Measuring Quality or Subsidy?

HOW STATE APPROPRIATIONS RIG THE FEDERAL GAINFUL EMPLOYMENT TEST

PRESTON COOPER AND JASON D. DELISLE

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Executive Summary

Perhaps the Obama administration's signature policy on higher education was the promulgation of the gainful employment (GE) rule. The rule, which went into effect in 2015, requires all certificate programs, and degree programs at for-profit colleges, to ensure that their graduates maintain a sufficiently low ratio of student debt payments to earnings, or they will lose access to federal student aid. The Department of Education released the first year of debt and earnings data on programs subject to the rule in January 2017.

One shortcoming of the GE rule is that it does not take into account society's full investment in credentials produced by public institutions of higher education. Public institutions receive direct appropriations from state and local governments equivalent to thousands of dollars per year for each student they enroll. Meanwhile, private for-profit institutions receive no such appropriations and must charge higher tuition to support a level of expenditures comparable to that of their public-sector counterparts.

Higher tuition at for-profits means students take on more debt, while public institutions have the luxury of charging lower tuition due to their direct appropriations. Therefore, even if a for-profit institution and a public institution have similar overall expenditures (costs) and graduate earnings (returns on investment), the for-profit institution will be more likely to fail the GE rule, since more of its costs are reflected in student debt.

This creates an uneven playing field between public and for-profit institutions. Not coincidentally, for-profit institutions pass the GE rule at much lower rates than their public counterparts: 76 percent of undergraduate certificate programs at for-profits pass, compared to nearly 100 percent at public institutions. Under a hypothetical level playing field, under which all institutions receive direct appropriations (or none do), would the GE pass rates of public and for-profit institutions look more similar?

To answer this question, we simulate direct state appropriations at for-profit institutions offering undergraduate certificate programs. Assuming for-profit institutions would apply all those funds toward lowering students' debt burdens, 93 percent would pass the GE rule. Assuming lower rates of pass-through appropriations onto student debt yields concomitantly lower simulated GE pass rates. We also simulate the opposite scenario, in which public institutions lose their direct appropriations and all the foregone revenue is reflected in higher debt burdens for students. Under this scenario, 93 percent of public institutions pass the GE rule.

These simulations show that direct appropriations can explain most, but not all, the disparity in GE pass rates between undergraduate certificate programs at for-profit and public institutions. We explore several potential explanations for this result and the disparity that remains even after our simulation.

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One of the Obama administration's signature higher education initiatives was creating a gainful employment (GE) rule for career college programs. The rule took effect in 2015 and is based on the notion that former students are gainfully employed if their earnings are high enough to justify the debt they took on to finance their credentials. Programs at institutions of higher education covered by the rule that do not produce graduates who maintain a sufficiently low ratio of student debt to earnings lose access to federal student aid such as student loans and Pell Grants. The rule applies largely to programs offered at for-profit colleges; degree programs at public and private nonprofit institutions are exempt. However, certificate programs at all types of institutions must pass the rule's test.

While a rule such as GE can be an important consumer protection, many in the policy community also view GE as a proxy for quality or a signal about which programs will likely lead to a sufficient return on investment. Some also argue GE should be applied to all types of credentials at all types of institutions.[1] In these commentators' view, this would create a level playing field and hold a broader set of institutions accountable for their prices and return on investment. But would it?

Lost in those arguments is that GE uses student debt as the sole measure of the investment in an educational credential. (The student's earnings are the return on that investment.) Student borrowing at public institutions is artificially low relative to what the education actually costs. Most public colleges and universities receive direct appropriations from state and local governments, which policymakers provide to reduce the tuition that those institutions charge students. That is a great deal for students, but it means *policymakers* (and by extension, taxpayers) cannot look at student debt burdens to know whether an education program provides a good return on investment for society at large. Moreover, policymakers cannot meaningfully compare value between programs at public institutions and programs at private institutions, which do not receive such appropriations.

Those facts also mean that GE might simply test whether an education program is subsidized through appropriations, not whether it is of a higher quality or offers better value. After all, a sufficiently large government subsidy can make even the worst private investment seem worth it to the investors if returns are measured against only their contributions. Therefore, GE in its current form is essentially rigged to overstate the value of programs offered at public institutions of higher education compared with those at their for-profit peers. Expanding the rule to more programs at public institutions, such as four-year degrees, is therefore unlikely to achieve the kind of level playing field intended.

To be sure, if GE's sole purpose is consumer protection (i.e., making sure that programs provide an adequate return to the student alone), then using student debt as the sole measure of investment is defensible. But if policymakers wish to use GE as a means of testing which programs are high return enough to justify public investment, then the rule's design is inadequate. In other words, the GE rule provides useful information only if policymakers care about

Table 1. Applicability of the GE Rule

	Public Institutions	Private Nonprofit Institutions	Private For-Profit Institutions
Certificate Programs	Applies	Applies	Applies
Degree Programs	Does Not Apply	Does Not Apply	Applies

Source: Program Integrity: Gainful Employment, 34 CFR § 668 (2014).

a student's private return on investment alone and believe that it is irrelevant whether a program represents a good investment for society as a whole.

However, if policymakers care about a student's private return and the return on society's full investment, then GE is inadequate. To that end, we examine how a major form of social investment not captured in the GE data—direct state and local appropriations—affects GE pass rates when it is taken into account.

To gauge the extent to which GE results are affected by appropriations at public institutions, we conduct a simple analysis to answer the following questions. If for-profit institutions received direct appropriations like their public peers, would more of their programs pass the GE rule? If public institutions did not receive those appropriations and had to cover their costs by raising tuition, would more of their programs fail the GE rule? Because certificates are the only credential for which we can broadly compare GE pass and fail rates across public and for-profit institutions, we limit our analysis to programs offering those credentials.

Background on the GE Rule

By law, to be eligible for federal student aid, an institution of higher education that awards certificates must "prepare students for gainful employment in a recognized occupation."[2] In addition, any for-profit institution of higher education—including those that award degrees, not certificates—must also prepare students for such "gainful employment."[3]

Based on these statutes, the Department of Education under President Barack Obama created a GE test for certificate programs at all institutions of higher education, as well as for both degree and certificate programs at for-profit institutions. Degree programs at public and private nonprofit institutions are exempt. While this applicability may appear somewhat arbitrary, it is based on the language of the Higher Education Act. Table 1 shows the applicability of the GE rule.

As our analysis depends on a comparison across public and for-profit institutions, we focus specifically on certificate programs. The department first published its GE rule in October 2010,[4] but the regulation suffered defeats in court.[5] The Obama administration was ultimately successful in developing a rule that could (at least so far) withstand judicial scrutiny. This second iteration of the rule was published in the Federal Register on October 31, 2014, and took effect on July 1, 2015.[6]

Under the rule, the department collects data on the combined federal and private student loan balances and earnings of each cohort of graduates, excluding students who do not finish their programs or who do not receive any federal financial aid. Then, it applies two separate tests based on whether a program's graduates have a sufficiently low ratio of student debt payments to earnings. In essence, the department considers a cohort of students to be gainfully employed if their postgraduation incomes are high enough to meet their debt obligations without undue financial distress. Thus, the two GE tests are a measure of how much students borrow to pay for their educations and how much they earn after completing their programs. The only difference between the two separate tests is how each measures income.

The first test is called the annual earnings rate. It compares the median student's estimated annual loan payment[7] to the mean or median (whichever is

higher) annual earnings of students who completed the program. (Note that the median student measured by debt and the median student measured by earnings could be different individuals.) A program passes the test if students' loan payments are less than or equal to 8 percent of their incomes. It is in the zone if students' loan payments are between 8 percent and 12 percent of income. Any rate above 12 percent is failing.[8] For example, if the typical student's estimated annual debt payment is $1,000, and his graduating cohort's annual earnings are $20,000, then the program's annual earnings rate is $1,000 divided by $20,000, or 5 percent. This program passes the test.

$$\text{Annual Earnings Rate} = \frac{\textit{Estimated Annual Loan Payment}}{\textit{Higher of Mean or Median Earnings of Graduates}}$$

A second test is called the discretionary income rate. It compares the same loan payment amount used in the first test to the mean or median (again, whichever is higher) discretionary income of students who completed the program. Discretionary income is a student's annual earnings minus 150 percent of the federal poverty guideline for a single person.[9] A program passes the discretionary income test if loan payments are less than or equal to 20 percent of discretionary income. It is in the zone if loan payments are between 20 percent and 30 percent of discretionary income. Anything above 30 percent is failing.[10] For example, if the typical student's estimated annual debt payment is $1,000, and his graduating cohort's annual earnings are $20,000, then the cohort's discretionary income is equal to $1,910, or $20,000 minus 150 percent of the poverty line. The discretionary income rate is $1,000 divided by $1,910, or 52 percent. The program fails the test.

$$\text{Discretionary Income Rate} = \frac{\textit{Estimated Annual Loan Payment}}{\textit{Higher of Mean or Median Earnings of Graduates} - \textit{150\% of Federal Poverty Line}}$$

To pass the GE rule, a program needs to pass only one of these tests. If the program does not pass, it does not automatically fail, either: It will be in the zone for the whole rule if it has a zone determination for either test. Only if a program fails both tests will it fail the GE rule altogether. Table 2 illustrates how various results on each of the two tests determine a GE program's final status.[11]

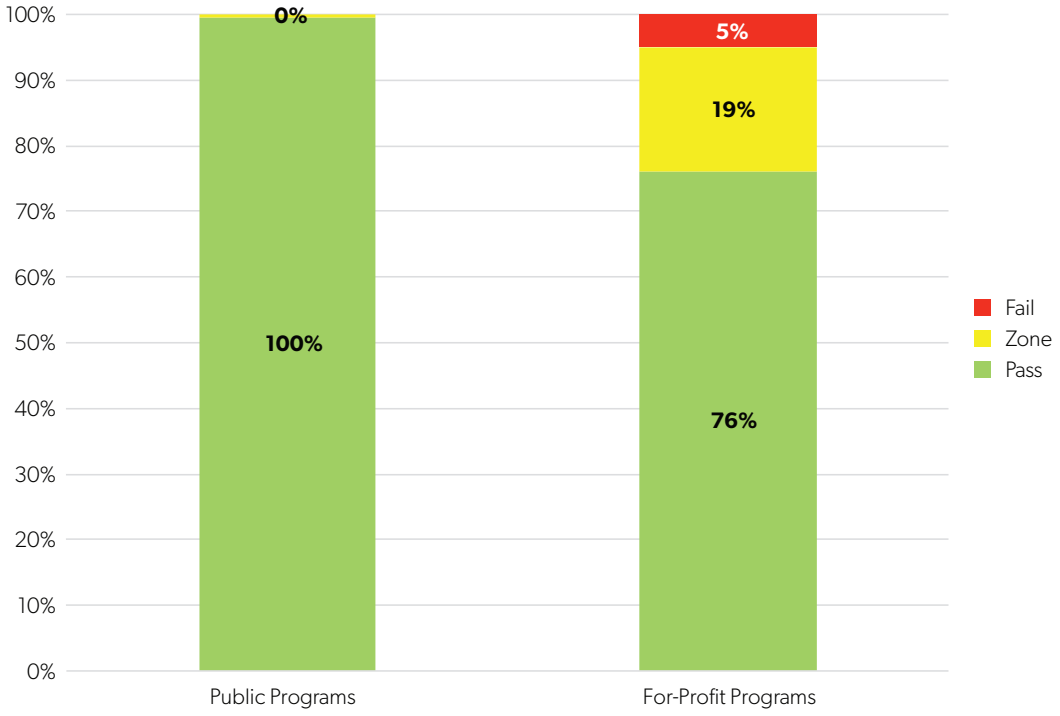
A program will lose its eligibility for federal student aid (i.e., student loans, work study, and Pell Grants) if it fails the GE test for two out of any three consecutive years, or if it is either failing or in the zone for four consecutive years.[12] Since the department has only calculated one year's worth of GE data, no program has yet lost eligibility for federal student aid under the GE rule.[13]

Table 2. Pass, Zone, or Fail Determinations by Annual Earnings and Discretionary Income Rates

	Discretionary Income Rate 20% or Lower (Pass)	Discretionary Income Rate Between 20% and 30% (Zone)	Discretionary Income Rate Higher Than 30% (Fail)
Annual Earnings Rate 8% or Lower (Pass)	Pass	Pass	Pass
Annual Earnings Rate Between 8% and 12% (Zone)	Pass	Zone	Zone
Annual Earnings Rate Higher Than 12% (Fail)	Pass	Zone	Fail

Source: Program Integrity: Gainful Employment, 34 CFR § 668 (2014).

Figure 1. GE Pass Rates for Undergraduate Certificate Programs, by Sector



Source: Department of Education, "Gainful Employment Information."

Reviewing GE Statistics for Certificate Programs

The Department of Education released the first official GE data in early 2017.[14] The data covers the 2015 calendar year and reflects earnings and loan balances from students who completed their education programs in the 2010–11 and 2011–12 academic years.[15] We use the publicly available data[16] on certificate programs to present descriptive statistics on the GE pass rates and to conduct our analysis.[17]

As was discussed earlier, which programs and types of institutions are covered under GE is complicated. We limit our analysis to undergraduate certificate programs because they are covered by GE regardless of the type of institutions offering the program. These credentials are not degrees but instead certify that an individual has acquired the knowledge and skills to participate in a certain career. They are predominantly offered by community colleges and for-profit colleges and usually require much less of a time commitment than degrees. Undergraduate certificate programs represent 70 percent of all programs GE covers and therefore provide the best possible approximation of the GE landscape as a whole.[18]

The universe of undergraduate certificate programs encompasses 6,082 programs subject to the GE rule. Of these, more than half (54 percent) are offered by for-profit institutions. Another 40 percent are offered at public institutions. The remaining 6 percent are provided by private nonprofit institutions, a group we exclude from our analysis due to small numbers. As shown in Figure 1, no programs at public institutions fail the GE rule, while just nine (less than 1 percent) are in the zone. The landscape is different at for-profit institutions, where just over three-quarters (76 percent) of programs pass. Another 19 percent are in the zone, and 166 programs (5 percent) fail.[19]

The reason for these different results is twofold. Graduates of undergraduate certificate programs at

Table 3. Debt Levels and Earnings of Undergraduate Certificate Programs Subject to the GE Rule

Sector	Number of Programs	Median Estimated Annual Debt Payment (Numerator)	Corresponding Debt Level at Graduation	Higher of Mean or Median Annual Earnings (Denominator)
Private For-Profit	3,260	$1,153	$8,346	$18,580
Public	2,428	$389	$2,815	$29,213
All*	5,688	$827	$5,985	$23,119

Notes: *Programs at private nonprofit institutions are excluded from the summary statistics here, but they represent only 6 percent of undergraduate certificate programs subject to the GE rule. All data are taken directly from the 2015 GE spreadsheet the Department of Education published. The exception is the debt level at graduation, which is calculated based on the estimated annual debt payment using an interest rate of 6.8 percent and an amortization period of 10 years, following the procedure laid out in 34 CFR § 668.404. All columns are averages among programs; we do not weigh by the size of student populations.
Source: Department of Education, "Gainful Employment Information."

for-profit institutions have higher debt levels and lower earnings, on average, than their peers at public institutions. Table 3 illustrates these disparities.

A typical undergraduate certificate recipient at a for-profit institution graduates with $8,346 in debt, roughly $5,500 more than his typical peer at a public institution. Intuitively, this makes sense. Public institutions charge students lower tuition for certificate programs than for-profit institutions. Therefore, students who attend public institutions accumulate less debt.

The Role of Direct Appropriations in GE Pass Rates

One of the reasons public institutions charge lower tuition and fees is because they receive direct appropriations from their state and local governments that offset what the institutions might otherwise need to charge students. For example, in 2015 the median two-year public institution collected about $11 million in direct appropriations from state and local governments. This works out to around $4,600 per full-time equivalent student.[20] For-profit institutions do not have a comparable source of external revenue.[21]

Consequently, for-profit institutions must theoretically charge more than peer institutions in the public sector even if their operating costs are similar. Those higher prices induce students to borrow more. Policy discussions regarding GE so far have largely ignored this distinction. The distinction is, however, relevant to the question of whether an investment in a particular educational program has a sufficient payoff.[22]

The GE rule seeks to quantify whether GE programs provide a good return on investment. In other words, the rule attempts to test whether a particular program's payoff (graduate earnings) is worth its cost. But direct government appropriations at public institutions mean that for these institutions, tuition paid by students does not approximate the full cost to society of producing a credential. The GE rule's measure of cost—student debt—is thus incomplete.

The danger here is that a program at a public institution may provide a low return on investment from a societal perspective but pass the GE rule anyway because a large portion of the cost of providing it is not taken into account. Moreover, for-profit institutions, due to lack of direct appropriations, may appear to have a poor return on investment relative to their public counterparts. The distortion direct appropriations introduce may cause prospective students, when deciding which educational pathways to pursue, to make decisions that are rational for the students themselves but uneconomical for society. This is because taxpayers bear a significant fraction of the total costs of producing certain credentials, but not others.

To be sure, if the purpose of the GE rule is to measure only the student's return on investment, its current design is justifiable. But policymakers should consider the return on society's full investment in each program. Viewed through this lens, the GE rule is decidedly incomplete.

This also suggests that applying the GE rule to degree programs at public institutions, as some have proposed, may be an insufficient reform. Since public institutions benefit from direct appropriations, we expect an uneven playing field would remain even if GE were applied universally. Of course, comparing actual GE pass rates for degree programs across sectors is impossible, since the GE rule does not apply to degree programs at public and private nonprofit institutions (and the Department of Education only collects and publishes GE data on programs subject to the rule).

Data and Methods

To gauge the extent to which GE results are affected by appropriations at public institutions, we first calculate the median debt level of each program based on estimated annual loan payments reported by the Department of Education. Next, we adjust each program's debt level by a specified amount, adding debt for public institutions and subtracting it for for-profit institutions. Finally, we recalculate each program's estimated annual loan payment and determine whether it would pass the GE rule under the alternative circumstances.

Our primary source of data is the GE spreadsheet the Department of Education published.[23] This spreadsheet contains basic information about each institution, including sector, level, and location, as well as program-specific information such as credential level. The spreadsheet also contains each program's GE information, including estimated annual debt payments, mean and median graduate incomes, and whether the program passed the GE rule. We supplement the GE spreadsheet with data on direct state and local appropriations per full-time equivalent student at public institutions from the Integrated Postsecondary Education Data System (IPEDS).[24]

The first step in our analysis is using annual loan payments to calculate the median debt level of a student cohort upon graduation. According to regulation, the department must use an amortization period of 10 years and an interest rate of 6.8 percent to calculate annual payments based off a given debt level for the 2015 GE data. Therefore, we use these parameters to reverse calculate the original debt level based on the estimated annual payments reported in the spreadsheet.[25]

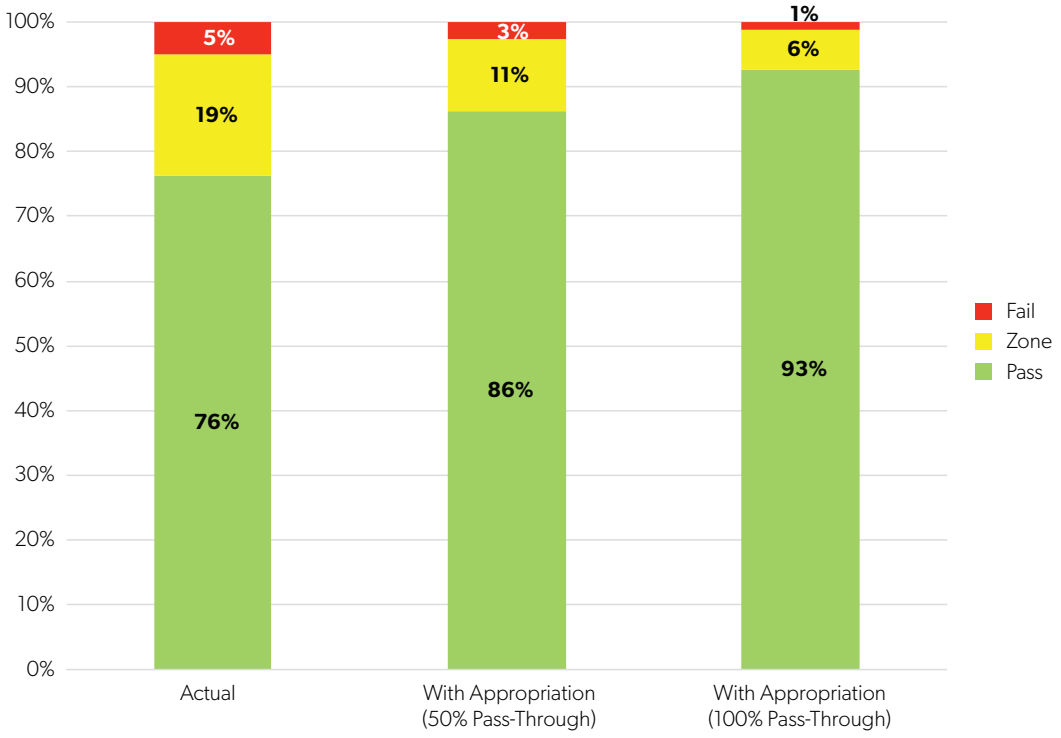
The next step is to adjust each debt level by an amount based on typical direct state and local appropriations. For public institutions, this is straightforward: We use the figures on state and local appropriations per full-time equivalent student reported in IPEDS for each institution. We drop schools with missing values (affecting 49 programs out of 2,428) from the analysis.

To calculate the hypothetical subsidy for for-profit institutions, we must use a different approach. We use the IPEDS data on state and local appropriations for the *public* institutions in our analysis to calculate the average direct appropriation per full-time equivalent student for each of three levels of public institution: less-than-two-year institutions, two-to-three-year institutions, and institutions of four or more years.[26] These averages then become the hypothetical subsidy for all for-profit institutions of the corresponding level.

One assumption we make in calculating these hypothetical appropriations is that students take one year to complete their certificate programs, so they receive only one year's worth of direct appropriations. Since the median certificate recipient takes more than one year to complete his or her program, this is a conservative assumption.[27]

We acknowledge that introducing direct government appropriations may not cause a one-to-one reduction in debt levels. Full pass-through of appropriations to debt implies that a $1 increase in direct government appropriations per student causes a $1 reduction in net tuition, which in turn causes a $1 reduction in debt levels. Since there is no simple way to determine pass-through across a broad array of

Figure 2. GE Pass Rates for Undergraduate Certificate Programs at For-Profit Institutions, Actual and with Simulated Direct Appropriations



Source: Authors' calculations, based on data from Department of Education, "Gainful Employment."

institutions, we report two sets of results: one assuming 50 percent pass-through of tuition to debt (a $1 increase in direct appropriations per student causes a 50-cent reduction in debt levels) and one assuming 100 percent pass-through.[28]

Assuming higher rates of pass-through implies that for-profit institutions would stand a better chance of passing GE were they given direct government appropriations. Conversely, higher rates of pass-through imply that public institutions are less likely to pass the rule without their direct appropriations. Therefore, assuming higher rates of pass-through makes the changes in GE pass rates implied by this exercise more dramatic.

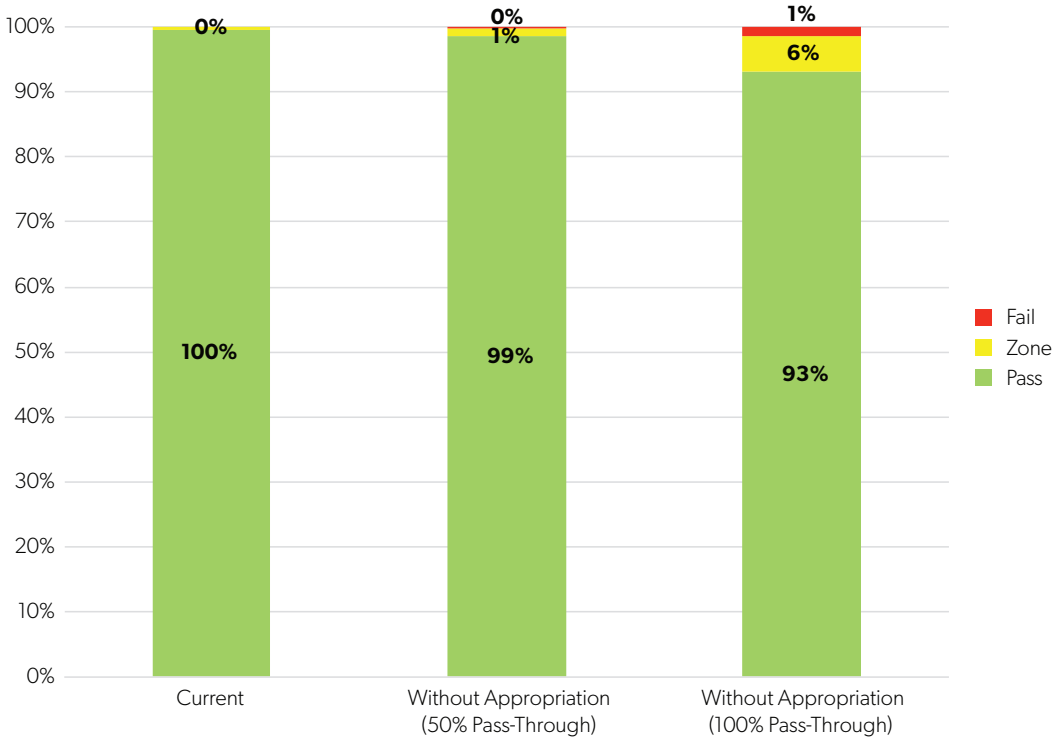
At this point, we have actual direct appropriations for public institutions and hypothetical appropriations for for-profit institutions. We subtract the direct appropriation from debt levels in the case of for-profit institutions and add it to the debt levels of public ones. As before, we use an amortization period of 10 years and an interest rate of 6.8 percent to calculate annual loan payments based on these simulated debt levels. We combine these simulated loan payments with existing data on earnings to calculate hypothetical GE pass rates for for-profit and public institutions under alternative circumstances.

Results

We report our results for for-profit and public institutions in the following two subsections and then turn to several highlights and potential explanations.

For-Profit Institutions. Currently, 76 percent of undergraduate certificate programs at for-profit institutions pass the GE rule (Figure 2). However, were they given direct government appropriations

Figure 3. GE Pass Rates for Undergraduate Certificate Programs at Public Institutions, Actual and Simulation Without Appropriations



Source: Authors' calculations, based on data from Department of Education, "Gainful Employment."

comparable to public institutions, that share would rise significantly. Assuming 50 percent pass-through (i.e., $1 in direct appropriations per student reduces median debt by 50 cents), the GE pass rate rises to 86 percent. Assuming full pass-through, the GE pass rate rises to 93 percent. Public institutions have a 100 percent GE pass rate, so introducing appropriations does not fully close the performance gap between the two types of institutions, but it comes quite close if we assume 100 percent pass-through of the hypothetical appropriations.

Measured by number of programs rather than share of programs, 535 additional programs at for-profit institutions would pass the GE rule if they had direct appropriations comparable to their public institution peers (assuming 100 percent pass-through). An additional 106 programs would move from failing to zone status. Just 40 programs would fail.

Public Institutions. Almost all programs at public institutions currently pass the GE rule, with just a handful in the zone and none failing. Removing appropriations chips away at this number, but the effect is not as dramatic as is the inverse in the for-profit sector. Assuming 50 percent pass-through (i.e., assuming that removing $1 in direct appropriations per student leads to a 50-cent rise in median debt), 99 percent of programs at public institutions still pass the rule. Assuming 100 percent pass-through, the GE pass rate falls to 93 percent (Figure 3). This is still much higher than the 76 percent GE pass rate of for-profit institutions under present conditions.

In absolute terms, 35 programs at public institutions would fail the GE rule without their direct appropriations (assuming 100 percent pass-through). An additional 131 programs would be in the zone. The vast majority, however, would still pass the rule even without their direct appropriations.

Why Is It Easier to Improve on GE Than Worsen? One of the most apparent results of the analysis is that changes to GE pass rates are asymmetrical. Granting hypothetical direct appropriations to for-profit institutions increases the GE pass rate from 76 percent to 93 percent: a 17 percentage-point swing. Conversely, simulating a lack of direct appropriations at public institutions and assuming students consequently borrow more to attend reduces the GE pass rate from roughly 100 percent to 93 percent: a swing of only 7 percentage points.

These asymmetrical effects make logical sense. It is easier for a program's GE status to improve than to deteriorate. As discussed earlier, the GE rule creates two tests of the debt-to-earnings ratio of a program's graduates: the annual earnings test and the discretionary income test. To pass the GE rule, a program must pass only one of the tests; to fail, a program must fail both.

Take the example of a program currently failing the GE rule, which must necessarily be failing both GE tests. For the program to move from failing to passing, it need only move to passing status on one of the two tests. Therefore, our adjustment need only bring one of the two debt-to-earnings ratios into passing territory for the program to pass the entire GE rule. Contrast this with a program passing under the actual system. For a passing program to instead fail the whole rule, our adjustment must bring not just one but both of the ratios into failing territory. Moving down is thus significantly more difficult than moving up.

For-Profits Are Different Even After Adding a Direct Appropriation. Another interesting finding is that the simulated direct appropriation, even when assuming it is fully passed through to a reduction in tuition and students' debt loads, does not bring for-profit programs up to the same near-100 percent GE pass rate of their public-sector counterparts. The subsidy still has a powerful effect, though, closing most of the gap between the public and for-profit sectors' GE pass rates. But this exercise demonstrates that even after accounting for varying levels of state support, important differences still remain between public and for-profit certificate programs.

Specifically, for-profit institutions charge higher net tuition than their public counterparts, even after accounting for direct state appropriations. Students graduating from certificate programs at for-profit institutions had an average net tuition of $8,649, compared to $1,052 for their peers at public institutions.[29] This represents a difference of $7,597, which is much higher than the average direct state subsidy of $4,506 the public institutions in this analysis received. Direct appropriations do not account for the entire difference in net tuition between public and for-profit colleges, meaning other factors are still responsible for the disparity between the two sets of schools.

As discussed earlier, for-profit institutions' graduates also have lower earnings, on average, than public institutions' graduates. Consequently, even if the median debt burdens across both types of institutions were equalized, a disparity would still remain in GE pass rates. We consider two potential factors behind the earnings gap: the prevalence of cosmetology programs at for-profit institutions and lower completion rates at public institutions.

Cosmetology Programs Skew Results. The type of certificate program may matter more than what type of institution is offering it. While certificate recipients at for-profit institutions have lower earnings, on average, than their peers at public institutions, this fact is largely explained by the different types of career programs offered by each sector. For-profit schools disproportionately offer credentials in low-return fields, particularly cosmetology.[30] Cosmetologists' reported earnings are low regardless of whether they graduated from a for-profit or public institution. But since cosmetology programs are more common at for-profit institutions, they drag down the sector's average.

The result is that cosmetology programs fail the GE rule at high rates both before and after our adjustment. Under the actual GE rule, cosmetology programs pass at a rate of 64 percent. After simulating direct appropriations and assuming 100 percent pass-through, cosmetology programs have an 86 percent GE pass rate. Cosmetology programs comprise two-thirds of programs still in the zone or failing after

we simulate direct appropriations, despite representing just one-third of for-profit programs overall.[31]

Excluding cosmetology, other programs at for-profit institutions have a 96 percent pass rate in our simulation. This leaves only a 4 percentage-point gap between the adjusted pass rate of for-profit programs and the actual pass rate of their public counterparts.[32]

Excluding cosmetology programs may be justified given data quality concerns regarding the earnings of cosmetologists. In a lawsuit filed in February 2017, the American Association of Cosmetology Schools alleged that the department's earnings data undercount cash tips and self-employment income their member schools' graduates receive.[33] If these concerns are valid, then the earnings figures used to calculate GE pass rates for cosmetology programs could be unreliable.

Completers vs. Noncompleters. Also on the earnings side, the GE data reported here only covers program *completers*. For-profit certificate programs have much higher completion rates than their public counterparts.[34] If the standards for completion are lower at for-profit institutions, then the pool of completers at these institutions may contain disproportionately more individuals with low earnings potential. This may bias upward average earnings at public institutions if many low earners do not complete their programs and thus are not captured in the GE data.

More comprehensive data would take into account all former enrollees in programs subject to GE, not just completers. Since completers probably have higher earnings potential than noncompleters, the earnings figures reported in the GE data are most likely biased upward. Unfortunately, data on noncompleters by program are unavailable, so we cannot empirically test this possibility.

Subsidy Pass-Through Assumptions Affect Results. Finally, the results of this exercise vary significantly based on assumed rates of pass-through. A full examination of the effects of direct state appropriations on tuition, and consequently on debt, is beyond the scope of this report. Therefore, we report results for two rates of pass-through: 50 percent and 100 percent. The GE pass rate for for-profit programs is substantially lower assuming 50 percent pass-through (86 percent GE pass rate) than full pass-through (93 percent GE pass rate).

If one holds the view that direct public appropriations are crucial to holding down tuition, then a high rate of pass-through is an appropriate assumption. Consequently, one should take the view that lack of direct appropriations, not quality problems unique and endemic to the sector, are the main reason so many for-profit programs fail the GE rule.

However, if one holds the view that institutions of higher education are revenue maximizers facing an imperfectly competitive market, then direct appropriations would have a more limited effect on tuition and debt. In other words, for-profit institutions receiving a direct subsidy might decide not to pass it on to students in full, and public institutions deprived of a direct subsidy might not be able to recoup all the lost revenue through higher tuition. Under this assumption, direct appropriations would make less of a difference to for-profit institutions' performance on the GE rule.

Conclusion

Public and for-profit institutions of higher education face an uneven playing field under GE. The former receive substantial direct appropriations, which are not reflected in the Education Department's debt-to-earnings calculations. Were for-profit schools to receive direct appropriations comparable to their public-sector counterparts, many more programs would likely pass the GE rule. However, public institutions would still perform better overall.

These results suggest that a significant share of programs at for-profit institutions fail the GE rule because they are not subsidized by state and local legislatures, not because they offer low-quality programs vis-à-vis their public peers. An apples-to-apples comparison of public and for-profit institutions would eliminate most, but not all, the disparity in GE pass rates between the two sectors.

In developing future policies that aim to measure the value of a credential and its return on investment,

lawmakers should understand that student debt is not a comprehensive measure of society's *total investment in an education program*. They will need to develop alternative metrics that account for the differences in funding structure between public and private institutions if they want to show what students and taxpayers are getting for their money.

About the Authors

Preston Cooper is a research analyst with the Center on Higher Education Reform at the American Enterprise Institute. **Jason D. Delisle** is a resident fellow at the American Enterprise Institute.

Notes

1. Randy Proto, "How to Better Regulate Higher Education," *Hill,* September 28, 2010, http://thehill.com/blogs/congress-blog/education/121347-how-to-better-regulate-higher-education; and Amy Laitinen et al., "Rebalancing Resources and Incentives in Federal Student Aid," New America Foundation, January 2013, https://static.newamerica.org/attachments/2325-rebalancing-resources-and-incentives-in-federal-student-aid/NAF_Rebalancing%20Resources%20FINAL.0b361735744e40c2a088e38239bb0a24.pdf.
2. General Definition of Institution of Higher Education, 20 USC § 1001(b)(1), www.law.cornell.edu/uscode/text/20/1001.
3. Definition of Institution of Higher Education for Purposes of Student Assistance Programs, 20 USC § 1002(b)(1)(A). Includes an exception for for-profit programs that award bachelor's degrees in liberal arts, provided such programs have existed since 2009.
4. Program Integrity Issues: Final Rule, 34 CFR § 600 et al. (2010), https://ifap.ed.gov/fregisters/FR102910Final.html.
5. Tamar Lewin, "Judge Strikes Main Element of For-Profit College Rules," *New York Times,* July 1, 2012, www.nytimes.com/2012/07/02/education/judge-strikes-a-for-profit-college-regulation.html.
6. Program Integrity: Gainful Employment, 34 CFR § 668 (2014), https://ifap.ed.gov/fregisters/FR103114Final.html.
7. The Department of Education does not observe actual annual loan payments but instead estimates them based on the median student's debt load and an amortization period and interest rate specified in regulation. See Calculating D/E Rates, 34 CFR § 668.404(b), www.law.cornell.edu/cfr/text/34/668.404.
8. Gainful Employment Program Framework, 34 CFR § 668.403(c), www.law.cornell.edu/cfr/text/34/668.403.
9. See 34 CFR § 668.404(a)(1). The poverty line is updated every year. In 2017, the poverty line for a single person was $12,060.
10. See 34 CFR § 668.403(c).
11. Ibid. If a program is failing or in the zone, it still has a last chance to pass. See also 34 CFR § 668.404(g), under which a program can substitute the estimated annual loan payments for the most recent cohort of completers in the calculations of the annual earnings rate and the discretionary income rate. If using the debt figures from this so-called transitional cohort improves a program's debt-to-earnings ratios, the Education Department uses the transitional ratios in lieu of the original ones. For the most recently completed GE cohort, this provision affected less than 3 percent of programs.
12. See 34 CFR § 668.403(c)(4); and 34 CFR § 668.403(c)(5).
13. Institutions also have recourse to challenge "zone" or "fail" determinations by the Education Department under the GE rule. These are laid out in Issuing and Challenging D/E Rates, 34 CFR 668.405, www.law.cornell.edu/cfr/text/34/668.405; and D/E Rates Alternate Earnings Appeals, 34 CFR § 668.406, www.law.cornell.edu/cfr/text/34/668.406.
14. Department of Education, "Education Department Releases Final Debt-to-Earnings Rates for Gainful Employment Programs," press release, January 9, 2017, www.ed.gov/news/press-releases/education-department-releases-final-debt-earnings-rates-gainful-employment-programs.
15. If the program had fewer than 30 students completing their education programs during these two academic years, then the data cover students who completed their programs in all academic years from 2008–09 to 2011–12.
16. Department of Education, "Gainful Employment Information," https://studentaid.ed.gov/sa/about/data-center/school/ge.
17. Our analysis and the descriptive statistics presented here cover only undergraduate certificate programs. Among all programs that received a rating, 803 (9 percent) failed. An additional 1,237 (14 percent) were in the zone, leaving 6,595 (76 percent) that passed. The distribution of ratings was dissimilar across sectors of higher education. Among programs at public institutions, more than 99 percent passed the rule, compared to just 66 percent at for-profit institutions. At private nonprofit institutions, 82 percent of programs passed. As the appeals process was still ongoing at the time of publication, all the figures discussed in this report are before any appeal.
18. Degree programs at for-profit colleges have a lower pass rate (46 percent) than certificate programs in any sector. Since the GE rule does not apply to degree programs at public and private nonprofit institutions, it is impossible to know whether this lower pass rate for degree programs applies across sectors.

19. The private nonprofit sector, though small, fares slightly better: 82 percent of programs pass, while 16 percent are in the zone, and 3 percent fail.

20. National Center for Education Statistics, "Use the Data," Department of Education, https://nces.ed.gov/ipeds/Home/UseTheData.

21. Direct appropriations contrast with portable subsidies, such as Pell Grants, in which the subsidy follows the student to the institution of his choice. Since portable subsidies are available to both public and private institutions, they are irrelevant to our analysis.

22. The question of why certificate completers at public institutions have higher earnings than those at for-profits is also interesting. One of the most important reasons is that for-profit and public institutions offer different types of certificate programs. When comparing programs in the same field of study, the earnings gap shrinks by more than two-thirds. This fact was highlighted in the Department of Education's GE fact sheet, released in November 2016. See Department of Education, "Fact Sheet: Department of Education Announces Release of New Program-Level Gainful Employment Earnings Data," November 2016, https://www2.ed.gov/documents/press-releases/ge-fact-sheet-online.pdf.

23. Department of Education, "Gainful Employment."

24. The appropriations data are from the 2011–12 academic year, or the most recent year in which students covered by the 2015 data release completed their programs. National Center for Education Statistics, "Use the Data."

25. See 34 CFR § 668.404. The 10-year amortization period is the standard for undergraduate certificate programs; other credential levels have longer periods. The specified interest rate is an average of the interest rates in effect on unsubsidized undergraduate student loans before the end of the "cohort period." For the 2015 GE data, this means the interest rates are in effect in award years 2009–10, 2010–11, and 2011–12; the relevant interest rate in each of these award years was 6.8 percent.

26. The averages are as follows: less-than-two-year institutions are $2,452, two-to-three-year institutions are $4,875, and institutions of four or more years are $4,091.

27. Data on time to completion on a per-program basis are unavailable, so we must use one year to completion as a blanket parameter. See Department of Education, "Beginning Postsecondary Students 2004/2009," https://nces.ed.gov/surveys/bps/.

28. In the extreme scenario of 0 percent pass-through, our simulated GE pass rates would be identical to current GE pass rates, since 0 percent pass-through implies no effect of direct appropriations on student debt.

29. Net tuition here is defined as published tuition and fees minus average grant aid, including institutional, federal, state, and local aid. Department of Education, "National Postsecondary Student Aid Study," https://nces.ed.gov/surveys/npsas/.

30. Department of Education, "Fact Sheet: Department of Education Announces Release of New Program-Level Gainful Employment Earnings Data."

31. "Cosmetology" includes all programs with a CIP code beginning in 1204. These programs include general cosmetology, barbering, hairstyling, skin care, manicures, and other fields. See National Center for Education Statistics, "Classification of Instructional Programs (CIP): 12.04 Cosmetology and Related Personal Grooming Services," Department of Education, https://nces.ed.gov/ipeds/cipcode/cipdetail.aspx?y=55&cipid=88088.

32. While cosmetology programs comprise more than a third of undergraduate certificate programs at for-profit institutions, they are a much smaller share (8 percent) at public institutions. Removing them does not meaningfully affect the actual GE pass rate of public institutions, since it is already close to 100 percent. However, it does increase the *adjusted* GE pass rate of programs at public institutions from 93 percent to 95 percent, assuming 100 percent pass-through. The cosmetology programs themselves have a GE pass rate of just 67 percent after removing direct appropriations.

33. The source for the earnings data, the Social Security Administration, requires individuals to self-report income such as cash tips for tax purposes. Naturally, this creates an incentive to underreport. American Association of Cosmetology Schools v. Devos, Case No. 17-cv-00263 (2017), www.republicreport.org/wp-content/uploads/2017/02/AACS-v-Devos-complaint.pdf.

34. See Department of Education, "2012/14 Beginning Postsecondary Students Longitudinal Study (BPS:12/14) Data File Documentation," https://nces.ed.gov/pubsearch/pubsinfo.asp?pubid=2016062; and Preston Cooper, "Public Colleges Aren't a Better Bet Than For-Profits," *Forbes,* November 21, 2016, www.forbes.com/sites/prestoncooper2/2016/11/21/public-colleges-arent-a-better-bet-than-for-profits/.