information on inputs (spending, admissions selectivity, and faculty-student ratios) are readily available and enshrined in popular rankings. The dearth of data on the value of different options hinders consumers' ability to make prudent borrowing decisions, and the ready availability of federal money provides less incentive to invest wisely.

In the aggregate, this lack of transparency blunts the kind of competition that could put downward pressure on tuition prices. Colleges compete for students on the basis of inputs rather than the value of the education they deliver.⁷ Competition on inputs actually leads colleges to spend and charge more, behavior that is made possible by access to federal aid. Though the newly released College Scorecard data provides information on the median earnings and repayment rates of alumni at different institutions, these data only cover recipients of federal student aid and are still not systematically available at the program level. Without these data, thousands of students every year borrow to enroll in colleges and programs that cost far more than they are actually worth.

Third, there is almost no underwriting in federal student lending. In a rational market, lenders would likely limit students' ability to borrow for low-value programs; not so with federal loans. Any high school graduate can borrow to attend any accredited college, no matter how prepared for college that graduate is or how poorly that college prepares its students for success. Parent PLUS loans feature a basic credit check, but it is backward-looking and not based on the quality of the program the child wishes to attend. Students get identical loan limits and interest rates whether they enroll in a top college or one that fails to graduate 90 percent of its students. As such, federal loans and grants provide no

signal to students about the quality of different offerings and allow them to enroll in poorly performing schools.

Fourth, this lack of underwriting would be less of a concern if policymakers limited access to federal aid to quality programs and kicked poor-performing schools out of the system. Unfortunately, federal eligibility criteria are far too generous, making it very difficult to lose access to grants and loans. Accreditors rarely revoke colleges' accreditation, and institutions maintain full access to federal aid so long as fewer than 40 percent of their alumni default on their loans within three years of entering repayment (or this Cohort Default Rate (CDR) does not exceed 30 percent for three consecutive years). Even then, colleges have a number of grounds on which to appeal the Department of Education's decision.

The end result: very few colleges are ever kicked out of the federal aid system. Just 11 colleges have been sanctioned in the last decade.⁸ Meanwhile, almost 500 colleges had cohort default rates above 25 percent in 2014,⁹ and new data on repayment rates shows that more than one-third of borrowers failed to pay down a dollar of principal within three years.¹⁰ Access to federal aid does more than just inflate tuition; it props up colleges that would never have passed a market test.

In short, the problem is not only that we make so much money available in student aid, but that we make so much money available with very few strings attached.

The Bennett Hypothesis: One Symptom of a Distorted Market

Of the possible consequences of these design flaws, the Bennett Hypothesis has received the most scholarly attention. In a 1987 op-ed that launched this debate, then-Secretary of Education William Bennett argued:

If anything, increases in financial aid in recent years have enabled colleges and universities blithely to raise their tuitions, confident that Federal loan subsidies would help cushion the increase. In 1978, subsidies became available to a greatly expanded number of students. In 1980, college tuitions began rising year after year at a rate that exceeded inflation. Federal student aid policies do not cause college price inflation, but there is little doubt that they help make it possible.¹¹

Note that Bennett readily admitted that aid policies do not “cause” tuition inflation. Nevertheless, researchers have spent decades trying to document a causal link between increases in the availability of federal aid—higher loan limits, larger Pell Grants, or changes in student or institutional eligibility—and the sticker price of tuition. In its crudest form, the Bennett Hypothesis implies that for every dollar increase in federal aid, colleges will increase their prices by a dollar. Given the link between aid eligibility and the cost of attendance, the theory has intuitive appeal.

The topic has been hotly debated among scholars, college leaders, and advocates, in part because the results of these studies have generally been mixed. Most studies have found evidence for the Bennett Hypothesis among particular sectors of higher education but not others and for some aid programs but not others.

For instance, some studies have found Bennett effects in public colleges but not at private ones, while others have found the opposite. In one of the earliest studies of the hypothesis, Michael McPherson and Morton Shapiro examined data from 1978 to 1985 and found no evidence among private colleges but found that every \$100 dollar increase in federal aid led public colleges to raise their tuition \$50.¹² More than ten years later, Michael Rizzo and Ronald Ehrenberg found a similar effect among 91 public flagship universities.¹³ However, Bridget Terry Long found no evidence that four-year public or private colleges increased tuition in response to federal tax credits, but that public two-year colleges did.¹⁴ And a 2001 National Center for Education Statistics (NCES) analysis of tuition prices from 1988 to 1998 found no relationship between federal loans or grants and tuition prices across all institutional categories.¹⁵

Other studies have found evidence for the Bennett Hypothesis among private institutions. Larry Singell and Joe Stone found evidence that Pell Grant expansions caused increases in net tuition at the most selective private non-profit universities but not among public or lower-ranked private institutions.¹⁶ Stephanie Cellini and Claudia Goldin compared prices at private, for-profit colleges that were eligible to receive federal Title IV aid to similar for-profits that were not eligible. They found that tuition prices were 75 percent higher at aid-eligible for-profits—essentially a dollar increase in tuition for every dollar in federal grant aid.¹⁷ A 2015 study from the Federal Reserve Bank of New York took a closer look at the effect of federal loan changes and found lower pass-through rates, with each additional dollar in subsidized loans raising tuition 60-70 cents. The effects of Pell Grants (25 to 50 cents on the dollar) and unsubsidized loans (30 cents) were smaller and less robust to additional control variables. The Bennett effects were most pronounced among expensive, moderately selective private institutions.¹⁸

A subset of research has examined how grants and tax credits affect the way institutions price discriminate. Two recent analyses have found evidence that colleges shift institutional aid away from beneficiaries of federal grants and tax credits, effectively “capturing” the federal aid. University of Maryland economist Lesley Turner has found that institutions capture about 12 percent of Pell Grant aid via price discrimination, and that the capture rate was much higher at elite private institutions (about two-thirds of Pell Grant aid) than at public ones.¹⁹ Similarly, in a study of tax benefits, Treasury Department economist Nicholas Turner found that federal tax credits crowded out institutional aid roughly dollar-for-dollar.²⁰ In other words, federal grants and tax credits may simply supplant (rather than supplement) institutional aid, blunting their ability to lower net prices.

Refinements to the Hypothesis

Thus, the existing research on the Bennett Hypothesis is not conclusive (and sometimes contradictory), but most studies find some evidence that at least some types of colleges respond to changes in federal aid by raising tuition prices or shifting institutional aid. The type of college implicated varies across studies, however. And with the exception of the recent New York Fed analysis, few studies have looked specifically at the effect of student loan programs. Finally, these studies are observational, not experimental, making

it difficult (if not impossible) to determine causality.

It is important to note, though, that whether federal student aid *causes* an immediate increase in tuition is different from asking whether such aid *enables* colleges to raise tuition when they need or wish to raise revenue. Indeed, the focus on short-term causal effects likely understates the effect that federal aid has on the incentives for colleges to keep tuition low. Selective colleges pursuing prestige will seek out the resources needed to spend more on the kinds of amenities and student services that can attract top students. Less selective public institutions must find ways to cover their costs in the event that per-pupil funding from the state declines (as it has over the past decade).²¹ And open-access for-profit colleges, under pressure to maximize shareholder returns, may have incentive to raise tuition when policymakers increase aid.

In each case, faced with a choice of whether to contain costs or raise tuition prices, most institutional leaders will opt for the latter. The former would be difficult and contentious and may even hurt a school's ranking.²² The latter allows schools to maintain or increase spending and keep their cost structure intact, and higher tuition prices may actually help colleges attract better students.

Researcher Andrew Gillen has convincingly argued for a refinement of the Bennett Hypothesis that acknowledges these two ideas—that many colleges compete for prestige by spending more, and that this competition is a dynamic process that plays out over time. Selective colleges compete largely on the basis of the inputs to the educational process rather than the value of the education they provide. The availability of federal aid enables colleges to practice what economist Howard Bowen called the “revenue theory of costs:” colleges will spend whatever they need to in pursuit of prestige, leading them to raise all the money they can and spend all the money they raise. And because prestige is positional, colleges will feel compelled to raise and spend more as their peers do. Though only some schools raise tuition immediately in response to increases in aid, their competitors may follow suit in the years following in order to keep up in the “arms race.”²³ Over time, this competition raises costs and tuition across the board.

Gillen has also pointed out that it makes little sense to lump very different federal aid programs together under one Bennett Hypothesis, as grants, loans, and tax credits are likely to have different effects on pricing behavior.²⁴ Specifically, he argues that need-based aid (like Pell Grants) will have less of an effect on tuition prices than programs that provide money to students across the income spectrum (like loans and tax credits). Differences across loan programs are also likely important; PLUS loans for parents and graduate students, which allow for unlimited borrowing up to the cost of attendance, seem especially likely to inflate tuition. However, I am not aware of rigorous research that has examined this question.

More Than Tuition Prices: Federal Student Aid and Higher Education Quality

While research on the Bennett Hypothesis has focused primarily on how the student aid system affects tuition levels, the link between federal aid policy and higher education quality—the other side of the value proposition—has gotten less attention. But increasing

evidence suggests that we not only have an affordability crisis in American higher education, we have a value crisis as well. The wages of recent college graduates have actually declined over the past decade, meaning students are paying more for a lower return.²⁵ And that is among students who complete a degree; among the 40 percent who fail to finish, the average drop-out now earns about as much as a high school graduate.²⁶ Drop-outs are also much more likely to default on their loans.²⁷

Even at institutions with the lowest tuition prices, like public community colleges, student success rates are low and default rates are high. New data drawn from tax returns and the National Student Loan Data System suggest that more than one-third of student loan borrowers who started at public community colleges in the most recent cohorts defaulted within five years of entering repayment. These same data show that 64 percent of community college borrowers entering repayment in 2012 actually owed more two years later (which suggests their payments are not keeping up with interest).²⁸

Across all colleges, the five-year default rate for the 2009 cohort was 28 percent—more than double the three-year rate used in official federal regulations. Fully 57 percent of borrowers entering repayment in 2012 owed more two years later; at for-profit colleges, that was true of 74 percent of borrowers.²⁹ The Consumer Financial Protection Bureau estimates that the average balance on a defaulted loan is about \$14,500.³⁰ These numbers suggest that students are having trouble repaying even modest debt loads, which in turn raises serious concerns about the quality of the education they received.

New data on graduate earnings, furnished by the College Scorecard, support that conclusion. Department of Education researchers found that “at 53 percent of institutions, more than half of alumni are not even earning more than a typical high school graduate within six years after starting at the school.”³¹ Not surprisingly, at nearly 350 colleges in the database, more than half of alumni had either defaulted on their loans or failed to pay down a dollar of principal within seven years after enrolling.³²

In other words, the availability of federal aid not only creates little incentive to keep tuition under control; it also encourages any high school graduate to enroll in any accredited college, no matter how lousy. Low-quality programs, even inexpensive ones, waste taxpayer dollars and fail to raise skill levels or educational attainment. College not only costs too much; many colleges and programs cost far more than they are worth.

Potential Solutions

If policymakers are primarily concerned about reining in the price of tuition—of halting Bennett effects—solutions include limiting or eliminating federal student loan programs and moving away from basing aid eligibility on where institutions set the cost of attendance.

It is important, though, to avoid falling into a trap on this front. Cutting aid, including eliminating the student loan programs entirely, would almost certainly reduce prices in the near term (and eliminate poor-performing colleges). But it would also prevent many

students from accessing opportunities that would benefit them. A dramatic reduction in student aid would therefore have consequences for the economy. Similarly, adhering to a national cost of attendance estimate might leave students unable to access programs that are costlier to provide but that provide a sizable return on investment (that is, STEM degrees, allied health credentials).

A more fruitful approach would be to pursue reforms that encourage colleges to compete on price and value. Four such reforms stand out.

Cap Loan Programs that Allow Unlimited Borrowing and Reform Loan Forgiveness

Undergraduate loans already come with annual and lifetime limits (\$31,000 for dependents, \$57,500 for independents).³³ Capping or eliminating the Parent and Grad PLUS loan programs that allow unlimited borrowing up to the cost of attendance seems like a straightforward way to eliminate one potential source of tuition inflation. Though these loans have low default rates overall, they allow students to attend any program at literally any price.

Likewise, policymakers should reform income-based repayment and loan forgiveness programs that currently provide little incentive for students to borrow prudently or for institutions to keep tuition low. Thanks to generous public sector loan forgiveness, some graduate student borrowers face no marginal cost on dollars borrowed above a particular threshold, sending a green light to institutions to raise tuition.³⁴ Allowing students to tie payments to their income is a reasonable protection, but policymakers must ensure that these programs do not create perverse incentives for institutions.

Improve Transparency

One way to encourage schools to compete on value is to empower consumers with better information about costs and student outcomes. As Andrew Gillen has argued regarding the Bennett Hypothesis, “the clearest way to escape . . . is to change the nature of competition.”

Colleges compete in a zero-sum game based on prestige because they cannot compete based on value, and they cannot compete based on value because measures of both quality and price (net tuition) are obscured. If information on those two were available, the pursuit of excellence would be replaced by the pursuit of value . . .³⁵

Experimental evidence suggests that providing prospective students (or their parents) with additional information can shape preferences and choices.³⁶

Policymakers have made progress on this front, requiring colleges to create net price calculators that provide students with an estimate of what students like them paid to attend after grants and scholarships. The College Scorecard also breaks out net price estimates by income group. On the outcomes front, the Scorecard contains institution-level data on median earnings, as well as the percentage of alumni earning more than a high school graduate and making progress in repaying their loans. But these data only cover recipients of federal student aid, and outcomes are not available at the program

level. A handful of states have collected and reported program-level earnings data for graduates from their public universities, but states cannot collect data on students who cross state lines and do not have measures of student loan repayment.

The federal government could improve consumer information by combining postsecondary data from institutions and wage or tax records from other agencies. However, there is currently a ban on collecting these kinds of data that was put in place in 2008. To ensure students are equipped to reward valuable providers with their business and avoid those with poor outcomes, policymakers should consider repealing the ban. They could then make new data available to third parties that can build all manner of user-friendly ratings and rankings.

Implement a Performance Floor and Risk-Sharing for Federal Loans

Policymakers should replace the primary federal higher education regulation—the CDR—with two simple accountability mechanisms: a performance floor that would kick the worst-performing institutions out of federal aid programs and a risk-sharing policy that would give institutions skin in the game.

The most basic element of these new rules should be a performance floor under which institutions are no longer eligible to receive Title IV funds. A performance floor should not be built around loan defaults, because students can enroll in forbearance to avoid defaulting even when they are not paying back their loans. A better option would be to use a measure of loan repayment rates. Such a measure would assess the proportion of students who are making progress in paying down their loan balance. This measure would be straightforward and readily understandable by all system participants. It would also hold institutions accountable for students who are taking advantage of existing repayment protections but are not in fact making progress in paying down the principal.

When it comes to setting standards, using a norm-referenced threshold could alleviate concerns about setting an arbitrary cutoff for a relatively new metric. By comparing institutions to national averages, such a policy would also reflect fluctuations in the economy that affect all providers.

To ensure that colleges above the performance floor still have incentive to improve, policymakers should consider a risk-sharing policy, whereby institutions are on the hook financially for loans their students fail to repay. The current CDR rule is all-or-nothing, giving institutions just below the thresholds little reason to improve. Giving all institutions some “skin in the game” by holding them responsible for a percentage of their students’ loans that go unpaid would change that. Institutions would have incentive to contain their tuition costs, maximize rates of student success, and reconsider their admissions standards.

There is an emerging bipartisan push to create such a risk-sharing system, but questions remain. To ensure that institutions still have incentive to enroll low-income students, reformers could pay a financial bonus for Pell Grant recipients that graduate. In addition,

a risk-sharing policy must take pains to distinguish borrowing for tuition from borrowing for living expenses. Currently, colleges cannot limit the amount of federal money that students are able to borrow, and some complain that they are held accountable for borrowing over which they have little control. Policymakers should monitor a current experimental sites project that allows a subset of institutions to limit borrowing.

Create Space for Private Financing

One way to inject more market discipline into higher education finance is to rely on private financing options. Unlike the federal government, private lenders and investors would, in theory, have incentive to underwrite loans on the basis of the expected value of particular postsecondary options. Under such a system, students would be unable to secure financing for programs with no return on investment, and loan terms would reflect the value of different options, thereby sending a signal to students about where to invest.

Unfortunately, the existing private student loan industry does not appear to be “forward-looking” in this way. Evidence suggests that the overwhelming majority of private student loans require a credit-worthy co-signer; as of 2014-15, nearly 94 percent of private student loans were co-signed.³⁷ In the aftermath of the recession, lenders have “[tightened] credit standards and [reduced] lending to nonprime borrowers.”³⁸ Rather than enabling students to borrow on the basis of their future earnings, therefore, existing private lenders appear to be underwriting based on traditional measures of risk, such as a parent’s FICO score. This is understandable, but it suggests that relying only on existing private loan products could leave many low-income students without the ability to finance programs with a positive return.

Income Share Agreements (ISAs) are an alternative source of private financing that has received considerable attention in recent years. Under an ISA, private investors provide the tuition money up-front in return for a fixed percentage of a student’s income over a set period of time. An ISA is not a loan, as there is no principal balance; students pay back according to their income, meaning those who are less successful after school will likely pay less than they received in financing. On the other hand, students who are more successful will repay the initial amount and potentially much more, though always with affordable payments.

Because the investors’ return depends on how successful the student is after school, the investors have a strong incentive to help students find institutions that provide a return on investment and to provide them with support during and after their studies. Some ISA funders also tailor the terms of the contract depending on the expected economic value of an institution or program, sending students a clear signal about the value of different options.

Note that ISAs would drive students toward the most valuable options, not necessarily the least expensive. This would be a significant improvement from the existing system. Providers who charge far more than their program is worth would have a hard time attracting ISA funds, while those that provide a quality education at a reasonable price

would win market share. Like transparency reforms, forward-looking private financing could improve market discipline.

While there is currently a small market of ISA providers, legal and regulatory uncertainty has stunted their ability to expand. Questions about the enforceability of ISA contracts and the regulatory agency that will oversee these instruments remain open. Likewise, effectively underwriting ISAs requires access to program-level data on the earnings of graduates, information that is currently available in only a handful of states.

It is also important that federal policymakers put adequate consumer protections and standards in place regarding ISAs. A colleague of mine, along with a coauthor from New America, recently published a paper outlining a consumer protection framework for ISAs, one that adapts traditional consumer protection tools used in a lending context to the structure of ISAs. These protections have been incorporated into a legislative proposal from Representatives Young and Petri.³⁹

ISAs are not a substitute for all federal student aid, but could serve as a useful complement. Students who receive federal aid but have unmet need above current loan limits could use ISAs instead of Parent PLUS loans or private student loans, which offer few protections should problems arise after graduation. And because ISA investors would seek to nudge students toward options where they are likely to be successful, this private capital would help steer existing federal investments to more productive ends.

I appreciate the opportunity to provide testimony. I am enthusiastic about the Committee's focus on this topic and believe that these reforms can help to align the incentives of institutions, students, and taxpayers.

¹ College Board, "Total Student Aid and Nonfederal Loans in 2013 Dollars over Time," Trends in Student Aid, 2014, <http://trends.collegeboard.org/student-aid/figures-tables/total-student-aid-nonfederal-loans-2013-dollars-time>.

² College Board, "Federal Aid Per Full-Time Equivalent (FTE) Student in 2013 Dollars, 1993-94 to 2013-14," Trends in Student Aid, 2014, <http://trends.collegeboard.org/student-aid/figures-tables/federal-aid-per-student-type-time>.

³ U.S. Department of Education, National Center for Education Statistics, "Out-of-Pocket Net Price for College," April 2014, <http://nces.ed.gov/pubs2014/2014902.pdf>.

⁴ Congressional Budget Office, *The Federal Pell Grant Program: Recent Growth and Policy Options*, September 2013, www.cbo.gov/sites/default/files/cbofiles/attachments/44448_PellGrants_9-5-13.pdf.

⁵ U.S. Department of Education, *Better Information for Better College Choice & Institutional Performance*, September 2015, <https://collegescorecard.ed.gov/assets/BetterInformationForBetterCollegeChoiceAndInstitutionalPerformance.pdf>.

⁶ Andrew Gillen, *Introducing Bennett Hypothesis 2.0*, Center for College Affordability and Productivity, February 2012, http://centerforcollegeaffordability.org/uploads/Introducing_Bennett_Hypothesis_2.pdf.

⁷ Research suggests that average-achieving prospective students select colleges that spend more on amenities and that consumers equate higher prices with higher quality. See Brian Jacob, Brian McCall and Kevin M. Stange, "College as country club: Do colleges cater to students' preferences for consumption?" (working paper 18745, National Bureau of Economic Research, Cambridge, MA, January 2013), www.nber.org/papers/w18745.pdf.

⁸ Michael Stratford, “A Tougher Test for Colleges,” *Inside Higher Ed*, September 23, 2015, www.insidehighered.com/news/2015/09/23/new-college-scorecard-repayment-data-fuels-debate-over-accountability-higher-ed.

⁹ Author’s calculations from U.S. Department of Education, Federal Student Aid, “Three-year Official Cohort Default Rates for Schools,” May 11, 2015, www2.ed.gov/offices/OSFAP/defaultmanagement/cdr.html.

¹⁰ Michael Stratford, “A Tougher Test for Colleges,” *Inside Higher Education*, September 23, 2015, <https://www.insidehighered.com/news/2015/09/23/new-college-scorecard-repayment-data-fuels-debate-over-accountability-higher-ed>.

¹¹ William J. Bennett, “Our Greedy Colleges,” *New York Times*, February 18, 1987, www.nytimes.com/1987/02/18/opinion/our-greedy-colleges.html.

¹² Michael S. McPherson and Morton Owen Schapiro, *The Student Aid Game: Meeting Need and Rewarding Talent in American Higher Education* (Princeton, NJ: Princeton University Press, 1998).

¹³ Michael J. Rizzo and Ronald G. Ehrenberg, “Resident and Nonresident Tuition and Enrollment at Flagship State Universities,” in *College Choices: The Economics of Where to Go, When to Go, and How to Pay For It*, ed. Caroline M. Hoxby, National Bureau of Economic Research, (Chicago, IL: University of Chicago Press, September 2004), www.nber.org/chapters/c10103.pdf.

¹⁴ Bridget Terry Long, “The Impact of Federal Tax Credits for Higher Education Expenses,” (working paper 9553, National Bureau of Economic Research, Cambridge, MA, March 2003), www.nber.org/papers/w9553.pdf.

¹⁵ Alisa F. Cunningham, Jane V. Wellman, Melissa E. Clinedinst, and Jamie P. Merisotis, *Study of College Costs and Prices, 1988-89 to 1997-98. Volume 1*, U.S. Department of Education, National Center for Education Statistics, December 2001, <http://nces.ed.gov/pubs2002/2002157.pdf>.

¹⁶ Larry D. Singell and Joe A. Stone, *For Whom the Pell Tolls: Market Power, Tuition Discrimination, and the Bennett Hypothesis*, University of Oregon Department of Economics, April 2003, <https://scholarsbank.uoregon.edu/xmlui/bitstream/handle/1794/114/2003-12.pdf?sequence=1>.

¹⁷ Stephanie Riegg Cellini and Claudia Goldin, “Does Federal Student Aid Raise Tuition? New Evidence on For-Profit Colleges,” (working paper 17827, National Bureau of Economic Research, Cambridge, MA, 2012), www.nber.org/papers/w17827.pdf.

¹⁸ David O. Lucca, Taylor Nadauld, and Karen Shen, *Credit Supply and the Rise in College Tuition: Evidence from the Expansion in Federal Student Aid Programs*, Federal Reserve Bank of New York, July 2015, www.newyorkfed.org/research/staff_reports/sr733.pdf.

¹⁹ Lesley J. Turner, *The Road to Pell is Paved with Good Intentions: The Economic Incidence of Federal Student Grant Aid*, University of Maryland Department of Economics, August 14, 2014, http://econweb.umd.edu/~turner/Turner_FedAidIncidence.pdf.

²⁰ Nicholas Turner, “Who Benefits From Student Aid? The Economic Incidence of Tax-Based Federal Student Aid,” *Economics of Education Review* 31, no. 4 (2012): 463-481.

²¹ We know less about how federal aid affects the behavior of state policymakers, whose decisions affect the budgets of public colleges. Researchers and advocates have bemoaned “state disinvestment”—the fact that state funding has not kept pace with enrollments—and asserted that this “great cost shift” is the primary driver of higher tuition at public colleges and universities. But these arguments generally fail to acknowledge the role that federal aid expansion may play in shaping state behavior. It seems plausible that state legislators will feel less pressure to maintain or expand state funding for public colleges if they know federal aid will expand to fill the gap. These decisions, in turn, would lead to higher tuition prices at public colleges, making the direct effect of federal aid difficult to detect. These questions have gotten less attention. See David Mundel, “Designing Research to Provide the ‘Actionable Knowledge’ Needed to Improve Student Aid Program Performance,” in *Reinventing Financial Aid: Charting a New Course to College Affordability*, Andrew P. Kelly and Sara Goldrick-Rab, eds. (Cambridge, MA: Harvard Education Press, 2014): 13-32.

²² Per-pupil spending is a significant portion of the *US News* ranking equation. See Robert Morse, Eric Brooks and Matt Mason, “How U.S. News Calculated the 2016 Best Colleges Rankings,” *U.S. News & World Report*, September 8, 2015, www.usnews.com/education/best-colleges/articles/how-us-news-calculated-the-rankings?page=4.

²³ Gillen, *Introducing Bennett Hypothesis 2.0*.

²⁴ Ibid.

²⁵ Jaison Abel, Richard Deitz, and Yaqin Su, "Are Recent College Graduates Finding Good Jobs," *Current Issues in Economics and Finance* 20, no. 1: 1-8, http://www.newyorkfed.org/research/current_issues/ci20-1.pdf.

²⁶ Daniel Carrol and Amy Higgins, "A College Education Saddles Young Households with Debt, but still Pays Off," Federal Reserve Bank of Cleveland, June, 2014. <https://www.clevelandfed.org/Newsroom%20and%20Events/Publications/Economic%20Trends/2014/et%2020140716%20a%20college%20education%20saddles%20a%20household%20with%20debt%20but%20still%20pays%20off>.

²⁷ Nicholas W. Hillman, "College on Credit: A Multilevel Analysis of Student Loan Default," *The Review of Higher Education* 37, no. 2, (2014):169-195.

²⁸ Adam Looney and Constantine Yannelis, "A Crisis in Student Loans? How Changes in the Characteristics of Borrowers and in the Institutions They Attended Contributed to Rising Loan Defaults," (conference paper, The Brookings Institution, Washington, DC, September 2015), www.brookings.edu/~media/projects/bpea/fall-2015_embargoed/conferencedraft_looneyannelis_studentloandefaults.pdf.

²⁹ Looney and Yannelis, "A Crisis in Student Loans?"

³⁰ Rohit Chopra, "A Closer Look at the Trillion," Consumer Financial Protection Bureau, August 5, 2013, www.consumerfinance.gov/blog/a-closer-look-at-the-trillion/.

³¹ U.S. Department of Education, *Better Information for Better College Choice & Institutional Performance*.

³² Andrea Fuller and Douglas Belkin, "Student Debt Payback Lags," *The Wall Street Journal*, September 13, 2015, www.wsj.com/articles/student-debt-payback-lags-1442189980.

³³ U.S. Department of Education, Federal Student Aid, "Subsidized and Unsubsidized Loans," <https://studentaid.ed.gov/sa/types/loans/subsidized-unsubsidized>.

³⁴ Jason Delisle and Alexander Holt, "Zero Marginal Cost: Measuring Subsidies for Graduate Education in the Public-Service Loan Forgiveness Program," New America Foundation, 2014, http://www.edcentral.org/wp-content/uploads/2014/09/ZeroMarginalCost_140910_DelisleHolt.pdf.

³⁵ Gillen, *Introducing Bennett Hypothesis 2.0*.

³⁶ Andrew P. Kelly and Mark Schneider, *Filling in the Blanks: How Information Can Affect Choice in Higher Education*, AEI, January 2011, www.aei.org/wp-content/uploads/2011/01/fillingintheblanks.pdf; Caroline M. Hoxby and Sarah Turner, *Informing Students about Their College Options: A Proposal for Broadening the Expanding College Opportunities Project*, The Hamilton Project, June 2013, www.hamiltonproject.org/assets/legacy/files/downloads_and_links/THP_HoxbyTurner_FINAL.pdf; Justine S. Hastings, Christopher A. Neilson, and Seth D. Zimmerman, "Are Some Degrees Worth More Than Others? Evidence From College Admission Cutoffs in Chile," (working paper 19241, National Bureau for Economic Research, Cambridge, MA, July 2013), www.justinehastings.com/images/downloads/HNZ_Chile_2013a.pdf.

³⁷ Dan Feshbach, Rushali Parikh, Rima Patel, and Nicole Mitchell, *Private Student Loan Performance Report Q1 2015*, MeasureOne, 2015.

³⁸ Consumer Finance Protection Bureau, *Private Student Loans*, August 29, 2012, http://files.consumerfinance.gov/f/201207_cfpb_Reports_Private-Student-Loans.pdf.

³⁹ Kevin J. James and Alexander Holt, *New Tools, New Safeguards: Why Traditional Loan Protections Don't Work for Income Share Agreements—and What Should Replace Them*, AEI, June 2015, www.aei.org/wp-content/uploads/2015/06/New-Tools-New-Safeguards.pdf.