

COLLEGE READINESS, ENROLLMENT PROFILES, AND PATHWAYS

INTO THE UNIVERSITY OF TEXAS AT SAN ANTONIO:
A QUANTITATIVE ANALYSIS OF COLLEGE READINESS
AND ENROLLMENT PATTERNS IN BEXAR COUNTY

By Dr. Michael U. Villarreal



April 2021

ABOUT THE URBAN EDUCATION INSTITUTE

OUR MISSION

The Urban Education Institute at UTSA produces scientific research to raise educational attainment, advance economic mobility, and help people achieve their potential in the greater San Antonio region.

We pursue our mission by (1) producing rigorous and actionable analysis that supports education policymaking, program implementation, and philanthropic giving; (2) convening community leaders to address entrenched challenges that harm education and human development; and (3) training the next generation of social scientists and educators to address education challenges through inquiry, analysis, and discovery.

TABLE OF CONTENTS

INTRODUCTION	9
KEY FINDINGS	12
STUDY POPULATION	16
OBJECTIVE 1: BEXAR COUNTY HIGH SCHOOL GRADUATE PROFILES	18
Sociodemographic Characteristics	18
High Schools	26
Comparative Analysis of Three Groups	28
College Readiness	33
Subgroups by High School	39
OBJECTIVE 2: PATHWAYS INTO UTSA & HIGHER EDUCATION	46
Conceptual Framework	46
Pathways Findings	49
REFERENCES	54
APPENDIX 1: DETAILED TABLES	56
APPENDIX 2: METHODOLOGY USED FOR OBJECTIVE 2	61
APPENDIX 3: TREND ANALYSIS OF POSTSECONDARY ENROLLMENT	63
APPENDIX 4: PATHWAY ANALYSIS OF ALL HIGH SCHOOL GRADUATES	66
APPENDIX 5: PATHWAY ANALYSIS OF UTSA ELIGIBLE	82

LIST OF TABLES

TABLE 1	Study Sample by Year of High School Entry	19
TABLE 2	Actual and Projected Population of Bexar County Residents Ages 18 to 22	19
TABLE A1	All Public High School Graduates of Bexar County and the UTSA Eligible, UTSA Enrolled, and Undermatched by High School-Entry Cohort, 2006 to 2015	56
TABLE A2	Student Sociodemographic Characteristics for All Public High School Graduates of Bexar County and the UTSA Eligible, UTSA Enrolled, and Undermatched	57
TABLE A3	Academic College Readiness Scores and Indicators for Public High School Graduates of Bexar County and the UTSA Eligible, UTSA Enrolled, and Undermatched	58
TABLE A4	High School Coursework for Public High School Graduates of Bexar County and the UTSA Eligible, UTSA Enrolled, and Undermatched	59
TABLE A5	Average Distribution by School of Bexar County High School Graduates and Three Subgroups: UTSA Eligible, UTSA Enrolled, & Undermatched, HS-Entry Cohorts 2006 to 2015	60

TABLE OF FIGURES

FIGURE 1	High School Graduates by Non-overlapping Race and Ethnic Categories	20
FIGURE 2	Socioeconomic Indicators of High School Graduates	21
FIGURE 3	Participation Rates of Five Types of Courses and Average Credit Earned Per Type Excluding Non-participants	25
FIGURE 4	Size of the 61 Bexar County High Schools' Graduating Classes: Each blue bar represents the number of students in a single high school graduating class	27
FIGURE 5	Average Size of three Categories of High School Graduates of Interest in Thousands	28
FIGURE 6	High school graduates who were eligible for UTSA admissions, those who enrolled, and those who were eligible but enrolled in a two-year college over a four-year college as a percent of all high school graduates	29
FIGURE 7	Ethnic-Racial Attributes of UTSA Eligible, UTSA Enrolled and Undermatched	30
FIGURE 8	Females as a Percent of UTSA Eligible, UTSA Enrolled, and Undermatched	31
FIGURE 9	Socioeconomic Attributes of UTSA Eligible, UTSA Enrolled, and Undermatched	32
FIGURE 10	Average SAT Scores of UTSA Eligible, UTSA Enrolled, and Undermatched	33
FIGURE 11	TSI Certification in Reading, Writing, and Math of UTSA Eligible, UTSA Enrolled, and Undermatched	34
FIGURE 12	Performance on Eighth-grade Standardized Exams in Math and Reading of UTSA Eligible, UTSA Enrolled, and Undermatched	35
FIGURE 13	Completed Algebra by Eighth Grade for the UTSA Eligible, UTSA Enrolled, and Undermatched	35

FIGURE 14	Participation in Advanced, and Early College and Career-Oriented Coursework for UTSA Eligible, UTSA Enrolled, and Undermatched	37
FIGURE 15	Average Credit Earned in Advanced, and Early College and Career-Oriented Coursework for UTSA Eligible, UTSA Enrolled, and Undermatched	38
FIGURE 16	Top and Bottom 10 High Schools in Percent of UTSA Eligible Relative to Graduating Class Size, Graduation Years 2009 to 2018	41
FIGURE 17	Top and Bottom 10 High Schools in Percent of UTSA Enrolled Relative to UTSA Eligible, Graduation Years 2009 to 2018	42
FIGURE 18	Top and Bottom 10 High Schools in Percent of Undermatched Relative to UTSA Eligible, Graduation Years 2009 to 2018	44
FIGURE 19	A Conceptual Model of Postsecondary College and Employment Decision-Making	47
FIGURE 20	Expected Postsecondary Outcomes including UTSA Enrollment in Year Following High School, HS Entry Cohorts 2006-2015	49
FIGURE 21	Expected Postsecondary Outcomes in Year Following High School, HS Entry Cohorts 2006-2015	50
FIGURE 22	Five Sources of UTSA's Cumulative Enrollment of Local High School Graduates in Years Five to Eight	51
FIGURE 23	UTSA's Cumulative Enrollment in Years 5 to 8 of Local High School Graduates Who Were UTSA Eligible and All Others	51
FIGURE 24	Expected Postsecondary Outcomes in Year Following High School of Students Who Were Eligible for Automatic Admission into UTSA, HS Entry Cohorts 2006-2015	52
FIGURE 25	Five Sources of UTSA's Cumulative Enrollment in Years Five to Eight of UTSA Eligible, Local High School Graduates Who Graduated in the Top 25% of their Graduating Class or Earned an 1100 SAT or Higher	53

FIGURE A1	Postsecondary Enrollment in First Year Following High School, Bexar County 9th-Grade Cohorts 1999-2017	65
FIGURE A2	UTSA Enrollment Pathways of Students who Started at UTSA Following High School	67
FIGURE A3	UTSA Enrollment Pathway of Students who Started at a Community College Following High School	68
FIGURE A4	UTSA Enrollment Pathway of Students who Started at a Four-Year College Other Than UTSA after High School	70
FIGURE A5	UTSA Enrollment Pathways of Students who Worked & Did Not Enroll in College After High School	71
FIGURE A6	UTSA Enrollment Pathways of Students who Experienced NEET Following High School	73
FIGURE A7	UTSA Enrollment Pathways of Students who Started at UTSA After High School But then Transferred to a Two-Year College	75
FIGURE A8	UTSA Enrollment Pathway of Students who Started at a Four-Year College Other Than UTSA Following High School and then Transferred to a Two-Year College	77
FIGURE A9	UTSA Enrollment Pathways of Students who Worked & Did Not Enroll in College Following High School, But Then Transferred to a Two-Year College	79
FIGURE A10	UTSA Enrollment Pathways of Students who Experience NEET Following High School	81
FIGURE A11	UTSA Enrollment Pathways of UTSA Eligible Students who Started at UTSA Following High School	83
FIGURE A12	UTSA Enrollment Pathway of UTSA Eligible who Started at a Community College Following High School	84
FIGURE A13	UTSA Enrollment Pathway of UTSA Eligible who Started at a Four-Year College Other Than UTSA Following High School	86

FIGURE A14	UTSA Enrollment Pathways of UTSA Eligible who Worked & Did Not Enroll in College Following High School	87
FIGURE A15	UTSA Enrollment Pathways of UTSA Eligible who Experienced NEET Following High School	89
FIGURE A16	UTSA Enrollment Pathways of UTSA Eligible who Started at UTSA Following High School But Then Transferred to a Two-Year College	90
FIGURE A17	UTSA Enrollment Pathway of UTSA Eligible who Started at a Four-Year College Other Than UTSA Following High School But Then Transferred to a Two-Year College	92
FIGURE A18	UTSA Enrollment Pathways of UTSA Eligible who Worked & Did Not Enroll in College Following High School But Then Transferred to a Two-Year College	94
FIGURE A19	UTSA Enrollment Pathways of UTSA Eligible who Experienced NEET Following High School But Then Transferred to a Two-Year College	96

INTRODUCTION

In the Fall of 2020, Provost Kimberly Andrews Espy, Ph.D., of The University of Texas at San Antonio (UTSA), engaged the Urban Education Institute at UTSA (UEI) to investigate college readiness and enrollment patterns of high school students enrolled in Bexar County public schools. Her goal was to inform ongoing efforts to advance college access to historically underserved local school communities. This report is a product of this research engagement.

Dr. Villarreal, the primary investigator of this project, operationalized the Provost's directive with advice from Lynn Barnes of Strategic Enrollment and Dr. Steve Wilkerson of Institutional Research into the following two research objectives:

Objective 1. Produce a statistical profile of four groups of Bexar County high school graduates: (1) all graduates; (2) graduates who were eligible for guaranteed admission into UTSA; (3) graduates who directly enrolled in UTSA after high school; and (4) graduates who were eligible for UTSA's guaranteed admissions but instead enrolled in a two-year college and not a four-year college in their first year following high school.



Objective 2. Estimate a model that predicts postsecondary enrollment patterns of Bexar County high school graduates during the first four years after high school as a function of five mutually exclusive, postsecondary events: (1) enrollment in UTSA, (2) enrollment in a four-year college other than UTSA, (3) enrollment in a two-year college only, (4) employment and no college enrollment, or (5) no participation in employment, education, or training (NEET).

Researching Objective 1 helped establish a broad understanding of high school graduates by answering numerous questions: How many students graduate from public high schools in Bexar County? Is this number growing or declining? What are graduates' sociodemographic characteristics? How do high school student bodies differ by their levels of college readiness and enrollment? Answers to these questions contextualized college-going patterns in Bexar County.

In addition to answering the above questions, this study also shone light on UTSA recruitment opportunities by comparing high school graduates who were eligible for guaranteed admission into UTSA in their first year following high school (referred to as “UTSA Eligible” throughout this report) with graduates who enrolled in UTSA in their first year following high school (referred to as “UTSA Enrolled” throughout this report). Moreover, this analysis was disaggregated by high school, thereby identifying the average size and yield of college-ready and college-enrolled students for each high school.

The study also examined a particular type of undermatching, when students enrolled in a two-year college despite a class rank or SAT/ACT score that would have afforded them guaranteed admissions into UTSA and many other regional public four-year colleges. These students are a subset of UTSA Eligible and are referred to as “Undermatched” throughout this report. The Undermatched represent a significant recruitment opportunity for UTSA.

Investigating Objective 2 identified the most traveled pathways into UTSA and answered the following questions: How many students transferred to UTSA after one, two, and three years in community college? How large was the population of students who left San Antonio to earn a bachelor’s degree and then returned home to enroll in UTSA? What was the likelihood of enrolling in UTSA after sitting out of school for one, two, and three years? How did other four-year colleges compare to two-year colleges in being a source of transfer students into UTSA? This analysis answered these questions and more, shedding light on the timing of college-going choices and sources of enrollment.

KEY FINDINGS

Objective 1: Bexar County High School Graduate Profiles



The number of public high school graduates in Bexar County grew each year of the study by an average of 3.3%, 2009 to 2018. However, growth slowed in the second half of the study period. This pattern of slowing population growth resembles demographic projections of Bexar County residents in the age group of 18 to 22 from 2010 to 2030, suggesting that there will be greater competition between local colleges for local high school graduates unless the share of college-ready high school graduates increases.



The sociodemographic attributes of local public high school graduates as a whole reflect a population with a composition largely defined as Latina/o (66.6%), economically disadvantaged (53.1%), and first-generation college-going (66.1%).



A majority of high school graduates were found to participate in early college coursework (either Advanced Placement “AP” or International Baccalaureate “IB” or dual credit “DC”); however, their depth of engagement as measured by number of courses credits earned in these classes varied considerably.



In terms of academic preparation, high school graduates pursuing college degrees were most stymied by their lack of mathematical preparation. Before they were allowed to enroll in college-level math courses, 35% required remediation in math.



Graduates were concentrated in a fraction of the 61 high schools in the study sample.

A majority of students graduated from 15 high schools and 68% graduated from 22 high schools. Nearly all of these large schools were located in two school districts, Northside ISD and North East ISD.



From 2009 to 2018, the growth rate of local high school graduates enrolling in UTSA (5.1%) outpaced the overall high school graduate population's growth rate (3.3%), suggesting that UTSA has improved its ability to recruit from local high schools.



For the average high school, 12.3% of their UTSA Eligible graduates enrolled in a two-year college and not a four-year college. This figure ranged from 15% to 26% in 18 mid- to large-sized, comprehensive high schools. Nearly all of these schools were located inside Loop 410 or south of downtown San Antonio.



Female high school graduates were overrepresented in the UTSA Eligible and Undermatched subgroups at 56% and 61%, respectively.



Latina/o high school graduates were underrepresented in both the UTSA Eligible (53.5%) and UTSA Enrolled (58.4%) but overrepresented in the Undermatched subgroup (69.2%).



Black high school graduates were also underrepresented in both the UTSA Eligible (6.2%) and UTSA Enrolled (5.4%) but not overrepresented in the Undermatched subgroup (5.3%).



Students from low-income households were underrepresented in the UTSA Eligible (35.4%), UTSA Enrolled (37.0%), and Undermatched (50.8%) groups. Conversely, this meant they were overrepresented among students with lower levels of academic achievement and who did not continue their education beyond high school.



A diverse set of college-readiness measures found that the UTSA Eligible graduates demonstrated the highest levels of academic preparedness based on standardized test scores and early college course credits earned (AP/IB and DC), closely followed by the UTSA Enrolled.



Students in the Undermatched group exhibited lower levels of prior academic achievement as compared to the UTSA Eligible and UTSA Enrolled graduates, but had the strongest participation in career-oriented high school coursework.


Objective 2: Pathways into UTSA & Higher Education





Of Bexar County's average high school graduation cohort, 7.3% enrolled in UTSA in their first year following high school. Of the UTSA Eligible graduates, 23.6% enrolled in UTSA in their first year following high school.



Enrolling in UTSA immediately after high school was the dominant pathway into enrolling and staying enrolled in UTSA. It represented 75.4% of UTSA's enrollment of local graduates during the first four years following high school. This figure rose to 85.8% for the UTSA Eligible.

 **The next most popular pathway into UTSA involved students passing through two-year colleges before enrolling in UTSA.** For the first four years following high school, this pathway represented 16.9% of UTSA's enrollment for all local graduates. This figure fell to 6.6% for the UTSA Eligible.

 **A third popular pathway into UTSA began with enrollment in a four-year college other than UTSA immediately following high school and then led to transferring to UTSA.** This pathway represented 6% of UTSA's enrollment of local graduates and 6% of the UTSA Eligible — making four-year colleges a source of UTSA Eligible students approximately equal to two-year colleges.

 **Bexar County high school students who took a year off from school after high school comprised less than 1.6% of UTSA's enrollment of local graduates during the first four years following high school.**



STUDY POPULATION

This study examined the college readiness and enrollment patterns of Bexar County public high school graduates. The study sample was created from educational and workforce administrative data for Bexar County high school graduates who entered high school between year-end 2006 to 2015 (all years in this report are year-end, from September 1 to August 31). These 10 cohorts excluded students enrolled in alternative education programs during their senior years, a reduction of 0.8% of the total high school senior population. The study sample was further reduced by excluding students enrolled in schools that no longer exist. These schools were all charter schools and accounted for 0.4% of the total high school senior population. Finally, schools that served less than 16 students during the study period were excluded to be able to report statistics at the school level and comply with the Family Educational Rights and Privacy Act (FERPA). A total of 10 students were excluded for this reason.

In summary, the study sample represented nearly 99% of all Bexar County high school graduates who entered high school in 2006 to 2015. The size of the study sample equaled 161,727 students who graduated from 61 different Bexar County public high schools – both traditional and charter.



The study relied on eight years of annual, longitudinal data to describe a student's high school and postsecondary journey. Data on each high school graduate was gathered from the first year they entered high school (referred to as "year one") to their expected high school graduation date four years later (referred to as "year four"). Data was also collected on their educational and employment experiences in the first year following high school (referred to as "year five") to the fourth year following high school (referred to as "year eight").

OBJECTIVE 1:

BEXAR COUNTY HIGH SCHOOL GRADUATE PROFILES

SOCIODEMOGRAPHIC CHARACTERISTICS

Size. The number of public high school graduates grew each year during the study period. As shown in Table 1, 13,525 public high school graduates started their high school journey in 2006. Ten years later, the numbers grew to 18,151. A growing high school graduate population has meant a growing local client base for local colleges like UTSA. However, the growth rate of high school graduate was not constant.

The annual growth of high school graduates began to slow in the second half of the study period. In the first half of the study period, annual growth rates averaged 4.6%. In the second half, the growth rate lowered to an average of 2.3%. This pattern of slowing population growth resembles demographic projections of Bexar County residents in the age group of 18 to 22 from 2010 to 2030, as shown in Table 2 (Texas Demographic Center, 2021), suggesting that there will be greater competition between local colleges for local high school graduates unless the share of college-ready high school graduates improves.

Moreover, this pattern of slowing population growth in Bexar County will be taking place within a national context of negative growth rates. The U.S. population of high school students is expected to decline. What this means for local and state colleges is greater competition from out-of-state colleges as they search for qualified students to fill their classrooms (US Census, 2017).

TABLE 1: STUDY SAMPLE BY YEAR OF HIGH SCHOOL ENTRY

COHORT	FREQUENCY	% OF STUDY SAMPLE	GROWTH RATE
2006	13,525	8.4	
2007	14,557	9.0	7.6%
2008	15,082	9.3	3.6%
2009	15,692	9.7	4.0%
2010	16,203	10.0	3.3%
2011	16,482	10.2	1.7%
2012	16,839	10.4	2.2%
2013	17,537	10.8	4.1%
2014	17,659	10.9	0.7%
2015	18,151	11.2	2.8%
Total	161,727	100.0	
Average Growth Rate			3.3%

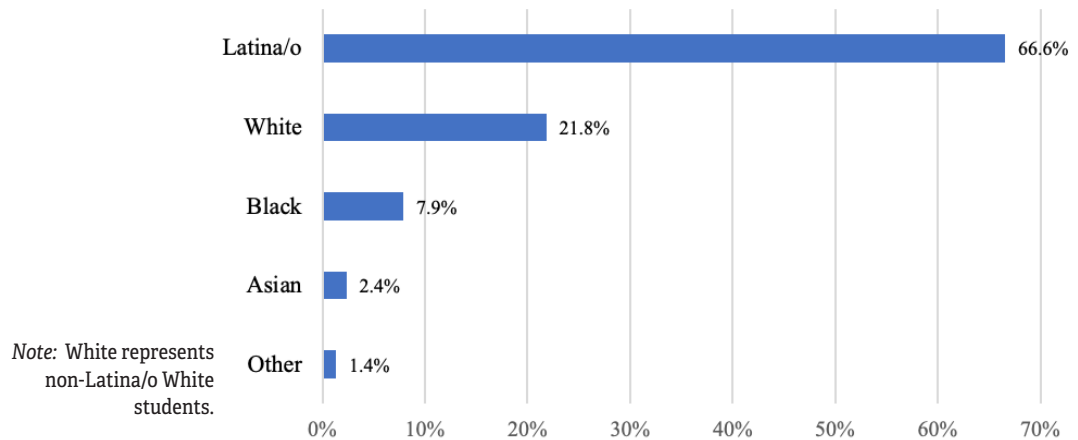
TABLE 2: ACTUAL AND PROJECTED POPULATION OF BEXAR COUNTY RESIDENTS AGES 18-22

YEAR	TOTAL POP	FIVE-YEAR GROWTH RATE
2010	135,932	
2015	148,876	1.9%
2020	157,386	5.7%
2025	164,998	4.8%
2030	172,323	4.4%
2035	187,861	9.0%
2040	201,733	7.4%
2045	212,303	5.2%
2050	219,608	3.4%

Source: Texas Demographic Center. 2018 Texas Population Projections Data Tool.

Race & Ethnicity. Bexar County public high school graduates were predominately Latina/o, as shown in Figure 2. High school graduates were composed of Latina/o, White, Black and Asian students at respective shares of 66.6%, 21.8%, 7.9%, and 2.4%.¹ Students who identified as another ethnic group including Native American, Pacific Islander, or Native Alaskan were categorized as Other and represented 1.4% of public high school graduates.

FIGURE 1: HIGH SCHOOL GRADUATES BY NON-OVERLAPPING RACE & ETHNIC CATEGORIES



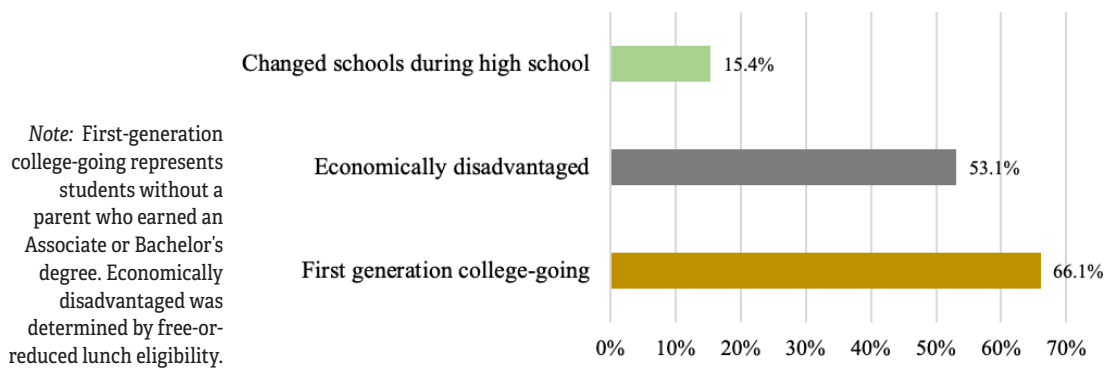
Gender. Female students made up half of all public high school graduates.

Socioeconomics. This study used three measures to describe the socioeconomic status of high school graduates, as shown in Figure 3. First, students were identified as economically disadvantaged based on their eligibility to enroll in the federal free or reduced lunch program. Of all high school graduates, 53% were considered economically disadvantaged. Second, students who changed schools during their high school years were also identified. In San Antonio, school mobility has been

1. This study relied on a categorization of race & ethnicity that made Latina/o, White, Black, Asian and Other non-overlapping. Students who identified as Latina/o were categorized as Latina/o. Students identified as White, Black, Asian, or Other were all non-Latina/o.

found to be highly correlated with poverty and family instability (Villarreal, 2020). Of all high school graduates, 15.4% changed schools during high school. Finally, first-generation college students (i.e., parents have not earned a college degree) made up 66.1% of high school graduates who apply to a four-year college.²

FIGURE 2: SOCIOECONOMIC INDICATORS OF HIGH SCHOOL GRADUATES



Overall, the demographics of local public high school students reflected a growing population, whose composition is largely defined as Latina/o, economically disadvantaged, and first-generation college-going students.

College Readiness. Becoming ready for college is the first transition in a student's college journey. The existing literature defines college readiness as a function of student aspirations, expectations, and academic preparations for college (Perna & Thomas, 2006). This study used four sets of variables to operationalize the concept of college readiness: completion of a college entrance exam, Texas Success Initiative certification, performance on state-mandated, eighth-grade exams, and high school coursework.

². Parent education is only identified in four-year college application data.

SAT Scores. Taking a college entrance exam (e.g., SAT or ACT) signaled a student's level of college aspirations and planning since it was an application requirement for 9 out of 10 four-year colleges in the United States during the study period (Milewski & Camara, 2002). Performance on an entrance exam predict a student's academic success in college, though its correlational strength has been found to be weaker for non-White students (Nettles et al., 1986). While Texas' statewide longitudinal data system collects this information, it only collects college entrance exam scores for students who applied to a four-year college. Consequently, descriptive statistics related to entrance exams were limited to those who applied to a four-year college.

Public high school graduates who applied to a four-year college had an average SAT score (including ACT scores converted to SAT equivalent scores) equal to 915, a percentile ranking of 20% based on 2016 results (SD = 364).

Texas Success Initiative (TSI) certification. In 2003, the Texas Legislature created an accountability system with the goal of ensuring that high school graduates were adequately prepared for college-level coursework by diverting students to developmental or remedial coursework who were identified as needing remediation. TSI sets rules that define eligibility to earn college credit toward a college degree. Eligibility is determined in three subjects: math, reading, and writing. Students meet eligibility requirements by meeting a minimum threshold score per subject. Students can meet these minimum standards based on their performance on different standardized exams (e.g., SAT, ACT, TSI, and state-mandated end-of-course exams).

Of high school graduates who enrolled in college, most but not all met TSI standards. Prior to their first year in college, high school graduates were TSI certified in reading, writing, and math at rates of 73.4%, 77.6%, and 64.8%. As a group, high school graduates pursuing a college degree were most stymied by their lack of mathematical preparation. Before enrolling in a college-level math course, 35% required remediation in math. This figure was 27% for reading and 22% for writing.

Eighth-Grade Academics. Performance on state-mandated exams in eighth grade have been found to predict postsecondary enrollment and degree completion (Lee & Villarreal, 2021). This study used standardized eighth grade reading and math exam scores (i.e., z-scores; the original score is reduced by the average score and divided by the standard deviation) as an additional description of academic readiness. (By definition, a Z-score of 0 represents an average score. A negative z-scores is below average; and a positive z-scores is above average.)

High school graduates of Bexar County earned a reading and math score just above average ($M = 0.05$, $SD = 0.91$). This more positive average and slightly tighter distribution is likely due to lower performing students dropping out of school before high school graduation. Furthermore, the percent who completed Algebra by eighth grade equaled 12%.

High School Coursework. While a student's high school career consists of many different types of experiences, coursework is the primary activity of schools (Barr & Dreeben, 1983). Students select or are directed to enroll in courses that vary by rigor, subject, and college and career orientation. A minimum number of courses are required to complete a high school diploma, but students exceed this minimum by varying degrees. The type and amount of course credits earned represent rich data to understand the academic preparation of students.

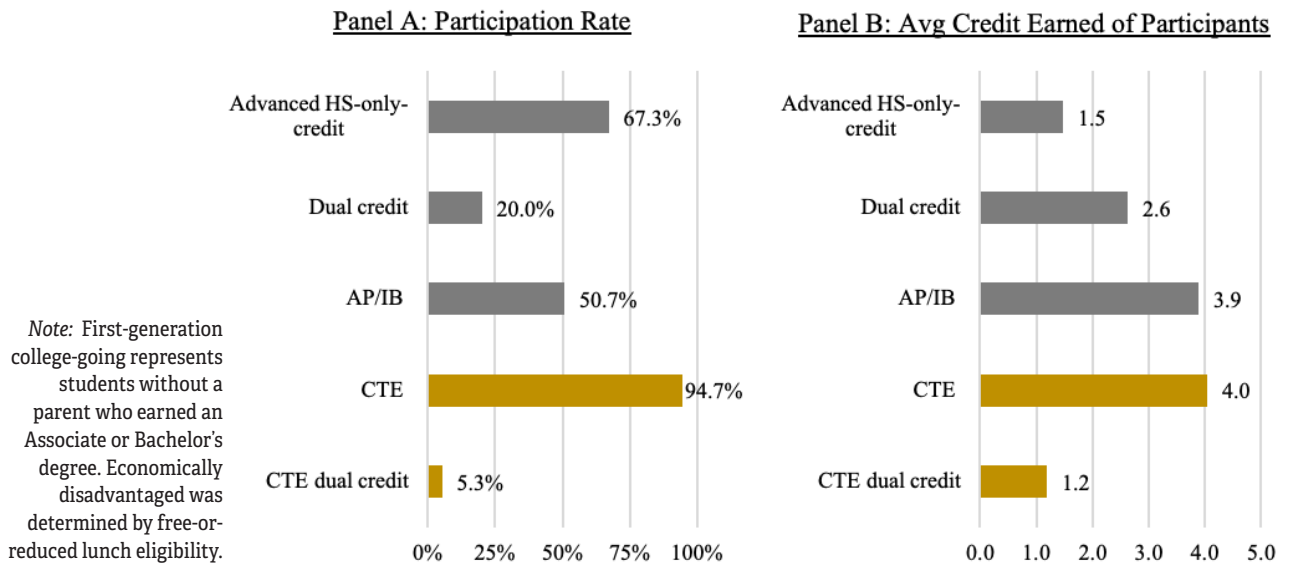


This study analyzed high school coursework patterns using five types of courses: (1) advanced, (2) dual credit, (3) Advanced Placement (AP) or International Baccalaureate (IB), (4) career & technology education (CTE), and (5) CTE dual credit. Advanced high school courses were those identified by TEA to be more rigorous than typical courses and whose credit only applied to a high school diploma. Dual credit courses represented college courses that allowed a student to simultaneously earn credit toward a high school diploma and a college degree. Variables that measure AP and IB course work were combined because IB acted as a substitute to AP in the very few schools that offered IB. Courses identified as CTE aimed to expose students to careers and develop applied, marketable skills within specific career fields. CTE dual credit represented CTE courses that build toward a vocational certificate typically offered by two-year colleges.

Most high school graduates earned at least one advanced high school credit (M = 67.3%), while a slim majority earned AP/IB course credit (M = 50.7%) and fewer earned dual credit (M = 20.0%). Nearly every student earned at least one CTE course credit (M = 94.7%), but very few earned CTE dual credit (M = 5.3%).

The above participation rates describe a high school graduate’s likelihood of participating in a given type of course. Alternatively, number of credits earned describes depth of participation. In this regard, there was significant variation in credits earned, particularly for students enrolled in early college coursework (AP/IB and DC). The average student who participated in advanced high-school-only coursework earned 1.5 credits (SD = 0.88). The average AP/IB student earned 3.9 credits (SD = 2.8). The average dual credit student earned 2.6 (SD = 2.4). Finally, the average CTE and Dual Credit CTE students earned 4.0 (SD = 2.2) and 1.2 credits (SD = 0.6), respectively.

FIGURE 3: PARTICIPATION RATES OF FIVE TYPES OF COURSES AND AVERAGE CREDIT EARNED PER TYPE, EXCLUDING NON-PARTICIPANTS





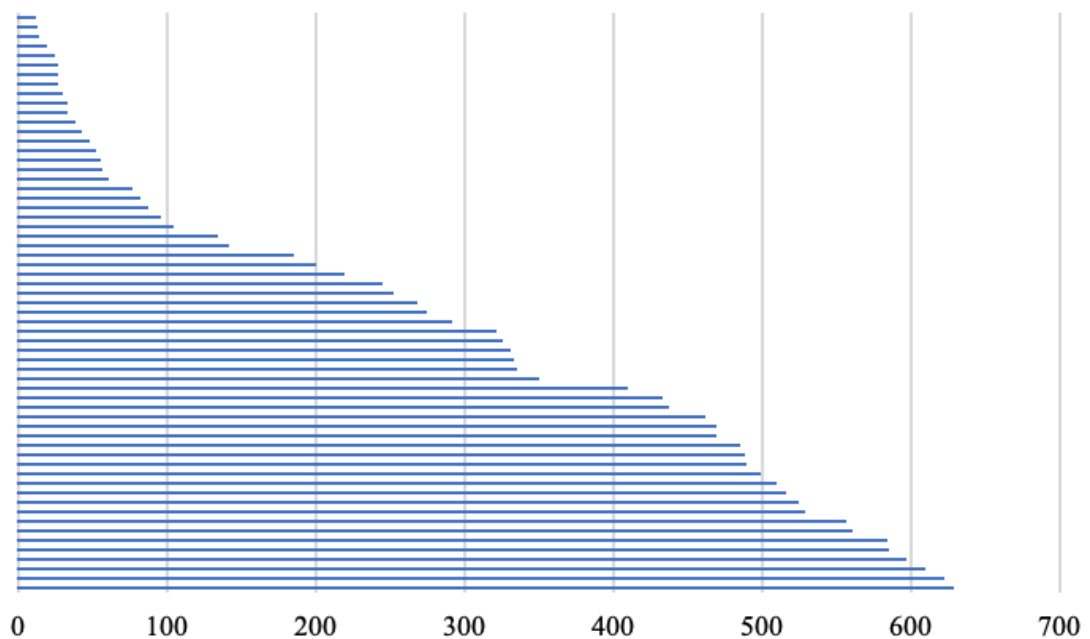
HIGH SCHOOLS

The size of graduating classes varied across Bexar County's 61 public high schools, as shown in Figure 4. High schools appear to cluster by size of graduating class into three groups: large schools with graduating classes larger than 400 (22 schools), mid-sized schools with 200 to 400 graduates (13 schools), and small schools with less than 200 graduates (26 schools). A majority of students graduated from 15 large high schools and 68% graduated from 22 mid- to large-sized high schools. Nearly all of these schools were located in two suburban school districts, Northside ISD and North East ISD.

Overall, the largest schools were more likely to be found in the northern, suburban parts of Bexar County, which are above average in property wealth and residents who identify as *White*. The smallest schools were nearly all public schools of choice: open-enrollment charter schools, charter schools created by school districts, or magnet schools. The mid-sized schools generally represented older, inner-city or southside, comprehensive high schools, which graduated predominately students of color. Because the concentration of students of color and students from low-income families is correlated with school size, any effort to recruit these students in meaningful numbers will need to target mid to large-sized schools with these populations.

FIGURE 4: SIZE OF THE 61 BEXAR COUNTY HIGH SCHOOLS' GRADUATING CLASSES

Each blue bar represents the number of students in a single high school graduating class.

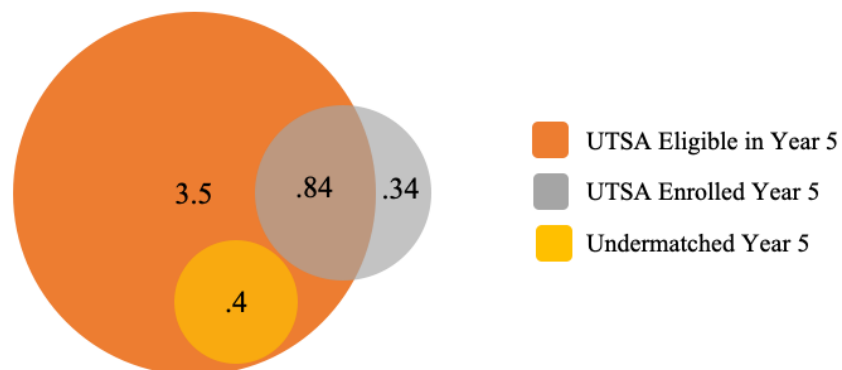


COMPARATIVE ANALYSIS OF THREE GROUPS

This study created three subgroups of high school graduates to help identify strengths in UTSA's past enrollment efforts and opportunities to improve. These three subgroups are referred to as UTSA Eligible, UTSA Enrolled, and Undermatched. The UTSA Eligible included high school graduates who ranked in the top 25% of their graduating class or had an SAT of 1100 or more. The UTSA Enrolled included graduates who enrolled in UTSA in year five. The Undermatched represented UTSA Eligible who enrolled in a two-year college and not a four-year college in year five.

Figure 5 shows the relative size and overlapping nature of these three groups. The Undermatched were by definition a complete subset of UTSA Eligible. In contrast, the UTSA Enrolled was about 60% comprised by UTSA Eligible (eligibility criteria strictly based on class rank and SAT scores) and 40% by those who were admitted under a holistic review of their college application.

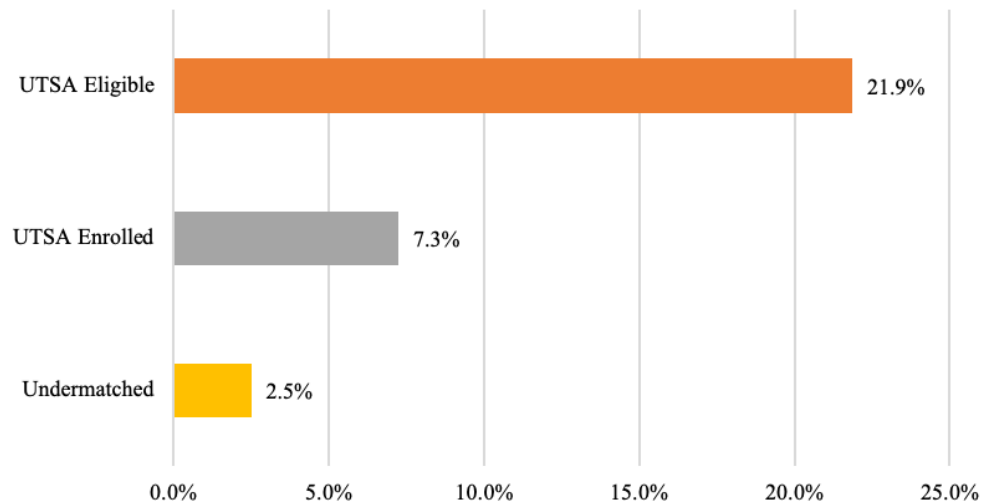
FIGURE 5: AVERAGE SIZE OF THREE CATEGORIES OF HIGH SCHOOL GRADUATES OF INTEREST IN THOUSANDS



As shown in Figure 6, the UTSA Eligible, UTSA Enrolled, and Undermatched equaled 21.9%, 7.3%, and 2.5% of all high school graduates, respectively. Over time, these student subgroups grew by varying rates. While high school graduates grew by 3.34% (SD = 0.02) per year on average, UTSA Eligible and UTSA Enrolled grew by an annual average of 4.3% (SD = 0.03) and 5.1% (SD = 0.17). This means that the stream of local high school graduates enrolling in UTSA widened at a faster rate than stream of all high school graduates and those who were UTSA Eligible, suggesting that UTSA improved its ability to recruit from local high schools.

FIGURE 6: HIGH SCHOOL GRADUATES WHO WERE ELIGIBLE FOR UTSA ADMISSIONS, THOSE WHO ENROLLED, AND THOSE WHO WERE ELIGIBLE BUT ENROLLED IN A TWO-YEAR COLLEGE OVER A FOUR-YEAR COLLEGE AS A PERCENT OF ALL HIGH SCHOOL GRADUATES

Note: UTSA eligibility was defined as applied to one or more Texas colleges and graduated in the top 25% of their high school graduating class or applied to one or more Texas colleges and earned a minimum SAT score of 1100 or an equivalent ACT score. The minimum threshold of SAT scores was raised to 1170 starting with the 2014 high school-entry cohort to account for a change in the SAT exam and UTSA's corresponding change in enrollment standards. UTSA and community college enrollment was based on enrollment in year following high school, which is also the fifth year from high school entry (Y5).



Fortunately, the growth of the Undermatched as a percent of UTSA Eligible declined over time. The Undermatched grew by an annual average of 3.9% (SD = 0.14), a growth rate statistically similar to the growth of all high school students. See Table A1 in Appendix for a time-series description of these three groups.

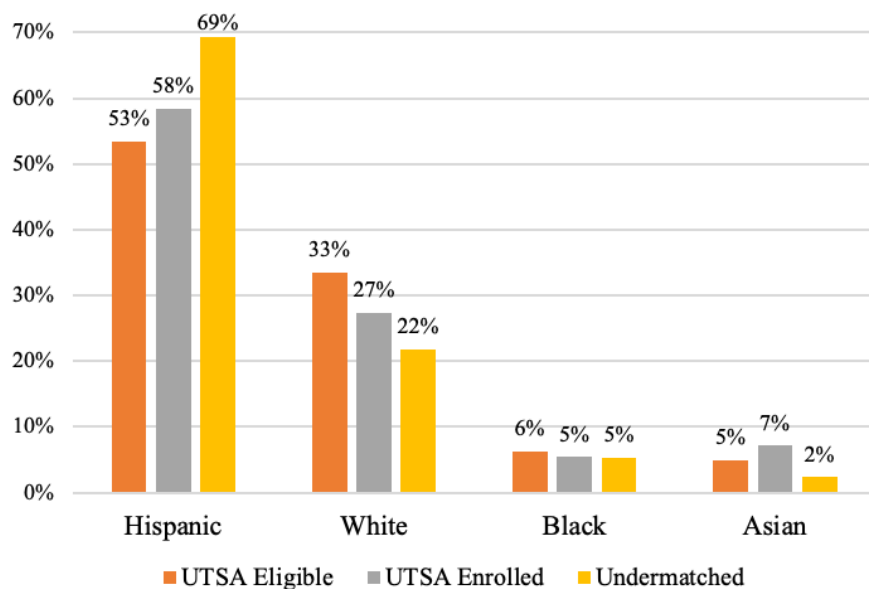
SOCIODEMOGRAPHIC CHARACTERISTICS BY SUBGROUPS

Race & Ethnicity. While Latina/o students comprised 66.6% of all high school graduates, they constituted 53% of the UTSA Eligible and 58% of the UTSA Enrolled, as shown in Figure 7. Of the Undermatched, Latina/os students made up 69%.

Conversely, White and Asian students made up 22% and 2% of all high school graduates, but 33% and 5% of the UTSA Eligible, and 27% and 7% of the UTSA Enrolled. Of the Undermatched, White and Asian students made up 22% and 2%—rates equal to their presence in the greater high school graduate population.

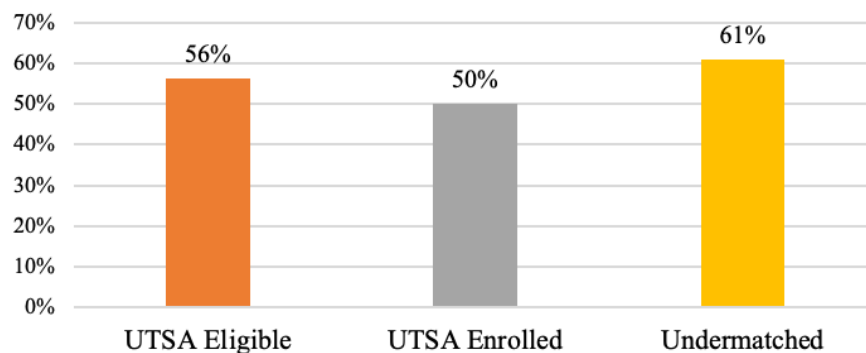
Like Latina/o students, Black students were underrepresented in the UTSA Eligible and UTSA Enrolled. Black students comprised 8% of all high school graduates but only 6% of UTSA Eligible and 5% of UTSA Enrolled. Unlike Latina/o students, Black students made up 5% of the Undermatched, a percentage smaller than their share of the general population of high school graduates.

FIGURE 7: ETHNIC-RACIAL ATTRIBUTES OF UTSA ELIGIBLE, UTSA ENROLLED AND UNDERMATCHED



Gender. While female students represented half of all high school graduates, they constituted 56% of the UTSA Eligible, 50% of UTSA Enrolled, and 61% of the Undermatched, as shown in Figure 8.

FIGURE 8: FEMALES AS A PERCENT OF UTSA ELIGIBLE, UTSA ENROLLED, AND UNDERMATCHED

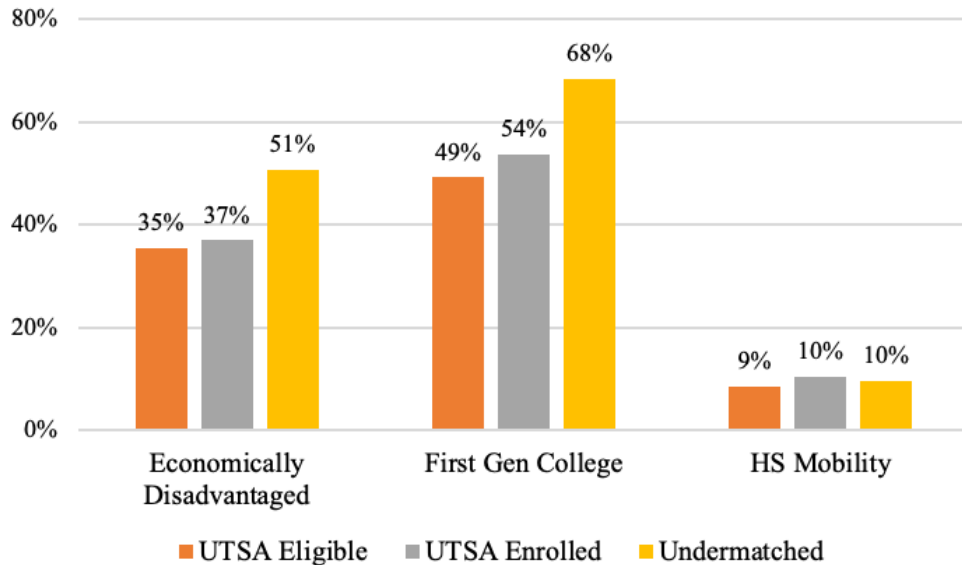


Socioeconomics. The larger San Antonio community has historically been comprised of households earning incomes below the national and state average. And our student populations reflect these socioeconomic patterns. Economically disadvantaged students comprised 53% of all high school graduates. They constituted 35% of UTSA Eligible and 37% of UTSA Enrolled. Of the Undermatched, economically disadvantaged students made up 51%, as shown in Figure 9.

Students identified as first-generation college-going also made up a majority share of high school graduates. They represented 66% of all high school graduates but constituted 49% of UTSA Eligible and 54% of UTSA Enrolled. Of the Undermatched, first-generation college-going students made up 68%.

The relationship between school mobility and college enrollment outcomes was also similar to those found with economically disadvantaged students. Graduates who experienced school mobility in high school comprised 15% of all high school graduates but only 9% of the UTSA Eligible and 10% of UTSA Enrolled. Of the Undermatched, high school mobile students made up 10%.

FIGURE 9: SOCIOECONOMIC ATTRIBUTES OF UTSA ELIGIBLE, UTSA ENROLLED, AND UNDERMATCHED

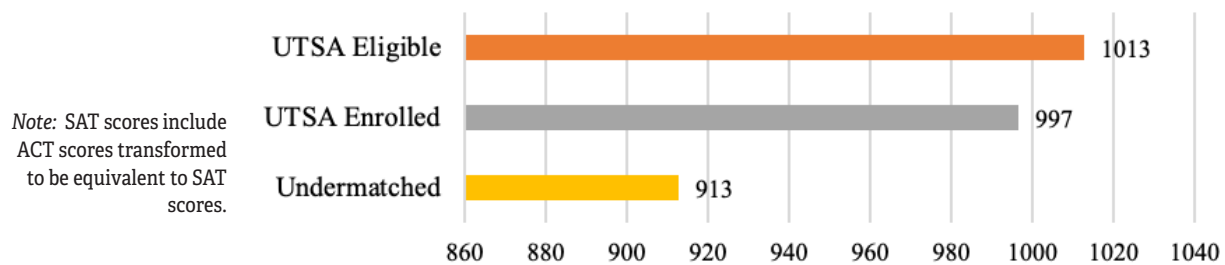


Overall, the relationship found between socioeconomic indicators and college readiness and enrollment were consistent with existing research. Students with lower socioeconomic status were underrepresented in college readiness and enrollment and overrepresented in those who undermatched (Roderick, Coca & Nagaoka, 2011). See Table A2 in the Appendix for more detailed statistics describing the demographics and socioeconomic characteristics of high school graduates and the three subgroups of interest.

COLLEGE READINESS BY SUBGROUPS

SAT Scores. Performance on SAT scores (Those who completed the ACT had their scores converted to an SAT equivalent) varied by the three subgroups of interest, as shown in Figure 11. The UTSA Eligible had average SAT scores of 1013 (SD = 345); while the UTSA Enrolled had an average SAT score of 997 (SD = 279). And the Undermatched earned an average SAT score of 913 (SD = 332). Once again, the Undermatched underperformed relative to the UTSA Eligible and UTSA Enrolled, as shown in Figure 10.

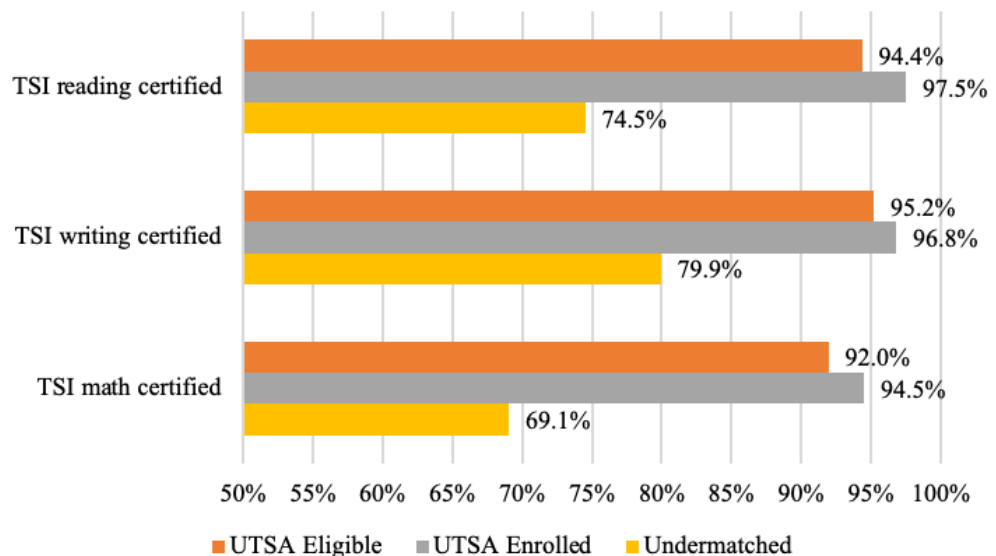
FIGURE 10: AVERAGE SAT SCORES OF UTSA ELIGIBLE, UTSA ENROLLED, AND UNDERMATCHED



Texas Success Initiative Certification. TSI certification also varied across the three subgroups, with the UTSA Enrolled subgroup being marginally in the lead in terms of academic college readiness, as displayed in Figure 11. The UTSA Eligible were TSI certified in reading, writing, and math at rates of 94.4%, 95.2%, and 92.0%. The UTSA Enrolled were TSI certified in reading, writing, and math at rates of 97.5%, 96.8%, and 94.5%. The Undermatched were TSI certified in reading, writing, and math at rates of 74.5%, 79.9%, and 69.1%. These figures highlight math as the subject where each of these groups were the weakest relative to reading and writing, suggesting a broad need for improved math education in Bexar County. Math certification for the Undermatched represented the lowest passage rate with 7 out of 10 considered prepared for college-level math.

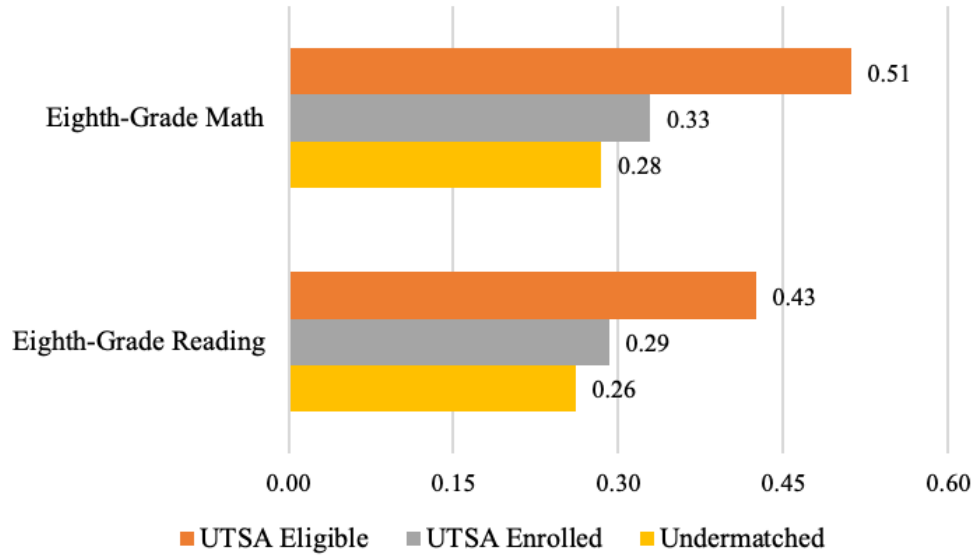
Across all subjects, the Undermatched were significantly behind the other two subgroups. Their low TSI certification may explain to some degree why they elected to enroll in a two-year college. The Undermatched may have enrolled in a two-year college rather than a four-year college due to a real or self-perceived sense of academic unpreparedness. They may have also been attracted to the lower cost of a two-year college while pursuing TSI certification.

FIGURE 11: TSI CERTIFICATION IN READING, WRITING, AND MATH OF UTSA ELIGIBLE, UTSA ENROLLED, AND UNDERMATCHED



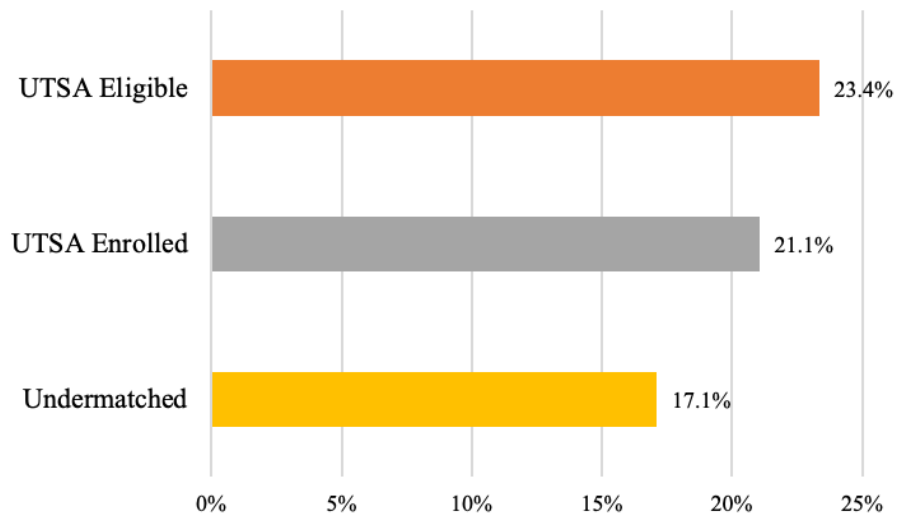
Eighth-Grade Academics. The UTSA Eligible had the highest eighth-grade standardized test scores. Measured as z-scores, the UTSA Eligible achieved an average of 0.51 in math and 0.43 in reading, as shown in Figure 12. The UTSA Enrolled followed with a 0.33 in math and 0.29 in reading. While the Undermatched had an average math score of 0.28 and an average reading score of 0.26. (In this case, a z-score is a transformation of each student's original score. Each student's score is reduced by the average score and then divided by the standard deviation of scores. A z-score of 0 represents an average score. A negative z-score is below average. A z-score of 0.5 is a score that is half a standard deviation above the average.)

FIGURE 12: PERFORMANCE ON EIGHTH-GRADE STANDARDIZED EXAMS IN MATH AND READING OF UTSA ELIGIBLE, UTSA ENROLLED, AND UNDERMATCHED



The UTSA Eligible outranked the UTSA Enrolled 23% to 21% in completion rates of Algebra by eighth grade, as shown in Figure 13. The Undermatched had the lowest share at 17%.

FIGURE 13: COMPLETED ALGEBRA BY EIGHTH GRADE FOR THE UTSA ELIGIBLE, UTSA ENROLLED, AND UNDERMATCHED

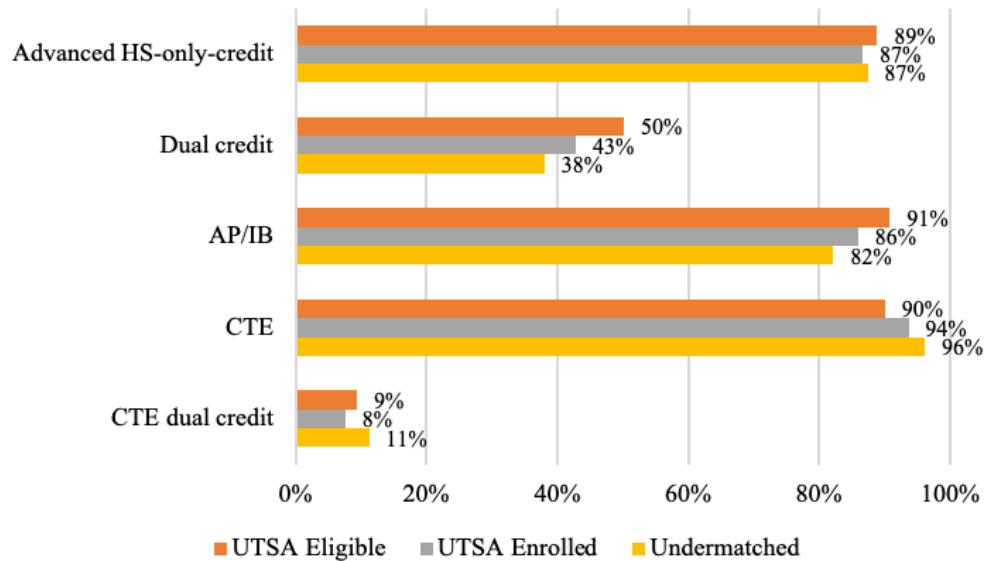


As with SAT scores and TSI certification, the Undermatched were the least academically prepared according to their eighth-grade math and reading exams and percent who completed Algebra by eighth grade. See Table A4 in the Appendix for more detailed statistics describing student performance on standardized test scores.

High School Coursework. The three subgroups of interest exhibited a few differences in their high school coursework. While there was little difference in participation in advanced high school courses, greater distinctions emerged in early college (DC and AP/IB) and career oriented (CTE) coursework. As shown in Figure 14, the UTSA Eligible, UTSA Enrolled, and Undermatched participation in advanced high school coursework at rates of 88.9%, 86.6%, and 87.4%, relatively similar figures. In contrast, the UTSA Eligible, UTSA Enrolled, and Undermatched participated in dual credit at rates of 50.2%, 42.9%, and 38.0%. The UTSA Eligible, UTSA Enrolled, and Undermatched participated in AP/IB at rates equal to 91%, 86%, and 82%. A divergence emerged with more rigorous and college preparatory coursework, as the Undermatched were less likely to participate in dual credit and AP/IB.

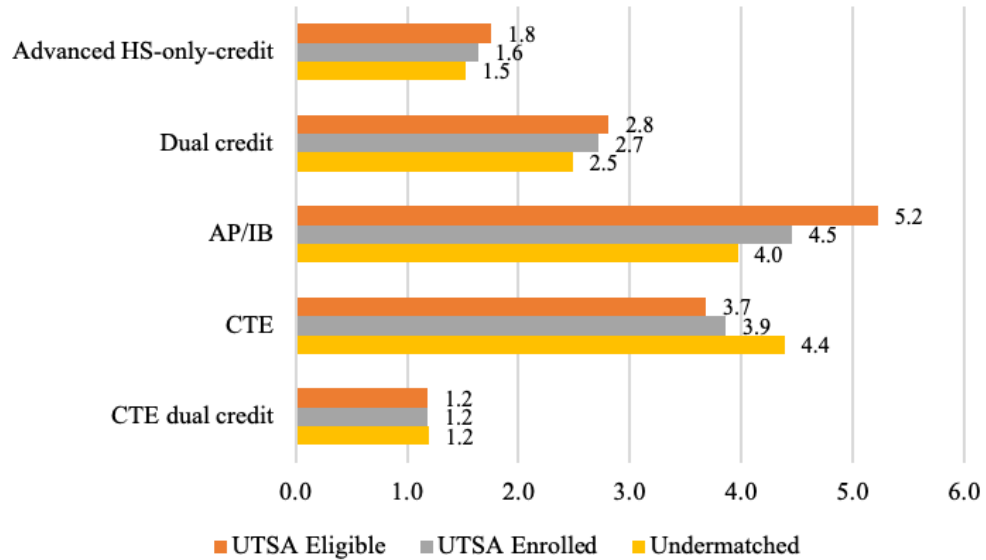
Evidence suggests that participating in career-oriented coursework may require substituting out early college coursework. The UTSA Eligible, UTSA Enrolled, and Undermatched participated in CTE coursework at rates of 90%, 94%, and 96%. Furthermore, for CTE dual credit, the UTSA Eligible, UTSA Enrolled, and Undermatched had participation rates of 9%, 8%, and 11%. While the Undermatched ranked last in early college coursework participation relative to the other two subgroups, they ranked first in career-oriented coursework.

FIGURE 14: PARTICIPATION IN ADVANCED, AND EARLY COLLEGE AND CAREER-ORIENTED COURSEWORK FOR UTSA ELIGIBLE, UTSA ENROLLED, AND UNDERMATCHED



As discussed earlier, depth of coursework can be measured by number of credits earned. As displayed in Figure 15, the UTSA Eligible, UTSA Enrolled, and Undermatched who participated in advanced coursework earned an average of 1.8, 1.6, and 1.5 advanced high school credits. For dual credit participants, the UTSA Eligible earned 2.8 dual credits, the UTSA Enrolled earned 2.7 dual credits, and the Undermatched earned 2.5 dual credits on average. For AP/IB participants, the UTSA Eligible, UTSA Enrolled, and Undermatched earned 5.2, 4.5, and 4.0 AP/IB credits on average. The UTSA Eligible earned the most credits in each category of these more rigorous courses, and the Undermatched earned the least. This pattern is more evident after summing across these three categories of courses: UTSA Eligible earned 9.8 credits, UTSA Enrolled earned 8.8, and Undermatched earned 8 credits.

FIGURE 15: AVERAGE CREDIT EARNED IN ADVANCED, AND EARLY COLLEGE AND CAREER-ORIENTED COURSEWORK FOR UTSA ELIGIBLE, UTSA ENROLLED, AND UNDERMATCHED



Depth of engagement in career-oriented coursework follows the pattern found with participation rates — the Undermatched demonstrated the greatest engagement in career-oriented coursework. The UTSA Eligible, UTSA Enrolled, and Undermatched earned an average of 3.7, 3.9, and 4.4 CTE credits. They each also earned 1.2 dual credit CTE credits on average.

In summary, a diverse set of college-readiness measures found that the UTSA Eligible demonstrated the highest levels of academic preparedness for college, closely followed by the UTSA Enrolled. The Undermatched exhibited the lowest levels of prior academic achievement and what appeared to be the strongest interest in career-oriented coursework.

The involvement of the Undermatched in career-oriented coursework appears to come at the expense of early college coursework participation, which raises questions: Was this an intentional tradeoff made by students or were they steered into these choices? Do students need to choose between career-oriented versus early-college coursework? These questions are beyond the current study but are important to ponder for future study and possible intervention.

See Table A4 in the Appendix for more detailed statistics describing student participation in advanced high school, CTE, CTE dual credit, AP/IB, and dual credit coursework.

SUBGROUPS BY HIGH SCHOOL

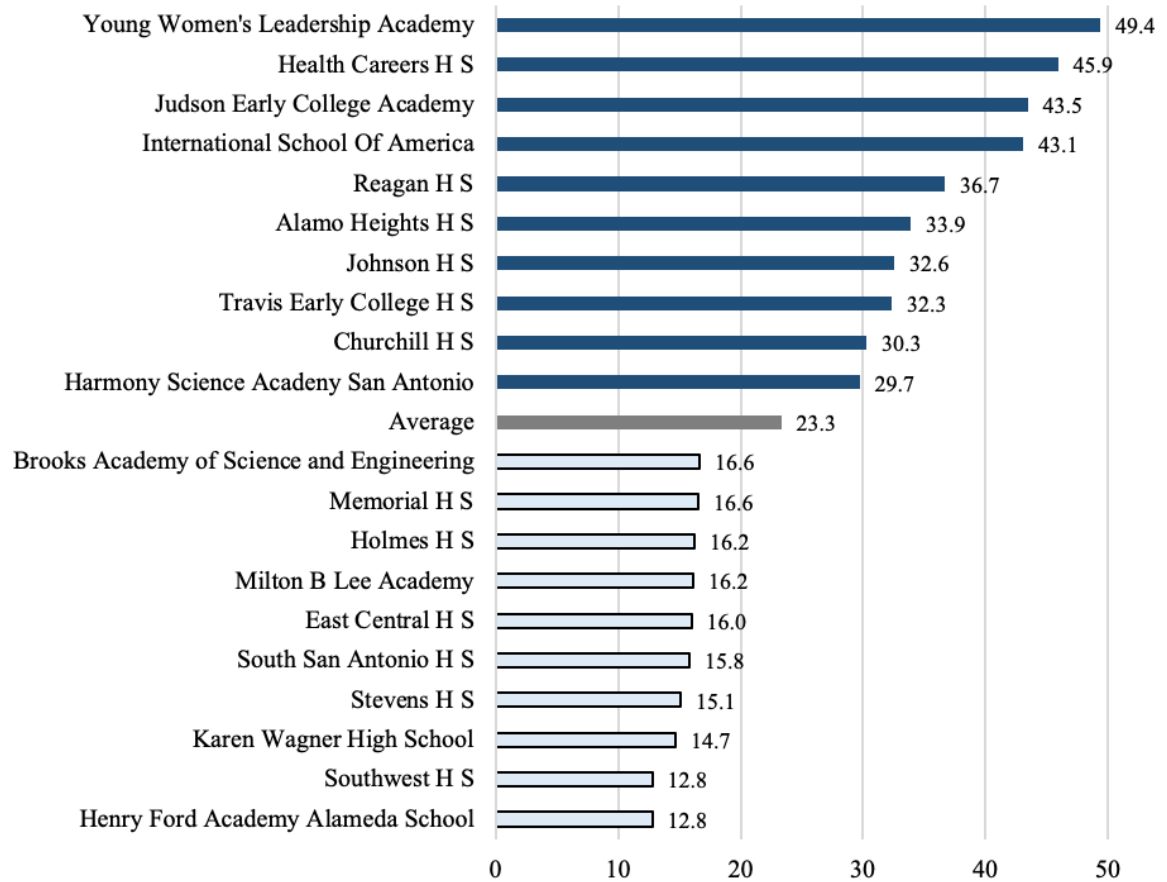
This part of the analysis describes which high schools had concentrations of UTSA Eligible, UTSA Enrolled, and Undermatched. Schools were ranked by their share of each of the three groups in addition to a ranking of their overall high school graduating class size.

Additionally, this part of the study identified yield rates. Table A5 presents the percent of UTSA Eligible relative to total high school graduates to describe a high school's ability to graduate academically college-ready students. It identifies the percent of UTSA Enrolled relative to UTSA Eligible to describe UTSA's ability to convert eligible students into enrolled students at a particular high school. Finally, Table A5 summarizes percent of Undermatched relative to UTSA Eligible to describe the degree to which a high school has a significant concentration of undermatched students among their academically college ready. These descriptive statistics help identify strengths and opportunities for UTSA student recruitment.

UTSA Eligible. The largest schools graduated the largest share of UTSA eligible students with three notable exceptions. Southwest and East Central, two rural high schools located at the southern edge of Bexar County, were ranked 3rd and 6th in total high school graduates but fell to 21st and 17th in UTSA Eligible. Stevens High School, one of Northside ISD's most southern high schools, was ranked 10th in total high school graduates but 19th in UTSA Eligible.

During the high school graduation years of 2009 to 2018, the average high school produced approximately 23 UTSA Eligible students for every 100 graduates, as shown in Figure 16. However, there was a significant spread in this figure across all schools (SD = 11.6). The top 10 schools with the highest share of UTSA Eligible students included Young Women's Academy (M = 49.4), Health Careers (M = 45.9), Judson Early College Academy (M = 43.5), International School of America (M = 43.1), Reagan (M = 36.7), Alamo Heights (M = 33.9), Johnson (M = 32.6), Travis Early College (M = 32.3), Churchill (M = 30.3), and Harmony Science Academy (M = 29.7). While the bottom 10 schools with the lowest share of UTSA Eligible students included Brooks Academy of Science and Engineering (M = 16.6), Memorial (M = 16.6), Holmes (M = 16.2), Milton B. Lee Academy (M = 16.2), East Central (M = 16.0), South San Antonio (M = 15.8), Stevens (M = 15.1), Karen Wagner (M = 14.7), Southwest (M = 12.8), and Henry Ford Academy (M = 12.8).

FIGURE 16: TOP AND BOTTOM 10 HIGH SCHOOLS IN PERCENT OF UTSA ELIGIBLE RELATIVE TO GRADUATING CLASS SIZE, GRADUATION YEARS 2009 TO 2018

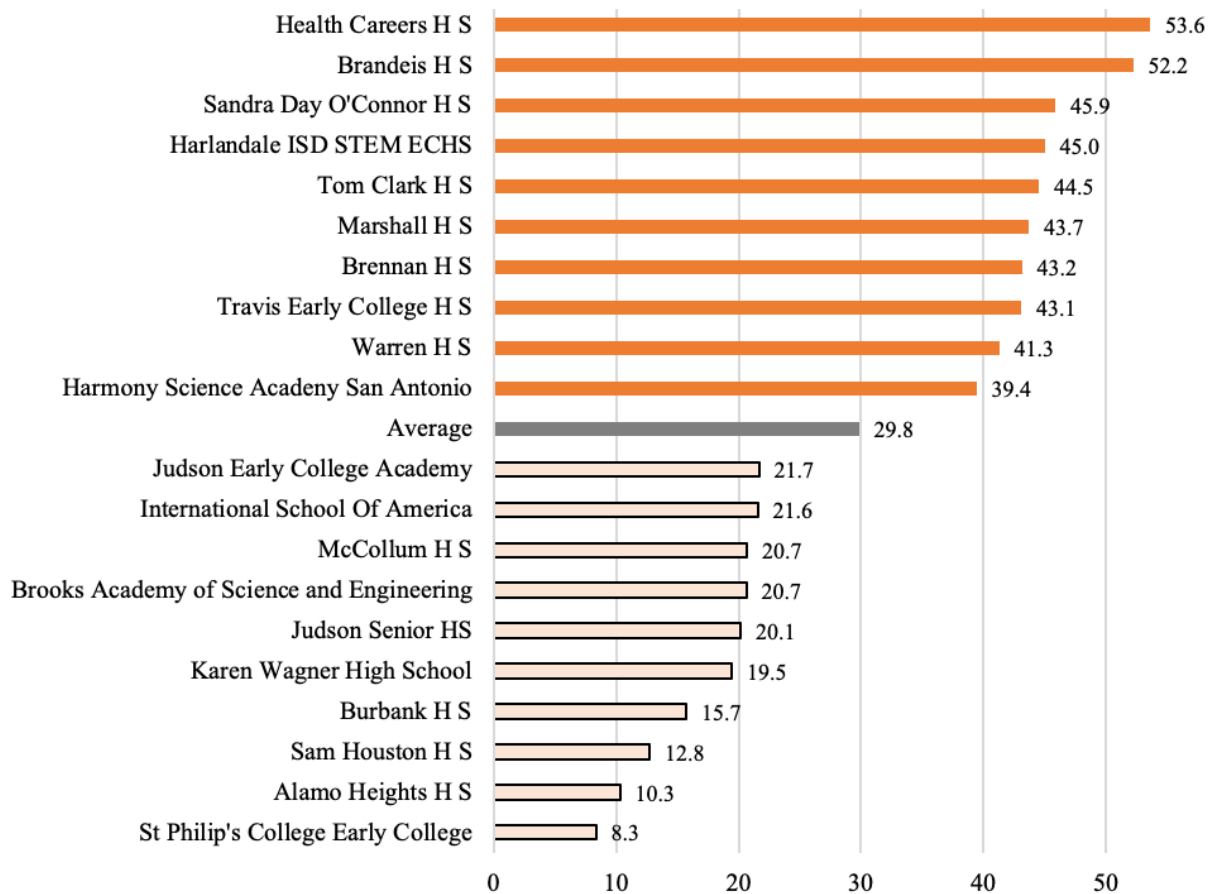


Note: Excludes high schools with average graduating class sizes less than 50.

UTSA Enrolled. In general, as the number of UTSA Eligible increased across schools, the number of UTSA Enrolled also increased. During the high school graduation years of 2009 to 2018, for every 100 UTSA Eligible graduates, a high school yielded 30 students who enrolled in UTSA, as displayed in Figure 17. This figure did vary (SD = 11.2). The top 10 schools with the highest share of UTSA Enrolled relative to UTSA Eligible included Health Careers (M = 53.6), Brandeis (M = 52.2), Sandra Day O'Connor (M = 45.9), Harlandale ISD STEM (M = 45.0), Clark (M = 44.5), Marshall (M = 43.7), Brennan (M = 43.2), Travis Early College (M = 43.1), Warren (M = 41.3), and

Harmony Science Academy (M = 39.4). The bottom 10 schools with the lowest share of UTSA Enrolled relative to UTSA Eligible included Judson Early College (M = 21.7), International School of America (M = 21.6), McCollum (M = 20.7), Brooks Academy of Science and Engineering (M = 20.7), Judson Senior (M = 20.1), Karen Wagner (M = 19.5), Burbank (M = 15.7), Sam Houston (M = 12.8), Alamo Heights (M = 10.3), and St. Philip's College Early College (M = 8.3).

FIGURE 17: TOP AND BOTTOM 10 HIGH SCHOOLS IN PERCENT OF UTSA ENROLLED RELATIVE TO UTSA ELIGIBLE, GRADUATION YEARS 2009 TO 2018



Note: Excludes high schools with average graduating class sizes less than 50.

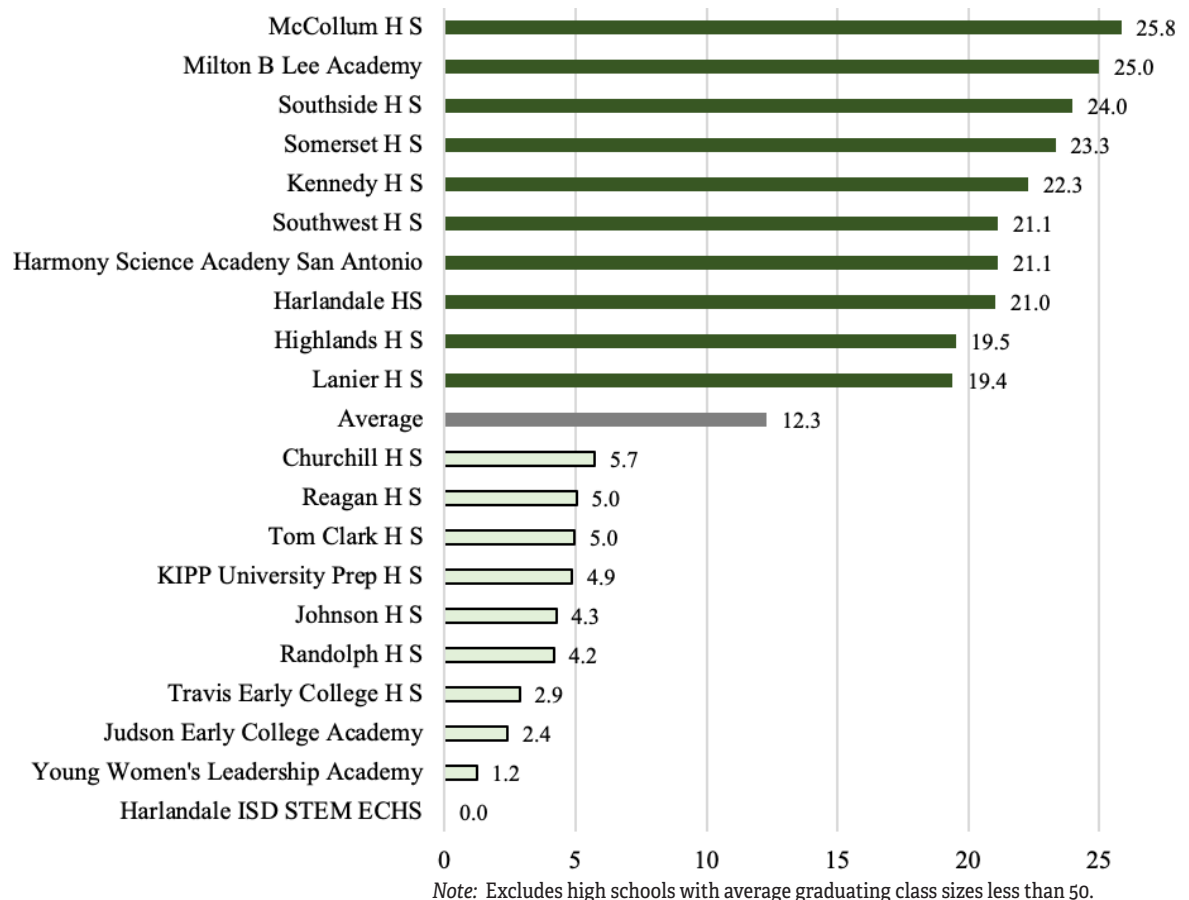


Undermatched. In gross numbers, the five schools graduating the largest numbers of Undermatched were, as expected, some of the largest high schools. These included Southwest High School, McCollum High School, South San Antonio High School, Warren High School, and Madison High School.

As an alternative to gross numbers, identifying schools with high rates of Undermatched relative to their UTSA Eligible highlights schools whose UTSA Enrollment rate could be more easily increased. The ten schools with the highest percent of Undermatched relative to UTSA Eligible were McCollum (M = 25.8), Milton B. Lee Academy (M = 25.0), Southside (M = 24.0), Somerset (M = 23.3), Kennedy (M = 22.3), Southwest (M = 21.1), Harmony Science Academy (M = 21.1), Harlandale (M = 21.0), Highlands (M = 19.5), and Lanier (M = 19.4).

In contrast, schools with low rates of Undermatched relative to their UTSA Eligible will have fewer opportunities to convert undermatched students to UTSA enrolled. The ten schools with the lowest percent of Undermatched relative to UTSA Eligible were Churchill (M = 5.7), Reagan (M = 5.0), Clark (M = 5.0), KIPP University Prep (M = 4.9), Johnson (M = 4.3), Randolph (M = 4.2), Travis Early College (M = 2.9), Judson Early College (M = 2.4), Young Women's Leadership Academy (M = 1.2), and Harlandale ISD STEM ECHS (M = 0.0).

FIGURE 18: TOP AND BOTTOM 10 HIGH SCHOOLS IN PERCENT OF UNDERMATCHED RELATIVE TO UTSA ELIGIBLE, GRADUATION YEARS 2009 TO 2018





Two important patterns were identified with the Undermatched. First, urban, southside, comprehensive high schools had above average rates and gross numbers of Undermatched per school. They comprised 16 of the 18 comprehensive high schools with above average Undermatched rates. Students from schools located in lower-income neighborhoods were more likely to undermatch than their peers from northside, suburban neighborhoods. See Table A5 in the Appendix for a detailed accounting of the Undermatched by school.

Second, the Undermatched were present in all high schools. In fact, northside, comprehensive high schools, which had below average Undermatched percentages, had nearly the same number of Undermatched as southside, comprehensive high schools.

OBJECTIVE 2:

PATHWAYS INTO UTSA AND HIGHER EDUCATION

The purpose of Objective 2 was to understand the pathways local high school graduates take into higher education and into UTSA in particular. This analysis used administrative data to follow high school graduates for four years and track their journey across five mutually exclusive, potential postsecondary events: (1) enrollment in UTSA, (2) enrollment in a different four-year college, (3) enrollment in a two-year college only, (4) employment and no college enrollment, or (5) no employment, education, or training (NEET). See Appendix 2 for a detailed explanation of the methodology used to perform this longitudinal, descriptive analysis.

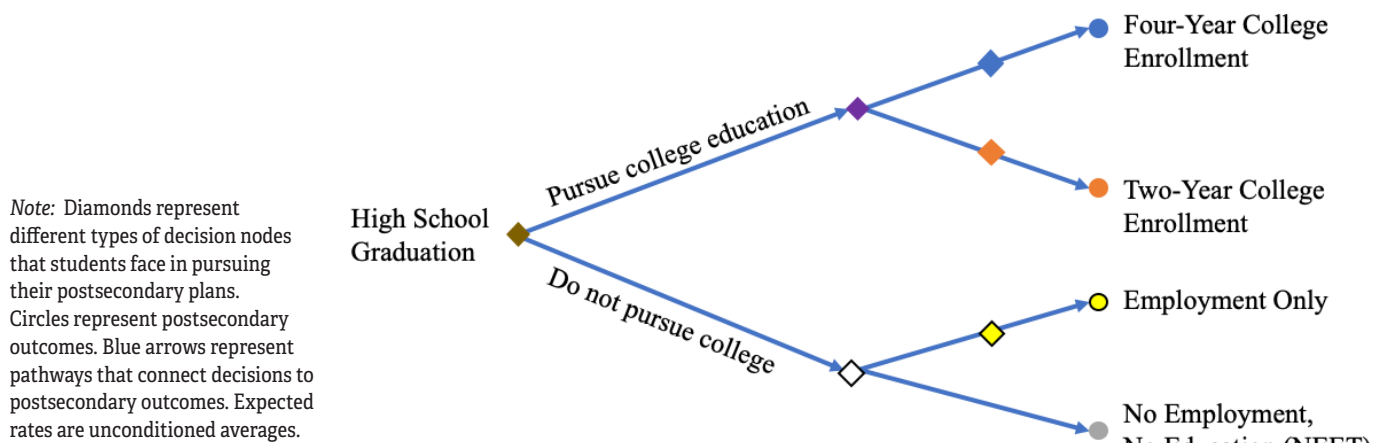
CONCEPTUAL FRAMEWORK

This study used a simplified conceptual model to describe postsecondary pathways. As shown in Figure 19, students can primarily engage in four possible events after high school: four-year college enrollment; two-year college enrollment; employment only; or no employment, education or training. These events are mutually exclusive. A student enters the employment only pathway if they are employed and not enrolled in college. Students enter the four-year college pathway if they are enrolled in a four-year college regardless of their employment status and regardless of co-enrolling in a two-year college. Students enter the two-year college pathway if they enroll in a two-year college and not a four-year college and regardless of their employment status. Students enter NEET if they are not enrolled in school or work.

In this simplified model, when high school students reach their graduation year, they confront two decision points (i.e., decision nodes) before they reach a postsecondary outcome. At the first decision node (brown diamond), high school students decide to pursue a college education (either two-year or four-year) or not. If they decide to pursue a college education, they reach a second node (purple diamond), where they decide on pursuing a two-year or a four-year college education. If they decide not to pursue a college education at the first node, they reach a second node (white diamond), where they must decide on seeking employment or not.

Students, however, are not the only decision makers. The college admission offices decide to admit students based on their eligibility and application requirements (blue and orange diamonds, respectively). Similarly, employers decide who they employ (yellow diamond). If high school graduates do not meet the standards of these other actors, their path to a preferred postsecondary outcome is blocked and they must pursue an alternative pathway.

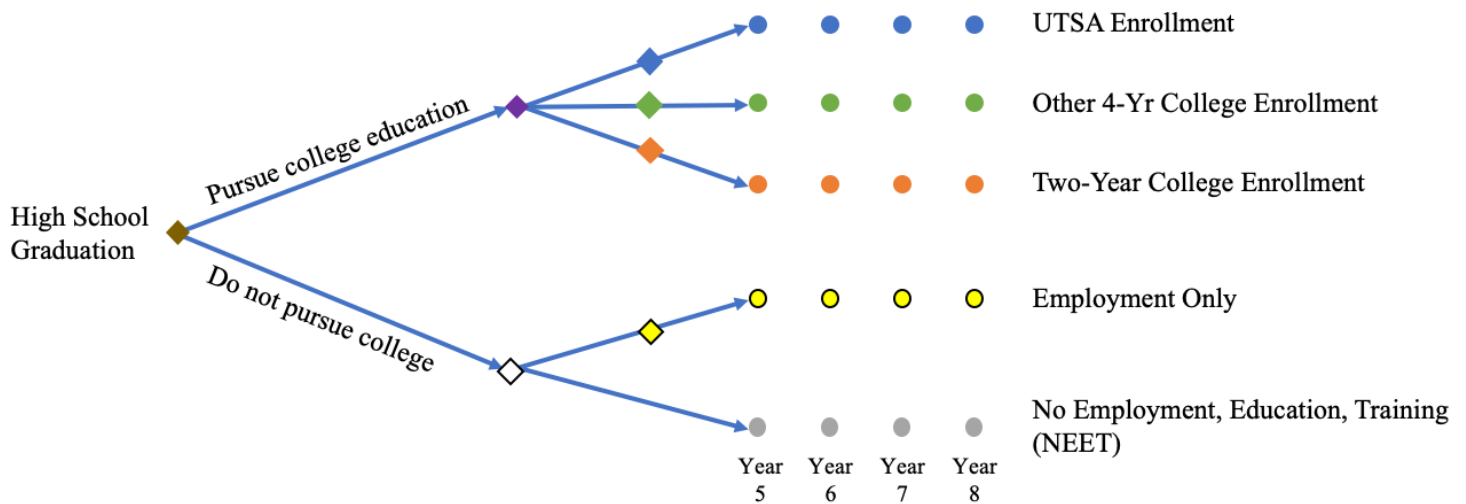
FIGURE 19: A CONCEPTUAL MODEL OF POSTSECONDARY COLLEGE AND EMPLOYMENT DECISION-MAKING



Students confront different levels of difficulty from different pathways. The pathway into a four-year college requires more of students than enrolling in a two-year college. To enroll in a four-year college, high school graduates must start building their record of educational achievement at least as early as ninth grade. This is particularly true for selective colleges. Furthermore, four-year college enrollment involves a more complicated, time-sensitive application process. While college-educated parents and caregivers will be familiar with these requirements and can help their children navigate this process, first-generation college students, which make up 66.1% of Bexar County's high school graduates, often have their college plans derailed by not meeting any one of the deadlines required to apply to a four-year college (Tym et al., 2004). Academically prepared high school graduates, such as those classified as UTSA Eligible, may be diverted to a two-year college or no college pathway — not because of a lack of aspiration or academic skills — but because of poor advising and encouragement, and lack of someone reminding them of upcoming deadlines. These students may also have a greater need to work or avoid college debt.

For this study, the conceptual framework was adjusted to identify UTSA enrollment separate from other four-year colleges. As shown in Figure 20, local high school graduates who pursue a college education must decide on enrolling in a two-year college, enrolling in UTSA, or enrolling in a four-year college other than UTSA. Furthermore, we follow students for four years (Year 5 to 8) to see what events they experience before enrolling in UTSA.

FIGURE 20: EXPECTED POSTSECONDARY OUTCOMES INCLUDING UTSA ENROLLMENT IN YEAR FOLLOWING HIGH SCHOOL, HS ENTRY COHORTS 2006-2015

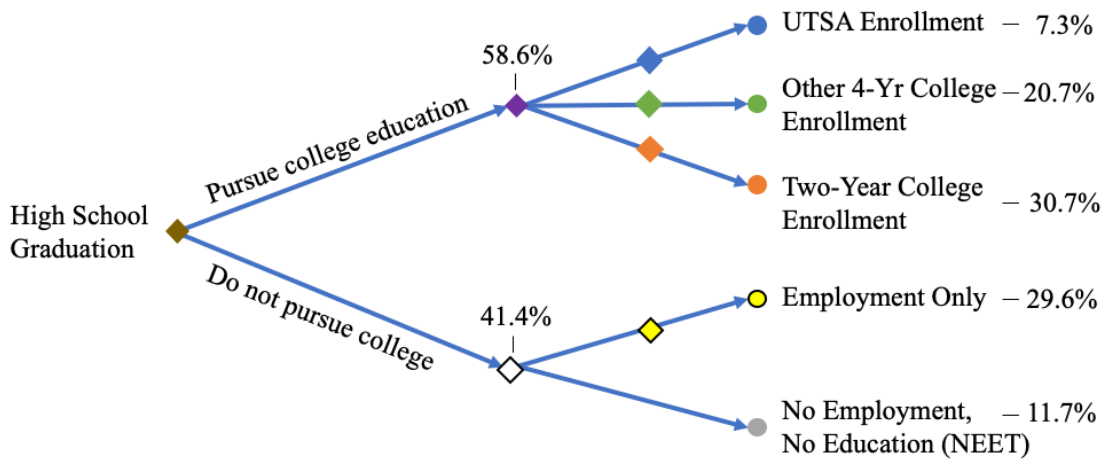


Note: Diamonds represent different types of decision nodes that students face in pursuing their postsecondary plans. Circles represent postsecondary outcomes. Blue arrows represent pathways that connect decisions to postsecondary outcomes. Expected rates are unconditioned averages.

PATHWAYS FINDINGS

All High School Graduates. UTSA enrolls a significant share of four-year college students. As displayed in Figure 21, 7.3% of all local, public high school graduates enrolled in UTSA in their first year following high school; 20.7% enrolled in other four-year colleges; 30.7% enrolled in a two-year college; 29.6% found employment and did not enroll in any postsecondary educational institution; and 11.8% were not employed or participating in education or training (NEET). Though a majority of students pursue higher education, it is a slim majority ($M = 58.6\%$). Furthermore, the largest share of students historically enrolled in two-year colleges. This trend of two-year college enrollment over four-year college enrollment has declined over time. See Appendix 3 for an updated analysis.

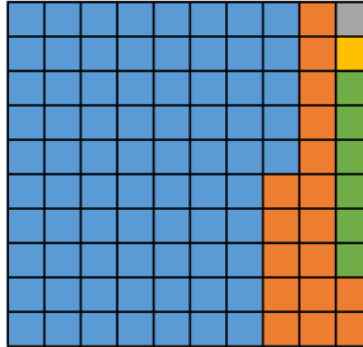
FIGURE 21: EXPECTED POSTSECONDARY OUTCOMES IN YEAR FOLLOWING HIGH SCHOOL, HS ENTRY COHORTS 2006-2015



Note: Diamonds represent different types of decision nodes that students face in pursuing their postsecondary plans. Circles represent postsecondary outcomes. Blue arrows represent pathways that connect decisions to postsecondary outcomes. Expected rates are unconditioned averages.

Following high school, three pathways accounted for nearly all students who made their way to UTSA. These three pathways accounted for 98.3% of UTSA's cumulative enrollment of local high school graduates from year 5 to 8, as shown in Figure 22. The local high school graduates who entered UTSA in their first year out of high school made up over 75% of UTSA's cumulative enrollment. The second most popular pathway passed through a two-year college in year 5, 6, or 7 and represented 16.9% of UTSA's cumulative enrollment. Finally, a meaningful share of local graduates made their way to UTSA after starting at another four-year college. This group contributed to 6% of UTSA's cumulative enrollment. See Appendix 4 for a detailed presentation of each pathway analyzed.

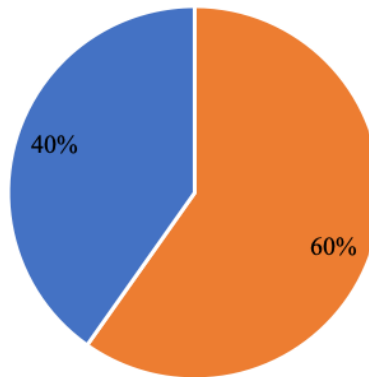
FIGURE 22: FIVE SOURCES OF UTSA'S CUMULATIVE ENROLLMENT OF LOCAL HIGH SCHOOL GRADUATES IN YEARS FIVE TO EIGHT



- 75.4% started at UTSA in Year 5 and persisted
- 16.9% enrolled at Two-Year College in Year 5, 6, or 7, then enrolled in UTSA
- 6.0% started at Other Four-Year College in Year 5, then enrolled in UTSA
- 1.1% started in Employment-Only in Year 5, then enrolled in UTSA
- 0.5% started in NEET in Year 5, then enrolled in UTSA

UTSA Eligible. UTSA Eligible comprised a majority of UTSA's cumulative enrollment of local high school graduates in the first four years following high school. They represented 60% of UTSA's cumulative enrollment, as shown in Figure 23.

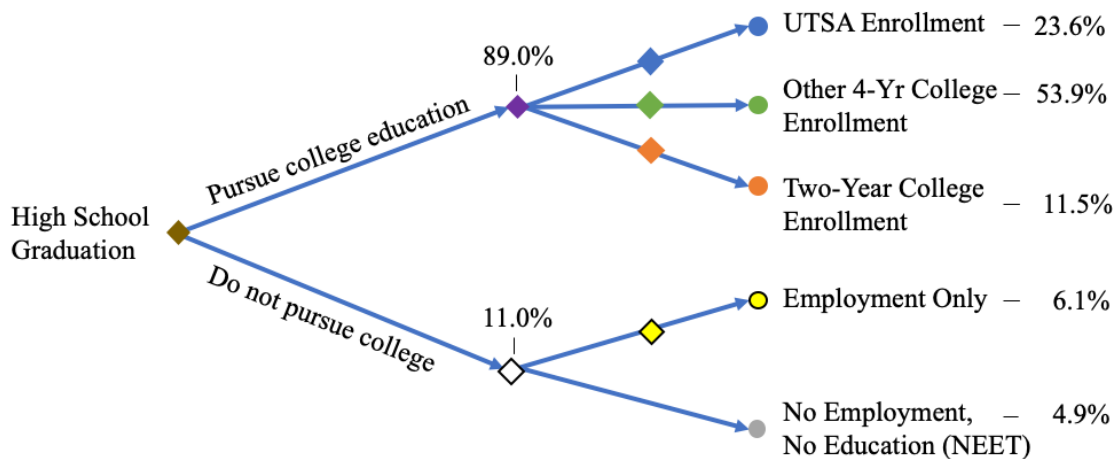
FIGURE 23: UTSA'S CUMULATIVE ENROLLMENT IN YEARS 5 TO 8 OF LOCAL HIGH SCHOOL GRADUATES WHO WERE UTSA ELIGIBLE AND ALL OTHERS



- UTSA Eligible Who Enrolled
- All Others Who Enrolled

When the pathway analysis was limited to the UTSA Eligible (ranked in top 25% of graduating class or scored a 1100 or higher on SAT), we see in Figure 24 that a larger share of these students pursued higher education (M = 89%) and enrolled in UTSA, as shown in Figure 23. In their first year following high school, 23.6% of the UTSA Eligible enrolled in UTSA; 53.9% enrolled in a four-year college other than UTSA; 11.46% enrolled in a two-year college; 6.1% joined the workforce and did not enroll in college; and 4.9% did not enroll in work or school of any kind.

FIGURE 24: EXPECTED POSTSECONDARY OUTCOMES IN YEAR FOLLOWING HIGH SCHOOL OF STUDENTS WHO WERE ELIGIBLE FOR AUTOMATIC ADMISSION INTO UTSA, HS ENTRY COHORTS 2006-2015

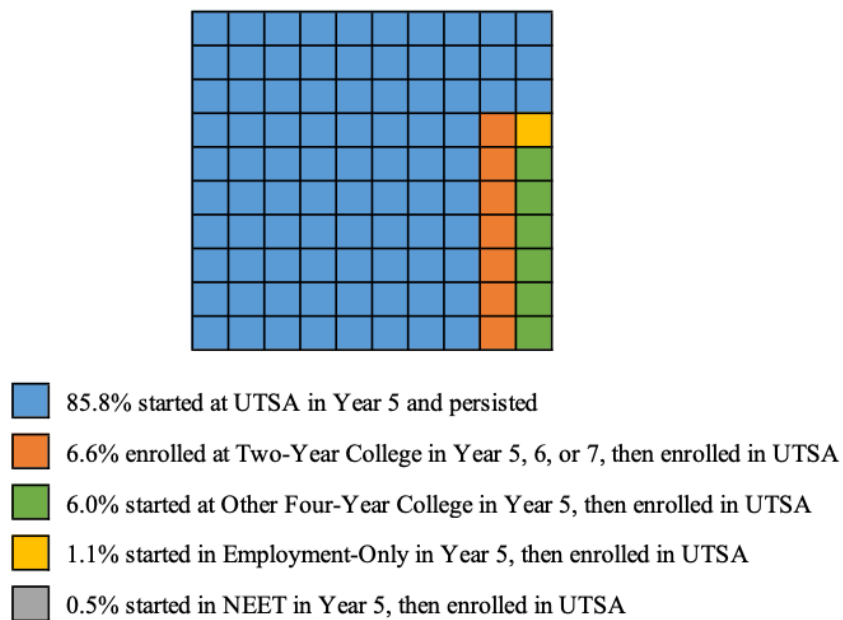


Note: Diamonds represent different types of decision nodes that students face in pursuing their postsecondary plans. Circles represent postsecondary outcomes. Blue arrows represent pathways that connect decisions to postsecondary outcomes. Expected rates are unconditioned averages.

Similar to our analysis of all high school graduates, three pathways accounted for nearly all UTSA Eligible who made their way into UTSA. These three pathways accounted for 98.4% of the cumulative enrollment at UTSA, as shown in Figure 25. The local high school graduates who entered UTSA in their first year out of high school made up over 85% of UTSA's cumulative enrollment of this subgroup of students.

The second most popular pathway passed through a two-year college in year 5, 6, or 7 and represented 6.6% of UTSA's cumulative enrollment of UTSA Eligible. Finally, nearly as many UTSA Eligible arrived at UTSA directly from other four-year colleges as they did two-year colleges. This group contributed 6.0% of UTSA's cumulative enrollment of UTSA Eligible. See Appendix 5 for a detailed presentation of each pathway analyzed.

FIGURE 25: FIVE SOURCES OF UTSA'S CUMULATIVE ENROLLMENT IN YEARS FIVE TO EIGHT OF UTSA ELIGIBLE, LOCAL HIGH SCHOOL GRADUATES WHO GRADUATED IN THE TOP 25% OF THEIR GRADUATING CLASS OR EARNED AN 1100 SAT OR HIGHER



In summary, high schools were the dominant source of UTSA enrollment, overall and for UTSA Eligible in particular. Two-year colleges represented a meaningful source of enrollment through transfer. However, they also could be considered a diversion from four-year college for those who graduate from high school with sufficiently high prior academic achievement. Finally, other four-year colleges were a meaningful source of UTSA enrollees and were equivalent to two-year colleges as a source of UTSA Eligible students.

REFERENCES

- An, B. P. (2013). The impact of dual enrollment on college degree attainment: Do low-SES students benefit? *Educational Evaluation and Policy Analysis*, 35(1), 57-75.
- Barr, R., & Dreeben, R. (1983). *How schools work*. Chicago, IL: University of Chicago Press.
- Berger, A., Turk-Bicakci, L., Garet, M., Knudson, J., & Hoshen, G. (2014). *Early college, continued success: Early college high school initiative impact study*. Washington, DC: American Institutes for Research.
- Bobonis, F. & Finan, E. (2009). Neighborhood peer effects in secondary school enrollment decisions. *The Review of Economics and Statistics*, 91 (4), 695–716.
- Bryan, F. H., Farmer-Hinton, R., Rawls, A., Woods, C. S. (2017). Social capital and college-going culture in high schools: The effects of college expectations and college talk on students' postsecondary attendance. *Professional School Counseling*, 21(1).
- Burnham, K. P., & Anderson, D. R. (2004). Multimodel inference: Understanding AIC and BIC in model selection. *Sociological Methods & Research*, 33: 261–304.
- Carrell, F., Fullerton, R., & West, J. (2009). Does your cohort matter? Measuring peer effects in college achievement. *Journal of Labor Economics*, 27 (3), 439–464.
- Giani, M., Alexander, C., & Reyes, P. (2014). Exploring variation in the impact of dual-credit coursework on postsecondary outcomes: A quasi-experimental analysis of Texas students. *The High School Journal*, 200-218.
- Karp, M. M., Calcagno, J. C., Hughes, K. L., Jeong, D. W., & Bailey, T. R. (2007). *The Postsecondary Achievement of Participants in Dual Enrollment: An Analysis of Student Outcomes in Two States*. Community College Research Center, Columbia University.
- Long, M. C., Conger, D., & Iatarola, P. (2012). Effects of high school course-taking on secondary and postsecondary success. *American Educational Research Journal*, 49(2), 285-322.

Lee, H.B. & Villarreal, M. (2020). Dual credit effects on postsecondary enrollment and success for students in bottom quartile of previous academic achievement [Manuscript submitted for publication]. The University of Texas at San Antonio.

Miller, T., Kosiewicz, H., Wang, E. L., Marwah, E. V., Delhommer, S., & Daugherty, L. (2017). Dual credit education in Texas.

Milewski, G. B., & Camara, W. J., (2002). Colleges and universities that do not require SAT or ACT scores. Research Notes. The College Board. RN-18.

Murphy, M. C., Kroeper, K. M., & Ozier, E. M. (2018). Prejudiced places: how contexts shape inequality and how policy can change them. *Policy Insights from the Behavioral and Brain Sciences*, 5(1), 66–74. <https://doi.org/10.1177/2372732217748671>

Nettles, M. T., Thoeny, A. R., & Gosman, E. J., (1986). Comparative and predictive analyses of Black and White students' college achievement and experiences, *The Journal of Higher Education*, 57:3, 289-318, DOI: 10.1080/00221546.1986.11778772

Robinson, R., & Roksa, J. (2016). Counselors, information, and high school college-going culture: Inequalities in the college application process. *Research in Higher Education*. 57 (7), 845–868.

Roderick, M., Coca, V., & Nagaoka, J. (2011). Potholes on the road to college: High school effects in shaping urban students' participation in college application, four-year college enrollment, and college match. *Sociology of Education*, 84(3), 178-211.

Struhl, B., & Vargas, J. (2012). Taking college courses in high school: A strategy guide for college readiness. The college outcomes of dual enrollment in Texas. *Jobs for the Future*.

Tym, C., McMillion, R., Barone, S., & Webster, J. (2004). First-generation college student: A literature review. *Research and Analytical Services*. <https://files.eric.ed.gov/fulltext/ED542505.pdf>

Villarreal, M. (2020). School mobility: A growing and inequitable headwind to educational achievement. Urban Education Institute at The University of Texas at San Antonio. https://uei.utsa.edu/_files/pdfs/School_Mobility_Report.pdf

US Census. (2017). 2017 National Population Projections Tables: Main Series. <https://www.census.gov/data/tables/2017/demo/popproj/2017-summary-tables.html>

APPENDIX 1: DETAILED TABLES

Table A1

All Public High School Graduates of Bexar County and the UTSA Eligible, UTSA Enrolled, and Undermatched by High School-Entry Cohort, 2006 to 2015

Cohort	All High School Graduates			UTSA Eligible Graduates		
	Frequency	Percent	Deviation from Mean	Frequency	Percent of All	Deviation from Mean
2006	13,525	8.4	-1.6	2,838	21.0	-0.8
2007	14,557	9.0	-1.0	3,097	21.3	-0.6
2008	15,082	9.3	-0.7	3,179	21.1	-0.8
2009	15,692	9.7	-0.3	3,408	21.7	-0.1
2010	16,203	10.0	0.0	3,591	22.2	0.3
2011	16,482	10.2	0.2	3,744	22.7	0.9
2012	16,839	10.4	0.4	3,747	22.3	0.4
2013	17,537	10.8	0.8	3,695	21.1	-0.8
2014	17,659	10.9	0.9	3,958	22.4	0.6
2015	<u>18,151</u>	<u>11.2</u>	1.2	<u>4,112</u>	<u>22.7</u>	0.8
Total	161,727	100.0		35,369	100.0	

Note: UTSA Eligible represents students who graduated in the top 25% of their graduating class or earned a 1100 on their SAT or equivalent ACT. UTSA Enrolled figures represent enrollment in UTSA in year five. Undermatched represents UTSA Eligible who enrolled in a two-year college and not a four-year college.

Table A1 Continued

All Public High School Graduates of Bexar County and the UTSA Eligible, UTSA Enrolled, and Undermatched by High School-Entry Cohort, 2006 to 2015

Cohort	UTSA Enrolled			Undermatched		
	Frequency	Percent of Eligible	Deviation from Mean	Frequency	Percent of Eligible	Deviation from Mean
2006	975	34.4	1.1	363	12.8	1.3
2007	1,191	38.5	5.2	332	10.7	-0.8
2008	1,074	33.8	0.6	420	13.2	1.7
2009	1,021	30.0	-3.3	433	12.7	1.2
2010	948	26.4	-6.8	392	10.9	-0.6
2011	1,305	34.9	1.6	415	11.1	-0.5
2012	1,281	34.2	1.0	445	11.9	0.3
2013	1,163	31.5	-1.8	411	11.1	-0.4
2014	1,401	35.4	2.2	444	11.2	-0.3
2015	<u>1,376</u>	<u>33.5</u>	0.2	<u>400</u>	<u>9.7</u>	-1.8
Total	11,735	332.3		4,055	100.0	

Note: UTSA Eligible represents students who graduated in the top 25% of their graduating class or earned a 1100 on their SAT or equivalent ACT. UTSA Enrolled figures represent enrollment in UTSA in year five. Undermatched represents UTSA Eligible who enrolled in a two-year college and not a four-year college.

Table A2

Student Sociodemographic Characteristics for All Public High School Graduates of Bexar County and the UTSA Eligible, UTSA Enrolled, and Undermatched

	All High School Graduates		UTSA Eligible		UTSA Enrolled		Undermatched	
	Mean	SD	Mean	SD	Mean	SD	Mean	SD
Hispanic	0.666	0.472	0.535	0.499	0.584	0.493	0.692	0.462
White	0.218	0.413	0.335	0.472	0.274	0.446	0.218	0.413
Black	0.079	0.269	0.062	0.241	0.054	0.226	0.053	0.223
Asian	0.024	0.152	0.050	0.218	0.072	0.258	0.024	0.152
Other	0.014	0.116	0.019	0.135	0.017	0.129	0.014	0.118
Female	0.500	0.500	0.564	0.496	0.501	0.500	0.610	0.488
Not LEP	0.959	0.199	0.985	0.123	0.978	0.146	0.968	0.176
LEP	0.028	0.166	0.008	0.088	0.011	0.106	0.017	0.128
Previously LEP	0.013	0.112	0.008	0.086	0.010	0.101	0.015	0.120
At-risk ¹	0.435	0.496	0.137	0.343	0.181	0.385	0.206	0.405
Received special education services	0.099	0.299	0.009	0.094	0.012	0.110	0.012	0.110
Migrant	0.004	0.067	0.003	0.051	0.006	0.076	0.003	0.052
Economically disadvantaged	0.531	0.499	0.354	0.478	0.370	0.483	0.508	0.500
First generation college-going ²	0.661	0.473	0.493	0.500	0.538	0.499	0.684	0.465
Changed schools during high school	0.154	0.361	0.086	0.280	0.104	0.306	0.097	0.296

Note: UTSA Eligible represents students who graduated in the top 25% of their graduating class or earned a 1100 on their SAT or equivalent ACT. UTSA Enrolled figures represent enrollment in UTSA in year five. Undermatched represents UTSA Eligible who enrolled in a two-year college and not a four-year college.

1. At-risk is a category defined by TEA to include students who are economically disadvantaged, homeless, limited English Proficient, or repeated a grade.

2. First-gen indicator is limited to those who applied to a 4-year college or applied for financial aid.

Table A3

Academic College Readiness Scores and Indicators for Public High School Graduates of Bexar County and the UTSA Eligible, UTSA Enrolled, and Undermatched

	High School Graduates					UTSA Eligible				
	Obs	Mean	SD	Min	Max	Obs	Mean	SD	Min	Max
SAT Score, Four-Yr College Applicants ¹	60,153	915.13	363.95	0.0	1720.0	35,369	1012.75	346.62	0.0	1720.0
TSI math certified, College Enrolled ³	67,822	0.65	0.48	0.0	1.0	23,998	0.92	0.27	0.0	1.0
TSI writing certified, College Enrolled ³	67,822	0.78	0.42	0.0	1.0	23,998	0.95	0.21	0.0	1.0
TSI reading certified, College Enrolled ³	67,822	0.73	0.44	0.0	1.0	23,998	0.94	0.23	0.0	1.0
Eighth-Grade Reading Z-score	147,989	0.05	0.92	-5.3	7.0	32,913	0.43	0.68	-5.2	5.3
Eighth-Grade Math Z-score	150,082	0.05	0.91	-5.1	8.6	33,249	0.51	0.78	-4.9	5.4
Completed Algebra in Eighth Grade	154,538	0.12	0.32	0.0	1.0	33,383	0.23	0.42	0.0	1.0
	UTSA Enrolled					Undermatched				
	Obs	Mean	SD	Min	Max	Obs	Mean	SD	Min	Max
SAT Score, Four-Yr College Applicants ¹	11,544	996.66	278.50	0.0	1640.0	4,055	912.75	332.10	0.0	1560.0
TSI math certified, College Enrolled ³	10,014	0.94	0.23	0.0	1.0	3,145	0.69	0.46	0.0	1.0
TSI writing certified, College Enrolled ³	10,014	0.97	0.18	0.0	1.0	3,145	0.80	0.40	0.0	1.0
TSI reading certified, College Enrolled ³	10,014	0.98	0.16	0.0	1.0	3,145	0.74	0.44	0.0	1.0
Eighth-Grade Reading Z-score	10,938	0.29	0.64	-5.2	6.3	3,856	0.26	0.68	-2.3	3.9
Eighth-Grade Math Z-score	11,082	0.33	0.67	-4.9	6.3	3,905	0.28	0.70	-1.8	4.3
Completed Algebra in Eighth Grade	11,125	0.21	0.41	0.0	1.0	3,916	0.17	0.38	0.0	1.0

Note: UTSA Eligible represents students who graduated in the top 25% of their graduating class or earned a 1100 on their SAT or equivalent ACT. UTSA Enrolled figures represent enrollment in UTSA in year five. Undermatched represents UTSA Eligible who enrolled in a two-year college and not a four-year college.

1. Conditioned on application to a four-year college.
2. For all high school students, percent who completed entrance exam was conditioned on college enrollment in year 5.
3. Limited to those who enrolled in a higher education institution. Certification was measured prior to year five.

Table A4

High School Coursework for Public High School Graduates of Bexar County and the UTSA Eligible, UTSA Enrolled, and Undermatched

	All High School Graduates					UTSA Eligible				
	Obs	Mean	SD	Min	Max	Obs	Mean	SD	Min	Max
Participation Rates										
Advanced	161,727	0.67	0.47	0.0	1.0	35,369	0.89	0.31	0.0	1.0
Dual credit	161,727	0.20	0.40	0.0	1.0	35,369	0.50	0.50	0.0	1.0
AP/IB	161,727	0.51	0.50	0.0	1.0	35,369	0.91	0.29	0.0	1.0
CTE	161,727	0.95	0.22	0.0	1.0	35,369	0.90	0.30	0.0	1.0
CTE dual credit	161,727	0.05	0.22	0.0	1.0	35,369	0.09	0.29	0.0	1.0
Credit Earned by Participants										
Advanced	108,871	1.48	0.88	0.3	11.0	31,430	1.75	1.05	0.5	10.5
Dual credit	32,383	2.63	2.37	0.5	18.0	17,757	2.81	2.21	0.5	17.5
AP/IB	82,052	3.89	2.80	0.5	18.0	32,118	5.23	2.95	0.5	18.0
CTE	153,171	4.04	2.21	0.3	21.5	31,841	3.69	2.29	0.5	18.0
CTE dual credit	8,492	1.19	0.62	0.5	8.0	3,304	1.19	0.56	0.5	5.0
	UTSA Enrolled					Undermatched				
	Obs	Mean	SD	Min	Max	Obs	Mean	SD	Min	Max
Participation Rates										
Advanced	11,735	0.87	0.34	0.00	1.0	4,055	0.87	0.33	0.0	1.0
Dual credit	11,735	0.43	0.49	0.00	1.0	4,055	0.38	0.49	0.0	1.0
AP/IB	11,735	0.86	0.35	0.00	1.0	4,055	0.82	0.38	0.0	1.0
CTE	11,735	0.94	0.24	0.00	1.0	4,055	0.96	0.19	0.0	1.0
CTE dual credit	11,735	0.08	0.26	0.00	1.0	4,055	0.11	0.32	0.0	1.0
Credit Earned by Participants										
Advanced	10,167	1.64	0.93	0.50	9.0	3,544	1.52	0.83	0.5	7.5
Dual credit	5,030	2.72	2.16	0.50	17.5	1,541	2.49	1.73	0.5	16.5
AP/IB	10,080	4.46	2.69	0.50	16.0	3,332	3.97	2.54	0.5	14.0
CTE	10,989	3.86	2.23	0.25	16.5	3,900	4.39	2.41	0.5	18.0
CTE dual credit	891	1.18	0.60	0.50	5.0	454	1.19	0.55	0.5	3.0

Note: UTSA Eligible represents students who graduated in the top 25% of their graduating class or earned a 1100 on their SAT or equivalent ACT. UTSA Enrolled figures represent enrollment in UTSA in year five. Undermatched represents UTSA Eligible who enrolled in a two-year college and not a four-year college.

Table A5
Average Distribution by School of Bexar County High School Graduates and Three Subgroups: UTSA Eligible, UTSA Enrolled, & Undermatched, HS-Entry Cohorts 2006 to 2015

High Schools	All High School Graduates			UTSA Eligible HS Graduates			UTSA Enrolled			Undermatched		
	Freq.	Percent	Rank	Freq.	% of All	Freq. Rank	Freq.	% of UTSA Eligible	Freq. Rank	Freq.	% of UTSA Eligible	Freq. Rank
Alamo Heights H S	3,314	2.1	25	1,124	33.9	10	116	10.3	33	69	6.1	33
BASIS San Antonio ^C	27	0.0	59	21	77.8	54	6	28.6	53	0	0.0	57
Brackenridge H S	3,358	2.1	23	690	20.5	24	190	27.5	24	129	18.7	7
Brandeis H S	4,235	2.6	20	1,109	26.2	9	579	52.2	5	91	8.2	25
Brennan H S	3,241	2.0	27	679	21.0	22	293	43.2	16	79	11.6	31
Brooks Academy of Science and Engineering ^C	553	0.3	42	92	16.6	45	19	20.7	48	13	14.1	41
Burbank H S	2,447	1.5	33	496	20.3	32	78	15.7	37	90	18.1	26
Churchill H S	5,857	3.6	5	1,775	30.3	2	572	32.2	6	102	5.7	21
Corpus Christi Academy ^C	143	0.1	54	17	11.9	55	4	23.5	56	3	17.6	52
East Central H S	5,847	3.6	6	934	16.0	16	229	24.5	19	115	12.3	15
Edison H S	2,915	1.8	29	608	20.9	28	230	37.8	18	98	16.1	23
Fox Technical HS ^C	1,345	0.8	38	259	19.3	40	67	25.9	39	41	15.8	38
Frank L Madla Early College H S ^C	49	0.0	57	15	30.6	57	6	40.0	54	2	13.3	53
George I Sanchez Charter H S ^C	29	0.0	60	0	0.0	61	0	.	.	0	.	.
Great Hearts Monte Vista North ^C	28	0.0	61	9	32.1	59	0	0.0	59	0	0.0	58
Harlandale HS	3,510	2.2	22	613	17.5	27	186	30.3	25	129	21.0	8
Harlandale ISD STEM ECHS ^C	88	0.1	55	20	22.7	52	9	45.0	51	0	0.0	59
Harmony Science Academy San Antonio ^C	239	0.2	49	71	29.7	48	28	39.4	46	15	21.1	40
Health Careers H S ^C	1,859	1.2	36	854	45.9	17	458	53.6	8	52	6.1	36
Henry Ford Academy Alameda School ^C	235	0.2	50	30	12.8	51	7	23.3	52	4	13.3	50
Highlands H S	3,221	2.0	28	579	18.0	30	139	24.0	28	113	19.5	16
Holmes H S	4,697	2.9	17	762	16.2	21	280	36.7	17	110	14.4	18
International School Of America ^C	1,053	0.7	39	454	43.1	34	98	21.6	35	30	6.6	39
Jay H S	5,287	3.3	9	1,114	21.1	12	412	37.0	13	129	11.6	9
Jefferson H S	3,256	2.0	26	648	19.9	25	200	30.9	22	112	17.3	17
Johnson H S	4,890	3.0	15	1,593	32.6	3	588	36.9	4	68	4.3	34
Jubilee Academic Center ^C	269	0.2	48	24	8.9	53	5	20.8	55	6	25.0	44
Judson Early College Academy ^C	573	0.4	40	249	43.5	39	54	21.7	40	6	2.4	45
Judson Senior HS	5,969	3.7	4	1,082	18.1	13	218	20.1	21	121	11.2	12
Karen Wagner High School	4,332	2.7	19	637	14.7	26	124	19.5	30	101	15.9	22
Kennedy H S	2,692	1.7	31	489	18.2	33	148	30.3	27	109	22.3	19
KIPP University Prep H S ^C	491	0.3	44	123	25.1	43	37	30.1	43	6	4.9	46
Lanier H S	2,526	1.6	32	454	18.0	35	106	23.3	34	88	19.4	28
Lee H S	4,102	2.5	21	790	19.3	18	228	28.9	20	82	10.4	29
Mac Arthur H S	4,997	3.1	13	1,213	24.3	7	441	36.4	9	89	7.3	27
Madison H S	6,287	3.9	1	1,311	20.9	6	437	33.3	10	132	10.1	5
Marshall H S	4,904	3.0	14	981	20.0	15	429	43.7	12	97	9.9	24
McCollum H S	3,336	2.1	24	600	18.0	29	124	20.7	31	155	25.8	2
Memorial H S	2,204	1.4	34	365	16.6	36	136	37.3	29	67	18.4	35
Milton B Lee Academy ^C	198	0.1	52	32	16.2	50	10	31.3	50	8	25.0	43
Randolph H S	560	0.4	41	144	25.7	42	45	31.3	41	6	4.2	47
Reagan H S	5,570	3.4	8	2,045	36.7	1	763	37.3	1	103	5.0	20
Robert G Cole Jr-Sr High School	432	0.3	45	103	23.8	44	32	31.1	44	10	9.7	42
Roosevelt H S	4,858	3.0	16	1,059	21.8	14	294	27.8	15	118	11.1	14
Sam Houston H S	1,417	0.9	37	298	21.0	38	38	12.8	42	50	16.8	37
San Antonio Can Academy ^C	342	0.2	47	1	0.3	60	0	0.0	60	0	0.0	60
Sandra Day O'Connor H S	6,227	3.9	2	1,539	24.7	4	706	45.9	2	120	7.8	13
School of Science and Technology 1 ^C	348	0.2	46	85	24.4	47	31	36.5	45	5	5.9	48
School of Science and Technology 2 ^C	63	0.0	56	17	27.0	56	4	23.5	57	2	11.8	54
Somerset H S	2,005	1.2	35	343	17.1	37	99	28.9	36	80	23.3	30
South San Antonio H S	4,377	2.7	18	693	15.8	23	165	23.8	26	134	19.3	3
Southside H S	2,748	1.7	30	538	19.6	31	118	21.9	32	129	24.0	10
Southwest H S	6,097	3.8	3	781	12.8	20	191	24.5	23	165	21.1	1
St Philip's College Early College ^C	53	0.0	58	12	22.6	58	1	8.3	58	2	16.7	55
Stevens H S	5,248	3.2	10	794	15.1	19	303	38.2	14	124	15.6	11
Tom Clark H S	5,100	3.2	12	1,449	28.4	5	645	44.5	3	72	5.0	32
Travis Early College H S ^C	538	0.3	43	174	32.3	41	75	43.1	38	5	2.9	49
Virginia Allred Stacey Jr/Sr H S	203	0.1	51	39	19.2	49	15	38.5	49	4	10.3	51
Warren H S	5,612	3.5	7	1,116	19.9	11	461	41.3	7	134	12.0	4
William H Taft H S	5,162	3.2	11	1,142	22.1	8	429	37.6	11	130	11.4	6
Young Women's Leadership Academy ^C	164	0.1	53	81	49.4	46	27	33.3	47	1	1.2	56
	161,727	100		35,369			11,733			4,055		

Note: Open-enrollment charter schools, magnet schools established as stand-alone schools, and in-district charter schools are identified as choice schools and denoted with a superscript C. UTSA Eligible represents students who graduated in the top 25% of their graduating class or earned a 1100 on their SAT or equivalent ACT. UTSA Enrolled figures represent enrollment in UTSA in year five. Undermatched represents UTSA Eligible who enrolled in a two-year college and not a four-year college.

APPENDIX 2:

METHODOLOGY USED FOR OBJECTIVE 2

To estimate the likelihood of enrolling in UTSA, a logistic regression analysis was used to estimate the probability of UTSA enrollment as a function of prior postsecondary events as described in Equation 1:

$$\begin{aligned}
 Prob(UTSA_{i,t}|x_{i,t-k}) = & \beta_0 + \sum_{k=1}^{n=t-5} \beta_1(UTSA_{i,t-k}) + \beta_2(Other4YR_{i,t-k}) + \\
 & \beta_3(CC_{i,t-k}) + \beta_4(EMPLOYED_{i,t-k}) + \beta_5(NEET_{i,t-k}) + \beta_6(COHORT_i), \quad (1)
 \end{aligned}$$

where t equals 6, 7, or 8 and represents the number of years after first entering high school. In Equation 1, UTSA represents enrollment in UTSA. Other4YR indicates enrollment in a four-year college other than UTSA. CC represents two-year college enrollment and no four-year college enrollment. EMPLOYED stands for employed and not enrolled in any college. NEET identifies students who are not employed nor enrolled in college. Consequently, three logistic regression models were estimated for UTSA enrollment for years 6, 7, and 8, respectively, each as a function of postsecondary events that took place between high school and the year of the dependent variable of interest.

This study also modeled the pathways into the other postsecondary events: enrollment in a four-year college other than UTSA, two-year college enrollment, employment only, and NEET. The full system of equations is represented by Equation 2 below, which is a generalization of Equation 1:

$$\begin{aligned} \text{Prob}(PS_OUTCOME_{i,t} | x_{i,t-k}) = & \beta_0 + \sum_{k=1}^{n=t-5} \beta_1(UTSA_{i,t-k}) + \beta_2(Other4YR_{i,t-k}) + \\ & \beta_3(CC_{i,t-k}) + \beta_4(EMPLOYED_{i,t-k}) + \beta_5(NEET_{i,t-k}) + \beta_6(COHORT_i), \end{aligned} \quad (2)$$

where PS_OUTCOME is a place holder for one of five postsecondary outcomes of interest.

This study's multiperiod, competing-event model is defined by five possible postsecondary events per year that can occur each year for four years. Consequently, there are five major pathways of pathways that diverge into 156 possible unique pathways into UTSA during the first four years following high school.

A single-figure design (See Figures 23 to 31) was used to collect and illustrate the results of the system of logistic equations detailed in Equation 2. The presentation of results begins with the largest pathways into UTSA, followed by pathways that divert to a two-year college and then make their way to UTSA enrollment.

APPENDIX 3:

TREND ANALYSIS OF POSTSECONDARY ENROLLMENT

The share of high school students enrolling in four-year colleges in the year following high school has steadily increased in Bexar County. The share of students enrolling in a four-year college was approximately 18% percent for the 9th-grade cohort that entered high school in 1999 and whose first year out of high school was 2003. In 2019, this figure grew to 22.5 percent just before the COVID-19 Pandemic— a growth rate of 44% — for the 9th-graders of 2015. Likely due to the pandemic, four-year college enrollment rates dropped to approximately 21%.

In contrast, the enrollment trend for two-year colleges has been relatively flat. In 2003, two-year college enrollment equaled 23.7%. Nineteen years later, two-year college enrollment was nearly identical, 23.4%. In the years leading up to 2010, two-year college enrollment rose, peaking at 29%, but then steadily declined.

The primary postsecondary outcome taken by Bexar County high school student remained constant across the last 19 years—no college enrollment. The share of students not pursuing any postsecondary education has mirrored community college enrollment. The no-college group first declined in size, reaching a low point in the 2010 and then began to grow. While the trend since the cohort of 2006 has pointed up; the overall pattern has been slightly negative with a decline by 3 percentage points from 2003 to 2021.

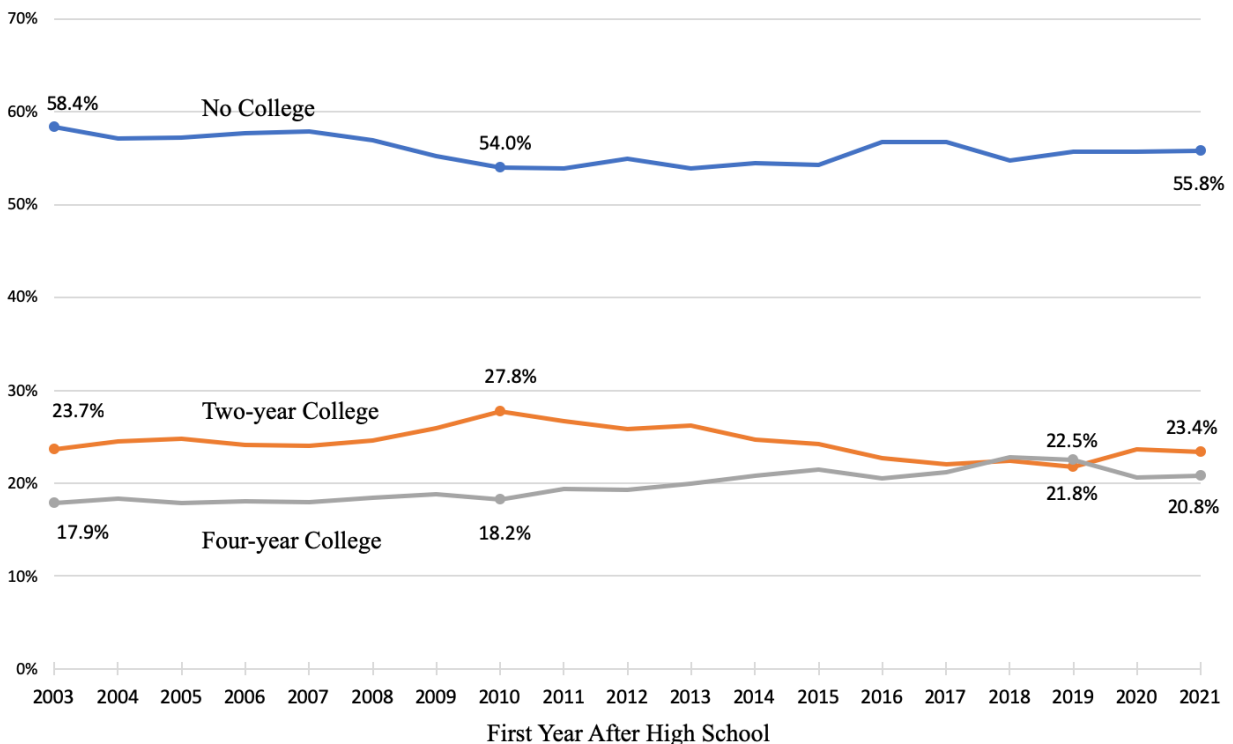


Two factors were likely driving these trends: an improving economy (prior to COVID-19) and improvements in preparing more public high school students for college. Our economic recovery from the 2008 recession began in 2010. Young people who are on the fence about college and are weighing the net benefits of college versus employment are more likely to choose employment during a rise in the economy because jobs are more accessible. The opposite is true in times of recession. Consequently, what may partially explain the decline in community college enrollment following the 2008 recession and the increase in the no-college group is an improving economic. But this dynamic can only explain those students on the margin of deciding to pursue college.

The number of students who were actively preparing for college while in high school steadily grew from 1999 to 2017. As part of a larger set of college-prep initiatives, local high schools expanded access to early-college coursework (Advanced Placement, International Baccalaureate, and dual-credit courses). Twenty percent of students who entered high school in 1999 earned at least one early-college course credit. Nineteen years later, this figure grew to nearly 50%. Our local public high schools more than doubled their share of students successfully completing early-college coursework, which has been found to increase a student's probability of choosing four-year college over two-year college and increasing degree completion rates. Consequently, as more students successfully complete early-college coursework, the share of students committed to pursuing a four-year degree grew.

Figure A1

Postsecondary Enrollment in First Year Following High School, Bexar County 9th-Grade Cohorts 1999-2017



Note: Estimates calculated using student-level Texas Education Agency and Texas Higher Education Coordinating Board data.

APPENDIX 4:

PATHWAY ANALYSIS OF ALL HIGH SCHOOL GRADUATES

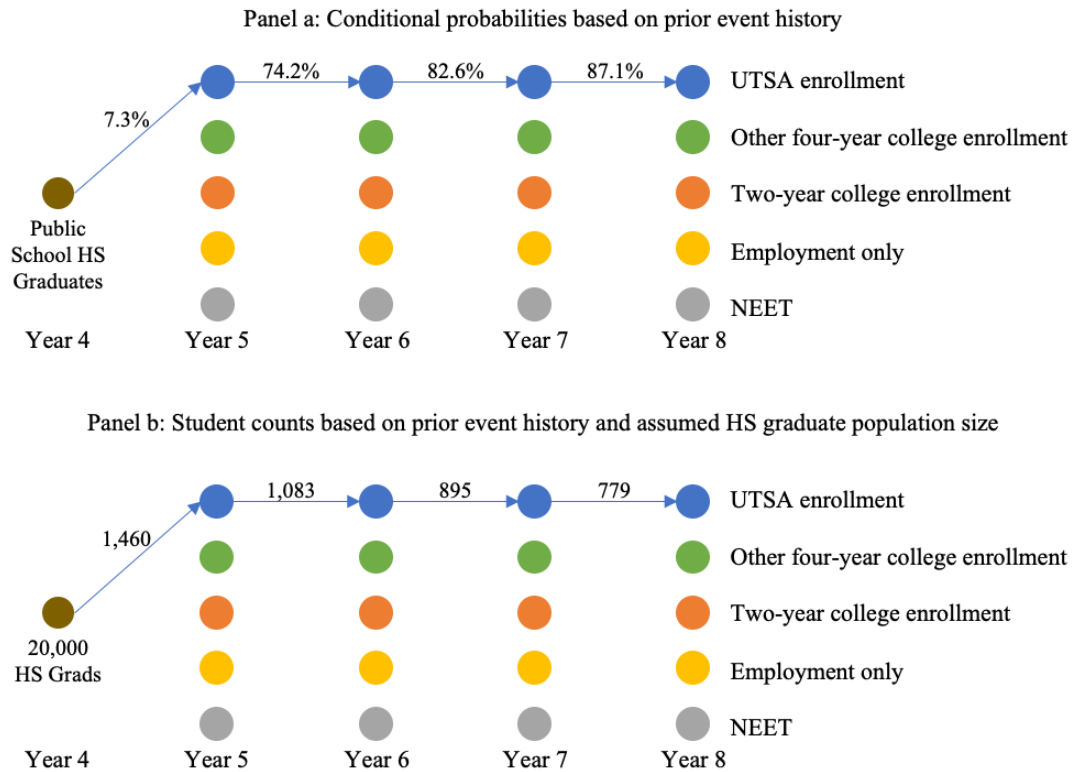
UTSA Pathway. The most common pathway into UTSA began in year 5 following high school graduation and continued to year 6 to year 8, as shown in Figure A2. On average, 7.3% of high school graduates enrolled in UTSA in year 5, as displayed in Panel A. The probability a student re-enrolled in UTSA in year 6, 7, and 8 equaled 74.2%, 82.6%, and 87.1%, respectively.

Each of the probabilities stated above describe persistence conditioned on UTSA enrollment in the prior year. For example, 87.1% represents the share of UTSA students who persisted to year 8 after making it to year 7. Throughout the following analysis, the probabilities that are given to describe transitions to a year-6, -7, or -8 event are conditioned on making it to an even in the prior year.

Panel B translates the probabilities of Panel A into expected student counts. This model assumed there were 20,000 students graduating from public high schools of Bexar County, a figure approximating the expected local graduating class of 2020. Based on this assumption, 1,460 graduated from Bexar County public high schools and enrolled in UTSA in year 5, their first year following high school. Of this group, 1,083 persisted to year 6; 895 continued to year 7; and 779 made it to year 8 at UTSA. In summary, the UTSA pathway produced a cumulative annual enrollment at UTSA across four years equal to 4,217.

Figure A2

UTSA Enrollment Pathways of Students who Started at UTSA Following High School



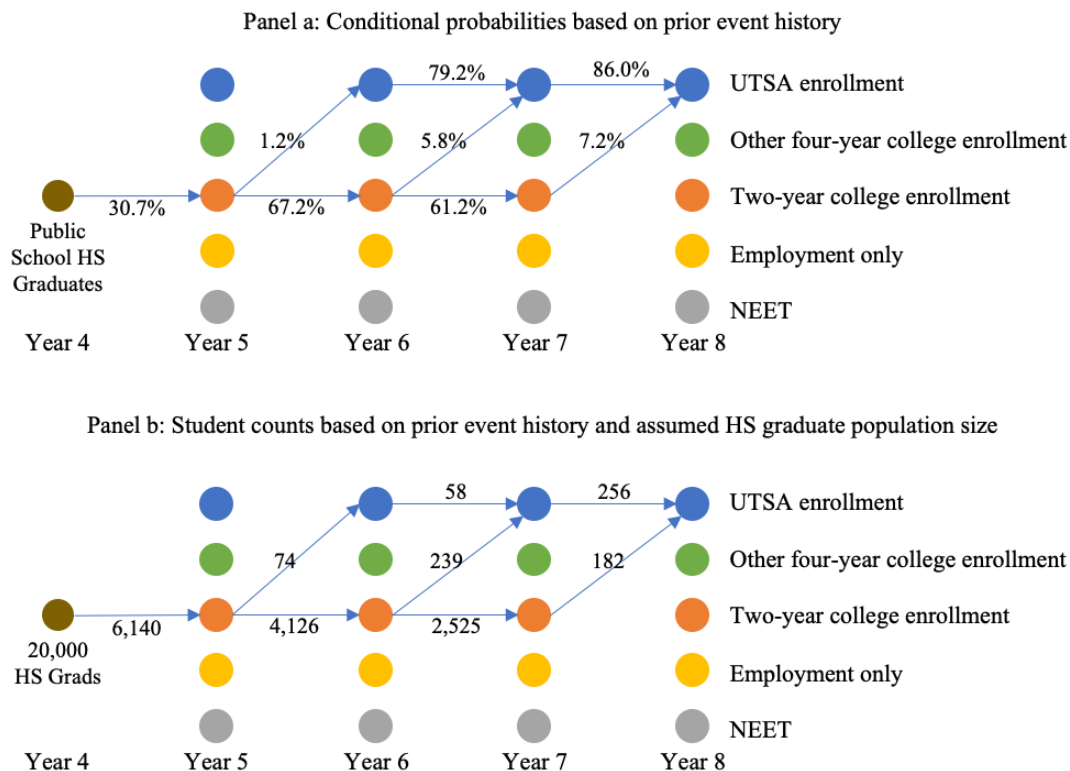
Note: Probabilities represent predictive probabilities based on complete array of prior event histories. The HS graduate population is set equal to the size of the graduate population of the most recent graduating class, HS-entry cohort of 2015

Two-Year College Pathway. The second most common pathway into UTSA began with students enrolling in a two-year college, as shown in Figure A3. On average, 30.7% of high school graduates spent their year five enrolled in a two-year college, as shown in Panel A. After this year, 1.2% of these students transferred to UTSA in year 6 while 67.2% persisted for a second year at a two-year college. Of those who persisted to year 6, 5.8% transferred to UTSA in year 7 while 61.2% persisted for a third year enrolled in a two-year college. Of those who persisted to year 7, 7.2% transferred to UTSA in year 8.

Once again, Panel B translates the probabilities of Panel A into expected student counts. Based on the assumption of 20,000 high school graduates in a given year, 6,140 graduated from Bexar County public high schools and enrolled in a two-year college in year 5. Of this group, 74 transferred to UTSA and 4,126 continued their two-year college education in year 6. Of the 74 students who transferred to UTSA in year 6, 58 re-enrolled in UTSA in year 7. Of the 4,126 who continued their two-year college education in year 6, 239 transferred to UTSA in year 7 and 2,525 re-enrolled in a two-year college for a third year. Of the students who spent three years at a two-year college, 182 transferred to UTSA in year 8. In summary, the two-year college pathway produced a cumulative annual enrollment at UTSA across four years equal to 809.

Figure A3

UTSA Enrollment Pathway of Students who Started at a Community College Following High School



Note: Probabilities represent predictive probabilities based on complete array of prior event histories. The HS graduate population is set equal to the size of the graduate population of the most recent graduating class, HS-entry cohort of 2015

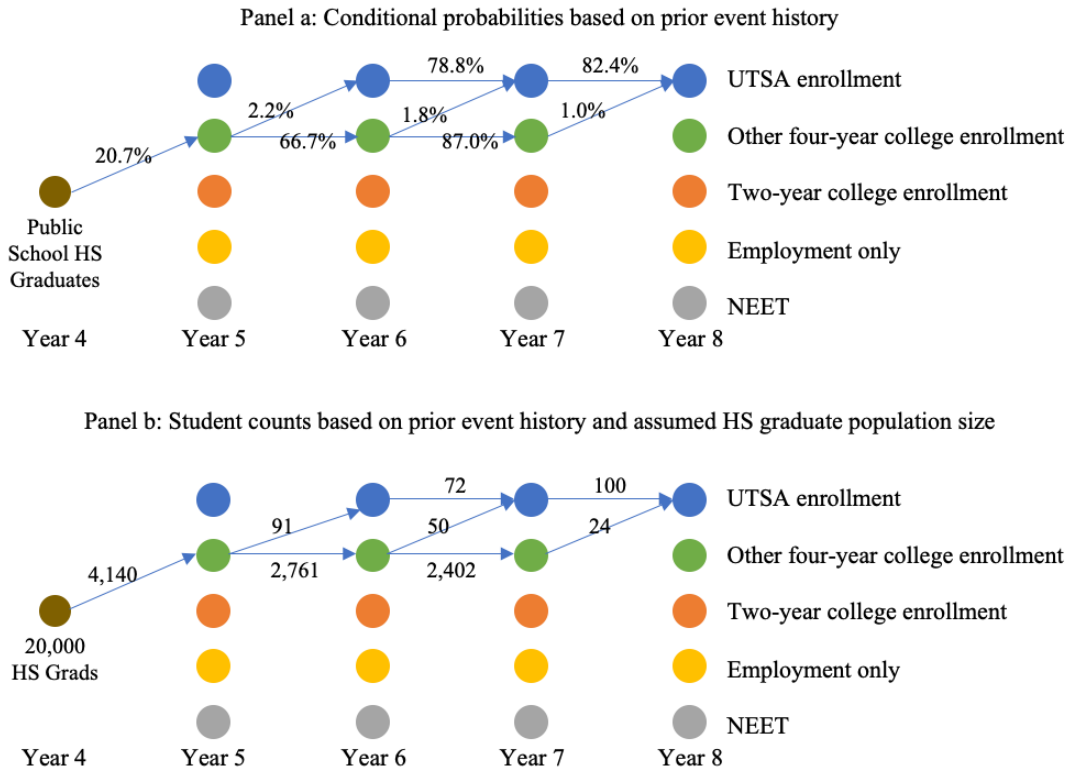
Other Four-Year College Pathway. The third most common pathway into UTSA began with students enrolling in a four-year college other than UTSA, as shown in Figure A4. Once again, there are three pathways after starting at a non-UTSA four-year college which students followed into UTSA. A fraction of these high school graduates transferred to UTSA after one to three years of college at another four-year college.

On average, 20.7% of high school graduates spent year five enrolled in a four-year college other than UTSA, as shown in Panel A of Figure A4. After this year, 2.2% of these students transferred to UTSA in year 6; while 66.7% persisted for a second year at another four-year college. Of those who persisted to year 6, 1.8% transferred to UTSA in year 7; while 87.0% persisted for a third year at another four-year college. Of those who persisted to year 7 at a non-UTSA four-year college, 1.0% transferred to UTSA in year 8.

As shown in Panel B, 4,140 local graduates enrolled in a four-year college other than UTSA in year 5. Of this group, 91 transferred to UTSA and 2,761 continued their four-year college education in year 6. Of the 91 students who transferred to UTSA in year 6, 72 re-enrolled in UTSA in year 7. Of the 2,761 who continued their four-year college education not at UTSA, 50 transferred to UTSA in year 7 and 2,402 re-enrolled in a four-year college other than UTSA for a third year. Of the students who spent three years at another four-year college, 24 transferred to UTSA in year 8. In summary, the other-four-year-college pathway produced a cumulative annual enrollment at UTSA across four years equal to 337.

Figure A4

UTSA Enrollment Pathway of Students who Started at a Four-Year College Other Than UTSA after High School



Note: Probabilities represent predictive probabilities based on complete array of prior event histories. The HS graduate population is set equal to the size of the graduate population of the most recent graduating class, HS-entry cohort of 2015

Employment-Only Pathway. The fourth most common pathway into UTSA began with students spending their first year out of high school in employment, as shown in Figure A5. A fraction of these high school graduates persisted in employment for one, two, or three years before enrolling in UTSA.

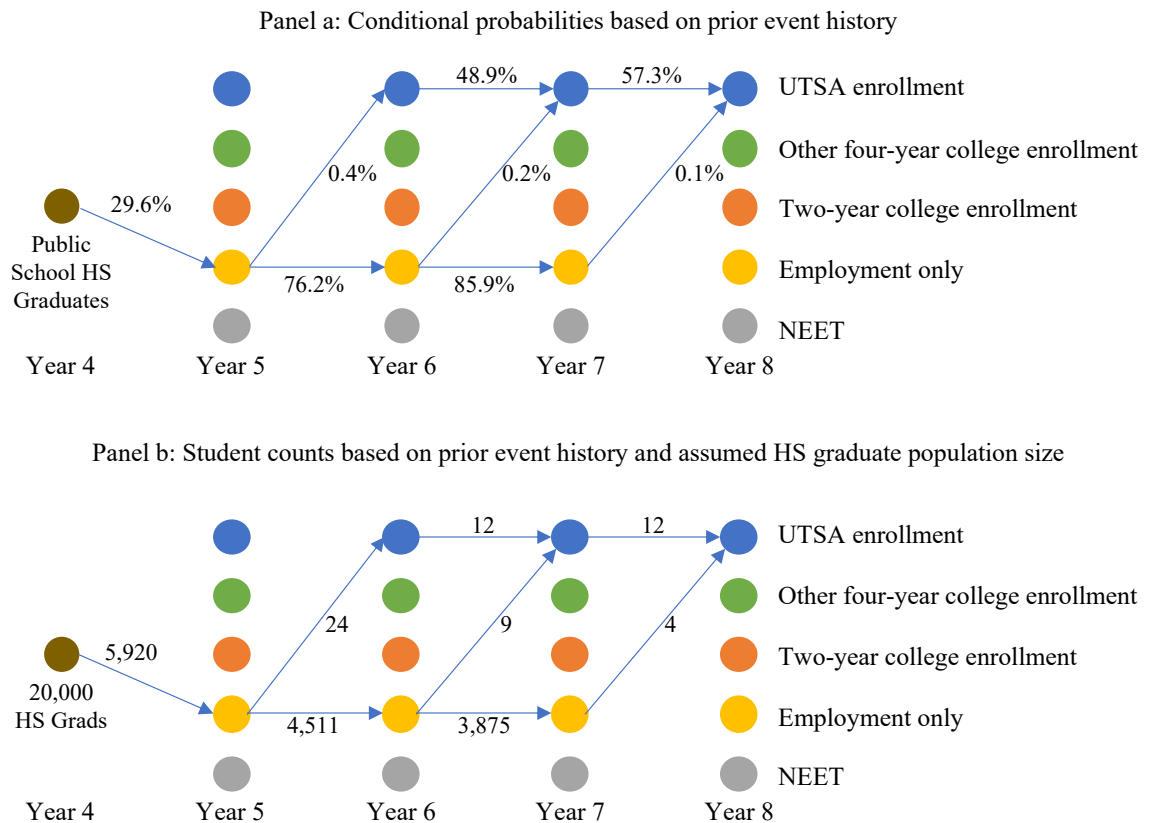
On average, 29.6% of high school graduates spent their first year following high school employed and not enrolled in a two- or four-year college, as shown in Panel A of Figure A5. After spending one year of employment only, 0.4% of these graduates enrolled in UTSA in year 6 while 76.2% continued their employment for a second year. Of those who continue working in year 6, 0.2% enrolled in UTSA in year 7 while

85.9% persisted in their employment with no college enrollment. Of those who continued their employment into year 7, 0.1% enrolled in UTSA in year 8.

As shown in Panel B of Figure A5, 5,920 local high school graduates spent their first year out of high school in employment. Of this group, 24 enrolled in UTSA in year 6 and 4,511 continued working. Of the 24 high school graduates who enrolled in UTSA in year 6, 12 re-enrolled in UTSA in year 7. Of the 4,511 who continued working, 9 enrolled in UTSA in year 7 and 3,875 continued working for a third year. Of the students who spent three years in employment, 4 enrolled in UTSA in year 8. In summary, the employment-only pathway produced a cumulative annual enrollment at UTSA across four years equal to 61.

Figure A5

UTSA Enrollment Pathways of Students who Worked & Did Not Enroll in College After High School



Note: Probabilities represent predictive probabilities based on complete array of prior event histories. The HS graduate population is set equal to the size of the graduate population of the most recent graduating class, HS-entry cohort of 2015

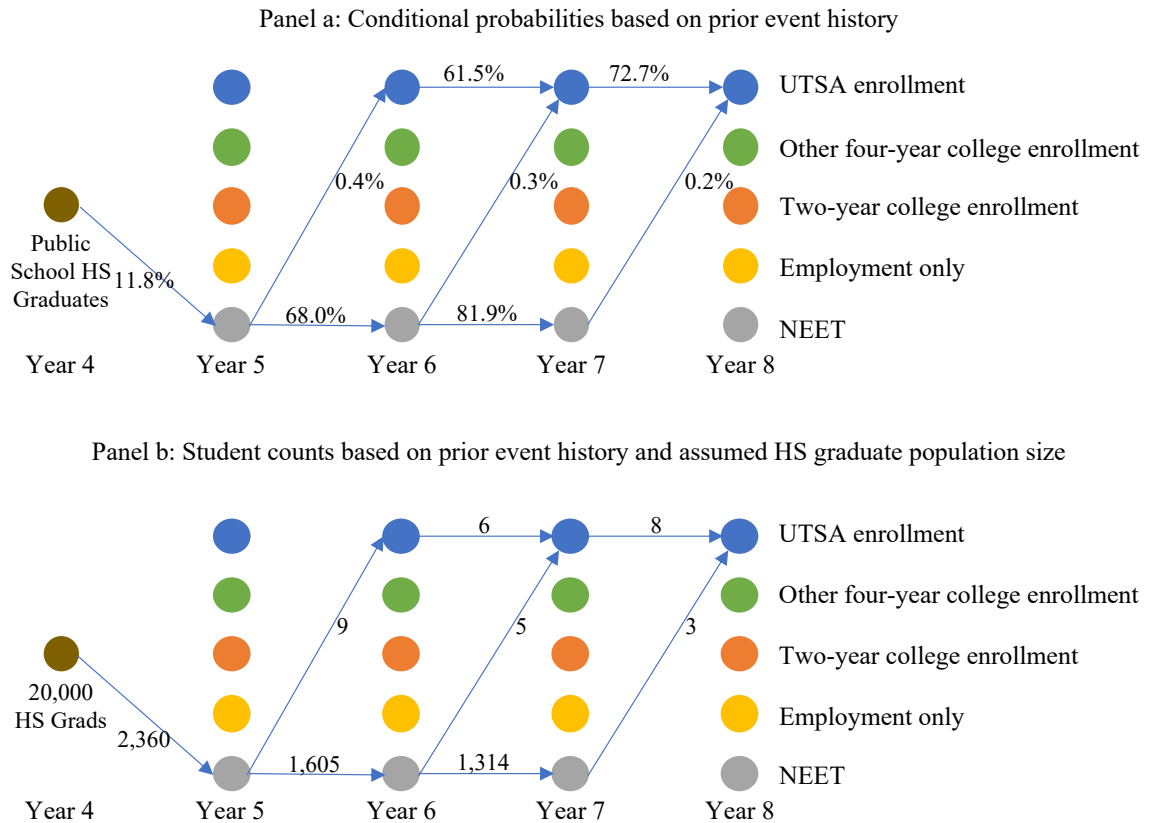
NEET Pathway. The fifth and final primary pathway into UTSA started with students spending their first year out of high school not employed nor enrolled in two- or four-year college (NEET), as shown in Figure A6. A fraction of these high school graduates persisted in NEET for one to three years before enrolling in UTSA.

On average, 11.8% of high school graduates spent year five in NEET, as shown in Panel A of Figure A6. After spending one year in NEET, 0.4% of these high school graduates enrolled in UTSA in year 6 while 68.0% continued in NEET for a second year. Of those who continued in NEET in year 6, 0.3% enrolled in UTSA in year 7 while 81.9% persisted in NEET for a third year. Of those who continued in NEET into year 7, 0.1% enrolled in UTSA in year 8.

As shown in Panel B of Figure A6, 2,360 high school graduates spent their first year out of high school in NEET. Of this group, 9 enrolled in UTSA in year 6 and 1,605 continued in NEET. Of the 9 high school graduates who enrolled in UTSA in year 6, 6 re-enrolled in UTSA in year 7. Of the 1,605 who continued in NEET in year 6, 5 enrolled in UTSA in year 7 and 1,314 continued in NEET for a third year. Of the high school graduates who spent three years in NEET, 3 enrolled in UTSA in year 8. In summary, the NEET pathway produced a cumulative annual enrollment at UTSA across four years equal to 30.

Figure A6

UTSA Enrollment Pathways of Students who Experienced NEET Following High School



Note: Probabilities represent predictive probabilities based on complete array of prior event histories. The HS graduate population is set equal to the size of the graduate population of the most recent graduating class, HS-entry cohort of 2015

Two-year colleges were found to serve as a bridge connecting other postsecondary events to UTSA enrollment. As such, this study analyzed pathways that began with postsecondary events other than two-year college enrollment and then passed through two-year college enrollment before reaching enrollment in UTSA.

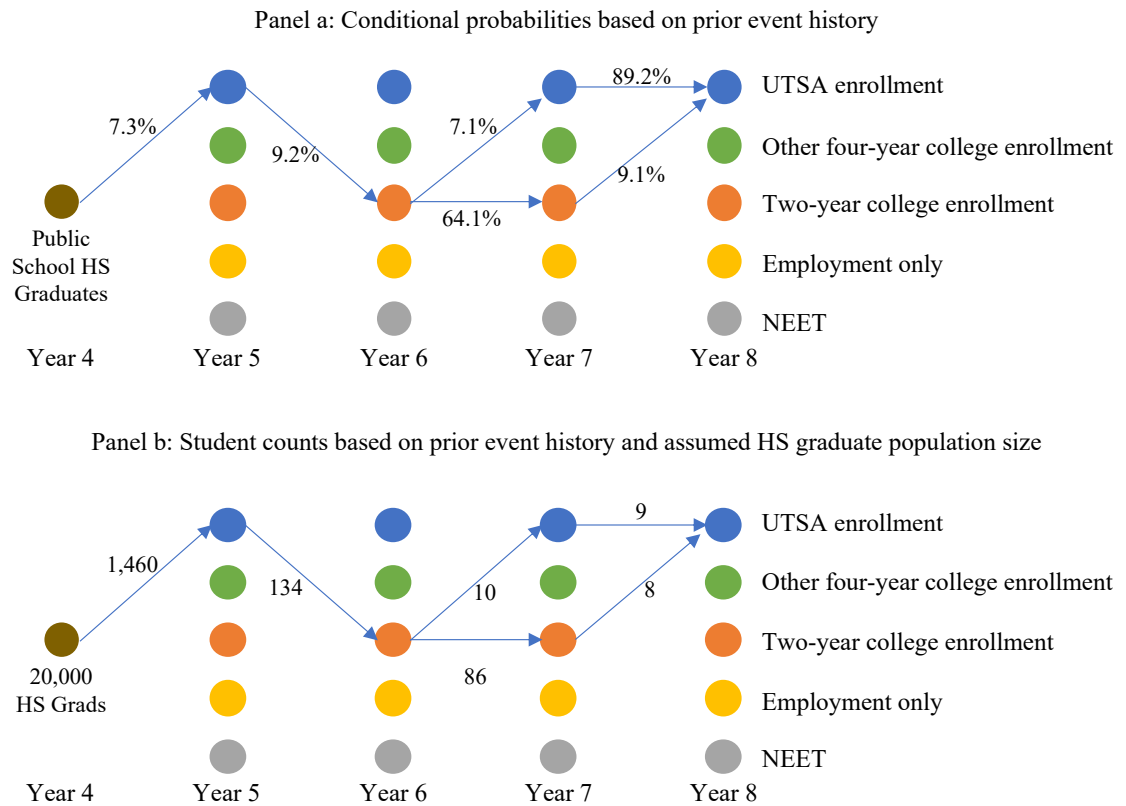


UTSA-Two-Year-College Pathway. As shown in Figure A7, 9.2% of high school graduates who enrolled in UTSA in year 5 transferred to a two-year college in year 6. Of the students who transferred from UTSA to a two-year college in year 6, 7.1% returned to UTSA in year 7 and 64.1% continued their two-year college education into year 7. Of the students who returned to UTSA in year 7, 89.2% re-enrolled in UTSA in year 8. Of the original UTSA students who transferred to a two-year college and stayed there for two years, 9.1% transferred back to UTSA.

As shown in Panel B of Figure A7, 134 out of 1,460 high school graduates who enrolled in UTSA in year 5 transferred to a two-year college in year 6. Of these students, 10 returned to UTSA in year 7 and 86 continued their two-year college enrollment into year 7. Of the 10 returning UTSA students, 9 re-enrolled in year 8. Of the original UTSA students who transferred to a two-year college and remained there for two years, 8 returned to UTSA in year 8. In summary, the UTSA-Two-Year-College pathway produced a cumulative annual enrollment at UTSA across four years equal to 27.

Figure A7

UTSA Enrollment Pathways of Students who Started at UTSA After High School But then Transferred to a Two-Year College



Note: Probabilities represent predictive probabilities based on complete array of prior event histories. The HS graduate population is set equal to the size of the graduate population of the most recent graduating class, HS-entry cohort of 2015

Other-Four-Year-College-Two-Year-College Pathway. As shown in Figure A8, 10.9% of high school graduates who enrolled in a four-year college other than UTSA in year 5 transferred to a two-year college in year 6. Of these students, 5.6% transferred to UTSA in year 7 and 56.5% continued their two-year college education into year 7. Of the students who transferred to UTSA in year 7, 86.5% re-enrolled in UTSA in year 8. Of the high school graduates who enrolled in a four-year college other than UTSA in year 5, 66.7% persisted in their four-year college education into year 6. Of these students, 4.1% transferred to a two-year college in year 7.

Of the students who first enrolled in a four-year college other than UTSA and then transferred to a two-year college in year 6 and persisted or who transferred to a two-year college in year 7, 6.4% transferred to UTSA in year 8.

As shown in Panel B of Figure A8, 451 out of 4,140 high school graduates who enrolled in a four-year college other than UTSA in year 5 transferred to a two-year college in year 6. Of these students, 25 transferred to UTSA in year 7 and 255 continued their two-year college enrollment into year 7.

Of the high school graduates who enrolled in a four-year college other than UTSA in year 5, 2,761 persisted in their four-year college education into year 6. Of these students, 113 transferred to a two-year college in year 7.

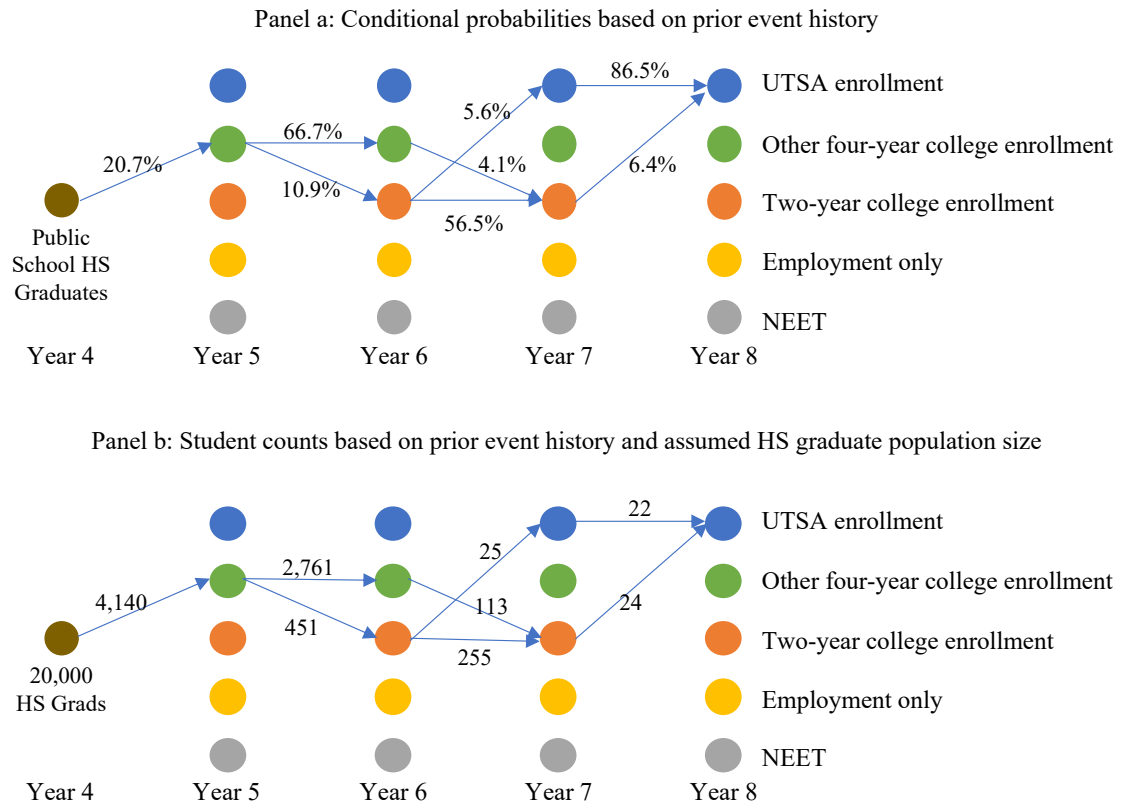
Of the 25 students who transferred to UTSA in year 7, 22 re-enrolled in year 8.

Of the students who first enrolled in a four-year college other than UTSA and then transferred to a two-year college in year 6 and persisted or who transferred to a two-year college in year 7, 24 transferred to UTSA in year 8.

In summary, the Other-Four-Year-College-Two-Year-College pathway produced a cumulative annual enrollment at UTSA across four years equal to 71.

Figure A8

UTSA Enrollment Pathway of Students who Started at a Four-Year College Other Than UTSA Following High School and then Transferred to a Two-Year College



Note: Probabilities represent predictive probabilities based on complete array of prior event histories. The HS graduate population is set equal to the size of the graduate population of the most recent graduating class, HS-entry cohort of 2015

Employment-Two-Year-College Pathway. As shown in Figure A9, 10.9% of high school graduates who spent year 5 only in employment transferred to a two-year college in year 6. Of these students, 1.5% transferred to UTSA in year 7 and 45.1% continued their two-year college education into year 7. Of the students who transferred to UTSA in year 7, 75.1% re-enrolled in UTSA in year 8.

Of the high school graduates who only worked in year 5, 76.2% persisted in employment only into year 6. Of these students, 6.0% transferred to a two-year college in year 7.

Of the students who were employed only and then transferred to a two-year college in year 6 and persisted or who transferred to a two-year college in year 7, 2.1% transferred to UTSA in year 8.

As shown in Panel B of Figure A9, 645 out of 5,920 high school graduates who were employed and not college enrolled in year 5 transferred to a two-year college in year 6. Of these students, 10 transferred to UTSA in year 7 and 291 continued their two-year college enrollment into year 7.

Of the high school graduates who were employed and not college enrolled in year 5, 4,511 continued to work and not enroll in college into year 6. Of these students, 271 transferred to a two-year college in year 7.

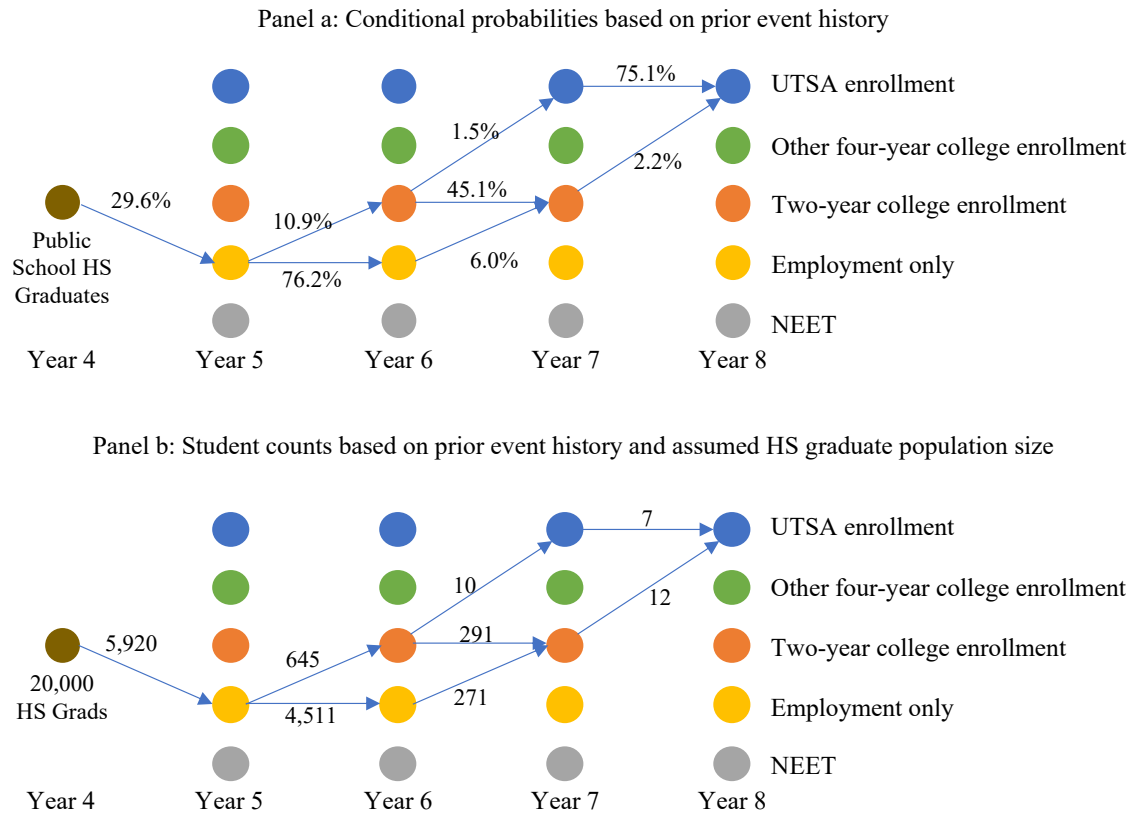
Of the 10 students who transferred to UTSA in year 7, 7 re-enrolled in year 8.

Of the students who were employed and not college enrolled and then transferred to a two-year college in year 6 and persisted or who transferred to a two-year college in year 7, 12 transferred to UTSA in year 8.

In summary, the Employed-Only-Two-Year-College pathway produced a cumulative annual enrollment at UTSA across four years equal to 29.

Figure A9

UTSA Enrollment Pathways of Students who Worked & Did Not Enroll in College Following High School, But Then Transferred to a Two-Year College



Note: Probabilities represent predictive probabilities based on complete array of prior event histories. The HS graduate population is set equal to the size of the graduate population of the most recent graduating class, HS-entry cohort of 2015

NEET-Two-Year-College Pathway. As shown in Figure A10, 6.6% of high school graduates who spent year 5 in NEET transferred to a two-year college in year 6. Of these students, 2.5% transferred to UTSA in year 7 and 45.1% continued their two-year college education into year 7. Of the students who transferred to UTSA in year 7, 82.0% re-enrolled in UTSA in year 8.

Of the high school graduates who were classified as NEET in year 5, 68.0% persisted in NEET into year 6. Of these students, 3.0% transferred to a two-year college in year 7.

Of the students who were identified as NEET and then transferred to a two-year college in year 6 and persisted or who transferred to a two-year college in year 7, 4.0% transferred to UTSA in year 8.

As shown in Panel B of Figure A10, 156 out of 2,360 high school graduates who categorized as NEET in year 5 transferred to a two-year college in year 6. Of these students, 4 transferred to UTSA in year 7 and 68 continued their two-year college enrollment into year 7.

Of the high school graduates who were identified as NEET in year 5, 1,605 continued in NEET into year 6. Of these students, 48 transferred to a two-year college in year 7.

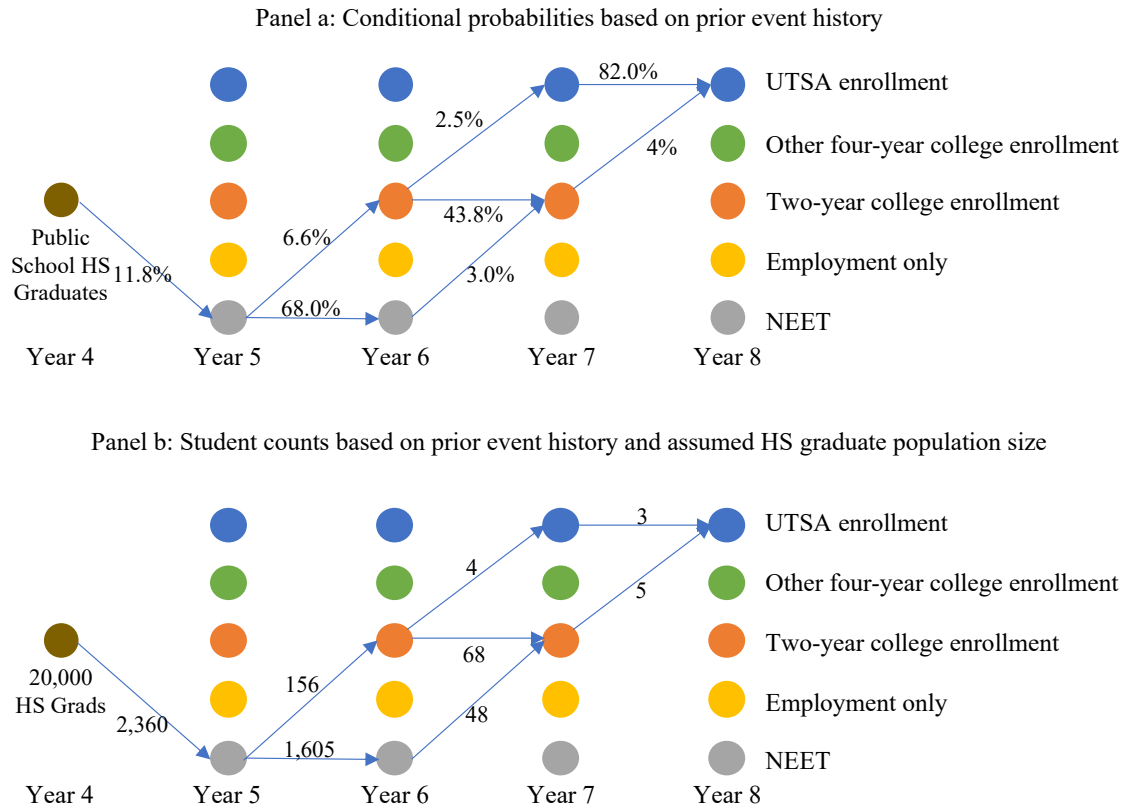
Of the 4 students who transferred to UTSA in year 7, 3 re-enrolled in year 8.

Of the students who were in NEET and then transferred to a two-year college in year 6 and persisted or who transferred to a two-year college in year 7, 5 transferred to UTSA in year 8.

In summary, the NEET-Two-Year-College pathway produced a cumulative annual enrollment at UTSA across four years equal to 12.

Figure A10

UTSA Enrollment Pathways of Students who Experience NEET Following High School



Note: Probabilities represent predictive probabilities based on complete array of prior event histories. The HS graduate population is set equal to the size of the graduate population of the most recent graduating class, HS-entry cohort of 2015

APPENDIX 5:

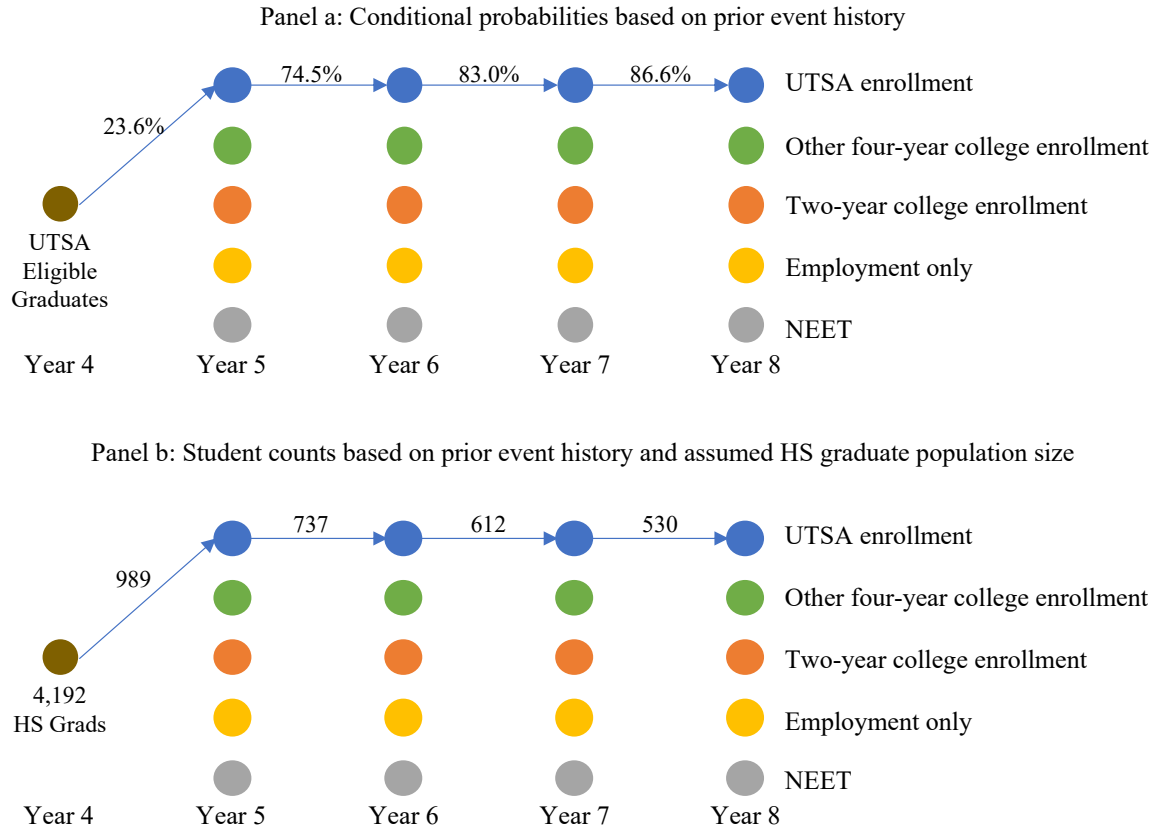
PATHWAY ANALYSIS OF UTSA ELIGIBLE

UTSA Pathway. For the UTSA Eligible, the most common pathway into UTSA began in year 5 following high school graduation and continued to year 6 to year 8, as shown in Figure A11. On average, 23.6% of UTSA Eligible enrolled in UTSA in year 5, as displayed in Panel A. The probability a student re-enrolled in UTSA in year 6, 7, and 8 equaled 74.5%, 83.0%, and 86.6%, respectively.

Panel B translates the probabilities of Panel A into expected student counts. As reported in Figure 6, the UTSA Eligible made up 21.9% of all high school graduates or 4,192 high school graduates, a figure approximating the expected graduating class of 2020. Based on this assumption, 989 graduated from Bexar County public high schools and enrolled in UTSA in year 5, their first year following high school. Of this group, 737 persisted to year 6; 612 continued to year 7; and 530 made it to year 8 at UTSA. In summary, the UTSA pathway produced a cumulative annual enrollment at UTSA across four years equal to 2,868.

Figure A11

UTSA Enrollment Pathways of UTSA Eligible Students who Started at UTSA Following High School



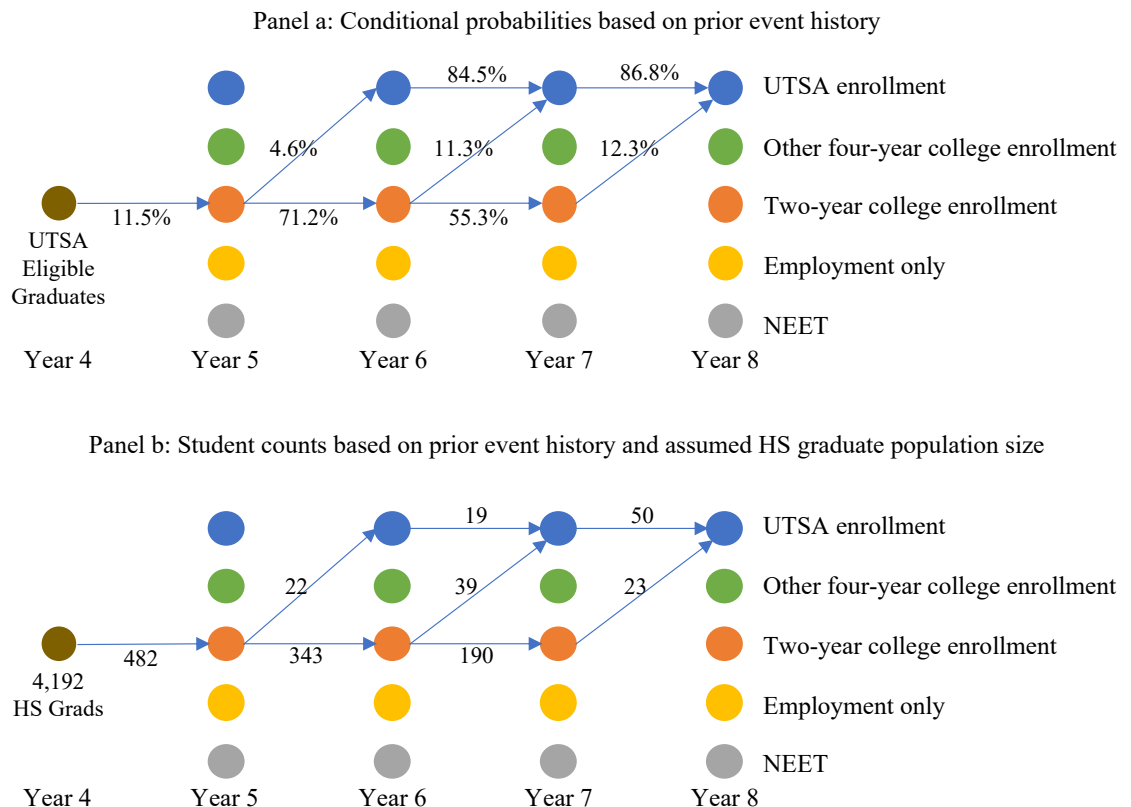
Note: Probabilities represent predictive probabilities based on complete array of prior event histories. The HS graduate population is set equal to the size of the graduate population of the most recent graduating class, HS-entry cohort of 2015

Two-Year College Pathway. A second pathway into UTSA for the UTSA Eligible began with students enrolling in a two-year college, as shown in Figure A12. On average, 11.5% of UTSA Eligible spent year five enrolled in a two-year college, as shown in Panel A. After this year, 4.6% of these students transferred to UTSA in year 6 while 71.2% persisted for a second year at a two-year college. Of those who persisted to year 6, 11.3% transferred to UTSA in year 7 while 55.3% persisted for a third year enrolled in a two-year college. Of those who persisted to year 7, 12.3% transferred to UTSA in year 8.

Once again, Panel B translates the probabilities of Panel A into expected student counts. Of the 20,000 total high school graduates in a given year, 4,192 are expected to be UTSA Eligible. Of the UTSA Eligible, 482 enrolled in a two-year college in year 5. Of this group, 22 transferred to UTSA and 343 continued their two-year college education in year 6. Of the 22 students who transferred to UTSA in year 6, 19 re-enrolled in UTSA in year 7. Of the 343 who continued their two-year college education in year 6, 39 transferred to UTSA in year 7 and 190 re-enrolled in a two-year college for a third year. Of the students who made it to UTSA in year 7, 50 persisted to year 8. Of the students who spent three years at a two-year college, 23 transferred to UTSA in year 8. In summary, the two-year college pathway produced a cumulative annual enrollment at UTSA across four years equal to 153.

Figure A12

UTSA Enrollment Pathway of UTSA Eligible who Started at a Community College Following High School



Note: Probabilities represent predictive probabilities based on complete array of prior event histories. The HS graduate population is set equal to the size of the graduate population of the most recent graduating class, HS-entry cohort of 2015

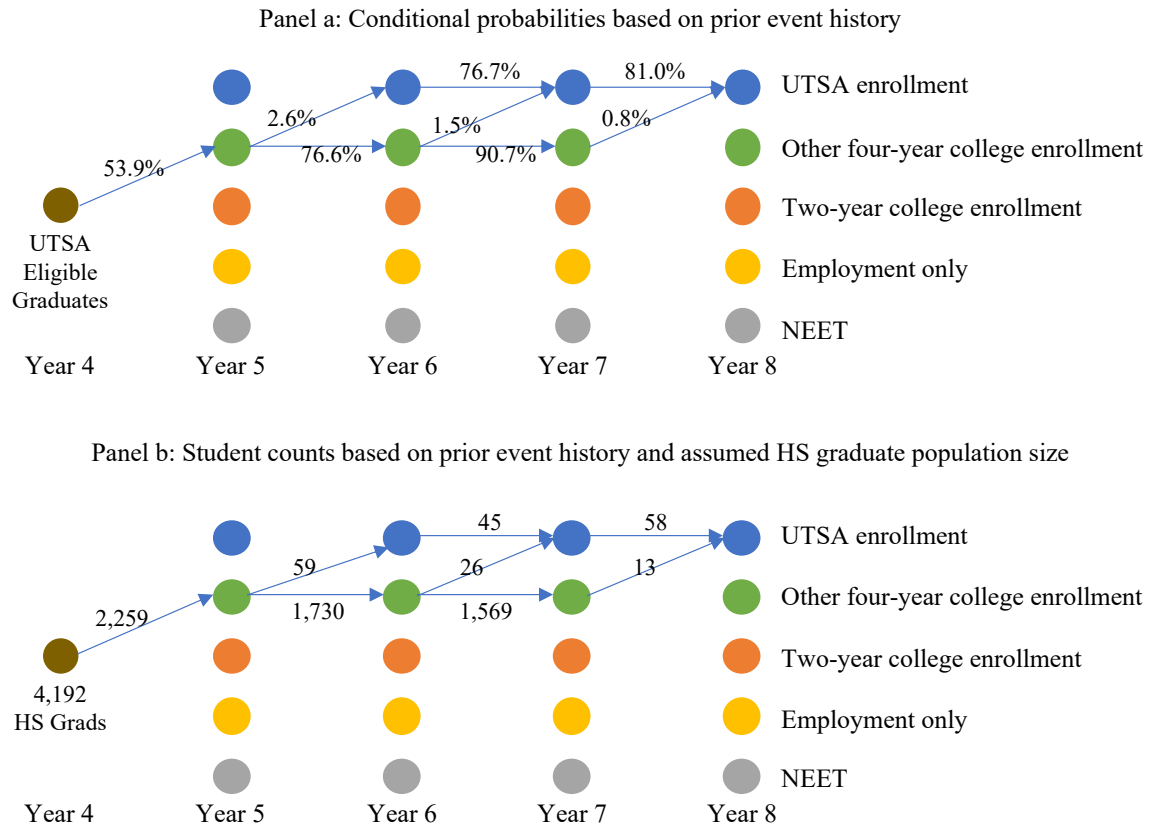
Other Four-Year College Pathway. A third pathway into UTSA began with UTSA Eligible students first enrolling in a four-year college other than UTSA, as shown in Figure A13. Once again, there are three pathways after starting at a non-UTSA four-year college which students followed into UTSA. A fraction of these high school graduates transferred to UTSA after one, two, or three years of college at another four-year college.

On average, 53.9% of high school graduates spent year five enrolled in a four-year college other than UTSA, as shown in Panel A of Figure A13. After this year, 2.6% of these students transferred to UTSA in year 6; while 76.6% persisted for a second year at another four-year college. Of those who persisted to year 6 at another four-year college, 1.5% transferred to UTSA in year 7; while 90.7% persisted for a third year. Of those who persisted to year 7 at a non-UTSA four-year college, 0.8% transferred to UTSA in year 8.

As shown in Panel B, 2,259 UTSA Eligible enrolled in a four-year college other than UTSA in year 5. Of this group, 59 transferred to UTSA and 1,730 continued their four-year college education in year 6 at another four-year college. Of the 59 students who transferred to UTSA in year 6, 45 re-enrolled in UTSA in year 7. Of the 1,730 who continued their four-year college education not at UTSA in year 6, 26 transferred to UTSA in year 7 and 1,569 re-enrolled in a four-year college other than UTSA for a third year. Of those who made it to UTSA in year 7, 58 re-enrolled in UTSA in year 8. Of the students who spent three years at another four-year college, 13 transferred to UTSA in year 8. In summary, the other-four-year-college pathway produced a cumulative annual enrollment at UTSA across four years equal to 201.

Figure A13

UTSA Enrollment Pathway of UTSA Eligible who Started at a Four-Year College Other Than UTSA Following High School



Note: Probabilities represent predictive probabilities based on complete array of prior event histories. The HS graduate population is set equal to the size of the graduate population of the most recent graduating class, HS-entry cohort of 2015

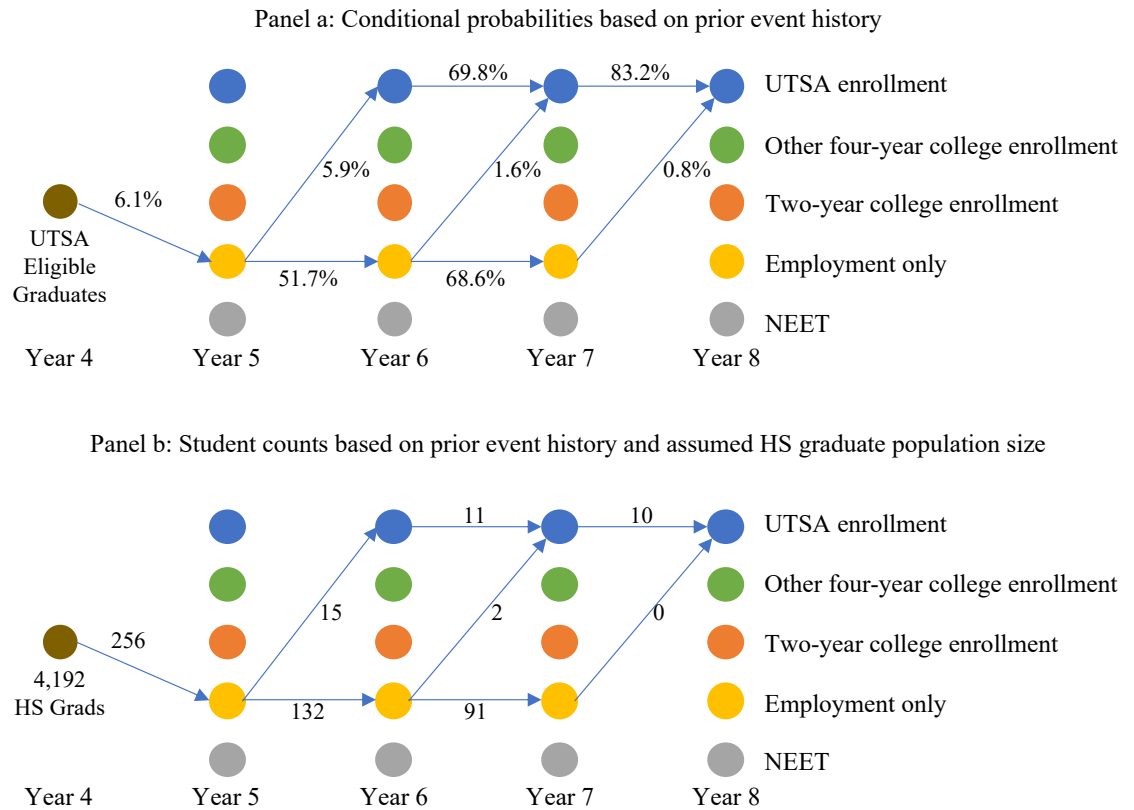
Employment-Only Pathway. A fourth pathway into UTSA began with UTSA Eligible students spending their first year out of high school in employment, as shown in Figure A14.

On average, 6.1% of the UTSA Eligible spent their first year following high school employed and not enrolled in a two- or four-year college, as shown in Panel A. After spending one year working, 5.9% of these graduates enrolled in UTSA in year 6 while 51.7% continued their employment for a second year. Of those who continue working in year 6, 1.6% enrolled in UTSA in year 7, while 68.6% persisted in their employment with no college enrollment. Of those who made it to UTSA by year 7, 83.2% persisted to year 8. Of those who continued their employment into year 7, 0% enrolled in UTSA in year 8.

As shown in Panel B of Figure A14, 256 high school graduates who were UTSA Eligible spent their first year out of high school in employment. Of this group, 15 enrolled in UTSA in year 6 and 132 continued working. Of the 15 who enrolled in UTSA in year 6, 11 re-enrolled in UTSA in year 7. Of the 132 who continued working in year 6, 2 enrolled in UTSA in year 7 and 91 continued working for a third year. Of the students who made it to UTSA in year 7, 10 persisted at UTSA in year 8. Of the students who spent three years in employment, (after rounding to the nearest whole number) 0 enrolled in UTSA in year 8. In summary, the employment-only pathway produced a cumulative annual enrollment at UTSA across four years equal to 38.

Figure A14

UTSA Enrollment Pathways of UTSA Eligible who Worked & Did Not Enroll in College Following High School



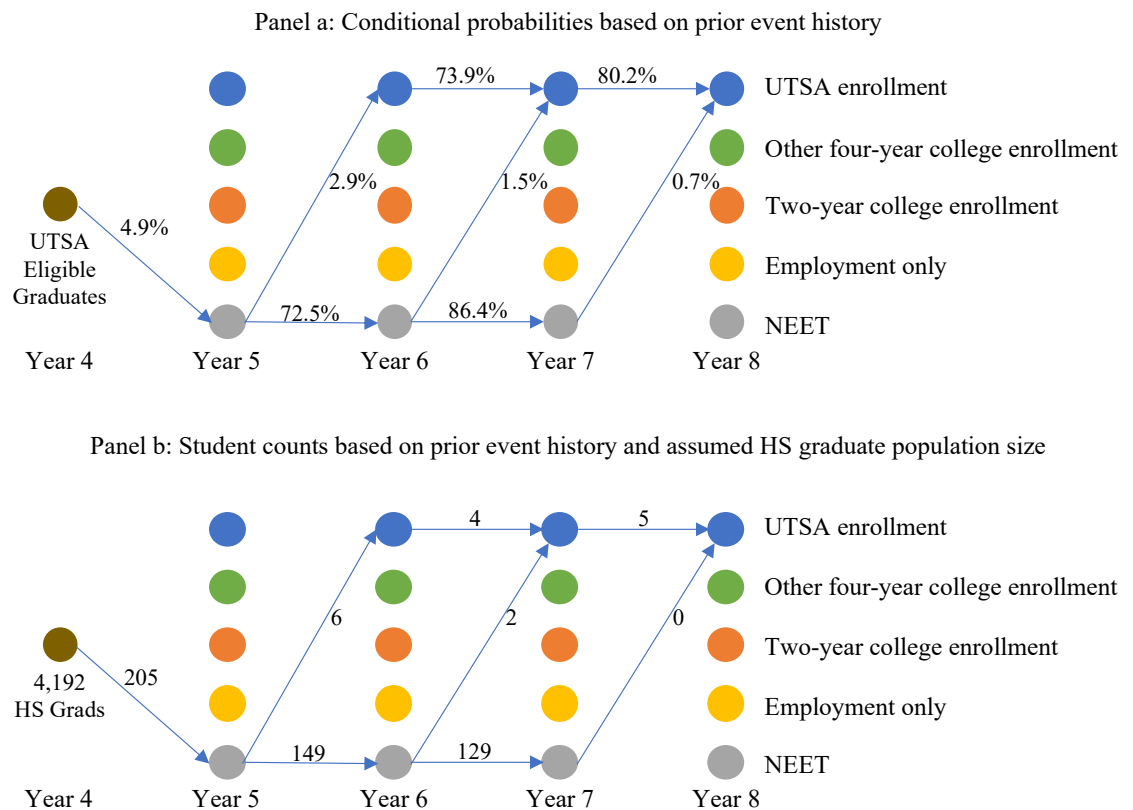
Note: Probabilities represent predictive probabilities based on complete array of prior event histories. The HS graduate population is set equal to the size of the graduate population of the most recent graduating class, HS-entry cohort of 2015

NEET Pathway. A fifth pathway into UTSA started with UTSA Eligible students spending their first year out of high school not employed nor enrolled in two- or four-year college (NEET), as shown in Figure A15. On average, 4.9% of these students spent year five in NEET, as shown in Panel A. After spending one year in NEET, 2.9% enrolled in UTSA in year 6 while 72.5% continued in NEET for a second year. Of those who continued in NEET in year 6, 1.5% enrolled in UTSA in year 7, while 80.2% persisted in NEET for a third year. Of those who made it to UTSA in year 7, 80.2% re-enrolled in year 8. Of those who continued in NEET into year 7, 0.7% enrolled in UTSA in year 8.

As shown in Panel B of Figure A15, 205 UTSA Eligible students spent their first year out of high school in NEET. Of this group, 6 enrolled in UTSA in year 6 and 149 continued in NEET. Of the 6 high school graduates who enrolled in UTSA in year 6, 4 re-enrolled in UTSA in year 7. Of the 149 who continued in NEET in year 6, 2 enrolled in UTSA in year 7 and 129 continued in NEET for a third year. Of those who made it to UTSA in year 7, 5 persisted to year 8. Of the high school graduates who spent three years in NEET, (after rounding to the nearest whole number) 0 enrolled in UTSA in year 8. In summary, the NEET pathway produced a cumulative annual enrollment at UTSA across four years equal to 17.

Figure A15

UTSA Enrollment Pathways of UTSA Eligible who Experienced NEET Following High School



Note: Probabilities represent predictive probabilities based on complete array of prior event histories. The HS graduate population is set equal to the size of the graduate population of the most recent graduating class, HS-entry cohort of 2015

Two-year colleges were found to serve as a bridge connecting other postsecondary events to UTSA enrollment. As such, this study analyzed pathways that began with postsecondary events other than two-year college enrollment and then passed through two-year college enrollment before reaching enrollment in UTSA.

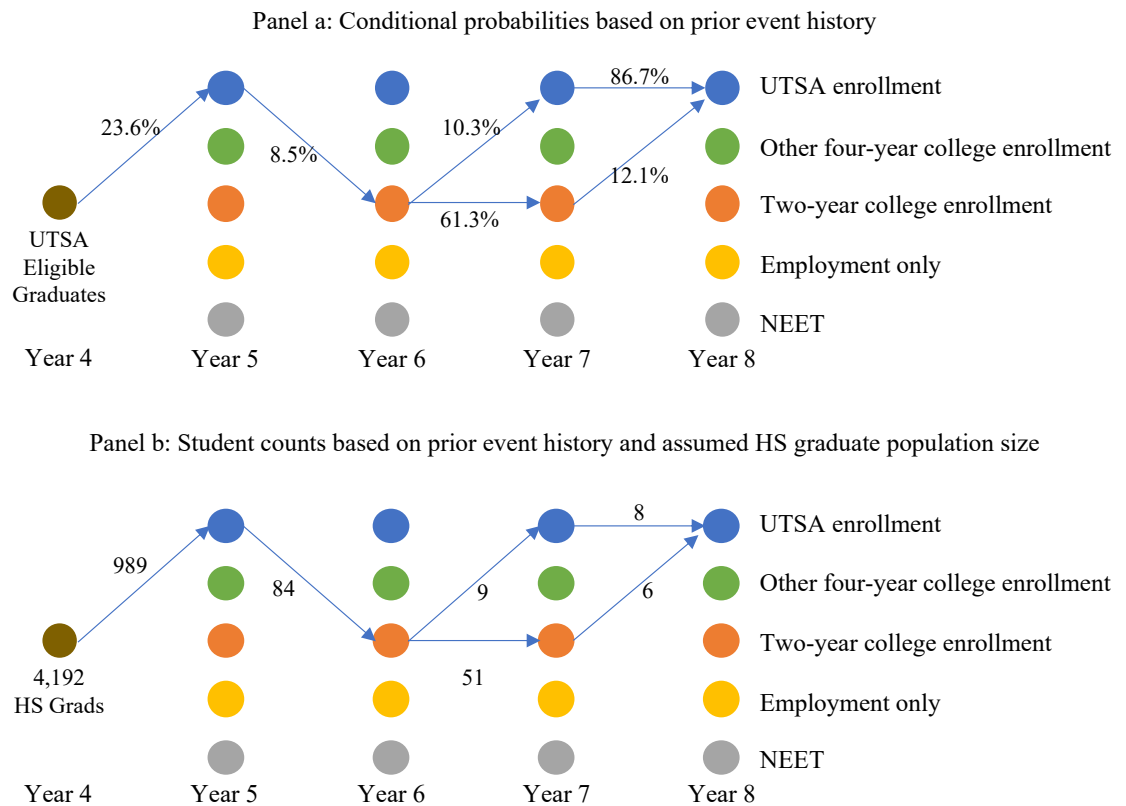
UTSA-Two-Year-College Pathway. As shown in Figure A16, 8.5% of the UTSA Eligible students who enrolled in UTSA in year 5 transferred to a two-year college in year 6. Of these students, 10.3% returned to UTSA in year 7 and 61.3% continued their two-year college education into year 7. Of the students who returned to UTSA in year 7, 86.7% re-enrolled in UTSA in year 8. Of the original UTSA Eligible students who

transferred to a two-year college and stayed there for two years, 12.1% transferred back to UTSA.

As shown in Panel B of Figure A16, 84 out of 989 UTSA Eligible students who enrolled in UTSA in year 5 transferred to a two-year college in year 6. Of these students, 9 returned to UTSA in year 7 and 51 continued their two-year college enrollment into year 7. Of the 9 returning UTSA students, 8 re-enrolled in year 8. Of the UTSA Eligible students who transferred to a two-year college and remained there for two years, 6 returned to UTSA in year 8. In summary, the UTSA-Two-Year-College pathway produced a cumulative annual enrollment at UTSA equal to 23.

Figure A16

UTSA Enrollment Pathways of UTSA Eligible who Started at UTSA Following High School But Then Transferred to a Two-Year College



Note: Probabilities represent predictive probabilities based on complete array of prior event histories. The HS graduate population is set equal to the size of the graduate population of the most recent graduating class, HS-entry cohort of 2015

Other-Four-Year-College-Two-Year-College Pathway. As shown in Figure A17, 7.9% of UTSA Eligible students who enrolled in a four-year college other than UTSA in year 5 transferred to a two-year college in year 6. Of these students, 7.1% transferred to UTSA in year 7 and 53.7% continued their two-year college education into year 7. Of the students who transferred to UTSA in year 7, 83.1% re-enrolled in UTSA in year 8.

Of the UTSA Eligible students who enrolled in a four-year college other than UTSA in year 5, 76.6% persisted in their four-year college education into year 6. Of these students, 2.9% transferred to a two-year college in year 7.

Of the UTSA Eligible who first enrolled in a four-year college other than UTSA and enrolled in a two-year college in year 7, 8.5% transferred to UTSA in year 8.

As shown in Panel B of Figure A17, 178 out of 2,259 UTSA Eligible students who enrolled in a four-year college other than UTSA in year 5 transferred to a two-year college in year 6. Of these students, 13 transferred to UTSA in year 7 and 96 continued their two-year college enrollment into year 7.

Of the UTSA Eligible students who enrolled in a four-year college other than UTSA in year 5, 1,731 persisted in their four-year college education into year 6. Of these students, 50 transferred to a two-year college in year 7.

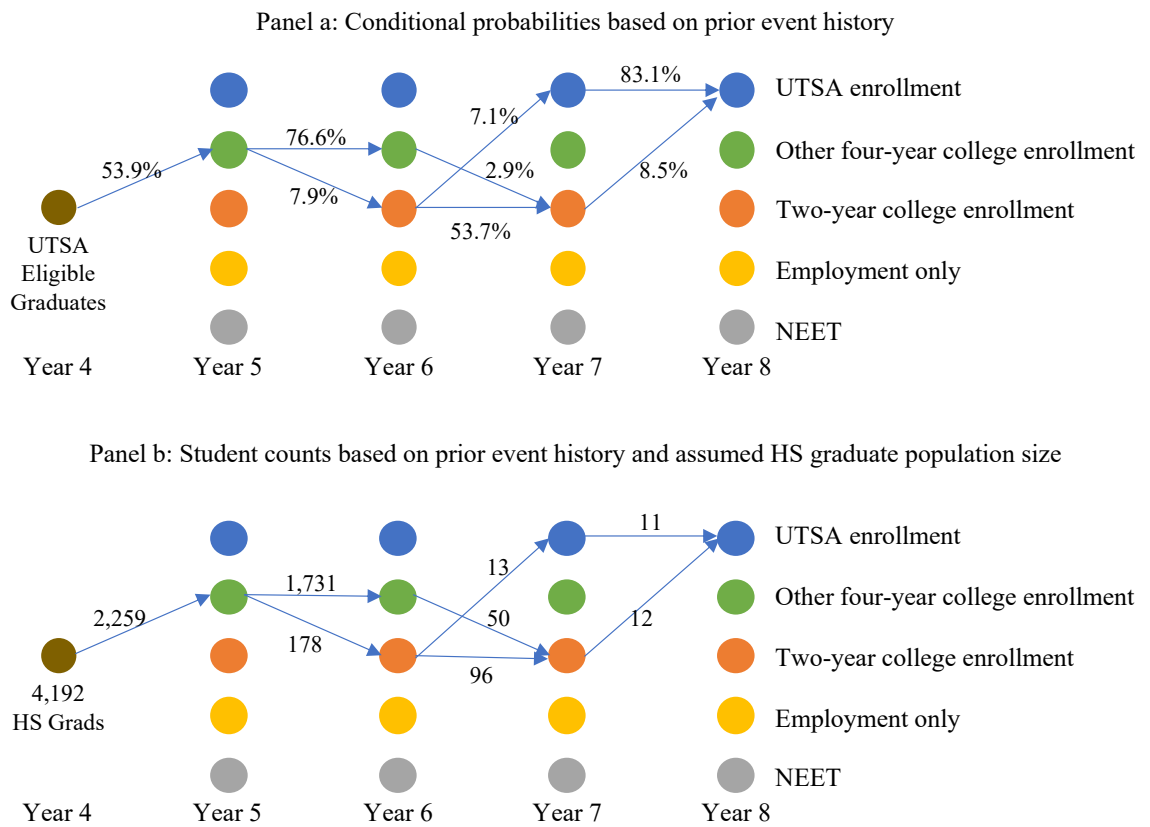
Of the 13 students who transferred to UTSA in year 7, 11 re-enrolled in year 8.

Of the students who first enrolled in a four-year college other than UTSA and then transferred to a two-year college in year 6 and persisted or who transferred to a two-year college in year 7, 12 transferred to UTSA in year 8.

In summary, the Other-Four-Year-College-Two-Year-College pathway produced a four-year cumulative enrollment at UTSA equal to 36.

Figure A17

UTSA Enrollment Pathway of UTSA Eligible who Started at a Four-Year College Other Than UTSA Following High School But Then Transferred to a Two-Year College



Note: Probabilities represent predictive probabilities based on complete array of prior event histories. The HS graduate population is set equal to the size of the graduate population of the most recent graduating class, HS-entry cohort of 2015

Employment-Two-Year-College Pathway. As shown in Figure A18, 12.3% of UTSA Eligible students who spent year 5 only in employment transferred to a two-year college in year 6. Of these students, 5.1% transferred to UTSA in year 7 and 47.2% continued their two-year college education into year 7.

Of the students who transferred to UTSA in year 7, 83.4% re-enrolled in UTSA in year 8.

Of the UTSA Eligible students who entered employment in year 5, 51.7% continued to work in year 6. Of these students, 9.1% transferred to a two-year college in year 7. Of the students who were employed only and then transferred to a two-year college in year 6 and persisted or who transferred to a two-year college in year 7, 9.6% transferred to UTSA in year 8.

As shown in Panel B of Figure A18, 31 out of 256 UTSA Eligible students who were employed and not college enrolled in year 5 transferred to a two-year college in year 6. Of these students, 2 transferred to UTSA in year 7 and 15 continued their two-year college enrollment into year 7.

Of the high school graduates who were employed and not college enrolled in year 5, 132 continued to work into year 6. Of these students, 12 transferred to a two-year college in year 7.

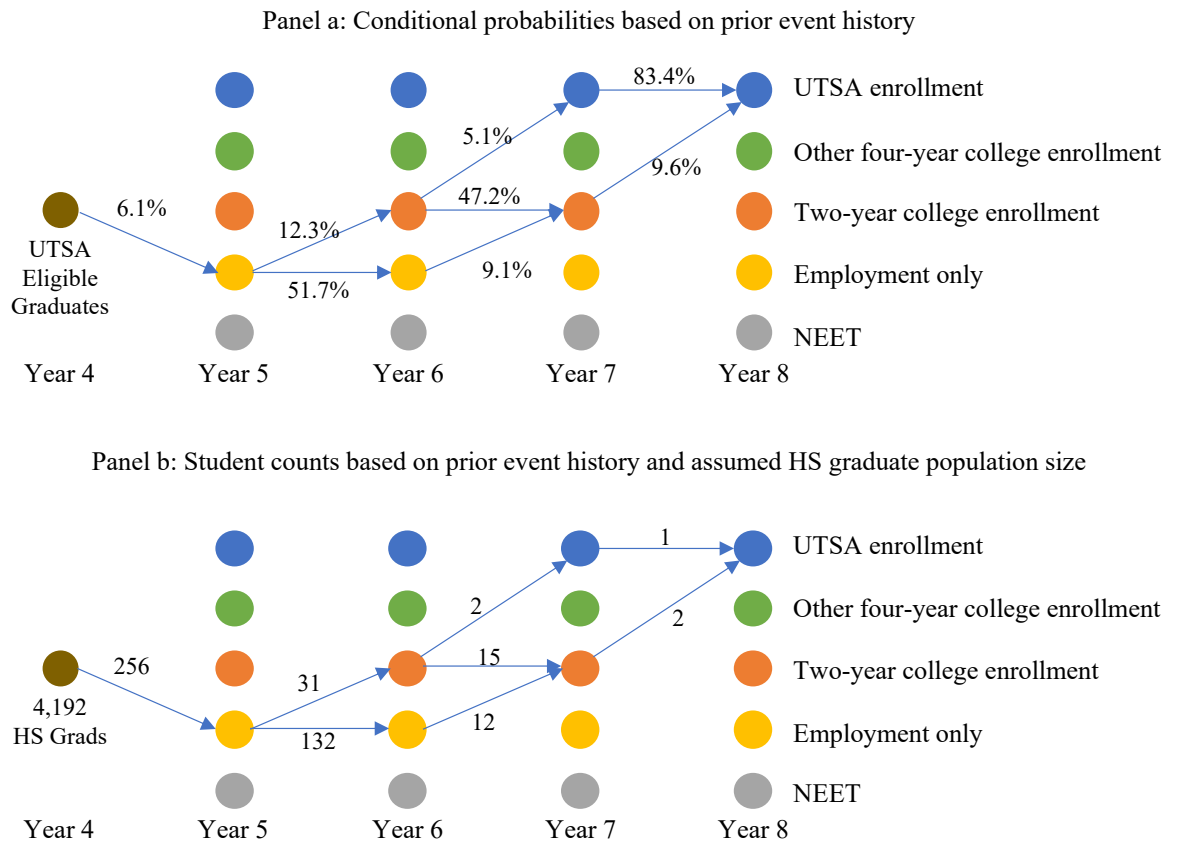
Of the 2 students who transferred to UTSA in year 7, 1 re-enrolled in year 8.

Of the UTSA Eligible students who were employed and not college enrolled and then transferred to a two-year college in year 6 and persisted or who transferred to a two-year college in year 7, 2 transferred to UTSA in year 8.

In summary, the Employed-Only-Two-Year-College pathway produced a cumulative annual enrollment at UTSA across four years equal to 5.

Figure A18

UTSA Enrollment Pathways of UTSA Eligible who Worked & Did Not Enroll in College Following High School But Then Transferred to a Two-Year College



Note: Probabilities represent predictive probabilities based on complete array of prior event histories. The HS graduate population is set equal to the size of the graduate population of the most recent graduating class, HS-entry cohort of 2015

NEET-Two-Year-College Pathway. As shown in Figure A19, 6.1% of UTSA Eligible graduates who spent year 5 in NEET transferred to a two-year college in year 6. Of these students, 6.2% transferred to UTSA in year 7 and 30.7% continued their two-year college education into year 7.

Of the students who transferred to UTSA in year 7, 84.6% re-enrolled in UTSA in year 8.

Of the UTSA Eligible graduates who were classified as NEET in year 5, 72.5% persisted in NEET into year 6. Of these students, 1.9% transferred to a two-year college in year 7.

Of the students who were identified as NEET and then transferred to a two-year college in year 6 and persisted or who transferred to a two-year college in year 7, 8.9% transferred to UTSA in year 8.

As shown in Panel B of Figure A19, 13 out of 149 UTSA Eligible graduates who were categorized as NEET in year 5 transferred to a two-year college in year 6. Of these students, 1 transferred to UTSA in year 7 and 4 continued their two-year college enrollment into year 7.

Of the high school graduates who were identified as NEET in year 5, 149 continued in NEET into year 6. Of these students, 3 transferred to a two-year college in year 7.

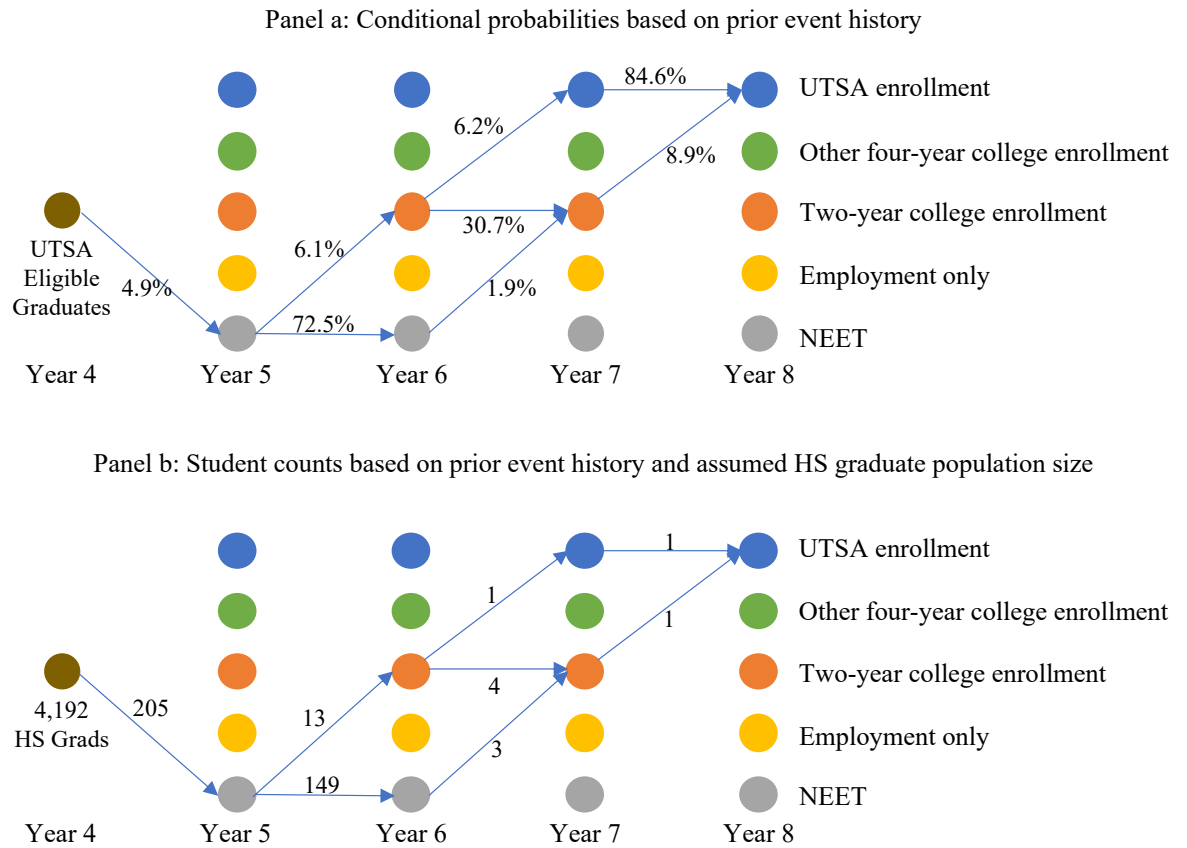
The 1 student who transferred to UTSA in year 7 re-enrolled in year 8.

Of the students who were in NEET and then transferred to a two-year college in year 6 and persisted or who transferred to a two-year college in year 7, 1 transferred to UTSA in year 8.

In summary, the NEET-Two-Year-College pathway produced a cumulative annual enrollment at UTSA across four years equal to 3.

Figure A19

UTSA Enrollment Pathways of UTSA Eligible who Experienced NEET Following High School But Then Transferred to a Two-Year College



Note: Probabilities represent predictive probabilities based on complete array of prior event histories. The HS graduate population is set equal to the size of the graduate population of the most recent graduating class, HS-entry cohort of 2015

COLLEGE READINESS, ENROLLMENT PROFILES, AND PATHWAYS

INTO THE UNIVERSITY OF TEXAS AT SAN ANTONIO:
A QUANTITATIVE ANALYSIS OF COLLEGE READINESS
AND ENROLLMENT PATTERNS IN BEXAR COUNTY

By Dr. Michael U. Villarreal

UTSA



URBAN
EDUCATION
INSTITUTE