SHEEO
State Higher Education Executive Officers Association

NAVIGATING THE TRANSITION: DISABILITY SERVICES, FUNDING, AND STUDENT OUTCOMES IN TEXAS COMMUNITY COLLEGES

July 2025

J. JACOB KIRKSEY
BRADEN REED
JENNIFER A. FREEMAN

Navigating the Transition: Disability Services, Funding, and Student Outcomes in Texas Community Colleges

In recent years, the public policy landscape has placed an increased emphasis on increasing the proportion of adults holding postsecondary credentials, particularly among underrepresented populations. Individuals with disabilities—many of whom begin their postsecondary journey at community colleges (Ankeny & Lehmann, 2011; Miller et al., 2020)—have remained largely overlooked in these efforts, despite persistent disparities in college access, completion, and labor market outcomes. These institutions have long served as the gateways to higher education for students who are non-traditional learners, economically disadvantaged, or live in rural areas (Dougherty & Townsend, 2006). For example, nearly 90% of students with disabilities who graduate from high school and enroll in higher education in Texas attend a community college (Miller et al., 2020).

The transition from high school to higher education marks a pivotal point for students with disabilities (Hong, 2015). Unlike more regimented structures in K-12 settings, higher education institutions navigate a more nuanced interplay of federal laws intended to create an inclusive and accessible learning environment. The transition from K-12 to higher education requires students with disabilities to navigate a less structured and more self-directed system of accommodations. In K-12 settings, students benefit from legally mandated support systems, such as Individualized Education Programs (IEPs) and 504 plans, which are collaboratively developed and closely monitored by educators, specialists, and parents. These structured frameworks ensure that students receive the necessary accommodations to support their academic success. However, as students with disabilities enter higher education, the landscape of disability support changes dramatically, shifting from a proactive, school-managed system to one that places the responsibility on students to request and coordinate their own accommodations.

In postsecondary education, particularly within community colleges, institutions are bound by the ADA to provide “reasonable accommodations,” but they are not required to develop individualized plans like IEPs. Students must take the initiative to disclose their disabilities, navigate institutional processes, and advocate for the support they need. This transition can be challenging, as many students may lack awareness of their rights or struggle with self-advocacy (Hong, 2015). Without the structured guidance available in K-12, students with disabilities may encounter barriers in accessing accommodations, which can ultimately affect their academic progress and persistence in higher education (Mamboleo et al., 2020).

To address these concerns, there is a pressing need for a cost-benefit analysis that evaluates the financial investment required to provide disability services in Texas community colleges, as well as the long-term economic and social benefits of these services. By quantifying the costs and benefits, this study will provide valuable information as to the effectiveness of current funding structures and the broader societal impact of ensuring appropriate access to accommodations for all students.

Current Study

The purpose of this study is twofold: At the community college level, we examine how expenditures on student services and instruction correspond with the proportion of students receiving disability accommodations in Texas community colleges. For students with disabilities attending community colleges, we examine the association between the receipt of disability services with postsecondary outcomes, including earning credentials and successful transfer. By linking college-level spending patterns with the proportion of students receiving accommodations and assessing the relationship between disability services and student outcomes, this study aims to inform policy and practice on how to more effectively allocate resources to promote postsecondary attainment and transfer opportunities for students with disabilities. We ask the following research questions:

1. What is the association between the proportion of students receiving disability services and instructional and student services expenditures and urban and rural community colleges?
2. What is the association between receiving disability services and postsecondary outcomes?
3. Do these associations differ by disability type and urbanicity?
4. What are community college administrators' perceptions of factors and structures needed to provide disability services at their community colleges?

Overview of Community Colleges in Texas

Texas has a vast and diverse community college system, consisting of 50 community college districts spread across 254 counties in the state. These colleges are designed to provide affordable, accessible higher education to students in both urban and rural areas. Each community college district operates semi-independently, as the financial resources available to each college can vary significantly depending on local property tax values, student outcomes, and other economic factors (Waller, 2003). In addition to tuition and fees, community colleges rely heavily on state funding, which is determined by a formula that has evolved to emphasize performance metrics and student outcomes, including completion rates and credential attainment ("Community College Finance," 2023).

These institutions play a critical role in providing affordable pathways to higher education for students who might not otherwise be able to attend a university. They offer flexible scheduling, vocational programs, workforce development initiatives, and academic transfer options (D'Amico et al., 2018). Importantly, Texas community colleges are committed to addressing the needs of non-traditional student populations, including first-generation college students, adult learners, and students balancing work, family, and education.

Texas community colleges are essential contributors to workforce development in the state. These institutions offer career and technical education (CTE) programs that align with the needs of local economies and prepare students for high-demand industries such as health care, manufacturing, and information technology (Edmunds et al., 2023). By providing a range of certifications, associate degrees, and vocational training opportunities, community colleges ensure that students have the skills needed to enter the workforce quickly and contribute to the state's growing economy (Kirksey et al., 2024).

In addition to their workforce development efforts, community colleges also have a responsibility to support students with disabilities. Legislative mandates require higher education institutions to provide reasonable accommodations under ADA to ensure equal access to education for all students. These accommodations may include assistive technologies, alternative testing arrangements, and modified learning environments tailored to individual student needs. For students with disabilities, these services are vital to their success in completing courses and earning credentials.

Access and Legal Obligations in Postsecondary Disability Services

The legal framework governing disability services shifts substantially from K-12 to higher education, creating new challenges for students with disabilities. Whereas the K-12 setting is guided by the Individuals with Disabilities Education Act (IDEA) and Section 504 of the Rehabilitation Act, higher education institutions operate under a broader, rights-based framework defined by the ADA (Schoenkin, 2021). In postsecondary contexts, institutions are required to provide "reasonable accommodations" but are not obligated to develop individualized education plans. This transition emphasizes student autonomy, requiring students with disabilities to self-disclose their disabilities, navigate institutional processes, and advocate for necessary accommodations (Adams & Proctor, 2010; Bettencourt et al., 2018).

For many students, this shift entails significant challenges. Postsecondary institutions offer a less structured support system, and the responsibility for securing accommodations falls largely on the student. While K–12 educators and parents often serve as active advocates in the development and enforcement of supports, college students must be knowledgeable about their rights and capable of self-advocacy (Bonneau, 2004; Coccarelli, 2010; Walpole & Chaskes, 2011). This can be particularly difficult for students who fear stigma, lack confidence in navigating bureaucratic systems, or are unaware of the services available to them (Troiano, 2003).

Access to accommodations varies widely across colleges, resulting in unequal experiences and outcomes for students with disabilities. Prior research has shown that inadequate support in higher education contributes to lower academic achievement, reduced retention and graduation rates, and weaker labor market outcomes for students with disabilities relative to their peers (Anctil et al., 2008; Marshak et al., 2010; Freeman, 2025). The loss of structured supports—combined with increased demands for independence—can inhibit students with disabilities from accessing services such as assistive technologies, extended test time, or note-taking assistance. These barriers are especially consequential in the community college sector, where many students are non-traditional learners and may have fewer external resources to compensate for institutional shortcomings.

Moreover, the inequities in access to disability services extend beyond the classroom, impacting long-term social and economic outcomes for students with disabilities. Limited access to accommodations has been linked to gaps in employment opportunities, lower wages, and reduced job stability for

graduates with disabilities. As highlighted by Anctil et al. (2008), students who are not adequately supported during their college years are less likely to develop the academic and social skills necessary to compete effectively in the labor market. These disparities not only exacerbate the achievement gap but also contribute to a widening economic divide between students with disabilities and their peers without disabilities.

Funding and Disability Services

The financial implications of providing disability services in higher education, particularly in Texas community colleges, are underscored by a notable disparity in funding mechanisms compared to K-12 institutions (Bursuck et al., 1989). In the K-12 setting, public schools receive additional funding to support students with disabilities, recognizing the higher costs associated with their education. However, this financial support structure does not seamlessly extend to community colleges, despite the potentially increased costs of providing accommodations and support services for students transitioning from special education services in high school (Getzel & Thoma, 2008). This funding disparity creates a substantial challenge for community colleges in ensuring equitable access and support for all students, particularly those with disabilities (Bouck, 2005; Cooc & Kiru, 2018).

Providing accommodation for students can require additional funds to cover additional staffing and different technology based on the accommodation needed. For students to receive accommodation for their respective disabilities, a staff member at the institution must review their documentation and ensure it meets the requirements, assess what are essential requirements, and ensure the technology needed is accessible (Rothstein, 2018). Providing the needed accommodations for students can offset the cost needed to solve disputes. For students who need an interpreter, the cost could be up to $2,000 a week per student, assuming the students are not in the same courses. These costs can quickly add up and provide the opportunity to weigh whether further state investment would be beneficial in supporting students with disabilities.

While higher education institutions have faced declines in state funding on a per full-time equivalent (FTE) basis compared to early 2000s levels, recent trends indicate a steady reinvestment in higher education. In 2023, state and local government funding for higher education increased 7.7% at the state level and 5.6% from local contributions. Despite these gains, educational appropriations per FTE remain below pre-Great Recession levels in 25 states, and a decline in enrollment continues to impact funding per student (SHEF, 2023). Moreover, while higher education institutions are legally required to provide these accommodations, there is no specific funding allocation from the state of Texas to assist community colleges in meeting these obligations (Schoenkin, 2021).

Urban-Rural Variation in Community College Contexts

Community colleges in Texas vary not only in size and resources but also in their geographic and demographic contexts. Rural and urban colleges face markedly different institutional constraints and

opportunities, particularly in their ability to deliver disability services. Rural colleges often serve large geographic regions with sparse populations, fewer institutional staff, and lower local tax revenues, which can limit their capacity to provide specialized support services (Hicks & Jones, 2011; McNamee, 2024). By contrast, urban institutions typically have more centralized access to health care providers, interpreters, and assistive technologies, and may benefit from economies of scale in disability services provision (Orphan & McClure, 2019).

These geographic differences also intersect with student demographics. Students attending rural colleges are more likely to face challenges related to transportation, broadband access, and availability of community-based disability supports, which can exacerbate existing educational barriers for students with disabilities. Moreover, rural institutions may struggle to attract and retain qualified staff for disability services roles, especially when specialized training or licensure is required. As a result, rural colleges may adopt more informal or reactive models for accommodation provision, compared to more resourced urban peers with formalized processes and full-time staff.

Despite these structural challenges, rural colleges are often deeply embedded in their communities and may be more flexible or responsive to student needs through personalized service delivery. However, the limited availability of resources in rural settings raises important questions about consistency in access to accommodations across Texas. Understanding how institutional geography shapes accommodation practices is important for developing policy recommendations that ensure students with disabilities receive meaningful support, regardless of where they attend college.

Despite their central role in expanding access to higher education, Texas community colleges face persistent structural and financial barriers to supporting students with disabilities. The lack of designated funding and uneven implementation of disability services across colleges raises concerns about the adequacy of service provision. Moreover, limited research exists on how these institutional factors relate to student outcomes or how colleges determine the scale and nature of accommodations in the absence of targeted funding. This study addresses these gaps by examining the relationship between college-level investment in student services and the proportion of students receiving accommodations, as well as the postsecondary outcomes of students with disabilities. Together, these analyses aim to provide insight into how policy and resource allocation can better support the success of students with disabilities in Texas community colleges.

Method

The study combines interview data from disability services coordinators with administrative records from the Texas Education Agency (TEA) and Texas Higher Education Coordinating Board (THECB) to examine both costs associated with providing disability services and corresponding student outcomes. Employing both quantitative and qualitative methods allows us to contextualize variation in postsecondary outcomes for students with disabilities receiving and not receiving services, with insights about program delivery and resource allocation.

Quantitative

To that end, we leverage the Texas Statewide Longitudinal Data System via the University of Houston Education Research Center, through which we access data provided by the Texas Education Agency (TEA) and the Texas Higher Education Coordinating Board (THECB). TEA provides information on student demographics, services received in K-12 public schools, and academic and non-academic student outcomes. THECB provides data on two-year and four-year postsecondary enrollment, degree and certificate completion, and disability services received in community colleges. We combine these data with information from the Integrated Postsecondary Education Data System (IPEDS), which provides financial information about the core expenses per full-time equivalent (FTE) enrollment for each college community based on the Governmental Accounting Standards Board (GASB) standards. IPEDs measures expenditure data through the Finance Survey (F), which collects financial data from postsecondary institutions. Most institutions report following public GASB reporting standards.

This study focuses on students with learning disabilities (LD) and other health impairments (OHI) as they represent the largest groups of students with non-apparent disabilities in postsecondary education, comprising nearly 90% of the sample. Additionally, these disability categories share similar patterns in terms of academic preparation and support needs during K-12 education, allowing for more meaningful comparisons. We focus on eight cohorts of Texas public high school graduates (2006-2014). The sample includes several key restrictions. First, we restrict our sample to include students with complete high school records and all relevant outcome data. Additionally, students must have had an active IEP in 12th grade, though supplementary analyses of students receiving special education services at any point in high school showed similar results. Second, to examine longitudinal college outcomes, the sample includes only first-time college students who enrolled in a Texas community college within one year of graduation, allowing for seven years of post-high school tracking. Third, to better assess institutional effects on accommodation access and completion, the sample excludes the roughly 20% of students who attended multiple two-year institutions. Finally, the sample includes only those completing more than 10 credits, given that some community college attendees do not intend to complete a degree (Bicak et al., 2023). These restrictions yielded a final sample of N = 28,484 students.

Disability Services

In high school, students are classified as having a disability(ies) via IDEA's disability categories. The sample includes four non-apparent disability groups identified at high school graduation: learning disabilities (n=20,686, 73%), other health impairments (n=4,628, 16%), emotional/behavioral disorders (n=1,757, 6%), and autism spectrum disorder (n=1,413, 5%). These classifications derive from Texas high school IEP records.

Community college data from THECB include semester-level data on disability accommodation use. In our sample, 6,448 students accessed disability services in their community college, which is 23% of the sample in either the fall or spring semesters. The data used to classify whether a student accessed

accommodations in college is the same regardless of how many times a student used an accommodation in that specific semester. The type of accommodations provided to students with disabilities can vary widely between institutions with the most common accommodations including extended test time and note-taking services.

Measuring disability and accommodation presents significant challenges due to variability in how disabilities are reported, diagnosed, and accommodated across institutions. Differences in institutional policies, student self-disclosure rates, and available support services further complicate data collection and analysis, making it difficult to draw consistent conclusions about accessibility and equity in higher education.

Expenditures

For expenditures related to providing disability services, we combined colleges' instruction expenses and student services from the financial information reported in IPEDS. While IPEDS does not report costs dedicated to providing disability services specifically, these two categories traditionally include costs related to providing these services to students. In our qualitative analyses, every community college coordinator confirmed that their college's budget dedicated to providing disability services consisted of funds from one or both of these reported expenditure categories.

Postsecondary Outcomes

To understand the benefits of receiving disability services in community college, we focus on several outcomes in the THECB data: certificate completion, associate degree attainment, and vertical transfer. Certificate completion refers to earning a credential that typically requires 15-30 credit hours and focuses on specific technical or occupational skills needed for direct entry into the workforce. Associate degree attainment indicates completion of a two-year program requiring approximately 60 credit hours of coursework, which includes both general education requirements and specialized coursework in a chosen field of study. Vertical transfer occurs when a student transitions from a community college to a four-year institution, specifically measured here as enrollment in a Texas four-year college for at least one semester within the study timeframe. We consider each outcome at three and six years after initial enrollment in community college.

Background Characteristics

Table 1 presents descriptive statistics for selected study variables. We chose relevant covariates based on extant research that has examined factors linked to accommodation access and postsecondary outcomes for students with disabilities (Collins & Mowbray, 2008; Mamboleo et al., 2020; Newman et al., 2021). Demographic characteristics include gender, race/ethnicity, English learner classification, and economic status (free/reduced lunch eligibility). We control for several additional high school measures: mathematics coursework, dual credit course-taking, grade retention, and whether the student was ever suspended. We also include covariates related to students' transition into college. This includes enrollment timing that distinguishes between immediate and one-year delayed entry. Additionally,

student intent data collected at enrollment indicates primary goals: course completion, certificate attainment, associate degree completion, or transfer preparation.

Community College Characteristics

Community college characteristics include total enrollment, full-time student percentage, Pell Grant recipient proportion, student-faculty ratios, lagged transfer rates (six-year), state and local funding, and lagged graduation rates (three-year).

Analysis

Our quantitative analysis consists of two components. To examine the relationship between disability service receipt and institutional expenditures, we employ an OLS regression supplemented with community college and student cohort fixed effects:

$$E_{ikt} = \beta_0 + \beta_1 X_{ikt} + \gamma'_{ikt} + \delta_{kt} + \epsilon_{ikt}$$

Where *E* represents institutional expenditures per FTE student in both instruction and student services. *X* represents a binary indicator for receiving disability services for student *i* in community college *k* in cohort *t*. β_1 captures the association between receiving services and institutional spending patterns, representing the marginal shift in per-pupil expenditures based on the proportion of students receiving disability services. γ'represents time-varying student and institutional characteristics, including enrollment, student-faculty ratio, and the percentage of Pell Grant recipients. δ_{kt} is a community college-by-cohort fixed effect to account for community college-specific time trends that may otherwise confound the relationship observed between disability services and expenditures. The error term is clustered at the community college level. We estimate this model separately for rural and urban institutions to examine potential differences in resource allocation patterns.

Second, to estimate the effectiveness of receiving disability services, we employ a regression model with multiple fixed effects used by Freeman (2025) to estimate the association between receiving disability services and postsecondary outcomes. Given our focus on comparing students attending urban and rural community colleges, we employ this model separately for each urbanicity. This model is expressed as follows:

$$Y_{ikt} = \beta_0 + \beta_1 X_{ikt} + \gamma'_{ikt} + \delta_{kt} + \epsilon_{ikt}$$

Where *Y* represents each outcome examined in this study: attainment of a certificate, attainment of an associate degree, and successful vertical transfer. *X* represents a binary indicator for whether a student received disability services at the community college; thus, the key parameter is β_1, which is the marginal effect of receiving disability services on each associated outcome. γ'_{ikt} represents the covariates. δ_{kt} is a community college by cohort fixed effect, which accounts for potential confounding factors related to receipt of disability services and postsecondary outcomes based on differences over time and between community colleges. The error term is clustered at the community college level.

Qualitative

To address the fourth research question, we conducted semi-structured interviews with N = 10 disability service coordinators from five community colleges across Texas. The interviews explored institutional approaches to staffing, budgeting, and delivering accommodations to students with disabilities. These qualitative data provided additional insights into findings from the quantitative analyses, particularly with respect to variation in institutional practices and shared challenges related to resource allocation and service delivery.

We employed purposive sampling to select institutions that varied by enrollment size and geographic context (urban vs. rural) to ensure representation across key dimensions of variation between institutions. Each 60–90 minute interview followed a semi-structured protocol designed to explore three core domains: (1) organizational structure and staffing of disability services offices, (2) accommodation request and delivery processes, and (3) budget allocation and resource constraints. All interviews were audio-recorded and transcribed verbatim. We used thematic coding to analyze transcripts that were uploaded into qualitative analysis software. The research team first developed a preliminary codebook based on the interview protocol and initial review of transcripts. Two researchers independently coded a subset of transcripts to establish inter-coder agreement and refine the code definitions. Through an iterative approach, we categorized codes into broader themes. This approach allowed us to identify both common structural barriers and differences in implementation strategies across community colleges, particularly in relation to how resource constraints shape service delivery for students with disabilities.

Results

Disability Services and Institutional Expenditures

Figure 1 shows results from our analysis that examined the relationship between disability service receipt and institutional expenditures for students with LD and OHI, accounting for time-invariant community college characteristics. As expected, results indicate that an increase in the proportion of students with disabilities is associated with higher expenditures, with variation observed between rural and urban institutions. In rural community colleges, an increase in the proportion of students with LD on average is associated with an increase of $75 in instructional and student support expenditures per semester. In urban community colleges, this marginal increase in costs is $85. For students with OHI, disability services are associated with $81 and $95 in higher instructional and student support expenditures in rural and urban community colleges, respectively.

Given the wide range in geographies and demographics of community colleges in Texas, we examined differences in these associate costs by comparing the highest and lowest associated expenditures among our sample. The five institutions with the lowest expense average an estimated $57.5 per

student each academic year with OHI, while the five institutions with the highest expense have a per student estimated expense of $150.82, almost triple the cost of providing these accommodations. For students with LD, the range is $85.94, with the five institutions with the lowest expense averaging $53.05 and the five institutions with the highest expense averaging $139.99 per student each academic year.

Disability Services and Postsecondary Outcomes

Figure 2 displays results from our analysis that examined the relationship between receiving disability services and postsecondary outcomes for students with LD and OHI. The results, stratified by disability type and urbanicity, reveal variations in the magnitude of the association measured and three- and six-years post initial enrollment.

For students with LD, receiving disability services was positively associated with improvements in postsecondary outcomes within three years, though the magnitude of these associations differed between rural and urban institutions. In rural colleges, students with LD who received services experienced a 3 percentage-point increase in associate degree attainment relative to their peers who did not receive services. Urban colleges exhibited a smaller, yet significant, increase of 2 percentage points for the same outcome.

Certificate attainment showed weaker associations. The results were not statistically significant for either rural or urban institutions, with increases of 1 percentage point or less. However, transfer outcomes demonstrated positive associations. In rural colleges, students receiving services showed a 3 percentage-point increase in transfer rates, while urban colleges observed a smaller increase of 2 percentage points.

When examining outcomes measured at six years after initial enrollment, we observe additional positive associations with postsecondary success for students with LD, particularly in rural colleges. By the six-year mark, rural colleges showed a 5 percentage-point increase in associate degree attainment, compared to a 3 percentage-point increase in urban colleges. Certificate attainment remained statistically insignificant in rural colleges, while urban colleges showed a 2 percentage-point increase. For transfer outcomes, rural colleges demonstrated a significant 4 percentage-point increase, compared to a 3 percentage-point increase in urban colleges.

Figure 3 shows results for students with OHI. Receiving disability services was positively associated with improvements in postsecondary outcomes within three years. In rural colleges, students receiving services experienced a 6 percentage-point increase in associate degree attainment relative to their peers who did not receive services. Urban colleges exhibited a smaller and statistically insignificant increase of 2 percentage points for the same outcome. Certificate attainment showed weaker associations in both contexts, with no statistically significant results. Transfer outcomes for urban

community colleges showed an increase of 3 percentage points, while there was no relationship observed between disability and transfer outcomes for rural colleges.
When examining outcomes measured six years after initial enrollment, the results underscore stronger positive associations for students with OHI, particularly in rural institutions. By the six-year mark, rural colleges showed an 8 percentage-point increase in associate degree attainment, compared to a 4 percentage-point increase in urban colleges. Certificate attainment also demonstrated stronger results. Rural colleges showed a 5 percentage-point increase while urban colleges experienced a 2 percentage-point increase. For transfer outcomes, urban colleges observed a 3 percentage-point increase, whereas no measurable difference was observed in rural institutions.

Accommodation Budgets and Practices in Community Colleges

The interviews conducted with representatives from five community colleges revealed several themes related to budgeting, unpredictability, and the challenges of providing accommodations for students with disabilities. The institutions varied in size and geographic context, ranging from small rural colleges to larger urban institutions. The findings coalesced around several key themes: budgetary constraints and flexibility, unpredictability and variability in costs, reliance on external funding, tracking and usage of accommodations, and inclusive practices and low-cost solutions.

Budgetary Constraints and Flexibility

Three of the five institutions reported the absence of a specific budget dedicated to accommodations for students with disabilities. Instead, these costs were often absorbed through general or flexible institutional funds. One participant described the reactive nature of this approach:

"***I don't have what you would call a budget for accommodations. It's just on an as-needed basis. And when something comes up that is needed by someone or, you know, for some student in particular. Then I just figure out a way to get it for that"*** (Rural, Small Size).

This lack of budgetary structure highlights the challenges colleges face in planning for accommodations, as they must rely on ad hoc mechanisms to ensure compliance with legal and ethical obligations. Another administrator reinforced this sentiment, noting, ***"We make it happen, but sometimes it's not planned or really budgeted"*** (Urban, Medium Size).

Unpredictability and Variability in Costs

Institutions consistently reported difficulty in forecasting accommodation needs due to the unpredictable nature of student requests. The number of students requiring accommodations, the type of accommodations needed, and the frequency of use can vary widely from semester to semester. One participant described how even a seemingly substantial budget can quickly be depleted: ***"That $100,000 can go really quickly, depending on who needs what services"*** (Urban, Medium Size).

Beyond direct costs, there are indirect logistical challenges, as noted by one participant: ***"The biggest thing an instructor has to do is make sure there are enough seats when there is a student with interpreter and note-taking accommodations...so that student would take four seats in the classroom"*** (Urban, Medium Size).

Such requirements reduce classroom capacity, limiting tuition revenue from those specific course sections.

Reliance on External Funding

Given the lack of dedicated budgets, institutions often relied on external funding sources to support accommodation-related expenses. Grants, particularly the Carl B. Perkins grant, were a commonly cited resource. For instance, one participant explained: ***"We had a student who couldn't do computer screens...and needed hard copies of her books and so we used Perkins money for that"*** (Rural, Small Size).

This reliance on grants underscores the vulnerability of institutions to external funding availability, particularly for accommodations that involve specialized materials or technology.

Tracking and Usage of Accommodations

A consistent theme across institutions was the lack of robust data on the use of accommodations once approved. While colleges track initial approval processes, many accommodations—particularly those negotiated directly between students and instructors—are not systematically monitored. One administrator noted: ***"The students and the instructors work that out between them, so we don't always know who actually utilizes that accommodation"*** (Large, Urban Size).

This lack of data presents challenges in evaluating the effectiveness and efficiency of accommodations, as well as in planning for future needs. Accommodations such as volunteer notetaking or the use of transcribed videos are particularly difficult to monitor, leaving administrators uncertain about the extent to which approved accommodations are actively supporting students.

Inclusive Practices and Low-Cost Solutions

Despite these challenges, many accommodations align with inclusive practices and do not require significant financial investment. For example, extended test time and oral exams were frequently cited as common accommodations that do not incur additional costs outside of staff time. As one participant explained: ***"Most accommodations, such as extended test time and oral exams, do not incur costs as they are part of the college's inclusive practices"*** (Rural, Small Size).

These practices reflect a broader commitment to accessibility within existing institutional structures. However, the lack of financial impact for these accommodations also illustrates disparities between low-cost and high-cost accommodations.

Discussion

This study examined the financial investments required to provide disability services in Texas community colleges and the associated benefits for student outcomes, including certificate attainment, associate degree completion, and transfer to four-year institutions. Findings from the first research question revealed significant differences in financial support for accommodations across institutions, with variation by rurality suggesting potential inequities in resource allocation. The second and third research questions quantified the potential benefits of these investments, demonstrating that receiving disability services is associated with improved student success outcomes—particularly for students with learning disabilities and other health impairments, and especially in rural colleges. While this study could not directly assess the full range of accommodations provided to students, the fourth research question illuminated key institutional challenges in meeting students' needs, including the absence of structured budgets, unpredictability in service demand, and reliance on external funding. Together, these findings underscore the need for more consistent funding and policy guidance to ensure equitable access to disability services across Texas community colleges.

Findings from this study underscore the financial and structural challenges that Texas community colleges face in providing accommodations to students with disabilities. Results from the first research question show that institutions with a higher proportion of students receiving disability services spend more per student on instruction and student support, the two expenditure categories where accommodation costs are typically captured. However, this spending varies considerably across institutions and by urbanicity. While both rural and urban colleges show increased expenditures as more students receive accommodations, urban institutions tend to invest more per student—approximately $85 compared to $75 for students with LD, and $95 compared to $81 for students with OHI. The difference in per-student spending ranged from $53 to $140 across institutions, suggesting significant variation in resource allocation. These findings suggest that while colleges are responding to the needs of students with disabilities, the degree to which they can do so is constrained by their fiscal context, with rural colleges often operating under tighter financial constraints.

Building on this, results from the second research question reveal a positive relationship between receiving disability services and improved postsecondary outcomes, including associate degree attainment and transfer to four-year institutions. These benefits are most pronounced for students attending rural institutions, particularly at the six-year mark. For example, students with LD who received accommodations in rural colleges saw a 5 percentage-point increase in associate degree attainment and a 4 percentage-point increase in transfer, compared to smaller but still positive gains in urban colleges. For students with OHI, similar trends emerged: rural students receiving accommodations had an 8 percentage-point increase in associate degree attainment and a 5-point increase in certificate completion, while urban students had smaller gains. These results underscore the value of disability services in supporting student success and suggest that even modest investments in accommodations may yield meaningful returns in educational attainment, especially in rural contexts.

The third research question explored whether these associations varied by disability type and urbanicity. The results affirm important heterogeneity. Students with LD and OHI both benefited from accommodations, but the effects were more pronounced for OHI students in rural colleges, particularly in degree completion. Conversely, certificate completion and transfer rates were more modest and inconsistent across both groups. These differences may reflect varying levels of service use, academic preparation, or the nature of accommodations typically used by students with different types of disabilities. They also highlight the need for future research to better understand how institutional context and disability type interact to influence student trajectories.

Finally, the fourth research question examined how community college administrators perceive the factors that shape the provision of disability services. Interviews revealed that most colleges do not have dedicated budgets for accommodations, instead relying on general institutional funds or external grants such as Perkins funding. This lack of budgetary structure contributes to a reactive approach to service provision, where institutions scramble to meet student needs as they arise. Administrators described difficulty planning for accommodations due to unpredictable demand, high-cost needs, and challenges coordinating services—particularly for services requiring interpreters or specialized technology. Rural colleges in particular described staffing shortages and limited access to external providers, further complicating service delivery. Despite these constraints, staff consistently expressed a strong commitment to meeting student needs, often by stretching existing resources or adopting inclusive practices that do not incur additional costs (e.g., extended test time or oral exams). However, they also acknowledged that the lack of tracking systems for monitoring whether students use approved accommodations limits institutional learning and planning efforts.

Taken together, these findings illustrate that investments in disability services—although uneven and often constrained—are associated with positive student outcomes and reflect a broader institutional commitment to supporting students with disabilities. While colleges incur additional per-student expenditures of approximately $80 to $100 when providing accommodations, the associated gains in student success, particularly in rural contexts, suggest that these are worthwhile investments with long-term returns.

Finally, although this study focuses on the relationship between expenditures and receiving accommodations, the findings raise important questions about potential bidirectional effects. If institutions lack sufficient funding to promote accommodations or build robust service infrastructures, students may be less likely to disclose their disability or seek support—either because they are unaware of the services available or because they perceive them to be inadequate. In turn, low rates of service utilization may reinforce limited institutional investment, creating a self-reinforcing cycle of underfunded and underused services. Addressing this dynamic may require targeted state-level funding, clearer accountability structures, and professional development to build institutional capacity for disability support.

Policy Implications

Increases in degree attainment and transfer rates not only improve individual economic mobility but also advance the goals of Building a Talent Strong Texas, the state's plan to ensure 60% of working-age Texans hold a postsecondary credential by 2030. This study's finding that receiving accommodations improves degree completion directly supports this goal. In turn, higher attainment among Texans with disabilities expands the state's talent pool for employers and contributes to a more inclusive workforce, ensuring all Texans – including those from rural areas and those with disabilities – receive the economic returns to higher education (The Texas Higher Education Coordinating Board, n.d.). To that end, we suggest several policy considerations specific to Texas as well as other states with similar community college policy landscapes.

First, there should be dedicated funding established for disability services at community colleges. This targeted funding would enable institutions, particularly those in rural areas, to plan and provide necessary accommodations without relying solely on general funds or external grants. This approach aligns with broader economic goals of increasing postsecondary attainment to support economic mobility for working-age individuals. This could take the form of a supplemental allotment or a grant program managed by a state government agency.

Second, outcomes for students with disabilities should be considered in performance-based funding models. More than 30 states now tie some portion of funding to outcomes like completion, yet these models often yield only modest improvements and can even disadvantage institutions serving many high-need students (Whitford, 2021). Following the Texas Commission on Community College Finance's recommendation to increase investments in historically underserved populations–including students with disabilities–the state added weights to the funding formula to incentivize colleges to enroll and support these students (The Texas Commission on Community College Finance, 2022). Nationally, other states and U.S. policymakers should follow suit by designing funding models that account for the extra effort and expense involved in serving students with disabilities, so that community colleges have the financial capacity to provide accommodations without compromising other services.

Third, improved tracking and reporting systems are essential to strengthening disability services and accountability across colleges. While most community colleges report accommodation approvals, few systematically track whether and how those services are used. Requiring institutions to collect and report disaggregated data on accommodation use would support continuous improvement and highlight unmet student needs. Economic investments in community colleges should be coupled with improved guidance and cross-agency coordination. For example, federal agencies could disseminate model state funding provisions that incentivize support for students with disabilities. They could also strengthen transition programming to bridge K-12 and higher education disability services. Framing disability services as a driver of college completion, workforce development, and economic competitiveness—rather than only a compliance issue—can catalyze bipartisan support for investments that benefit students, institutions, and state economies alike.

Limitations and Future Research

First, our data are not experimental, and we do not employ a quasi-experimental research design. Our fixed effects models account for unobserved time-invariant characteristics but do not address potential bias from time-varying factors, such as changes in a student's disability status, development, or accommodation needs. Additionally, because students must opt into receiving services, this self-selection introduces bias that our models do not address. Our findings should be interpreted as correlational rather than causal.

IPEDS data comes with specific limitations, including how to handle complex reporting standards for branch campuses and the lack of factoring in non-credit students for enrollment reporting (Romano et al., 2019). In the years 2011-2014, only two institutions had branch campuses. One institution reported separate costs for each branch, while the other reported the costs as a central office location. This inconsistency in reporting could lead to inaccuracies in understanding the full scope of expenditures at institutions with multiple campuses, further complicating the interpretation of financial data across institutions (Jaquette & Parra, n.d.). The second limitation of the expenditure data from IPEDS is that the financial information for core expenses per full-time equivalent (FTE) enrollment includes all activities, regardless of whether they support non-credit, part-time, or full-time students (Romano et al., 2019). This discrepancy could introduce bias in any calculation of expenditure per student, as the financial resources allocated for non-degree-seeking students or those enrolled part-time are not captured in the enrollment data. Given that our study includes non-degree-seeking students, this limitation could affect the accuracy of the expenditure-per-student calculation. The calculations of expenditures-per-student include aggregated data from instructional expenditures and student support service expenditures. Instructional expenditures include a wide range of activities directly related to teaching and curriculum development, while student support services include various forms of assistance provided to students, such as advising, tutoring, and disability services. Since these categories cover a broad range of services, the expenditure data cannot be assumed to reflect the costs dedicated exclusively to disability services at each institution.

While we have used aggregate institutional financial data, we acknowledge that estimates of expenditure per student should be interpreted with caution, considering this potential underreporting of non-credit or part-time enrollments. A comprehensive review of each institution's website for previous year's budgets was conducted, which revealed that out of the 54 institutions, only 6 had budgetary line items dedicated to disability services, 25 did not have specific budgetary line items for disability services, and 23 no longer had their budgets available from 2011-2014.

Conclusion

This study highlights the role of disability services in improving postsecondary outcomes for students with disabilities, while also identifying persistent financial and structural challenges faced by community colleges in delivering these services. The findings demonstrate that investments in disability services are

associated with measurable improvements in associate degree attainment, certificate completion, and transfer rates, with rural institutions showing particularly strong impacts despite resource constraints. Addressing disparities in funding mechanisms and ensuring targeted financial support for accommodations will be important for advancing access to postsecondary pathways and fostering long-term student success. These results underscore the importance of aligning financial resources with the demonstrated benefits of disability services to support both institutional effectiveness and broader economic goals.

References

Adams, K. S., & Proctor, B. E. (2010). Adaptation to College for Students With and Without Disabilities: Group Differences and Predictors. Journal of Postsecondary Education and Disability, 22(3), 166–184.

Anctil, T. M., Ishikawa, M. E., & Tao Scott, A. (2008). Academic Identity Development Through Self-Determination: Successful College Students With Learning Disabilities. Career Development for Exceptional Individuals, 31(3), 164–174. https://doi.org/10.1177/0885728808315331

Ankeny, E. M., & Lehmann, J. P. (2011). Journey Toward Self-Determination: Voices of Students With Disabilities Who Participated in a Secondary Transition Program on a Community College Campus. Remedial and Special Education, 32(4), 279–289. https://doi.org/10.1177/0741932510362215

Bettencourt, G., Kimball, E., & Wells, R. S. (2018). Disability in postsecondary STEM learning environments: What faculty focus groups reveal about definitions and obstacles to effective support. Journal of Postsecondary Education and Disability, 31(4).

Bonneau, D. D. C. (2004). Empowerment through access: College students with learning disabilities discuss accommodations and support services at postsecondary institutions. University of South Carolina.

Bouck, E. C. (2005). Service Delivery and Instructional Programming in Rural, Suburban, and Urban Secondary Special Education: An Exploratory Study. Rural Special Education Quarterly, 24(4), 18–25. https://doi.org/10.1177/875687050502400404

Coccarelli, J. L. (2010). Applying Schlossberg's Transition Theory to students with learning disabilities in the transition from high school to college [PhD Thesis]. University of Southern California.

Cooc, N., & Kiru, E. W. (2018). Disproportionality in Special Education: A Synthesis of International Research and Trends. The Journal of Special Education, 52(3), 163–173. https://doi.org/10.1177/0022466918772300

D'Amico, M. M., Sublett, C. M., & Ii, J. E. B. (2018). Preparing the Workforce in Today's Community Colleges. American Council on Education.

Dougherty, K. J., & Townsend, B. K. (2006). Community college missions: A theoretical and historical perspective. New Directions for Community Colleges, 2006(136), 5–13. https://doi.org/10.1002/cc.254

Edmunds, J., Unlu, F., Phillips, B., Mulhern, C., & Hutchins, B. C. (2023). CTE-focused Dual Enrollment: Participation and Outcomes. Education Finance and Policy, 1–22. https://doi.org/10.1162/edfp_a_00414

Freeman, J. A. (2025). Accommodating success: Examining the effects of accessing accommodations on degree completion among community college students with non-apparent disabilities. *Exceptional Children, (91*)4, 336-358. https://doi.org/10.1177/00144029251318568

Hicks, C. J., & Jones, S. J. (2011). At Issue: Survival Tactics for Small, Rural-Serving Community Colleges. The Community College Enterprise, 17(2), 28–45. Retrieved from https://home.schoolcraft.edu/cce/17.2.28-45.pdf

Hong, B. S. S. (2015). Qualitative Analysis of the Barriers College Students With Disabilities Experience in Higher Education. Journal of College Student Development, 56(3), 209–226. https://doi.org/10.1353/csd.2015.0032

Jaquette, O., & Parra, E. (n.d.). Using IPEDS for Panel Analyses: Core Concepts, Data Challenges, and Empirical Applications. In Higher Education: Handbook of Theory and Research (Vol. 29, pp. 467–533).

Kirksey, J. J., Mansell, K., Lansford, T., & Crevar, A. (2024). *House Bill 5 expands postsecondary pathways for rural Texas students.* Urban Institute. https://www.urban.org/research/publication/house-bill-5-expands-postsecondary-pathways-rural-texas-students

Mamboleo, G., Dong, S., Anderson, S., & Molder, A. (2020). Accommodation experience: Challenges and facilitators of requesting and implementing accommodations among college students with disabilities. Journal of Vocational Rehabilitation, 53(1), 43–54. https://doi.org/10.3233/JVR-201084

Marshak, L., Wieren, T. V., Ferrell, D. R., Swiss, L., & Dugan, C. (2010). Exploring Barriers to College Student Use of Disability Services and Accommodations. Journal of Postsecondary Education and Disability, 22(3), 151–165.

McNamee, T. C. (2024). Rural-Located Institutions and Rural-Serving Institutions: What We Know and Where We Go from Here. American Council on Education. Retrieved from https://www.acenet.edu/Documents/Rural-Located-Rural-Serving-Institutions.pdf

Miller, T., Garland, M., & Gerdeman, D. (2020). College Enrollment and Completion among Texas High School Graduates with a Disability.

Orphan, C. M., & McClure, K. R. (2019). An Anchor for the Region: Examining a Regional Comprehensive University's Efforts to Serve Its Rural, Appalachian Community. Journal of Research in Rural Education, 35(9), 1–19. Retrieved from https://jrre.psu.edu/sites/default/files/2019-12/35-9.pdf

Romano, R. M., Kirshstein, R. J., D'Amico, M., Hom, W., & Van Noy, M. (2019). Adjusting College Costs for Noncredit Enrollments: An Issue for Data Geeks or Policy Makers? Community College Review, 47(2), 159–177. https://doi.org/10.1177/0091552119835030

Rothstein, L. (2018). A Primer on Disability Discrimination in Higher Education. Laws, 7, 25. https://doi.org/10.3390/laws7030025

Schoenkin, B. A. (2021). Disability Services in Dual Enrollment. Washington University Journal of Law & Policy, 65, 247–277.

SHEF: State Higher Education Finance. (2023). State Higher Education Executive Officers Association. https://shef.sheeo.org/

Simmons, M. L., Shin, M., & Sharp, L. A. (2020). Special Education Eligibility Identification Rates in Texas: A Comparative Analysis of Rural and Urban School Districts. Texas Education Review, 9(1), 6–21. https://doi.org/10.26153/TSW/11422

THECB. (2023). Building a talent strong Texas. Texas Higher Education Coordinating Board. https://www.highered.texas.gov/our-work/talent-strong-texas/

Troiano, P. F. (2003). College students and learning disability: Elements of self-style. Journal of College Student Development, 44(3), 404–419.

Waller, L. (2003). Disparities in Community College Finance: In-District Versus Out-of-District Funding. Community College Journal of Research and Practice, 27(5), 409–418. https://doi.org/10.1080/713838160

Walpole, M., & Chaskes, J. (2011). Advising New Students with Disabilities: Challenges and Opportunities. 19(1).

Figure 1

Association between receipt of disability services and instructional and student support expenditures.

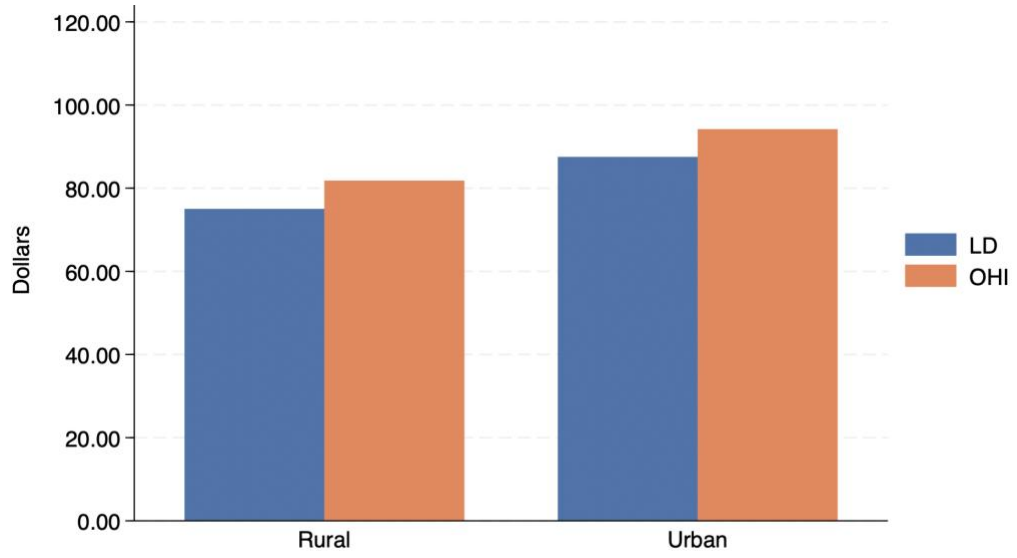

Figure 2

Impact of Disability Services (LD): Rural vs. Urban

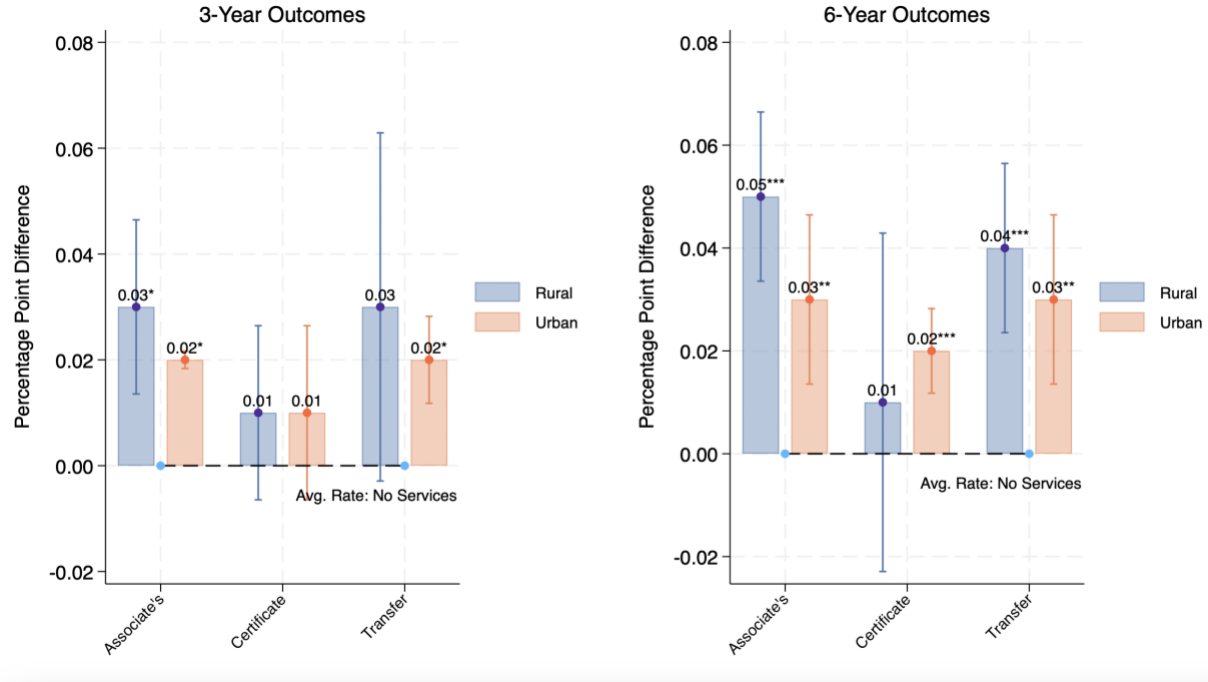

Figure 3
Impact of Disability Services (OHI): Rural vs. Urban

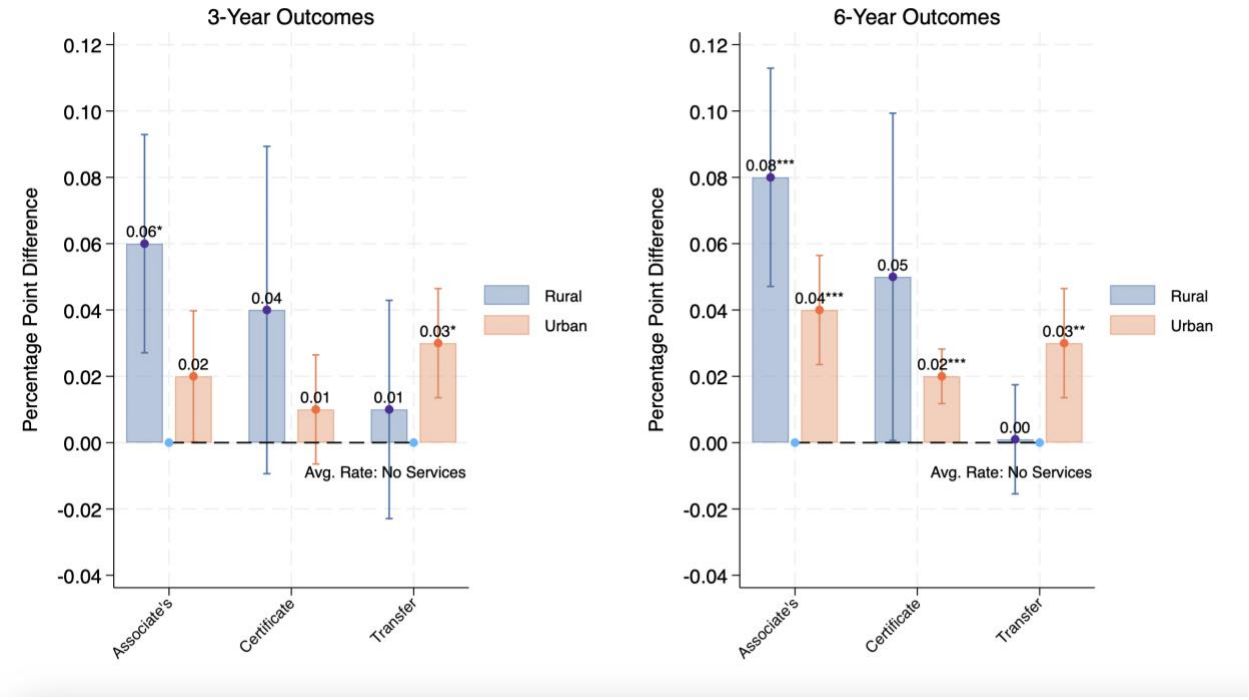

Table 1

Descriptive statistics for students with OHI or LD disabilities

Disability type	OHI	LD
	Mean	
Postsecondary outcomes		
Complete Certificate within 3 years	6%	7%
Complete AA within 3 years	6%	6%
Transfer within 3 years	13%	10%
Complete Certificate within 6 years	7%	8%
Complete AA within 6 years	11%	10%
Transfer within 6 years	17%	14%
Background characteristics		
Male	56%	53%
American Indian/Alaskan Native	0%	0%
Asian	1%	1%
Black	13%	16%
White	28%	45%
Other race/ethnicity	0%	1%
English Language Learner	9%	19%
Economically Disadvantaged	34%	52%
Below Algebra 2 or geometry	19%	20%
Algebra 2 or geometry	0%	0%
College preparatory math: CTE	2%	2%
Precalculus	7%	7%
AP or IB math	1%	1%
Earned dual credits	5%	5%
Completed AP/IB coursework	6%	5%
Ever suspended: High School	14%	12%
Community college entry characteristics		
Delayed enrollment by 1 year	5%	6%
Student intent: Courses	4%	5%
Student intent: Certificate	10%	12%
Student intent: Earn AA	59%	61%
Student intent: Transfer	27%	22%
Community college characteristics		
Campus size: Small	3%	4%
Campus size: Medium	17%	21%
Campus size: Large	28%	28%
Campus size: Very large	52%	47%
Percentage of FCTE	30%	32%
Percent of students receiving Pell Grants	37%	40%
Transfer rate	27%	26%
3-year graduation rate	13%	14%
N	4,628	20,686