

## Progress Implementing Guided Pathways in Texas Community Colleges

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The Texas Pathways model is an integrated, system-wide approach to student success based on intentionally designed, clear, coherent and structured educational experiences, informed by available evidence, that guide each student effectively and efficiently from the selection of a high school program to postsecondary entry through to attainment of high-quality credentials and careers with labor market value. Developed from the findings of the Community College Research Center (CCRC) and the American Association of Community Colleges Pathways Project, the Texas Pathways model outlines four pillars (Figure 1) and associated essential practices that support the whole-college reform of the student experience. Each participating Texas Pathways community college tailors strategies to address the essential practices in each of the four pillars.

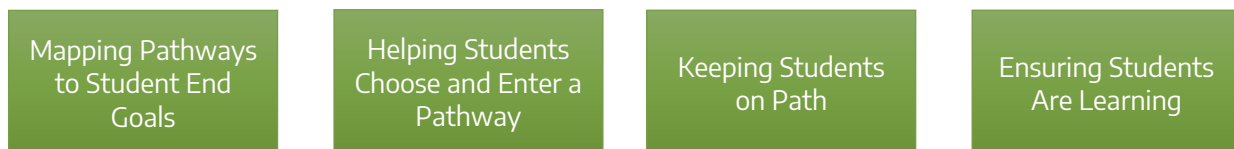


Figure 1. The four pillars of the Texas Pathways model.

The first round of Texas Pathways began in Fall 2016 and served 38 colleges. By Fall 2018, 48 of the 50 community college districts in Texas had committed to Texas Pathways. Participating colleges were organized into four cadres by readiness and capacity for implementing guided pathways practices at scale. Each cadre contained colleges of various sizes in multiple regions (Figure 2). As colleges joined Texas Pathways, each examined existing processes and planned for implementation of all essential practices at scale during focused institutes provided by the Texas Success Center.

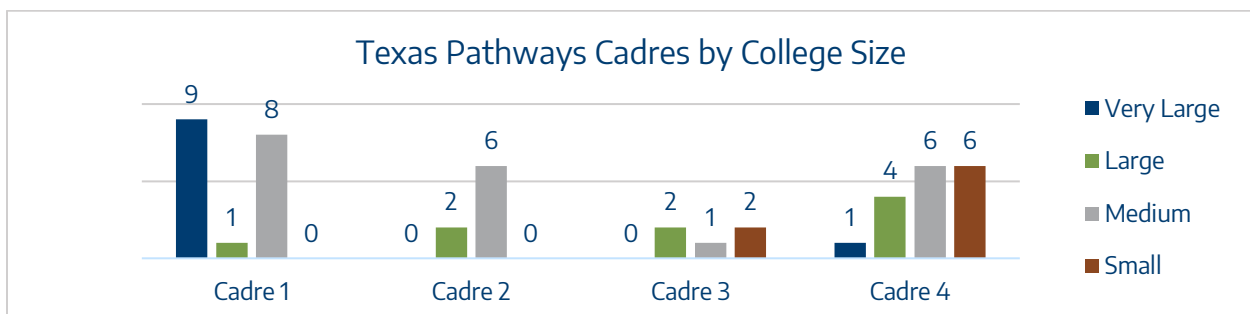


Figure 2. Colleges participating in Texas Pathways cadres by size. Fall 2018. N=48

In April 2019, Texas Pathways colleges reflected on their progress using the Guided Pathways Essential Practices: Scale of Adoption Self-Assessment (SOAA) developed by CCRC and adapted by the Texas Success Center. Participating colleges self-identified their progress on implementing a given practice using a five-level scale (Figure 3). Researchers followed up with phone conversations with college leadership between June and December of 2019 to discuss, clarify, and validate colleges' progress scaling key practices.



<b>Not Occurring</b>	<b>Not Systematic</b>	<b>Planning to Scale</b>	<b>Scaling in Progress</b>	<b>At Scale</b>
College is not currently engaging in this practice	Practice is incomplete, inconsistent, informal, optional	College is planning to systematically implement the practice or to expand on existing practices	Implementation is in progress for all students in all programs of study	Practice is at scale (or very nearly at scale) for all students in all programs of study

Figure 3. The five-level scale used in the self-assessment.

This report presents the validated progress of 43 colleges that participated in interviews as of Fall 2019. The main findings based on colleges' self-assessment responses and their conversations with the researchers are organized into five sections: *Creating a Guided Pathways Framework* and one for each of the four pillars. Descriptions of colleges' progress toward implementing specific components are followed by examples of college practices.

The report concludes with considerations on areas for focus to accelerate progress and impact student success. The Texas Success Center will use the findings to enhance the second round of Texas Pathways Institutes to continue supporting Texas community colleges' reimagining of the college experience.

### Creating a Framework for Guided Pathways

Colleges of all sizes have found ways to develop or redesign practices to redefine the student experience with varying levels of human capital, institutional tools, and funding. The enthusiasm expressed while sharing plans and implementing strategies to transform the student experience was evident in many of the written responses and during the interviews. Based on the SOAA and validation calls, several key factors contributed to the effectiveness of guided pathways progress. The factors included: (a) creating a clear foundation for guided pathways, (b) developing a well-defined pathways leadership structure, (c) making data-informed decisions, and (d) ensuring broad involvement in planning and implementing essential practices.

**Foundation.** The colleges making the most progress understood guided pathways as a framework for an ongoing total-college transformation, rather than as a set of individual initiatives. Colleges making significant progress stated the urgency of redesigning the student experience, recognized the need to enroll students on a well-defined path, and acknowledged the importance of supporting students to completion. These colleges articulated a clear vision of the pathways model and processes used to align the essential practices. Additionally, several colleges discussed integrating the pathways model into ongoing communications within the college to increase widespread understanding across various stakeholders. Almost all colleges acknowledged the importance of designing structures that support equitable access and outcomes; a few colleges have started examining practices with an equity lens to support historically underserved students.

- At **San Jacinto College**, the pathways team encourages faculty and staff to inspect college practices from the student's point of view. With the student experience in mind, San Jacinto College recently approved new vision and mission statements, strategic goals, and annual priorities grounded in equity.
- **Del Mar College's** Board of Regents adopted a new strategic plan that is student success driven; regents routinely review key performance indicators.
- At **Lee College**, all college functions were realigned with guided pathways and Completion by Design hallmarks. Resources are focused in three areas: progress, completion, and transition.

**Structure.** Colleges explained that pathways work required bringing together academics and student services to understand connections between essential practices across pillars. Effective pathways leadership structures often included vice presidents, academic and workforce faculty leaders, student services leaders,



institutional research representatives, and marketing representatives. Some colleges, including **College of the Mainland**, **Navarro College**, **Weatherford College**, and **Midland College**, utilize a committee or task force structure, along with a pathways steering team, to break down silos and guide progress. Colleges expressed the importance of having the president and board involved in the work, and several colleges include the president on the pathways leadership team. For example, the presidents at **Paris Junior College**, **Victoria College**, and **Northeast Texas Community College** work with pathways teams and participated on the SOAA validation calls.

Several colleges reported that changes in leadership at various levels resulted in pausing and restructuring work. Some colleges with less-defined pathways teams indicated that uneven work burdens led to initiative fatigue, misunderstanding of the pathways model, continued siloing, and a lack of communication that hindered progress.

**Data-informed decisions.** Colleges making progress on pathways reform used data to mark starting points and benchmarks, measure progress, and inform refinement or necessary changes. Data were used to place students, monitor student progress, identify enrollment in pathways and programs, determine changes in course structure and pedagogy, support improved scheduling, and disaggregate outcomes. Many well-resourced colleges made data collection and analysis a key part of pathways implementation. Other colleges identified a lack of resources and outdated systems as hindrances to adequate and timely data collection and analysis. A few lower-resourced colleges developed internal innovations to meet data needs.

- **Amarillo College's** president created a data-informed change culture. Faculty are asked to work within "data-designed boxes" to improve practices related to course redesigns, communities (meta-majors) structure, graduation rates, and the necessary supports for 15 identified critical gateway courses.
- The two-person Institutional Technology team at **Galveston College** developed a Student Planner internally to store program plans. The Student Planner is used by faculty, advisors, and students to monitor program progress and plan for future course offerings.
- **Lone Star College** developed a long-term pathways project plan that includes the use of data to determine necessary changes in practices. For example, the college uses data to guide scheduling changes. Additionally, workforce programs use instructional survey results, advisory committee information, and labor market information on "report cards" to monitor student success.
- Advisors equipped with pathways-aligned data work with academic departments on the scheduling committee at **Alvin Community College** to ensure that the college offers all necessary courses for program completion each semester based on current student progress.

**Community-wide involvement.** Communication about guided pathways work by the pathways leads was necessary for institutional buy-in and stakeholder engagement. Colleges that made progress noted that pathways teams met regularly and made a concerted effort to include a diverse set of pathways "champions" that could spread the message across campus sectors. Many colleges intentionally included faculty and staff on leadership teams that worked to restructure college operations. Colleges also incorporated pathways into preparation for reaffirmation of accreditation, Quality Enhancement Plans (QEPs), continuing work with Achieving the Dream, Title V grant projects, and other grant-funded work.

- At **Alamo Colleges** and **Austin Community College**, the pathways team, faculty, and staff redesigned dean roles to focus on pathways.
- At **Kilgore College**, pathways leadership trains faculty and equips them with a template for program mapping. Academic and workforce departments make initial decisions about course sequence and electives. Then the maps are reviewed by the department chair, dean, director of counseling, and the student success council. Completed maps are posted on the website for student use. In this way, guided pathways mapping is a "bottom-up" process supported by the "top."



- Applying the culture of caring framework to student and faculty interactions, the pathways leads at **Weatherford College** strategically engage on task forces faculty and staff who identify challenges with reforms of college practices. The college has supported 24 task forces and plans to create more task forces as faculty and staff identify areas for improvement.

At a few colleges, the lack of faculty and staff inclusion in decision making resulted in a misunderstanding of the pathways model and concern about the impacts of reimagining or restructuring academic departments and advising models. Pathways teams at these colleges believed the concern had slowed progress and reported that they should have included more faculty and staff earlier in the process.

### Pillar 1: Mapping Pathways to Student End Goals

Central to the pathways model are clear, educationally coherent program maps—which include specific course sequences, progress milestones, and program learning outcomes—that are aligned to what will be expected of students upon program completion in the workforce and in education at the next level. The essential practices in pillar 1 include:

- 1a. Every program is well designed to guide and prepare students to enter employment and further education in fields of importance to the college's service area.
- 1b. Detailed information is provided on the college's website on the employment and further education opportunities targeted by each program.
- 1c. Programs are clearly mapped out for students and include connections to high school endorsements and dual credit courses. Students know which courses to take and in what sequence. Courses critical for success in each program and other key progress milestones are clearly identified. All information is easily accessible on the college's website.

Colleges have made significant progress in each of the essential practices in the first pillar. Some colleges with greater initial readiness for Texas Pathways reported *at scale* in each of the essential practices. Many colleges used the program mapping process as a starting point for guided pathways implementation, with most colleges at the *planning to scale* or *scaling in progress* level (Figure 4).

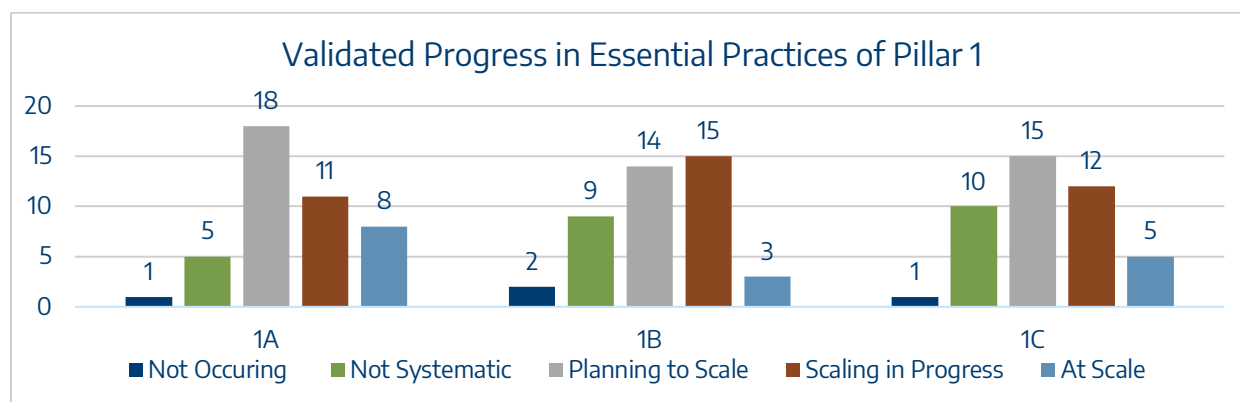


Figure 4. Overall summary of validated progress in pillar 1. N=43

#### 1a. Developing Well-Designed Programs

To develop pathways to completion and further education and employment in fields of importance to the region, Texas Pathways colleges: (a) established meta-majors, (b) developed program mapping processes, (c) ensured university alignment, and (d) ensured workforce programs delivered employment skills for in-demand jobs.



**Meta-majors.** Meta-majors are collections of academic programs with related content and disciplinary focus that include skills common to groups of careers. Texas Pathways colleges refer to meta-majors using various names, such as *career clusters*, *communities*, *areas of study*, or *pathways*. Grouping programs into meta-majors clarifies options for students who identify a broad area of interest and assists students to make an informed decision about a major based on interests, skills, and abilities.

The process of identifying meta-majors varied across colleges; administrators grouped programs at some colleges, while faculty and staff were tasked with grouping programs at other colleges. While both strategies supported the creation of meta-majors, colleges that did not use faculty input at the outset reported that upon reflection, they would have included faculty earlier in the process. Colleges used student data, Texas high school endorsements, and regional employment data to group programs into meta-majors.

**Alamo Colleges** and **Tarrant County College District** also used the 16 occupational categories defined in the Bureau of Labor Statistics' Standard Occupational Classification system.

- **Amarillo College** organized programs into nine communities (meta-majors): (1) Business, (2) Computer Information Systems, (3) Creative Arts, (4) Education, (5) Health Services, (6) Industry, (7) Liberal Arts, (8) Public Service, and (9) Science, Technology, Engineering, & Math (STEM). Prior to the start of the semester, faculty participate in "Community Week" to inform students about the options within each community.
- **Tyler Junior College** established six degree and certificate pathways (meta-majors) that contained academic and workforce programs: (1) Healthcare Professions, (2) Manufacturing, Transportation & Industry, (3) Business & Entrepreneurship, (4) Public Service, (5) Creative & Communication Arts, and (6) Science & Technology. Next steps for the college include working to develop general education plans under each pathway to allow for initial exploration followed by specialization.
- **Galveston College** used the Texas high school endorsements to define four meta-majors: (1) Allied Health, (2) STEM, (3) Public Services, and (4) Arts & Humanities. The college did not include the interdisciplinary high school endorsement as a college meta-major. Work at the college will be focused on the systematic use of meta-majors in the onboarding process.

**Program maps.** Colleges utilized various strategies to develop program maps. At some colleges, chief academic officers and deans developed program maps. At other colleges, faculty task forces met to define program maps at the meta-major level. Some colleges used academic leaders and/or faculty at the program level to define maps. Colleges making the most progress defining course sequences and critical coursework used a meta-major level approach to ensure students could take courses during the first semester that would apply to programs within the meta-major. Colleges making significant progress also included various stakeholders from advising, financial aid, and university partnerships to refine program maps. Many colleges noted that the previously well-defined program maps for workforce certificates and Associate of Applied Science (AAS) degrees informed program mapping in other areas.

Some colleges started by making two-year 15-credit-hour-semester program maps for full-time students. Other colleges acknowledged the large proportion of part-time students and developed additional program maps to fit six-, nine-, and 12-credit-hour semesters. A few colleges had made progress using course data to identify critical courses on program maps, but this was an area for growth identified by most colleges.

At a few colleges, the program mapping process resulted in programmatic changes. For example, colleges reduced certificate options after reviewing similar certificates or determining that jobs are not available in those skill areas in the region. The mapping process also resulted in some colleges changing prerequisite requirements. The colleges that reviewed university requirements in map development shared that the process helped faculty to understand the differences across universities.



- **Brazosport College** (BC) provides workshops to faculty to educate them about program learning outcomes. Faculty review courses to determine if courses focus on skill development at an emergent, milestone, or capstone level. Since only 3% of BC students use a four-semester plan, program map courses are instead grouped into three areas—Foundations, Knowledge Building, and Preparing for Completion—to help students and advisors determine schedules.
- **Midland College** organizes faculty into committees by degrees: AAS, Associate of Arts (AA), and Associate of Science (AS). After receiving training about degree and transfer requirements, faculty create maps for all programs. The pathways steering group reviews and refines the maps. Next steps include analyzing data on critical courses to create an action plan to support students.
- **Houston Community College**, among others, built a first-semester sequence of courses consistent within each area of study (meta-major) so students would not lose credits if they change programs within the area of study.
- **Coastal Bend College** and **Kilgore College** improved stackable credentials by reviewing the alignment of certificates and degree requirements.

**University alignment.** University partnerships were important to the transfer mapping process. For example, colleges participating in the Houston Guided Pathways to Success (Houston GPS) collaborative mentioned the value of having the University of Houston system colleges and other surrounding universities work with the colleges on transfer alignment. Several other colleges met with local universities or used transfer universities' catalogs to map programs. A few colleges created general transfer maps with advisors referring to the university website to provide specific information to students during advising sessions.

To start the mapping process, many colleges focused on their top three to five transfer partners and identified transfer programs with the highest enrollment. Significant time and resources were required to create maps aligned with all majors at partner universities; therefore, extensive mapping occurred at larger colleges with more resources. Given that many colleges share transfer universities, some smaller colleges felt that the development of transfer maps by individual community colleges was tedious and redundant, characterizing the process as “reinventing the wheel.” These colleges advocated for more regional collaborations to share transfer maps and to maximize the impact of the extensive mapping processes already completed by larger systems. Additionally, several colleges felt the Field of Study (FOS) agreements and recent 2019 Texas legislative actions through SB 25 could be opportunities for improved transfer alignment, but reported some universities were not yet applying FOS courses toward university degrees.

- Colleges such as **Galveston College**, **North Central Texas College**, and **Dallas County Community College District** use the North Texas Community College Consortium partnership as a resource for AAS to Bachelor of Applied Arts and Science alignment.
- **Paris Junior College** and Texas A&M University-Commerce faculty and leadership co-develop transfer program maps. Each sequenced map includes the high school endorsement, marketable skills, program learning outcomes, career opportunities, and transfer path requirements for TAMU-Commerce.
- **Brazosport College** faculty use university requirements to develop specific AA and AS transfer maps. All transfer maps are organized on the website by meta-major.
- **Alamo Colleges** partners with university-designated staff at local public and private universities to develop transfer advising guides (TAGs) with sequenced courses and transfer degree requirements. The TAGs are accessible on the website by pre-major (university major), by university, or by AlamoINSTITUTE (meta-major).
- **Victoria College** is working with the University of Houston-Victoria on transfer maps starting with the top transfer majors.

**Workforce alignment.** Most colleges reported established workforce education advisory committees that support workforce programs by advising leaders about curriculum, instructor qualifications, equipment, and



requirements to ensure students graduate with the skills necessary to enter the workforce. Colleges reported using regional data to examine job availability and living wages related to workforce programs. A few colleges mentioned considering changing program offerings based on these findings. For example, colleges shared that childcare careers often do not offer a livable wage and the colleges were considering whether to continue to offer programs leading to low-wage careers.

### 1b. Targeted Pathways Information on Websites

Students exploring academic and career opportunities turn to college websites for necessary information. As colleges redesign the student experience, the website must reflect pathways and allow students to access targeted information regarding further education and employment opportunities.

Almost all colleges acknowledged the importance of improving website design. A few colleges used cross-functional teams with members from the administration, faculty, advising, and marketing to determine necessary changes. Colleges indicated that including website personnel on the pathways team was beneficial. Challenges included identifying resources for redesign and managing continual updates. Website development included: (a) pathways-focused redesign and (b) student-focused redesign.

**Pathways-focused redesign.** Colleges that were systematically using meta-majors and program maps made pathways information a focus on their websites with available programs organized by pathway and meta-major. Many colleges used online student planners, such as Degree Works and Degree Map, to allow students, faculty, and advisors to review program progress and to compare programs within and across pathways. Some colleges also noted that they were working to identify and publish marketable skills on online program maps and in online student planning tools to comply with state requirements. Some college websites allowed students to access transfer maps and university partner requirements.

Many colleges offered the online tool Career Coach, a program that includes a career assessment and information about salaries, required education, and regional employment opportunities. Most colleges indicated that financial information such as costs and potential debt was on the financial aid page on the website. Many colleges acknowledged that students might find it difficult to locate financial information and identified including financial information on program maps as an area for growth.

- **Paris Junior College, Alamo Colleges, and Brazosport College** prominently display meta-majors and program maps aligned with specific university requirements using color coordination or university logos on their websites.
- **Temple College's** pathways leadership works with the marketing department to monitor website heatmaps. Heatmap analysis allows the college to ensure students are getting the information they need on the website and provides insights to the most popular programs of study.

**Student-focused redesign.** Colleges were aware of the need to determine the ease of navigation for all groups of students. Several colleges used student and community focus groups to review how students gained access to information on the website.

- **Hill College and Lee College** worked with EAB, an education technology company, to identify areas for improvement on their websites.
- **South Texas College** worked with a public relations firm and conducted student focus groups to learn that students did not think about college operations departmentally. The information will be used to design a website that is intuitive and useful to students.
- The equity committee at **Houston Community College** reviews the language used on the website to ensure students from various backgrounds can access and understand website information.



- **Austin Community College District** redesigned their website for prospective students. The college continues to review the website to ensure a balance between marketing for prospective students and ease of access to information for enrolled students.

### 1c. Program Maps with Connections, Sequences, and Critical Courses

Texas Pathways colleges developed various types of program maps. A few colleges mapped to the Texas high school endorsements and created dual credit maps, as dual credit enrollment has comprised growing proportions of college enrollment. Most colleges acknowledged the importance of identifying critical coursework, but few had taken actionable steps to identify and address critical courses. Colleges worked on the following areas during program mapping: (a) connections to high school endorsements, (b) connections to dual credit, (c) course sequencing, (d) identifying critical courses, and (e) program map accessibility.

**Connections to high school endorsements.** In Texas, high school students can earn one or more endorsements as part of their graduation requirements. High school students must choose an endorsement in ninth grade from five areas: (1) STEM, (2) Business and Industry, (3) Public Service, (4) Arts and Humanities, and (5) Multi-Disciplinary Studies. As mentioned above, some colleges used high school endorsements to define meta-majors. Many of these colleges visited high schools and planned on-campus events for high school students and parents to highlight how programs in college meta-majors aligned with the experiences of students in high school endorsement coursework. Some colleges expressed concern about the possibility of modern-day tracking with early endorsement decisions and planned to allow students to explore all meta-majors regardless of high school endorsement choice.

**Dual credit alignment.** Dual credit enrollment ranged from 15% to over 50% in Texas Pathways colleges. Most colleges acknowledged the importance of partnerships with independent school districts (ISDs) to develop dual credit programs that enrolled students in courses that supported postsecondary goals. Colleges with well-defined meta-majors and program maps used their resources to inform ISD partners about the pathways approach to postsecondary completion. Some colleges noted that the pathways approach was not always accepted by high school partners. For example, some high schools continued to request dual credit courses, such as economics, that did not apply to postsecondary programs. Colleges with these experiences are planning to engage stakeholders to educate them about pathways and credit applicability. Colleges shared that advising dual credit students may become easier as a result of SB 1324 passed in the 2019 86<sup>th</sup> Legislative Session requiring dual credit students with a cumulative total of 15 college credits to file a degree plan with the college. In addition to academic transfer dual credit offerings, many colleges offered dual credit workforce programs to allow students to gain certificate credentials.

Many colleges were aware of the need to recruit underrepresented students into dual credit programs. To address this population, colleges are developing coordinated advising processes with high school partners to inform students of dual credit opportunities, assist students to enter programs, and support students to continue in dual credit.

- **Austin Community College** created a dual credit Growth and Sustainability Task Force. As a result of the task force's work, the college increased its dual credit staff to address access for underrepresented students, program growth, and reduction of excess credits.
- Through partnership with Dallas County Promise, **Dallas County Community College District** supplies 43 low-income Title I-designated high schools with career assessment, career planning, college readiness strategies, Texas Success Initiative Assessment (TSIA) administration, and financial aid assistance. Dallas County Promise also guarantees a scholarship through the completion of a certificate and degree to students who are ineligible to receive financial aid. The district works with some university partners to provide scholarships to support students after transfer.





- **Amarillo College** developed infographics showing alignment of communities (meta-majors) with high school endorsement areas. ISDs receive infographics with a list of dual credit and articulated courses by endorsement area and by program of study.
- **Grayson College** redesigned dual credit recruitment by targeting pathways (meta-majors) rather than general studies. Dual credit students are included in the college's Student Planner software to capture intent and plans.
- **Midland College** developed dual credit college/career academies that include petroleum, health science, business/IT, and education/public services to address specific regional employment needs. Each academy includes a program for CTE students and awards certificates along the way.
- **Lone Star College** developed dual credit pathway maps that include dual credit courses aligned to high school endorsement areas, to the college area of study, and to the associated college degree. Dual credit pathways are published on the website to promote the selection of a dual credit program plan.
- **Brazosport College** partners with ISDs to split the cost of employing dual credit counselors in each high school to ensure students receive career exploration and are prepared to choose a program of study. Additionally, the college offers the Catalyst Program which allows students to take a structured path to an associate degree in Chemical Technology or Instrumentation within one year of graduating high school. The ISDs cover all costs through high school and the college funds students through the rest of the program.
- **Coastal Bend College** conducts career exploration with eighth graders and offers a summer camp. Dual credit students develop a degree plan with a college advisor.
- **Panola College** organizes a tour and hands-on examples of programs for an eighth-grade event.
- **Victoria College** and Victoria ISD Foundation collaborated to offer scholarships to reduce the cost of a student's first dual credit class to \$50 rather than the standard \$150 for in-district students, which increased the number of underrepresented students engaging with dual credit. The goal is to have every high school student take at least one dual credit course.

**Course sequencing.** Most colleges began the mapping process by reviewing degree requirements and reducing the choice of electives. Colleges with a strong pathways foundation sequenced courses by semester on program maps. Advanced colleges also identified critical courses and reviewed the complexity of mapped courses by semester. Colleges further in the mapping process considered types of sequencing: two-semester maps for full-time students with 15 credit hours in fall/spring semesters, three-semester maps for full-time students with 12 credit hours in fall/spring and 6 credit hours in the summer; and stretched maps for part-time students with varying semester credit hours per semester. Other colleges moved away from semester mapping and redesigned maps based on pathways indicators such as entry, progress, and success. Colleges noted that the mapping process became overwhelming when considering all community college student course-taking patterns but felt it important to both encourage full-time study and acknowledge the realities that hinder full-time study by community college students. Some colleges created maps that accounted for developmental coursework, but most colleges listed developmental work as a prerequisite or corequisite to first-semester courses. Other colleges working to build understanding around pathways created maps with suggested lists of coursework in lieu of a semester-by-semester plan.

Colleges recognized the importance of creating maps that encouraged first-time-in-college (FTIC) students to begin math, English, a Learning Framework course, and a course related to the meta-major of study in the first semester. A few colleges mentioned if students were referred to developmental education in more than one area, they recommended students begin with reading/writing the first semester and math in the second semester. Many colleges noted the corequisite requirement could dominate certain students' initial experiences in college and were working to find ways to include career and meta-major experiences for these students.



- **Central Texas College** mapped a first semester program for STEM-aspiring students who scored below the developmental level to include a one-credit Learning Framework course, a base mathematics non-course-based-option (NCBO), or an appropriate developmental course. The success team will support students on this path.
- **Texarkana College** utilizes faculty expertise to design course sequences to ensure courses with prerequisites are planned appropriately, math and English requirements are completed as quickly as possible, and courses with varying levels of difficulty are evenly distributed.
- Curriculum Resource Teams at **Blinn College** actively address degree plans to ensure programs are sequenced in ways that support student success.
- **Navarro College** created sequenced maps for all academic and CTE programs. Plans are stored in the student-accessible online Self-Service program so students are able to plan schedules two years in advance.

**Critical courses.** Colleges that were further along in the mapping process had progressed to addressing course sequencing and identifying critical courses using data-informed processes. In general, the identification of critical courses was described as an area for growth by most colleges. Most colleges did not have a systematic plan in place to address student success in all critical courses, but a few colleges were in the planning stages.

- **Alamo Colleges** identifies “challenging courses,” defined as courses with enrollment greater than 100 across the five colleges and productive grade rates less than 70%. The courses are reviewed annually by faculty to determine additional supports to improve success, such as special labs dedicated to science classes.
- At **Coastal Bend College**, workforce programs such as nursing, welding, and criminal justice offer NCBOs in challenging courses to assist students with success.
- **Lone Star College** identified critical courses by looking at completion data for all major pathways. Critical courses will be emphasized in upcoming field of study work and to help program chairs determine capstone courses

**Program map accessibility.** As mentioned earlier, many colleges made program maps available online for students. Well-resourced colleges have purchased interactive systems that allow students to monitor program progress and compare requirements between programs. Some colleges store program maps internally, granting access to students during advising sessions. A few colleges were still developing program maps and planned to make them available as they were finalized.

- At **Austin Community College**, students looking for Academic and Career Programs online access program maps organized by Areas of Study (meta-majors). The program maps include a semester-by-semester plan for full-time students, transfer and career information, and contact information for a person in the program.

## Pillar 2: Helping Students Choose and Enter a Path

In the pathways model, students are helped from the start to explore academic and career options, choose a program of study, and develop an individual plan based on program maps. Program plans aligned with career goals allow high school partners to help students begin career exploration prior to postsecondary enrollment and to choose appropriate dual credit courses applicable to their college program of study. Additionally, well-designed maps allow colleges to offer targeted support for critical gateway course completion. The essential practices in pillar 2 include:

- 2a. Every new college student is helped to explore career/college options, choose a program of study, and develop a full program plan as soon as possible.



- 2b. Special supports are provided to help academically unprepared students to succeed in the “gateway” courses for the college’s major program areas—not just in college-level math and English—as soon as possible.
- 2c. Required math courses are appropriately aligned with the student’s field of study.
- 2d. Intensive support is provided to help very poorly prepared students and adult basic learners to succeed in college-level courses as soon as possible.
- 2e. The college works with high schools and other feeders to motivate and prepare students to enter college-level coursework in a program of study when they enroll in college.

To assist students to explore academic and career options, Texas Pathways colleges modernized intake and onboarding experiences. Advanced colleges included career exploration and the selection of a program through systematic and required processes during onboarding, reporting *scaling in progress* or *at scale* in these essential practices. Many colleges were developing advising, outreach, and support practices at the *not systematic* and *planning to scale* levels (Figure 5).

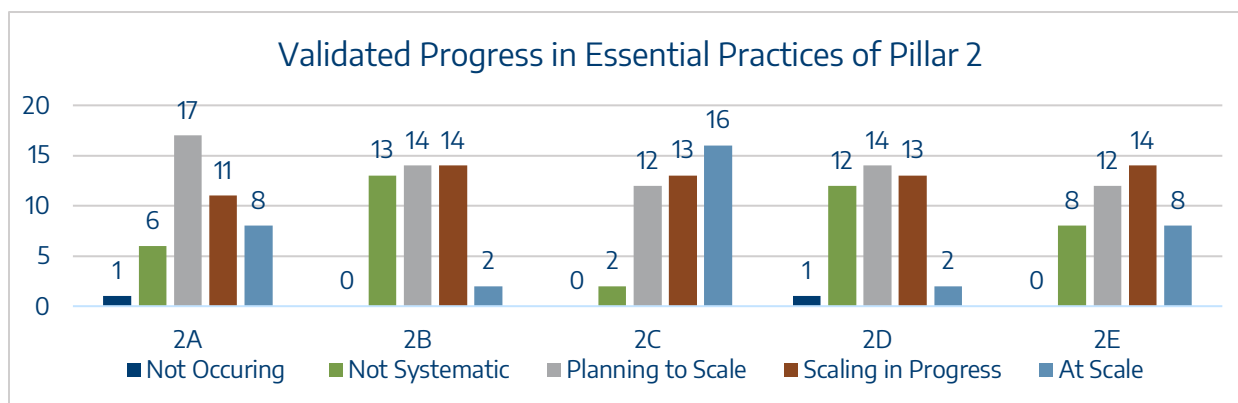


Figure 5. Overall summary of validated progress in pillar 2. N=43

## 2a. Facilitating Career Exploration, Program Choice, and Program Planning

Texas Pathways colleges with meta-majors and program maps redesigned onboarding processes to support students’ career exploration and ability to make informed decisions. Colleges reformed processes to include career exploration, program choice, and program planning in: (a) orientation and onboarding and (b) full program planning.

**Orientation and onboarding.** Many colleges required FTIC students to attend a new student orientation (NSO) designed around pathways and/or to speak with an advisor about available pathways before registration. Some colleges included career exploration and college planning during NSO student activities and initial advising sessions. Some colleges suggested FTIC students complete these activities, but stopped short of making them mandatory, and a few colleges only required advising for not-college-ready students.

During initial advising sessions, students worked with advisors who were either generalists or meta-major specialists to explore program offerings. Many colleges recognized the potential for meta-major specialists but found that model difficult to implement due to limits on their ability to analyze meta-major enrollment, variations in enrollment, high advisor turnover rates, or advisor scheduling demands. Additionally, many colleges offered students opportunities to explore careers and programs after advising sessions during a one-, two-, or three-hour Learning Framework course or a first-semester experience course.

- Many colleges, including **El Paso Community College** and **Trinity Valley Community College**, use Career Coach for career exploration before enrollment.



- Several colleges, including **Del Mar College** and **Alvin Community College**, focused their QEP on a comprehensive redesign of advising. **Wharton County Junior College's** QEP on advising is *Choose, Connect, Complete*: choose a program, connect with an assigned advisor, and get support to stay on the path.
- **Panola College** uses its pathways (meta-majors) during the intake process to help FTIC students select an initial meta-major for the first semester and narrow to a program in the second semester.
- At **San Jacinto College**, new students are required to attend NSO, where they complete an assessment in Focus 2, a tool that provides occupational information to clarify career goals, and complete a non-cognitive factor survey. Students attend an enrollment advising meeting to discuss the Focus 2 results, select the appropriate program, and register for the first semester with a success course.
- **Houston Community College** revamped the onboarding process to include an online checklist, a required career inventory, and a required meeting with an area of study (meta-major) advisor. Additionally, the first-semester success course includes an experiential activity such as job shadowing or interviewing someone in the field to “seal the deal” and ensure the student’s initial decision suits their interests and abilities. As a result, there were about 400 students without a declared major compared to nearly 12,000 prior to the redesign.
- At **Victoria College**, FTIC students and entering students with under 13 credit hours are required to complete the Learning Framework course that includes a module for career exploration and a session with an advisor to create a plan for completion.
- In their first semester, FTIC students at **Texarkana College** complete a Learning Framework course that includes a career project and the identification of a major or career area of interest.
- **North Central Texas College** requires a free four-week first-year experience course for all freshmen students. It is taught by success coaches, faculty, and advisors, and includes career information, contacts with advisors, help with navigating the institution’s systems, and student-faculty communication techniques.

**Full program planning.** Full program planning was implemented in various stages at Texas Pathways colleges. For colleges systematically using meta-majors and program maps, program planning occurred during onboarding, first-semester advising, and within student success courses. At colleges in the beginning stages of program mapping, students were more likely to receive a general studies program plan during advising sessions.

Colleges were developing systematic processes to document and access full program plans. Well-resourced colleges stored full program plans in interactive online student planners, while some lower-resourced colleges stored paper program plans with advisors. Colleges without existing planning software noted challenges and fiscal constraints associated with choosing an appropriate tool to develop and store program plans.

- During the required Learning Framework course at **Austin Community College**, students meet regularly with an advisor to refine a full program plan.
- Students at **Kilgore College** receive a two-sided “career map” (program map) with the full program plan on the front and a blank map on the back for students and advisors to personalize. Students retain the career map paper and the degree plan is accessible online for students to track progress.
- At **Alamo Colleges**, all students have an Individual Success Plan by the end of the first year. Planning begins as early as NSO and changes are made during sessions with assigned advisors.

## 2b. Special Supports for Underprepared Students in Gateway Courses

In Texas, 58% of incoming community college students were deemed underprepared for college-level work



in Fall 2017<sup>1</sup>. To support these students, community colleges have redesigned developmental and gateway experiences using (a) tutoring and additional supports and (b) corequisite support.

**Tutoring and additional supports.** Common supports in developmental and gateway courses included the use of supplemental instruction, tutoring labs, and writing labs. Colleges that made additional support mandatory reported increases in student success. Other colleges operating under a non-mandatory philosophy encouraged students to seek additional support with varying levels of success. Some colleges utilized an early alert system that allowed faculty to notify advisors early in the semester if students were not progressing but reported that use was often sporadic and difficult to systematize.

- **North Central Texas College** focused its QEP on launching innovative solutions to design and support gateway courses.
- Many colleges, such as **Victoria College**, embed tutors or supplemental instruction (SI) in gateway courses.
- **Paris Junior College** offered tutoring for gateway courses for several semesters. Analysis of tutor logs of student use by course indicated low participation rates. In response, the college reallocated funds to embed tutors throughout specific courses, starting with all English, science, and math courses. Future plans include adding tutors to other courses with high failure rates.
- **Grayson College** offers a “boot camp” for health science students that includes refreshers in math, reading, and writing; study skills; and testing strategies to help students prepare to enter health science programs.
- **El Paso Community College** developed FTIC student blocks to provide targeted support such as assistance with future registration to cohorts of students.
- Several colleges, including **Trinity Valley Community College** and **Tyler Junior College**, are using Perkins funding to provide academic support in workforce programs. To increase awareness of tutoring and labs available, **Angelina College**’s tutors visit workforce classes and faculty refer students to available resources.

**Corequisite support.** As a result of the passage of HB 2223 in the 85<sup>th</sup> Texas Legislature requiring the scaled use of corequisite coursework for underprepared students, all colleges reported offering single-semester corequisite options in integrated reading and writing (INRW) and math. Several colleges were reviewing data from the new corequisite models to determine necessary changes in placement, course design, or scheduling.

- All colleges reported developing and refining corequisite models for developmental students mandated to INRW and math for compliance with HB 2223.
- **Paris Junior College** scaled up corequisites to 100% for all underprepared students in Fall 2018 and after examining success data decided to scale down and offer a prerequisite course option to provide additional support for lower-level students.
- Colleges including **Grayson College**, **Angelina College**, **Austin Community College**, **South Texas College**, and **El Paso Community College** added INRW corequisite options to several gateway courses such as art appreciation, history, humanities, psychology, and sociology.

## 2c. Aligning Math with Programs of Study

Texas Pathways colleges made significant progress aligning the appropriate entry-level math course with programs of study. All colleges developed math pathways with alternatives for STEM and non-STEM students. Progress was made in (a) developing math pathways and (b) improving advising practices around math pathways.

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<sup>1</sup> Texas Higher Education Coordinating Board. (2018, November). “Developmental Education Update and 2018-2023 Statewide Plan for Supporting Underprepared Students.”





**Developing math pathways.** All Texas Pathways colleges defined math pathways using faculty perspectives on the mathematical requirements for programs of study, meta-major groupings of programs, and transfer partner requirements. The emergent math pathways include a quantitative reasoning path for liberal arts, fine arts, and humanities programs; a statistical reasoning path for social sciences, social services, nursing, and health programs; a business math path for business and accounting programs; a teaching path for teaching and education programs; and a STEM path to calculus for science, technology, engineering, and math programs. Meta-major groupings and program maps include the appropriate gateway course offered in Texas: Contemporary Math/Quantitative Reasoning, Statistics, Math for Business, or College Algebra.

All colleges reformed developmental course sequences, advising models, and scheduling practices to include options for underprepared students to complete gateway math within the first two semesters. Most colleges created two developmental math pathways: a STEM path to prepare for programs that required the College Algebra or Math for Business course and a non-STEM path to prepare for the Statistics or Quantitative Reasoning course. The STEM developmental path includes the traditional prerequisite courses Elementary Algebra and Intermediate Algebra and/or corequisite options. The non-STEM developmental path includes a foundational course or Elementary Algebra, and/or corequisite options. The non-STEM path grew in prevalence at many colleges. For example, **Brazosport College** reported that 70% of its students were in non-STEM math pathways, and other colleges reported increases in non-STEM enrollment. All colleges provided underprepared students the opportunity to complete the math requirement within one year of study. Many colleges worked with the Charles A. Dana Center's Mathematics Pathways program to develop math pathways and corequisite courses.

As a result of HB 2223, colleges experimented with various corequisite models that included pairing existing developmental courses with gateway courses, redesigning gateway courses to include “just-in-time” developmental content, and non-course-based options (NCBOs) as support courses. Some colleges adopting a “just-in-time” model created separate corequisite courses for the four gateway math course options. Many colleges noted successes in non-STEM corequisite courses, but most colleges had not found the same success in STEM corequisite courses. The development of corequisite courses was labor- and resource-intensive, and many colleges asked for data-informed and differentiated models to study and consider for their college moving forward.

**Advising practices.** Colleges revised onboarding and advising practices to ensure FTIC students entered a gateway math course appropriate for their selected program of study. As a result, students at many colleges enrolled in math and English in the first semester based on associate degree program maps aligned with baccalaureate requirements. For colleges using general maps, advisors sometimes accessed the transfer partner website or the Texas Transfer Inventory from the Dana Center to identify math requirements to help students make the best decision.

While transfer applicability for math pathway courses continued to improve across the state, several colleges acknowledged challenges when advising students given differences across university partner requirements. For example, a few university partners had yet to develop math pathways and instead required College Algebra for all programs. Other community colleges found individual program math requirements varied from one university to another. Some colleges required advisors to recommend College Algebra at the community college if the student's intended transfer university required College Algebra or if it was unclear that a different gateway math course would apply to the baccalaureate degree. Other colleges trained advisors to educate students about math pathway options and to consider the best course of action to attain an associate degree or to transfer prior to attaining an associate degree. For example, at **Amarillo College**, for certain transfer partners, advisors recommended students take the required math at the university to ensure applicability and then reverse transfer for the associate degree.



## 2d. Intensive Support for Success in College-Level Courses

The mission of community colleges in Texas includes supporting high school graduates scoring at the adult basic education level at the start of college and students enrolled in adult basic education programs. As part of Texas Pathways, colleges served these populations by developing: (a) targeted supports and (b) improved advising processes.

**Targeted supports.** Some colleges offered NCBO corequisite pairings with first-level developmental INRW and math courses to allow students at the adult basic education level to enroll in a developmental pathway. Other colleges developed summer bridge courses to support students to reach developmental education readiness standards prior to the fall semester. Many colleges offered Adult Education and Literacy (AEL) programs for students to earn a Texas Certificate of High School Equivalency, and a workforce continuing education (CE) program for students to gain skills in fields of high economic value.

- **Victoria College** offers the Students Accelerating through Integrated Learning (SAIL) program, an AEL program with contextualized career-oriented coursework and Career Navigators who assist students during the transition to college coursework.
- **Austin Community College** offers NCBO options for students scoring below the developmental level in math. Non-STEM students may enroll in a four-week hybrid online/lecture course followed by a 12-week lecture developmental course. STEM students may enroll in a two-hour concurrent corequisite support course paired with Elementary Algebra.
- **Laredo College** and **Hill College** offer a summer bridge course to support improved readiness scores prior to the fall semester.
- **College of the Mainland** runs a “College Success Academy” through the AEL program for low-placement students to get them to the appropriate math pathway.
- **Kilgore College** requires math instructors to spend their office hours in the math lab to encourage students to seek support outside of class.

**Advising.** Some colleges developed processes to help poorly prepared students transition to a college-level program as quickly as possible. A few colleges redesigned advising spaces to include AEL advisors and Career Navigators to create a sense of belonging in the college community, and integrated AEL and CE students into the credit student database to streamline data collection. Some colleges also experimented with articulating AEL and CE courses with credit program courses, but found alignment challenging. While most colleges acknowledged the importance of systematically including and advising all students in college practices, many colleges identified challenges to full integration such as funding, personnel, and informational technology limitations.

- **Grayson College, Tarrant County College, and El Paso Community College** house AEL and/or CE in the academic area of the college to align AEL and CE programs in college operations.
- **Amarillo College**’s Career Navigators help General Education Diploma (GED) students choose a college program and create an education plan. In the second eight weeks of the GED program, students start a certificate program if their language skills meet a certain threshold.
- **Laredo College** provides Integrated Education and Training programs for AEL students through funding from Texas Workforce Commission grants. Career Navigators work closely with students to ensure retention and completion.
- Colleges including **Texarkana College, Kilgore College, McLennan Community College, Wharton County Junior College, Grayson College, and Howard College** have processes to transition AEL or CE students to workforce programs in fields of high economic value.

## 2e. Building Pathways into High Schools

The Texas Pathways model tasks community colleges with orchestrating collaborative strategies to engage K-12 partners in creating cohesive programs focused on the completion of credentials aligned with careers.



As discussed above, college innovations included aligning program maps with high school endorsements and developing dual credit programs aligned with college programs. Additionally, colleges: (a) supported the implementation of college-preparatory courses and (b) provided outreach to K-12 partners, students, and parents.

**College-preparatory classes.** In 2013, the 83<sup>rd</sup> Texas Legislature passed House Bill 5 (HB 5) that established a Foundation High School Program. HB 5 required school districts to partner with at least one institution of higher education to develop and provide college-preparatory courses in English language arts and math for high school seniors who had not yet demonstrated college readiness. Upon successful completion of an HB 5 course, students become exempt from Texas Success Initiative requirements at the partnering institution.

- **Northeast Texas Community College** partnered with four local high schools to develop college-preparatory courses in math and English. The college noted that two additional high schools are interested in offering the courses in the near future.
- The experience of increased interest in HB 5 courses was echoed by other colleges who explained that changes in the state's high school accountability measures had led to increased demand for HB 5 options.

**Outreach.** Texas Pathways colleges developed consistent outreach programs to educate students, parents, and stakeholders at K-12 partners about pathways and career options.

- **Central Texas College** conducts "road shows," bringing advisors, financial aid officers, Veterans Affairs personnel, and faculty from various programs to high schools to discuss college programs and associated careers.
- **Amarillo College** conducts a two-and-a-half-day event called "Success 360," at which high school seniors participate in exhibitions with hands-on experiences in each of the college's communities (meta-majors). At the event, high school students indicate their initial community choice and the college follows up with additional information prior to high school graduation. During "Success 360," the college identifies "Palo-Duro Heroes" as high school students of color interested in health sciences. Through "Palo-Duro Heroes," participants visit campus again and receive targeted health science program information.
- Student Center teaching professionals at **Amarillo College** travel to high schools presenting boot camps covering math, reading, and writing to increase readiness, and mandatory pre-assessment sessions are presented by team members prior to the first administration of the Texas Success Initiative Assessment (TSIA).

### Pillar 3: Keeping Students on Path

The third pillar of the Texas Pathways model focuses on providing support to help students stay on a path and/or to make any necessary adjustments to their program plan. College processes including program planning, advising at specific program milestones, generating advising alerts, and strategic scheduling to support student progress through program completion. The essential practices of pillar 3 include:

- 3a. Advisors monitor which program every student is in and how far along the student is toward completing the program requirements.
- 3b. Students can easily see how far they have come and what they need to do to complete their program.
- 3c. Advisors and students are alerted when students are at risk of falling off their program plans and have policies and supports in place to intervene in ways that help students get back on track.
- 3d. Assistance is provided to students who are unlikely to be accepted into limited-access programs, such as nursing or culinary arts, to redirect them to another more viable path to credentials and a career.

- 3e. The college schedules courses to ensure students can take the courses they need when they need them, can plan their lives around school from one term to the next, and can complete their programs in as short a time as possible.

Texas Pathways colleges recognized the importance of redesigning the advising process, including changing the roles of advisors and integrating tools to help monitor student progress. Colleges with the capacity and resources for major advising overhauls were assessed at *scaling in progress* or *at scale* in essential practices 3a and 3b. Other colleges were rated as *not systematic* but were moving to *planning to scale* as they discussed the redesign of advising and support structures. All colleges continued to explore ways to leverage existing resources to scale practices 3c, 3d, and 3e (Figure 6).

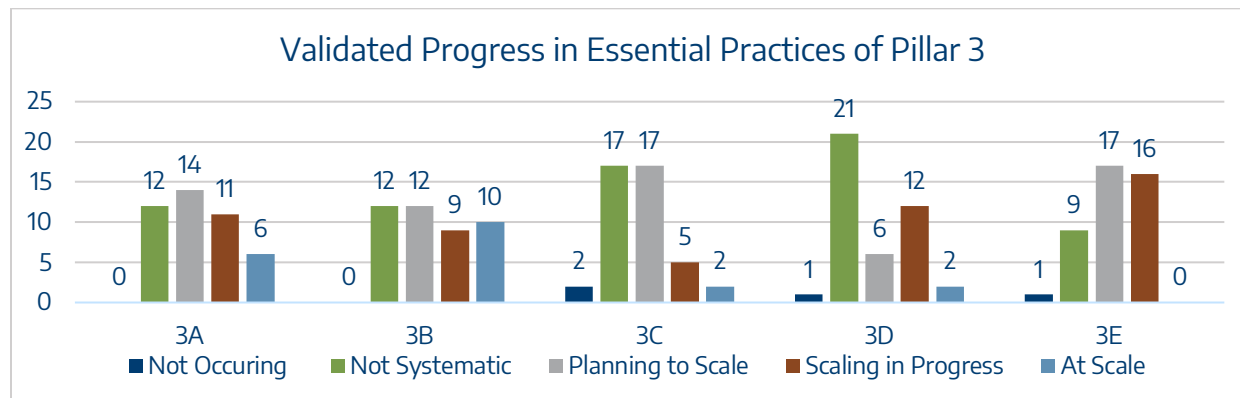


Figure 6. Overall summary of validated progress in pillar 3. N=43

### 3a. Advisors Monitor Program Enrollment and Progress

Texas Pathways colleges redesigned advising practices to track program enrollment and student progress. Given the scope of the work, colleges leveraged various institutional stakeholders and resources to support ongoing advising through program completion. Colleges making progress in this essential practice redesigned: (a) advisor roles and (b) advising touch points.

**Advisor roles.** As colleges recognized the need for systematic and ongoing advising support, many redefined the role of the advisor and introduced additional stakeholders into advising processes. For example, some colleges changed the responsibilities and titles of advisors (e.g. *success coaches*) to align with career exploration and program completion goals of pathways reforms. Other colleges trained advisors to be meta-major specialists and used case management systems to assign students to advisors. Advising roles were also assigned to faculty and administrators at some colleges in order to leverage experts to support student success in critical program courses, program completion, preparation for transfer, and career alignment.

Some colleges physically moved advising services or renovated advising spaces. These colleges assigned advisors to departments to provide easier access for students and faculty. Other colleges redesigned advising spaces to include other student services to streamline access to all support services.

- **Brazosport College** developed and implemented the *ACE It*—Advise, Connect, and Empower—model over the past three years. *ACE It* is a mandatory four-semester student coaching experience aimed at empowering students to self-advise. Advising teams consisting of academic advisors, faculty, and program specialists work with students through program selection and completion guided by predetermined advising student learning outcomes (SLOs) at each session. To reach all students, all full-time exempt employees (faculty, librarians, vice presidents, deans, etc.) serve as



*ACE It* coaches. The college designed advising training for coaches based on the Global Community for Academic Advising (NACADA).

- **Grayson College** internally developed Student Planner software that allows students to see at least three contacts: a success coach (advisor), a faculty member in the program, and the division chair over the program. Additional relevant contacts include Veterans support, TRIO, etc. The college developed multiple training sessions for academic faculty and developed an FAQ sheet for different advising scenarios. The transparency and availability of information in Student Planner facilitates targeted student conversations with each contact.
- **Lee College** used pathways and Completion as Design hallmarks to create student-centered student services offices. The college established an enrollment service area for connection, entry, and progress and a retention and transition service area for progress, completion, and transition. Additionally, learning support services such as supplemental instruction, peer mentoring, a multidisciplinary tutoring center, TRIO student services, the Perkins program, and career/transfer services are all included in the retention and transition service area.
- **Vernon College** incorporated faculty advisors to expand advising services to all students. All full-time faculty are expected to advise general education students during peak times in the advising center. Faculty are trained to advise generally, and certain programs train program-specific advisors.

**Advising touch points.** Some colleges developed advising plans to systematically monitor student progress. The frequency of student contacts varied, with some colleges requiring one contact and others requiring multiple planned contacts. Many colleges used completed semester credit hours to determine when to check in with students. For example, colleges ran reports to determine when students completed 15, 30, or 45 hours, and then contacted those students to check in with advising. Some colleges created advising syllabi that outlined specific conversations for advisors to have with students based on student progress. Several colleges also used financial aid requirements to determine if students registered for courses not required for their program and had advisors contact students to make changes to their stated degree plan or discuss appropriate course options.

Many colleges were still developing systematic processes to proactively contact students at specific times. Colleges in the beginning stages of advising reform relied on students to initiate advising contacts. For example, some colleges required all students to talk to an advisor prior to registration. Other colleges required only FTIC or developmental students to check in with advising. Most of these colleges acknowledged the potential of proactive advising, but noted fiscal, technological, and human capital constraints to implementing a fully proactive model that touches all students.

- **Northeast Texas Community College, Amarillo College, Southwest Texas Junior College, Lone Star College, San Jacinto College, Temple College, and Paris Junior College** require multiple advising contacts, such as at 15, 30, and 45 hours.
- In the *ACE It* advising model at **Brazosport College**, students are paired with a coach during the “0” semester before the first semester. Three sessions in the first semester are focused on specific SLOs: establishing a relationship and building trust, creating an academic plan with a rubric to evaluate the student’s plan, and registering for the second semester after a review of the student experience during the first semester. Students and coaches continue to meet twice during the three subsequent semesters utilizing advising SLOs to support student progress. To accommodate student needs, sessions are held in person, by phone, or video chat.
- **Alamo Colleges** developed a systematic process to proactively reach out to students called AlamoADVISE. Advisors are embedded in the AlamoINSTITUTES (meta-majors) and meet with assigned students during NSO, during the Learning Framework course, and at 15, 30, and 45 hours. Advising sessions at each milestone include specific outcomes based on a list of items to discuss





with students. The district continues to seek balance between beneficial intrusiveness and mandates that hinder progress, which it recognized as a challenge.

- At **Grayson College**, success coaches reach out to students every semester and students are required to check in at 30 and 45 hours. The information technology (IT) team runs reports on prerequisite checks between semesters, grade point average (GPA), and other flags for review by success coaches and faculty. The designated contacts improved success and completion rates in transfer courses.

### 3b. Students Can See Their Progress

As colleges redesign program maps and college processes to support career exploration and completion, students must also be able to monitor their own progress. Colleges with resources for interactive software integrated program maps into online planners to allow students to monitor progress and determine requirements for changing programs. Some colleges acknowledged that existing degree audit software was outdated and not used regularly by students and were planning to upgrade systems or better inform students of the resource. Other colleges developed methods for faculty and advisors to assist students to monitor their progress.

- **Alvin Community College, Angelina College, Austin Community College, Blinn College, Central Texas College, Dallas County Community College District, Del Mar College, El Paso Community College, Kilgore College, Midland College, Panola College, Paris Junior College, South Texas College, Southwest Texas Junior College, Temple College, Texarkana College, Trinity Valley Community College, Tyler Junior College, Victoria College, and Western Texas College** utilize software, such as Jenzabar, Degree Works, Colleague, or internally-developed student planners and portals, to allow students to monitor their program plan progress.
- At **McLennan Community College**, mandatory advising sessions with pathways-aligned advisors ensure students take courses in the correct sequence on their program plan, and that students are aware of their progress each semester.
- At **Central Texas College**, a mandatory NSO includes Career Cluster (meta-major) breakouts, where an advisor helps students develop an initial program plan. Faculty then reach out to students make sure students are progressing.
- **Amarillo College** assigns students to advisors and use a new data-driven communication system to trigger notifications. The focus of the advising model is empowering students to use their personal dashboard and understand their dashboard results.

### 3c. Advisors and Students Alerted When Off Plan and Systems in Place to Support

The pathways model supports collaboration between advisors and faculty to build structures that identify students who are off their program plan and provide appropriate support to help students progress to program completion. Colleges that had scaled programs developed internal processes or utilized software to identify and contact students. Most colleges recognized the need for such structures but had not yet reached systematic implementation of monitoring protocols aligned with supports. Colleges were developing plans to reform systems reliant on self-identification by students to proactive pathways-aligned protocols to support program completion.

- **Central Texas College** uses the “TargetX” system to monitor milestone progress and reach out to students via email if they fail to register for subsequent courses. Advisors also have the ability to run reports to see if students are making progress.
- The faculty at **Paris Junior College** document student absences in the college’s existing system. Accumulation of six absences triggers an alert to the student’s success coach who reaches out to the student to help get them back in class.



- Some colleges, including **Paris Junior College** and **Houston Community College**, systematized registration processes so that students cannot enroll in courses off their program map unless they discuss the change with their success coach.
- The data-driven early-alert “Advise” program at **San Jacinto College** targets emails to struggling students with various support options. The college also uses data to identify the need for an additional credit hour with success skills in special English and math courses for certain college-ready students.
- Students at **Austin Community College** visit a learning space called the ACCelerator at multiple campuses to take classes and get academic coaching and tutoring. Academic coaches are available to help students succeed by focusing on personal academic goals and providing learning tools. Information about the support available in the ACCelerator is included in course syllabi.

### 3d. Assisting Students with Limited-Access Programs

As part of onboarding and monitoring processes, colleges developed strategies to assist students who were unlikely to be accepted into limited-access programs or who experienced challenges in certain programs. Some colleges developed systematic advising systems that including various program paths within meta-majors to allow students flexibility and options for high-demand or limited-access programs. Other colleges relied on one-on-one student meetings with advisors or faculty and acknowledged that processes to reach all students were not yet systematic.

- At **McLennan Community College**, students who indicated interest in health professions receive information on degree options during program orientations and in the Learning Framework class.
- Dual credit students at **Amarillo College** submit one health sciences (HS) application for three programs. Advisors monitor which programs have low enrollment and offer these options to HS students.
- **San Jacinto College**’s health sciences programs designed the first semester to include courses that count for several degrees to eliminate lost hours if students change programs.
- **Temple College** developed a pre-nursing degree to help students apply to various nursing programs. The AS pre-nursing and AS health sciences requirements include common prerequisite courses so students do not lose credit along the way.
- **Paris Junior College** provides alternatives in health areas so students do not become discouraged during the first 15 hours. Success coaches discuss options with struggling students to choose a program in which they can be successful.
- At **Southwest Texas Junior College**, the director and faculty of the nursing program work with nursing students to explore the licensed vocational nurse, radiology assistant, or other program options. At other colleges, including **North Central Texas College**, **Victoria College**, and **Tyler Junior College**, advisors and faculty work with individual students to learn about options.
- **Alamo Colleges**’ TAGs include additional entry-level requirements for university transfer such as the number of hours that could be completed at the community college, required GPA to get into a program, and the number of electives that could be transferred. The success coach discusses these with students at milestone points.

### 3e. Developing More Predictable Schedules

The Texas Pathways model encourages colleges to rethink students’ college experiences to promote program selection and completion. Work on the essential practices of each pillar, such as program map development and advising models, led colleges to make changes to scheduling practices to align with course-taking patterns and to promote program completion. Some colleges use internal data and student feedback to support schedule reform, and other colleges employ software, such as EAB and Ad Astra, as tools to analyze schedules and identify student needs. Changes to scheduling processes include increased conversations across departments about schedule development, evaluating schedules based on students’



program progress, accommodating part- and full-time student needs, considering varying semester lengths (eight-week terms), and planning for one to two years in advance.

- **Houston Community College** reviewed data to determine if students in mapped programs could take all necessary courses at one campus and found that most students were required to travel between campuses. Leadership agreed the unnecessary travel had to stop, and the deans were tasked with ensuring required courses were offered at the campus in the appropriate semester.
- Using enrollment data, **Amarillo College** developed a master schedule that made it easier for part-time students to become full-time. Following the adoption of the master schedule, the college enrolled nearly 20% more full-time students and leadership believed the schedule was a major factor.
- As part of **Kilgore College**'s Focus to Finish initiative, the college moved to a majority eight-week schedule in Fall 2019, which caused departments to review scheduling and include more hybrid and online course options. The college hopes to promote more full-time study and completion through redesigned courses with a focus on "not watering down curriculum but boiling it down to essentials."
- **San Jacinto College** has asked faculty to create draft schedules with 80% of course offerings in an eight-week model. Leadership will analyze the drafts to determine effectiveness to make a decision about transitioning to eight-week terms by Fall 2020.
- **North Central Texas College, Texarkana College, McLennan Community College, Temple College, Southwest Texas Junior College, Lone Star College, Northeast Texas Community College, and Howard College** provide one-year or two-year schedules.
- **Paris Junior College** reviewed all courses on program maps to create fall and spring course sequences. The next step will be to develop a two-year schedule to ensure courses are offered when needed.

#### Pillar 4: Ensuring Students are Learning

The Texas Pathways model aims to ensure that changes in college practices support student learning in coursework and across program plans. Upon program completion, students should be equipped with the knowledge and skills required for success in employment and further education in a given field. The essential practices of pillar 4 include:

- 4a. Program learning outcomes (PLOs) are aligned with the requirements for success in the further education and employment outcomes targeted by each program.
- 4b. Students have ample opportunity to apply and deepen knowledge and skills through projects, internships, co-ops, clinical placements, group projects outside of class, service learning, study abroad and other active learning activities that program faculty intentionally embed into coursework.
- 4c. Faculty/programs assess whether students are mastering learning outcomes and building skills across each program, in both arts and sciences and career/technical programs.
- 4d. Results of learning outcomes assessments are used to improve teaching and learning through program review, professional development, and other intentional campus efforts.
- 4e. The college helps students document their learning for employers and universities through portfolios and other means beyond transcripts.
- 4f. The college assesses effectiveness of educational practice (e.g. using CCSSE or SENSE, etc.) and uses the results to create targeted professional development.

Colleges were actively addressing the essential practices in pillar 4; however, program-level reforms that reach all students were mostly in planning stages (Figure 7). Colleges previously created state-mandated PLOs and were reviewing them through pathways lenses. Many colleges were using existing program evaluation processes to examine and address student learning outcomes (SLOs) and PLOs. Most colleges



offered some experiential activities and opportunities for students to document learning beyond transcripts, but most colleges noted opportunities were reliant on particular faculty members or particular programs. Many colleges noted a passion for professional development that supported student learning, and some colleges used appropriate data to inform professional development opportunities.

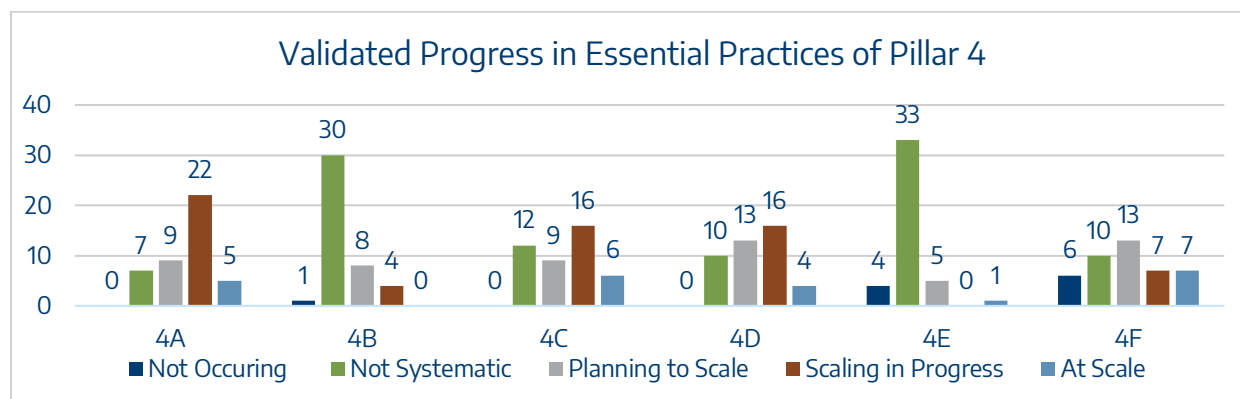


Figure 7. Overall summary of validated progress in pillar 4. N=43

#### 4a. Aligning PLOs for Success in Employment and Further Education

Aligning PLOs with further education and employment is foundational to designing programs that prepare students for success. All colleges established PLOs for workforce programs, and most colleges had established academic PLOs. At most colleges, transfer academic programs' PLOs were developed from the course learning outcomes defined in the Texas Higher Education Coordinating Board's (THECB's) Academic Course Guide Manual, the core objectives defined for the Texas General Education Core, and the marketable skills outlined in 60x30TX, the THECB higher education strategic plan. In general, colleges had difficulty explaining how the core objectives in transfer programs aligned with the requirements for employment and further education in a given field, and many were planning to review PLOs using the pathways model for guidance. A few colleges worked with faculty to discuss aligning PLOs with further education and included additional PLOs to support university success for each transfer program. In a few cases, college faculty discussed PLOs with faculty at university partners and included the PLOs in program maps. On the workforce side, all colleges collaborated with advisory committees to develop PLOs that were aligned to essential skills for the workplace.

- During the mapping process, **Paris Junior College** worked with the local university partner to identify marketable skills and PLOs. Each program map includes high school endorsements, career opportunities, marketable skills, PLOs, and transfer path requirements at Texas A&M-Commerce, the college's primary transfer partner.
- Academic transfer PLOs at **San Jacinto College** include the core curriculum objectives and two additional program specific outcomes identified by faculty.
- The STEM faculty at **Texarkana College** developed PLOs that reflected two or three major skills students should possess upon completion of a STEM program.

#### 4b. Opportunities for Experiential/Applied Learning

While all colleges included embedded experiential learning in most workforce programs, most colleges were just beginning discussions on how to provide embedded experiential or applied learning opportunities in academic transfer programs. Some colleges shared examples of experiential activities organized by certain faculty in specific disciplines, such as art, public service, or sciences. Other colleges used the Learning Framework course to provide systematic opportunities for career exploration and applied learning to students. Colleges discussed fiscal and personnel constraints to scaling successful experiences to all students in academic programs.



- Faculty at **Tarrant County College** attended an active learning academy that included experiential learning as part of the curriculum, with completers training incoming faculty (teachers teaching teachers).
- Honors programs in government, sociology, psychology, English, statistics, and biology at **Northeast Texas Community College** provide experiential learning opportunities such as projects, facility visits, and the use of real-life data.
- **Lone Star College** discussed implementing field of study capstone experiences and placed these experiences on the pathways action plan for 2020.
- **Laredo College** used funding from the U.S. Department of Education and National Science Foundation to support research and internships for STEM students.
- **Austin Community College** opened an Office of Experiential Learning to work with faculty to identify opportunities aligned with areas of study.
- The Learning Framework course at **Houston Community College** includes an opportunity for students to complete an experience related to their chosen area of study, such as job shadowing or interviewing.
- **Tarrant County College** holds intentional discipline meetings to encourage faculty to discuss SLOs and PLOs.

#### 4c. Faculty/Programs Assess Student Mastery of PLOs

The pathways model includes creating systematic processes to assess PLOs and to allow faculty to discuss how students are building skills across each program. Most colleges had systematic processes for the annual assessment of SLOs at the course level with faculty adjusting courses as needed. Colleges also had program review protocols ranging from every year to every five years completed by program chairs or deans, but many colleges had not yet created systematic processes for frequent analysis of PLOs. Some colleges mentioned using SLOs in the THECB course inventories and rolling SLO assessment results to assess PLOs.

- **Amarillo College's** assessment plan centers on program maps that are developed using SLOs and PLOs. Program review is based on completion, equity, learning, persistence, retention, and alignment of degrees to labor-market demand.
- **South Texas College** found that partnering with university stakeholders to discuss their expectations of a rising junior supported better working relationships.
- The institutional effectiveness assessment process at **Laredo College** includes reviews of SLOs, PLOs, and core competencies by cross-discipline faculty members.
- **San Jacinto College** created signature assignments with common rubrics to allow faculty to assess student program progress and make necessary adjustments.
- **Tarrant County College** holds intentional discipline meetings to encourage faculty to discuss SLOs and PLOs.

#### 4d. Results of PLO Assessment Used to Improve Teaching and Learning

Many colleges used semester or annual data from SLOs to make curricular or pedagogical changes at the course level. A few colleges made systematic use of PLO data on an annual basis to address program-level curricular changes. However, most colleges used PLOs in the institutional effectiveness process to meet accreditation requirements for the Southern Association of Colleges and Schools Commission on Colleges every few years. Many colleges were in the discussion phase of determining how to best use PLO data as they finalized meta-major and program maps. These colleges indicated that creating professional development programs linked with PLO results is an area for improvement.

- **Lee College** uses a plan-do-study-act framework based on SLOs to determine areas for faculty improvement.





- Every academic unit at **Southwest Texas Junior College** uses a unit action plan based on SLO and PLO results; unit action plans have been in use for 10 years. The professional development coordinator uses SLO/PLO data to provide targeted professional development to faculty.
- Faculty at **McLennan Community College** meet at retreats and town halls to discuss student outcomes and ways to improve teaching and learning.
- At **Grayson College**, faculty attend a data summit to review SLO, PLO, and letter grades at the program-, course-, and instructor-levels. Faculty discuss findings and deans rotate among groups to provide support. Results supported the inclusion of mandatory writing center support in English on at least the first two essays and faculty tutoring on Fridays by science disciplines.
- The Curriculum and Instruction unit at **Houston Community College** reviews PLO data, student progressions, persistence rates, and graduation rates by program, and works with program coordinators to address the findings.
- The Institutional Research office at **Weatherford College** provides data for faculty that often reinforces faculty's anecdotal experiences in the classroom. Leadership supports faculty to address problems identified by the data both in and across departments. The college holds a regular interdisciplinary conference and intentionally forms interdisciplinary workgroups.
- Colleges including **Tarrant County College**, **Northeast Texas Community College**, **Panola College**, and **Victoria College** include active learning as a teaching strategy in professional development.

#### 4e. College Helps Students Document Learning Through Means Beyond Transcripts

Almost every college noted that documenting program learning in ways beyond transcripts was an area for improvement. Colleges using portfolios noted their use was restricted to certain programs, such as art or architecture. Some colleges had innovative ideas not yet in practice, such as badges that students could see in their student portals, milestone awards, documentation of marketable or soft skill development, and pathways-aligned projects to share with transfer universities or employers during the application process.

- **Alamo Colleges** uses a non-academic transcript to track experiential activities aligned with the AlamoINSTITUTES (meta-majors).
- Programs in Psychology and Art at **Texas Southmost College** use e-portfolios to document student learning progressions.

#### 4f. College Assesses Practices and Creates Targeted Professional Development

Many colleges had existing professional development activities that included welcoming speakers or holding sessions on certain topics once or twice a year, faculty sharing best practices, faculty retreats, and faculty attending conferences. Well-resourced colleges often had teaching and learning excellence programs that supported professional development on active teaching and culturally relevant teaching strategies. Some colleges also extended professional development opportunities to advisors to learn about different advising models such as appreciative advising or a culture of caring. Colleges were working on ways to systematically use key performance indicator data and survey results to plan targeted professional development. Some colleges mentioned future plans to use data to inform stakeholders about the need for equitable practices and engage partners in professional development to address equity in college processes.

- **Wharton County Junior College** offers guided pathways professional development during a mini-conference on campus every year.

### Considerations and Next Steps for Texas Pathways Colleges

Texas Pathways colleges are creating guided pathways models that redesign the student experience to prepare students for advancement in future education and success in the labor market. The challenge is for pathways leadership to reflect upon their self-assessment and create action plans to bring essential practices to scale to ensure students can explore, choose, enter, and complete a program of study.



Many Texas Pathways colleges are reviewing college practices through a guided pathways lens. Cadre 1 colleges demonstrated a mature understanding of the model and most progressed to *at scale* or *scaling in progress* for essential practices over the past two years. Colleges in cadres 2, 3, and 4 described plans to scale key practices as they continue to engage all stakeholders with a full understanding of the pathways model.

Based on analysis of the SOAA surveys and interviews, the researchers developed the following recommendations to support college efforts to accelerate guided pathways reforms and increase impact on student success.

**1. Build a foundation for an integrated, institution-wide approach to intentionally designed and structured educational experiences to serve as the college's guided pathways model.**

To scale essential practices to support all students, colleges should create a foundation for the work that includes defining a pathways leadership team that engages a wide group of stakeholders in data-informed decision-making. Colleges should link the essential practices across academic and advising areas to create coherent educational experiences focused on supporting students from entry through completion.

**2. Identify meta-majors and complete program mapping for workforce and transfer programs.**

Well-designed programs aligned with pre-college programs, future transfer aspirations, and employment goals are the basis for academic decisions in onboarding and ongoing student support. For colleges to move towards *at scale* or *scaling in progress* in mapping processes, colleges should consider high school, dual credit, and AEL paths into college programs; structure sequenced course plans for full- and part-time study; develop transfer maps for university majors; and design workforce maps to prepare for the labor market. Advanced mapping work should include identifying critical courses, designing PLOs, and using data from critical courses and PLOs to systematically revise and refine program maps.

**3. Leverage current practices to redesign a systematic onboarding process for students to explore career options, choose a program of study, and develop a full-program plan in the first semester.**

In order to scale essential advising processes, colleges should revise admission and onboarding processes to include career and meta-major exploration, require FTIC students to work with advisors to choose a meta-major before initial registration, and integrate meta-major and career exploration in new student orientation experiences and first-year student success courses. To meet the needs of all students, colleges should consider introducing additional stakeholders to the advising process, including faculty and administrators. The revision of these processes should result in systematic processes to ensure all FTIC students develop a full-program plan by the end of the first semester and continue to receive appropriate support as they progress.

**4. Review and expand appropriate supports for gateway courses, including corequisite math, English, and other course models; tutoring and academic supports; advising support; and others to promote gateway course completion as quickly as possible.**

Colleges should redesign gateway course experiences, collect data on outcomes, and refine programs to scale essential practices that promote student success in gateway coursework. Innovations to consider in this area include extending corequisite support in gateway courses beyond math and English, using data to identify courses to be paired with unavoidable and mandatory support services, embedding tutoring support in critical courses in the classroom and online, utilizing student-led support as supplemental instructors or student teaching assistants, and redesigning support spaces to address the entire student experience. As new student support designs are implemented, colleges should develop a systematic plan to study disaggregated outcomes and make necessary revisions to maximize success for all students.



5. **Continue to collaborate with area high schools and adult education providers to help students explore interests, develop college and career goals, and align their endorsements and programs with a college program plan.**

Dual credit and adult education programs provide pre-college access to high-quality postsecondary credentials. To leverage these programs and scale associated practices, colleges should educate partners about pathways models; co-develop pathways from high school, dual credit, and AEL coursework into college-level coursework; streamline transition processes; and provide outreach services to pre-college students.

6. **Provide ongoing, systematic opportunities for faculty to discuss how program learning outcomes will contribute to students' future employment and success at a transfer institution, discuss assessment results, and discuss how to improve curriculum and instruction.**

Ensuring that students are learning is an integral part of the college's mission. Colleges should consider program-level learning by developing PLOs using a combination of stakeholder-defined requirements for continued education or workforce participation; accreditation standards, the state's course inventory, the state's marketable skills, and the state's core curriculum. Colleges should guide discussions with faculty about how their course(s) is part of a whole program, how to develop academic PLOs that align with employment and further education requirements, and how to use PLO assessment data for program-level improvements. Colleges should establish systematic PLO assessment protocols that involve various stakeholders and use the results to target professional development opportunities to improve teaching, learning, and student outcomes.

## Conclusion

Texas Pathways colleges are focused on providing well-designed programs aligned with university and employment requirements, helping students get on a program path quickly, providing support to keep students on their path, and ensuring students are learning. Many colleges shared that the pathways model has changed how they think about their work as they redesign the student experience. Colleges are innovating and adjusting practices in broad and sweeping ways.

Texas Pathways colleges are to be applauded for their hard work to build foundations and practices for an integrated guided pathways model focused on student success. On the SOAA and in phone discussions, colleges openly described their progress, shared examples toward scaling essential practices, and discussed future plans for scaling essential practices. The honest and inspiring conversations provided invaluable insights to the process of innovation and reform that will serve as a resource to all Texas Pathways colleges. The colleges expressed their appreciation of the support provided by the Texas Success Center, and in response, the researchers wish to express their appreciation for the time and effort colleges placed into the SOAA process. The continued forward progress will support a stronger future for students enrolled in Texas Pathways colleges.