



OFF THE MARK

The Limitations of
Instructional Spending Tests
for College Accountability

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INTRODUCTION

The federal government plays a major role in financing our higher education system through student loan and grant programs. Education assistance for veterans through the G.I. Bill and the Tuition Assistance Program for active-duty military students are another major source of financing. Policymakers have long expressed a desire to ensure that these investments are protected from waste, fraud and abuse. That has given rise to a set of quality assurance policies that determine whether an institution of higher education can participate in the programs.

Institutions must meet a range of eligibility criteria for students to be able to spend their federal aid at those institutions. They must be accredited, be authorized to operate in their respective states, and satisfy a financial integrity test with the U.S. Department of Education.¹ In addition, an institution's students cannot default on their loans at high rates (i.e., cohort default rate), and in the case of for-profit colleges, federal aid programs cannot account for more than 90% of revenue (the 90/10 rule)². For G.I. Bill eligibility, institutions must be reviewed by their state approving agency through the Department of Veterans Affairs. Institutions must also adhere to a separate set of Department of Defense rules to be eligible for the Tuition Assistance Program.³

In recent years, policymakers across the ideological spectrum have expressed concern that these protections

are inadequate. Some say the current rules do too little to address rising college prices and student debt. Others say the policies don't do enough to prevent colleges from offering programs where students are unlikely to graduate or earn wages that justify the tuition and debt.

These concerns have led some policymakers and advocates to call for new quality assurance policies that are based on student outcomes at each institution or program, such as graduation rates, student loan repayment rates, or earnings of former students. The Obama administration's gainful employment rule (which was repealed by the Trump administration) is perhaps the most notable reform within this movement.⁴ That policy linked eligibility for student aid programs directly to debt burdens and earnings of former students within each program of study, but was limited mainly to for-profit institutions.

More recently, some advocates and lawmakers have proposed a different type of quality assurance rule for federal aid programs that would judge colleges based on how much each institution spends on instruction. Specifically, a college that failed to spend a set share of its revenue on instruction would lose eligibility for federal student aid programs. Usually, this policy is proposed as an add-on to existing eligibility rules or would be coupled with additional rules related to student outcomes.

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RESULTS IN BRIEF

In this paper, we examine data on colleges' instructional spending and student outcomes to understand the size and scope of the policy, and to understand which institutions would be affected. We focus our analysis on a two-stage policy that first screens for institutions with weak student outcomes and then, in a second stage, sanctions those with low instructional spending. However, some proponents favor a policy that instead mandates a minimum spending level for all institutions; there is no first-stage screen based on student outcomes because all institutions must meet the spending benchmark. Many of our findings bear directly on the likely effects of this single-stage policy as well, and we discuss those cases throughout the paper.

Under a hypothetical two-stage test based on student loan repayment rates and instructional spending, we find that such a policy would arbitrarily sanction institutions and restrict choices for students, but is unlikely to materially improve student outcomes. Online and non-traditional institutions – including public and private non-profit providers – are much more likely to face sanctions under such a policy than traditional institutions due in large part to how accounting rules treat spending and revenue at each type of institution.

such a policy would arbitrarily sanction institutions and restrict choices for students, but is unlikely to materially improve student outcomes.

Sanctioning these institutions would have a disproportionate impact on veteran and military students who need the flexibility and other advantages offered by non-traditional education models and online formats far more than other students. Over half of veteran and military students rely on at least some online classes for their education, and they are twice as likely as other students to rely on a fully-online program.⁵

Further, we find that a two-stage test based on outcomes and instructional spending creates a large, categorical exemption for public institutions with weak student outcomes. For example, nearly every public institution (99%) that fails the first stage in our test for having low student loan repayment rates would pass the second stage test based on instructional spending. In contrast, only 60% of the for-profit institutions failing the first stage

would pass the second. Notably, loan repayment rates at for-profit institutions failing the instructional spending test are similar to those at the public and private nonprofit institutions passing it. Such seemingly arbitrary sanctions for for-profit institutions would disproportionately affect veteran and military students. Nearly 20 percent of these students rely on for-profit institutions for their education.⁶

Under a separate analysis of a one-stage test that sets a minimum spending-to-tuition ratio for all institutions, we find that the policy is likely to be overly broad and arbitrary with respect to student outcomes. Specifically, we find that more than 1,400 institutions would not meet a minimum instructional spending-to-tuition ratio of 33%. Student loan repayment rates at these institutions vary widely, with some showing outcomes that are better than half of all institutions, while others show weak outcomes.

Finally, we find that there is little correlation between student outcomes and the share of tuition revenue that institutions spend on instruction. This finding undermines one of the central arguments for all versions of an instructional spending test – that if institutions spent a higher share of their revenues on instruction, outcomes would improve and students and taxpayers would receive a higher return on their investment.

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PROPOSED POLICIES TO REQUIRE MINIMUM INSTRUCTIONAL SPENDING

Proposals to link eligibility for federal student aid to instructional spending have been advanced by a number of think tanks, researchers, and lawmakers.² There are, of course, many nuances to the different proposals and proponents often make different arguments for using instructional spending tests.

Some proponents argue that measuring how much institutions spend on instruction relative to how much they charge in tuition can be a useful proxy for quality. In their view, a college that spends a high share of its tuition revenue on instructing students is more likely to provide a high-value education. Whereas a college that spends a low proportion of revenue on instruction – because it is using resources on advertising, or enriching its shareholders if it is a for-profit college – is more likely to be providing a low-quality education. Other proponents do not make a direct connection to quality, but argue that spending can signal value for students, help identify fraudulent schools, or can identify colleges that may need more funding or other reforms to help improve outcomes.

While most proponents have provided limited details about how the policy would be structured, they tend to agree on at least one overarching feature – that the test

should be based on a ratio of spending, not an absolute level of spending. That is, colleges that spend low absolute amounts on instruction would not be penalized. Only institutions that spend a low share of their revenue on instruction would be penalized. Proponents say this ensures that the policy will not penalize institutions that charge low tuition (which therefore have fewer resources to spend on instruction) or those that are “under-resourced” for reasons outside their control (i.e., public institutions that receive relatively low annual appropriations from state lawmakers).

An area where proposals diverge is in how many stages there should be in the test. One approach would use a one-stage test that simply requires colleges to meet a certain spending-to-tuition ratio. Colleges that fail to spend enough of their tuition on instruction would face sanctions.

Another approach would apply an instructional spending test only as a second step in a two-step system. Only institutions that first show weak student outcomes, such as low graduation rates, low student loan repayment rates, or low wage earnings would then be subjected to the instructional spending test. Institutions that fail both tests would be subject to different penalties or lose eligibility for

federal aid. For example, an institution with both a low rate of student loan repayment and a low ratio of instructional spending to revenue would face sanctions. Conversely, an institution with low student loan repayment rates but a high ratio of instructional spending relative to revenue would be exempt or face reduced or delayed sanctions. Under another approach, institutions failing the first test but passing the second would be given more time and opportunities to improve their results but could still face sanctions if they failed to improve.⁸

The idea behind the two-step test is that while two institutions may show similarly weak student outcomes, their spending patterns suggest different causes and remedies. An institution spending a low share of its revenue on instructional costs is assumed to be choosing not to invest in better outcomes. Whereas an institution that is investing heavily in student instruction is thought to be less responsible for its weak student outcomes; those outcomes are presumably due at least in part to some factor beyond its control.

Senator Chris Murphy (D-CT), a proponent of an instructional spending test, sums up the rationale for the two-step approach this way:

While it is crucial to know if institutions are generally setting their students up for success... federal policy must also differentiate between schools that can't invest more in their students and those that could but won't. Disturbingly, many federally-funded schools spend most of their tuition dollars on things other than student instruction and services... Meanwhile, other colleges are spending every penny available on teaching and serving students, yet struggle because they are under-resourced and serving predominantly low-income students who can't afford to pay more.⁹

Third Way, a Washington D.C. think tank that has written favorably about an instructional spending test, describes the motivation for the two-step approach as follows:

But to the extent policymakers have been afraid to put... guardrails into place over fears they would shut down under-resourced institutions that are providing a public good and doing the best they can for students with limited funds, an instructional spending test could avoid that consequence and allow different sanctions to apply to schools that are struggling versus schools

that continuously cash blank checks from students and taxpayers without delivering anything of value in return.¹⁰

Note that many proposals for an instructional spending test are often conceptual and do not specify thresholds for student outcomes or spending ratios. Such details would presumably be established at a later point. In a few cases, however, proponents have put forth possible thresholds. In a report for The Century Foundation, Professor John J. Cheslock suggests institutions spend at least 20% on instruction relative to tuition on the grounds that “one could reasonably expect that at least \$1 of every \$5 collected should go toward instruction.”¹¹ Senator Murphy suggested a 33% cutoff, but did not provide a rationale for that specific amount.¹²



PROBLEMS WITH INSTRUCTIONAL SPENDING PROPOSALS

In the remainder of this report we discuss three sets of concerns regarding an instructional spending test for higher education accountability. First, we discuss how in the case of a two-stage test, the policy can effectively create an exemption from accountability for institutions with weak student outcomes, making it unlikely to safeguard quality in the way its proponents suggest. Next, we explain how the current definition of instructional spending does not capture educational costs associated with newer education models, like online and competency-based programs. As a result, the policy would penalize those providers, which could reduce the diversity of options available for students. Finally, we show how the ratio of instructional spending to tuition revenue is largely unrelated to student outcomes.

Two Stage Accountability Mechanisms Weaken Accountability by Creating Exemptions

The idea behind the two stage accountability proposals is to identify colleges with weak outcomes in the first stage and then subject only those colleges to a second stage

Why should colleges with weak student outcomes, such as those where students struggle to repay their debts, be exempt from sanctions if they show a high ratio of instructional spending to revenue?

that is based on instructional spending ratios. But this means that the second stage operates as an exemption for colleges that had weak enough outcomes to fail the first stage. This raises an important question: Why should colleges with weak student outcomes, such as those where students struggle to repay their debts, be exempt from sanctions if they show a high ratio of instructional spending to revenue? The students who attended these institutions still suffer the same consequences that come from burdensome debt regardless of whether the institution met an arbitrary instructional spending ratio. In effect, the two-stage policy is agnostic to weak

In effect, the two-stage policy is agnostic to weak student outcomes so long as institutions meet a spending benchmark

student outcomes so long as institutions meet a spending benchmark. Put another way, an institution that fails both stages of the policy could potentially bring itself into compliance not by improving student outcomes, but by changing its spending. Here again we would argue that students, including veteran and military students, would not be made better off in such a scenario.

To illustrate this problem, we use U.S. Department of Education data to identify the groups of institutions likely to fail each stage in a hypothetical two-stage test based on student outcomes and spending ratios. While only some proposals specify the thresholds for outcomes and spending ratios, we selected parameters that are generally aligned with what proponents have advocated.

For the first stage, we identified certificate-granting institutions, two-year institutions, and four-year institutions with the lowest student loan repayment rates.¹³ Both Senator Murphy and the Bipartisan Policy Center have suggested that the first stage use student loan repayment rates. While neither specifies a specific threshold, we opted to use the repayment rate at the 25th percentile for illustrative purposes.

The repayment rate reflects data for the cohort of students that entered repayment in 2013-14 and 2014-15, which is the closest cohort to the cohort for which earnings data are available (a data point we use in a later section). The repayment measure is the cohort's outstanding student loan balance as a percent of the original disbursement four years after entering repayment.¹⁴ Thus, a value of 100% means that four years after entering repayment, students owe exactly as much as they originally borrowed. The median institution in our dataset has an outstanding balance of 99%, which means that students have paid down 1% of their student loan debt four years after leaving school.

Student cohorts among the 25% of institutions with the lowest repayment rates have loan balances that are 107.2% of the amount borrowed or higher. In other words,

four years after entering repayment, borrowers who attended these institutions owe 7.2% or more on their loans than they initially took out. They owe more because their payments have not been sufficient to cover accruing interest, which accrues on some types of loans while the borrower is still in college, or when borrowers are in repayment but use forbearances, deferments, income-driven repayment options, or they are delinquent.¹⁵

For the second stage of the test (the instructional spending ratio), we use the threshold Sen. Murphy suggested in his proposal, namely, that institutions must spend at least 33% of their tuition revenue on instructional spending to pass.¹⁶ To calculate this ratio, we used the same method and data source used in the 2019 Century Foundation report on instructional spending ratios.¹⁷ Specifically, we use the base-case calculation in that study (INSTR/CTFR). The numerator reflects spending on instruction as reported in the Integrated Postsecondary Education Data System (IPEDS) data.¹⁸ It includes multiple types of instruction: general academic instruction, vocational/technical instruction, community education (non-credit), and preparatory/remedial instruction. The denominator reflects an institution's net tuition and fees, plus any discounts and allowances applied to tuition and fees, less any institutional grants from unrestricted sources.

As shown in Table 1, of the 3,685 institutions with repayment rate data, 922 institutions would fail the first stage based on student loan repayment rates (the 25 percent of institutions with the weakest repayment rates). But only some of these institutions would fail the second stage and be subject to whatever sanctions the policy might apply. That is because many of them meet the spending ratio under stage two. Of these 922 colleges with low repayment rates, 756 spend 33% or more of their tuition revenue on instruction, and therefore pass the second stage. This means that of the original 922 institutions failing the first stage, only 166 fail the second stage. In other words, including the second stage based on instructional spending allows 82% of colleges with low repayment rates to avoid sanctions or qualify for some form of reduced penalties, depending on what the policy prescribes.

Yet repayment outcomes for the 343,000 students at institutions that fail both stages are not very different from the outcomes for the 1.2 million students at institutions that only failed the first stage. The institutions that pass

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TABLE 1: Institutions Identified by a Two-Stage Instructional Spending Test

	Public	Private Non-Profit	For-Profit
Number of Institutions Analyzed	1,530	1,252	903
Institutions Failing Loan Repayment Test (Stage 1)	386	202	334
Institutions Failing Loan Repayment and Instructional Spending Tests (Stage 2)	3	29	134
Share of Institutions Failing Stage 1 but Passing Stage 2	99%	86%	60%

Source: Authors' calculation using data from College Scorecard and IPEDS.

Note: Institutions failing stage 1 have outstanding loan balances of 107.2% or more. Institutions also failing stage 2 have instructional spending-to-tuition ratios of less than 33%. A total of 3,685 institutions were included in the analysis.

the second stage due to their instructional spending ratio have an average outstanding student loan balance of 113% of the original amount borrowed. Those that fail the second stage have an average outstanding balance of 114%. If the 166 institutions that fail both stages were shut down and their students instead enrolled at the 756 that passed the second stage, we would see little material improvement in overall repayment rates.

Interestingly, the exemption for low student loan repayment rates that the second stage creates is not evenly distributed across types of institutions. As Table 1 reveals, the second stage allows nearly every public college failing the first stage to escape the strictest sanctions. Of the 386 public colleges that fail the first stage, only 3 fail the second stage, meaning that 99% of public colleges with poor outcomes would face different sanctions (or none at all, depending on the policy design) due to the inclusion of the second stage that measures instructional spending. Interestingly, 2 of those institutions, Feather River Community College District and Copper Mountain Community College would fail because they give out so much in unrestricted grants that their net tuition revenue, using The Century Foundation's methodology, is negative (which makes their spending-to-revenue ratio negative and therefore less than 33%). In other words, these colleges give their students so much grant aid that it drives their net tuition down by so much that they fail the second test. This is a rare but perverse result of this test.¹⁹

Private nonprofit colleges also pass the second stage at high rates. Some 86% of those institutions identified in the first stage for having low student loan repayment rates would face reduced sanctions or qualify for an exemption because their instructional spending ratio is sufficiently high. The story is quite different for for-profit institutions. Only 60% of for-profits that failed the first stage pass the second stage test.

In summary, the two-stage test allows virtually all public institutions with weak student loan repayment outcomes and most private nonprofit institutions to avoid the strictest accountability standards, but penalizes many more for-profit institutions with similar or identical outcomes. And because public and non-profit institutions with weak student outcomes would rarely be subject to the strictest sanctions, the policy does less to protect students from attending an institution with weak outcomes than if the policy were simply based on student outcomes.

A Bias Against Online and New Educational Models

One explanation for the disparate treatment of for-profit colleges under an instructional spending test is the way in which federal accounting requirements categorize instructional costs. The only source of near universal spending data for colleges and universities is IPEDS.²⁰

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Proponents of the instructional spending test usually suggest this as the data source the policy would use for assessing institutions.

While IPEDS does include a measure it labels as instructional spending, this category may not be accurate enough to be used in an accountability system like those discussed in this report.

This view is widely shared among researchers, policy experts, and the higher education industry. The issue is particularly relevant when it comes to online education models. As Cheslock notes in his paper for The Century Foundation, “IPEDS reporting classifications and the instructions provided to data reporters were designed with face-to-face instruction in mind.”²¹ The Bipartisan Policy Center raises similar concerns in a 2019 article and outlines a series of reforms that the authors argue would make IPEDS accounting rules more accurate and reliable.²²

In a letter to the U.S. Department of Education, the executive leaders of the University of Maryland Global Campus, Western Governors University, Southern New Hampshire University, and Capella University echoed these concerns:

“The ‘instruction’ expense category as currently defined is not particularly relevant or well-suited to institutions primarily offering distance education programs. The learning and teaching experience in online programs at some institutions may not solely be composed of activities conducted by the ‘teaching faculty,’ but may also involve, for example, course and curriculum designers, support instructors, faculty mentors, and staff who are otherwise qualified in student engagement and instruction, as well as investments in online library, tutorial, and interactive learning resources. Today, these expenses fall under [non-instructional categories], despite

being integral to the learning experience of the student.”²³

As an example of how the IPEDS reporting categories for instruction may misclassify spending at non-traditional providers, and how that plays into the accountability policy, consider the case of the University of Maryland Global Campus (UMGC). Four years after entering repayment, UMGc students collectively owed 109% of their original loan balances, meaning that UMGc would fail the first stage of the hypothetical test we analyze. UMGc also fails the second stage because in fiscal year 2015, UMGc spent \$0.32 on instruction for every \$1 in tuition revenue, which is below the cutoff of \$0.33. UMGc would thus face sanctions under the two-stage accountability policy based on repayment rates and instructional spending.

UMGC is a large public university with a long history of serving veterans and military students. Some 50,000 of these students attend UMGc, and the institution boasts on its website that, “no college can match our experience and dedication in educating active-duty troops, reservists, members of the National Guard, veterans, and military family members.”²⁴ UMGc also operates primarily online, which is likely why it fails the second stage of the test. This is because the IPEDS accounting conventions offer a distorted picture of UMGc’s educational spending. Much of UMGc’s educational spending is allocated towards designing and operating the online modules and student interface, yet none of that spending is captured in the IPEDS instructional spending category.

The UMGc case is part of a broader pattern whereby accountability policies based on an instructional spending ratio are biased against online colleges. Consider Figure 1, which shows the distribution of instructional spending as a percent of tuition revenue by online enrollment profile. Colleges that are primarily online, defined as having more than 50% of the students enrolled exclusively online, spend

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much less on instruction – as it is officially defined in IPEDS – than traditional colleges, regardless of their tax status (public, private, or for-profit).

The two-part test that proponents have proposed could sanction online colleges while traditional colleges with identical student outcomes could operate without penalty (or under reduced penalties) solely because of how their expenses are categorized. Online education is one of the more promising methods on the horizon to bend the higher education cost curve and expand access to more students. And as we noted earlier, veterans and military students are more likely to rely on online programs and classes for their education. It would be counterproductive to discourage this form of education while favoring traditional institutions that are not producing better results for students.

The bias against online education in an instructional spending test can also be seen by repeating our earlier analysis that identifies institutions likely to fail each stage of the test. Table 2 shows the breakdown of institutions that fail the stages by online status. As Table 2 shows, 84% of traditional (i.e. not primarily online) institutions that failed the first stage avoid sanctions; their instructional spending ratio exceeds the cutoff (i.e., they spend more than 33% of their tuition revenue on instruction). Among primarily online institutions that fail the first stage, however, just 40% meet the instructional spending ratio cutoff to avoid sanctions. In short, institutions that are primarily online are less likely to meet the instructional spending ratio threshold that would exempt them from the strictest sanctions.

While the IPEDS instructional spending definition excludes many costs associated with delivering online education platforms or competency-based models, it includes

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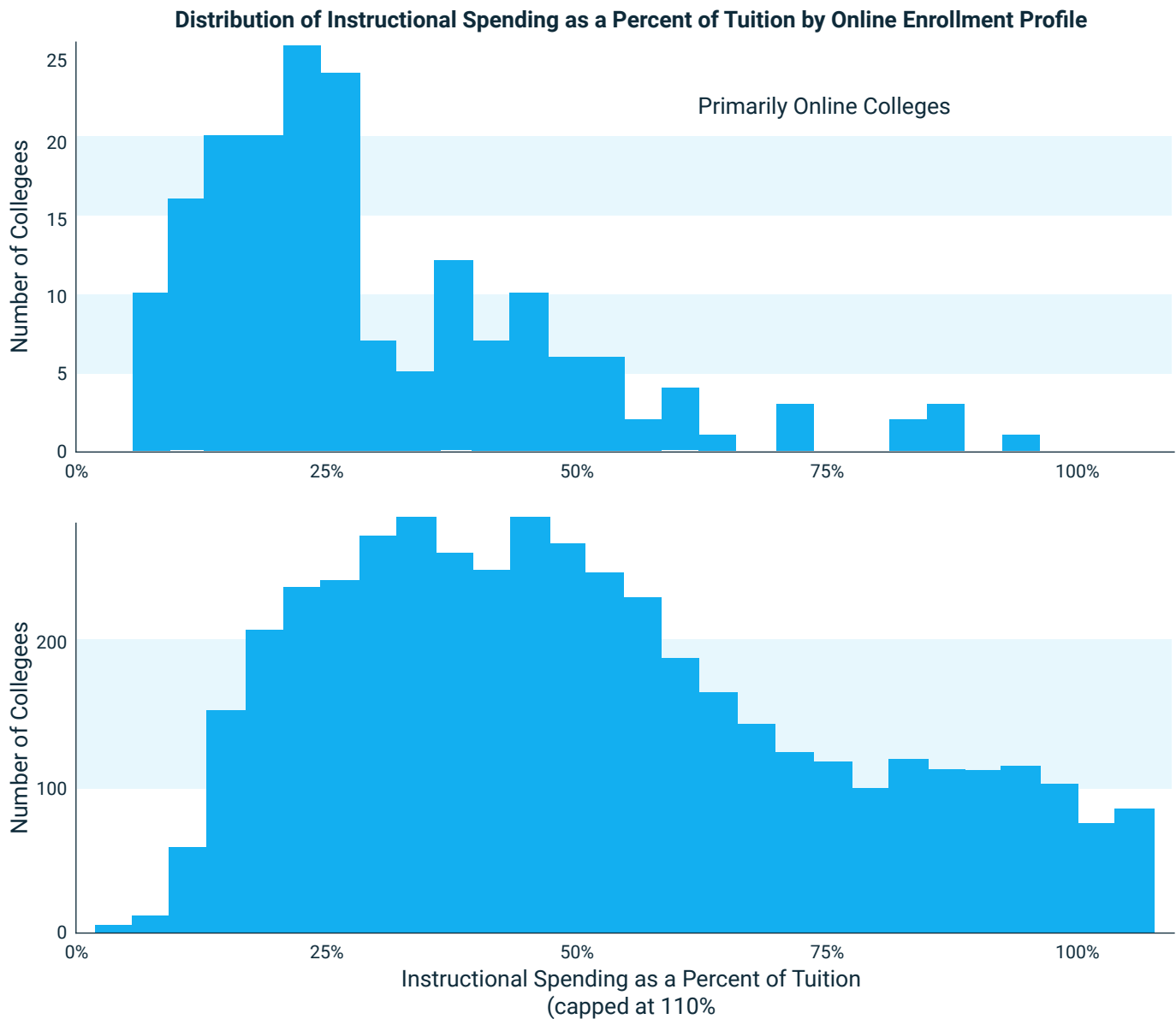
Online education is one of the more promising methods on the horizon to bend the higher education cost curve and expand access to more students...It would be counterproductive to discourage this form of education while favoring traditional institutions that are not producing better results for students

significant costs not associated with instruction, mainly research. It is another way in which the IPEDS reporting conventions favor traditional public and nonprofit institutions over online or for-profit institutions in an instructional spending test.

Although IPEDS provides an accounting category for research spending separate from instruction, only research that is separately budgeted is recorded in this category.²⁵ Even if a professor devotes much of her time to research, if she does not have outside research grants, her entire salary will likely be counted as an instructional expense.

Research costs that fit this description are most likely to be observed at public and private nonprofit institutions that offer four-year degrees. Public two-year institutions, for-profit institutions, and those offering online or other non-traditional formats are far less likely to employ teaching staff that devote substantial time to research. Faculty at selective four-year institutions, however, may only teach one class per semester and devote most of their time to research, which in many cases is recorded in IPEDS as an instructional expense.

Another problem with measuring instructional spending as a share of tuition occurs on the revenue side of the ratio. Public institutions receive much of their revenue in the form of direct funding (appropriations) from their state and local governments. Yet this revenue is ignored by the calculation, introducing considerable bias. Public

FIGURE 1: Distribution of Institutions by Instructional Spending Ratio and Online Enrollment Profile

Source: Authors' calculation using data from IPEDS.

institutions can use revenue from appropriations to pay for instructional and non-instructional costs, whereas private institutions -- especially for-profit institutions -- generally need to use tuition revenue to cover all costs. Thus the ratio of instructional spending to tuition at institutions with a large source of revenue in addition to tuition (i.e., state appropriations) will always be substantially higher than for institutions that lack such sources. That is why public institutions have a major advantage in such an accountability system. Our analysis illustrates this point well given that 99 percent of public institutions with low

loan repayment rates pass the instructional spending test in our analysis.

Weak Correlation Between Spending and Outcomes

There is some empirical evidence supporting a correlation between instructional spending and outcomes, but those analyses examined the absolute amount of spending, not a spending ratio.²⁶ Yet proponents of an instructional spending test have intentionally avoided using an absolute measure of spending to avoid penalizing low cost or

TABLE 2: Primarily Online and Traditional Institutions Identified by a Two-Stage Instructional Spending Test

	Traditional	Primarily Online
Number of Institutions Analyzed	3,594	87
Institutions Failing Loan Repayment Test (Stage 1)	874	48
Institutions Failing Loan Repayment and Instructional Spending Tests (Stage 2)	137	29
Share of Institutions Failing Stage 1 but Passing Stage 2	84%	40%

Source: Authors’ calculation using data from College Scorecard and IPEDS.
Note: Institutions failing stage 1 have outstanding loan balances of 107.2% or more. Institutions also failing stage 2 have instructional spending-to-tuition ratios of less than 33%. A total of 3,685 institutions were included in the analysis but 4 were missing online enrollment data.

resource-poor institutions.

But is there a correlation between spending ratios and outcomes like there is for absolute amounts of spending? Many observers might assume there is – and that is at least part of the rationale for using the ratio in an accountability test.

Some proponents of the instructional spending test argue that weak student outcomes are the result of institutions wasting their revenue and underinvesting in students, such as by allocating resources to aggressive marketing or by retaining tuition dollars as profits. One would expect then to find a strong correlation between student outcomes and the share of revenue an institution devotes to instruction. It turns out that the relationship is quite weak. A high ratio of instructional spending to tuition revenue is a poor proxy for student outcomes.

While the IPEDS instructional spending definition excludes many costs associated with delivering online education... it includes significant costs not associated with instruction, mainly research

One way to see this is to use our earlier analysis that identified institutions likely to fail the two-stage test. Table 3 shows the groups of institutions again, but now includes the average student loan repayment rate for each group. As the table reveals, the colleges that fail the first stage of the test but pass the second stage based on instructional spending have outcomes quite similar to the colleges that fail the second stage. Average loan balances are very similar among students from both groups of institutions.

Another way to examine the correlation between student outcomes and an instructional spending relationship is to use regression analysis. Here again the results do not support the rationale for an instructional spending test. A standard regression finds no statistically significant relationship between instructional spending as a percent of tuition and loan repayment rates. Every 1% increase in instructional spending as a percent of tuition is correlated with anywhere from a decline of 0.2% in student loan balances (relative to the original debt) to an increase of 0.1%.²⁷ Repeating the analysis using earnings of former students instead of repayment rates again yields no statistically significant relationship. Every 1% increase in instructional spending as a percent of tuition revenue is correlated with anywhere from a decline of \$66 in median earnings of former students to an increase of \$33.²⁸

In other words, there is no statistically significant relationship between instructional spending as a percent of tuition revenue and student loan repayment rates or

TABLE 3: Loan Repayment Rates at Institutions Identified by a Two-Stage Instructional Spending Test

	Public	Private Non-Profit	For-Profit
Average Loan Repayment Rate at Institutions Failing Stage 1	112%	115%	113%
Average Loan Repayment Rate at Institutions Failing Both Stages	112%	116%	114%
Average Loan Repayment Rate at Institutions Failing Stage 1 but Passing Stage 2	112%	115%	112%

Source: Authors’ calculation using data from College Scorecard and IPEDS.
Note: Repayment rate reflects the outstanding loan balances relative to the original loan disbursements.
Note: Institutions failing stage 1 have outstanding loan balances of 107.2% or more. Institutions also failing stage 2 have instructional spending-to-tuition ratios of less than 33%.

earnings among former students. This raises serious questions about the validity of using an instructional spending ratio as an accountability metric. To the extent that instructional spending tests are premised on the notion that there is a link between spending and outcomes, the lack of a consistent relationship is problematic because it suggests that an increase in spending ratios may not improve student outcomes.

Alternative Proposals

While we analyzed the most commonly discussed proposal for an instructional spending policy—a two-stage test using student outcomes and instructional spending as a percent of tuition— other versions of the policy merit some discussion.

One alternative proposal would replace instructional spending as a percent of tuition with different measures of spending and/or revenue. For example, in The Century Foundation’s analysis, one of the four options presented used a broader definition of revenue, which included the instructional share of state and local government funding (INSTR/(CTFE+OSS)), which we call educational revenue for simplicity. Table 4 reports the results of a two-stage test using this alternative measure of educational revenue instead of tuition revenue. The results are almost identical, sparing almost every public institution (99%) from the most severe sanctions, along with 85% of private non-profit institutions, but only 60% of for-profit institutions.²⁹

The regression analysis of this alternative spending ratio and outcomes also shows a weak correlation. Instructional spending as a percent of educational revenue is not statistically significant when analyzed with median earnings (every 1% increase in Instructional spending as a percent of educational revenue is associated with anywhere from a \$77 reduction in median earnings to a \$26 increase). There is a statistically significant relationship with repayment rates – every 1% increase in instructional spending as a percent of educational revenue is associated with decline of 0.5% to 1.1% in loan balances (recall that repayment rates are measured as the outstanding balance as a percent of the original debt).

Another option proposed in The Century Foundation report used a broader definition of spending (education and related spending, or E&R, which is the sum of instructional and student services spending plus the educational share of academic support and institutional support spending) and a broader definition of educational revenue (tuition revenue plus the education share of state and local appropriations).-

It turns out that the relationship is quite weak. A high ratio of instructional spending to tuition revenue is a poor proxy for student outcomes

In other words, there is no statistically significant relationship between instructional spending as a percent of tuition revenue and student loan repayment rates or earnings among former students.

Comparing E&R spending to this broader revenue figure gives a less distorted picture of spending patterns because it includes much more educational spending by online colleges. However, no proposals have suggested a minimum threshold if the ratio is to be E&R spending as a percent of educational revenue. Using the 33% threshold proposed by Senator Murphy (albeit for instructional spending as a percent of tuition) would cause only 11 colleges to fail the second-stage test.

As we mentioned earlier, other proposals have advocated using a one-stage test that applies to all institutions and mandates a minimum level of instructional spending to tuition revenue. Assuming such a test uses the ratio we used for our analysis (the more narrow definition of instructional spending and only tuition revenue) and a 33 percent cutoff, we estimate that this approach would

massively increase the number of failing institutions. While 166 institutions fail the two-stage test in our analysis, a one-stage spending-to-tuition revenue test would cause 1,430 institutions to fail. That number would increase significantly if the spending-to-tuition cutoff were raised to 50 percent, a cutoff that some in the policy community have suggested for a one-stage test. (Note, however, that spending ratios based on alternative measures of spending and/or revenue would produce different results).

Many of these institutions would be punished for failing to meet the spending threshold even though they produce good outcomes for their students. For example, Southern New Hampshire University (SNHU), an innovative online nonprofit university, would fail because their instructional spending is 18% of tuition revenue. Yet SNHU’s student outcomes raise no red flags. In fact, SNHU’s loan repayment rate is equal to the median repayment rate among all colleges. A spending test that sanctions SNHU when its outcomes are better than those at half of all colleges in the country seems arbitrary and ill-advised.

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TABLE 4: Institutions Identified by an Alternative Two-Stage Instructional Spending Test

	Public	Private Non-Profit	For-Profit
Number of Institutions Analyzed	1,530	1,252	903
Institutions Failing Loan Repayment Test (Stage 1)	386	202	334
Institutions Failing Loan Repayment and Instructional Spending Tests (Stage 2)	1	29	134
Share of Institutions Failing Stage 1 but Passing Stage 2	99%	85%	60%

Source: Authors’ calculation using data from College Scorecard and IPEDS.
Note: Institutions failing stage 1 have outstanding loan balances of 107.2% or more. Institutions also failing stage 2 have instructional spending-to-tuition ratios of less than 33%. A total of 3,685 institutions were included in the analysis.

CONCLUSION

Overall, accountability systems that propose to use instructional spending as a percent of tuition seem misguided. When used as a second stage test, minimum instructional spending requirements create large exemptions that allow many poorly performing colleges to qualify for reduced sanctions, or could exempt them altogether, depending on the design. Moreover, both the one-stage and two-stage tests treat institutions with similar student outcomes differently. While that is partly what proponents intend to accomplish, we have shown that the end result arbitrarily sanctions some institutions and would do little if anything to improve overall student outcomes.

Another issue with the proposed policy is that instructional spending, when measured as a share of tuition, is a poor proxy for important outcomes such as earnings and loan repayment rates. Outcomes for students are more likely to improve if the policy simply sets thresholds for earnings and repayment rates rather than using a roundabout approach through an “instructional spending as a percent of tuition” device that generally does not have any statistically significant relationship with these outcomes.

Perhaps most importantly, our analysis suggests that public, private nonprofit, and for-profit institutions could all face sanctions under an instructional spending test – under a two-stage test or a stand-alone minimum spending requirement – not because their outcomes are necessarily worse than other institutions, but because they offer

Perhaps most importantly... public, private nonprofit, and for-profit institutions could all face sanctions under an instructional spending test... not because their outcomes are necessarily worse than other institutions, but because they offer primarily online education.

Veterans and military students not only prefer online options, but for some students these institutions may be their only practical option.

primarily online education. Veterans and military students not only prefer online options, but for some students these institutions may be their only practical option. An instructional spending test could arbitrarily and drastically restrict these choices. As we have shown, there is little evidence to suggest that veteran and military students would find accessible options that produce superior outcomes for their graduates in the pool of institutions that pass the instructional spending test.

It is a bit puzzling to see so many proposals advocating for instructional spending as a proxy for educational quality when better and more direct measures of quality, such as loan repayment rates and earnings, are readily available, having been introduced in the U.S. Department of Education’s College Scorecard data over the past few years. Moreover, it is troubling that one popular version of the instructional expenditure test could be used to exempt institutions already identified as producing weak student outcomes from sanctions. A better policy would be for policymakers to decide what constitutes an unacceptably weak student outcome and then sanction all types of institutions with such outcomes. That approach is likely to offer the best protection for veteran and military students.

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2. 20 U.S.C. §1094(a)(24).
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13. U.S. Department of Education, College Scorecard, <https://collegescorecard.ed.gov/>. The data reflect the 2013-14 and 2014-15 cohort. Note that we use the IPEDS dataset to identify the sector/control for each institution because the College Scorecard data includes many missing values for this information. We use a repayment rate that measures the outstanding balance of student loan debt as a percent of the original student loan debt four years after entering repayment. An alternative approach measures the share of borrowers in a cohort who reduce the principal balance on their debt after a set period of time. There is no strong consensus on which is the best metric to measure loan repayment,

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- and proponents of an instructional spending test sometimes favor one over the other. For example, the Bipartisan Policy Center and a bill sponsored by Senator Shaheen (D-NH) suggest using the dollar-based metric while Sen. Murphy supports using the borrower-based method. See: U.S. Senator Jeanne Shaheen (D-NH), “Shaheen, Young Reintroduce Bipartisan Bill to Curb Skyrocketing Student Debt and Improve Institutional Accountability,” May 16, 2019, <https://www.shaheen.senate.gov/news/press/shaheen-young-reintroduce-bipartisan-bill-to-curb-skyrocketing-student-debt-and-improve-institutional-accountability>; U.S. Congress, Senate, Student Protection and Success Act, S 1525, 116th Congress, 1st session, introduced May 16th, 2019 <https://www.govtrack.us/congress/bills/116/s1525/text>; Bipartisan Policy Center, “A New Course for Higher Education: Strengthening Access, Affordability, and Accountability,” January 2020; U.S. Senator Chris Murphy (D-CT), “Are you Getting What You Pay For: A New Proposal for Accountability in Higher Education,” [https://www.murphy.senate.gov/imo/media/doc/HEA%20White%20Paper_FINAL%20\(002\).pdf](https://www.murphy.senate.gov/imo/media/doc/HEA%20White%20Paper_FINAL%20(002).pdf)
14. The repayment variable we use from the College Scorecard data is DBRR4_FED_UG_RT.
 15. Note that the majority of federal student loans accrue interest while the borrower is enrolled, and that interest will be reflected in our repayment rate because it is based on the balance at origination.
 16. The data for this component of the analysis are from the Integrated Postsecondary Education Data System (IPEDS). For the details of Sen. Murphy’s proposal, see: U.S. Senator Chris Murphy (D-CT), “Are you Getting What You Pay For: A New Proposal for Accountability in Higher Education,” [https://www.murphy.senate.gov/imo/media/doc/HEA%20White%20Paper_FINAL%20\(002\).pdf](https://www.murphy.senate.gov/imo/media/doc/HEA%20White%20Paper_FINAL%20(002).pdf)
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 19. This particular issue could be remedied by exempting any institution with negative net tuition revenue.
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27. This range reflects the 95% confidence interval from the regression.
28. This range reflects the 95% confidence interval from the regression.
29. Note that the 2 public institutions with negative net tuition revenue have positive educational revenue once state and local appropriations are included, and now pass the 2nd stage test.
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The Veterans Education Project (VEP) is a Veteran Service Organization in Washington, D.C. that regularly engages with Congress, the White House, the Departments of Veterans Affairs, Defense, and Education, as well as with institutions of higher education in order to advocate for student veterans, servicemembers, and their families. As veterans serving veterans, VEP is committed to nonpartisan research, engagement, and policy implementation in our efforts to support institutions that meet the needs of student veterans, and guarantee the benefits and support systems necessary for veteran and military students to succeed.

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