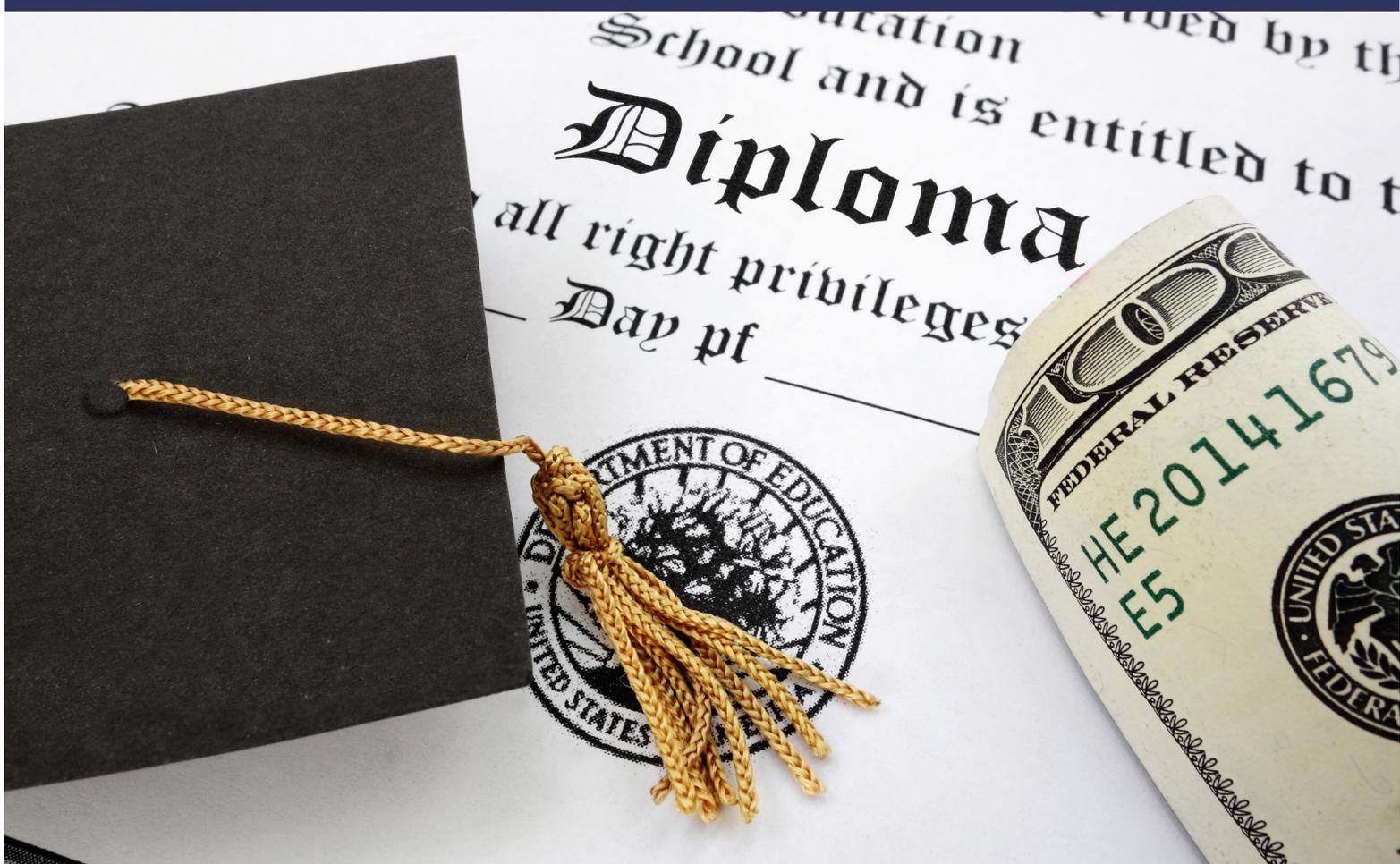


Which Texas Public College Degrees Require Excessive Student Debt?



September 2020

by Thomas K. Lindsay, PhD, and Andrew Gillen, PhD

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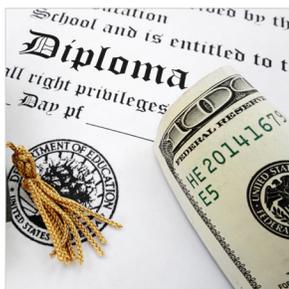


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Executive Summary

Today, across the country, a debate is raging over whether and to what extent a college degree justifies the time and expense required to attain it.

But this is the wrong question to debate. That is to say, this question is not specific enough to yield helpful answers for prospective students, their parents, and taxpayers. Why? Because no one gets a generic “college degree.” Instead, a student receives a degree in a particular major from a specific college. Hence, national data on the value of degree programs fail to dig to the depths required to provide genuine guidance.

But thanks to the U.S. Department of Education, Texas students can now access and learn from new data showing the earnings and debt of recent graduates of the state’s public universities. The new data will help students and parents make better-informed choices. It will also help policymakers to allocate taxpayer dollars more efficiently.

The Texas Public Policy Foundation’s [new web tool](#) allows students, parents, and policymakers to explore the new data. One of the key insights gained is that low-performing programs do not respect higher education’s pecking order. Texas’s Tier I public institutions offer many degrees that have good debt-to-earnings results, but they also offer degrees that require students to take on too much debt. Community colleges fare substantially better than 4-year public institutions in the state.

These new findings inform our legislative recommendations, the core of which calls for legislation that would employ debt-to-earnings tests to ensure that taxpayer funds are not used to support colleges and programs that fail to adequately prepare their students for success in the labor market.

Introduction: Not All College Degrees Are Created Equal

“Is college worth it?” is a question that has plagued prospective students and their parents for some time. And with good reason: Over the past several decades, students and their parents have encumbered themselves with a historically high level of student-loan debt, which today stands at over \$1.5 trillion ([Federal Reserve Bank of New York, 2020](#)).

But these are national statistics, which, though helpful (and sobering), do not speak directly to the situation of Texas students. Nor do the prior Texas data regarding college-level debt-to-earnings ratios help *individual* students. Even if a student knows that “X University” in Texas has an excellent debt-to-earnings ratio, that does not tell the prospective student the debt-to-earnings ratio of the particular program into which he or she is considering enrolling—which is the information that students most need to know.

Key Points

- For the first time, Texas students can now access U.S. Department of Education data showing the earnings and debt of recent graduates of Texas public universities by academic program.
- The new data will help students, parents, and policymakers make more informed choices.
- Texas public universities have 58 associate, bachelor’s, or master’s degree programs that fail a debt-to-earnings test.
- Texas’s community colleges perform better than 4-year colleges on the debt-to-earnings test.
- Policymakers should start using debt-to-earnings tests to ensure that taxpayer funds are not used to support programs where the typical graduate cannot afford to repay their student loans.

Fortunately, and thanks to new data from the U.S. Department of Education ([U.S. Department of Education, n.d.](#)), we no longer must engage in the largely futile effort to discern from 30,000 feet above the condition of college programs and degrees on the ground. The resulting increase in transparency of labor market outcomes is a cause for joy. We have published this study with the view to circulating to all concerned some of the discoveries unearthed from the new data.

Before turning to Texas-specific findings, we want the reader to know that the data is publicly available. Anyone interested can explore them using our web tool, which allows users to search for and compare the typical earnings and debt for recent graduates of every college program in the country (though the data for many small programs is suppressed to protect student privacy). Students deciding on which major to choose can find the programs with the lowest debt or the highest earnings to help inform their decision. Similarly, a student with their heart set on studying a particular academic field can search nationwide to find the programs in that field with the best debt and labor market outcomes. This web tool can be accessed at <https://www.texaspolicy.com/college-earnings-and-debt/>.

Using Gainful Employment Equivalent to Determine Acceptable Debt-to-Earnings Outcomes

This study examines the debt and earnings outcomes for graduates of public Texas colleges and universities using new data and a revised test we call Gainful Employment Equivalent.

New, More Comprehensive, and Detailed Data

In the fall of 2019, the U.S. Department of Education released earnings and student debt data at the program level for the first time. For example, students can now find out the typical earnings and debt for students that graduated with a bachelor's degree in accounting from the University of Texas at Austin.

In particular, the new Department of Education data report:

- **Median earnings:** This is the median annual earnings of students who graduated in 2014-15 or 2015-16 in the first year after graduation (e.g., the class of 2016's earnings in 2017). It is limited to students who received any federal financial aid and excludes students who reenrolled in school or did not work.
- **Median and mean debt:** These debt figures are for the 2015-16 and 2016-17 cohorts in the National Student Loan Data System and report the cumulative amount borrowed in Subsidized, Unsubsidized, and Graduate

PLUS Loans. It does not include Parent PLUS Loans or Perkins Loans. Non-borrowers are excluded.

To be clear, the earnings and debt data are for different cohorts of students. For example, a 2016 graduate who took out loans but was unemployed during 2017 will be excluded from the earnings data but included in the debt data. Other limitations include the exclusion of those who do not receive federal financial aid and privacy protections that suppress the data for programs that had few graduates, few borrowers, or few graduates who entered the labor market.

Nevertheless, these earnings and debt estimates are the most detailed, comprehensive, and accurate estimates available and are therefore the best information for prospective students to consider when making enrollment decisions. Indeed, the U.S. Department of Education ([n.d.](#)) reports these exact figures on its student-facing College Scorecard website.

Gainful Employment Equivalent: A Resurrected Debt-to-Earnings Test

While the new data are obviously invaluable to students and parents as they make enrollment decisions, it is less obvious how policymakers should use them for accountability purposes. A good starting point is to resurrect the only accountability metric that has ever been applied to similar data—the Obama administration's Gainful Employment regulations. These regulations subjected programs to two debt-to-earnings tests, and if a program failed to pass over several years, the program would lose eligibility for federal financial aid. The Trump administration appropriately repealed these regulations for disproportionately targeting for-profit universities while letting the vast majority of failing public and private nonprofit programs escape scrutiny ([Gillen & Vedder, 2020](#)). Although the ideologically driven targeting of the Obama-era rule was objectionable, the underlying concept was sound, namely, that university programs that leave students with too much student loan debt relative to their post-graduation earnings should not have access to financial aid programs.

We have therefore resurrected the concept of Gainful Employment (GE) to create what we call Gainful Employment Equivalent (GEE). GEE uses the same debt-to-earnings tests but updates the rating thresholds to account for differences in earnings and debt measurement between the old Gainful Employment data and the new Department of Education data (see the methodological appendix for details on these adjustments). GEE replicates the GE ratings, with programs that generate high earnings relative to debt assigned a "Pass" rating. The typical student graduating from a passing program should be able to repay their student loans without undue difficulty. For example, one

way to pass GEE is for the typical graduate’s annual student loan payments to be less than or equal to 8.6% of earnings. Programs where debt is too high relative to earnings earn a “Fail” rating (e.g., failure on one of the two tests occurs when annual student loan payments are greater than 12.8% of earnings). Students graduating from these programs who borrowed the median amount will have great difficulty repaying their loans, and some will simply not be able to repay them. We renamed the “Zone” rating in the original regulations to the more informative “Probation.” The typical students graduating from these programs may struggle to repay their loans.

In replicating the original Gainful Employment debt-to-earnings tests, but applying them to every program rather than singling out for-profits, this new Gainful Employment Equivalent method essentially allows for a determination similar to what the Obama administration used in the GE to

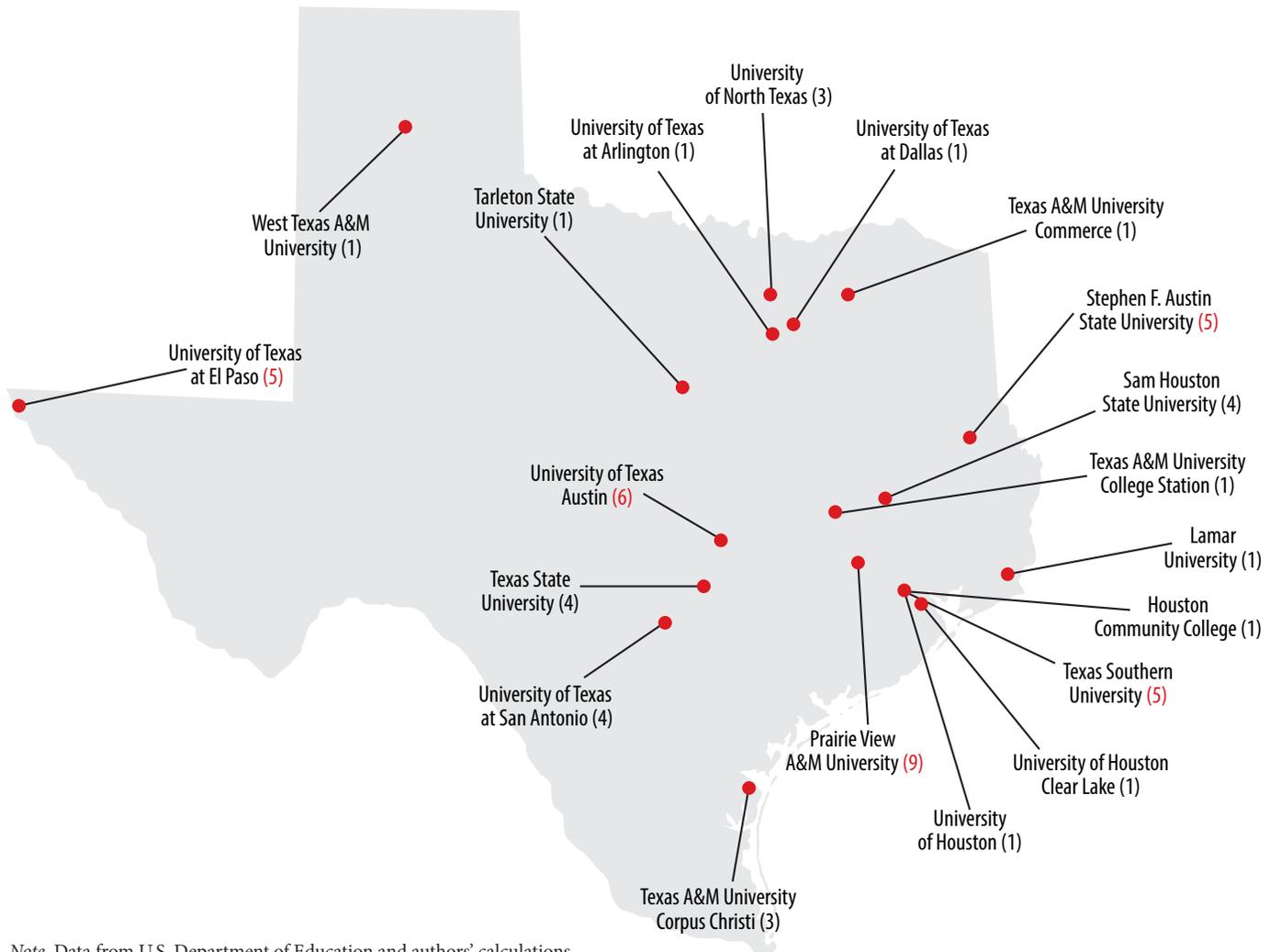
determine whether federal funding would be cut if it were a for-profit university.

Results for Texas Public Colleges and Universities

Applying the Gainful Employment Equivalent test to public colleges and universities in Texas can indicate which college degree programs help prepare students for the labor market, and which may be harming students’ financial futures by leaving them with high debt relative to their expected earnings in the year after graduation.

Before discussing potentially failing programs, we want to emphasize that these ratings are based on 2 years’ worth of graduates and 1 year of earnings data for each of those cohorts. For policymakers, we recommend that any rewards or sanctions imposed based on these ratings account for several more years of data (we discuss these recommendations in more detail below).

Figure 1
Failing Public University Programs in Texas



Note. Data from U.S. Department of Education and authors’ calculations.

But students considering enrolling in these programs deserve the most accurate information available at any given time, and, right now, that includes only 1 year of earnings data. The next few sections are primarily for current and potential students, so that they can make more informed enrollment and major decisions with eyes wide open about the potential financial consequences.

Which Texas Programs Failed the Debt-to-Earnings Tests?

The map in **Figure 1** shows each Texas university with at least one associate, bachelor's, or master's degree program that failed Gainful Employment Equivalent.

Table 1 lists the 58 associate, bachelor's, and master's degree programs at Texas public universities that failed Gainful Employment Equivalent. For each program, we include the college or university, the academic field, the level of degree, and median debt and earnings. As noted earlier, a failing rating means that if these programs had been at for-profit universities, the prior administration would have tried to cut off their access to federal financial aid.

These 58 failing programs had over 5,000 graduates in 2014-15 and 2015-16, of which 2,321 received federal financial aid and entered the labor force within 1 year after graduation. Potential students should think twice before enrolling in these programs, and their current students should consider changing majors if they are not comfortable with the debt and earnings outcomes of recent graduates from these programs.

The universities with what we find to be the most failing programs include Prairie View A & M University (9 failing programs), the University of Texas at Austin (6 failing programs), Stephen F. Austin State University (5 failing programs), Texas Southern University (5 failing programs), and the University of Texas at El Paso (5 failing programs).

The academic fields that appear to fail most frequently are Drama/Theater Arts and Stagecraft (6 failing programs) and Fine and Studio Arts (6 failing programs). Three programs failed in each of the following:

- Biology,
- Psychology,
- Music,
- Health Services/Allied Health/Health Sciences, and
- Radio, Television, and Digital Communication.

University Performance

Performance on the Gainful Employment Equivalent debt-to-earnings test can also be used to evaluate university performance. Recall that there is currently only 1 year of data, so some programs that fail this year may pass next year.

Nevertheless, we can still get some preliminary indication of which universities are performing poorly relative to their sister institutions.

Public 4-Year Universities

Table 2 shows how Texas universities performed on Gainful Employment Equivalent's debt-to-earnings test for all the bachelor's degree programs in the state. For each institution offering at least one bachelor's degree program, the table reports the number of bachelor's programs that passed GEE, the number on probation, and the number that failed. In addition, the last column shows the number of programs with insufficient data due to privacy protection in the U.S. Department of Education data (if a program had too few graduates, too few borrowers, or too few graduates with earnings data, the program's data were suppressed to protect privacy). While the number of programs without data is large, keep in mind that they are the smallest programs offered by each university.

These results indicate that there is wide variation in university performance. For example, the University of Texas Rio Grande Valley had 30 programs pass and 1 program on probation. At the other end of the performance spectrum is Prairie View A&M University, which had 6 programs pass, 2 programs on probation, and 8 programs fail.

While **Table 2** documented university performance by the number of programs in each Gainful Employment Equivalent rating, that effectively treats a small niche program with five graduates a year the same as a workhorse program with hundreds of graduates. We think a better indication of university performance should take into account not only program performance but also how many students graduate from those programs. Thus, **Figure 2** focuses on the distribution of students by their program's Gainful Employment Equivalent status. We limited the list to public 4-year universities where at least 500 students graduated from programs with data, and we dropped all programs without sufficient data.

There is wide variation in the performance of Texas's public 4-year universities. For example, Texas A&M University – College Station had 64 bachelor's degree programs with enough data to run the debt-to-earnings test, of which 58 passed and 6 were on probation. Assuming the performance of these programs is representative of the university's 37 programs for which there is no data, 93% of graduates from Texas A&M University – College Station attended programs that are likely to lead to careers where they can repay their student loans without undue hardship.

In contrast, consider Texas A&M University–Corpus Christi. Of the 41 bachelor's degree programs offered,

cont'd on p. 10

Table 1*Texas Public University Programs That Fail the Debt-to-Earnings Test*

University Name	Academic Field - CIP Number	Level of Degree	Median Debt	Median Earnings
Houston Community College	Business Operations Support and Assistant Services. - 5204	Associate	\$32,999	\$28,600
Lamar University	Communication and Media Studies. - 901	Bachelor's	\$26,376	\$25,000
Prairie View A&M University	Communication and Media Studies. - 901	Bachelor's	\$34,700	\$22,000
Prairie View A&M University	Family and Consumer Sciences/Human Sciences, General. - 1901	Master's	\$47,099	\$35,000
Prairie View A&M University	Marketing. - 5214	Bachelor's	\$31,906	\$29,500
Prairie View A&M University	Health Services/Allied Health/Health Sciences, General. - 5100	Bachelor's	\$31,000	\$26,800
Prairie View A&M University	Psychology, General. - 4201	Bachelor's	\$29,397	\$24,500
Prairie View A&M University	Agriculture, General. - 100	Bachelor's	\$29,551	\$23,000
Prairie View A&M University	Criminal Justice and Corrections. - 4301	Bachelor's	\$29,980	\$29,100
Prairie View A&M University	Biology, General. - 2601	Bachelor's	\$31,000	\$26,700
Prairie View A&M University	Health and Physical Education/Fitness. - 3105	Bachelor's	\$31,000	\$25,200
Sam Houston State University	Drama/Theatre Arts and Stagecraft. - 5005	Bachelor's	\$26,500	\$23,100
Sam Houston State University	Dance. - 5003	Bachelor's	\$24,625	\$18,800
Sam Houston State University	History. - 5401	Master's	\$34,309	\$30,300
Sam Houston State University	Fine and Studio Arts. - 5007	Bachelor's	\$29,000	\$24,900
Stephen F Austin State University	History. - 5401	Bachelor's	\$27,000	\$24,800
Stephen F Austin State University	Sociology. - 4511	Bachelor's	\$31,000	\$24,700
Stephen F Austin State University	Drama/Theatre Arts and Stagecraft. - 5005	Bachelor's	\$26,558	\$23,100
Stephen F Austin State University	Health Services/Allied Health/Health Sciences, General. - 5100	Bachelor's	\$30,000	\$28,700
Stephen F Austin State University	Fine and Studio Arts. - 5007	Bachelor's	\$27,000	\$22,700
Tarleton State University	Clinical, Counseling and Applied Psychology. - 4228	Master's	\$41,838	\$35,700
Texas A & M University-College Station	Biology, General. - 2601	Master's	\$31,500	\$28,400
Texas A & M University-Commerce	Social Work. - 4407	Bachelor's	\$28,750	\$26,000
Texas A & M University-Corpus Christi	Fine and Studio Arts. - 5007	Bachelor's	\$28,375	\$25,700
Texas A & M University-Corpus Christi	Marketing. - 5214	Bachelor's	\$25,000	\$20,600
Texas A & M University-Corpus Christi	Drama/Theatre Arts and Stagecraft. - 5005	Bachelor's	\$27,000	\$23,700
Texas Southern University	Psychology, General. - 4201	Bachelor's	\$32,500	\$29,000
Texas Southern University	Journalism. - 904	Bachelor's	\$33,906	\$20,900
Texas Southern University	Family and Consumer Sciences/Human Sciences, General. - 1901	Bachelor's	\$41,375	\$28,100
Texas Southern University	Biology, General. - 2601	Bachelor's	\$30,250	\$25,100
Texas Southern University	Radio, Television, and Digital Communication. - 907	Bachelor's	\$35,000	\$18,300
Texas State University	Fine and Studio Arts. - 5007	Bachelor's	\$25,000	\$22,600
Texas State University	Music. - 5009	Master's	\$33,499	\$30,600
Texas State University	Journalism. - 904	Bachelor's	\$21,824	\$20,500
Texas State University	Zoology/Animal Biology. - 2607	Bachelor's	\$27,059	\$19,700
University of Houston	Rhetoric and Composition/Writing Studies. - 2313	Bachelor's	\$21,750	\$20,300
University of Houston-Clear Lake	Psychology, General. - 4201	Master's	\$43,575	\$35,400
University of North Texas	Multi/Interdisciplinary Studies, Other. - 3099	Master's	\$43,981	\$27,500
University of North Texas	Drama/Theatre Arts and Stagecraft. - 5005	Bachelor's	\$24,324	\$22,700
University of North Texas	Music. - 5009	Master's	\$35,517	\$18,900
University of Texas at Arlington	Drama/Theatre Arts and Stagecraft. - 5005	Bachelor's	\$21,250	\$14,100
University of Texas at Austin	Drama/Theatre Arts and Stagecraft. - 5005	Master's	\$45,799	\$34,700

Source: U.S. Department of Education and author calculations.

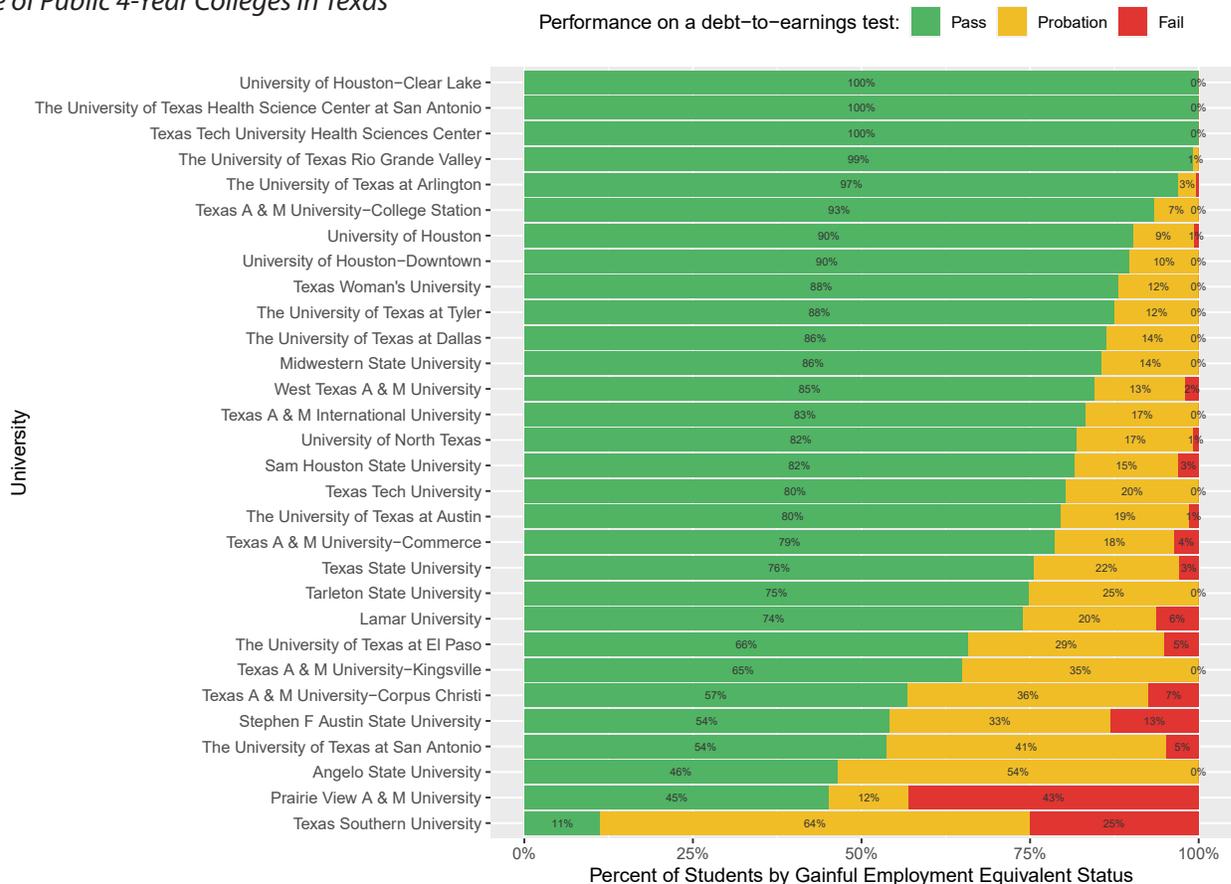
Table 1 cont'd

Table 1
Texas Public University Programs That Fail the Debt-to-Earnings Test

University Name	Academic Field - CIP Number	Level of Degree	Median Debt	Median Earnings
University of Texas at Austin	Visual and Performing Arts, General. - 5001	Bachelor's	\$23,178	\$21,900
University of Texas at Austin	Area Studies. - 501	Master's	\$42,774	\$36,700
University of Texas at Austin	Radio, Television, and Digital Communication. - 907	Master's	\$50,449	\$23,900
University of Texas at Austin	Music. - 5009	Master's	\$43,086	\$24,700
University of Texas at Austin	East Asian Languages, Literatures, and Linguistics. - 1603	Bachelor's	\$23,000	\$21,900
University of Texas at Dallas	Design and Applied Arts. - 5004	Master's	\$48,191	\$33,200
University of Texas at El Paso	Rhetoric and Composition/Writing Studies. - 2313	Master's	\$49,416	\$27,800
University of Texas at El Paso	Arts, Entertainment, and Media Management. - 5010	Bachelor's	\$24,231	\$17,800
University of Texas at El Paso	Fine and Studio Arts. - 5007	Bachelor's	\$16,952	\$16,200
University of Texas at El Paso	Linguistic, Comparative, and Related Language Studies and Services. - 1601	Bachelor's	\$20,969	\$20,200
University of Texas at El Paso	English Language and Literature, General. - 2301	Bachelor's	\$28,400	\$26,900
University of Texas at San Antonio	Anthropology. - 4502	Bachelor's	\$27,000	\$22,500
University of Texas at San Antonio	Health Services/Allied Health/Health Sciences, General. - 5100	Bachelor's	\$29,000	\$26,600
University of Texas at San Antonio	Mental and Social Health Services and Allied Professions. - 5115	Master's	\$49,546	\$34,900
University of Texas at San Antonio	Fine and Studio Arts. - 5007	Bachelor's	\$23,576	\$20,800
West Texas A&M University	Radio, Television, and Digital Communication. - 907	Bachelor's	\$25,000	\$23,900

Source: U.S. Department of Education and author calculations.

Figure 2
Performance of Public 4-Year Colleges in Texas



Note. Data from U.S. Department of Education and authors' calculations.

Table 2
University Performance for Bachelor's Degree Programs

University Name	Pass	Probation	Fail	No Data
Angelo State University	7	7	0	27
Brazosport College	0	0	0	2
Lamar University	7	4	1	41
Midland College	0	0	0	1
Midwestern State University	10	4	0	33
Prairie View A & M University	6	2	8	21
Sam Houston State University	23	6	3	25
South Texas College	0	0	0	4
Stephen F Austin State University	11	10	5	40
Sul Ross State University	0	0	0	28
Tarleton State University	14	9	0	40
Texas A&M International University	11	5	0	15
Texas A&M University-Central Texas	4	0	0	18
Texas A&M University-College Station	58	6	0	37
Texas A&M University-Commerce	8	4	1	34
Texas A&M University-Corpus Christi	9	7	3	22
Texas A&M University-Kingsville	11	10	0	27
Texas A&M University-San Antonio	0	0	0	24
Texas A&M University-Texarkana	3	0	0	16
Texas Southern University	3	10	5	31
Texas State University	38	15	3	18
Texas Tech University	35	13	0	31
Texas Tech University Health Sciences Center	3	0	0	2
Texas Woman's University	19	4	0	18
Tyler Junior College	0	0	0	1
University of Houston	48	5	1	24
University of Houston-Clear Lake	16	0	0	19
University of Houston-Downtown	16	5	0	19
University of Houston-Victoria	6	1	0	16
University of North Texas	40	10	1	25
University of North Texas at Dallas	0	0	0	20
University of Texas at Arlington	36	1	1	18
University of Texas at Austin	41	11	2	36
University of Texas at Dallas	21	5	0	16
University of Texas at El Paso	17	10	4	34
University of Texas at San Antonio	24	13	3	34
University of Texas at Tyler	14	4	0	15
University of Texas Health Science Center at Houston	2	0	0	0
University of Texas Health Science Center at San Antonio	4	0	0	1
University of Texas MD Anderson Cancer Center	0	0	0	3
University of Texas Medical Branch	1	0	0	2
University of Texas of the Permian Basin	7	0	0	25

Note. Data from U.S. Department of Education and authors' calculations.

Table 2 cont'd

Table 2
University Performance for Bachelor's Degree Programs

University Name	Pass	Probation	Fail	No Data
University of Texas Rio Grande Valley	30	1	0	33
University of Texas Southwestern Medical Center	0	0	0	1
West Texas A&M University	16	4	1	33

Note. Data from U.S. Department of Education and authors' calculations.

9 pass, 7 are on probation, and 3 fail. Assuming this is representative of the university's 22 programs with no data, only 57% of students are attending a program that will allow them to earn enough to repay their student loans without undue difficulty. Thirty-six percent of students are attending programs that leave them with such high debt relative to earnings that their ability to repay their loans is in question. And 7% of students are attending programs where the typical graduate's debt is too high relative to their expected earnings.

Public 2-Year Colleges

In contrast to Texas's public 4-year colleges, where many students are enrolled in programs that are on probation or failing the debt-to-earnings test, Texas's community colleges perform very well, as shown in **Table 3** and **Figure 3**. In fact, among all of Texas's community colleges, only one program failed, and over 2 years, that program only had 25 students receive federal financial aid and enter the labor market after graduating.

Policy Recommendations

Given the strained financial conditions in which Texas—and all of America—finds itself during the novel coronavirus pandemic, it is more important than ever that Texans' taxpayer dollars be spent on education that yields a positive return on investment. Neither students nor the state of Texas is served by programs that fail to prepare graduates for employment that enables students to repay their student loans.

How can this be accomplished? First, we recommend that the Legislature pass legislation ensuring that taxpayer dollars are spent only on programs that yield a positive return on investment for Texas students. As higher education scholar Beth Akers (2019) noted, "Colleges that continually send students into the world with federal student debts that they cannot afford to repay should not only be sanctioned financially but should lose access to federal financial-aid dollars" (p. 6). Accountability mechanisms to enforce this commonsense view could include setting limits for default rates and repayment rates. While the federal government already uses a default rate limit, it is quite lenient, so states could impose tougher limits on universities subject to their jurisdiction. But default rates are becoming less useful as

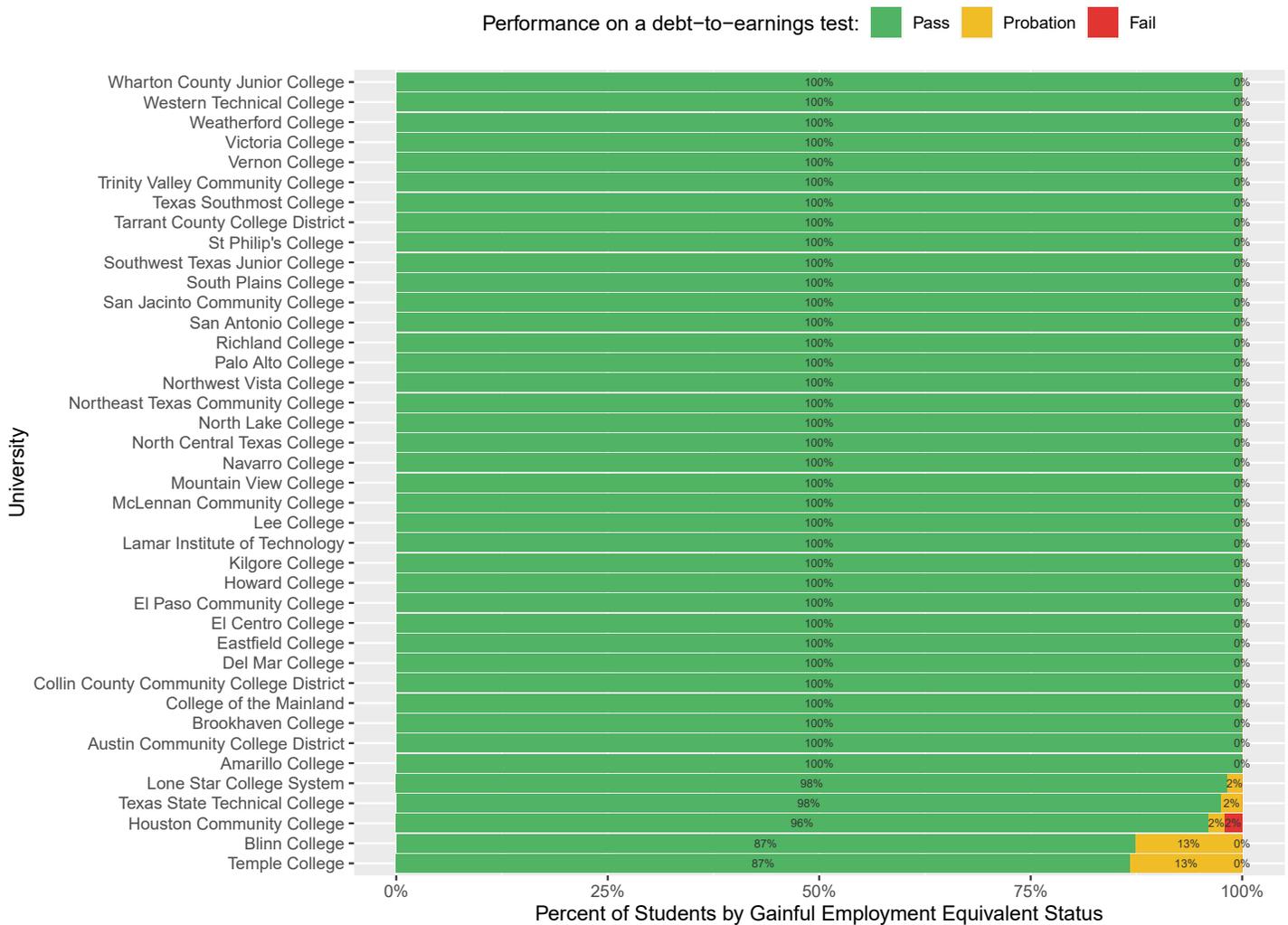
income-driven repayment plans become more popular (defaulting is largely obsolete under income-driven repayment plans), so using the percentage of students paying down the principal on their loans would likely be a better strategy. Risk sharing or

skin-in-the-game policies also hold potential. Under these policies, colleges would be required to reimburse the state for taxpayer funds that did not improve student outcomes. For example, colleges rather than taxpayers could be required to pay when their students use student loan safety nets such as deferment, forbearance, or loan forgiveness (Akers, 2019). Part of this legislation should stipulate that programs that fail Gainful Employment Equivalent (or a similar measure) for 2 out of 3 years or that fail to pass one of the GEE tests for 4 years in a row no longer receive taxpayer funding. These were the sanctions in the original Gainful Employment regulations. Any program subsequently cut off from state funding should have to wait 5 years before relaunching and should be subject to additional oversight and enrollment restrictions until it has been in existence long enough to fall under the watchful eye of Gainful Employment Equivalent.

In a similar vein, we recommend that, for those programs with a predominantly vocational focus, the Legislature should consider going further than the GEE test, such as adopting the "Returned-Value Model" of education funding. Texas has already demonstrated success with this model. In 2009, the Legislature passed a bill requiring Texas State Technical College (TSTC) to adopt the Returned-Value Model, under which the school receives no taxpayer funding for its enrolled students until and unless each student graduates and commands an income above the minimum wage. Salary earnings above minimum wage are considered to be the 'value added' by TSTC's training.

Here is the unique framework under which TSTC operates: As do all colleges, TSTC receives tuition from students. In addition, the state of Texas provides funds (state appropriations) to all public colleges based upon a funding formula. Although the specifics are different for each type of college, the state formula for 2-year community colleges, for 4-year general academic colleges, and for health-related institutions is based, to some degree, upon the number of contact hours the institution has with the student. These are essentially cost-recovery formulas. Community colleges also receive local property taxes to support their efforts. TSTC does not.

Figure 3
Performance of Public 2-Year Colleges in Texas



Note. Data from U.S. Department of Education and authors' calculations.

Notably, TSTC's formula is not based upon time spent in instruction ("seat time") or contact hours with a student. It is, instead, based upon student outcomes and student success. TSTC operates under a 100% outcomes-based formula that pays the college a small percentage of the economic return a student generates for the state. The economic return is based upon the student's earnings above minimum wage during his or her first 5 years of employment after leaving TSTC.

In other words, TSTC takes the risk and teaches the student *without a guarantee of payment*. If and only if that student enters the workforce, the state will calculate the economic return and pay TSTC a commission based upon an average of the student's first 5 years of earnings. *This means that TSTC is not paid until 7-9 years after a student receives his or her education*. The built-in incentive, then, drives TSTC to make sure that students are job-ready upon graduation,

that they are placed in current high-wage jobs (*as only wages above minimum wage are factored into the formula*), and that employers seek TSTC students for skilled positions. That means TSTC must serve the student and the employer in order to ensure success.

It should also be noted that TSTC's formula does not work like a subsidy. As stated above, public institutions of higher education in Texas receive appropriations from the state through formulas, which are specific to the type of institution. For public institutions other than TSTC, the institutions receive an appropriation whose allocation is determined through a census-based (or activity-based) formula. These formulas are based on the participation and costs incurred by students. TSTC's formula is based on the results and performance of its students. For TSTC, the state formula is the primary funding source that pays for instruction and administration at the college.

Table 3
University Performance for Associate Degree Programs

Institution Name	Pass	Probation	Fail	No Data
Alvin Community College	1	0	0	28
Amarillo College	6	0	0	40
Angelina College	0	0	0	37
Austin Community College District	13	0	0	67
Blinn College	4	1	0	42
Brookhaven College	1	0	0	30
Cedar Valley College	1	0	0	28
Central Texas College	1	0	0	44
Cisco College	0	0	0	21
Clarendon College	3	0	0	24
Coastal Bend College	0	0	0	31
College of the Mainland	3	0	0	20
Collin County Community College District	4	0	0	32
Del Mar College	5	0	0	58
Eastfield College	1	0	0	36
El Centro College	4	0	0	29
El Paso Community College	9	0	0	50
Frank Phillips College	0	0	0	20
Galveston College	2	0	0	22
Grayson College	1	0	0	42
Hill College	1	0	0	35
Houston Community College	10	1	1	51
Howard College	2	0	0	38
Kilgore College	4	0	0	53
Lamar Institute of Technology	3	0	0	20
Lamar State College-Orange	2	0	0	11
Lamar State College-Port Arthur	2	0	0	23
Lee College	3	0	0	55
Lone Star College System	10	1	0	33
McLennan Community College	6	0	0	41
Mountain View College	1	0	0	28
Navarro College	5	0	0	31
North Central Texas College	2	0	0	15
North Lake College	1	0	0	25
Northeast Lakeview College	0	0	0	14
Northeast Texas Community College	2	0	0	26
Northwest Vista College	5	0	0	45
Odessa College	2	0	0	45
Palo Alto College	2	0	0	59
Panola College	1	0	0	13
Paris Junior College	0	0	0	43
Ranger College	1	0	0	3
Richland College	1	0	0	36

Note. Data from U.S. Department of Education and authors' calculations.

The formula uses the average earnings of students for the first 5 years after they attend TSTC, in order to determine the economic impact and the “returned value” to the college. That impact is quantified and a portion of that is estimated to generate the return back to the college.

In sum, TSTC is “paid a discounted percentage of the direct and indirect economic benefit these value-added wages provide to the Texas economy. ... Essentially, TSTC is paid on a commission derived from student earnings years after the training was received” ([Texas State Technical College, n.d., paras. 3-4](#)). The fields within career and technology education are particularly well suited for the Returned-Value Model because their whole mission is to train students for well-paying jobs.

Conclusion: Toward Ending Information Asymmetry in Texas Public Higher Education

For too long, colleges and universities have had more information about the quality of the education they provide than the students had. This information asymmetry has limited the students’ ability to make informed choices about whether to go to college, which college to attend, and what to major in once they get there.

But a new day appears to be dawning in higher education, and this newfound transparency regarding earnings and debt for recent graduates also holds the potential to revolutionize accountability. For the first time, students, their

parents, and taxpayers will be able to assess more accurately the prospective return on their college investment and act accordingly.

Doubtless, some college applicants, moved first and foremost by their love of the subject matter, will continue to choose majors with a less-robust return on investment. Students should be free to make such a choice. Our purpose has been to provide these students with better information so that these are *informed choices*, which requires adequate knowledge of the stakes involved and the likely results of their choice. Until now, too few students have been able to make such an informed choice because there was little reliable data on student earnings and debt at the program level. But with the new U.S. Department of Education data, that is changing. We have highlighted 58 associate, bachelor’s, or master’s degree programs that fail a debt-to-earnings test and yet enroll thousands of Texans every year.

This information will also prove helpful to Texas public universities, which doubtless strive to ensure that the degrees they provide do not result in graduates who limp into their careers already behind the eight ball—buried in exorbitant debt with limited future earnings.

This information should also inform policy. The Texas Legislature has not only the right but also the duty to ensure that Texas taxpayers are receiving a meaningful return on their taxpayer-funded educational spending. ★

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Methodological Appendix: Setting Gainful Employment Equivalent Test Thresholds

We created Gainful Employment Equivalent (GEE) to mimic the old Gainful Employment (GE) regulations. GE employed two debt-to-earnings tests:

1. Annual Earning Rate (AER): AER is equal to the annual debt service based on the median debt divided by the higher of median or mean annual earnings.
2. Discretionary Income Rate (DIR): DIR is equal to the annual debt service based on the median debt divided by the higher of median or mean annual earnings minus 150% of the poverty line.

The Department of Education set thresholds for each debt-to-earnings test to distinguish between passing, failing, and zone programs (we call the zone status “probation”).

Table A1

Gainful Employment Debt-to-Earnings Test Thresholds

Test	Passing	Zone (Probation)	Failing
Annual Earnings Rate (AER)	< or = 8%	> 8% but < or = 12%	> 12%
Discretionary Income Rate (DIR)	< or = 20%	> 20% but < or = 30%	> 30%

Programs were assigned the best rating they achieved on the two tests. Programs that failed in 2 out of 3 years, or that failed to pass for 4 years in a row would have their eligibility for federal financial aid terminated. GE was only in effect for 1 year, so no program faced sanctions.

The AER and DIR formulas are easily applied to the GEE data (the 2019 release of the College Scorecard dataset), although only median earnings are available for the GEE data. The main complication is that the GE rating thresholds in the table above correspond to measures of debt and earnings that are not the same in the GEE data. The main differences between the GE and the GEE data are:

- **Program definition:** GE data defines programs at the 6-digit CIP code, while GEE data defines programs at the 4-digit CIP code. For example, the GEE data combines all economics majors into one code 45.06, whereas the GE data allowed for a finer breakdown such as 45.0604 – Development Economics and International Development.
- **Earnings:** The GE data measured earnings 3-6 years after graduation and included those not employed. The GEE data measures earnings 1 year after graduation and does not include those who were not employed.
- **Debt:** The GE data included all Title IV aid recipients and some private debt. The GEE data only include students who borrowed and do not include any private debt.

Given these differences between the GE and the GEE data, a good case can be made that the GE thresholds in the table above should not be applied to the GEE data. Instead, we analyzed programs that appeared in both the GE and the GEE data to determine what the new thresholds should be. The goal was to find new GEE thresholds that resulted in the same outcome (passing, zone/probation, failing) for programs that appeared in both datasets. In other words, the new GEE thresholds are set so that most programs that failed GE also failed GEE, and most programs that passed GE also passed GEE.

To find these new thresholds, we compared the AER values for programs that appeared in both the GE data and the GEE data. Running a regression with no intercept with the GEE AER as the dependent variable, and the GE AER as the independent variable resulted in a regression coefficient of 1.07 which was statistically significant (p-value < .01). Multiplying the GE thresholds by this regression coefficient yields the thresholds for the GEE data that would have the equivalent impact as the old GE thresholds. The resulting GEE thresholds are found in **Table A2**.

Table A2

Gainful Employment Equivalent Debt-to-Earnings Test Thresholds

Test	Passing	Zone (Probation)	Failing
Annual Earnings Rate (AER)	< or = 8.6%	> 8.6% but < or = 12.8%	> 12.8%
Discretionary Income Rate (DIR)	< or = 21.4%	> 21.4% but < or = 32.1%	> 32.1%

ABOUT THE AUTHORS



Thomas Lindsay, PhD, is the distinguished senior fellow of higher education and constitutional studies at the Texas Public Policy Foundation. He has more than two decades' experience in education management and instruction, including service as a dean, provost, and college president.

Dr. Lindsay was the director of the National Endowment for the Humanities' (NEH) signature initiative, *We the People*, which supports teaching and scholarship in American history and culture. He was later named deputy chairman and chief operating officer of the NEH.

Dr. Lindsay co-authored the American government college textbook *Investigating American Democracy* with Gary Glenn, published by Oxford University Press. He has published numerous articles on the subject of democratic education, many of which have appeared in the world's most prestigious academic journals, including the *American Political Science Review*, the *Journal of Politics*, and the *American Journal of Political Science*.

Dr. Lindsay has published articles on higher-education reform in *Real Clear Policy*, *Los Angeles Times*, *National Review*, *Inside Higher Ed*, *Washington Examiner*, *Knight-Ridder Syndicate*, *Dallas Morning News*, *Houston Chronicle*, *American Spectator*, *Forbes*, and the *Austin American-Statesman*, among others.

In recognition of his scholarship on democratic education, Dr. Lindsay was the 1992-93 Bradley Resident Scholar at the Heritage Foundation in Washington, D.C.

Dr. Lindsay earned a PhD and an MA in political science and government from the University of Chicago and a BA *summa cum laude* in political science from Northern Illinois University.



Andrew Gillen, PhD, is a senior policy analyst at the Texas Public Policy Foundation and an adjunct professor of economics at Johns Hopkins University. Dr. Gillen's recent work has focused on how to reform federal financial aid, how state disinvestment is a myth, and how post-college earnings and debt should be used to inform student choice and government accountability.

Prior to joining the Foundation, Dr. Gillen spent over a decade at nonprofit and philanthropic organizations researching and trying to improve higher education. He was a program officer for the Charles Koch Foundation and served in research roles for American Institutes for Research, Education Sector; the American Council of Trustees and Alumni; and the Center for College Affordability and Productivity. He was also on the U.S. Department of Education's Advisory Committee on Student Financial Assistance.

Andrew has a PhD in economics from Florida State University and a BBA (business) degree from Ohio University.

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