

DEEP Partnership Workshop



Texas Success Center

CCRC COMMUNITY COLLEGE
RESEARCH CENTER

TEACHERS COLLEGE, COLUMBIA UNIVERSITY

June 2, 2023



**Texas Association of
Community Colleges**

Dedicated to social and economic mobility, we advocate for state policy and support community college reform strategies that will empower Texans to rise out of poverty and achieve better life outcomes.



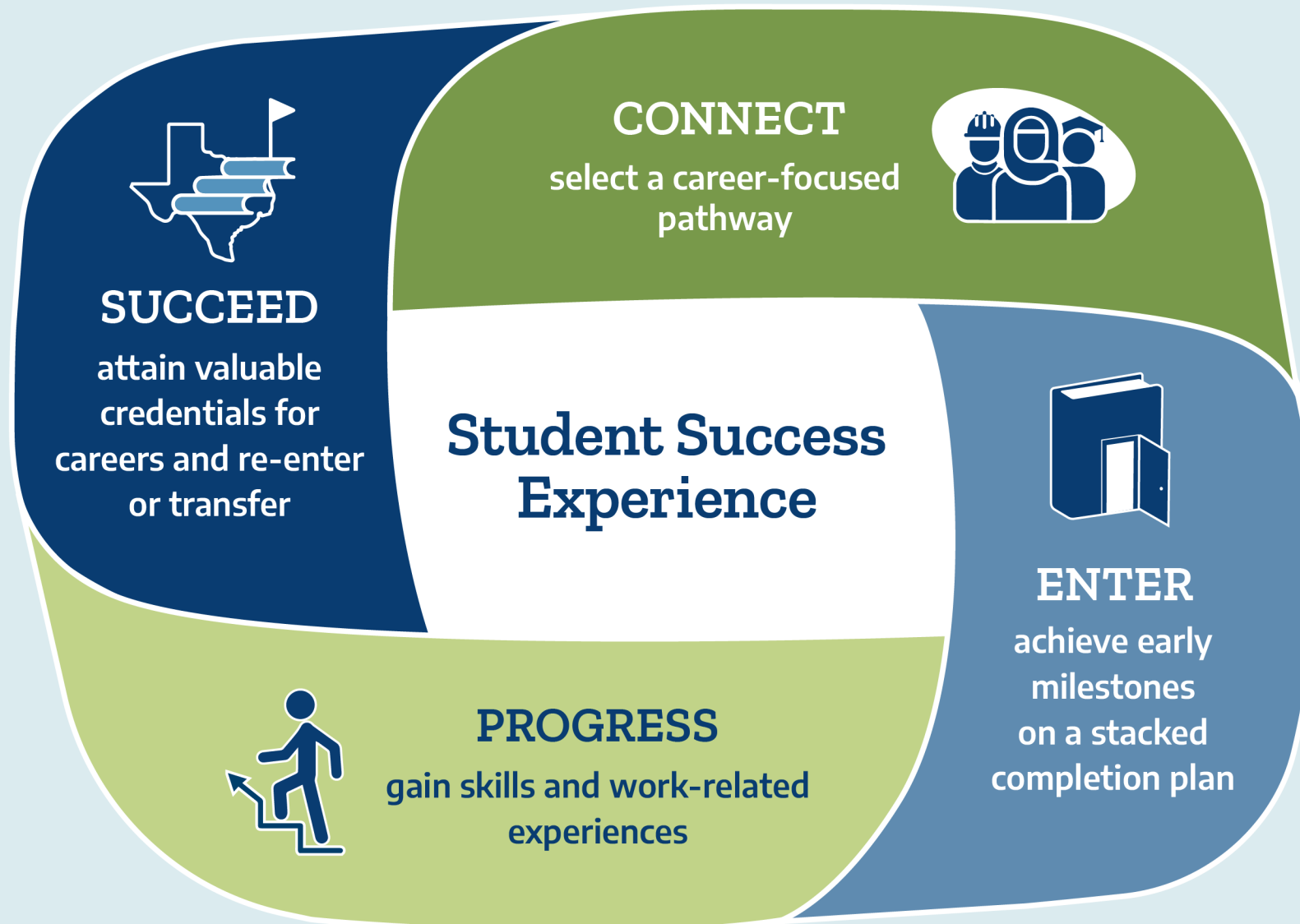
Texas Success Center Grounding Principles

Texas Pathways is not the next in a long line of discrete reforms, but rather a framework that unifies a variety of career- and equity-focused reform elements around a single centralized statewide strategy.

All Texas colleges' program redesigns systemically address the entire student experience, rather than to just one segment of it (such as developmental education or advising).

The redesign process starts with student end career goals and "backward maps" stacked programs and supports to ensure that students thrive in employment and education at the next level with no excess credit or time.

Talent Strong Texas Pathways Framework





Talent Strong Texas Pathways

Four Pillars of Essential Practices

1

Map pathways to student end goals

Employer-informed maps from multiple entry & reentry points to completion, transfer, & valuable careers

2

Help students choose and enter a pathway

Academic and social integration & career-focused onboarding to promote college-level success in the 1st year

3

Keep students on their pathway

Proactive supports to improve completion & transfer, enhance belongingness, & address students' basic needs

4

Ensure students are learning

Active & work-based learning with culturally responsive teaching aligned with careers & further education

Welcome

Christine Bailie, Ed.D.

Director of Institutional Strategy, Texas Success Center

Kristina Flores, Ph.D.

Director of Research and Evaluation, Texas Success Center

Sway Youngston

Program Manager, Texas Success Center

Nour Hammoudeh

Events Planner, Texas Success Center

John Fink

Senior Research Associate and Program Lead, Community College Research Center

Davis Jenkins, Ph.D.

Senior Research Scholar, Community College Research Center

Maggie P Fay, Ph.D.

Senior Research Associate, Community College Research Center

Tatiana Velasco

Research Associate, Community College Research Center

Sarah Griffin

Research Associate, Community College Research Center

Aurely Garcia-Tulloch

Research Assistant, Community College Research Center

Welcome



Josie Brunner

Data Strategist, College Career, Military Preparation, Texas Education Agency



**CTE
Program of
Study and
Advance
Academics**



TEA's Strategic Plan is Focused on Continuous Improvement

Agency Mission

The Texas Education Agency will improve outcomes for all public-school students in the state by providing leadership, guidance, and support to school systems.



What is a CTE Program of Study?

CTE Programs of Study

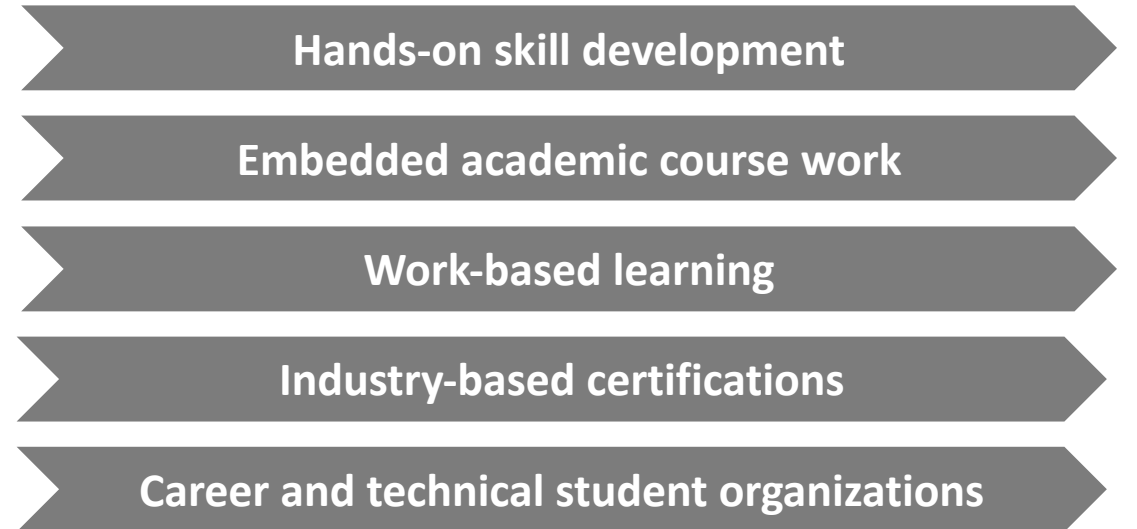
Programs of study are course sequences that prepare students with the knowledge and skills necessary for success in their chosen careers.

These sequences embed relevant, real-world experiences and connect to pathways that culminate in one or more postsecondary credentials.

CTE Program of Study Course Sequence



CTE Program of Study Benefits

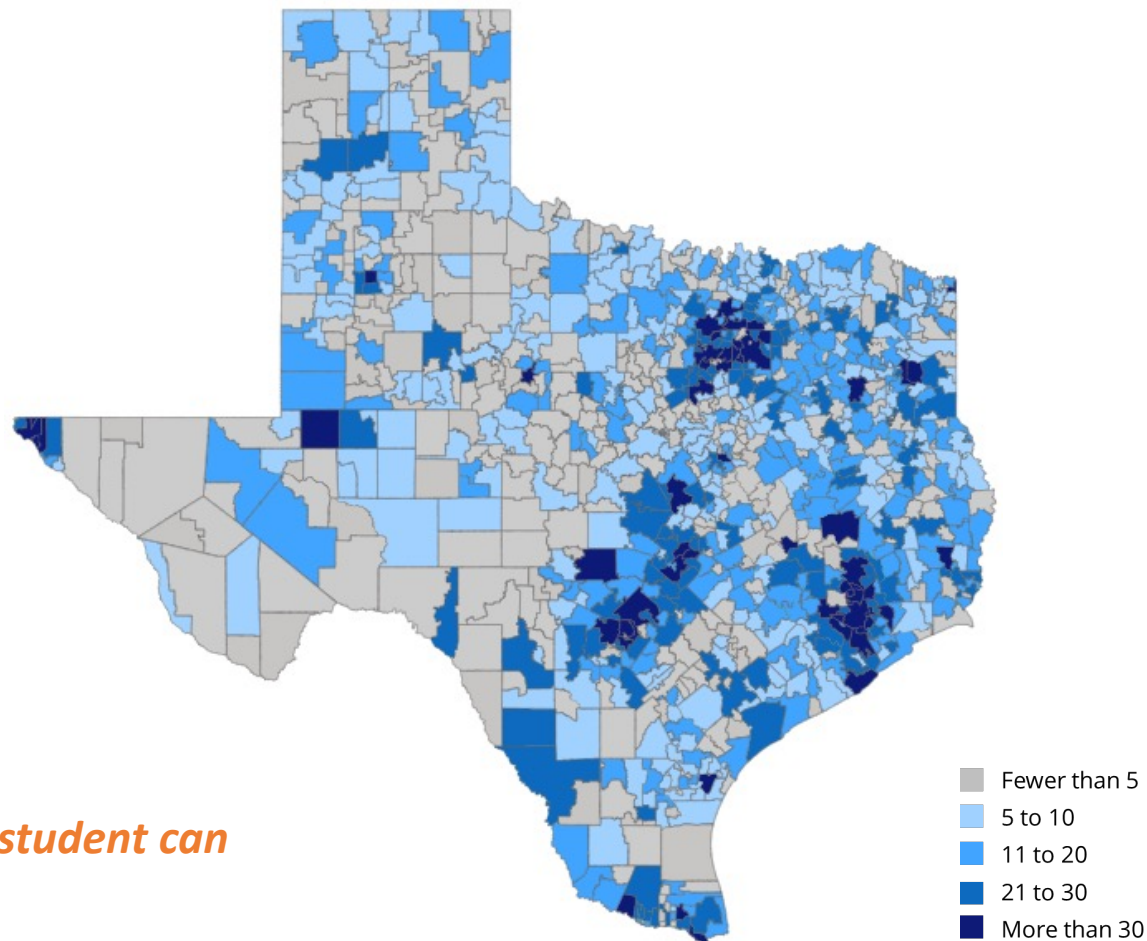


Median Programs
of Study offered
by a district.

9

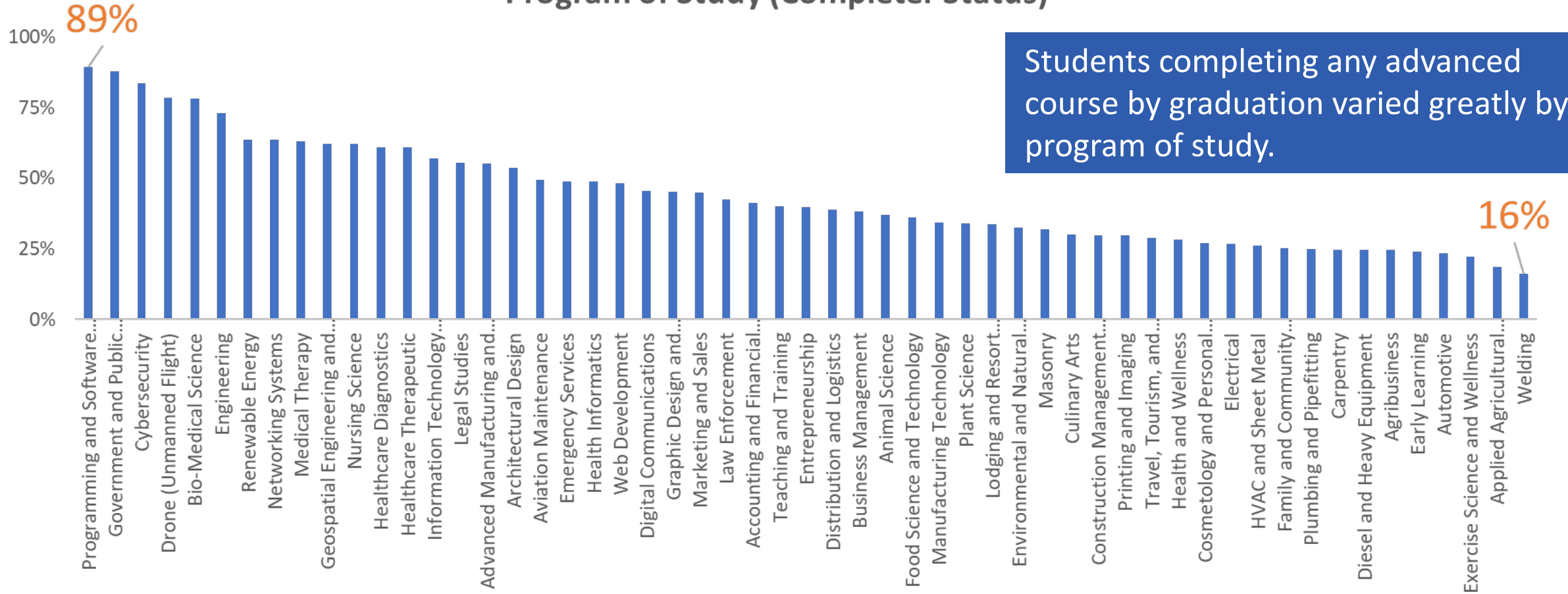
Source: PEIMS, SY 2021-22

There is wide variability in the number of programs a student can choose from, based on where the student lives.



Opportunity: Integrate Advanced Academics

2021 Graduates Successfully Completing Any Dual Credit, AP, or IB Course, by Program of Study (Completer Status)



Source. PEIMS, SY 2017-18, 2018-19, 2019-20, 2020-21 (Division: 213)

Opportunity: Integrate Advanced Academics

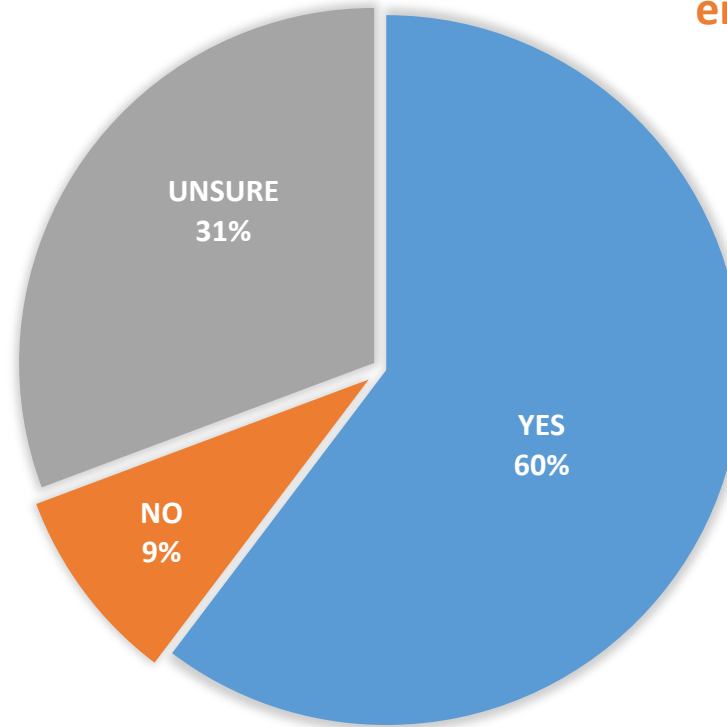
Key Findings

LEA: If you offer the advanced academics courses in the CTE studies, could they be offered as electives? I can see how they could be used to continue the student's education post high school.

INDUSTRY: If they are part of the occupation, it makes sense. If not, it might keep a student from entering a course that is high demand and would not be necessary.

LEA: Students should be enrolled in pure CTE courses. I feel you would be substituting CTE courses with non CTE courses.

INDUSTRY: No, it's not necessary.



Should advanced academics courses be embedded in programs of study?

LEA: It allows us to streamline courses for students to give them more opportunities in their schedule. There should also be the option for students who don't want to take the advanced course to still be able to complete the program of study.

INDUSTRY: It puts CTE on PAR with college prep classes. Recognizes students for taking on the increased rigor in their field of study.

PARENTS: Yes, because I want my kids to have options.

Strengthening Dual Credit as a Trailhead to Career Path Jobs: Workshop Agenda



Texas Success Center

Part 1 - Aligning on a Shared Vision for Dual Credit

12:00 PM - 12:10 PM

Welcome and Context Setting

12:10 PM - 12:30 PM

Rethinking Dual Credit as a Trailhead to Career Path Jobs

12:30 PM - 1:00 PM

Partnership Team Time: Aligning on a Shared Vision for Dual Credit

Part 2 - Identification of Partnership Strengths, Challenges, and Opportunities

1:00 PM - 1:20 PM

Dual Credit Data DEEP Dive

1:20 PM - 1:50 PM

Partnership Team Time: Identifying Strengths, Challenges, and Opportunities

Part 3 - Examples from the Field: Guidance on Design and Planning to Plan

1:50 PM - 2:10 PM

Research-Based Guidance on Effective Program Design

2:10 PM - 2:40 PM

Partnership Team Time: Prioritizing Areas for Improvement and Planning Next Steps

2:40 PM - 2:50 PM

Workshop assessment survey

2:50 PM - 3:00 PM

ISD/College Partnership Share-out and Wrap-up

Aligning on a Shared Vision for Dual Credit



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Rethinking Dual Credit As a Trailhead to Talent Strong Texas Pathways

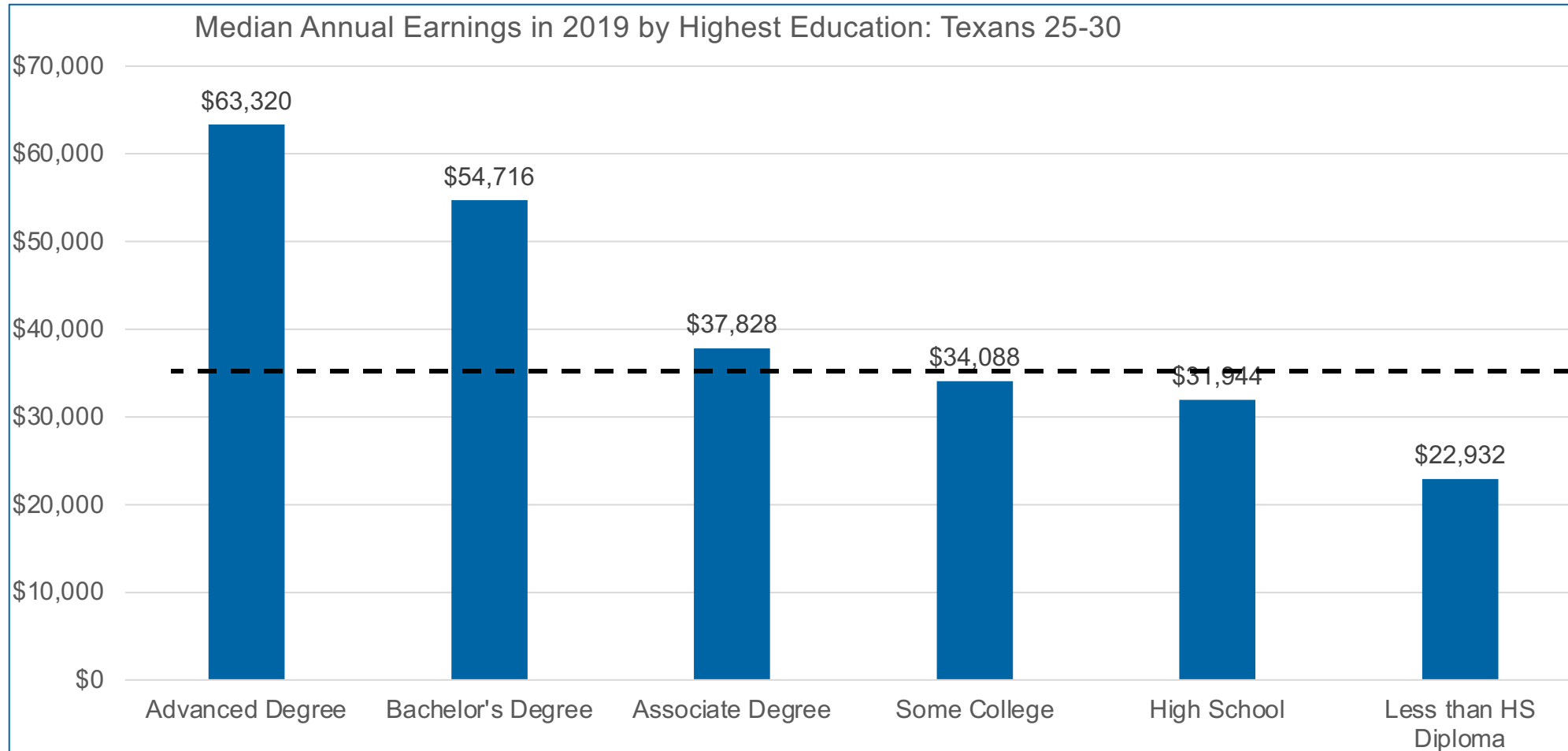
Davis Jenkins
Senior Research Scholar

TSC-CCRC DEEP Partnership Workshop
June 2, 2023

Texas employers in many industries are seeking **diverse talent to fill entry-level career-path jobs.**

These jobs pay living-wages and benefits to start and provide opportunities for career advancement through on-the-job learning and employer-supported training and education.

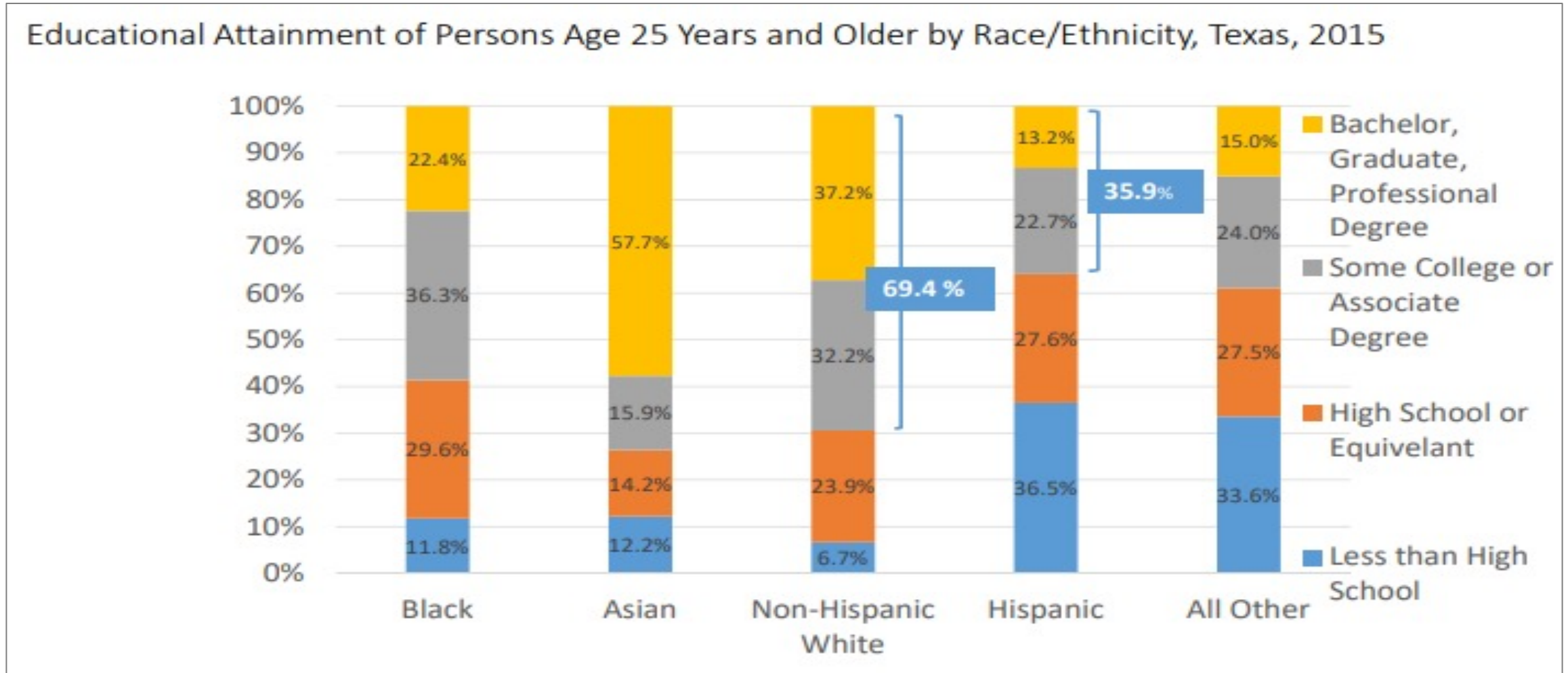
Many entry-level, career-path jobs require at least an AAS, if not a bachelor's degree.



TX avg. living-wage=\$34,900

Source: TPEIR, <https://www.texaseducationinfo.org/ViewReport.aspx>

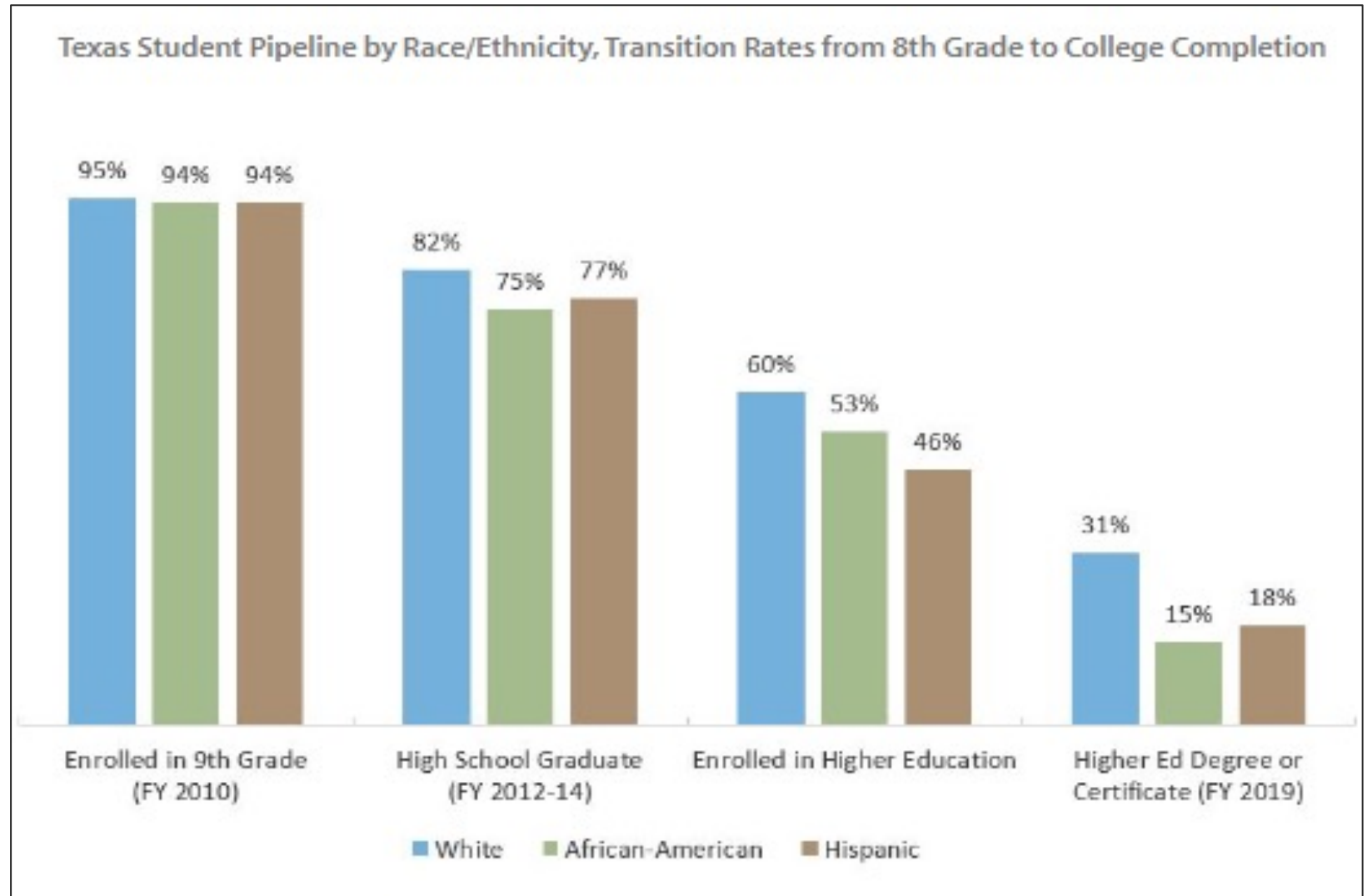
Where is the greatest opportunity to build talent for Texas?



Source: Texas Association of State Senior College and University Business Officers, 2021.

https://demographics.texas.gov/Resources/Presentations/OSD/2021/2021_01_26_TexasAssociationofStateSeniorCollegeandUniversity.pdf

Too many Texas students from underrepresented groups are lost in the transition from high school to college. Fixing that leaky pipeline would substantially increase the supply of talent for Texas's future (and build new enrollments for colleges).



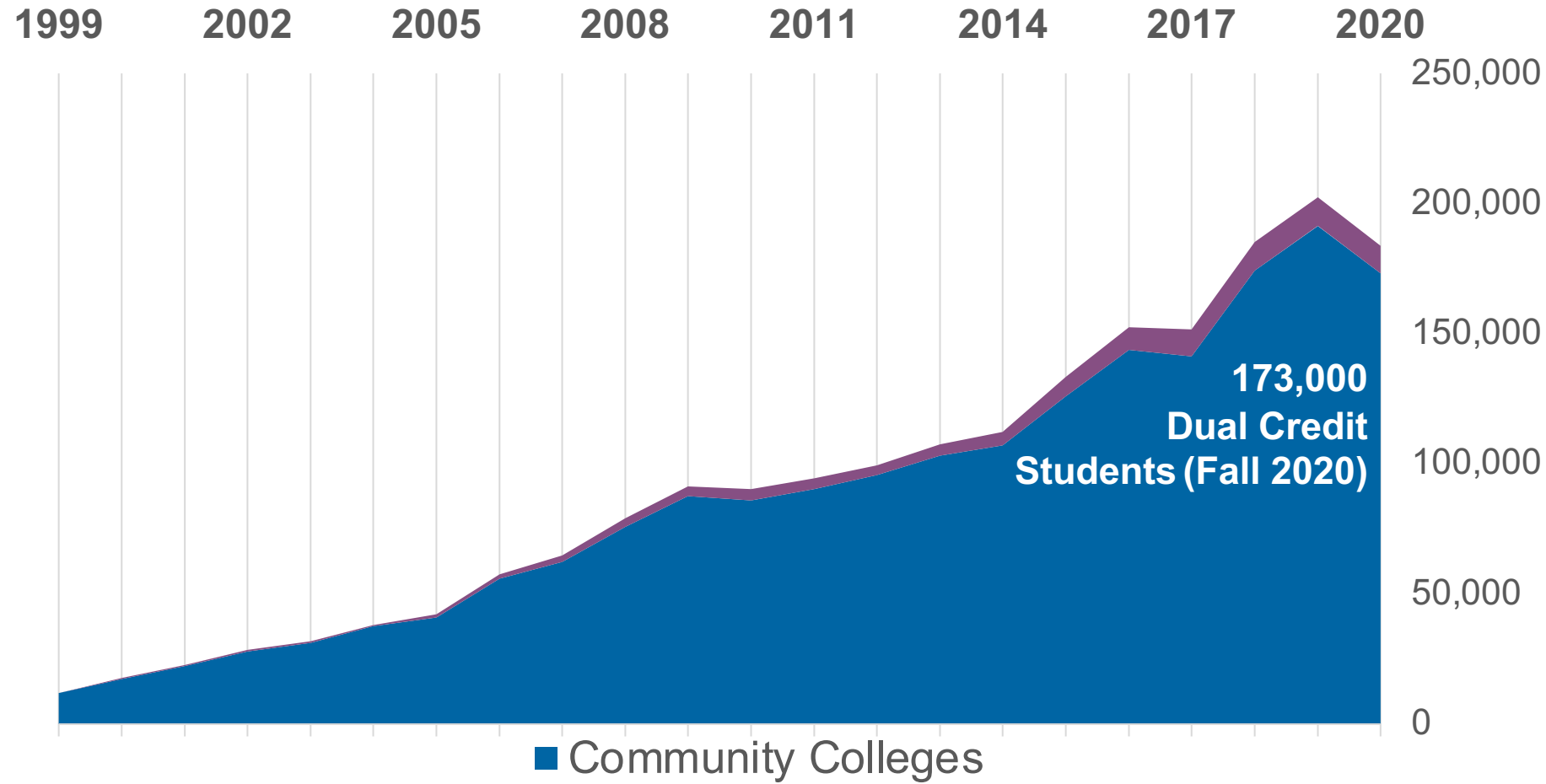
Source: Trellis Company, *State of Student Aid in Texas - 2021*.

<https://www.trelliscompany.org/state-of-student-aid-2021/section-8-texas-college-attainment/>

The growth of dual credit in Texas creates an opportunity to build “trailheads” to postsecondary programs leading to career-path jobs in high-demand fields for students from underrepresented groups.

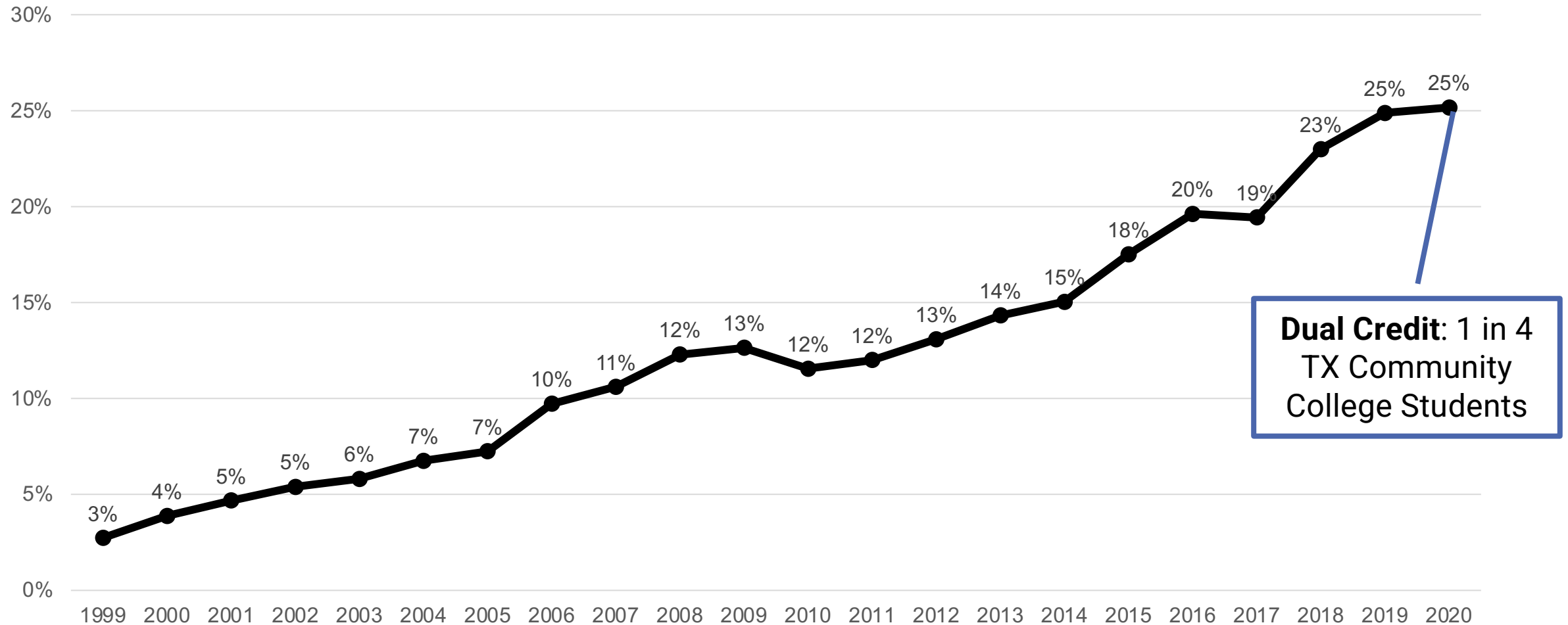
Texas Dual Credit 1999-2020

THECB Dual Credit Data

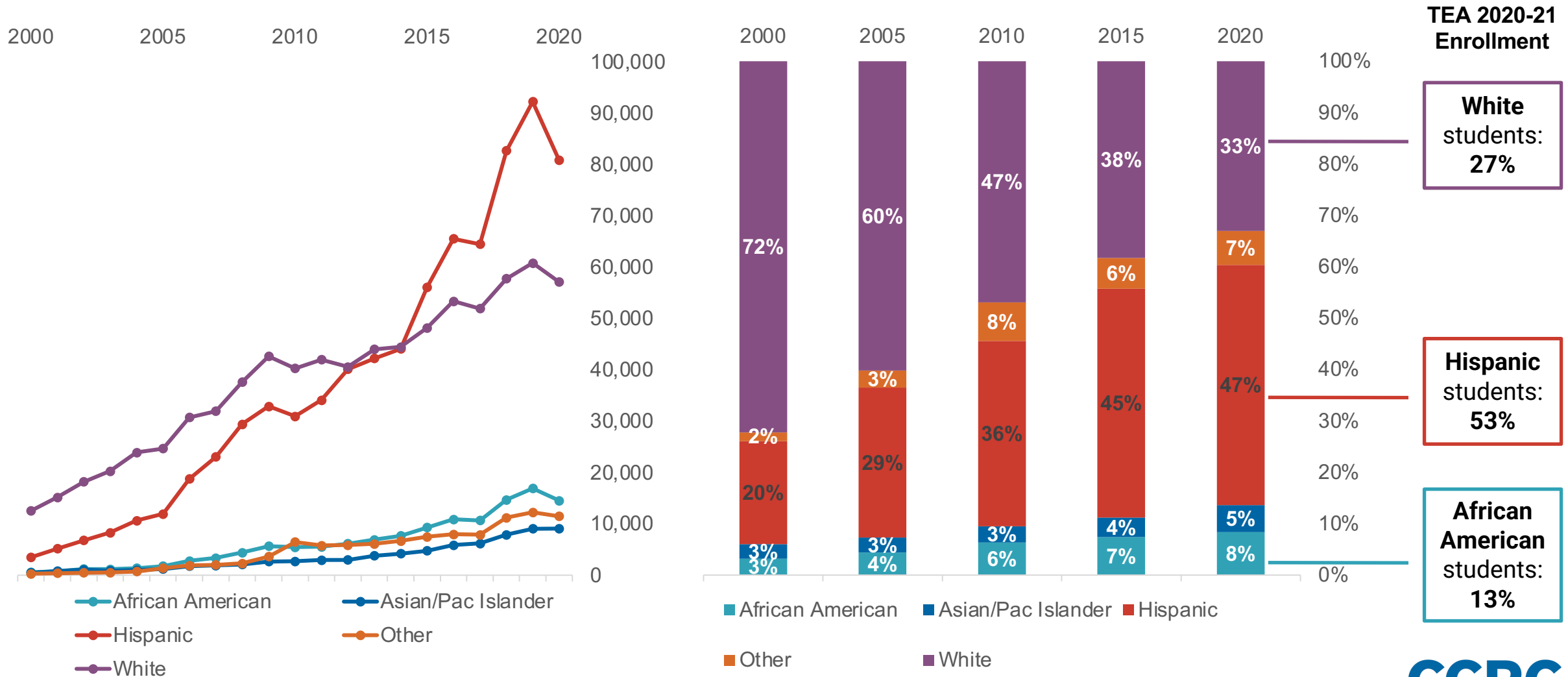


Expansion of dual credit in Texas concentrated at community colleges.

Dual Credit makes up a growing proportion of Texas community college enrollment.

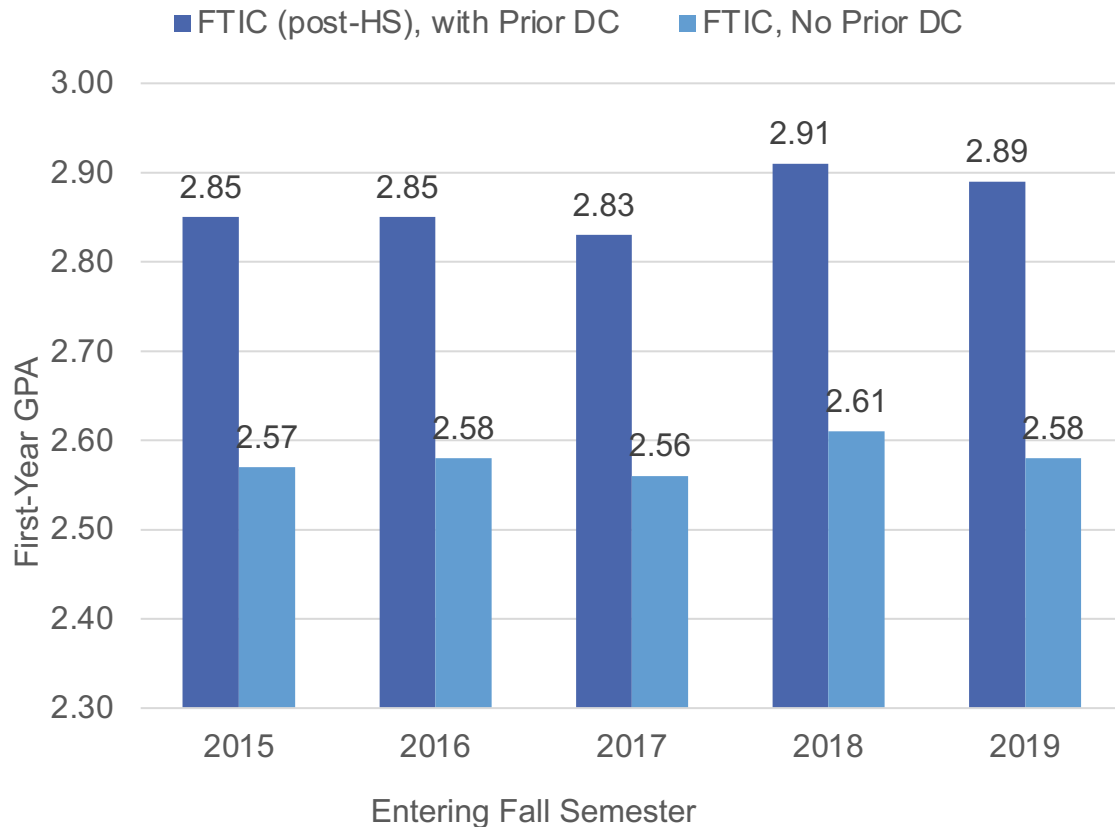


As **Dual Credit** has grown, it has better reflected TX's racial/ethnic diversity, but there is still room for improvement.

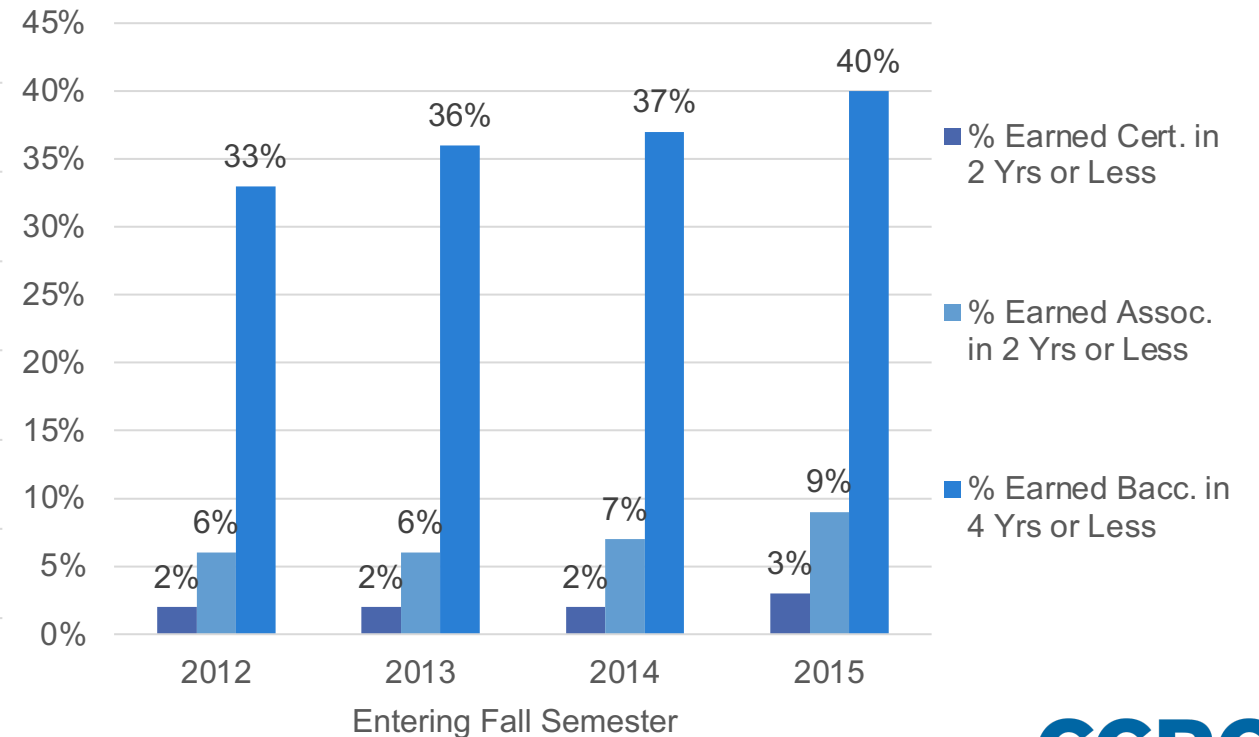


Former Texas DC students increasingly do well in college after high school, but more could be earning degrees.

First-Year Average GPA at TX Community Colleges

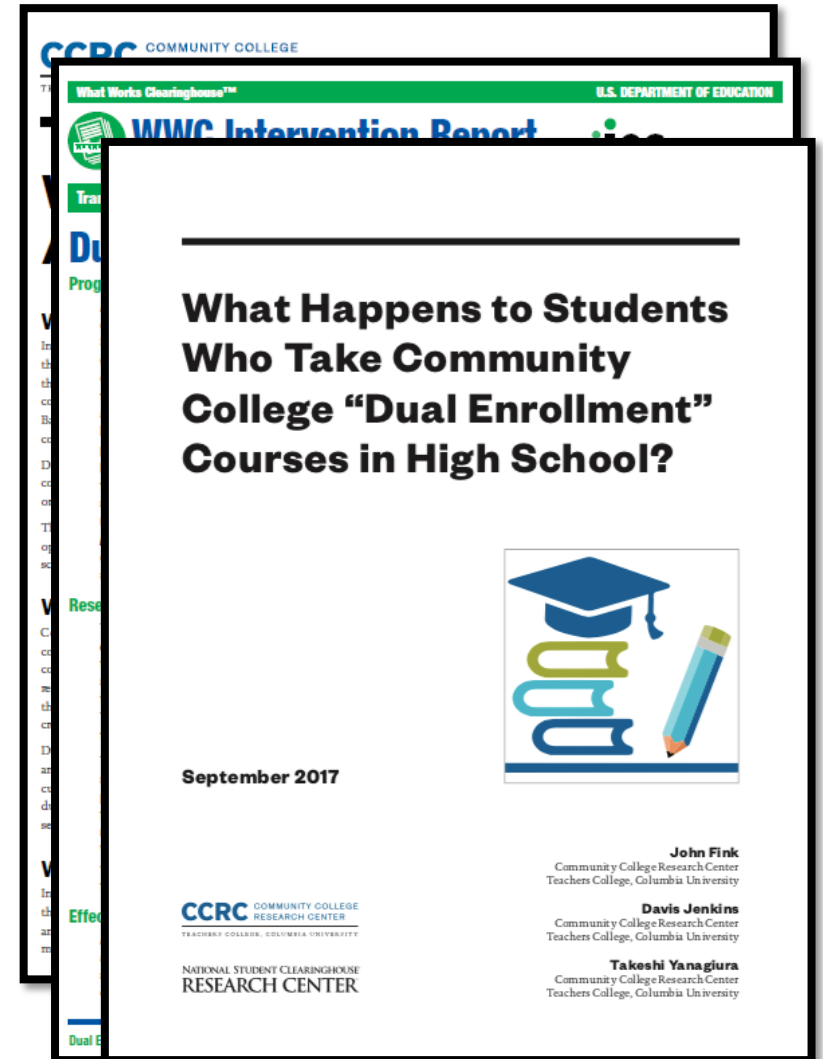


Completion Rates among Former DC Students who Enrolled at Any TX Public College or University Post-HS



Research Evidence on the Benefits of HS Dual Enrollment

- ✓ Accumulation of descriptive and quasi-experimental evidence for dual enrollment, stronger experimental evidence on effects of ECHS and P-TECHs
- ✓ WWC Report: Positive effects of taking college courses in HS include stronger HS grades, more HS completion, more college enrollment, more credit accumulation, more degree completion.
- ✓ Yet, there is substantial state and institutional variation in post-HS college outcomes among former DE students



Recent quasi-experimental studies highlight the potential of DC course-taking for increasing equity in college success.

- ✓ Dual Enrollment can benefit students who are falling behind in HS (Lee & Villarreal, 2022)
- ✓ Dual Enrollment math can boost Black & Hispanic student entrance and persistence in STEM (Minaya, 2021)

JOURNAL OF EDUCATION FOR STUDENTS PLACED AT RISK (UESPAR)
<https://doi.org/10.1080/10824669.2022.2100994>

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Should Students Falling Behind in School Take Dual Enrollment Courses?

Han Bum Lee^a and Michael U. Villarreal^b

^aUrban Education Institute, University of Texas at San Antonio; ^bDepartment of Education and Policy Studies, University of Texas at San Antonio

ABSTRACT
 This study examined the effect of dual enrollment (DE) on college enrollment and degree completion for students with lower prior academic achievement who attended public high schools in Texas. We employed a propensity score matching method to reduce selection bias arising from DE participation and supplemented the analysis with a bounds test. The results showed that DE students were predicted to have a higher likelihood of entering college immediately after high school by 20 percentage points and completing a degree within four and eight years of high school graduation by 7 and 14 percentage points, respectively, compared to similar students who did not take DE courses. This evidence suggested that DE programs contributed to a reduction in educational inequities in college access and degree attainment for students at risk of academic failure. On the other hand, students who were racial or ethnic minorities and students from low-income families were not only less likely to participate in DE programs but were also predicted to have smaller participation effects on college degree attainment than their counterparts, stressing the need for higher education institutions and partnering school districts to provide more robust support to these underserved students for participating in DE programs and making a successful transition into college.

Dual enrollment (DE) programs, also known as dual credit or concurrent enrollment, provide high school students with an opportunity to take college courses simultaneously earn high school and college credits (Barnett & Stamm, 2008). Proponents of the programs claim that DE participation can *i*) increase a student's confidence in ability to complete college-level coursework and (Attewell, Heil, & Reisel, 2012); *ii*) offer an opportunity to engage in academic and career courses, enabling to expand students' knowledge of particular fields of interest; *iii*) expose students to college norms, making college familiar (Karp, 2012); *iv*) reduce the financial and time costs of earning college degree by earning college credits while in high school (Hughes, Jeong, & Bailey, 2007), and *v*) signal to colleges that the student will be successful in college (Hoffman, Vargas, & Santos, 2008).

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Can Dual Enrollment Algebra Reduce Racial/Ethnic Gaps in Early STEM Outcomes? Evidence from Florida

Summary Research Report

Veronica Minaya

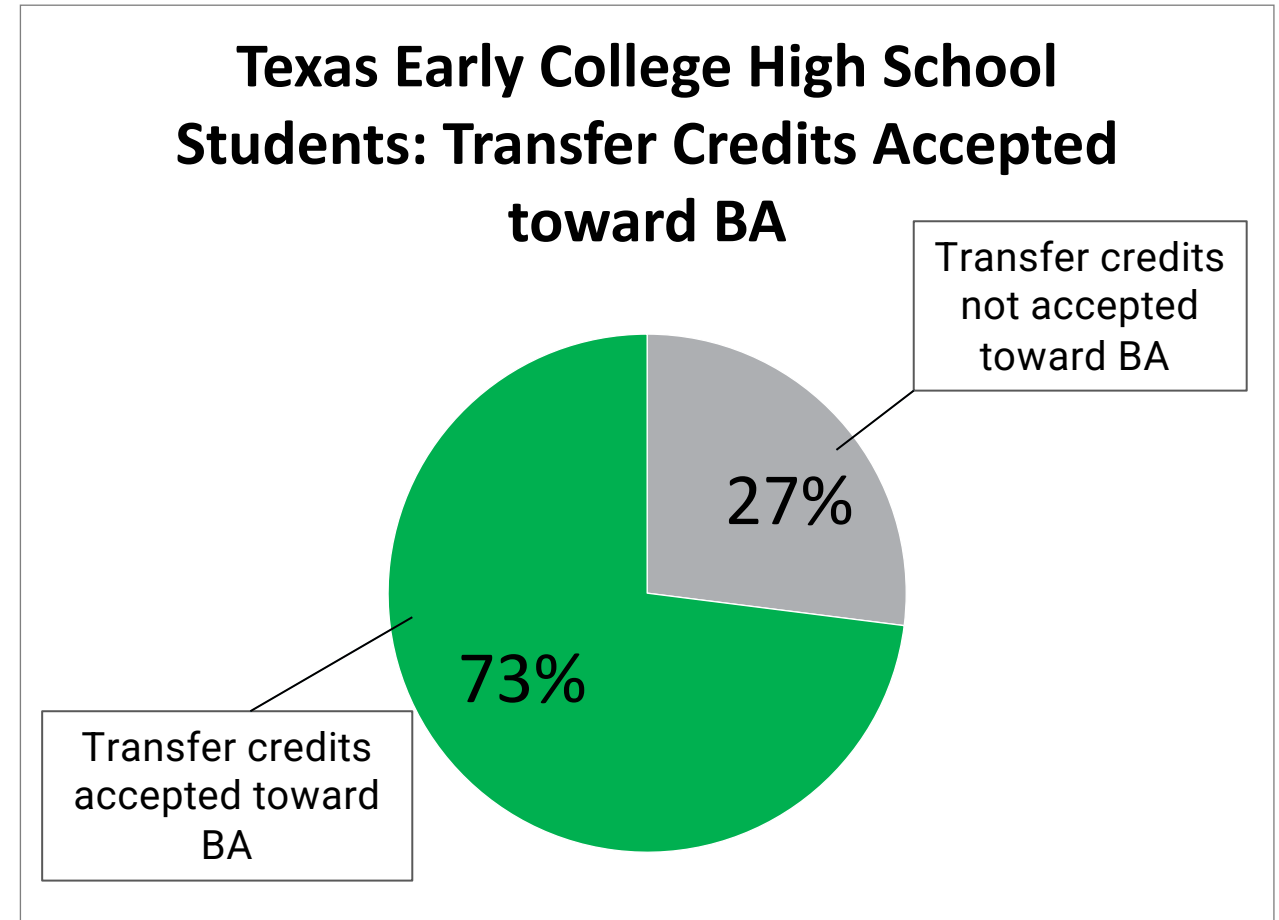
February 2021

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Funding for this study was provided by the Bill & Melinda Gates Foundation. The findings and conclusions contained within are those of the author and do not necessarily reflect positions or policies of the foundation.

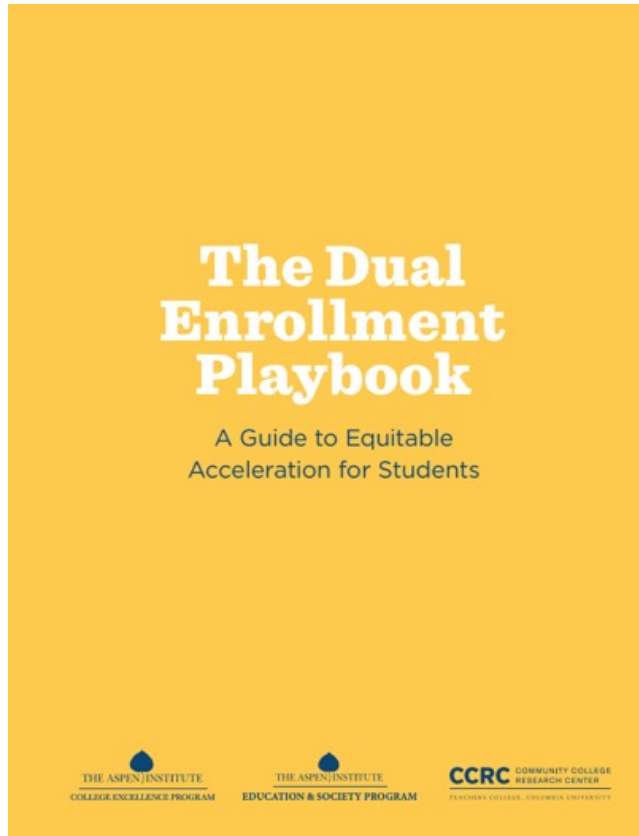
- Many students who earn AAs through **ECHSs** are not able to apply DC credits to a bachelor's in their desired major.
- **P-TECHs** do prepare for career-path employment, and Texas is growing them, but there are only 30K Texas P-TECH students currently and most students don't want to earn associate in high school.
- Most DC in Texas is "**random acts**" gen ed core course-taking with limited advising, which is not well designed to help guide and prepare students without clear college plans to pursue a career-pathway program after high school.

Texas ECHS Transfer Credit Loss



Source: Greater Texas Foundation, 2015.

What can be learned from high schools and colleges that are more effective in serving students of color through dual enrollment?



DE Playbook Resources



Highlights from the Dual Enrollment Playbook: A Guide to Equitable Acceleration for Students



A Guide to Getting Started for Institutional Leaders

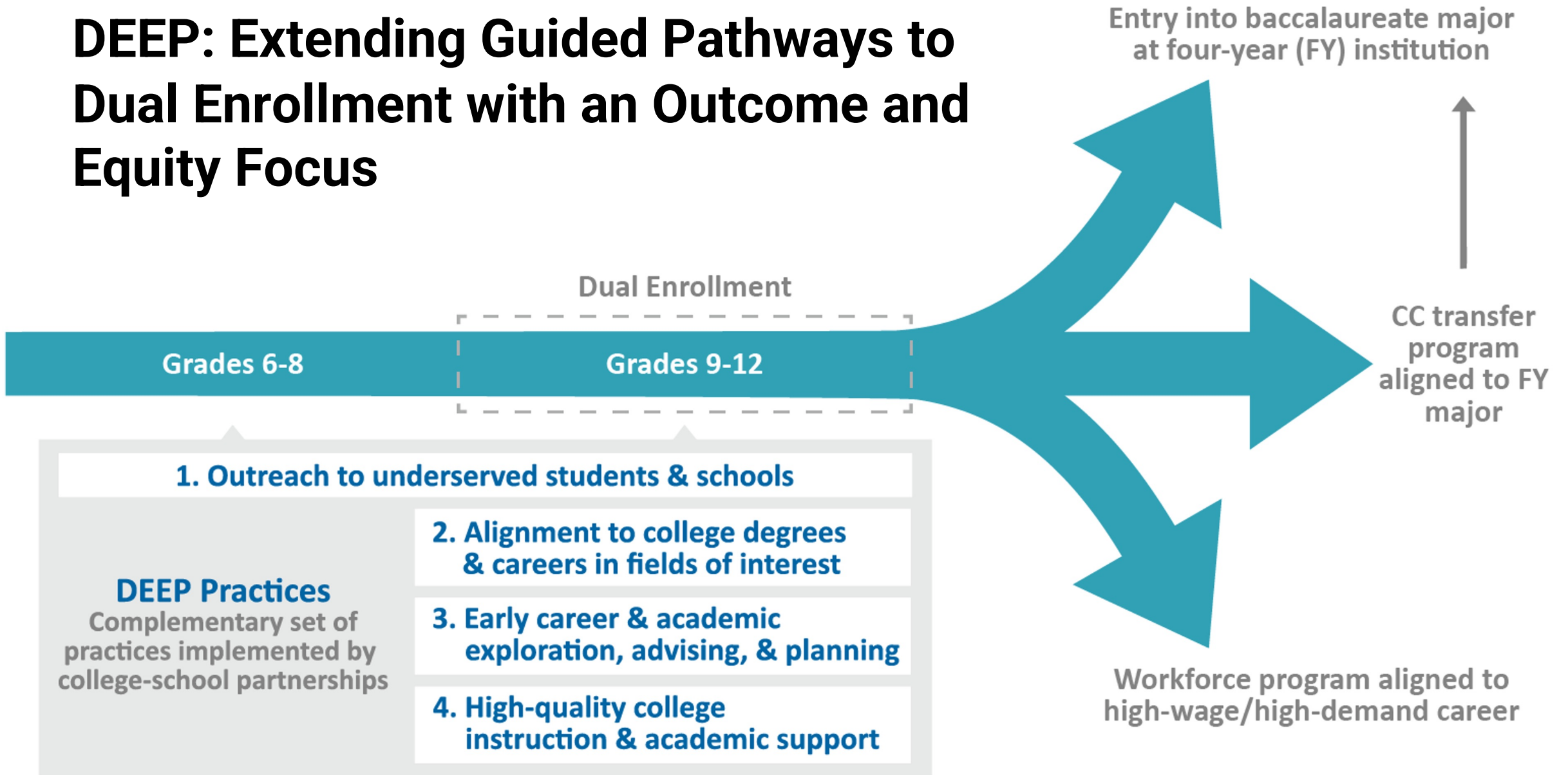


Tool for Evaluating Equitable Practices at Community Colleges



Tool for Evaluating Equitable Practices at High Schools

DEEP: Extending Guided Pathways to Dual Enrollment with an Outcome and Equity Focus



Dual Enrollment

Grades 6-8

Grades 9-12

Entry into baccalaureate major at four-year (FY) institution

CC transfer program aligned to FY major

Workforce program aligned to high-wage/high-demand career

1. Outreach to underserved students & schools

2. Alignment to college degrees & careers in fields of interest

3. Early career & academic exploration, advising, & planning

4. High-quality college instruction & academic support

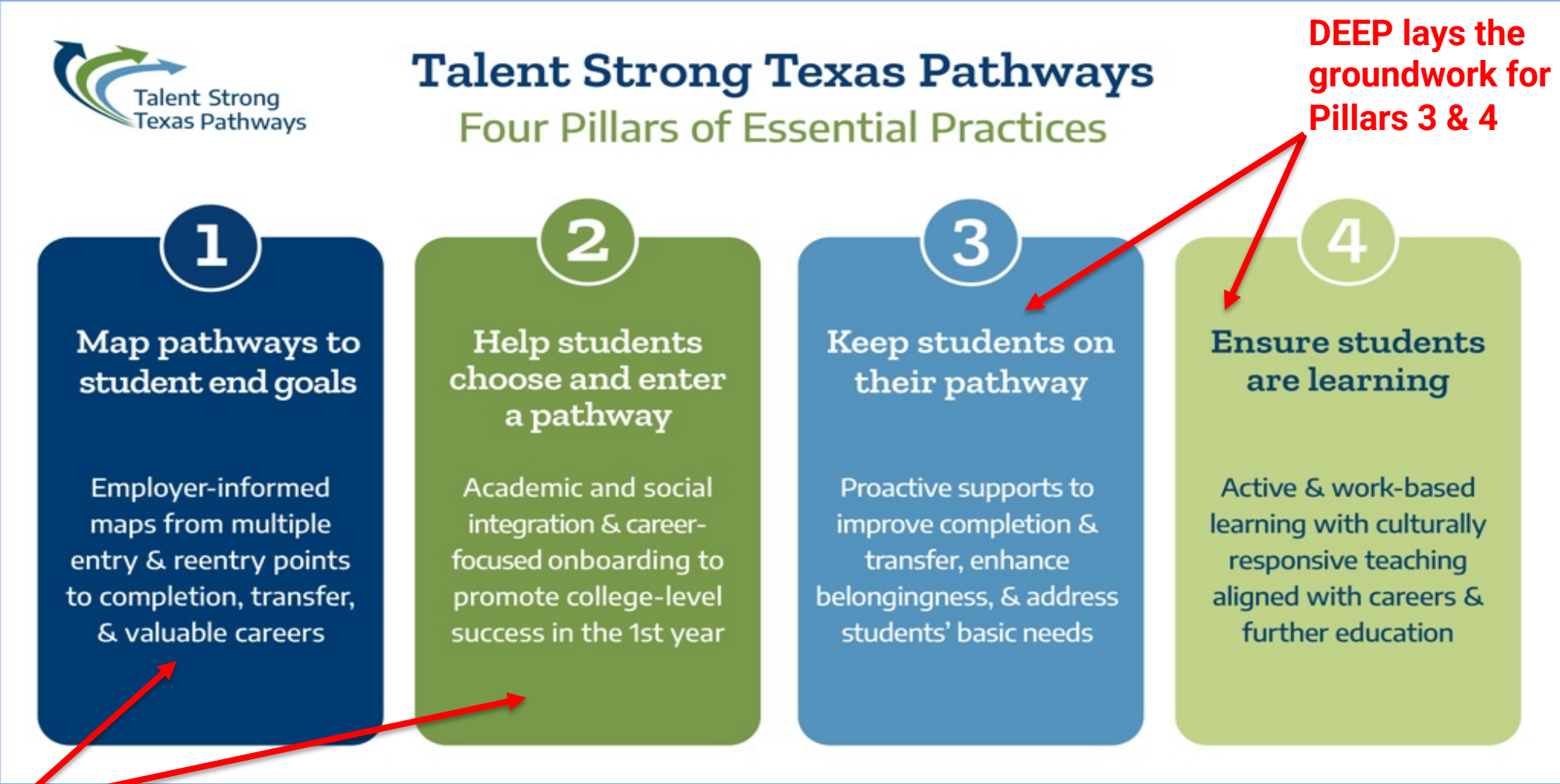
DEEP Practices

Complementary set of practices implemented by college-school partnerships

From 'Random Acts' and 'Programs of Privilege' to DEEP

Programs of Privilege, Random Acts	Dual Enrollment Equity Pathways (DEEP)
DE courses made available to students who are already "college-bound"	Active outreach and support for underrepresented students and families starting in middle school
Focus is mainly on strengthening students' academic preparedness for college	Focus also on building motivation for college by helping students explore interests and begin to develop a plan tied to college programs and careers in a field of interest
Colleges and schools mainly emphasize general education courses	Colleges and schools introduce students to high-opportunity postsecondary pathways through program foundation courses
Focus on achievement of academic content standards	Added focus on helping students become confident college learners through active teaching/learning
High school career technical education focused mainly on immediate post-HS employment	High school career technical education students readily able to apply HS CTE credits toward college degree programs in high-opportunity fields

Extending Guided Pathways Practices to Dual Credit



DEEP focuses on Guided Pillars 1 & 2



Scaling DEEP in Florida and Texas: Project Summary

1. Implementation Study

- What do DEEP practices look like across different institutional contexts?

2. Costs and Incentives Study

- What are the costs, incentives, and disincentives for K-12 and college leaders to invest in and adopt DEEP practices?

3. Metrics Study

- What metrics and data tools can best catalyze and inform DEEP reforms?

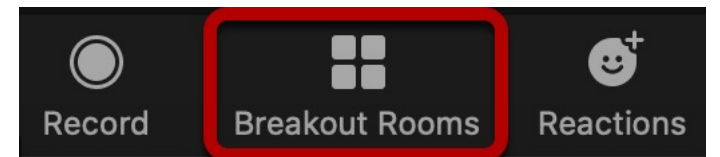
Based on this research, we will produce a practitioner guide, data tools and workshops on scaling trailheads to postsecondary college and career pathways for students from underrepresented groups.

HB 8 Financial Aid for Swift Transfer and 15-credit pathways would provide resources to expand DC “trailheads” to postsecondary talent pathways after high school.

Team Time 1: Aligning on a Shared Vision for Dual Credit



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* Select your College

Identification of Partnership Strengths, Challenges, & Opportunities



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Dual Credit Dashboard Overview

- Access to DC
- DC Course Location and Modality
- DC Course Pass Rates
- DC Credit and Gateway Course Momentum
- Post-HS College Enrollments and Persistence

Examine and Benchmark Texas Community College Dual Credit Metrics

Texas Public High School Students, Classes of 2019 and 2020

Dual Credit Participation and Outcomes

Select a College: Paris Junior College
 Select High School Partners with 5+ DC students: All HS Partners
 Select Outcome Type: DC Outcomes Post-HS
 Disaggregate by: Race/ethnicity

Paris Junior College & All HS Partners (1,926 dual credit students)
 DC Outcomes Post-HS: College enrollment among former dual credit students, 1-year after high school

Outcome Name	All	Asian	Black	Hispanic	Other ra..	White
Attended any college post-HS	73%	82%	69%	69%	71%	75%
Re-enrolled at dual credit college	33%	18%	40%	32%	27%	33%
College persistence in first year..	87%	≥99%	86%	90%	84%	86%

Top Courses & Colleges: Highlight Results
 Legend: All (Blue), Black (Orange), Hispanic (Red), Low income (Green)

Top 10 Dual Credit Courses Taken (If blank, not in top 10 for this group)
 1,926 students from All HS Partners who took a dual credit course at Paris Junior College

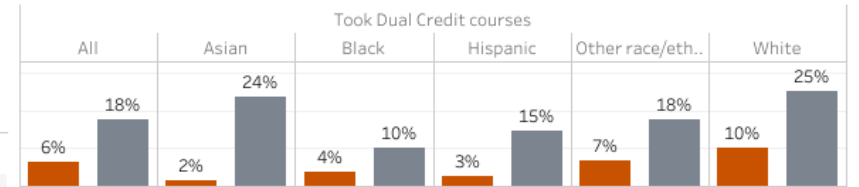
Course Name	All	Black	Hispanic	Low income
ENGL-1301	1,243	87	208	455
HIST-1301	1,219	67	175	376
HIST-1302	1,163	63	165	347
ENGL-1302	1,156	79	200	407
GOVT-2305	1,008	33	154	273
ECON-2301	815	26	127	224
MATH-1314	784	54	121	266
GOVT-2306	436		72	128
ENGL-2322	417		75	134
SPCH-1315	391			
MATH-2312		33		
ENGL-2323			64	
BIOL-1309		20		

Benchmark to other Texas Colleges by State Geography

Select Outcome to Benchmark: Took Dual Credit courses
 Benchmark Region: Statewide
 Benchmark Locale: All Settings

Legend: Selected College (Orange), Benchmark Colleges (Grey)

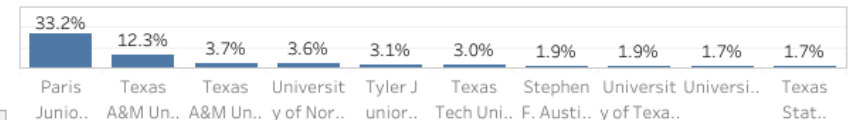
Selected Benchmark: Statewide, All Colleges



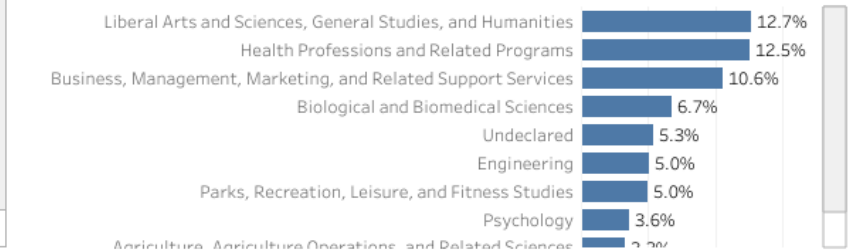
Dual Credit Student College Attendance 1-year After High School

Texas Public Postsecondary Institutions

Top 10 First College Destinations, 1,926 Paris Junior College dual credit students from All HS Partners



Top 10 College Majors, Paris Junior College dual credit students from All HS Partners (N=1,926)



Dual Credit Data Sources & Definitions

- Statewide, longitudinal, student-level data from the Texas Education Research Center
- Analytic sample includes traditional high school entrants in fall 2015 and 2016 who participated in dual credit at community colleges through spring 2019 and 2020
- P-TECHs and Early College High Schools Excluded (by name)
- Masking requirements for privacy suppression (some values will display blank or with a specific masking code)
- Results disaggregated by student race/ethnicity, gender, and income (FRPL), with a focus on Black, Hispanic, and lower-income students

Clarifying Numerators and Denominators

- Access Outcomes
 - **Numerator:** Number of students who took a dual credit course in the HS-CC pair
 - **Denominator:** Number of high school students enrolled at the HS in the HS-CC pair
- Dual Credit Student Outcomes
 - **Numerator:** Number of dual credit students in the HS-CC pair that met the outcome definition (e.g., number of dual credit students who completed 9+ credits through dual credit)
 - **Denominator:** Number of dual credit students in the HS-CC pair

Data Definitions

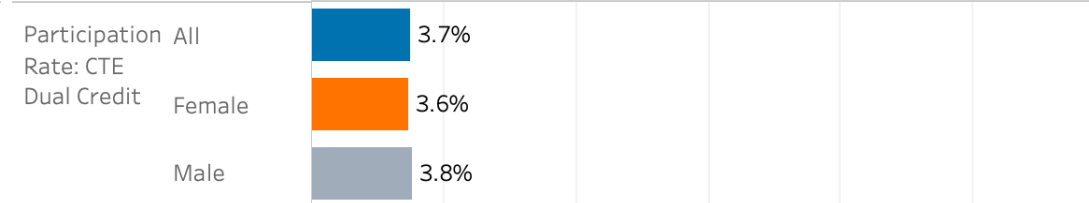
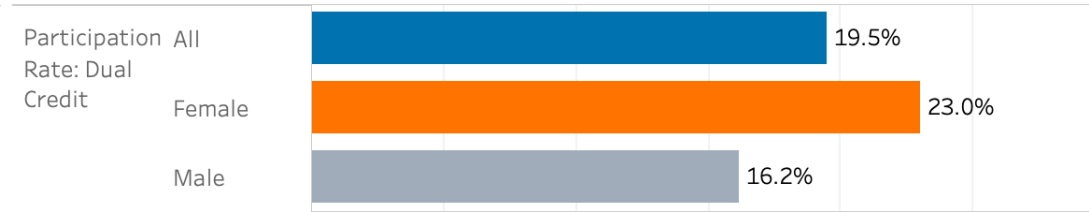
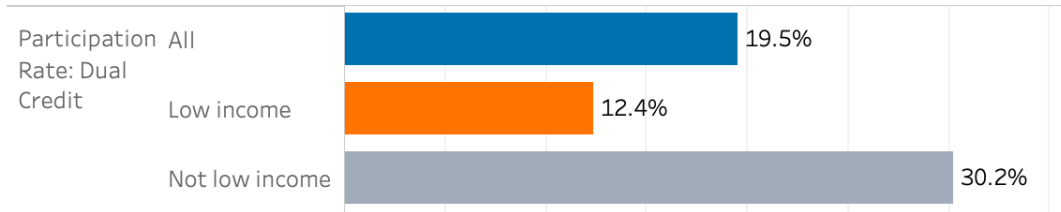
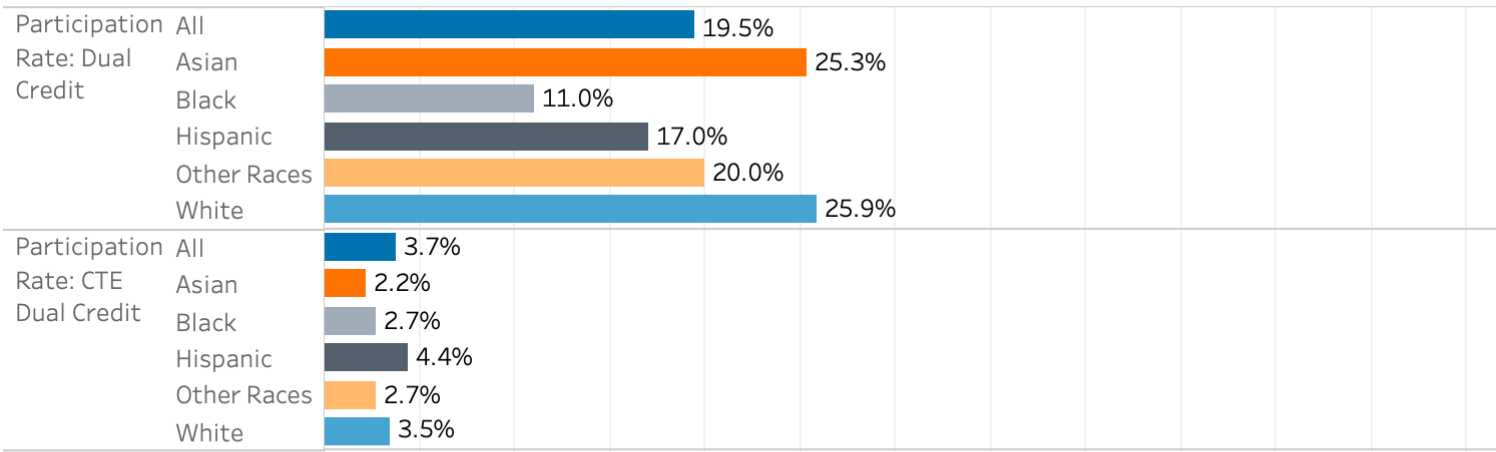
Data Element	Definition
High school student cohort	Number of students ever enrolled at the HS within 4 years from HS entrance (2015-2016 HS freshman cohort)
Dual Credit participation	Percent of students—in the HS cohort—who attempted any dual credit (DC) courses through the HS-CC pairing within 4 years from HS entrance
CTE Dual Credit participation	Percent of students—in the HS cohort—who attempted any CTE DC courses through the HS-CC pairing within 4 years from HS entrance
AP/IB/DC participation	Percent of students—in the HS cohort—who attempted any AP, IB, or DC courses through the HS-CC pairing within 4 years from HS entrance
Pct. Of DC by Location	DC credits attempted at the college, high school, or another location (e.g., multi-institution teaching center) as a percent of DC credits attempted through the HS-CC pairing

Among students who took DC courses via the HS-CC pairing:

DC Course Pass Rates	Percent of DC courses completed (Pass, C, or above) among DC courses attempted via the HS-CC pairing
Completed 9+ CL Credits in DC	Percent of high school students who took any DC who completed 9 or more college-level DC credits in the HS-CC pairing prior to HS graduation
Completed CL English in DC	Percent of high school students who took any DC who completed a college-level English DC course in the HS-CC pairing prior to HS graduation
Completed CL Math in DC	Percent of high school students who took any DC who completed a college-level math DC course in the HS-CC pairing prior to HS graduation
Avg. Credits Attempted in DC per Student	Average number of DC credits attempted via the HS-CC pairing per student in the HS-CC pairing
Attended any college post-HS	Percent of high school students who took any DC via the HS-CC pairing who enrolled at any postsecondary institution after HS by the end of the first academic year
Re-enrolled at DC college	Percent of high school students who took any DC via the HS-CC pairing who enrolled at the same DC college by the end of the first academic year after HS graduation
College persistence in first year	Percent of college-going high school students who took any DC via the HS-CC pairing who continued enrolling in through the end of the first academic year after HS graduation
Top College Destinations	Top colleges that high school students who took any DC via the HS-CC pairing enrolled at during the first academic year after HS graduation
Top College Majors	Top majors that high school students who took any DC via the HS-CC pairing enrolled in during the first academic year after HS graduation

Underrepresented in Dual Credit: Black, Hispanic, Low-Income, and Men

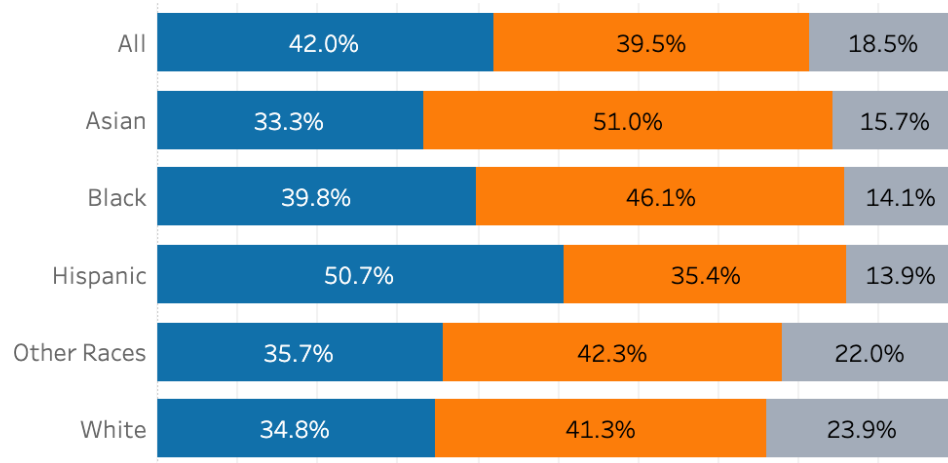
At What Rates do High School Students Participate in Dual Credit and other Advanced Coursework?



Dual Credit Courses Types & Course Pass Rates

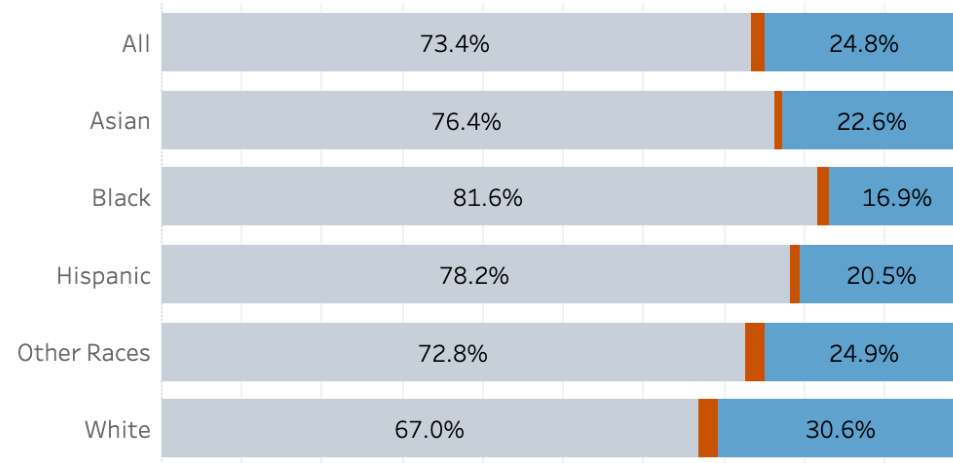
Dual Credit Course Location

College High School Other Place



Dual Credit Course Modality

Face-to-face Hybrid Online



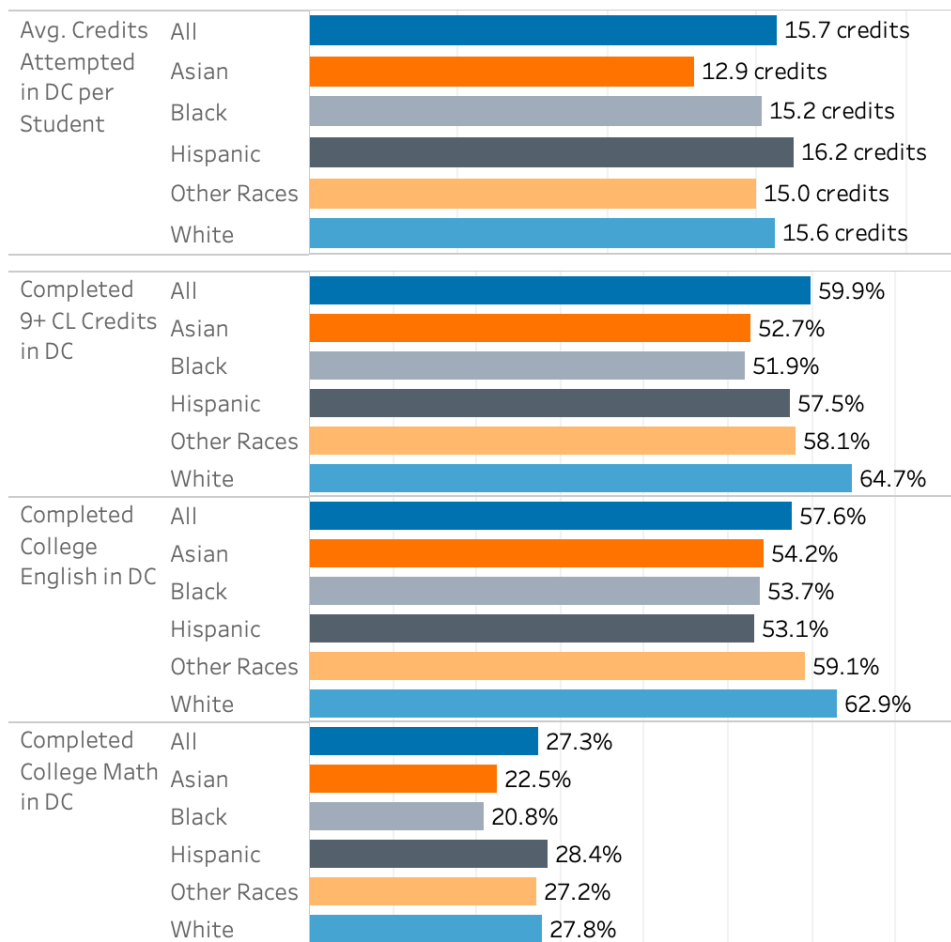
Dual Credit Course Pass Rates by Course Location and Modality

	All	Asian	Black	Hispanic	Other Races	White
Overall DC Course Pass Rate	89.9%	94.5%	84.4%	88.2%	90.3%	92.1%
Location: College (DC Pass Rate)	87.6%	93.3%	80.3%	86.4%	88.0%	90.3%
Location: High School (DC Pass Rate)	93.0%	96.2%	88.9%	91.6%	93.0%	94.6%
Location: Other Place (DC Pass Rate)	88.5%	91.4%	81.2%	86.0%	88.9%	90.5%
Modality: Face-to-face (DC Pass Rate)	90.8%	95.3%	85.5%	89.2%	91.4%	93.4%
Modality: Hybrid (DC Pass Rate)	90.0%	96.4%	83.0%	88.1%	86.6%	91.7%
Modality: Online (DC Pass Rate)	87.2%	91.9%	79.1%	84.6%	87.3%	89.5%

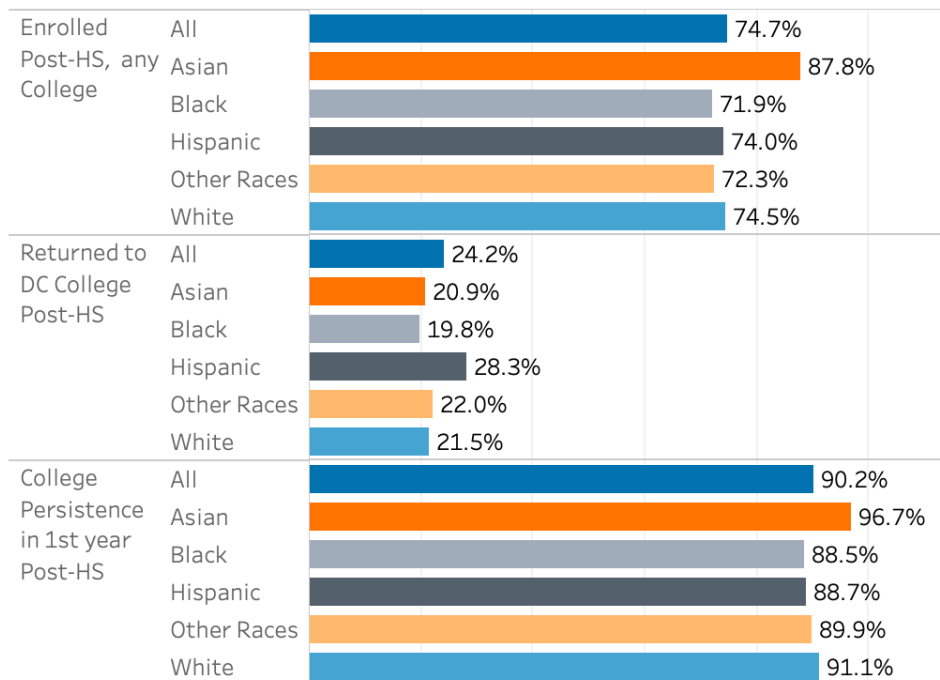
Statewide Results: <https://tinyurl.com/CCRC-UT-DCDashboard-Statewide>

Dual Credit Outcomes: Momentum Gained and College Enrollment Post-HS

Dual Credit Momentum



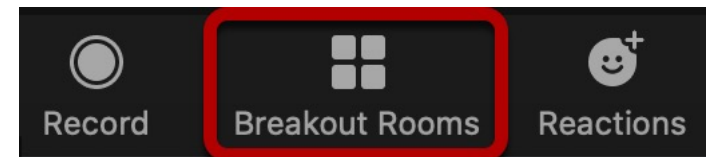
College Enrollment & Persistence, 1-year Post-HS



Team Time 2: Identifying Strengths, Challenges, and Opportunities



Texas Success Center



* Select your College

Examples from the Field: Guidance on Design and Planning to Plan



Texas Success Center

CCRC COMMUNITY COLLEGE
RESEARCH CENTER
TEACHERS COLLEGE, COLUMBIA UNIVERSITY

Dr. Maggie Fay

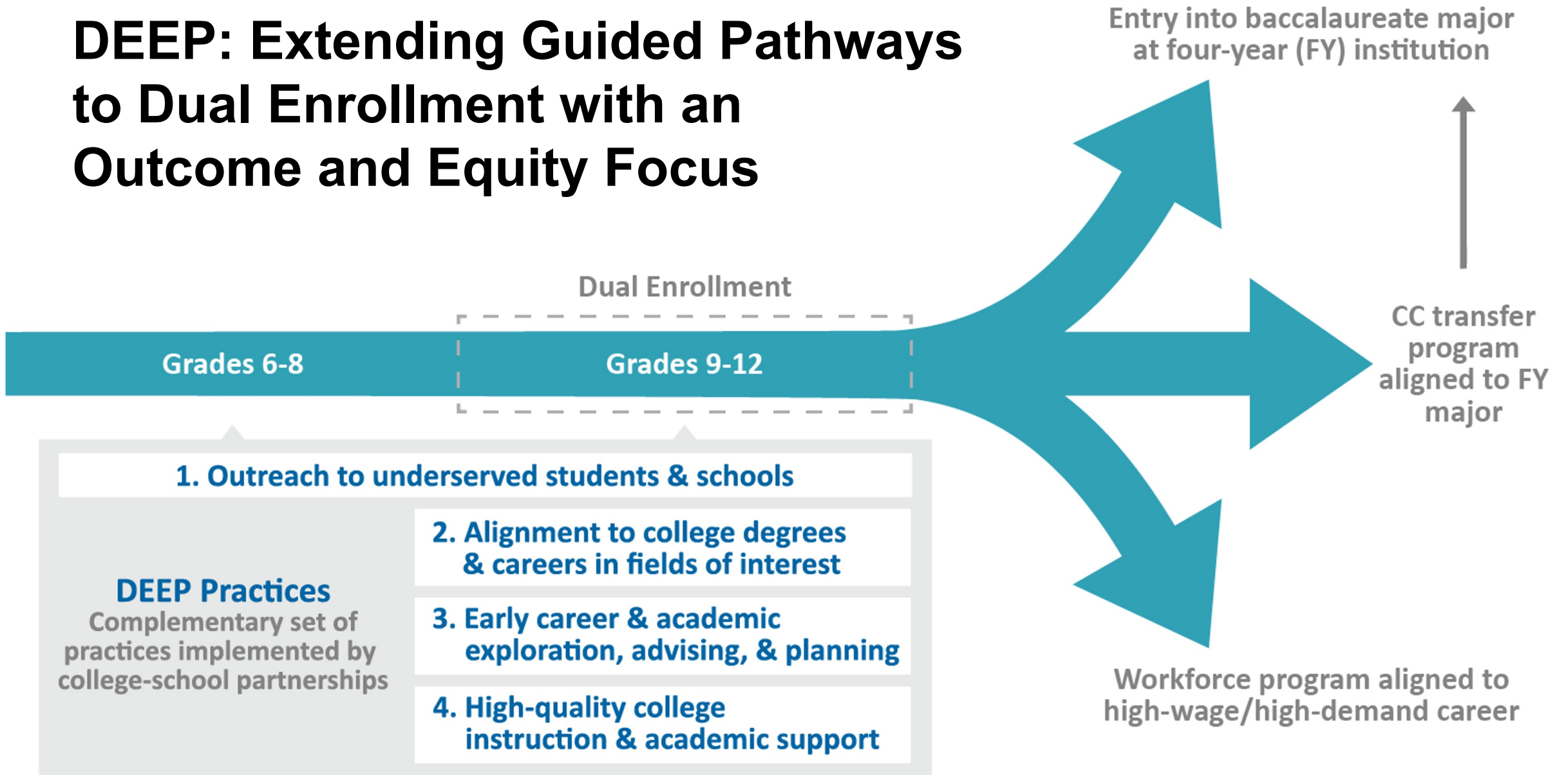
Senior Research Associate, CCRC



Field Research Site Selection Methodology

- 1) Use student unit record data to identify “high performing” partnerships.
- 2) Focus on effective partnerships with Title 1 comprehensive and technical high schools.
- 3) Select 3 high-performing partnerships representing diverse institutional contexts and populations.

DEEP: Extending Guided Pathways to Dual Enrollment with an Outcome and Equity Focus



Dual Enrollment

Grades 6-8

Grades 9-12

Entry into baccalaureate major at four-year (FY) institution

CC transfer program aligned to FY major

Workforce program aligned to high-wage/high-demand career

1. Outreach to underserved students & schools

2. Alignment to college degrees & careers in fields of interest

3. Early career & academic exploration, advising, & planning

4. High-quality college instruction & academic support

DEEP Practices

Complementary set of practices implemented by college-school partnerships

Field Research

Texas DE partnerships:

- Lee College (2 schools)
- Navarro College (2 schools)
- San Jacinto College (1 school)

Florida DE partnerships:

- Chipola College (1 school)
- Tallahassee Community College (1 school)
- Miami-Dade College (4 campuses, 5 schools)



Number of Participants	Stakeholder Group
College stakeholders	98
K-12 stakeholders	71
DE students	120
Total participants	291

Key Takeaways from Implementation Field Research

1) *Across the colleges, we saw promising practices that together can transform “random acts” DC into an trailhead career-path programs after high school.*

- **Outreach**

- Prioritizing underserved schools and students; educating students, parents, school leaders starting early on, removing eligibility barriers

- **Alignment**

- Mapping HS academies to college AS and pre-major transfer programs; clear and efficient transcripting of credit

- **Early Career/College Exploration, Advising, and Planning**

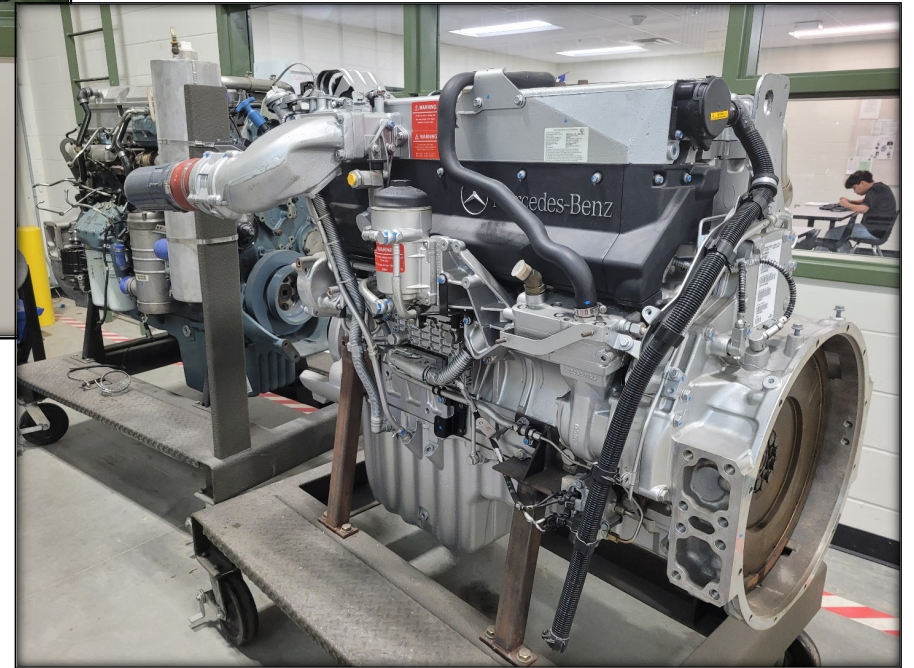
- Cross-training counselors; shared advising; advising students and parents on nuances of major-specific transfer; required education plans and checkpoint advising

- **Instruction and Academic Support**

- Scaffolding of courses and instruction, structured support for online DC; intentional selection and professional development for training; consistent quality control



Outreach to Underserved Students and Schools



Alignment of DC Courses to Degrees and Career Fields

Example program maps aligning DC offerings in HS academies to career-path degrees and credentials

Health Science
Public Service Endorsement

COURSES

9th Grade Principles of Health Science

10th Grade Medical Terminology

11th Grade Anatomy and Physiology @ San Jacinto College
Psychology @ San Jacinto College
Statistics @ San Jacinto College
Humanities @ San Jacinto College

12th Grade Medical Microbiology @ San Jacinto College
Intro to Chemistry @ San Jacinto College
English IV @ San Jacinto College
Lifetime Nutrition and Wellness @ San Jacinto College
Human Growth and Development @ San Jacinto College

HIGH SCHOOL/INDUSTRY CERTIFICATION	CERTIFICATION/LICENSE	ASSOCIATE'S DEGREE	BACHELOR'S DEGREE	MASTER'S/DOCTORAL PROFESSIONAL DEGREE
EKG/IECG Technician	Licensed Vocational Nurse (LVN)	Registered Nursing/Registered Nurse (RN)	Informatics Nurse Specialists	Nurse Practitioner
Certified Patient Care Technician				Nursing Administration
Phlebotomy Technician				Nurse Anesthetist

OCCUPATIONS	MEDIAN WAGE	ANNUAL OPENINGS	% GROWTH
Licensed Vocational Nurses	\$45,178	7,186	21%
Registered Nurses	\$68,682	17,493	26%
Nurse Practitioners	\$107,827	977	50%
Nurse Anesthetists	\$154,856	357	23%

WORK BASED LEARNING AND EXPANDED LEARNING OPPORTUNITIES

Exploration Activities: Health Occupation Students of America (HOSA)

Work Based Learning Activities: Volunteer at a community wellness center, hospital, assisted living, or nursing home.

For more information on postsecondary options for this program of study, visit TXCTE.org.

The Nursing Science program of study introduces students to knowledge and skills related to patient care. CTE concentrators may learn about or practice caring for patients, routine procedures such as monitoring vital signs, development and implementation of care plans, maintenance of medical records, and disease or pain management. Students may focus on the healthcare system and research system designs and make recommended modifications.

The Health Science Career Cluster® focuses on planning, managing, and providing therapeutic services, diagnostics services, health informatics, support services, and biotechnology research and development. To pursue a career in the health science industry, students should learn to reason, think critically, make decisions, solve problems, communicate effectively, and work well with others.

Successful completion of this program of study will fulfill requirements of the Public Service Endorsement.
Approved Statewide Program of Study, C. E. King High School – 2022-23

Manufacturing
Business & Industry Endorsement

COURSES

9th Grade Introduction to Welding

10th Grade Welding I

11th Grade Welding II (San Jacinto College Course)

12th Grade Practicum in Manufacturing @ San Jacinto College OR Career Preparation I

HIGH SCHOOL/INDUSTRY CERTIFICATION	CERTIFICATION/LICENSE	ASSOCIATE'S DEGREE	BACHELOR'S DEGREE	MASTER'S/DOCTORAL PROFESSIONAL DEGREE
AWS Certified Welder, D1.1	Certified Welder or Welder Inspector	Welding Technology/ Welder	Welding Engineering Technology/ Technician	Welding Engineering Technology/ Technician
NCCER Level 1 Welding	Machine Level 1 – CNC Milling: Programming Setup & Operations	Machine Shop Technology/ Assistant	Biomedical Technology/ Technician	Occupational Health and Industrial Hygiene
AWS Certified Welder, D9.1	Certified Welding Engineering	Operations Management and Supervision	Operations Management and Supervision	Operations Management and Supervision
	Certified Environmental, Safety, and Health Trainer	Occupational Safety and Health Technology/ Technician	Environmental Health	Environmental Health

OCCUPATIONS	MEDIAN WAGE	ANNUAL OPENINGS	% GROWTH
Welders, Cutters, Solderers, and Brazers	\$41,350	6,171	9%
Welding Soldering and Brazing Machine Setters, Operators and Tenders	\$40,040	280	9%

WORK BASED LEARNING AND EXPANDED LEARNING OPPORTUNITIES

Exploration Activities: SkillsUSA

Work Based Learning Activities: Job shadow a machinist. Apprenticeship at a local business or industry American Welding Society.

For more information on postsecondary options for this program of study, visit TXCTE.org.

The Welding program of study focuses on the development and use of automatic and computer-controlled machines, tools, and robots that perform work on metal or plastic. Students will learn how to modify parts to make or repair machine tools or maintain individual machines, and how to use hand-welding or flame-cutting equipment.

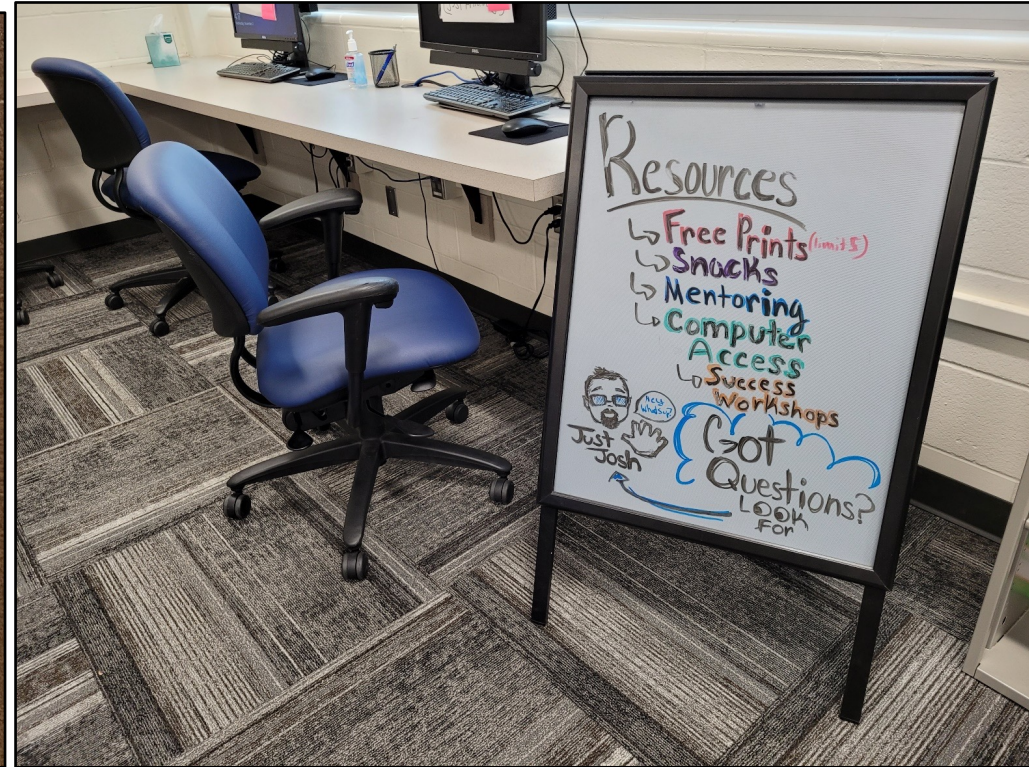
The Manufacturing Career Cluster® focuses on planning, managing, and performing the processing of materials into intermediate or final products and related professional and technical support activities such as production planning and control, maintenance, and manufacturing/process engineering.

Successful completion of this program of study will fulfill requirements of the Business and Industry Endorsement.
Approved Statewide Program of Study, C. E. King High School – 2022-23

Early Career/College Exploration, Advising, and Planning

COLLEGE CLASS IN SESSION

DUAL ENROLLMENT

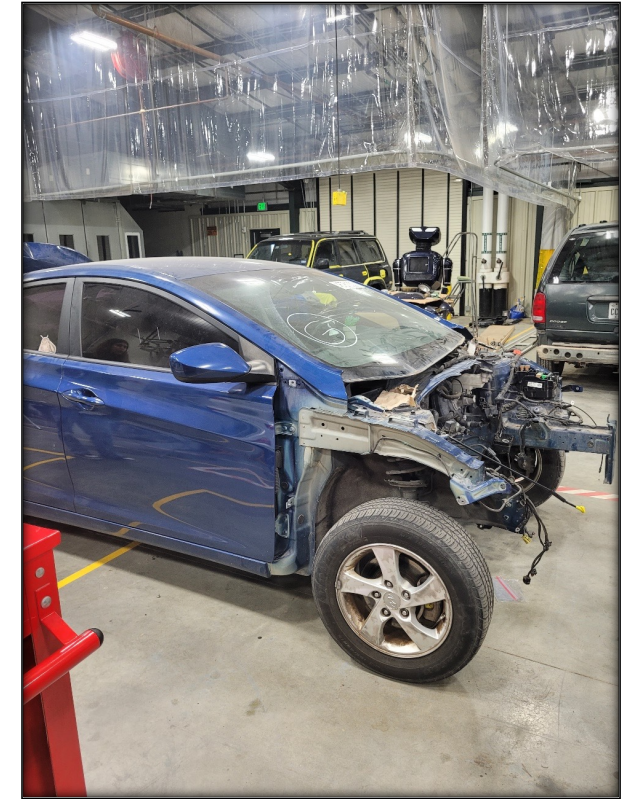


Instruction and Academic Support

Implementation Field Research: Key Takeaways

2) *Texas Title 1 schools have laid the groundwork for colleges to scale talent pathways by embedding career-path program foundation courses and advising in high school career academies.*

- Career academy strategy is scalable, avoids tracking, and can help motivate students to pursue postsecondary education
- Title 1 schools motivated to take this approach by need to attract students in “open choice” policy environment
- Students, families, communities, schools want “dual credit with a purpose”
- Strong demand from rural schools to embed DC in CTE programs



Academies and CTE Pathways in Title 1 High Schools

Implementation Field Research: Key Takeaways

- 3) *Community colleges see benefits of rethinking dual credit as trailhead to career-path degree programs, but still mainly aspirational work in progress.***
- Most colleges have not extended guided pathways practices to DC offerings and students
 - Most academic DC still gen ed with little career and college exploration and planning
 - Exceptions: San Jacinto and Paris Junior help DC students connect with program areas and develop individualized educational plans
 - Student experience with instructional quality varies; colleges and schools exploring how to ensuring access to effective instruction

Implementation Field Research: Key Takeaways

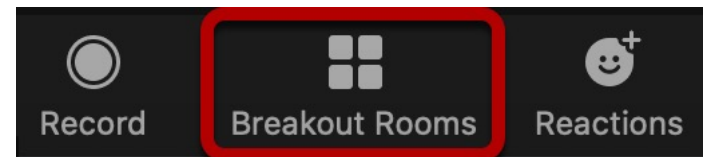
4) *We observed a shift in mindset across college and K-12 partners implementing DEEP practices.*

- Shared vision of DC as tool for talent development and expanding college enrollment
- Change in DC focus from “random acts” course taking in AA in liberal/general studies degrees to trailheads to AAS or structured pre-major bachelor’s transfer programs in high-opportunity fields
- Requiring students to choose an endorsement in high school can be designed to help them explore interests and develop a sense of purpose
- Shifting mindsets about which students will be successful in DC
- High school grades and other evidence of motivation are better measures of readiness for DC than standardized tests

Team Time 3: Prioritizing Areas for Improvement and Planning Next Steps



Texas Success Center



* Select your College



We Value Your Input

Please complete this anonymous evaluation survey.

Thank you for helping to make our events better!



Link: <https://www.surveymonkey.com/r/DEEP1>

Thank you!



Texas Success Center

CCRC COMMUNITY COLLEGE
RESEARCH CENTER

TEACHERS COLLEGE, COLUMBIA UNIVERSITY

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