

Chronicle of a Death Foretold: the predictable consequences of an erosion in student loan underwriting, and what to do next

Some policy objectives appear so desirable that the means of achieving them, and their consequences, get lost in the shuffle. That was the case with two prior experiments in boosting US home ownership rates, and it looks to be the case with boosting college attendance rates as well. Both objectives were built on a foundation of eroded underwriting standards that ended up hurting the very people the government was trying to help. The lesson of the last decade: you cannot ignore the laws of economic gravity in pursuit of unsustainable policy outcomes. The most sensible approach: Federal student loans should be underwritten according to sounder lending principles, repayment should be more explicitly linked to income, and the system should be supplemented with explicit fiscal transfers to address underserved populations.

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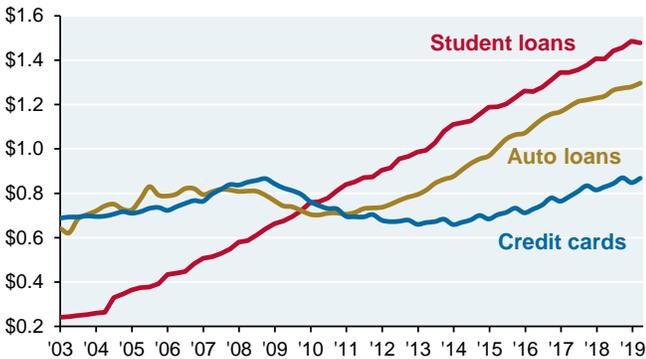
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[1] Student loan stress: rising balances, tuition costs and delinquencies

Student loans were a small component of household debt at the turn of the century, but have since overtaken both auto loans and credit cards. Part of the reason: loans are used to finance college educations whose costs continue to rise at a rate that is well above household income growth and the cost of other goods and services.

Student, auto, and credit card debt outstanding

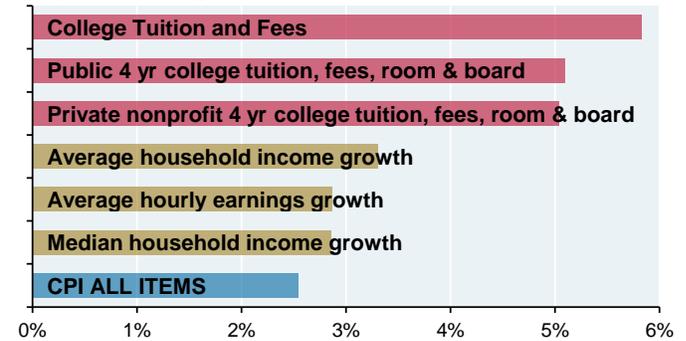
\$, trillion



Source: New York Federal Reserve. Q2 2019.

Inflation, wages and college tuitions

Compound annual growth rate, 1986 -2018



Source: BLS, Census Bureau, College Board. 2018.

Delinquency rates on growing student debt are well above delinquency rates on other household debt, and are much higher than when student loans were less prevalent. Delinquency rates also **understate** stress in the system: around half of the \$1 trillion in matured student loans have entered into alternative repayment programs that are linked to income or other measures¹, and can in some cases be counted as “current” even though no payments are being made.

US 90+ days delinquency transition rates

% of current balances, annualized



Source: Federal Reserve Board of New York. Q2 2019. Delinquency rates as % of balance are a 4 quarter sum.

50% of matured student loan balances are in alternative repayment programs; % of total matured balances



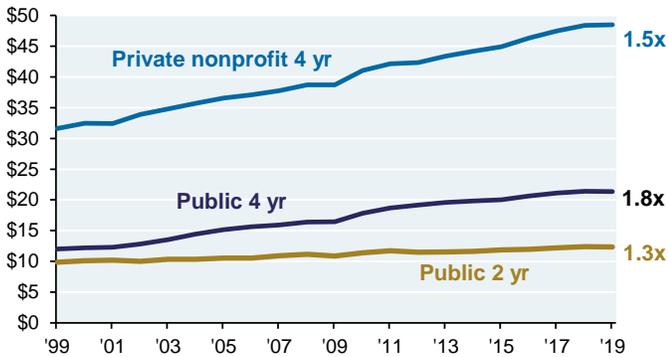
Source: National Student Loan Data System (NSLDS). Q3 2019.

¹ For purposes of the chart, we define **alternative repayment programs** as those with contingent repayment based on gross income. Many of these plans cap payments at 10%-15% of discretionary income, and forgive any balances after 20-25 years of qualifying payments. We are not including as “alternative” loans that are subject to longer-non-standard amortization periods over 10 years, or loans with graduated payments. Only one third of matured student loans are subject to standard repayment terms of 10 years or less.

[2] Are rising tuition costs really the primary problem?

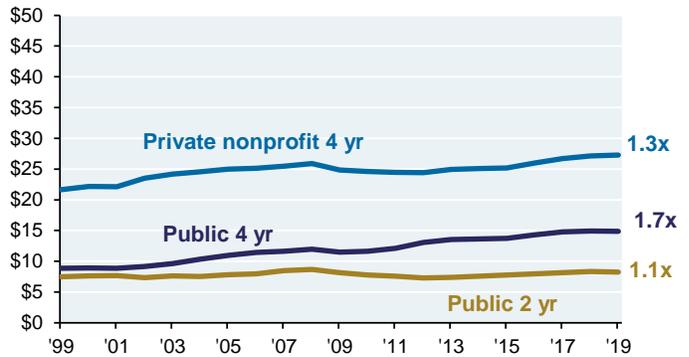
At first glance, it looks like the big problem is the cost of college tuitions, room & board rising more quickly than income or inflation. The first chart below shows the cost of undergraduate educations in real terms, and they are increasing. However, the College Board also provides information on “**net**” costs which incorporate institutional aid and grants to qualifying students. Net costs have been rising more slowly than published (gross) costs. Furthermore, when considering the fact that the second chart is based on a universe of grant recipients and other students paying full freight, **the real cost of undergraduate educations for many grant recipients at private and public universities has not risen by that much over the last 20 years.**

Average undergraduate university published tuition, fees, room & board; Real 2018 \$, thousands



Source: College Board, Annual Survey of Colleges, NCES, IPEDS. 2019.

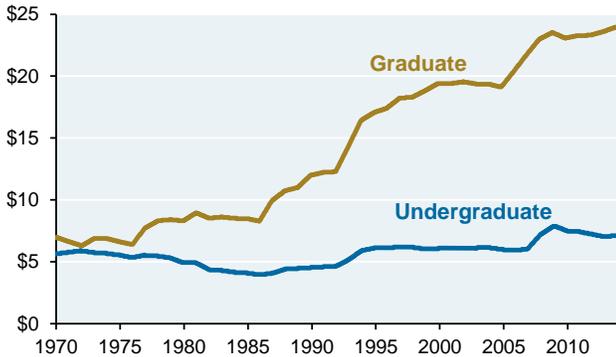
Average undergraduate university net tuition, fees, room & board; Real 2018 \$, thousands



Source: College Board, Annual Survey of Colleges, NCES, IPEDS. 2019.

Here’s more confirmation that the cost of an undergraduate education is **not the primary culprit** in the student loan mess: the average amount of annual undergraduate student loan borrowing in real terms has not risen by that much over the last 40 years. Graduate programs, on the other hand, have seen much greater increases in annual borrowing, suggesting that rising costs are a bigger part of the problem.

Average annual borrowing for active student loan borrowers; Real 2014 \$, thousands



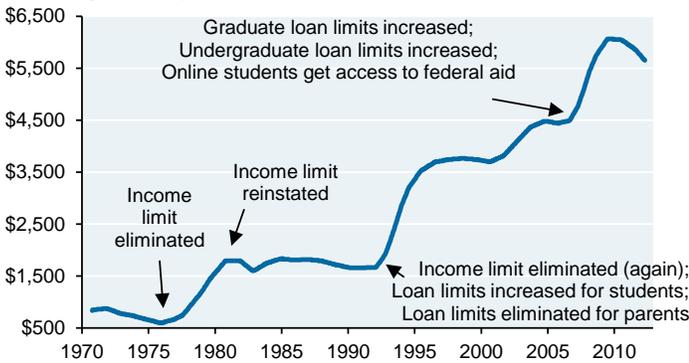
Source: A. Looney, Brookings Institution. 2014.

[3] Why policy changes are the larger issue

Policy changes in the 1990's and 2000's played a large role in the shifting student loan landscape. The first chart shows student loan originations in real terms per full time student since the 1970's. This series rises when students borrow more money, and/or when more students become eligible to borrow. Note how the elimination of income limits², increases in loan limits and expansion of eligibility almost immediately created an unvirtuous circle: more students borrowing more money to pay schools that raised tuitions. The second chart shows the percent of undergraduates receiving student loans, and tells a similar story regarding the impact of policy changes.

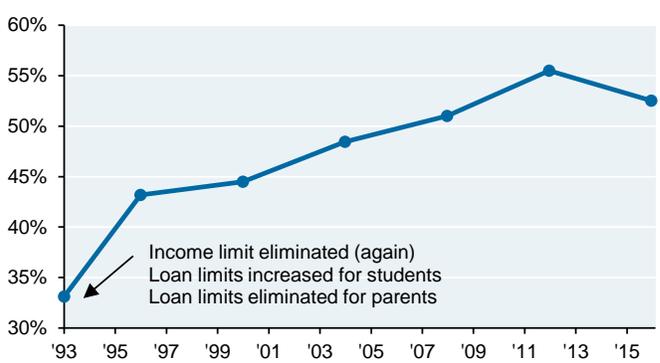
Policy changes were a large driver of rising originations

Loan originations per student (incl. non-borrowers), real 2014 \$



Source: Akers and Chingos, A. Looney, Brookings Institution. 2016.

Percentage of undergraduates receiving Federal student loans



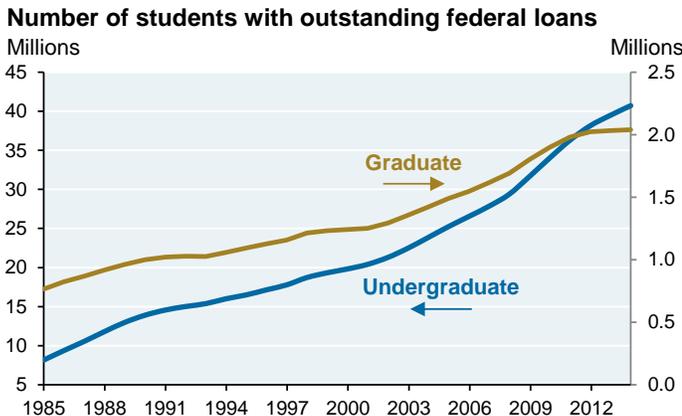
Source: National Center for Education Statistics. 2018.

To understand why policy changes had adverse effects in the long run, we need to analyze *where* the expanding pool of student loan borrowers studied, and *why* the outcomes ended up created problems for borrowers. That's what we will do next.

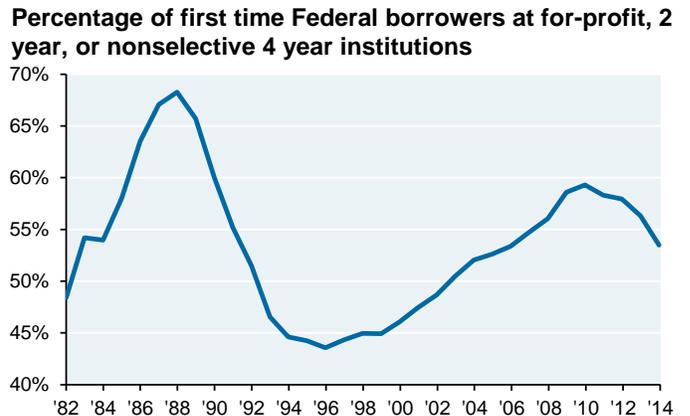
² In the 1960's, Federal student loans were channeled mostly to low income students through the existence of an **income cap** on parents/students above which loans were not available. The cap was eliminated in the 1970's, reinstated in the 1980's, and eliminated again in the 1990's.

[4] The expanding student loan borrower universe and the proliferation of for-profit and non-selective universities

In the wake of student loan policy changes, the number of student loan borrowers rose at a pace that was 2x-3x faster than the growth of the college-age population. **Where did a lot of them end up studying?** As seen in the second chart, at for-profit, 2-year or “non-selective”³ four-year institutions.

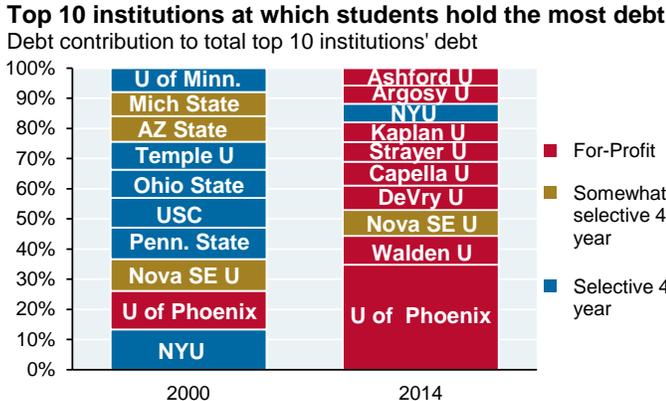


Source: A. Looney, "A crisis in student loans", Brookings Institution. 2014.

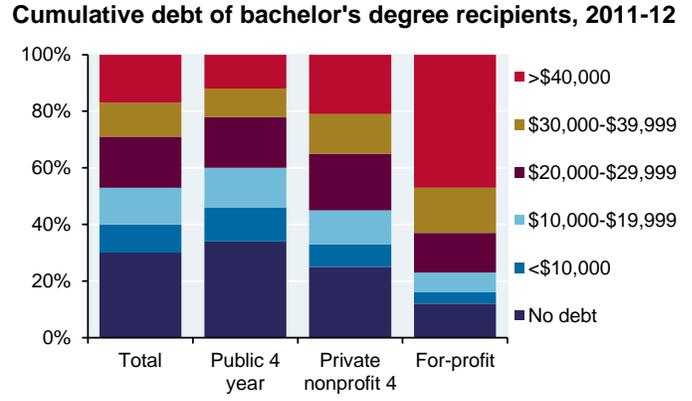


Source: A. Looney, "A crisis in student loans", Brookings Institution. 2014.

The next two charts illustrate how policy changes affected student loan balances. The first shows the breakdown of the ten institutions at which students held the most amount of debt. In the year 2000, the top ten list was mostly made up of selective 4-year colleges, with a few “somewhat” selective colleges as well. **By 2014, almost the entire top ten list was made up of for-profit institutions instead.** The last chart shows how the average graduating student from a for-profit college incurred a lot more debt to obtain their degree than graduates of public or private non-profit colleges.



Source: A. Looney, "A crisis in student loans", Brookings Institution, U.S. News. 2014. Acceptance rate somewhat selective 75-85%, selective < 75%

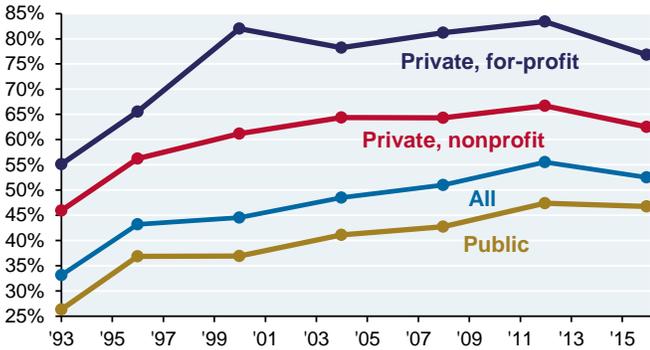


Source: A. Looney, Brookings Institution. 2012.

³ **How “selectivity” is defined.** In Looney’s analysis, institutions are bucketed into groups based on their selectivity as defined in “A crisis in student loans”. “Non-selective” indicates institutions that admit more than 85% of applicants. “Somewhat” selective indicates institutions that admit 75% - 85% of applicants, and “Selective” indicates institutions that admit less than 75% of applicants. Looney uses a low bar for selectivity, but even so, the approach helps delineate the differences in these institutions and their outcomes.

Reliance on Federal loans by institution type highlights another issue regarding for-profit colleges: the lack of interest from private lenders put even more burden on the Federal system.

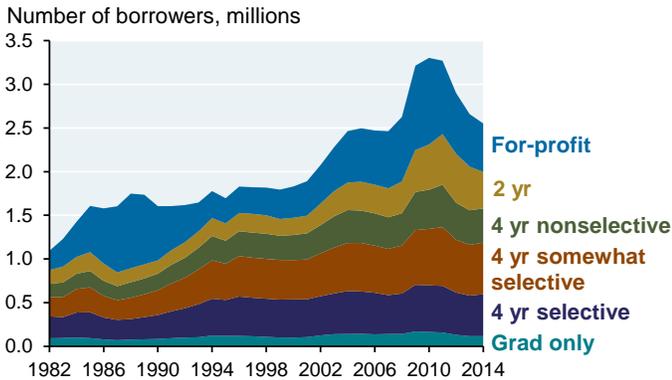
Percentage of undergraduates receiving Federal student loans, by type of institution



Source: National Center for Education Statistics. 2018.

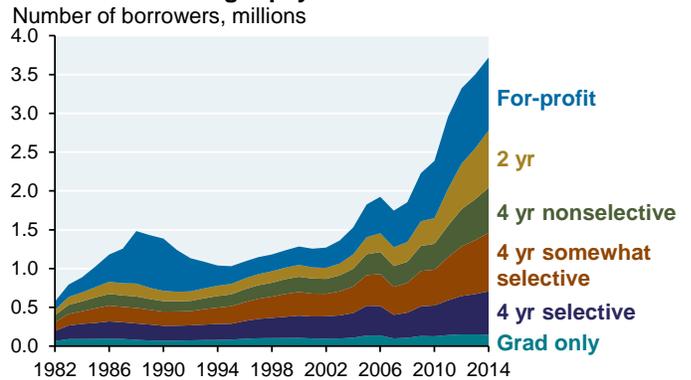
Here are four more charts showing the expanded presence of for-profit colleges, 2-year colleges and non-selective colleges among student loan borrowers. The first shows new first-time borrowers, and the second shows the number of borrowers entering into repayment plans in that year. The third and fourth charts show total outstanding borrowers and balances by institution type in 2014. By the end of 2014, **for-profit borrowers represented the largest number of borrowers in the entire Federal student loan system.** The only reason that their aggregate debt was not even higher: many for-profit students ended up dropping out early, as we will see next in a discussion of outcomes by institution type.

New first-time Federal borrowers



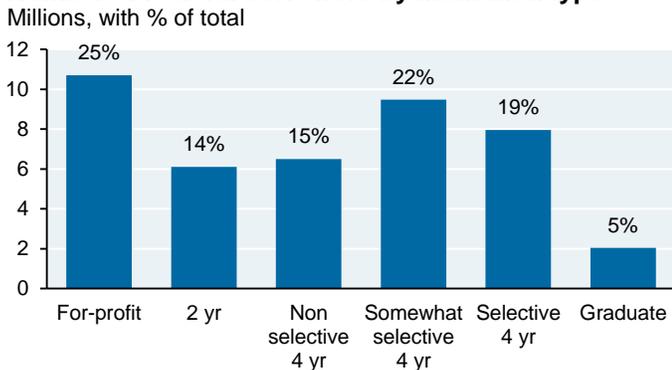
Source: A. Looney, "A crisis in student loans", Brookings Institution. 2014.

Borrowers entering repayment



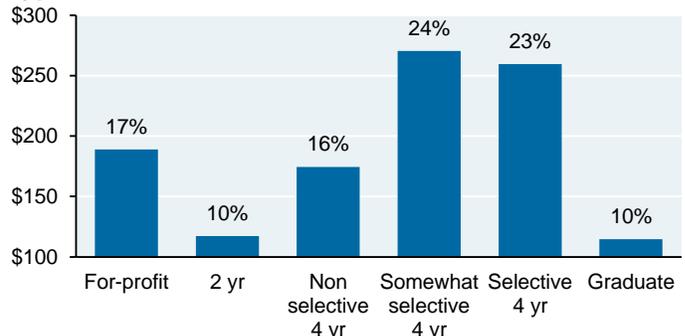
Source: A. Looney, "A crisis in student loans", Brookings Institution. 2014.

Number of Federal borrowers by institution type



Source: A. Looney, "A crisis in student loans", Brookings Institution.

Aggregate Federal student loan debt by institution type; Real 2014 \$, billions, with % of total



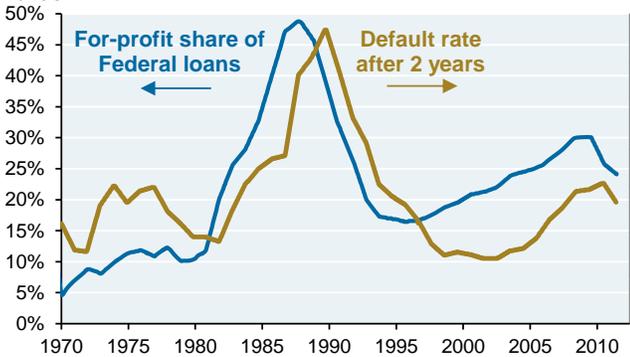
Source: A. Looney, "A crisis in student loans", Brookings Institution.

[5] The less favorable employment, earnings, completion and default characteristics of for-profit and 2-year colleges

As explained above, policy changes contributed to a surge in students attending for-profit and 2-year colleges. **What's wrong with that?** Well, a few things, and they are things that policymakers have known for a long time. The last time there was a policy-driven increase in the share of for-profit student loan borrowers in the 1980's, default rates spiked almost immediately thereafter (first chart).

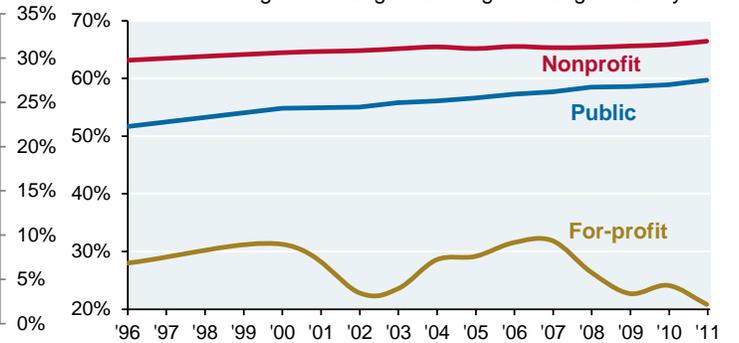
The other charts are just as startling. **For-profit schools have much lower graduation rates (see chart below and next page for more details), their students face much higher rates of unemployment and lower median earnings, and consequently, they default on student loans at much higher rates⁴.** Note that 2-year and non-selective institutions are right behind for-profit schools in terms of adverse outcomes. As a result, 10% student loan delinquency rates shown on page 2 and cited frequently in the press are in need of context, since student loan defaults are so *highly* correlated to institution type. For-profit default rates have declined somewhat since 2011, but were still double the default rate on student loans from public and private non-profit institutions in 2015.

For-profit share of Federal loans drives student default rates



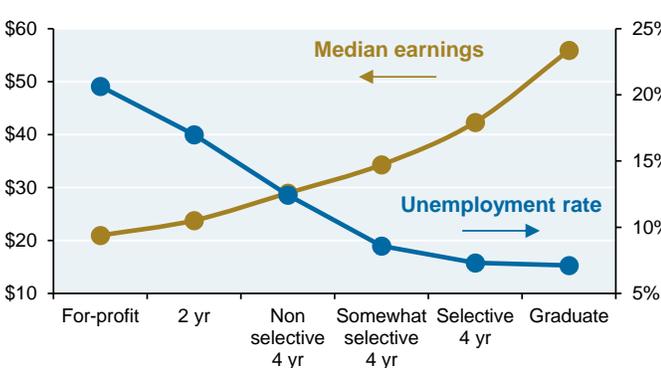
Source: BEA, A. Looney, Brookings Institution. 2012.

Graduation rates for initial 4 year institution attended
% of bachelor's degree seeking students graduating within 6 years



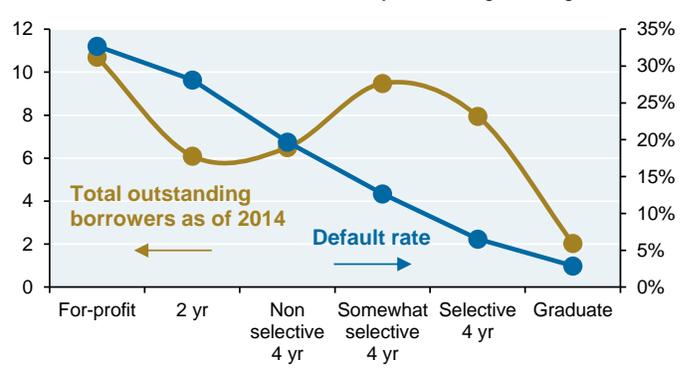
Source: National Center for Education Statistics. 2019. Years reflect the year students began at the 4 year institution.

Median earnings vs unemployment rate of graduates
Real 2014 \$, thousands



Source: A. Looney, "A crisis in student loans", Brookings Institution. 2014. Earnings and unemployment rate are of Federal borrowers in their second year of repayment.

Total number of borrowers vs default rates of graduates
Millions (left axis), 5 year average through 2011, % (right axis)

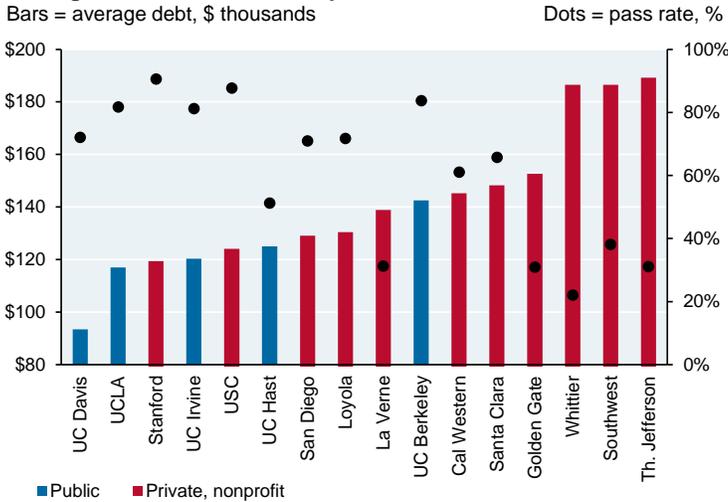


Source: A. Looney, "A crisis in student loans", Brookings Institution. 2014. Default rate = 3 year cohort default rate.

⁴ **More adverse data on for-profit schools:** their graduates are less likely to be invited for a job interview than students from non-profit universities, and tend to have lower wage trajectories after graduation.

The concentration of borrowers and student debt at lower quality institutions is not just a phenomenon at the undergraduate level. Consider the case of California law schools: the institutions with higher amounts of debt on the right side of the chart have much lower bar exam pass rates than law schools on the left. This outcome is in part the consequence of increased loan limits and eligibility of loans for graduate school education. In the plainest terms, graduates of law schools on the right are going to have trouble paying back their loans if they do not pass the bar exam.

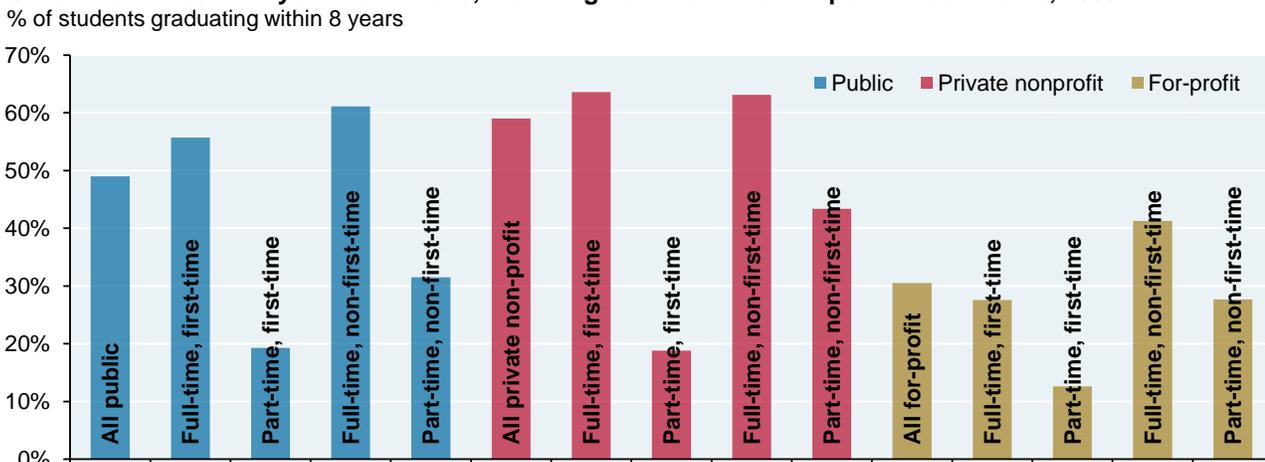
Average student debt vs. Bar pass rate at California law schools



Source: A. Looney, Brookings Institution. 2017.

Additional information on graduation rates. Graduation rates shown on the prior page are based only on the initial institution attended. Some students transfer and then graduate, so the chart on the prior page understates overall graduation rates. The chart below for the 2009 cohort goes into more detail, and also includes graduation rates for part-time students, transferring students and students not attending college for the first time. The relative underperformance of for-profit schools is still clear in the data.

Graduation rates for 4 year institutions, including non-first-time and part-time students, 2009



Source: National Center for Education Statistics. 2018.

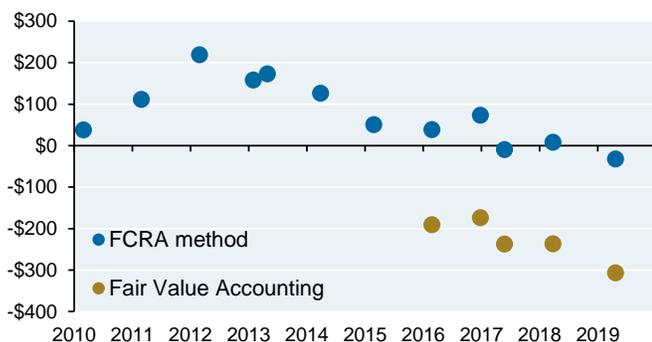
[6] How does the Federal government account for student loan defaults and delinquencies?

It doesn't, at least not in any clear and transparent fashion. Consider the following:

- The Congressional Budget Office is generally required by Congress to follow Fair Credit Reporting Act (FCRA) procedures and use its own accounting methods rather than "fair value methods" (i.e., what a bank would have to use on its loan portfolio). The CBO believes that "adopting a fair-value approach would provide a more comprehensive way to measure the costs of federal credit programs and would permit more level comparisons between those costs and the costs of other forms of federal assistance"⁵. However, the CBO is generally stuck with FCRA rules, resulting in either willfully or unintentionally inaccurate statements by politicians on the true economic cost of Federal student loans⁶.
- **Some history.** When the CBO publishes its 10-year budget baseline, it provides estimates of gains and losses in the student loan system using FCRA methods. This figure includes a gain/loss estimate for new loans originated over the next ten year horizon, and gain/loss estimates for loans originated beforehand. From 2013 to 2017, the CBO's estimated FCRA-based gains in the student loan system ranged from \$40 to \$170 billion. In its May 2019 baseline report, the CBO finally reported a small expected *loss* of -\$31.5 billion over the next ten years using FCRA methods.
- **However, starting in 2016, the CBO for the first time formalized reporting of gains or losses using fair value methods as well. The first estimated fair value loss in 2016 was -\$190 billion, and the latest loss in the May 2019 CBO baseline was -\$306 billion, which is 10x higher than the FCRA estimated loss.** Even this \$306 billion figure is fraught with uncertainty given the lack of disclosure of the CBO's underlying assumptions. Table 6 in the 2019 CBO report appears to show that on a fair value basis, student loans are subsidized by taxpayers at a rate of 20%-30%.
- **Bottom line:** the Federal government doesn't provide a timely, fair-value estimate of potential taxpayer losses on the existing \$1.5 trillion in student loan balances. As a result, it's very difficult for politicians, citizens and policy analysts to assess the cost/benefit of the existing student loan system relative to other productive uses of Government funds, be it for healthcare, infrastructure or alternative energy, or relative to other iterations of a student loan system.

CBO estimated gains/losses in the student loan system

\$, billions over next ten year reporting period



Source: Congressional Budget Office. 2019.

⁵ "Fair-Value Accounting for Federal Credit Programs", Congressional Budget Office, May 2012.

⁶ In July 2013, Senator Warren (D-MA) called for lowering rates on federal student loans: "This is just plain wrong," she said in a floor speech. "The government is making **obscene profits** on these loans". While the CBO's FCRA methods did show 10-year projected gains at the time of \$46 billion, the CBO had *already acknowledged* in a 2010 Special Report that the system was operating at a projected 10-year **deficit of \$157 billion on a fair value basis**.

[7] What has been done about low quality/poor outcome institutions?

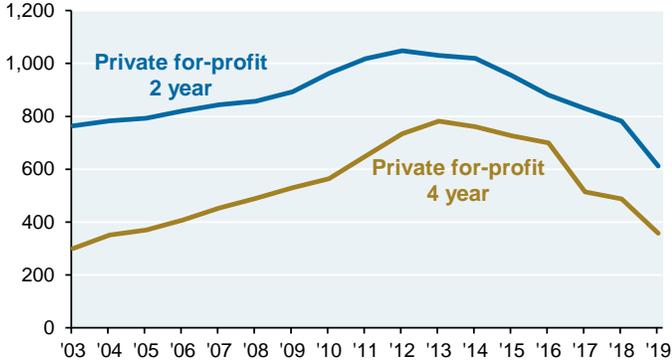
Questions about Federally backed loans to students attending low quality/poor outcome institutions are not new. Here's some policy background:

- In response to high student loan default rates in the 1980s, Congress passed the Student Loan Default Prevention Initiative Act of 1990. Under the Act, institutions lost eligibility for student loans if their default rates exceeded 25% for three years in a row; they were subject to loan limits regarding distance (correspondence) learning; and were prohibited from certain recruiting practices. These changes were ultimately effective: more than 1,200 schools were sanctioned under the rules and 95% closed, which resulted in a sharp decline in the for-profit share of borrowers and in the student loan default rate (see chart p.7). In effect, the Federal government imposed underwriting at the institutional level, kicking out the riskiest programs. In the late 1990s and 2000s, many of those rules were unwound.
- In response to another wave of defaults, President Obama's Department of Education established a Gainful Employment Rule in 2011 that attempted to weed out the worst performing institutions. The Act measured performance based on repayment rather than default. There were two tests: one looked at whether graduates were repaying loans, while the other was based on whether borrowers had sufficiently low debt service to repay. An institution remained eligible for student loans if it passed either test in at least 2 of 4 consecutive years.
- President Obama attempted in 2013 to further tighten availability of Federal student loans to underperforming institutions, ranking colleges based on access, affordability and outcomes. However, in 2015, President Obama abandoned this effort due to objections from many colleges affected, and then unveiled a website on cost, graduation rates, salaries, etc.
- The Obama Administration also expanded regulations allowing borrowers to have loans written off if there's breach of contract or "substantial misrepresentation by the school about the nature of the educational program, the nature of financial changes, or the employability of graduates." The Trump Administration has tried to postpone implementation, but is currently being forced by the courts to process 180,000 applications for relief
- The Trump Administration is focused on delivering comprehensive data for the College Scorecard launched by the Obama administration. New information for 2,100 non-degree-granting institutions was added to the consumer-facing website, as well as new data on student debt for individual programs of study. Potential students could examine, for example, how liberal arts majors fare versus engineering students instead of just getting results for the college overall. The Trump Administration eliminated Obama-era accountability rules like the Gainful Employment Rule, arguing that students would be better served by having more data instead
- The Trump Administration is reportedly considering "burden-sharing" under which institutions would bear some of the cost of defaulting loans, but there are no details yet

After the more recent default wave, the tide has turned somewhat against for-profit schools. A combination of bad press, an undercover GAO investigation of deceptive practices (see box, page 18), new rules and decreased for-profit enrollment led to a **decline in the number of for-profit institutions awarding Federal student loans**. It also led to terminal stock price declines in some for-profit education companies (Group A), many of which only offered certificates or associate’s degrees rather than bachelor’s degrees. Other for-profit education companies survived (Group B), but only after providing tuition incentives for students to graduate (reducing risk of non-compliance with the now-defunct Gainful Employment Rule), reducing the number of underperforming schools in their educational portfolios, diversifying into related businesses and/or benefiting from regulatory relief from the Trump Administration.

Postsecondary institutions awarding Federal aid

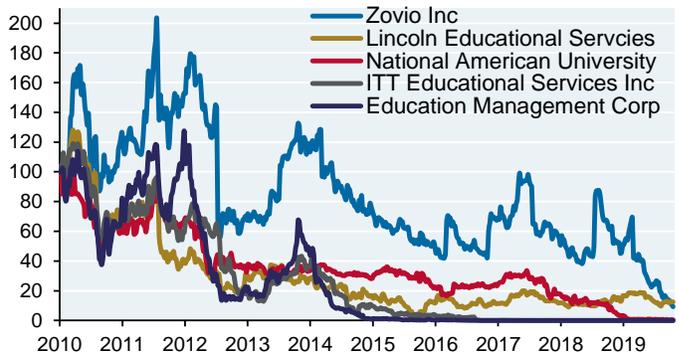
Number



Source: U.S. Department of Education, NCES, IPEDS. 2019.

For-profit education companies (Group A)

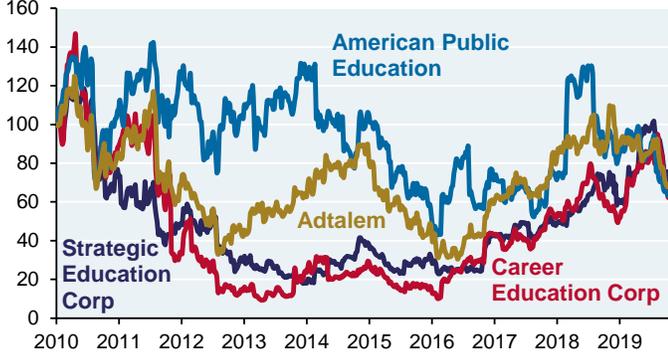
Index, 2010 = 100



Source: Bloomberg. October 2019.

For-profit education companies (Group B)

Index, 2010 = 100



Source: Bloomberg. October 2019.

[8] Time capsule: parallels to policy changes leading up to the housing crisis

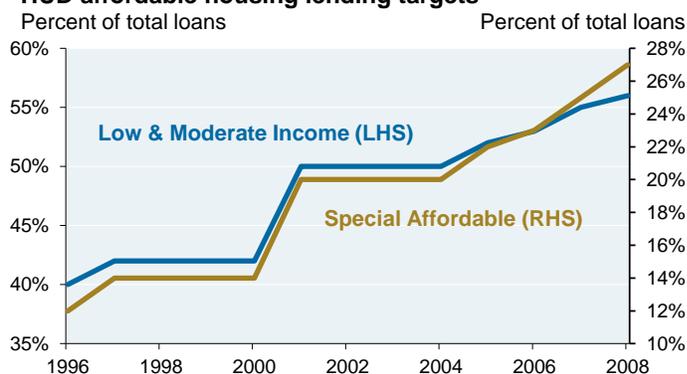
The causes of the US housing crisis are complex, but a large part of the fact pattern is clear: policy changes designed to boost home ownership rates failed pretty dramatically.

US home ownership rate



Source: U.S. Census Bureau. Q3 2019.

HUD affordable housing lending targets



Source: American Enterprise Institute.

Notable policy developments leading up to the housing crisis⁷

A: Senate hearings in 1991 started the ball rolling with commentary from community groups that banks need to be pushed to loosen lending standards, and that Fannie Mae and Freddie Mac must take the lead: *“Lenders will respond to the most conservative standards unless Fannie Mae and Freddie Mac are aggressive and convincing in their efforts to expand historically narrow underwriting”*.

B: In 1992, Congress imposed affordable housing goals on Fannie and Freddie through the “Federal Housing Enterprises Financial Safety and Soundness Act”, and became competitors with FHA. To meet these goals, Fannie/Freddie relaxed down-payment requirements. By 2007, they had guaranteed an estimated \$140 billion of loans with down-payments below 3% after having extended *no* loans at all with down-payments below 5% as of 1991. Half of these new high LTV loans required no down-payments at all.

C: HUD wants Fannie and Freddie to set an example for private sector banks. In its 1995 National Homeownership Strategy publication, the US Dep’t of Housing and Urban Development (HUD) announced that while low down-payment mortgages were already 29% of the market by August 1994, they wanted more: *“Lending institutions, secondary market investors, mortgage insurers, and other members of the partnership should work collaboratively to reduce homebuyer down payment requirements further”*.

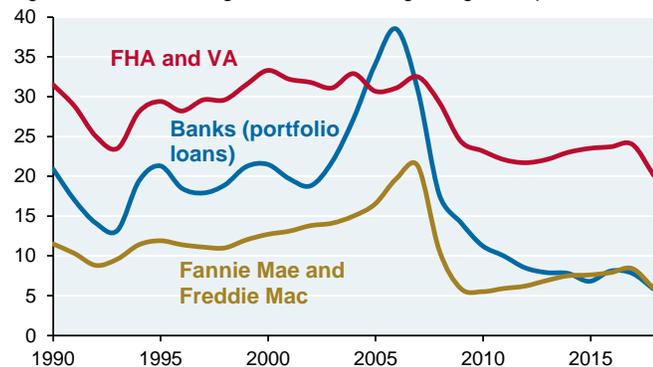
D: In 2000, HUD raised affordable lending targets for Fannie/Freddie to 50%. The chart above (right) shows the escalation of GSE lending targets to low and moderate income borrowers, and “Special Affordable” borrowers. The problem for Fannie/Freddie: the only way to meet these targets was to relax down-payment requirements even more, and to relax income verification and loan to value standards as well. When announcing even higher affordable housing targets in 2004, HUD made it clear that their purpose was to get private sector banks to follow suit and relax underwriting as well: *“These new goals will push the GSEs (Fannie/Freddie) to genuinely lead the market”*. **Bad news: they did, and the rest is history.**

⁷ For citations and background, see May 3rd 2011 and November 18th 2013 *Eye on the Market*.

In the wake of the housing crisis, home ownership rates collapsed back to where they started, since both government-backed and private sector bank lending standards became much more conservative. The Mortgage Risk Index shown below incorporates factors such as loan to value, debt to income, credit scores, second liens, etc, and is a calculation that the FHFA started to track in the wake of the housing crisis to prevent a recurrence. **To conclude, not only did policy changes enacted before the housing crisis harm less-qualified borrowers that overleveraged during the housing frenzy, they also ended up negatively impacting future generations of homebuyers now subject to tighter lending conditions and loan availability.**

Mortgage risk index

Higher = looser lending standards leading to higher expected defaults



Source: Federal Housing Finance Agency. 2018.

Net mortgage borrowing

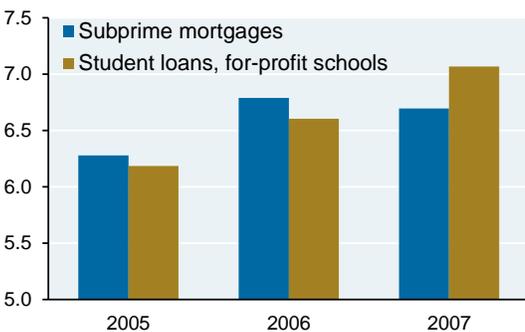
% of GDP



Source: Bureau of Economic Analysis, Federal Reserve Board. Q2 2019.

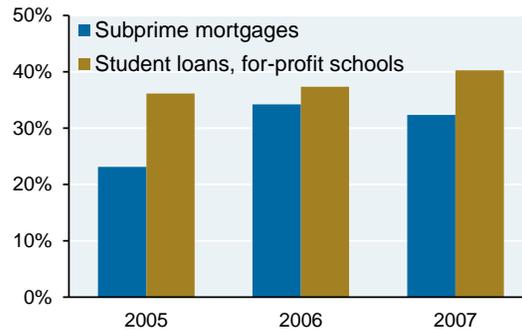
Here's where history starts to rhyme. Amazingly, the number of for-profit student loan borrowers in 2005-2007 was around the same as the number of subprime borrowers; both groups ended up having roughly similar default rates after the fact. In the end, both policies were achieved through shaky economic foundations and produced negative unintended consequences.

Similar number of subprime and for-profit student loan borrowers... (Millions)



Source: A. Looney, "A crisis in student loans", Brookings Institution. 2014.

...and similar subsequent default rates



Source: A. Looney, "A crisis in student loans", Brookings Institution. 2014.

[9] Conclusions: Preserve the part that's working, and implement new approaches as well

Federal student loan programs were created in the 20th century to increase the supply of skilled labor, promote economic development and provide upward mobility. They have been broadly successful, and helped millions of students get a high quality education at lower costs than the private sector would have offered. They have also had positive labor market outcomes and very low rates of default. This conclusion is based on data we can *finally* see: the student loan situation looks much less ominous for borrowers who attend 4-year public and private non-profit universities, despite the 2008-2009 recession and its aftermath.

Why emphasize the word *finally*? Student loan defaults had been a problem for many years, but until the 2014 US Treasury analysis whose findings are extensively cited in this paper⁸, the Federal government refused to allow its data to be used by researchers to diagnose the problem; student loan policy was made by anecdote instead. Even to this day, it's unclear if politicians understand that the spike in defaults was directly connected to policies that the government itself (and not colleges or students) had created.

There are important policy questions to address regarding populations that skew towards for-profit and 2-year universities. As shown in Appendix II, they tend to be older, first-generation non-dependents from poorer neighborhoods with lower parental income and lower credit scores. Yet as with the housing crisis, **when risk-based underwriting is subject to prohibitions and severe distortions, it can create more problems than benefits for borrowers.** One can argue that some of the lingering consequences of student loans are worse than subprime, since student debt cannot be discharged in bankruptcy.

There's an emerging consensus among many economists on the student loan issue:

- preserve the large part of the current student loan system that works for borrowers
- design a system in which student loan repayments are linked by default to post-graduation income (rather than 10 year fully amortizing loans), and are automatically withheld from each paycheck⁹
- reintroduce risk-based underwriting based on the risk of the *institution* (not the borrower) or possibly based on fields of study (this would require new safe harbor provisions for lenders)
- use grants and taxpayer subsidies to finance education for underserved populations who need help
- explore incentives for students to pursue majors designed to reduce the skills gap (see Appendix III)

That would probably entail *far* fewer taxpayer transfers than recent proposals to write off existing student loans which are estimated to cost \$955 billion¹⁰, a figure that *excludes* the cost of proposals to eliminate tuition entirely at public universities. Given competing fiscal priorities in infrastructure, healthcare and renewable energy investment, it makes sense to preserve government resources wherever possible, particularly given CBO projections that by the year 2027, 100% of Federal tax revenues will be consumed by entitlements, mandatory payments and interest on the Federal debt.

⁸ Adam Looney performed his unprecedented analysis using unique access while at US Treasury to the National Student Loan Data System. As per Caroline Hoxby (Stanford), Looney's paper filled "what had been a tremendous information gap, and is a tour-de-force demonstration of how useful federal agencies' data can be when analyzed with the goal of informing policymaking", and is a "**game-changer**" regarding student loan analysis.

⁹ Researchers at the Urban Institute (Chingos, Baum) and Brookings (Dynarski, Kreisman, Looney) are advocates of this approach, and believe that it reduces delinquency rates, improves credit scores, and increases the likelihood of homeownership among delinquent borrowers

¹⁰ As estimated by the Urban Institute, Warren's proposal would cost \$955 billion by forgiving \$50,000 of student loans for households with incomes up to \$100,000, and by forgiving progressively smaller amounts for households with incomes up to \$250,000. Roughly two thirds of all existing student debt of \$1.5 trillion would be forgiven under this approach. The Urban Institute's estimate is higher than the \$640 billion figure cited by Warren's campaign.

Appendix I: Facts and figures on Federal and private student loans

- **Since 2010**, the Federal Direct Loan program has accounted for all Federal student loans. Under this program, educational institutions originate loans under Federal lending rules and loan servicing is handled by the Department of Education through private contractors. Direct Loans come in four types: Unsubsidized Stafford, Subsidized Stafford, PLUS and consolidation loans. Unsubsidized, PLUS, and consolidation loans are available to all borrowers, while subsidized loans are available based on financial needs. Interest does not accrue for borrowers of subsidized loans while they are in school. PLUS loans are available to parents of dependent undergraduate and graduate students. Independent undergraduate students are not eligible for PLUS loans, but are allowed to borrow additional Stafford loans up to higher maximums
- **Before 2010**, most student loans were guaranteed by the Federal government, originated by banks with no ability to apply their own underwriting standards, and then sold to private investors mostly through securitization. Congress eliminated these guaranteed loans in 2010, and shifted lending to the Federal direct loan program. The reason: guarantees reduced the riskiness of student loans to only slightly higher than Treasuries, but enabled private lenders to profit by charging higher rates instead of passing savings on to borrowers.
- Since 2008 when **private student lending** collapsed, around 90% of student loans have been extended under Federal Student Loan programs administered by the Department of Education. The remainder is the private student loan market, which at \$65 billion in outstanding loans is small but much healthier in terms of delinquency rates: 1.5% compared to 10%+ for Federal student loans. The private student loan market tends to cherry pick the best borrowers, offering them lower rates than the Federal system and depriving the Federal system of badly needed low-risk borrowers
- Note that many data series developed by Adam Looney using NSLDS data have not been extended past 2014 given limited availability and access to government data, as his project was approved as a one-time initiative while at US Treasury

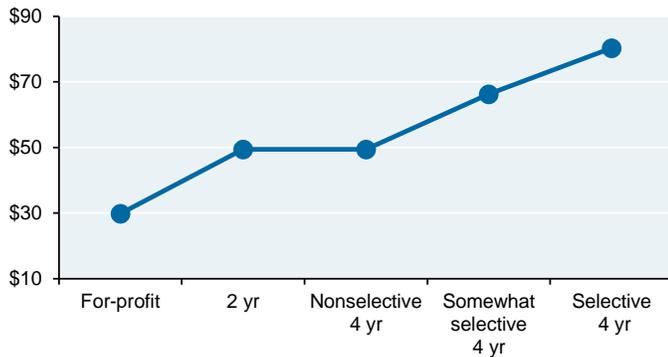
Acronyms

CBO Congressional Budget Office; **CPI** Consumer Price Inflation; **FCRA** Fair Credit Reporting Act; **FHA** Federal Housing Administration; **FHFA** Federal Housing Finance Authority; **GAO** Government Accountability Office; **GSE** Government Sponsored Enterprise; **HUD** Housing and Urban Development; **IPEDS** Integrated Postsecondary Education System; **NCES** National Center for Education Statistics; **NSLDS** National Student Loan Data System; **STEM** Science Technology Engineering and Math

Appendix II: Socio-economic characteristics of student loan borrowers by institution type

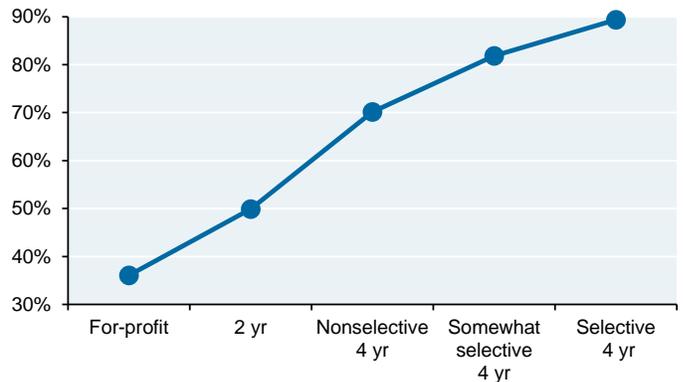
Median parental income of borrowers, 2011

Real 2014 \$, thousands



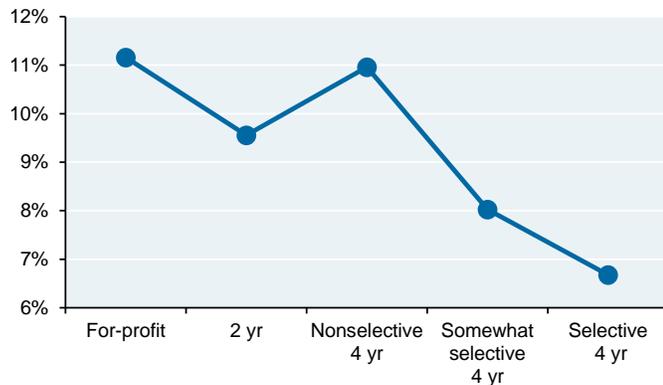
Source: A. Looney, "A crisis in student loans", Brookings Institution. 2014.

Percentage of borrowers that are dependents, 2011



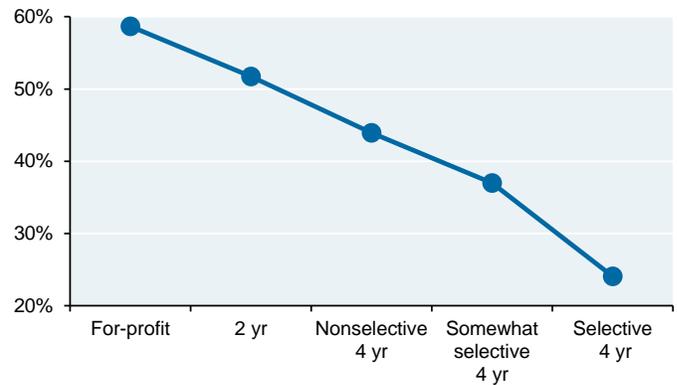
Source: A. Looney, "A crisis in student loans", Brookings Institution. 2014.

Local poverty rate of borrowers, 2011



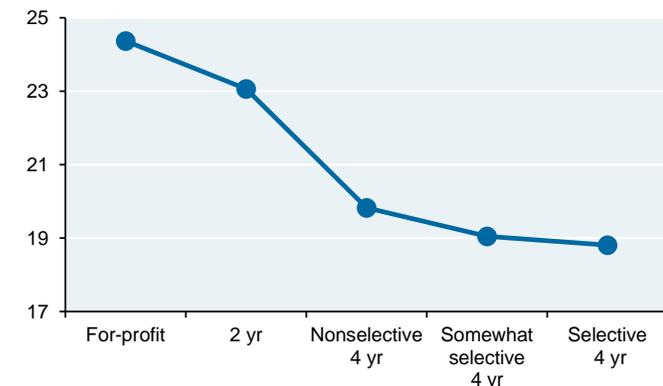
Source: A. Looney, "A crisis in student loans", Brookings Institution. 2014.

Percentage of borrowers that are first generation, 2011



Source: A. Looney, "A crisis in student loans", Brookings Institution. 2014.

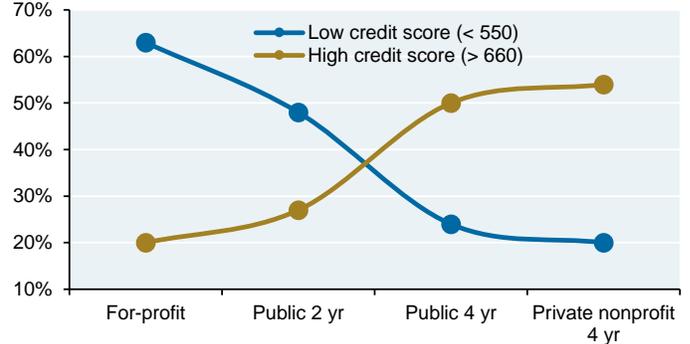
Median age at entry of borrowers, 2011



Source: A. Looney, "A crisis in student loans", Brookings Institution. 2014.

Credit scores by institution type

1998 - 2005, measured in the year before entering repayment



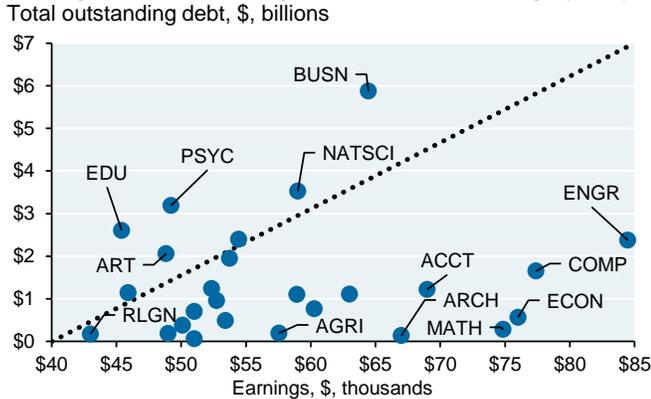
Source: Mezza and Sommer, 2015. Credit score = TransUnion Account Management score.

Appendix III: Should students be encouraged to choose majors based on outcomes?

Some economists see a large mismatch between skills workers have and what employers need, and believe that this mismatch contributes to structural unemployment, reduced output and higher loan defaults¹¹. The first chart below is one way to think about the skills mismatch: there is almost **no relationship between total outstanding student loan debt by major and earnings per major**, suggesting that a lot of students migrate towards fields of study with less economic value to society. The third chart shows that there’s certainly more room in the US for STEM majors; the US ranks close to the bottom regarding STEM graduates as a % of total.

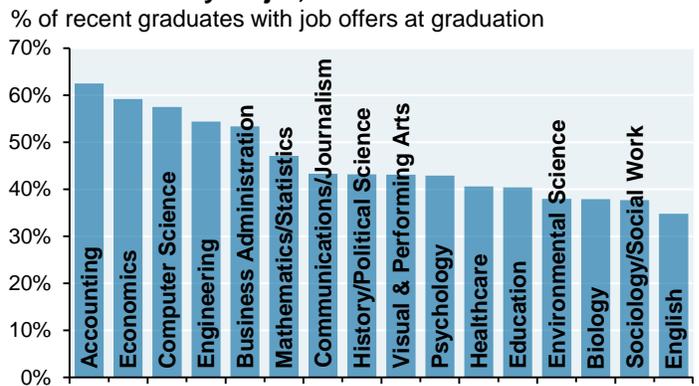
There are ways in which loan availability and pricing could be used to create incentives to close this skills mismatch. If that sounds too “deterministic”, **that’s how most of the rest of the developed world effectively functions**. How so? Other developed countries primarily finance higher education through general tax revenues. Students pay minimal tuition and fees while they’re in school and have minimal debt burdens. However, access to university education is allocated through competitive exams, and since the government provides funding for education, it can prioritize certain fields of study and devote more resources to those areas, matching educational offerings with employment opportunities.

Average median earnings vs debt outstanding by major



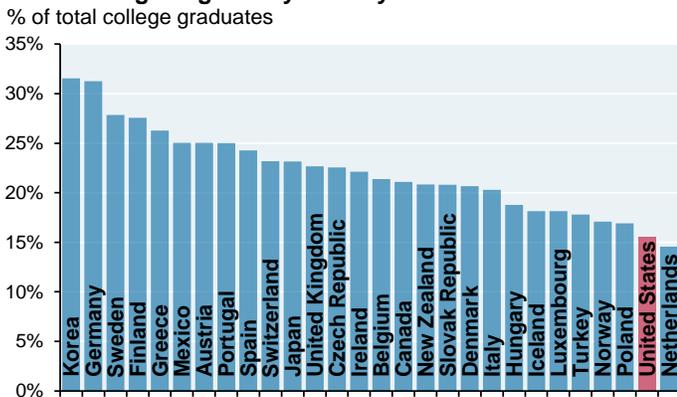
Source: Georgetown University, U.S. Department of Education. 2015.

Job offer rate by major, 2014



Source: National Association of Colleges and Employers. 2014.

STEM college degrees by country



Source: OECD. 2012. STEM = science, technology, engineering, and math.

¹¹ "Risk-based student loans", Washington & Lee Law Review, M. Simkovic (Seton Hall), 2013.

In a world of constant information, can it be argued that students are not aware of the realities shown on the prior page about wages and majors? Actually, yes:

- In one study of undergraduates at the University of California San Diego, students overestimated wages per college major by 20%
- Studies also show that students typically learn about labor market outcomes a year before graduation, which is too late to easily change majors
- Students who know the least about major and occupational wage differences are often from poorer families
- Students are not just uninformed, but many have been actively misled by aggressive and deceptive recruiting efforts by some for-profit institutions (see box)¹²
- On the related topic of student awareness, one study in 2014 found that 14% of students taking on student loans weren't even aware after the fact that they had borrowed money in the first place

Examples of misleading or fraudulent behavior by for-profit colleges reported by the GAO after its undercover investigation in 2010

- Representatives from 13 of 15 colleges gave applicants deceptive or otherwise questionable information about graduation rates, guaranteed applicants jobs upon graduation, or exaggerated likely earnings. One example: a small beauty college told an applicant that barbers can earn \$150,000 to \$250,000 a year. While this may be true in exceptional circumstances, the Bureau of Labor Statistics reports that 90% of barbers make less than \$43,000 a year
- Representatives from 9 of 15 colleges gave undercover applicants deceptive or otherwise questionable information about the duration or cost of their colleges' programs
- 4 of the 15 colleges encouraged applicants to engage in financial fraud, including falsifying the number of dependents in order to qualify for a Pell grant, and to not report a \$250,000 inheritance in order to qualify for grants and loans

¹² See "Undercover Testing Finds Colleges Encouraged Fraud and Engaged in Deceptive and Questionable Marketing Practices", US Government Accountability Office, August 2010; and Frontline's "College, Inc.: The Sales and Marketing Story", PBS, April 2010

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