# A New College Compact: Addressing the Cost & Quality Crisis in Higher Ed

By David Brown and Kenneth Megan | Published: 02/17/15

For decades, Washington has focused almost exclusively on defraying the cost of college for families as tuition sticker prices have increased. But the time has come for a new national conversation to address the far more serious and fundamental problem: ***how to significantly increase the quality of college education while lowering the actual cost***.

Take the 1.2 million students who will begin a four-year college in 2015. [1] Based on current statistics, only 39% will graduate with a bachelor's degree in four years, with 41% failing to graduate in six.[2] Forty-four percent will not find work that requires a four-year degree, 25% will graduate with over $30,000 in debt, and a shocking 36% will demonstrate no meaningful gains in critical thinking.[3]

Enmeshed in these dismal outcomes is the federal government, which, as one of the principal payers of college tuition, could have immense and unique leverage over postsecondary education. It controls access to valuable data and oversees the accreditation process, funds significant university research, and administers a massive loan and grant infrastructure. In fact, the federal government spends around $126 billion per year on undergraduate student aid, contributing 69% of total state, local, federal, and private aid.*[4] But Washington has neglected to use that leverage.

* Not including non-federal loans.

In Section I of this report, we detail the quality crisis in much of American higher education, and in Section II we trace one of its root causes: a failure of federal policy. Then, in Section III, we outline a new compact with America's colleges that will restore the promise of higher education—a top notch education at an affordable price. This compact has three components:

1. Right to know law for college consumers;
2. Re-prioritize teaching and student learning; and
3. Restructure federal financing to protect students

In 1983, the National Commission on Excellence in Education released "A Nation at Risk," sounding the alarm about our broken K-12 education system, in which too many students were dropping out

and too few were learning at appropriate levels. This triggered a multi-decade, vigorous, and necessary national dialogue and reform movement. It is time to sound a similar warning about the state of higher education and the profound ways it is no longer best serving many students and their families. We must now undertake a national effort to rethink and restructure the relationship among students, colleges, and the federal government to break the cycle of over-promise and under-performance—a cycle that hampers the economic mobility and prosperity of generations to come.

# I. The Crisis in Higher Education

America is home to many of the greatest colleges and universities on the planet. A college education is one of America's great exports, with millions of students from around the world coming here to study. For decades, researchers at American universities have led innovations and discoveries that power the world economy. There is much to like about the education system in America.

But there is much not to like. The stats on college costs are well known, and we summarize those in Appendix I. But the crisis of completion and quality has been largely ignored. Too many undergraduates leave college without an education worth their investment. These students aren't learning enough, aren't graduating at acceptable levels, and still face rising costs and mounting debt. And students struggle to assess whether a school will give them the skills they need and even their likelihood of graduating.

This has sizable ramifications—not only for the individuals getting a poor deal on their educational investment—but also for the U.S. economy, which relies on a skilled workforce. Simply put, the higher education system is not delivering for too many students or the economy.

## Graduation rates are low.

Over the past few decades, the U.S. has made some great strides in educational attainment. High school dropout rates have decreased by 45% since 1990, which has led to a boost in college enrollment, and a 44% increase in bachelor's degree attainment. But serious shortfalls remain. Roughly six out of ten Americans over the age of 24 have attempted college. Of those, only half have received a 4-year degree, one-third left without attaining any degree, and the remainder earned a two-year degree.[5]

Those who complete some college but fail to earn the degree show less of a benefit from school in terms of employment and wages, and are often also burdened with high costs associated with student debt. Even if these individuals gain relevant skills from their time in school, they remain less employable, especially when hiring managers use a college diploma to signal workplace

readiness.

At four-year programs, only 39% of first-time, full-time undergraduates finish a bachelor's degree in four years, with 59% finishing within six years.[6] At two-year programs, just 31% receive a credential within three years.[7] And at public community colleges, just 20% graduate in this timespan. [8] Interestingly, two-year for-profits tend to fare better, with 64% of students graduating within three years. But their four-year counterparts are among the worst-performers, with a six-year graduation rate of just 28%. Ultimately, two-thirds of college freshmen don't complete college in the expected four-year period and two-fifths don't finish at all. And while these numbers are indeed alarming, they also may be clouded due to problems with data limitations. The U.S. Department of Education's database only considers full-time, first-time students, and thus fails to count part-time and transfer students, who make up a growing share of the student population.[9]

Graduation rates in the United States are also poor when compared to those of other countries. While the United States used to be the leader in graduation rates, we now rank 12th among international competitors, behind Canada, Israel, Ireland, and even Russia.*[10]

* The 12th place ranking is among American 25-34 year olds.

## Student achievement lags.

For those students who do make it through, too many are failing to perform in math, reading, and critical thinking. Though the body of research on student learning is thin (more on this later), it illuminates an escalating problem—that students are not learning as much as they should.

The Collegiate Learning Assessment (CLA) is an open-ended (as opposed to multiple choice) standardized test for college students, measuring four areas deemed universally important by higher education officials: critical thinking, writing skills, analytical reasoning, and problem solving.[11] Though it is by no means a holistic indicator of student learning—it does not, for instance, measure the specific content knowledge gained from coursework—it is among the best assessments of its kind, as it tests for the general skills that nearly all students are expected to acquire during college. Sociologists Richard Arum and Josipa Roksa, in one of the most illuminating studies on student learning, administered the CLA to over 2,300 students at 24 colleges and universities across the country, and found lackluster improvements in student learning. Ultimately, 45% of students demonstrated no statistically significant gains in critical thinking, complex reasoning, or writing during their first two years in school, and 36% failed to demonstrate meaningful gains over four years.*[12] A similar study of over 30,000 college students concluded that 40% of college seniors failed to acquire complex reasoning skills upon graduation—tools that are increasingly necessary for success in today's workforce.[13]

* A "meaningful gain" is defined as a student scoring one or more points higher on the CLA at the end of their senior year than they did at the beginning of their freshman year, with the assessment being scored from 0-100.

Similarly, the 2003 National Assessment of Adult Literacy (NAAL) found disappointing learning outcomes:*

- Only 31% of college graduates could understand "narrative texts such as newspaper articles," down from 40% in 1992.
- The percentage of college graduates able to understand "practical information such as instructions for taking medicine," declined from 37% to 25%.
- "Quantitative literacy"—the ability to perform numerical tasks such as balancing a checkbook—remained stagnant at 31%.[14]

* The NAAL has not been conducted since 2003, which is in itself further evidence that higher education needs more rigorous evaluation.

These poor learning outcomes can in part be attributed to a long-term decline in studying among college students. According to research published in *The Review of Economics and Statistics*, students in the early 1960s reported spending roughly 40 hours per week on academic pursuits (time spent either in class or studying). By the early 2000s, that number had shrunk to 27 hours—less time than a typical high school student spends in class.[15]

## Students aren't prepared for the workforce.

College is, in part, meant to equip graduates with the tools they need to thrive in high-skilled positions. But, given the trends in learning described above, it's failing. Twenty-eight percent of college graduates are stuck in low or middle-skill jobs (those that require a high school diploma or associate's degree, respectively), such as restaurant or clerical work. And 21% of those with some college or a two-year degree are employed in low-skilled positions.[16]

To be clear, the global recession is a major factor behind these numbers, however there is a growing perception that new graduates are unready for the workplace—among both employers and the new graduates themselves. Polling by Gallup and the Lumina Foundation has found that just 33% of business leaders moderately or strongly agree that today's college graduates have the necessary skills to meet their business needs.[17] Furthermore, surveys of more than 3,000 hiring managers and college students by Chegg, an online textbook vendor and connected learning platform, have found that just 39% of hiring managers and 50% of students believe new graduates are ready for a job in their field.[18] Polling by McKinsey, a consulting firm, has also shown that 40% of two-year graduates and 30% of four-year graduates believe that college has failed to prepare them for the workforce.*[19]

* It should be noted that the higher education system is not entirely to blame, as the impact of the global financial crisis cannot be disentangled from the "skills shortage" argument. We ultimately do not know what percentage of under-employment among college graduates is the result of a skills gap and what is being driven by the Great Recession. There is an argument that the skills deficit has been over-sold among opportunistic managers, who would rather not be burdened

with the training of new employees. Indeed, in a stagnant economy, employers can afford to be pickier, which may in part be driving the lack of gainful employment among many new graduates. However, the higher education system deserves its share of the blame, as there is growing evidence that many institutions offer poor value to students–an education of dubious quality at a high cost.

All of the above factors are part of a bigger picture—that the United States is falling behind its international competitors. This is evident in the 2012 Survey of Adult Skills, a 24-country study that tests for literacy, numeracy, and problem solving, administered by the Organization of Economic Cooperation and Development (OECD). The results paint a grim picture of the U.S. higher education system, as American college graduates rank below average across the board, placing in the 30th percentile overall. U.S. bachelor degree holders come in fourth-to-last in math attainment—ahead of only Spain, Italy, and Poland—and fare worse in math than the general adult population of Japan, which includes the non-college educated. Americans perform only slightly better in literacy and problem-solving, placing in the 45th and 29th percentiles, respectively.[20]

## Data on learning quality and student outcomes is limited.

The extent of the quality problems in much of higher education is likely underappreciated due to an absence of data and a lack of rigorous evaluation. None of the studies mentioned above are adequate in assessing educational quality on a broad or institutional level. The NAAL has not been conducted since 2003, and the CLA—while illuminating—can only speak in broad strokes about a general decline in critical thinking and reasoning. However, these are the best studies available.

Whereas K-12 emphasizes rigorous testing to assess student progress, no such system exists in higher education. Indeed, few institutions or even departments have in place meaningful or objective systems of evaluation. Rather, assessment of professors and courses is generally limited to student course evaluations, which are highly subjective, and tell us little to nothing about what students are actually learning.

As we discuss further in the following section, studies of school performance are largely dominated by problematic reports, such as the annual *U.S. News* rankings, which reflect the quality of the students who enroll more than the caliber of the institution. Furthermore, prospective students have no way of gauging how schools perform regarding future wages and employment, as federal law permits institutions to suppress these data. Though no one recommends implementing a one-size-fits all system of standardized testing like No Child Left Behind, we strongly believe that there should exist comprehensive measurements of student success at the college level.

Ultimately, the absence of thoughtful systems of evaluation is akin to competing in a game of darts blindfolded—it is impossible to know the score, what improvements should be made, or how the teams stack up against each other.

# II. The Failure of Federal Policy

With Washington focused on defraying the cost of college for families, it has failed at a far greater task—increasing the quality of college education while lowering the *actual* cost. Federal policy seems almost intended to shield colleges at the expense of students and their families by blocking access to critical performance data, not doing enough to hold colleges responsible, prioritizing research but doing next to nothing on instruction, and defraying without holding down rising college costs.

A similar crisis of quality has taken place in The European Union, though they have woken up and are beginning to tackle the issue. In 2012, the European Commission released a report entitled, "Improving the Quality of Teaching and Learning in Europe's Higher Education Institutions," which called on all member-country institutions to adopt a set of guiding principles focused exclusively on improving student learning and the quality of instruction (see Appendix II for more details).[21] Unfortunately, Washington remains behind the curb.

## Federal law prohibits students from accessing data on income and employment.

In their effort to choose the right college, prospective students face a bewildering array of poor-quality information. College rankings like those of *US News*, based on measures like acceptance rates and SAT scores, essentially reflect the quality of the students enrolling at a particular institution and the inputs of an institution, not the *effectiveness* of a school at teaching the students it gets. The best comprehensive statistics that we have may be completion rates and loan default rates, neither of which tells us much of anything about how much students learn while in college.

One such measure is employment and earnings by graduates. Though the government already collects this data, there is a law on the books barring it from being published—even anonymously. Universities participating in federal grant and loan programs already report aggregate statistics on tuition prices, debt levels, and graduation rates to the Department of Education.[22] The Social Security Administration (SSA) already collects wage and employment data from virtually every student who participated in federal grant and loan programs. But none of this is available to students when selecting a post-secondary degree.

In the early 2000s, the Department of Education proposed the creation of a student-level records system. As the New America Foundation explains, universities would upload student-level data to the Department of Education, which would send it to the SSA. The SSA would tag match each student's line with their wage and employment information and return the data to the Department of Education, which would then anonymize all the information. The resulting database would be a powerful resource for researchers and ultimately consumers. *What are the employment rates of*

*graduates from different institutions? What are their wages relative to averages in their chosen professions? How are different courses of study associated with different career outcomes?* Most importantly, this system could include socioeconomic data, allowing researchers to effectively estimate the value added of universities, not just the preexisting abilities of their graduates. But in 2008, Congress banned the creation of a federal student unit record system, leaving consumers with little credible information on the employment outcomes of many postsecondary institutions.[23]

**Data: What is available:***

- Enrollment and completion rates of first-time, full-time students.
- Education attainment by ethnicity, gender and age, and institution type.
- Costs (tuition and fees, net prices, room and board, etc.) by institution type.
- Data on student aid—loans, grants, tax benefits, etc.; debt levels, number of students in repayment, and default rates.

**Data: What is unavailable:**

- Enrollment and completion rates of part-time and transfer students.**
- Graduation rates of Pell recipients.
- The ability to link existing data on institutions' tuition prices, their students' debt levels, and typical alumni earnings records.
- Institution-level data on student employment outcomes.[24]

* This list is not exhaustive. For a full breakdown, refer to The Digest of Education Statistics, available at: http://nces.ed.gov/programs/digest/d12/.

* * In the 2015-2016 school year, schools will be required to begin including part-time and transfer students.

The crucial difference between a student level records system and the current arrangement is this: currently, data is collected at the institution-level rather than the student level, which makes it more difficult to track individual students who may end up transferring. The current system also renders it impossible to link alumni salary and employment data with their corresponding schools, majors, GPA's, etc.

Some are awakening to the data problem and are starting to work around it. The dominance of *US News* rankings in rating colleges, which has long been lamented, is being challenged by a variety of new rankings. The challengers, which range from other media outlets to the federal government itself, attempt to more directly measure institutions' value added in a number of ways. For example, the *Washington Monthly* College Guide and Rankings evaluates the extent to which colleges serve

low-income students and deliver value to all students.[25] The White House has compiled college scorecards evaluating institutions on costs, graduation rates, loan default rates, and borrowing levels—and may soon include an employment metric.[26]

But these rankings will remain flawed as long as their underlying data is insufficient. The lack of student-level data makes it difficult to determine the extent to which institutions succeed because of how well they actually perform, as opposed to the abilities (and resources) their students bring when they set foot on campus.

## The federal government does little to hold colleges accountable.

To be eligible for loans and grants, federal law requires schools to be accredited. But the Department of Education places few guidelines on accreditors, and the accreditation process is largely hollow. Schools receive only a binary evaluation: accredited or not. So institutions with widely varying records of success have the same label. What's more, accreditation reviews do not have to be made public.[27] Thus, the largest federal lever to make sure colleges offer a quality education is squandered.

There is also not enough being done on default rates. Institutions must maintain a minimum threshold on their cohort default rates. The Obama Administration has worked to toughen these standards—and to add a new gainful employment metric. But the default levels are still woefully inefficient.

And, finally, colleges aren't required to measure whether students are actually learning. There are plenty of federal policies that could bring more information on student learning to the surface—but don't. The most limited, least intrusive, and least expensive useful contribution the federal government could make in this area is to simply bolster a study that is already in existence: The High School Longitudinal Study. Conducted by The National Center for Education Statistics (NCES), it is a thorough study that tracks a random sample of students from high school through college.[28] It gathers all sorts of data, including: surveys of students, their parents, and teachers; assessments of students' problem solving skills in 9th and 11th grades; majors they pursue while in college; and how they perform in the workforce. Crucially, however, it fails to measure student learning at the post-secondary level.

If the NCES were to administer two additional tests, one at the point of entering college and another at the conclusion, researchers could gain valuable insights, and begin to assess whether students are actually taking away from their sizeable investment in college. Adding such a test to the High School Longitudinal Study would cost only $10 million, practically a rounding error in the Department of Education's budget.[29] And there are no legal barriers preventing this from taking place. It is simply a matter of political will.

Some states are in fact doing a better job pursuing learning outcomes. Tennessee's performance budgeting system allocates 5% of the state's higher education spending based, in part, on learning gains demonstrated through student scores on one of several standardized tests institutions must choose from. The problem with leaving this job with the states is the vast role of private nonprofit and for-profit colleges which fall outside their jurisdictions. Almost all institutions depend on federal aid, however, so the federal government is the obvious actor that can bring transparency to college performance for all.

## Federal policy incentivizes research first, second, and third—and student instruction last.

If one took its cues entirely on the federal government, the conclusion would be that colleges exist to conduct research and publish papers with student instruction as an afterthought. For every $100 the federal government spends on university-led research, it spends twenty-four cents on teaching innovations at universities. While the federal government awards $33 *billion* a year incentivizing quality research, it spends just $79 *million* a year in a way that incentivizes quality teaching—a ratio larger than 400 to 1.[30]

The Department of Education's Fund for the Improvement of Postsecondary Education (FIPSE) awards small grants—typically only as large as $4 million—to provide seed money for institutions trying innovative approaches in undergraduate education.[31] FIPSE is no match for research grants, which is why it's no surprise that institutions are not racing to invest in teaching. It's not that professors don't care about teaching or their students—this is simply a matter of misaligned incentives.

While research is critically important for the economy, so is teaching—and most faculty have never been taught how to teach. Sociologists Arum and Roksa observe that, unlike elementary and secondary school teachers, college professors typically do not receive formal training in instruction or teaching pedagogy. They are created through Ph.D. programs, which are almost entirely focused on producing researchers. And once they become full-time professors, their departments rarely require any sort of training on how to teach or ensure that they adopt cutting-edge teaching practices. For instance, a recent study by the Bill and Melinda Gates Foundation found that only 20% of faculty take advantage of innovative teaching methods, like utilizing technology in the classroom.[32]

Similarly, surveys of over 3,500 faculty members at the University of Florida System, for example, found that 80% had never even taken a class on how to teach,[33] which is particularly disturbing given the breadth of evidence that supports teacher training at the college level. Several studies have shown that pedagogical instruction is strongly correlated with student exam performance, and that such training makes professors more likely to adopt best-practices, such as student-

centered instruction.[34]

The absence of institutional expectations and accountability is evident in what some scholars have identified as the emerging student-faculty "nonaggression pact" or "disengagement compact."[35] Under the disengagement compact, Arum and Roksa explain, students and professors tacitly agree to reduce work effort and grade each other favorably. Some professors, for their part, assign light amounts of work and grade leniently. Some students return the favor with positive course evaluations, which face little competition from other forms of professor evaluation. Based on the reviews of their peers, students preferentially enroll in courses with the promise of an easy A. Professors, in turn, benefit from high enrollment in their classes and less time needed to satisfy teaching and grading duties. We know from surveys, discussed previously, that students are in fact studying less.

What proof is there of a nonaggression pact? Wellesley recently implemented an anti-grade inflation policy, which capped course averages at a B+ in high-grading departments. An econometric study of the response showed that the affected departments experienced declines in enrollment and student ratings of professors, whereas unaffected departments did not.[36] Clearly, easier courses were attracting students and winning more favorable course evaluations—at the expense of high-quality teaching.

Tenure decisions are also clouded by research considerations and course evaluations, according to a study published in Academe, the journal of the American Association of University Professors. From 2000-2010, the percentage of schools that considered research a major factor in faculty assessment increased from 41% to 52%, and those that considered publications a major factor increased from 31% to 40%. While the vast majority of schools—99% in 2010—continue to believe that classroom teaching is important, its assessment remains overly dependent on student course evaluations, which have actually grown in popularity over the past decade. From 2000-2010, the percentage of schools that "always use" course evaluations to assess teacher performance increased from 88% to 94%.[37]

Research and teaching can—and should—coexist. Both are critical to the prosperity of our country. Indeed, the E.U. Commission put it plainly in its report, stating that, "There is no contradiction between the imperative of good teaching and the imperative of research."[38] But when federal dollars incentivize research far more than teaching, it's the students that eventually suffer.

## Federal funding does nothing to curb rising college costs.

The sticker price and the actual cost of attendance for college has been on a steady rise for decades. There are numerous and competing theories that seek to explain it. There are those who believe that simply increasing government aid will lead to higher tuition by boosting students'

willingness to pay. Others subscribe to the so-called "Bowen Effect" first explained by economist and former president of Grinnell College Howard Bowen. The concept goes like this: the overwhelming goal of a university is prestige. To a large extent, prestige is measured by inputs, not outcomes. For example, inputs include new facilities, faculty hires, research dollars spent, and so forth. To maximize prestige, university presidents maximize all their revenue sources, so that they can spend as much as they can. Universities always spend all the money they raise. The more money is spent, the more prestige is acquired, and the more money is raised and spent.[39] It's a never-ending spiral.

At community colleges, per-student spending by schools is down significantly from 2000 to 2011, largely due to cuts in state and local funding. At these institutions, tuition is still relatively low, but has risen to make up for budget cuts.[40] But at private nonprofit and public research universities, spending is up significantly—as is tuition. Unlike community colleges and some public colleges, these institutions cannot blame falling government support—either for weak investments in teaching or rising costs of attendance.[41] Tuition has not risen on account of falling public investment—it has risen to fuel a growing appetite for spending.

Federal policy, it seems, is doing everything it can to perpetuate the Bowen effect, without regard to educational value. First, take the federal role in funding undergraduate education. Students are given subsidies in the form of Pell Grants, Stafford Loans, Perkins Loans, and Parent PLUS Loans (among others), and then go shopping. The more seats a university fills, the more federal dollars it gets. And, more importantly, the higher it raises the cost of attendance, the more federal dollars it gets. The amount a college can issue in Parent PLUS Loans is limited only by the difference between previously awarded resources and total cost of attendance—and parents can gain eligibility without demonstrating ability to repay. That means that as long as parents can be persuaded to borrow, colleges can raise tuition and fund the increases entirely through pushing out larger PLUS Loans. What's missing in this dynamic is any stipulation of how universities spend their money or any guidelines to channel federal funds to the institutions that use them most effectively (aside from basic eligibility criteria).

The unchecked appetite for spending is most evident in the perks wars raging between colleges. Shiny new student centers, climbing walls, pools, deluxe dining facilities, mega athletic facilities—these trends reflect the incentive the federal government has put in place for college: spend whatever you want to raise your prestige and attract students, and go ahead and pass it on to them in the form of higher tuition, fees, room, and board. The students may not be able to pay, but the gap can be filled with a menu of federal loan options.

And no matter which theory of cost increases one believes, the federal government has done very little to tamp down the breaks on spending and tuition increases.

# III. A New Compact with America's Colleges

Below we outline a new compact with America's colleges that will restore the promise of higher education—a top notch education at an affordable price. This compact has three components:

1. Right to know law for college consumers;
2. Re-prioritize teaching and student learning; and
3. Restructure federal financing to protect students

## 1. Right to know law for college consumers

> ***Proposal**: Ensure that parents and students have far more expansive quality information to make better-informed choices about where to make their college investment.*

How is it that consumers can get more product information to help them purchase a new $160 printer than they can get to purchase a $160,000 college degree? We must make data on higher education more available to students and parents to better inform them on one of the most important decisions they will make—picking a school. All consumers have a right to know what type of school they are purchasing, and this improved decision-making will have the benefit of driving holistic quality improvements based on a better functioning market.

Huge amounts of useful data can be put to use by lifting existing barriers at the federal level. Congress should repeal the ban on this invaluable consumer information and ensure that the Department of Education, the Social Security Administration, and other agencies have the statute and funding necessary to provide useful information to researchers and consumers, without unduly increasing the reporting burden on institutions. All this can be done while protecting individual privacy by anonymizing all data (as the Census Bureau has done for a century).

What is crucially missing from the current system is the ability to link college prices, debt levels, and graduate employment earnings. While prospective students can currently view data on average debt levels at a particular university, they are unable to see how that school's graduates fare in the workplace. Making this information free and public would go a long way in ensuring that students have the information needed to make an educated choice about where to attend college.[42]

Some work has already started in this area around the issue of financial aid information. The Obama Administration is cleaning up the presentation of financial aid information given to students through the Financial Aid Shopping Sheet.[43] And proposals in the Higher Education Act Reauthorization bills would expand on this, requiring institutions to more completely present information on loans and the risks and responsibilities they carry for students. Congress must

require that institutions present financial information in the most honest possible way and provide students the counseling they need, helping them to borrow all the money they need but nothing more. But this is not nearly enough to fully inform parents and students about the actual education they are buying.

The Obama Administration's ongoing effort in this area to rank colleges is well-intentioned, but it's not the sort of activity the federal government does well. On the other hand, using the leverage of the federal government to simply ensure that valuable consumer data is made public would allow the media, researchers, and consumers themselves to answer some of the most pressing questions, including what is our actual universe of students and how are they performing?

## 2. Re-prioritize teaching and student learning

> ***Proposal**: Require colleges to evaluate how much students are actually learning, develop a plan to improve student instruction, and provide additional resources to colleges in order to design effective evaluation systems as well as help improve the quality of teaching.*

Imagine a system in which every college and university can effectively measure and evaluate how much students are learning. Parents would actually know the value of their investment. They would have the ability to recognize the highest-performing institutions, and low-performing schools would see a decrease in demand for their product—incentivizing improvements in quality. Unfortunately, right now that is only a dream.

By 2020, every college in America that takes in federal loans or grants should be required to have a transparent system in place to measure student learning, as well as an actionable plan to train professors to teach, improve student instruction, and employ proven learning methods and technology. This does not have to be a one-size-fits-all test dictated by Washington. Rather, schools should be allowed to tailor evaluations to their unique circumstances. Within this flexibility, however, is a common goal: ensure that students are actually increasing their skills and knowledge and, therefore, getting a good value for their money.

To help colleges with this, the federal government can provide two important resources.

First, a $200 million federal grant program should be created to help colleges design the best ways to evaluate students. This can be implemented in two ways. States could either be given block grants to distribute to schools for the purpose of funding evaluation systems, or the federal government could implement a national competitive grant program to let interested colleges compete to design effective systems that could then be replicated by other schools. These institutions could utilize technology to create innovative evaluation methods, and groups of similar schools could come together to form consortia, tapping expertise from across the country.

Universities, with their wealth of knowledge and research capabilities, are in a unique position to experiment in learning evaluation, and a federal grant program would provide them with resources to do so. Similarly, a renewed focus on student learning could incentivize organizations such as the Education Testing Service to work in conjunction with schools to develop new products. Allowing the institutions themselves to craft these systems would help to assure that they are sensitive to the colleges' individual missions. It would also ensure fair representation among faculty in the design and implementation of assessments.

Critics may argue that this type of system would cause perverse incentives, compelling colleges to tighten admissions standards in order to attract only those students with the highest probability of success. As a result, institutions that primarily cater to first-generation or low-income students would be at a disadvantage. These valid concerns can be addressed in a number of ways. Colleges could receive additional federal funding based on the proportion of Pell Grant recipients they enroll, and assessment could be made sensitive to racial and socio-economic differences, with performance based on demonstrated growth and how well similar demographic groups compare to each other.

Congress should support schools in achieving this by ensuring that every year a minimum of 1% of total federal funding on research and instruction is spent on improving teaching quality so students are getting the highest caliber instruction possible. Institutions of higher learning need a renewed focus on teaching—one that is tailored to meet the needs of an increasingly diverse student body. The all too common method of long lectures by an aloof professor has become increasingly antiquated, and the 400-to-1 ratio of research to teaching grants is ultimately a reflection of flawed priorities; incentives need to be realigned in a way that puts student learning at the forefront of the higher education system. This can be accomplished via increased grant funding for teaching and student-centered innovations.

The Department of Education's Fund for the Improvement of Post-Secondary Education (FIPSE) is the primary administrator of federal grants to improve the quality of higher education—which is woefully insufficient. In 2014, FIPSE provided a total of 28 grants to institutions at an average of $2.8 million per grant, with the largest being $4 million.[44] While this type of funding may be adequate for funding small-scale, front-line experiments, it is ultimately unable to assist in scaling up successful projects or promoting big change.

Increasing funding for improving teaching quality could support a range of activities, all contributing to increased student learning:

- **Teacher training**, which is sadly lacking at most colleges and universities. The expectation that professors will naturally become competent teachers simply because they are technical experts in their respective fields does not hold up to scrutiny. Teacher training programs could work to impart the necessary tools and best-practices onto professors, which in turn

would make them more effective in the classroom. For example, training professors to utilize active learning would increase student engagement, participation, and—ultimately—success.

- **Blended learning**, in which classroom content is in part delivered digitally. This system has the potential to bring outstanding instruction from top professors to ordinary students at any institution. Federal grants could incentivize competitive efforts among schools to design the best blended learning platform, emphasizing rigorous assessment and quality instruction. Classroom professors would be freed from the duplicative tasks of instructional planning, allowing them to better serve students with feedback, discussion and coaching. According to Anya Kamenetz, an expert in the field of education technology, blended learning has the potential to both boost student outcomes and cut costs via tailored assistance, collaboration, and increased efficiency.[45] For example, if MIT has the best statistics course, then elements of that class—such as lectures and assessments—would be transferrable to other institutions digitally, allowing the cream of the crop to be available to students at institutions throughout the country.
- **Predictive analytics**, which have proven to be particularly useful in tailoring services to students based on their respective needs. The University of Texas, for example, uses big data to track students upon enrollment. An algorithm calculates students' likelihood of collegiate success based on a variety of indicators, and the results are used to tailor additional support services to those who are most likely to drop out.[46] Innovations such as these could be useful at other schools, and federal grants should focus on not only identifying best practices and innovations, but also on assisting more colleges in adopting them.

### Where it's Working

One such effort currently in place to improve the higher education teaching is the Association of American Universities' Undergraduate STEM Initiative. The objective of this program is to influence participating academic departments to adopt best-practices and research-backed teaching methods.[47] Under this initiative, the University of Maryland has adopted a blended learning framework for mathematics courses, and the University of Pennsylvania has put in place an active learning framework for its introductory STEM classes.[48] Increased federal support for initiatives such as these could go a long way in helping to transform teaching throughout the higher education system.

## 3. Restructure federal financing to protect students.

***Proposal**: Reduce over-borrowing and improve risk sharing in college financing, while holding institutions accountable for a high percentage of student loan defaults.*

A growing share of the student population—and their parents—simply borrow too much for programs that will never allow them to recoup their investment.

The first step is to reduce the number of high-volume borrowers. The federal loan program most responsible for very high amounts of student and parent lending is the PLUS loan program. Unlike federal Stafford and Perkins loans, parent PLUS and grad PLUS loans offer an unlimited amount of principal to eligible families (up to the cost of attendance). That policy must end. As long as PLUS loans have no limit, institutions will have an incentive to pump up their cost of attendance and finance it through increased student and parent lending. To combat this, the Department of Education could calculate a maximum cost of attendance (COA)—set, for example, at the median COA for private institutions and indexed to inflation. If a school's COA is higher than the maximum, PLUS loans may be available only to the extent total assistance equals the maximum. Furthermore, Congress should consider tighter limits on Stafford and Perkins loans. For example, it may not be necessary to offer the same loan maximum to a part-time student as a full-time student.[49]

The second step is to improve risk sharing in higher education financing. Postsecondary education is an expensive and highly uncertain investment, and under our current system, a huge portion of its financing places all the risk on individual students. The federal student loan system has made progress on this front by giving more students access to Pay as You Earn (PAYE) and Income-Based Repayment (IBR) options. These programs allow students to limit their monthly loan payments to a certain portion of their income, and forgive loan balances after ten years for those who pursue low-paying public service jobs like teaching and social work. But each is difficult to enroll in, difficult to understand, and underutilized. The government could remedy this problem by automatically enrolling students in IBR and PAYE, though it would be vitally important to couple this with cost-controlling measures, like capping PLUS loans. Otherwise, institutions would be further incentivized to raise costs—with federal taxpayers on the hook. Indeed, the Obama Administration's recent expansion of IBR and PAYE caused a budget shortfall of $21.8 billion in 2014.[50] These costs were unforeseen by Department of Education, the result of increasingly generous loan repayment terms without the complementary policies needed to restrain costs and spread the risk of underpayments.

Risk-sharing can also be addressed by clearing up legal uncertainties around a novel financing idea called income share agreements (ISAs). As Miguel Palacios, Tonio DeSorrento, and Andrew Kelly explain in their report, an ISA is a financial instrument in which an investor—which can be non-profit or for-profit—finances a student's education in exchange for certain share of the student's future income over a specified number of years. Unlike student loans, ISA's carry no principal balance or interest rate. All students are guaranteed affordable payments, with some paying more and some paying less—depending on their success after school. This arrangement frees students from the default risk associated with not finishing college, struggling in their entry into the labor market, or choosing a less lucrative career path. In order to foster the creation of a robust ISA

market, the federal government would need to provide legal clarity—by authorizing a federal regulator, crafting disclosure regulations, and putting in place strong consumer protections.[51]

What's unique about ISAs is that they give the lender a powerful incentive to discern which institutions and courses of study are likely to set the student on a successful path. The more the student earns, the better outcome for the student and the better outcome for the lender. Thus, ISAs could pressure institutions to reveal information about the quality of their product and channel funding toward those with the most demonstrated success. To make a positive contribution, ISAs would have to be implemented with strong consumer protections and prohibitions on discrimination based on certain student characteristics, such that ISAs do not strictly help students whose demographic backgrounds indicate a higher likelihood of success.

Once over-borrowing and financing is restructured, institutions need to also be held accountable for a high percentage of student loan defaults and chronic shortfalls in future income share agreements.

For decades, the federal government has had rules in place to withdraw grant and loan eligibility from the worst performing institutions—those with large portions of graduates that prove incapable of repaying the volume of loans they were required to take out. There is a growing consensus that these rules are too weak—and that Congress must pass legislation to strengthen them.

Currently, the Cohort Default Rate (CDR) rule revokes school eligibility after three consecutive years of default rates that are over 30%. On the surface, this 30% threshold seems inordinately lax. It's worse. As Andrew Kelly and Kevin James of the American Enterprise Institute explain in their report, "Untapped Potential," CDRs are ultimately a poor metric, because students who experience financial hardship are allowed to avoid default by entering into forbearance, which CDRs do not account for. Though these students are not technically in default, they are also not making payments on their loans. Institutions have seized on this caveat, hiring default management firms to help them avoid penalties. To counter this trend, Kelly and James propose a system based on repayment rates rather than CDRs, which would penalize schools based on the percentage of students who are failing to make their monthly loan payments. If done correctly, this would quickly remove the worst-performing institutions from federal support, and—most importantly—prompt institutions to avoid penalty by actually reducing lending and improving quality, rather than gaming the rules.[52]

It is also important to put in place accountability measures that prompt all institutions to improve value—and not just penalize the worst performers. An idea to address this issue is to require institutions to hold "skin in the game" when they give federal loans to their students. A proposal by Senators Richard Durbin (D-IL), Jack Reed (D-RI), and Elizabeth Warren (D-MA) would require that institutions with high default rates pay a penalty equal to at least 5% of the total outstanding debt in

default—specifically targeting the most under-performing for-profits.[53] And as Kelly and James point out, applying a modest, flat percentage penalty to all schools—not just the worst performers—would incentivize all institutions to do a better job of limiting debt and helping students reach gainful employment. Some may argue that compelling schools to pay a portion of student debt could prompt them to tighten admissions standards, weeding out low-performing students with a higher probability of default. While this is a possibility, measures could be put in place to minimize this risk. For example, the penalty rate could be adjusted according to an institution's percentage of Pell Grant-eligible students.

# Conclusion

The federal government spends $126 billion in student aid at institutions of higher education each year. For that level of involvement, it does shockingly little to evaluate and improve the quality of undergraduate education. Instead, existing spending has encouraged schools to drive up costs, while completion rates remain low and evidence of substantial student progress remains slim.

But America's universities are still some the greatest places for innovation on the planet. Across the country, new ideas and new technologies offer exciting opportunities to improve instruction, reduce costs, and align incentives. To expand these opportunities, Congress must overhaul higher education policy. Better data collection and sharing will guide students toward the most effective institutions. Redirecting universities' efforts toward innovations and investments in student learning will help drive up skill attainment and boost completion rates. And setting and enforcing reasonable accountability measures for lending programs will contain costs and reduce defaults. A college degree remains the most important vehicle for middle class attainment. But the quality crisis in higher education is chipping away at the American dream. A new compact with American colleges is essential if we hope to foster a new era of middle class prosperity.

# Appendix I

## What about college costs?

College pricing is complicated and difficult to disentangle. Much like the healthcare industry, it suffers from non-transparency, with published prices diverging greatly from out-of-pocket costs. An in-depth analysis is beyond the scope of this report; however, here are some of the most important trends. All numbers are in 2014 inflation-adjusted dollars.

**Published prices are increasing at a rapid pace.** From 2000 to 2014, average annual tuition and fees at four-year public universities rose by 89%, from $4,800 to $9,100. Private non-profit universities saw an increase of 41%, from $22,159 to $31,231.[54] Importantly, most students never pay these published prices, due to government grants and institutional aid.

**Out-of-pocket tuition costs are rising at a moderate pace** and vary by family income and institution type. Those from the lowest income quartile—families earning less than $30,000 per year—receive, on average, free tuition at public institutions (both two-year and four-year), a trend that has remained constant over the past decade. These students have also seen modest hikes in annual tuition at private non-profits—from $4,700 to $5,300 between 1999 and 2011—and large increases at for-profits, from $7,100 to $12,000.[55] Wealthier students have generally seen sharper tuition hikes, though not as steep as published prices suggest. Students from the third income quartile—families earning between $65,00 and $106,000—have seen tuition increase from $4,400 to $6,800 at public four-year colleges and from $12,100 to $14,800 at private non-profits., Tuition for the highest quartile (above $106,000 in income) has increased from$5,400 to $8,800 at public four-years and from $18,800 to $21,000 at private non-profits.[56]

**Total cost of attendance is up for all, largely due to hikes in room and board.*** Between 1999 and 2011, the average annual cost of attendance (COA), which measures the out-of-pocket costs of room and board on top of tuition and fees, increased from $22,600 to $27,200 at private non-profits and from $23,100 to $29,500 at for-profits. At public four-year schools, COA increased from $14,600 to $19,000, while rising from $10,400 to $12,100 at public two-year colleges.**[57] Room and board has risen, on average, 2 percentage points faster than inflation for the past 35 years; a dorm and meal plan currently costs $9,700 per year, up from $5,600 in 1976.[58] COA hikes for low-income students at public universities have been driven almost exclusively by room and board, as well as a decline in state funding.

* Cost of attendance in this case includes the out-of-pocket expenses for tuition, fees, room and board. It does not include additional costs, such as transportation or textbooks.

* * Average annual COA was calculated by taking the inter-quartile mean, which is the average of the second and third quartiles. This is a close approximation of the median, and was chosen because median price data was unavailable.

**Middle-class families are getting squeezed.** Students from families earning between $65,000 and $106,000 (the second-highest income quartile) have found themselves in a unique position—often too wealthy to receive significant assistance from federal, state, and school grants, and not wealthy enough to comfortably afford college without taking out substantial loans.[59] For these students, annual COA has increased from around $16,000 to $21,300 over the past decade for four-year public schools, and from $24,300 to $30,200 at private non-profits.[60]

**Student debt has grown along with costs**, as cash-strapped families have relied more heavily on borrowing. From 2003-2011:

- The percent of college completers who borrowed increased from 54% to 62%;
- Average cumulative borrowing rose from $18,000 to $23,000, and;

- The median level of debt among graduates more than doubled, from $3,000 to $8,000. [61]

A modest amount of student debt is typically reasonable for students, as college by and large remains a sound investment. Research by Beth Akers and Matthew Chingos of the Brookings Institution has shown that Americans who borrow for college today are, on average, no worse off that those who did a generation ago. The problem ultimately stems from the growing minority of students who take out large loans but don't finish school, and from those whose balances are too large for their expected income.

# Appendix II

## Europe Ahead of the U.S.

In June 2013, the European Union released a report entitled "Improving the quality of teaching and learning Europe's higher education institutions," in which they identified nine principles for improvement for what they felt was a woefully underperforming higher education sector. These nine principles, ranging from college teacher training to universities being responsible for student outcomes, could serve as a model for the United States.

## Nine E.U. Principles:

- Teaching and learning are the fundamental core missions of universities.
- Active student involvement is essential in governance, curricular design, development and review, quality assurance and review procedures.
- The preference of research over teaching needs rebalancing.
- Faculty are employed not just to teach, but to teach well, and to a high professional standard.
- Institutions must ensure that faculty are well-trained and qualified as professional teachers—not just experts in a particular field.
- New faculty should have a teaching qualification upon entry, or have access to credible teacher training courses in the early years of their career.
- Faculty should be provided opportunities for continuous career development as a professional teacher—not just as a subject-specific academic.
- It is a key responsibility of faculty to ensure they are qualified to teach and able to teach well.
- This responsibility extends over their entire career, so they remain up-to-date in the latest pedagogical methods.[62]

# Endnotes


1. United States, Department of Education, "Digest of Education Statistics," Dataset, Institute of Education Sciences, National Center for Education Statistics, Table 302.10, 2013. Accessed December 17, 2014. Available at: http://nces.ed.gov/programs/digest/d13/tables/dt13_302.10.asp.

2. United States, Department of Education, "Digest of Education Statistics," Dataset, Institute of Education Sciences, National Center for Education Statistics, Table 326.10, 2013. Accessed December 17, 2014. Available at: http://nces.ed.gov/programs/digest/d13/tables/dt13_326.10.asp.

3. United States, Federal Reserve Bank of New York, Research and Statistics Group, "Are Recent College Graduates Finding Good Jobs?" *Current Issues in Economics and Finance*, Vol. 20, No. 1, p. 4, 2014. Accessed November 14, 2014. Available at: http://www.ny.frb.org/research/current_issues/ci20-1.pdf; See also Ben Miller, "The Student Debt Review," Policy Brief, New America Foundation, February 2014, pp. 4-8. Accessed December 3, 2014. Available at: http://education.newamerica.net/sites/newamerica.net/files/policydocs/TheStudentDebtReview_2_18_14.pdf; See also Richard Arum and Josipa Roksa, *Academically Adrift: Limited Learning on College Campuses*, The University of Chicago Press, Chicago, 2011, p. 36, Print.

4. "Trends in Student Aid," Report, College Board, 2014, p. 10. Accessed December 18, 2014. Available at: http://trends.collegeboard.org/student-aid.

5. United States, Department of Education, "Digest of Education Statistics," Dataset, Institute of Education Sciences, National Center for Education Statistics, Table 104.40, 2013. Accessed December 17, 2014. Available at: http://nces.ed.gov/programs/digest/d13/tables/dt13_104.40.asp; See also United States, Department of Education, "Digest of Education Statistics," Dataset, Institute of Education Sciences, National Center for Education Statistics, Table 11, 1990. Accessed December 17, 2014. Available at: http://nces.ed.gov/programs/digest/d95/dtab011.asp.

6. United States, Department of Education, "Digest of Education Statistics," Dataset, Institute of Education Sciences, National Center for Education Statistics, Table 326.10, 2013. Accessed December 17, 2014. Available at: http://nces.ed.gov/programs/digest/d13/tables/dt13_326.10.asp.

7. United States, Department of Education, "Institutional Retention and Graduation Rates for Undergraduate Students," Institute of Education Sciences, National Center for Education Statistics, May 2013. Accessed December 18, 2014. Available at: http://nces.ed.gov/programs/coe/indicator_cva.asp.

8. "Four-Year Myth: Make College More Affordable. Restore the Promise of Graduating on Time," Report, Complete College America, 2014, p. 6. Accessed December 17, 2014. Available at: http://completecollege.org/wp-content/uploads/2014/11/4-Year-Myth.pdf.

9. Clare McCann and Amy Laitinen, "College Blackout: How the Higher Education Lobby Fought to Keep Students in the Dark," *Education Policy Program*, New America Foundation, March 2014, p. 4. Accessed December 17, 2014. Available at: http://newamerica.net/sites/newamerica.net/files/policydocs/CollegeBlackoutFINAL.pdf.

10. Diane Lalancette, "Education at a Glance 2013, United States," Organisation for Economic Co-operation and Development, 2013, p. 2. Accessed December 29, 2014. Available at: http://www.oecd.org/edu/United%20States%20_EAG2013%20Country%20Note.pdf.

11. Richard Arum and Josipa Roksa, *Academically Adrift: Limited Learning on College Campuses*, The University of Chicago Press, Chicago, 2011, p. 21, Print.

12. Richard Arum and Josipa Roksa, *Aspiring Adults Adrift: Tentative Transitions of College Students*, The University of Chicago Press, Chicago, 2014, p.118, Print; See also Richard Arum and Josipa Roksa, *Academically Adrift: Limited Learning on College Campuses*, The University of Chicago Press, Chicago, 2011, p. 36, Print.

13. Jeffrey Selingo, "Why are so Many College Students Failing to Gain Job Skills Before Graduation?," *The Washington Post*, Grade Point, January 26, 2015. Accessed February 3, 2015. Available at: http://www.washingtonpost.com/news/grade-point/wp/2015/01/26/why-are-so-many-college-students-failing-to-gain-job-skills-before-graduation/.

14. United States, Department of Education, The Secretary of Education's Commission on the Future of Higher Education,

"A Test of Leadership: Charting the Future of US Higher Education," Report, p. 13, 2006. Accessed December 29, 2014. Available at: https://www2.ed.gov/about/bdscomm/list/hiedfuture/reports/pre-pub-report.pdf; See also United States, Department of Education, National Center for Education Statistics, "Three Types of Literacy," *National Assessment of Adult Literacy*. Accessed December 29, 2014. Available at: http://nces.ed.gov/naal/literacytypes.asp.

15. Philip Babcock and Mindy Marks, "The Falling Time Cost of College: Evidence from Half a Century of Time Use Data," *The Review of Economics and Statistics*, Vol. 93, No. 2, p. 477, MIT Press Journals, May 2011. Accessed December 23, 2014. Available at: http://www.mitpressjournals.org/doi/abs/10.1162/REST_a_00093#.VJm8xl4CQ.

16. United States, Federal Reserve Bank of Kansas City, "The Vanishing Middle: Job Polarization and Workers' Response to the Decline in Middle-Skill Jobs," *Economic Review*, p. 25, First Quarter 2013. Accessed December 29, 2014. Available at: https://www.kansascityfed.org/publicat/econrev/pdf/13q1tuzemen-willis.pdf; See also Harry J. Holzer and Robert I. Lerman, "America's Forgotten Middle-Skill Jobs," Report, Skills2Compete, The Workforce Alliance, November 2007, p. 8. Accessed December 29, 2014. Available at: http://www.urban.org/uploadedpdf/411633_forgottenjobs.pdf.

17. Preety Sidhu and Valerie J. Calderon, "Many Business Leaders Doubt U.S. Colleges Prepare Students," Poll, Gallup Inc., February 26, 2014. Accessed December 29, 2014. Available at: http://www.gallup.com/poll/167630/business-leaders-doubt-colleges-prepare-students.aspx.

18. "Bridge that Gap: Analyzing the Student Skill Index," Report, Chegg, Fall 2013, p. 3. Accessed January 6, 2015. Available at: http://www.insidehighered.com/sites/default/server_files/files/Bridge%20That%20Gap-v8.pdf.

19. "Voice of the Graduate," Report, McKinsey & Company, May 2013, p. 8. Accessed January 6, 2015. Available at: http://mckinseyonsociety.com/downloads/reports/Education/UXC001%20Voice%20of%20the%20Graduate%20v7.pdf.

20. Organisation for Economic Co-operation and Development, "OECD Skills Survey," Dataset, 2014. Accessed December 29, 2014. Available at: http://piaacdataexplorer.oecd.org/ide/idepiaac/

21. European Union, European Commission, "Report to the European Commission on Improving the Quality of Teaching and Learning in Europe's Higher Education Institutions," Report, p. 15, Publications Office of the European Union, June 2013. Accessed December 29, 2014. Available at: http://ec.europa.eu/education/library/reports/modernisation_en.pdf.

22. Clare McCann and Amy Laitinen, "College Blackout: How the Higher Education Lobby Fought to Keep Students in the Dark," *Education Policy Program*, New America Foundation, March 2014, p. 6. Accessed December 17, 2014. Available at: http://newamerica.org/downloads/CollegeBlackoutFINAL.pdf

23. Clare McCann and Amy Laitinen, "College Blackout: How the Higher Education Lobby Fought to Keep Students in the Dark," *Education Policy Program*, New America Foundation, March 2014, p. 3. Accessed December 17, 2014. Available at: http://newamerica.org/downloads/CollegeBlackoutFINAL.pdf.

24. Clare McCann and Amy Laitinen, "College Blackout: How the Higher Education Lobby Fought to Keep Students in the Dark," *Education Policy Program*, New America Foundation, March 2014, p. 5-6. Accessed January 12, 2014. Available at: http://newamerica.net/sites/newamerica.net/files/policydocs/CollegeBlackoutFINAL.pdf.

25. "A Note on Methodology: 4-Year Colleges and Universities," *Washington Monthly*, September/October 2014. Accessed December 29, 2014. Available at: http://www.washingtonmonthly.com/magazine/septemberoctober_2014/features/a_note_on_methodology_4year_co_3051789.php#.

26. United States, The White House, "College Scorecard," College Affordability and Transparency Center. Accessed December 29, 2014. Available at: http://www.whitehouse.gov/issues/education/higher-education/college-score-card.

27. Andrew P. Kelly and Kevin James, "Untapped Potential: Making the Higher Education Market Work for Students and Taxpayers," Report, Center on Higher Education Reform, American Enterprise Institute, October 2014, p. 3. Accessed December 29, 2014. Available at: https://www.aei.org/wp-content/uploads/2014/10/Untapped-Potential-corr.pdf.

28. United States, Department of Education, National Center for Education Statistics, "High School Longitudinal Study of 2009," Survey, Institute of Education Sciences. Accessed December 20, 2014. Available at: http://nces.ed.gov/surveys/hsls09/.

29. Richard Arum and Josipa Roksa, Interview by Kenneth Megan, Email Interview, Third Way, January 5, 2015.

30. United States, Department of Education, "Fiscal Year 2016 Budget Summary and Background Information," Budget Summary, 2015. Accessed February 19, 2015. Available at: http://www2.ed.gov/about/overview/budget/budget16/summary/16summary.pdf 56; See also "University Research: The Role of Federal Funding," Report, Association of American Universities, January, 2011, pg 1. Accessed February 19, 2015. Available at: http://www.aau.edu/WorkArea/DownloadAsset.aspx?id=11588.

31. United States, Department of Education, Office of Postsecondary Education, "Fund for the Improvement of Postsecondary Education (FIPSE) Home Page," Webpage. Accessed December 30, 2014. Available at: http://www2.ed.gov/about/offices/list/ope/fipse/index.html#db.

32. Casey Fabris, "Professors Know About High-Tech Teaching Methods, but Few Use Them," The Chronicle of Higher Education, February 10, 2015. Accessed February 10, 2015. Available at: http://chronicle.com/blogs/wiredcampus/professors-know-about-high-tech-teaching-methods-but-few-use-them/55777.

33. Terrell E. Robinson and Warren C. Hope, "Teaching in Higher Education: Is There a Need for Training in Pedagogy in Graduate Degree Programs?" *Research in Higher Education Journal*, Vol. 21, August 2013, p. 4. Accessed December 29, 2014. Available at: http://www.aabri.com/manuscripts/131564.pdf.

34. Jamie L. Jensen, "Higher Education Faculty Versus High School Teacher: Does Pedagogical Preparation Make a Difference?" *Bioscene: Journal of College Biology Teaching*, Vol. 37, No. 2, December 2011, p. 31. Accessed December 29, 2014. Available at: http://files.eric.ed.gov/fulltext/EJ972012.pdf.

35. Richard Arum and Josipa Roksa, *Academically Adrift: Limited Learning on College Campuses*, The University of Chicago Press, Chicago, 2011, p. 4, Print; See also William Deresievicz, "Don't Send Your Kid to the Ivy League," *The New Republic*, July 21, 2014. Accessed December 30, 2014. Available at: http://www.newrepublic.com/article/118747/ivy-league-schools-are-overrated-send-your-kids-elsewhere.

36. Kristin F. Butcher, Patrick J. McEwan, and Akila Weerapana, "The Effects of an Anti-Grade Inflation Policy at Wellesley College," *Journal of Economic Perspectives*, Vol. 28, No.3, Summer 2014, pp. 190-192. Accessed December 29, 2014. Available at: https://www.aeaweb.org/articles.php?doi=10.1257/jep.28.3.189.

37. Colleen Flaherty, "Evaluating Evaluations," Inside Higher Ed, May 20, 2014. Accessed December 30, 2014. Available at: https://www.insidehighered.com/news/2014/05/20/study-suggests-research-plays-bigger-role-faculty-evaluations-student-evaluations.

38. European Union, European Commission, "Report to the European Commission on Improving the Quality of Teaching and Learning in Europe's Higher Education Institutions," Report, p. 13, Publications Office of the European Union, June 2013. Accessed December 29, 2014. Available at: http://ec.europa.eu/education/library/reports/modernisation_en.pdf.

39. Dylan Matthews, "The Tuition is Too Damn High, Part VI—Why There's no Reason for Big Universities to Rein in Spending," *The Washington Post*, Wonkblog, September 2, 2013. Accessed December 30, 2014. Available at: http://www.washingtonpost.com/blogs/wonkblog/wp/2013/09/02/the-tuition-is-too-damn-high-part-vi-why-theres-no-reason-for-big-universities-to-rein-in-spending/.

40. "Trends in College Spending: 2001-2011," Report, Delta Cost Project, American Institutes for Research, July 2014, p. 4. Accessed December 30, 2104. Available at: http://www.deltacostproject.org/sites/default/files/products/Delta%20Cost_Trends%20College%20Spending%202001-2011_071414_rev.pdf.

41. "Trends in College Spending: 2001-2011," Report, Delta Cost Project, American Institutes for Research, July 2014, p. 10. Accessed December 30, 2104. Available at: http://www.deltacostproject.org/sites/default/files/products/Delta%20Cost_Trends%20College%20Spending%202001-2011_071414_rev.pdf.

42. Clare McCann and Amy Laitinen, "College Blackout: How the Higher Education Lobby Fought to Keep Students in the Dark," *Education Policy Program*, New America Foundation, March 2014, p. 6. Accessed January 12, 2014. Available at: http://newamerica.net/sites/newamerica.net/files/policydocs/CollegeBlackoutFINAL.pdf.

43. United States, Department of Education, "Financial Aid Shopping Sheet," Webpage, Higher Education Laws & Guidance, January 23, 2014. Accessed December 30, 2014. Available at: http://www2.ed.gov/policy/highered/guid/aid-offer/index.html.

44. United States, Department of Education, Fund for the Improvement of Postsecondary Education, "FIPSE Databse," Database. Accessed December 30, 2014. Available at: http://fipsedatabase.ed.gov/fipse/search.cfm.

45. Anya Kamenetz, "$1 Trillion and Rising: A Plan for a $10K Degree," NEXT, Third Way, 2013, p. 12. Accessed December 30, 2014. Available at: http://content.thirdway.org/publications/751/_1_Trillion_and_Rising-_A_plan_for_a_10K_Degree.pdf.

46. "Collaborative Project Goal: Predictive Analytics," Memo, University Innovation Alliance. Accessed December 30, 2014. Available at: http://www.theuia.org/sites/default/files/UIA_predictive_onepagers.pdf.

47. "Undergraduate STEM Education Initiative About Page," Association of American Universities, 2015. Accessed January 15, 2015. Available at: https://stemedhub.org/groups/aau/about.

48. "Undergraduate STEM Education Initiative: University of Pennsylvania," Association of American Universities, 2015. Accessed January 15, 2015. Available at: https://stemedhub.org/groups/aau_upenn; See also "Undergraduate STEM Education Initiative About Page," Association of American Universities, 2015. Accessed January 15, 2015. Available at: https://stemedhub.org/groups/aau/about.

49. Bryce McKibben, Matthew La Rocque and Debbie Cochrane, "Protecting Colleges and Students: Community College Strategies to Prevent Default," Report, The Institute for College Access & Success," July 2014, p. 42. Accessed December 30, 2014. Available at: http://www.ticas.org/files/pub/Protecting_Colleges_and_Students.pdf.

50. United States, Department of Education, "Fiscal Year 2016 Budget Summary and Background Information," Budget Office, Accessed February 17, 2015. Available at: http://www2.ed.gov/about/overview/budget/budget16/summary/16summary.pdf; See also: Michael Grunwald, "The College Loan Bombshell Hidden in the Budget," *POLITICO*, February 5, 2015. Accessed February 17, 2015. Available at: http://www.politico.com/magazine/story/2015/02/the-college-loan-bombshell-hidden-in-the-budget-114930.html#.VNN6tJ3F9-0.

51. Miguel Palacios, Tonio DeSorrento, and Andrew P. Kelly, "Investing in Value, Sharing in Risk: Financing Higher Education Through Income Share Agreements," Report, *AEI Series on Reinventing Financial Aid*, American Enterprise Institute, February 2014, pp. 3, 12. Accessed December 30, 2014. Available at: http://www.aei.org/wp-content/uploads/2014/02/-investing-in-value-sharing-in-risk-financing-higher-education-through-inome-share-agreements_083548906610.pdf.

52. Andrew P. Kelly and Kevin James, "Untapped Potential: Making the Higher Education Market Work for Students and Taxpayers," Report, Center on Higher Education Reform, American Enterprise Institute, October 2014, p. 7. Accessed December 29, 2014. Available at: https://www.aei.org/wp-content/uploads/2014/10/Untapped-Potential-corr.pdf.

53. United States, Congress, Senate, "S.1873—Protect Student Borrowers Act of 2013," 113th Congress, 1st Session, December 19, 2013. Accessed February 19, 2015. Available at: https://www.insidehighered.com/sites/default/server_files/files/Reed%20risk-sharing.pdf.

54. "Trends in College Pricing," Dataset, College Board, 2014. Accessed December 18, 2014. Available at: http://trends.collegeboard.org/college-pricing.

55. "Trends in College Pricing," Dataset, College Board, 2014. Accessed December 18, 2014. Available at: http://trends.collegeboard.org/college-pricing.

56. "Trends in College Pricing," Dataset, College Board, 2014. Accessed December 18, 2014. Available at: http://trends.collegeboard.org/college-pricing.

57. "Trends in College Pricing," Dataset, College Board, 2014. Accessed December 18, 2014. Available at: http://trends.collegeboard.org/college-pricing.

58. United States, Department of Education, "Digest of Education Statistics," Dataset, Institute of Education Sciences, National Center for Education Statistics, Table 381, 2012. Accessed December 29, 2014. Available at: http://nces.ed.gov/programs/digest/d12/tables/dt12_381.asp.

59. "Trends in College Pricing," Report, College Board, 2014, p. 25. Accessed December 18, 2014. Available at: https://secure-media.collegeboard.org/digitalServices/misc/trends/2014-trends-college-pricing-report-final.pdf.

60. "Trends in College Pricing," Dataset, College Board, 2014. Accessed December 18, 2014. Available at: http://trends.collegeboard.org/college-pricing.

61. Ben Miller, "The Student Debt Review," *Education Policy Program*, New America Foundation, February 2014, pp. 2-8. Accessed December 29, 2014. Available at: http://education.newamerica.net/sites/newamerica.net/files/policydocs/TheStudentDebtReview_2_18_14.pdf.

62. European Union, European Commission, "Report to the European Commission on Improving the Quality of Teaching and Learning in Europe's Higher Education Institutions," Report, p. 15, Publications Office of the European Union, June 2013. Accessed December 29, 2014. Available at: http://ec.europa.eu/education/library/reports/modernisation_en.pdf.