IES **Institute of Education Sciences**

How is Texas modeling costs to inform performance-based financing of community colleges?

Policymakers in Texas are interested in understanding the funding levels necessary for community colleges to meet their promise of providing an affordable and accessible pathway to a postsecondary certificate or degree. Texas currently allocates state resources to community colleges on the basis of instructional hours and student outcomes through their Student Success Points performance-based funding system.[1] Some research suggests that such performance-based funding arrangements may benefit colleges that serve a more advantaged student population and that are already performing well.[2] For community college funding systems to be equitable, they must account for the different levels of support and subsequent funding needed to provide students from different backgrounds an equal opportunity to succeed.

The Regional Educational Laboratory (REL) Southwest conducted a study to help leaders in Texas better understand the extent to which Texas community colleges receive adequate funding for reaching desired levels of student outcomes. The study included three components: a **needs analysis**, an **equity analysis**, and a **cost function analysis**.

> Read about REL Southwest's study, ***An Examination of the Costs of Texas Community Colleges,*** here.

The Texas Student Success Points performance-based funding system allocates funding to Texas community colleges based on students' performance on measurable outcomes. These outcomes—called success points milestones—include passing a college-level course, earning 15 credit hours, earning 30 credit hours, attaining a credential, transferring to a four-year institution, and more.

Key finding from needs analysis

The needs analysis identified **student need factors** that are associated with earning success points milestones. Student need factors are characteristics associated with student outcomes that can be indicators of need for different levels of support. The need factors in this study are percentages of students at community colleges who are first-generation college students, economically disadvantaged (defined as coming from families earning less than $30,000 annually), older than 24, classified as English learner students, academically disadvantaged, and enrolled in high school dual-credit programs. The study found the following:

> ‣ Community colleges serving **higher percentages of students** who are first-generation college enrollees, economically disadvantaged, academically disadvantaged, older than 24, and English learner students tend to earn **fewer success points milestones** per full-time equivalent (FTE) student.

Key finding from equity analysis

The equity analysis determined whether institutional spending was equitable with respect to various student need factors and institutional contextual factors. The study found the following:

- ▸ Community colleges with higher percentages of academically disadvantaged students **spent less per FTE student,** suggesting potential resource inequities for these students.

- ▸ Percentages of students who are first-generation college enrollees, economically disadvantaged, older than 24, and English learners, as well as colleges with enrollments smaller than 30,000 and higher faculty salaries, were associated with higher **spending per FTE student,** pointing to potential resource inequities.

Importantly, the latter finding says nothing about whether the positive associations between these factors and spending **were strong enough** to provide an equal opportunity for students to achieve a common level of outcomes. We turn to our cost function analysis to answer this question.
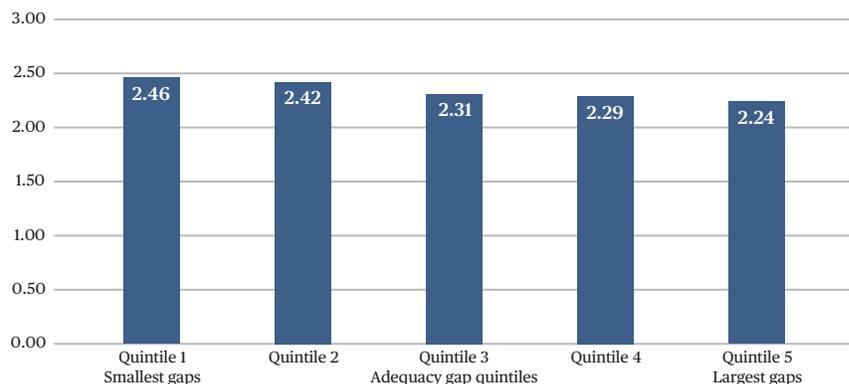
Key findings from cost function analysis

The cost function analysis projected the levels of per-student spending needed for students with certain need factors attending institutions with certain contextual factors to have an equal opportunity to achieve success points milestones. The study found the following:

- ▸ Community colleges with higher percentages of first-generation college students, students who are economically disadvantaged, students older than 24, and English learner students **required additional funding to achieve the same level of outcomes** as colleges without these student needs.

- ▸ Community colleges with fewer than 30,000 students enrolled **required additional funding to achieve the same level of outcomes** as colleges with enrollments greater than 30,000.

- ▸ Larger **differences between the projected adequate cost and actual spending (adequacy gaps) were associated with less favorable student outcomes (see figure 1).**

Figure 1. Larger differences between projected adequate cost and actual spending were associated with less favorable student outcomes in Texas community colleges, 2019/20

Success points milestone per FTE student

	Quintile 1 Smallest gaps	Quintile 2	Quintile 3	Quintile 4	Quintile 5 Largest gaps
Value	2.46	2.42	2.31	2.29	2.24

Adequacy gap quintiles

FTE is full-time equivalent.

Note: Each quintile represents approximately 20 percent of the students in the state. Quintile 1 represents community colleges with the smallest adequacy gaps and quintile 5 the largest adequacy gaps. The top four quintiles include community colleges that spent less per full-time equivalent student than the projected cost of providing an adequate opportunity to achieve for all students, whereas the remaining quintile received more dollars than their projected adequate cost. All data represent student-weighted averages within quintiles in the last year of the data (2019/20). Success points milestones include passing a college-level course, earning 15 credit hours, earning 30 credit hours, attaining a credential, and transferring to a four-year institution.

Source: Authors' analysis of institution-level data collected by the Texas Higher Education Coordinating Board, the College Scorecard, the Integrated Postsecondary Education Data System, and the School Finance Indicators Data base.

► Community colleges with higher shares of first-generation college students and smaller enrollments tended to **have larger differences between projected adequate cost and actual spending (adequacy gaps)**.

The findings from this study can inform policymakers' efforts to distribute funding for community colleges to support equitable opportunities for all students to succeed in college.[3] Policymakers may consider providing additional funding for community colleges that serve students with higher needs and that are smaller.

[1] For a detailed description of the Success Points system used to award funding to Texas community colleges, see the primer developed by the Texas Higher Education Coordinating Board at https://apps.highered.texas.gov/DocID/PDF/9595.PDF.

[2] Dougherty, K. J., & Hong, E. (2006). Performance accountability as imperfect panacea: The community college experience. In T. Bailey & V. Morest (Eds.), *Defending the community college equity agenda* (pp. 51–86). Johns Hopkins Press; Hagood, L. P. (2019). The financial benefits and burdens of performance funding in higher education. *Educational Evaluation and Policy Analysis, 41*(2), 189–213. https://eric.ed.gov/?id=EJ1213938

[3] The findings may not be generalizable to other state contexts. In particular, the results of this study may not be generalizable to states that are much smaller and do not use a performance-based funding system, such as the Texas Student Success Points system.