Analyzing P-TECH's Impact
Overcoming Data Barriers to Map Program Characteristics

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THE RESEARCH INSTITUTE
DALLAS COLLEGE

TAIR 2026 Conference

February 26, 2026

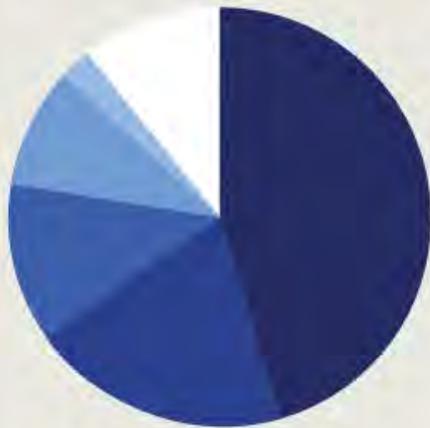# Dallas College Profile

2024-2025

ECONOMIC IMPACT

A study of the economic contribution of Texas community colleges has found that the college's economic contribution to the Dallas County economy is about **$458.3 million** in net added income each year through payroll and operations spending.

DEMOGRAPHICS

- Hispanic, 46%
- Black/African American, 19%
- White, 15%
- Asian, 8%
- International, 2%
- Other/Not Reported, 9%

GENERATIONS

Count	Generation
85,124	Gen Z/Boomlets 24 & Under
28,034	Gen Y/Millennials 25-39
12,222	Gen X 40-59
2,239	Baby Boomers 60-79
197	Mature/Silents 80+
3	Unknown

$3.3M
Awarded by Dallas College Foundation to support college access

BY THE NUMBERS

127,819 Total Unduplicated Students

105,577 Total Credit Students

26,225 Continuing Education Students

27,281 Pell Eligible Students

4,080 Military Connected Students

31,701 Dual Credit Students

6,449 Promise Students

12,353 Transfer-Out Students

Dallas College Profile

2024-2025

At Dallas College, our programs are organized into **seven schools of instruction,** each offering diverse programs, including both credit and non-credit programs.

School of Business, Hospitality and Global Trade

School of Creative Arts, Entertainment and Design

School of Education

School of Engineering, Technology, Mathematics and Sciences

School of Health Sciences

School of Law and Public Service

School of Manufacturing and Industrial Technology

EDUCATIONAL PARTNERSHIPS

44	**170**	**150**	**20**	**4**
P-TECH Programs	Homeschool Partners	Dual Credit Partners	Early College High School Programs	On-Campus High Schools

17 ISD Partners for ECHS/P-TECH

- Carrollton-Farmers Branch ISD
- Cedar Hill ISD
- Cooper ISD
- Coppell ISD
- Dallas ISD
- DeSoto ISD
- Duncanville ISD
- Ferris ISD
- Forney ISD
- Garland ISD
- Grand Prairie ISD
- Highland Park ISD
- Irving ISD
- Lancaster ISD
- Mesquite ISD
- Richardson ISD
- Sunnyvale ISD

CREDENTIALS
2024-2025 Academic Year

9,346	**210**	**11,928**
Associate Degrees	Bachelor's Degrees	Certificates and Skills Awards

The Research Institute at Dallas College

Mission and Vision

Vision: We envision a Dallas College that consistently grounds its strategic decisions in high-quality research and, as a result, serves as a national exemplar in supporting the long-term success and wellbeing of its students.

Mission: The Research Institute at Dallas College conducts actionable higher education research that seeks to elevate community college student success and post-completion outcomes. We develop regional and national insights while directly supporting strategic decision-making within our college and local community.

Research Agenda Highlights

- Economic outcomes of (community) college students (employment, earnings, ROI, debt)
- Dual enrollment and long-run outcomes, P-TECH landscape
- Vertical transfer and long-run outcomes
- First Destination Survey
- Intergenerational impact of Dallas College
- Adult learners and student parents
- Predictive applications/admissions modeling
- Promise program analysis and outreach
- KPI benchmarking

Key Partnerships

commit · Trellis Strategies · ECONOMIC MOBILITY SYSTEMS · RAND CORPORATION · OPPORTUNITY INSIGHTS · COLERIDGE INITIATIVE · SMU · STRATEGIC DATA PROJECT · IHEP · CSME at UNT Dallas · Texas Schools Project — The University of Texas at Dallas State of Texas Education Research Center · strada

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Presentation Outline

- Why examine P-TECH implementation?

- P-TECH landscape analysis – approach, findings, & data gaps

- Exploration of P-TECH student outcomes – credential completion & earnings

- Next steps for research

- Q&A

Analyzing P-TECH Program Design & Implementation

Do dual credit programs deliver?

Studying specific dual credit programs targeted toward underserved students helps to identify which program characteristics drive or impede students' success.

Do certain dual credit programs produce their intended outcomes?

Motivation for P-TECH Landscape Analysis

Philanthropic organizations, foundations, state agencies, regional chambers, and postsecondary institutions have heavily invested in scaling P-TECH.

There is little research on whether P-TECH programs improve students' academic and workforce outcomes.

Dallas College has robust P-TECH partnerships with local ISDs.

What are the core characteristics and features of P-TECH pathways, and how well do they advance student success?

Why It Matters

Understanding P-TECH program characteristics...

Helps identify program components that reduce barriers to achievement

Improves implementation

Enables robust analysis of student outcomes
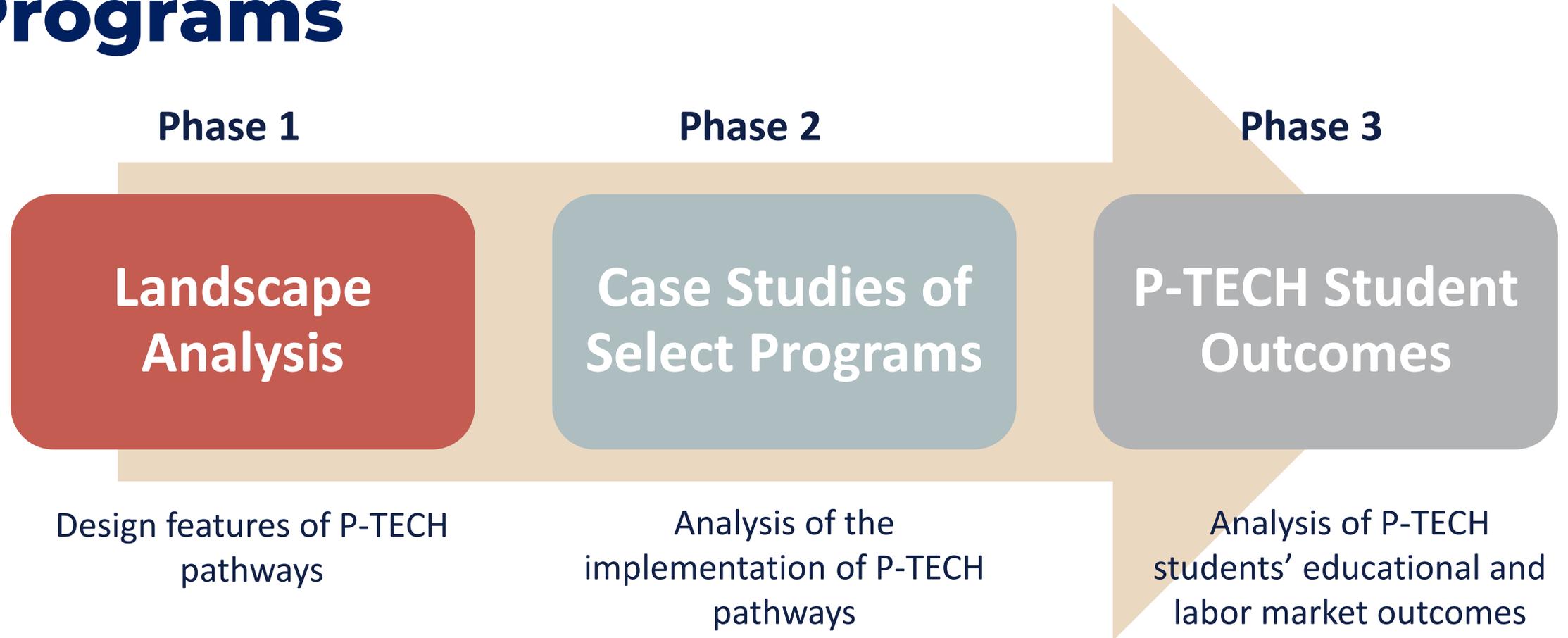
Improves use of resources

Supports scaling and growth

P-TECH ISD Partnerships

- **44** P-TECH partner high schools

- **ISDs**: Dallas, Garland, Richardson, Mesquite, Irving, Lancaster, DeSoto, Duncanville, Grand Prairie, charter school districts

- A mechanism of Texas Education Agency (TEA): **P-TECH Blueprint** guides implementation

- Alignment of curriculum and pathways: **high school, college, and career-focused coursework** aligned to Dallas College credentials and regional workforce needs.

- Dallas College **prioritizes P-TECH credential completion**

Understanding the Promise of P-TECH Programs

Phase 1

Phase 2

Phase 3

Landscape Analysis

Case Studies of Select Programs

P-TECH Student Outcomes

Design features of P-TECH pathways

Analysis of the implementation of P-TECH pathways

Analysis of P-TECH students' educational and labor market outcomes

Research Institute and UT Dallas Texas Schools Project collaboration

Landscape Analysis – Characteristics

- P-TECH pathway-level data, 2024-25
- SCHs required in each pathway
- Overall enrollment counts
- Enrollment counts of minoritized students
- Industry partners
- Work-based learning
- Credentials conferred in each pathway
- Core complete students
- Industry-based certifications

- 182 P-TECH pathways across 9 ISDs
- Admissions: open enrollment (with applications and interviews); lotteries applied for oversubscribed pathways
- Top 5 pathways: AA, AS, AAT, AA-FOS Business, AA w/Business Operations Generalist Certificate
- Example industry partners: UT Southwestern Medical Center, American Airlines, IBM, Capital One, Dallas PD, Oncor, Texas Instruments, etc.
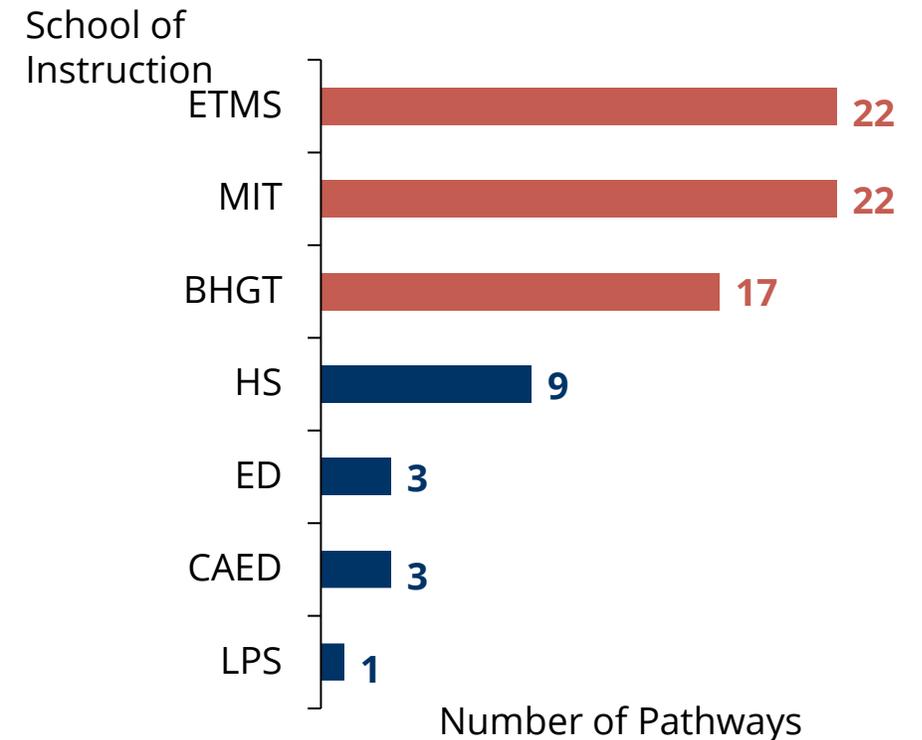
Overview of Pathways

ISD	Number of P-TECH High Schools	Total Number of P-TECH Pathways Offered*
Dallas	19	109
Garland	5	30
Richardson	4	17
DeSoto	1	8
Duncanville	1	4
Grand Prairie	2	6
Irving	1	3
Mesquite	2	3
Lancaster	1	2

*Counts of pathways offered at multiple high schools within an ISD are duplicated.

P-TECH Pathways by School of Instruction, AY 2024-

School of Instruction

School of Instruction	Number of Pathways
ETMS	22
MIT	22
BHGT	17
HS	9
ED	3
CAED	3
LPS	1

Number of Pathways

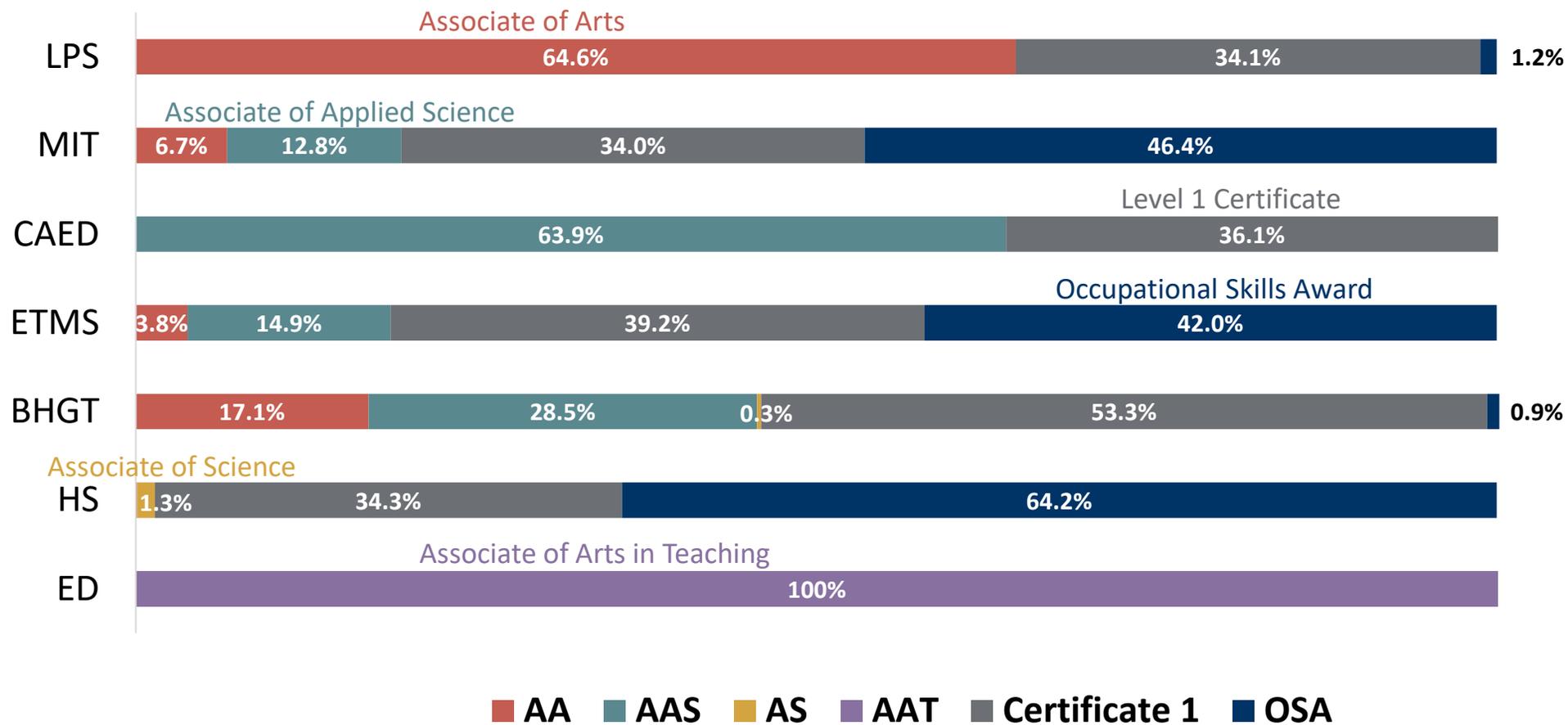Source: Dallas College; publicly available school district data.

P-TECH Student Credential Completion by Credential Type, 2022-25

- **3,885** credentials awarded across all P-TECH pathways

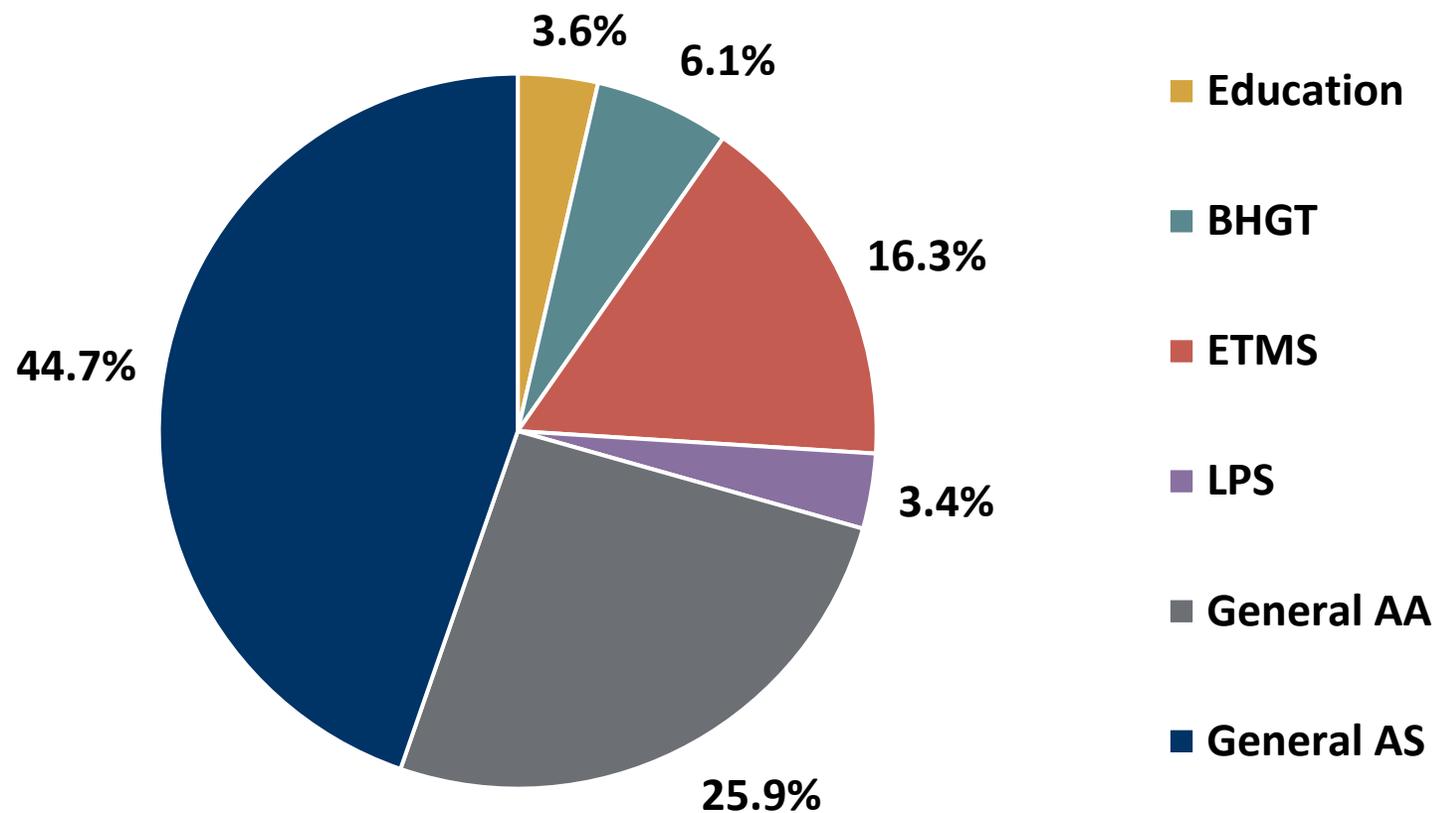- **66%** of credentials awarded are Level 1 Certificates and OSAs

12.5%

10.3%

9.9%

1.5%

33.0%

32.8%

- AA
- AAS
- AS
- AAT
- **Certificate 1**
- OSA
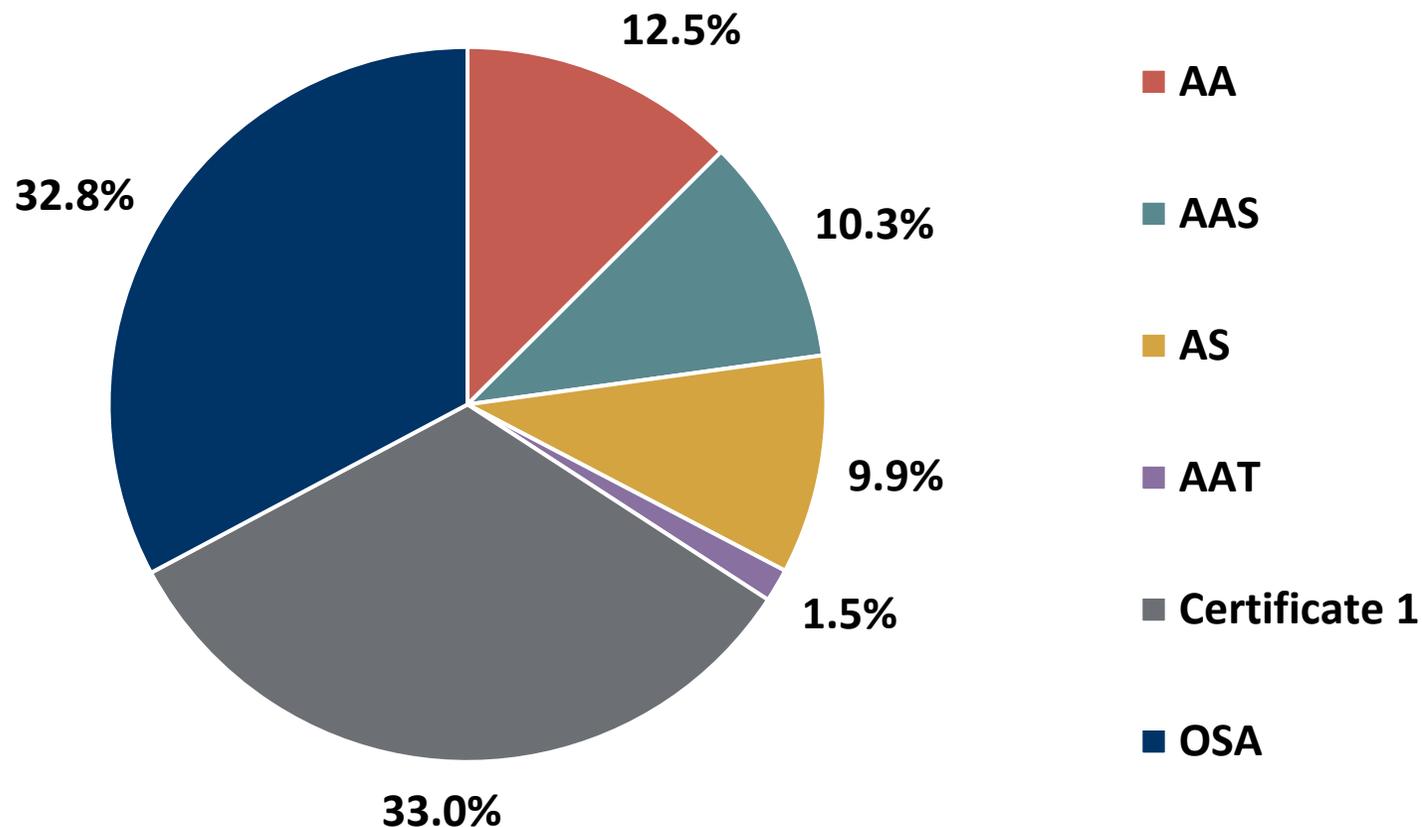
Credentials Concentrated in AAS, Certificate, & OSA Pathways

Core Completion Concentrated in AA & AS Pathways

- **1,073** students core complete

- **42** semester credit hours (SCH) required for core completion

- Students in MIT, CAED, and HS pathways were not core complete (AAS degrees)

Pie chart legend:
- Education
- BHGT
- ETMS
- LPS
- General AA
- General AS

Pie chart values: 3.6%, 6.1%, 16.3%, 3.4%, 25.9%, 44.7%

Insights from ISD Leaders

- **Design of P-TECH pathways vary** by school districts

- Pathway decisions are driven by **student interest**, **anticipated enrollment**, and **alignment with transfer opportunities** to four-year institutions.

- **Student participation varies** based on competition (AP or academic dual credit over P-TECH, limited school choice).

- **Student experiences vary** across pathways and high schools (experiential learning)

- Operational **challenges to implement P-TECH**, traditional CTE programs can offer greater flexibility and labor market alignment

Addressing Data Challenges

- **Uncoordinated data sharing** between ISDs and College
  - Dallas College cannot track admissions, college course non-enrollment, or industry certification completion data

- **Systematic identification of dual credit students** by program and pathway

- Regular collection of **pathway-level information on work-based learning** experiences

- Closer coordination with district partners to **align data sharing practices**

- Using **statewide student-level administrative data** could for a more complete picture of longer-term student outcomes
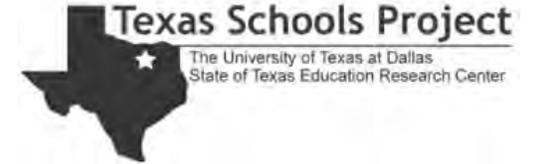
Early Insights into P-TECH Student Outcomes

Exploring P-TECH Student Completion & Earnings in the Dallas Region

- **TX Education Research Center** data holdings (UT Dallas)

- **23 ISDs** serving Dallas-Fort Worth area **9th grade** P-TECH students from AY 2019 and AY 2020

- Highest **credential** obtained from community colleges in Texas reported by THECB in a 5-year period

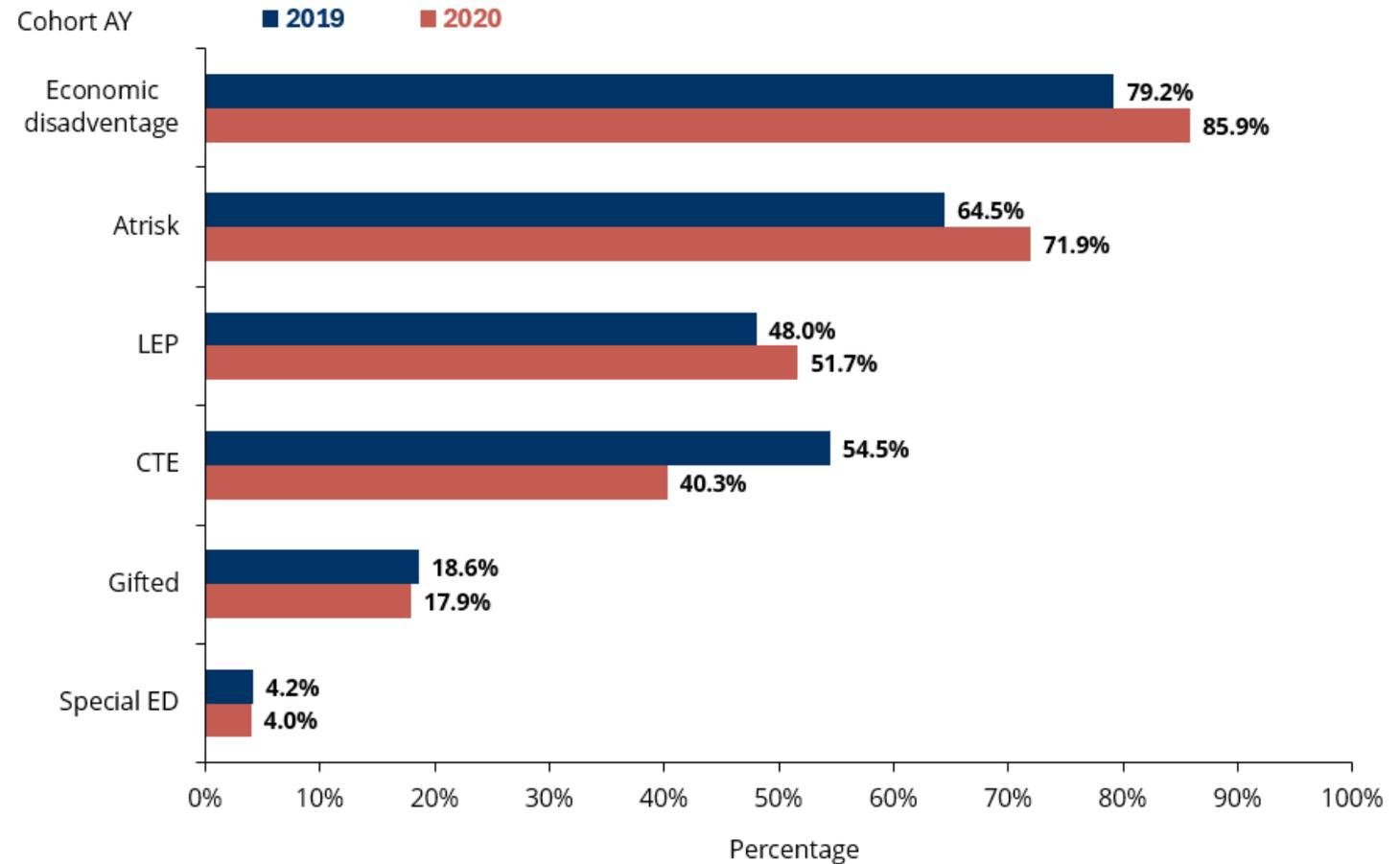- Earliest **core completion** in a 5-year period

- Earnings **1 year post high school graduation** in 2024 dollar amount
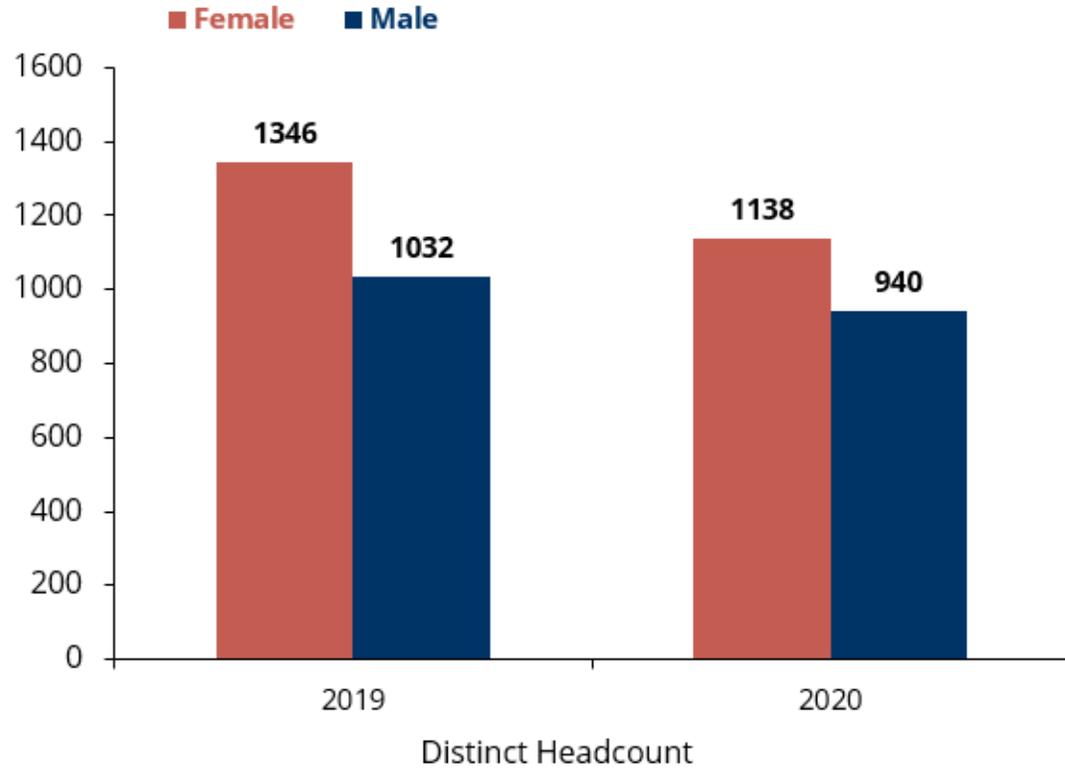
P-TECH Student Characteristics

- Across the 23 districts, there were about **47,000 9th grade students in each of the 2019 and 2020 academic years**.

- Roughly **5%** of these students enrolled in P-TECH programs in 9th grade each year.

- In both years, **more than half** of P-TECH participants were identified as **economically disadvantaged or at-risk**.

- Students receiving **special education** services were **less likely to participate** in P-TECH programs.
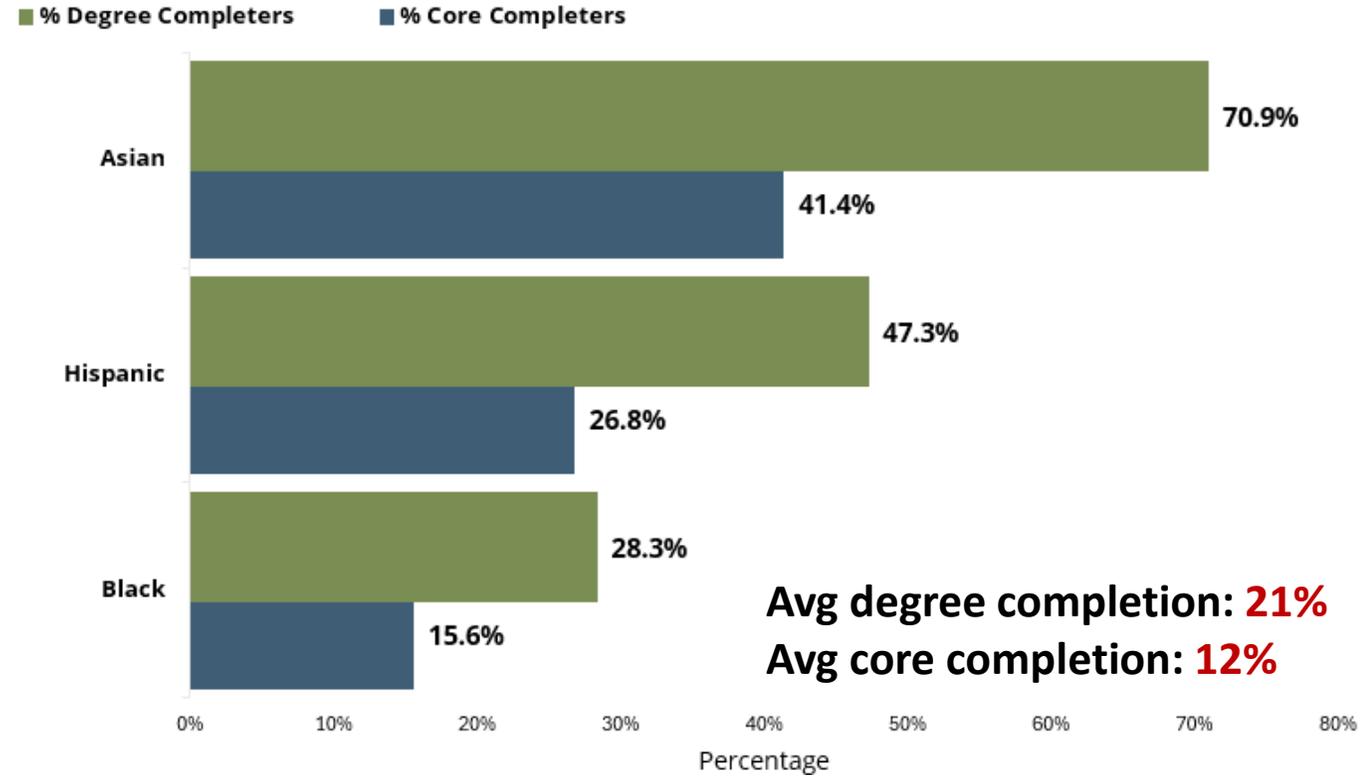

Cohort AY · 2019 · 2020

Category	2019	2020
Economic disadventage	79.2%	85.9%
Atrisk	64.5%	71.9%
LEP	48.0%	51.7%
CTE	54.5%	40.3%
Gifted	18.6%	17.9%
Special ED	4.2%	4.0%

Percentage

Source: TEA data.

Credential completion highest among Female and Asian P-TECH participants

Female **Male**

1600
1400
1200
1000
800
600
400
200
0

1346
1032
2019

1138
940
2020

Distinct Headcount

Source: TEA enrollment data

Females had higher degree and core completion rates than males in each cohort.

% Degree Completers **% Core Completers**

Asian
70.9%
41.4%

Hispanic
47.3%
26.8%

Black
28.3%
15.6%

Avg degree completion: **21%**
Avg core completion: **12%**

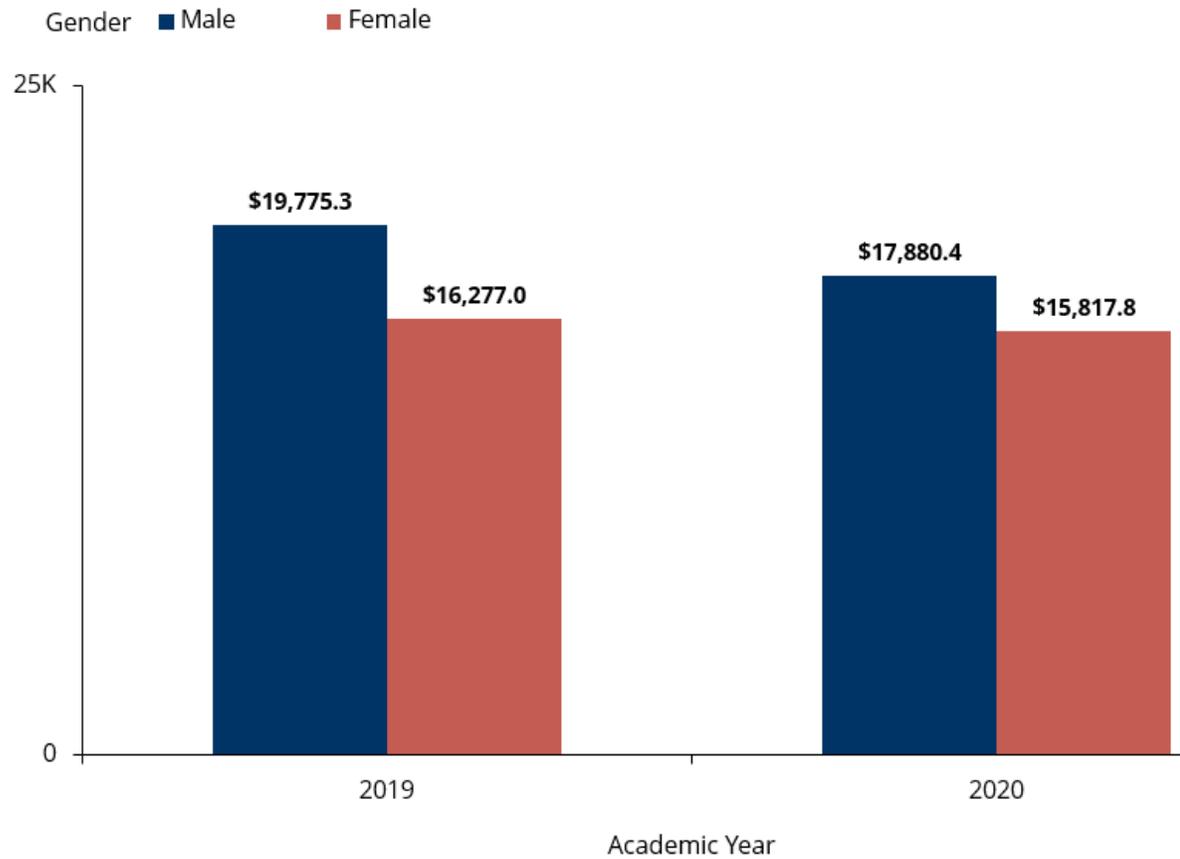0% 10% 20% 30% 40% 50% 60% 70% 80%
Percentage

Hispanic students completed credentials at higher rates than the overall P-TECH completion rate.

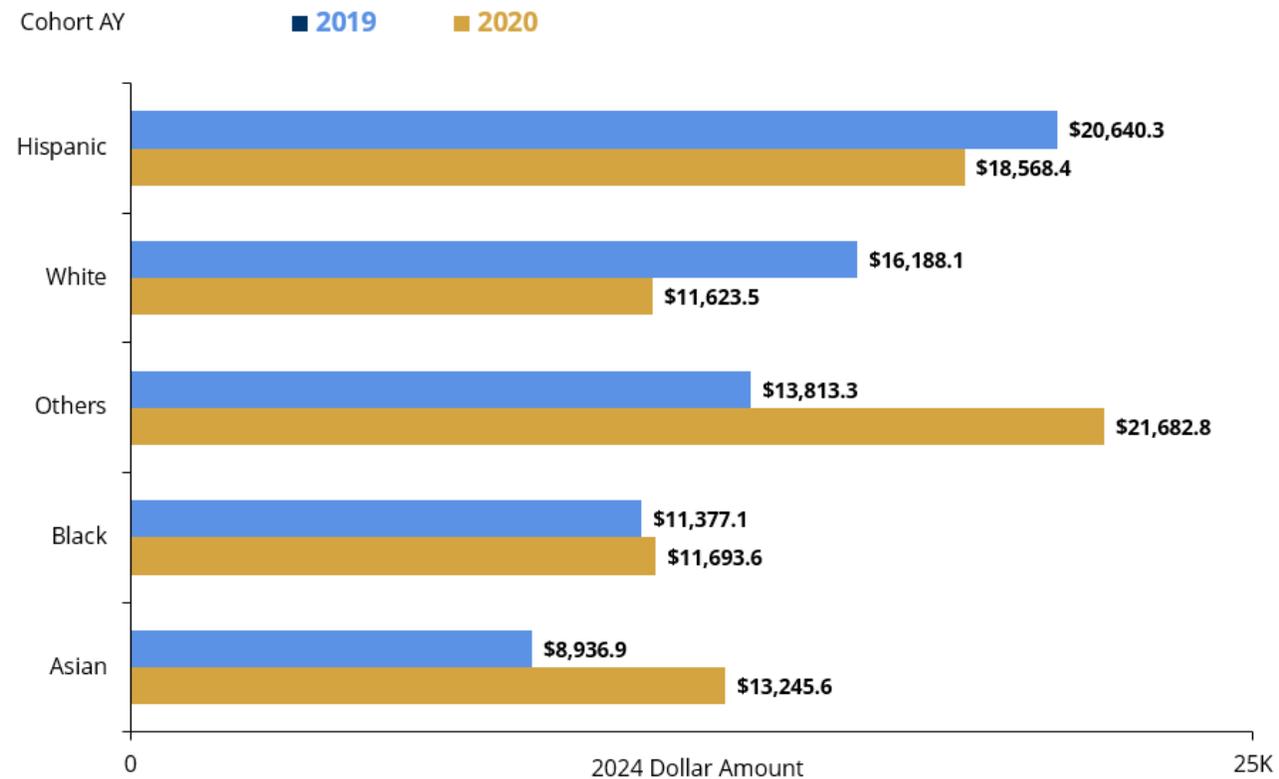# Male and Hispanic P-TECH participants have the highest median wages one year post high school.

9th grade P-Tech students by gender

Gender ■ Male ■ Female

- 2019: Male $19,775.3, Female $16,277.0
- 2020: Male $17,880.4, Female $15,817.8

Academic Year

9th Grade P-tech students by race

Cohort AY ■ 2019 ■ 2020

- Hispanic: 2019 $20,640.3, 2020 $18,568.4
- White: 2019 $16,188.1, 2020 $11,623.5
- Others: 2019 $13,813.3, 2020 $21,682.8
- Black: 2019 $11,377.1, 2020 $11,693.6
- Asian: 2019 $8,936.9, 2020 $13,245.6

2024 Dollar Amount

Implications for Future Research

Underserved students participate in P-TECH at higher rates than their counterparts in the Dallas College service region.

However, **wages after high school are low relative to the living wage** of $47,965/year for a single adult with no children in Dallas County.

A **deeper understanding of students' experiences in P-TECH pathways** can reveal their workforce readiness.

Analyzing credential completion and earnings **by credential and pathway type** can reveal more granular differences.

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Browse all research →

Thank you!

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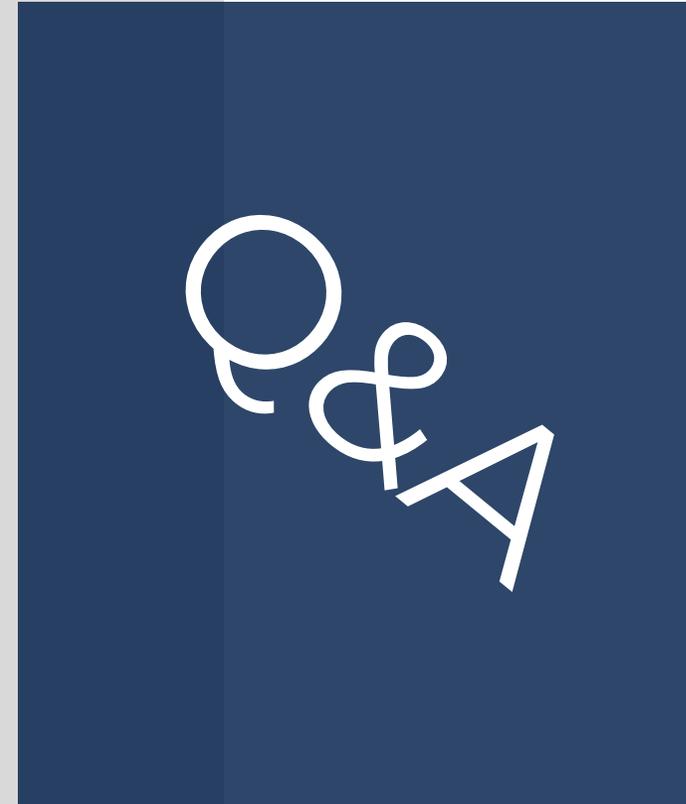
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Q&A