



Texas Association of  
Community Colleges

# Aligning Systems: High School to College Pathways

Laura Lane-Worley, Ph.D, LMSW, M. Ed.  
Community College Research Fellow  
Lee College

Texas community colleges continue to evolve practice and policy through Texas Pathways to meet the goals of the *60X30 Texas Higher Education Plan* that aims to equip 60% of adults aged 25-34 with a postsecondary certificate or degree by 2030<sup>1</sup>. Unfortunately, only 44% of Texans have a degree or certificate.<sup>2</sup> Worse yet, only 23% of the 2008 8th grade cohort earned a certificate or degree by 2019.<sup>3</sup> Understanding the relationship between students' high school endorsement and college pathways choices in Texas community colleges is necessary to inform practices and policies aimed at improving the high-school-to-college pipeline. This case study examined this relationship with additional investigations of persistence and equity.

The Texas Pathways strategy supports strong linkages between K-12 and community college partners. According to the Texas Education Agency, high school endorsements “help students focus their interest, select their coursework, and better plan for their postsecondary training and education.”<sup>4</sup> Similarly, the guided pathways strategy promotes “clearly mapping programs to specify course sequences, progress milestones, and program learning outcomes.”<sup>5</sup> Thus, examining the connections between high school endorsements and college pathways can lead to the development of clear pathways for all students that allow for the efficient transition of students from high school to institutions of higher education, and on to careers in the student's area of interest.

## Research Questions

1. What are students' perceptions of endorsement and the relationship of endorsements to degree plan (meta-major)?
2. What are students' experiences with advising at the high school and college level?
3. What relationship exists, if any, between students' chosen endorsement and college/career pathway, including attainment of multiple endorsements and the general studies or undecided degree plan, and the Multidisciplinary endorsement and the general studies or undecided degree plan?
4. What differences exist between students who continued through Spring 2020 (continuers) and students who stopped out before Spring 2020 (non-continuers)?

## Study Design

**Sample:** 1,437 first time in college (FTIC) traditional students who entered community college in Fall 2018 or Fall 2019, including:

- 1,002 students who continued and enrolled in Spring 2020
- 435 students who stopped out of college at some point before Spring 2020

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<sup>1</sup>Texas Higher Education Coordinating Board (THECB), Texas Higher Education Strategic Plan: 60x30TX (Austin, TX, 2015).

<sup>2</sup>THECB, 2020 Texas Public Higher Education Almanac (Austin, TX, 2020).

<sup>3</sup>THECB, (2020).

<sup>4</sup>Texas Education Agency, Graduation toolkit (Austin, TX, 2020), 3.

<sup>5</sup>Jenkins, Davis, Hana Lahr, John Fink, & Elizabeth Ganga. What we are learning about Guided Pathways (New York, NY: Community College Research Center, 2018), 1.

## Data Sources

- An electronic survey with closed and open-ended questions focused on students' experiences with high school endorsements, college certificate and degree planning, and academic advising sent via the student college email account with reminders in the college's learner management system
- High school transcripts and college advising worksheets with data on:
  - High School Endorsements – Number obtained and type per student
  - High School Performance Indicators/attainment of Distinguished level of achievement
  - High School GPA
  - Dual Credit Course-taking
  - College certificate or degree plan
  - College GPA
- Student demographic information including gender, race/ethnicity, qualification for financial aid, and self-report of first-generation to college on Apply Texas application

## Findings

### *Students' perceptions of endorsement and the relationship of endorsements to degree plan (RQ1)*

- Many respondents attained more than one endorsement in high school.
- 32% of respondents indicated their high school endorsement helped them with college degree/certificate selection.
- 48% of respondents indicated “good experiences” while engaging in high school endorsements and that they were “helpful.”

### *Students' experiences with advising at the high school and college level (RQ 2)*

- 57% of respondents selected their high school endorsement without guidance from an advisor
- 52% of respondents received academic advising from a college advisor and 27% of those respondents met with advisors who discussed their high school endorsements.
- There were mixed responses regarding the helpfulness of discussing high school endorsements in a college advising session.

### *The relationship between students' chosen endorsement and college/career pathway (RQ3)*

- Students' course-taking aligned with the reported college pathway.
- Students' relationships between degree/certificate and their career aspirations varied.
- Transcript analysis found statistically significant associations between:
  - Business and Industry high school endorsement and the Applied Business and the Manufacturing and Industry college pathway,  $\chi^2 (5, N = 393) = 12.65, p < .05$
  - Multidisciplinary Studies endorsement and General Studies/Undecided degree plans,  $\chi^2 (5, N = 393) = 12.10, p < .001$ .

### *Comparisons between continuers and non-continuers (RQ4)*

Continuers and non-continuers had some similarities:

- Approximately 27% of students from both groups had prior dual credit
- High school GPA and college GPA have a strong positive correlation ( $p < .01$ ) for both continuers and non-continuers.

However, there were differences between continuers and non-continuers

Figure 1. Gender and Minority Status

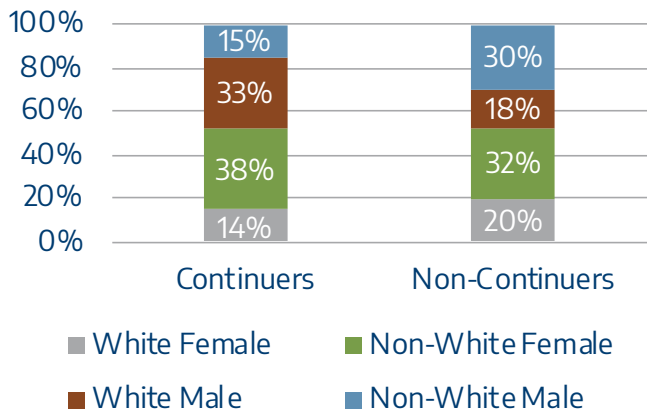
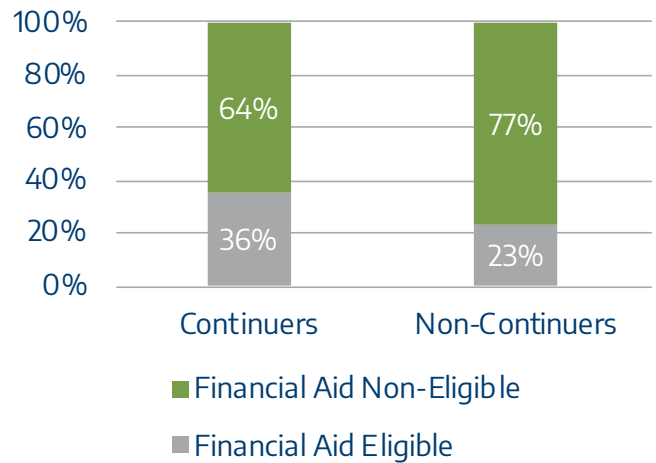
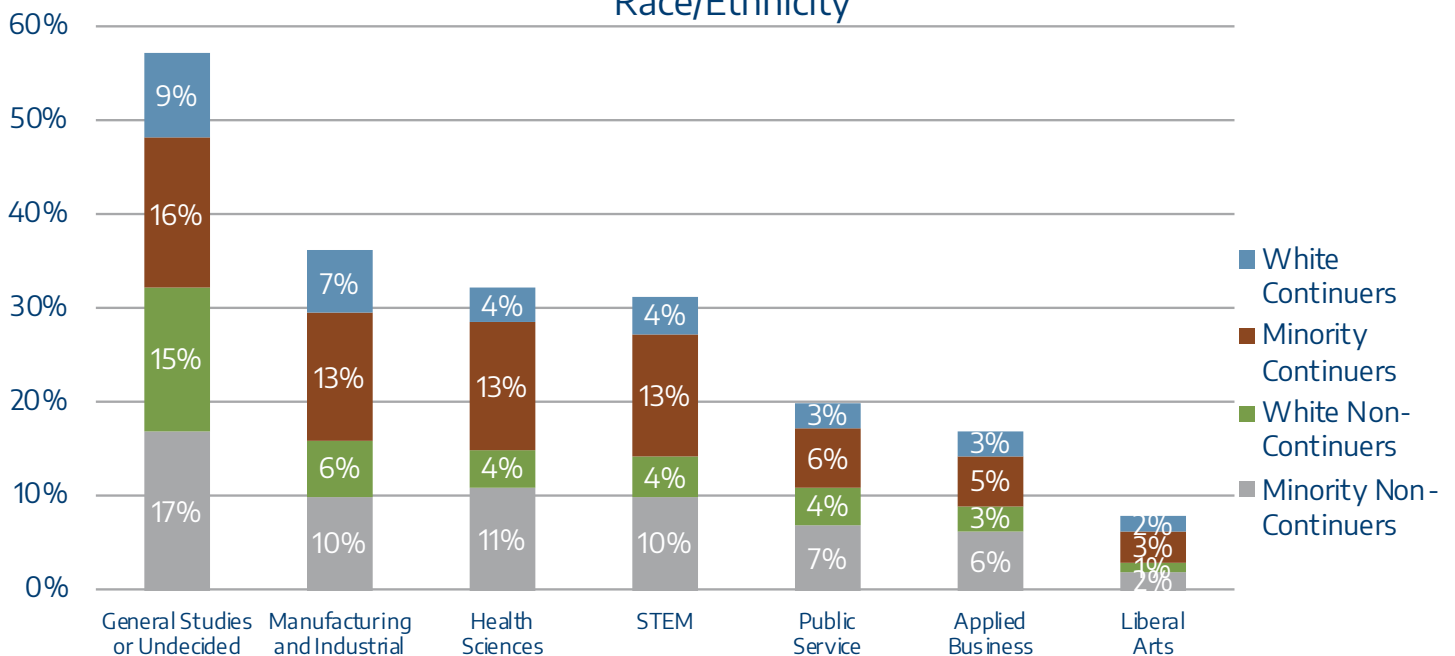


Figure 2. Financial Aid Status



- As seen in Figure 1, students who enrolled and continued through Spring 2020 (continuers) were more likely to identify as White than those who stopped out before Spring 2020 (non-continuers).
- Figure 2 shows that non-continuers were more likely to be ineligible for financial aid compared to continuers.

Figure 3. FTIC Student Enrollment in College Pathways by Race/Ethnicity



- Figure 3 shows the proportion of FTIC students enrolled in college pathways by race and ethnicity and continuer status (continuer or non-continuer).
  - 32% of all non-continuers in the sample designated General Studies or Undecided as their degree/certificate. More than half of the non-continuers in this pathway were from non-White racial and ethnic groups.
  - In comparison, 16% of non-continuers chose Manufacturing/Industrial, 15% of non-continuers chose Health Sciences, 14% of non-continuers chose STEM, 11% of non-continuers chose Public Service, 9% of non-continuers chose Applied Business, and 3% of non-continuers chose Liberal Arts. In each group, more non-continuers were non-White than White.
  - 25% of all continuers in the sample designated General Studies or Undecided for their degree.
  - The percentages of continuers in other pathways were: 20% Manufacturing and Industry, 17% Health Services, 17% STEM, 9% Public Service, 8% Applied Business, and 5% Liberal Arts.

Continuers and non-continuers differed in other ways:

- 12% of non-continuers self-identified as first-generation compared to 18% of continuers
- 44% of non-continuers attained one endorsement compared to 35% of continuers
- 26% of non-continuers attained Multidisciplinary Studies as their sole endorsement compared to 22% of continuers
- More non-continuers (41%) attained a college GPA of 2.0 or less, were in developmental courses, or withdrew from all courses as compared to continuers (23%).

## Recommendations

The findings have implications for practice for school districts, institutions of higher education, and workforce which may increase success rates of students and move the state closer to the overarching goal of the *60 X 30 Texas Higher Education Plan*. The state of Texas is focused on increasing degrees and certificates among Hispanics, African Americans, males (all races/ethnicities), and persons who are economically disadvantaged.<sup>6</sup> The largest group of non-continuers are degree-seeking students of minority status. Therefore, whole-system cultural change to support student success across all campus constituencies, including the development of culturally relevant curriculum across systems and the use of dropout prevention and recovery personnel may prove helpful in the retention of students.

The data suggests additional supports for students eligible for financial aid and those who are first generation to college may be of value in retention of students. Based on the strong correlation between high school GPA and college GPA, discussing high school GPA with FTIC students and helping students develop a plan for success may prove beneficial. Pairing students with a low high school GPA with a mentor and assisting the student in first semester course selection may be of benefit. This case study suggests, despite exposure to multiple courses across multiple endorsements in high school, students need more intentional guidance and advising. Therefore, as advisors meet with students new to college, intentional advising with a discussion around grades, exploration of high school courses, study skills, and other outside responsibilities is recommended.

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<sup>6</sup>THECB, 2015.

Further development of partnerships among school districts, institutions of higher education, and local Texas Workforce Commission representatives may help development of efficient pathways to college and career, build student interest in courses they take leading to a future career, and assist with alignment of endorsements and the career and technical programs to college and career pathways. Extending endorsement plans to include clear follow-on transfer plans to college and career can provide students with a big picture perspective.

### **Full Report**

The report, including the methodology, outcomes, limitations, description of future research, and full list of references is available at <https://tacc.org/tsc>.