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Texas Transfer Efficiency

Estimating the cost of lost transfer credits

Texas Association of Community Colleges

PHILANTHROPY ADVOCATES
a COLLABORATION with EDUCATE TEXAS

Acknowledgments

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Cost of Excess Transfer Credits

Executive Summary

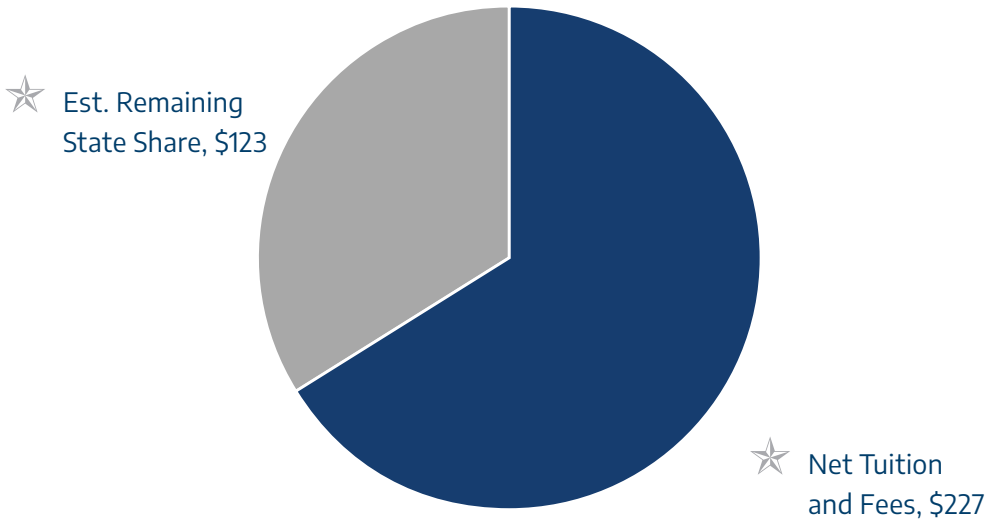
For Texas students who aspire to earn a bachelor's degree or beyond, attending and transferring from a community college offers many advantages. Students can take classes in their area at a far lower tuition cost then transfer to a bachelor's-granting college or university (although some community colleges offer bachelor's degrees), saving significant amounts of money in costs and/or student loan debts.

Many students take this affordable route – 75% of bachelor's recipients from Texas public universities have community college credit – however, the path can lack efficiency (Greater Texas Foundation, 2017). Transfers often lose credits in the switch, or their classes do not count towards their major. This forces them to repeat courses, extends the time to graduation, and cuts into the savings that generally accompany transfer.

Estimating how much these lost and repeated courses cost students, taxpayers, and even institutions is a complex but important task. It quantifies the scale of the problem, provides a baseline figure that can be tracked over time, and suggests what manner of interventions might be justified. It also suggests the extent to which credit loss might be impeding degree completion; if students face high costs to repeat credits and longer times to earn their degrees, they are less likely to ever reach the finish line.

This analysis produces an estimate of $350 million for the annual cost of unused transfer credit for Texas public bachelor's degree graduates who also earned or attempted credit at a Texas community college. Within this estimate, students' share is about two-thirds or $227 million, based on average net tuition and fees per credit hour, leaving the state or institutional subsidy share at about $123 million (see Figure 1).

Figure 1. Estimate, Total Annual Excess Transfer Credit Cost in Texas, State and Student Share (millions).



Different assumptions, data sources, and perspectives on costs or unused credits alter the $350 million estimate. This estimate is based on the average direct and indirect expenditure per credit at Texas four-year institutions but excludes students' indirect costs, e.g. living costs. In the absence of an appropriate Texas data source, it uses a national Department of Education (ED) survey for estimates of unused credit hours among public university graduates who transferred from community colleges.

Why is the question of unused transfer credit cost important?

Most postsecondary students in Texas begin at a community college (Shapiro et al., 2017), and 75% of students who graduate with a bachelor's degree from a Texas public university have some community college credit (Greater Texas Foundation, 2017). Vertical transfer from a community college to a university offers a convenient and affordable path to a bachelor's degree, as students can take college classes in their local community and pay lower tuition and fees than at a university. However, this cost savings wanes when students complete community college credits that do not apply to their degree at their university of choice.

Through its accountability system, the Texas Higher Education Coordinating Board (THECB) tracks the number of hours earned by bachelor's degree graduates in excess of program requirements. This data point is not available specifically for community college transfers and, in the case of transfer students, does not distinguish whether excess credits were accrued at the origin or the destination institution. This measure also does not distinguish between credits earned, which can potentially transfer, and credits attempted but failed or withdrawn, which cannot. On average, 2020 Texas bachelor's graduates who started at the same institution where they graduated had three excess hours, and those who transferred had 21 (THECB, 2021).

Students do not accumulate unused credit hours only in the context of transfer, nor is every unused credit hour a waste of student or taxpayer money. Attempting to eliminate every excess hour could do damage to both students and institutions, but a large volume of unused credit hours is neither good nor inevitable. To the extent the transfer process can be streamlined, financial resources and students' time could be put to better use.

Responsibility for excess credit hours does not rest solely with community colleges for not sending students off with the right courses, nor with universities for recklessly refusing to accept every course in transfer equivalence. Nor is it productive to blame the students. The most effective solutions will probably emerge from ongoing and improving communication and collaboration among institutions sending or receiving students in transfer.

Methodology

Key data sources

This estimate of the cost of excess credit hours uses Texas data where available and appropriate to the question, and national data where Texas-specific numbers are not immediately available. In general, THECB makes available a large amount of publicly available information about students and finances that works well for most dimensions of the analysis. The main exception, where Texas data are not easily accessible, is for the estimate of the specific number of excess transfer hours per student. The estimate in this analysis uses national survey-based data on community college to baccalaureate transfer (National Center for Education Statistics, 2021).

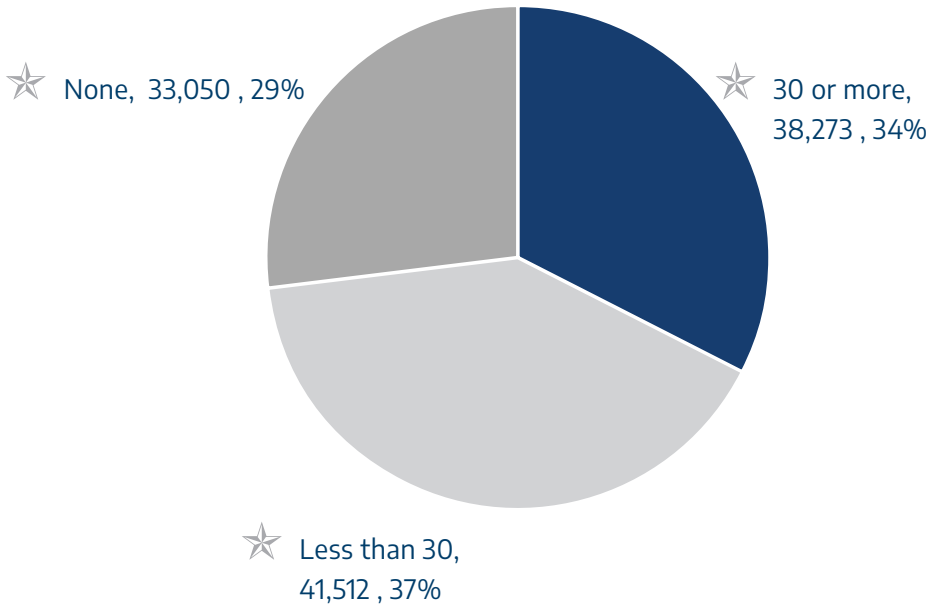
The core data elements for the analysis include:

- Student population: the number of students who graduate with bachelor's degrees from Texas public institutions each year who have at least some transfer credit from Texas public two-year colleges
- Excess/inefficient transfer hours: the number of credit hours earned at a community college but not accepted at the four-year institution
- Cost per credit hour/full-time equivalent (FTE) student: the unit cost per credit hour of inefficient transfer
- Cost estimates of inefficient transfer vary depending on how the different aspects of the question are defined.

Student Population

The student count for the analysis is based on the number of bachelor's graduates with credit from community colleges in 2019 (Texas Higher Education Coordinating Board, 2021). Most bachelor's graduates of Texas public universities have some credit from Texas community colleges. About a third have more than 30 credit hours. These numbers include dual enrollment credit but exclude remedial courses.

Figure 2. 2019 Texas Public Bachelor's Graduates by Amount of Community College Credit



Unused Transfer Credit

The next element of the estimate is the number of unused or excess transfer hours for each of these graduates. There is no easily accessible Texas-specific data source for this, although institutions are currently working on new reports and data elements that may make it feasible to replace these national-level estimates soon.

This estimate uses data from the national Beginning Postsecondary Student (BPS) survey, which follows students from their first time in college in 2011-12 to June 2017. This survey specifically assesses how many credits students earn at their first institution and how many of those transfer if the student transfers. The BPS survey is not a perfect data source for this purpose, primarily because it is not specific to Texas, but also because it is limited to students who start at community colleges and complete a bachelor's within six years, and does not include students who take longer to complete or who start elsewhere but accumulate community college credit along the way. It is also the product of a sample-based survey and is subject to sampling error. The main advantages of the source are that it is specific to public community college to university transfer and it only includes credit earned because failed or incomplete courses cannot transfer anyway.

It is possible to divide students into categories somewhat like those used by THECB in Figure 2 (those with 30 hours or more at the origin institution and those with less than 30) and to calculate the difference between the hours earned and the hours transferred for each group. The alignment is not perfect, however, since the THECB breakdown of graduates with transfer credit is not specific to a single origin institution and includes dual enrollment credit, which the BPS source does not. Still, it is better than other publicly available sources for this estimate.

Table 2 shows the difference between the number of credits earned and the number of credits transferred for students with 1-29 credits or 30+ credits at the origin institution. On average, those with 1-29 credits had earned 20.7 hours, while only 14.1 transferred, leaving a difference of 6.6 credits that did not transfer. Those with 30+ hours had

earned an average of 68.9 hours but transferred only 55.7, leaving a difference of 13.2.

If we multiply those averages by the number of Texas graduates with corresponding amounts of community college credit, we get an estimate of 781,019 earned community college hours annually that do not transfer, or 9.8 hours per Texas bachelor's graduate with community college hours. The Texas-weighted average is lower than the national average because there is a higher proportion of Texas graduates in the under-30 community college hours category than in the national sample.

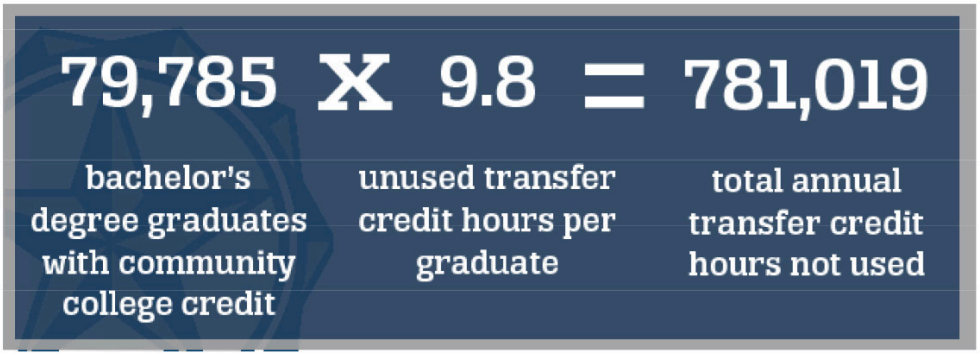
Number of Unused Hours in Transfer

Number of Unused Hours in Transfer in U.S.			
	US Total	Students with 1-29 CC Transfer Hours	Students with 30+ CC Transfer Hours
First Transfer: Total credits earned at origin institution	64.0	20.7	68.9
First Transfer: Total credits transferred from the origin institution to the destination institution	51.4	14.1	55.7
Credit earned minus credit transferred	12.6	6.6	13.2

Number of Unused Hours in Transfer in Texas			
	Texas Total	Students with 1-29 CC Transfer Hours	Students with 30+ CC Transfer Hours
Texas Graduates 2019	79,785	41,512	38,273
Est. Unused Transfer Hours	781,019	274,656	506,363
Est. Average per Texas Graduate	9.8		

We can calculate the total annual transfer credit hours not used by multiplying the number of bachelor's degree graduates with community college credit by the estimated average number of unused credit hours per Texas graduate, as shown below.

Figure 3



Cost of Education

The next element of the analysis is the average cost per unused transfer hour. There are a number of possible ways to define what we mean by cost, and there are reasonable, Texas-specific data sources for each one. Numbers available to use for the cost analysis include the following options:

- Expenditures (direct or direct + indirect) per FTE/credit hour (regardless of source of funds, taxpayer or student)
- Revenues (state, tuition/fees, local/taxes, other) per FTE/credit hour (regardless of how spent)
- In-state sticker price tuition & fees
- Student loan debt per credit hour
- Student indirect cost (opportunity cost of additional time in school)
- Two-year and four-year cost differences

Even if we knew precisely how many hours students lost in transfer, there would still be choices to make in assessing what costs to attribute to those hours. Is the additional "cost" the cost of the community college credit that did not transfer or the cost of the four-year institution class the student had to take instead? Are we considering only direct costs of instruction and student support, or allocating some portion of overall institutional/administrative support to the total? Are we considering only what students pay out of pocket for tuition and fees, or are we including their time lost from the labor market when they are studying rather than working? If so, is that cost based on what they might earn as a part-time employee in an entry-level job, or what they would earn over the course of a longer career as a bachelor's degree holder? Depending on the policy under consideration and the perspective of different readers of this analysis, there are good rationales for different answers to all those questions.

The estimate in this analysis uses an average cost of $449 per credit hour. This is the statewide average four-year institution direct and indirect "Education and Related" expenditure per credit hour, based on data from the "Sources and Uses" financial reports produced by THECB in a format standardized for the Southern Regional Education Board (SREB) (Texas Higher Education Coordinating Board, 2019).

This amount includes:

- All direct instruction operating expenses (faculty salaries, departmental support)
- All direct student services operating expenses (admissions, registrar, counseling, and student activities)
- Partial academic support operating expenses (e.g., technical support, academic administration, libraries)
- Partial institutional support operating expenses (e.g., central administration, fiscal operations, data processing, accounting)
- Partial operation and maintenance of plant expenses (physical plant maintenance, utilities)

For the "partial" components, the amount is based on how much of the institution's core direct expenses are

instruction or student services (as opposed to separately budgeted research or public service), following the methodology adopted by the Delta Cost Project to calculate "Education and Related" expenses.[1]

[1]The basic formula to calculate the allocated indirect proportion of these categories is (Instruction + Student Services)/(Instruction + Student Services + Research + Public Service). See, for example, (Desrochers and Hurlburt). Each of these core numbers is in THECB's statewide Sources and Uses report; I simply apply the Delta Project formula to those numbers.

Student debt

Given the salience of student loan debt in current policy discussions, it is also worth including in this analysis an estimate of the effect of excess hours on debt.

While there are not Texas-specific numbers for student loan debt of community college to baccalaureate transfers, THECB does provide average rates of indebtedness and total numbers of credit hours to degree for bachelor's graduates. Dividing the average number of hours (135) into the average debt per graduate ($14,784) produces an average student loan debt of $110 per semester hour, which can then be applied to the estimate of the number of unused transfer hours. This approach yields an estimate of $86 million in student loan debt associated with unused transfer hours.

2019 Debt per Credit Hour Calculations	
Percent of Graduates with Debt	58%
Average Debt >0	$ 25,635
Average Debt per Graduate (Calculated)	$ 14,784
Average Hours to Degree	135
Average Debt per Credit Hour	$ 110

Excess Transfer Hours in Context

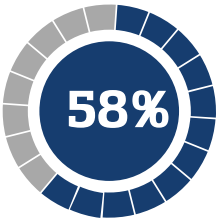
According to the THECB accountability system, 58% of all bachelor's graduates of public institutions (including those with and without community college credit) have earned or attempted more than three hours credit in excess of program requirements, excluding developmental/remedial education and dual enrollment credit. That proportion has declined from 65% in 2015. On average, graduates had earned or attempted 133 hours per bachelor's degree, or 13 more than the standard 120-credit degree (though some disciplines may require more). Transfer students, on average,have attempted 18 more excess credits than "native" students, who begin and graduate from the same institution (21 excess credits vs. 3 excess credits). Not all sources of postsecondary credit may be included in these numbers, if credit was earned somewhere THECB did not have access to data or was beyond the 10-year time frame of the data definition.

Community college graduates also have significant amounts of excess credit: 18 per graduate for native students and 32 per graduate for transfers-in, in 2020 (down from 24 and 41 in 2015). Some of these credits overlap with those of bachelor's graduates. Most community college graduates transfer, and credit that was counted as "excess" to an associate degree may not be excess for the bachelor's degree, or if it is counted as "excess" would duplicate the hours counted at the time of the associate degree award.

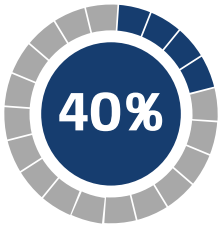
Finally, for the students who never complete either an associate or bachelor's degree, there is no clear way to count "excess" credits since no degree was completed. However, survey data indicates that non-graduates face the same difficulties that lead to excess credits for graduates, sometimes to an even greater extent.

The basic formula to calculate the allocated indirect proportion of these categories is (Instruction + Student Services)/(Instruction + Student Services + Research + Public Service). See, for example, (Desrochers and Hurlburt). Each of these core numbers is in THECB's statewide Sources and Uses report; I simply apply the Delta Project formula to those numbers.

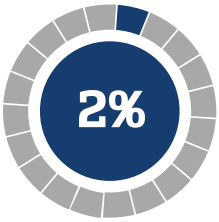
A recent national survey by the American Council on Education (ACE) National Task force on Transfer of Credit asked students about their experience transferring credit (Kilgore, Taylor & Pineda, 2020). Among its important findings were that students often do not know why their credit does not transfer, and that students' perceptions do not match data from transcript studies. In the ACE survey of more than a thousand transfer students nationally...



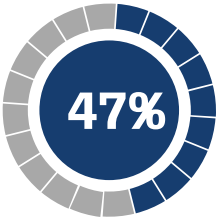
of public institution transfers reported that all of their credit transferred...



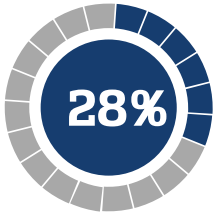
reported that some did, and only...



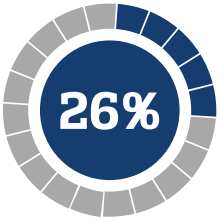
2% reported that none had transferred.



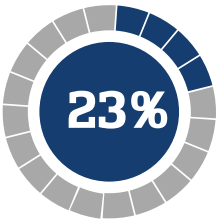
The most common reported reasons for credit not transferring were "No course equivalency"



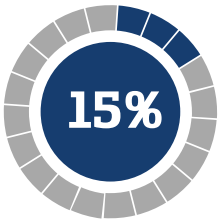
"Earned dual enrollment credit that did not apply to major"



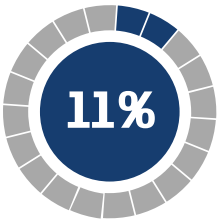
"Changed majors" (26%) and...



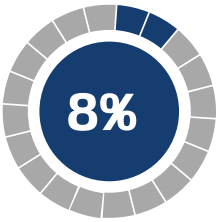
"Grade earned would not transfer"



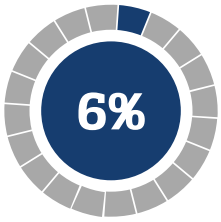
Other answers included in the survey that are clearer indications of areas for systemic improvement included "misadvised"



and "course not offered when needed"

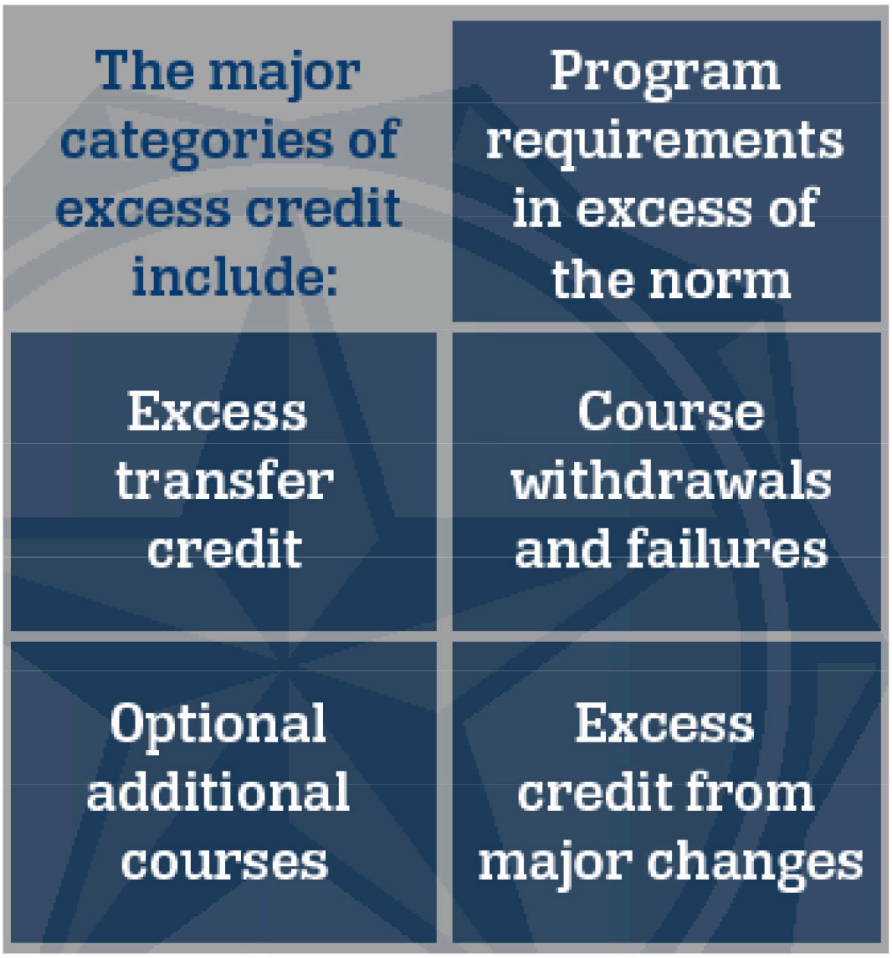


"self-advised"



"degree checklist was hard to understand"

This kind of careful survey work would be helpful to any state or institution looking to improve its policies and practices. Investigations of the qualitative experiences of students attempting to transfer credits can provide crucial context to improved quantitative tracking and reporting of transfer students and their outcomes, e.g. transfer dashboards.



The major categories of excess credit include:

- Program requirements in excess of the norm (these may not be included in formal counts of "excess") of 120 hours for a bachelor's or 60 hours for an associate degree.
- Course withdrawals and failures. To the extent these take up institutional and student time and resources, they are excess credits, although they cannot by definition "transfer" so should not be considered part of the excess transfer credit issue.
- Excess credit from major changes. This occurs when credit earned to meet the requirements of one major is no longer usable after a student changes to a new major.
- Optional additional courses. These are successfully completed courses that students take for reasons other than changing major or to meet program requirements. While this is sometimes what policymakers have in mind when thinking about excess credit, it is not responsible for most of what gets counted as excess.
- Excess transfer credit. This category is specific to credit lost in the transition between institutions. Some lost credit may be inevitable in a system that allows for and even encourages variation in program design among institutions, especially in widely disparate geographical areas. Some may also result when community colleges help students get to a level that selective institutions or programs assume entering students should have (e.g., everyone is assumed already to have passed calculus before starting an engineering program). But some of it is probably avoidable and results from poor communication or coordination among institutions or with students.

Recommendations

In some ways Texas is already moving in a positive direction, as indicated by the recently improving numbers in THECB accountability reports. But in a state as large and complex as Texas, with its multiple systems of higher education, maintaining that positive momentum will take consistent effort. A few recommendations that may help the state along these lines include:

- Using the ACE study or similar resources as a starting point, conduct a detailed manual transcript study of 100-200 randomly selected bachelor's graduates to understand exactly how and when excess credit tends to be generated and what categories would be most useful for reporting and analysis. Consider conducting a Texas-specific transfer student survey if needed. Focus on what credit is or is not used toward a degree rather than what is or is not accepted in transfer, since credit that is accepted but not used is arguably no different from credit not accepted in the first place in terms of overall academic efficiency.
- Use the results of that research to disaggregate credit in excess of program requirements in THECB reports to allow for better understanding of the types of credit that end up in excess (native institution, credit earned at other institutions, dual enrollment, CIP code, etc.)
- Focus policy and best practice discussions on improving supports and incentives for students' most immediate curriculum decisions. Policies that focus on rewarding or penalizing students for the number of credits in a degree, by contrast, are poorly timed, since by the time students are near completion and those rewards/penalties come into play, it is too late to do anything about them.

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