

How Ohio Community Colleges Are Using Guided Pathways to Personalize Student Support

By Serena Klempin and Hana Lahr

What comes to mind when a college embarks on guided pathways reform? Usually, it is the more tangible elements like meta-majors and program maps¹ that get the most attention. While these are important components of the framework, the goal of guided pathways is to change the student experience. Supporting students as they enter and progress through programs of study is essential. The development of meta-majors and program maps might be where many colleges enter into guided pathways reform work, but on their own these elements are unlikely to lead to a much improved or more equitable student experience. They do, however, serve as a key foundation for colleges to design and implement more personalized activities and practices—such as field-specific orientation sessions, contextualized first-year experience courses, and small-group and one-on-one advising and career counseling sessions—that meet students where they are. Personalized support is necessary to ensure that students are receiving the level and type of support that will help them start college strong, complete their programs, and prepare for transfer in a particular field or for direct entry into a family-sustaining career.

This report examines how Ohio community colleges—which have been engaged in guided pathways reform for several years—are innovating within the model to provide personalized support during onboarding (extended in many cases through the first year, until students have chosen a field of interest, developed a plan, and taken and passed program gateway courses) to help students gain early academic momentum. As a refinement to prior CCRC guided pathways research that has focused largely on structural reforms, here we aim to provide insight into the provision of personalized support, which is critical for understanding how colleges can improve student success and advance equitable outcomes for underserved students.

Since 2016, CCRC has collaborated with the Success Center for Ohio Community Colleges and the Ohio Association of Community Colleges (OACC) (which houses the Success Center) to study the implementation of guided pathways among Ohio's 23 community and technical colleges. Using the colleges' responses to CCRC's



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Guided Pathways Scale of Adoption Assessment (SOAA)² as well as information from follow-up interviews with the colleges, we explore how Ohio colleges are redesigning new student onboarding to focus on personalized support for academic and career exploration and for program selection and education planning.

THIS REPORT FINDS THAT:

1. Guided pathways reforms can promote student supports that are both universal (scaled to reach all students) and personalized (customized based on the needs and interests of groups of students as well as individual students).
2. Personalizing universal supports has the potential to increase equity in student outcomes by better recognizing and meeting the needs of underserved students.
3. Supports can be personalized even with limited resources.
4. Personalized supports are important both for high school students (including dual enrollment and non-dual enrollment students) and for college students.

Guided Pathways and Student Success in Ohio

In 2015, the OACC and the Success Center launched a statewide effort to support the implementation of whole-college reforms using the guided pathways model at all Ohio community and technical colleges. These 23 colleges are a diverse set of institutions. They are located in the cities of Cincinnati, Cleveland, and Columbus as well as in small towns and rural parts of the state, which allows us to see how guided pathways is being adopted in a variety of contexts. The changing nature of Ohio's community college student population, including declining adult enrollment and a dramatic increase in the number of dual enrollment students, mirrors trends occurring in many other areas of the country.

Through a series of six statewide Student Success Leadership Institutes (SSLIs) in 2016, the Success Center brought together teams from all 23 colleges to learn about the guided pathways model, collect and review key data points designed to motivate change, and begin planning for whole-college reforms in four practice areas: (1) mapping pathways to student end goals, (2) helping students choose and enter a pathway, (3) keeping students on their path, and (4) ensuring that students are learning. After the first year, the Success Center has continued to assemble the college teams at two statewide SSLIs each year.

An important function of the Success Center is to help colleges bring together various strands of guided pathways and related student success work. For example, the Success Center has provided support for colleges on reforms related to open

educational resources, holistic student support, teaching and learning, equity, and faculty and leadership development. Additionally, in 2018, the Ohio Department of Higher Education and the OACC joined the Strong Start to Finish network of states focusing on reforms to developmental education. In all of this work, the Success Center has encouraged colleges to use guided pathways as a framework for aligning developmental education and other discrete reforms.

Figure 1.
Ongoing Reform Efforts in Ohio, by Priority Areas

PROGRAM ALIGNMENT		ONBOARDING	ONGOING SUPPORT	ENSURING STUDENTS ARE LEARNING	
College Credit Plus dual enrollment pathways		Encouraging additional summer enrollment reducing summer melt	Student success technology resources strategically using student success technology	Ohio Open Ed Collaborative open educational resources project	
Guaranteed Transfer Pathways building degrees that transfer		Strong Start to Finish developmental education reform	Holistic student supports building comprehensive student supports	All Ohio Academic Team student recognition and scholarship program	
Employer engagement models meeting employer needs				Faculty engagement supporting faculty leadership and professional development	
ACTIVITIES ACROSS ALL PRIORITY AREAS					
Ohio Pathways coaching program and professional development	Advancing and sustaining equity	Student Success Leadership Institutes, workshops, and webinars	Leadership Academy for Student Success	Building research and data capacity	Statewide policy and advocacy

Prior Research Evidence

In focusing on how Ohio community colleges are innovating within the guided pathways model to provide personalized support during onboarding, this report draws on three distinct bodies of CCRC research that examine:

- 1. early momentum:** how academic progress during the first year is related to student completion rates (Belfield et al., 2019),
- 2. new student onboarding:** how orientation and other activities can be redesigned to focus on academic and career exploration and education planning (Jenkins et al., 2020; Klempin & Lahr, 2021),
- 3. holistic advising:** how the provision of sustained, strategic, integrated, proactive, and personalized support helps students (Karp & Stacey, 2013; Klempin et al., 2019).

The Need to Promote Early Momentum

Concerns about student success in community colleges often focus on how many students make it across the finish line. What is perhaps less well understood is that many students stop out very early on. Nearly 40% of students overall and almost half of Black students who start at a community college leave before the beginning of their second year (National Student Clearinghouse Research Center, 2020). A key factor in low completion rates in general, and for underserved students in particular, is that community colleges have struggled to help students reach important course completion and credit benchmarks in their first year (such as passing gatekeeper English or earning 24 credits in the first year) that build students' momentum (Belfield et al., 2019). Many students need to take prerequisites or other general coursework before they can progress into courses that are more directly related with their program of study. And yet we know that gaining momentum in a program of study is important (Jenkins & Cho, 2013).

CCRC's guided pathways research suggests that students need support to enter a program of study soon after they begin college, and that doing so can help them gain academic momentum (Jenkins & Cho, 2013). Increasing early momentum not only leads to higher completion rates overall but also disproportionately benefits Black, Latinx, and lower-income students in terms of their likelihood of completing an award in a high-opportunity workforce field or transferring and completing a bachelor's degree (Lin et al., 2020).

New Student Onboarding as a Strategy for Promoting Early Momentum

A key to building students' early momentum in a program of interest is personalized support during onboarding. Selecting a program of study and developing an education plan are complex processes, yet onboarding is often limited to orientation, which is commonly optional and mostly focused on an introduction to the college campus and first-term registration (Jenkins et al., 2020). Students' early college experiences often lack opportunities for meaningful academic and career exploration and enriched learning activities, even though interviews with students tell us that they want the chance to explore their interests and to connect with faculty and peers in their field (Kopko & Griffin, 2020). Even self-directed adult students with prior college experience appreciate the opportunity to explore program and career options and confirm their choices (Klempin & Lahr, 2021).

Using the guided pathways framework, colleges are reconceptualizing new student onboarding so that it may begin before orientation (and even in high school) and may extend through the first year until students have chosen a field of interest, developed a plan, and taken and passed program gateway courses. In doing so, colleges are replacing a series of frequently optional and disconnected encounters with a set of recommended or mandatory activities for all entering students focused on program and career exploration and education planning (Jenkins et al., 2020). Ideally, guided pathways colleges do several things differently. Instead of holding a general college orientation session, colleges may provide an orientation that introduces

new students to fields of study, where they are offered the chance to learn about different pathways to careers. Colleges may also require that students participate in career and transfer advising and program planning. And finally, because the guided pathways model is focused on helping students enter programs of study, onboarding may include the opportunity for students to engage with a field of interest from the start, preferably by taking courses in their program of interest in their first year.

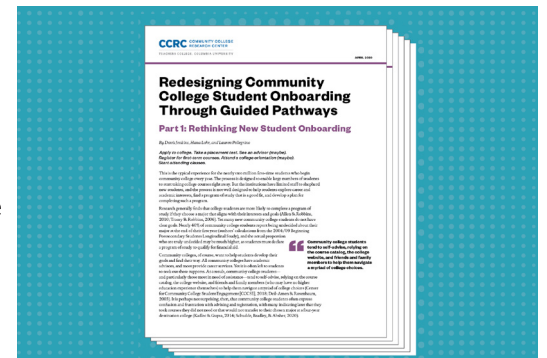
Personalized Support as a Strategy for Promoting Early Momentum

CCRC researchers have developed a framework for the redesign of student advising practices to make them more holistic and effective. One of its core principles is that students benefit from personalized support, that is, support which is customized “to students’ unique interests, motivations, and needs to ensure that they receive the resources that will help them succeed” (Klempin et al., 2019, p. 17). Personalized support can apply to both individuals and groups of individuals who share common interests and needs. We use the term **tailored** to refer to support that is customized for a group of students and **individualized** to refer to support that is customized for individual students.

Tailored information and support are often more relevant for students than general information or guidance, and providing tailored support may be more efficient than offering all students support that only certain groups of students want or need. In an experimental study of advising reforms that included a messaging component at one community college and two broad-access universities, students reported that they were less likely to read general college announcements and more likely to read messages that pertained to their particular circumstances (e.g., messages about childcare were relevant to student parents) (Kalamkarian et al., 2020). Given limited time and resources, providing tailored support by triaging services based on students’ needs may also be more effective than attempting to deliver the same level and intensity of support to all students (Karp & Stacey, 2013).

Providing well-conceived individualized support is also important. Relationship-building has long been recognized as a foundational aspect of advising. In a seminal article on the role of advisors, O’Banion (1972/1994) describes relating to students as individuals and understanding students’ personal goals as essential to the work of academic advising. Not only do students prefer advising relationships in which advisors are familiar with their academic progress and know who they are as individuals (Barker & Mamiseishvili, 2014), but advisors also recognize that addressing the more challenging issues students face requires establishing relationships first (Klempin & Lahr, 2021).

Individualized support using a case management approach is positively linked to increased student success. Case management from an advisor or counselor is a core component of several comprehensive student success initiatives shown



LEARN MORE ABOUT ONBOARDING

A CCRC **practitioner packet** provides guidance to colleges seeking to redesign new student onboarding practices to better help students explore, choose, and plan a program of study best suited to their interests and aspirations.

to positively affect persistence and completion, including Accelerated Study in Associate Programs (ASAP), Stay the Course, and InsideTrack (Dawson et al., 2020). In addition, results from the 2020 National Survey of Student Engagement (n.d.) indicate that having an advisor who listens, respects students' culture, and demonstrates caring is associated with a stronger sense of belonging and a greater likelihood of persistence. Interviews with over 100 students from six community colleges also suggest that advising relationships in which advisors know students as individuals can positively influence students' transfer aspirations and outcomes (Fay et al., 2021). Finally, in the wake of the COVID-19 pandemic, students report that having an easily accessible point of contact from whom they receive support and communication tailored to their individual needs is vital to their ability to succeed (Ada Center, 2021).

How Ohio's Community Colleges Are Providing Personalized Support During Onboarding

The findings described here are based on responses that 22 Ohio community colleges gave on CCRC's Guided Pathways Scale of Adoption Assessment (SOAA) as well as on semi-structured follow-up interviews with the colleges conducted virtually between February and July 2020.³ We used the SOAA responses as a descriptive record of what practices the colleges are implementing; we used the interviews to obtain a deeper understanding of how the colleges are implementing guided pathways reforms. Neither the SOAA nor the follow-up interview protocols were expressly designed as instruments for exploring how colleges provide personalized support. Yet through the course of the interviews, we were struck by the extent to which interview participants described using the structure of universal guided pathways reform elements—such as meta-majors and mandatory orientations—to create a more engaging onboarding experience aligned with the needs and interests of particular groups of students as well as individual students.

Because the SOAA and the follow-up interviews were not designed to focus on personalized support, we cannot provide a comprehensive list of personalized support practices being used by the Ohio colleges. Nonetheless, we identify examples of how guided pathways principles can serve to personalize support at 18 of the 22 participating colleges through either tailored support (customized for particular groups of students) or individualized support (customized for individual students). We organize onboarding practices into two categories: (1) academic and career exploration and (2) program selection and education planning. Importantly, we also document and distinguish onboarding practices for high school students as well as for traditional college students. This is consistent with the idea that onboarding should be extended beyond orientation. Moreover, many high school students may be or may become dual enrollment participants, a student population that is growing in Ohio and elsewhere.

Table 1.
Examples of Onboarding Practices at Ohio Community Colleges

		HIGH SCHOOL	COLLEGE
Academic and career exploration	<i>Tailored</i>	Meta-major “career camps” for middle school and high school students	Orientation and first-year experience courses organized around meta-majors
	<i>Individualized</i>	One-on-one college and career counseling customized to students’ interests	Small group orientations that allow for one-on-one interactions
Program selection and education planning	<i>Tailored</i>	Focused access to dual enrollment pathways at high schools with large numbers of low-income and underserved students	Additional support and more direct connections to program pathways for students who are undecided and who are placed into developmental education
	<i>Individualized</i>	One-on-one advising to navigate dual enrollment pathways	One-on-one advising as part of orientation and first-year experience courses

Academic and Career Exploration in High School

Even though it is still early for most high school students to make firm decisions about careers or college majors, it is still important for high schools and even middle schools to provide opportunities for students to start considering their interests and goals and to learn about career paths, both familiar and unfamiliar. Several Ohio colleges are tailoring academic and career exploration to secondary students’ interests by introducing them to different career fields using meta-majors, while other colleges are providing individual counseling to students to discuss their career interests.



Career camps. Ideally, program and career exploration is a process that starts well before students are seniors in high school applying to college. By leveraging its guided pathways work, **Northwest State Community College** has adopted an innovative strategy for tailoring college and career exploration to students’ interests as early as fifth grade using meta-majors (called “career clusters” at the college). In addition to offering four-day career camps in STEM for middle and high school students, the college hired a coordinator to develop camps related to its remaining career clusters. Prior research has found that making career information relevant to education in middle school can increase students’ school engagement by connecting classroom learning to students’ future goals (Orthner et al., 2013).



College and career counseling. In addition to tailored support for career exploration, high school students need individualized guidance to align their interests with career options and to develop a plan for entering an education-to-career pathway. Rather than providing traditional information about the college and its programs, **Sinclair Community College**’s high school counselors are launching an initiative to “backward engineer” pathways from careers to college programs by first helping students align their interests and aspirations with career options using

the online platform YouScience. All students in participating local high schools will have an initial one-on-one conversation with a Sinclair counselor to discuss the results of the YouScience assessment and will then continue to meet with the counselor every six months throughout high school, with the goal of narrowing down their interests to one or two pathways by their senior year. The combination of the interest assessment with ongoing individual counseling is intended to expose students to career options they may not have known about or thought of as something they could do, and to prepare students to enter an educational path leading to a career.

Program Selection and Education Planning in High School

In addition to helping students explore programs and careers, several Ohio community colleges are helping students enter college programs while they are still in high school. As in many states, students in Ohio middle and high schools have the opportunity to earn college credit through dual enrollment. However, research has found that dual enrollment programs frequently emphasize earning credits for high school graduation rather than completing courses leading to postsecondary degrees and careers (Mehl et al., 2020). Additionally, opportunities to earn college credit in high school are often limited to more advantaged and higher-performing high school students (Mehl et al., 2020). To help high school students gain momentum for college, several Ohio colleges are not only building pathways connected to college programs but also tailoring support to increase access to dual enrollment programs for students attending lower-resourced high schools. Additionally, they are providing individualized support to ensure that students are taking the appropriate courses within dual enrollment pathways by assigning students an advisor or counselor.



Access to dual enrollment for low-income and underserved students.

Lorain County Community College provides tailored support for low-income and underserved high school students by participating in a waiver program (Ohio Legislative Commission, 2021) offered through College Credit Plus (CCP) (Ohio Department of Higher Education, n.d.-a), Ohio's dual enrollment initiative. The Innovative Programs Waiver is designed to give colleges flexibility in addressing the needs of specific subgroups of students that have been identified as being underrepresented in CCP (Ohio Department of Higher Education, n.d.-b). Lorain County's waiver allows the college to waive initial English and math placement requirements. By doing so the college provides dual enrollment opportunities for students who typically would have been denied access to college-level courses while collaborating with high schools to prepare students for college English and math placement. In addition, this early access to Lorain County allows the college to support students in those high schools that have limited resources for college and career counseling.

In partnership with local high schools, **Washington State Community College** uses its meta-majors (called “career communities”) to develop dual enrollment pathways that include technical courses, not just general education courses. The career communities are appealing to high schools because courses apply to multiple majors. The college is also encouraging underserved students who typically do not benefit from CCP to enroll in these courses.

Through its Graduate Pathways to Success (GPS) program, **Marion Technical College** offers more intensive counseling linking education and career paths for economically disadvantaged CCP students. Students take college-level courses during all four years of high school and in some cases may be able to graduate from high school with an associate degree.



Advising to navigate dual enrollment pathways. In addition to creating pathways that allow students to begin earning college credit in a field of interest while in high school, colleges are also providing individualized advising to help students navigate these pathways, often organized through meta-major-specific caseloads. **Lorain County** not only tailors dual enrollment services by focusing on low-income and underserved students, it also enables dual enrollment students to select a program of study, become connected to an advisor in their pathway, and receive individualized guidance from that advisor while still in high school. To prevent high school students from taking random or poorly planned sequences of courses to fulfill high school graduation requirements, **Sinclair** directs dual enrollment students to meet with an advisor after earning 12 college credits in order to make an academic plan and discuss how courses relate to degree and career opportunities.

Academic and Career Exploration in College

Orientation typically serves as students’ introduction to college and is usually designed to convey general college information, such as how to obtain a student ID and where to locate important college offices and resources (Sandoval-Lucero et al., 2017). While this information is important, it is standardized and routine. Interviews with 161 students from two community colleges in Florida reveal that although students believe that general college information is useful, they are more interested in receiving tailored information and guidance about program and career options related to their interests (Kopko & Griffin, 2020).

As an introduction to college, orientation is a crucial venue for engaging students and building awareness of program and career options. In addition, continued support for program and career exploration ensures that students have an in-depth understanding of their options and are able to make informed decisions about their program and career path. Several of the Ohio colleges are extending tailored program and career exploration throughout the first term by incorporating meta-majors into their first-year experience course. Colleges taking this approach have adopted two different strategies for redesigning their first-year experience course: offering

contextualized course sections dedicated to specific meta-majors, and embedding assignments based on meta-majors in general course sections.

Although meta-majors provide a useful way to tailor academic and career exploration based on students' interests, colleges are finding that it is also important to customize support based on the needs of individual students. One strategy for creating more opportunities for one-on-one interaction involves decreasing the number of students in each orientation session, which increases the likelihood that students will receive individual attention, particularly if they have important questions.



Orientation based on meta-majors. By restructuring orientation around meta-majors, colleges provide a more personalized and engaging experience in which students can connect with faculty, advisors, and peers in their field of interest. For example, new students at **Zane State College** can attend any one of eight orientation sessions that the college will offer this summer. The activities at each session will be organized by meta-major. Students will be placed in a group of no more than 12 students with other students from their meta-major and move through the day with their group. Importantly, both advisors and faculty participate in Zane State's orientation. To address the challenge of finding time to cover both general and program-specific information during orientation, **Central Ohio Technical College** will be launching a new online orientation in Canvas this summer. After completing the orientation modules online, students will be scheduled for a small group registration session with an advisor. Eventually the college is planning to organize registration sessions by meta-major and involve faculty members.

Zane State and Central Ohio Technical noted that students appreciate having more opportunities to connect with faculty and peers and to discuss their interests with people in their field. Zane State has also found that meta-major orientations create a more enriching and satisfying experience for faculty as well as students.



First-year experience course based on meta-majors. **Owens Community College, Southern State Community College,** and **Cincinnati State Technical and Community College** have all implemented a contextualized first-year experience course for at least one of their meta-majors. Each of Owens' four schools (business, STEM, health, and liberal arts) offers its own first-year experience course to provide field-specific program, transfer, and career exploration. Southern State piloted a new first-year experience workshop series for allied health students in spring 2020. The program consists of five workshops facilitated by advisors, with guest lectures from program faculty. It is designed to help students understand their academic and career interests, strengthen academic skills, prepare for their program, and investigate related employment opportunities. The college is exploring additional first-year experience workshops tailored to the needs of other fields. Given the number and complexity of programs and careers in healthcare,

Cincinnati State also chose to focus on health first, adding a required career exploration course for health students that covers the range of career opportunities available beyond nursing.

In many cases, particularly at small colleges, not all meta-majors have enough new students each year to warrant the offering of contextualized first-year experience courses. Additionally, redesigning a standard first-year experience course for a specific meta-major requires time and resources to develop multiple new curricula and staffing plans. As an alternative to contextualized course sections for each meta-major, **Cuyahoga Community College** is revising the first-year experience course for all new students to include meta-major specific career advising and assignments. The college is hoping that more personalized advising and assignments in the first term will help increase retention to the second term.



Small group orientations with one-on-one interactions. Both **Clark State College** and **Belmont College** have moved from holding a single large orientation to holding smaller orientations offered on multiple dates. In addition to allowing the college to be more attentive to student needs, Belmont reported that the smaller groups provide more time for establishing relationships with students, connecting students to resources, and discussing long-term career goals rather than just the first-semester registration process.

Program Selection and Education Planning in College

A primary aim of the guided pathways model is to ensure all students are helped to get on a path and into a program from the start (Jenkins et al., 2020). To achieve that aim, it is critical to provide tailored support for key groups of students, particularly students who are more undecided about their program choice and students placed into developmental education. Research has shown that community college students who have not taken at least three college-level courses in a program of study within a year after enrolling are less likely to ever enter a program and thus to complete a credential (Jenkins & Cho, 2013). The negative impacts of developmental education placement on students' likelihood of completing a community college credential or transferring are even more well documented (Attewell et al., 2006; Bailey et al., 2010; Crisp & Delgado, 2014; Jaggars & Stacey, 2014).

Although tailored support for program and career exploration support is critical for helping key groups of students understand their options and choose a field of interest, individual advising is also needed for confirming students' program choice and helping students develop a customized education plan that spans through completion or transfer and that accounts for the student's timeline to completion, prior credits, learning support needs, and elective choices. To ensure that all students—not just select groups of students—receive individualized assistance with program selection and education planning, some Ohio colleges are requiring an appointment with a meta-major advisor as part of onboarding and are involving advisors in assignments to develop an education plan during first-year experience courses.



Support for undecided students. Rather than remaining undecided about their program of study or needing to select a program before they feel prepared to do so, new students at both **Lorain County** and **Stark State College** can enroll in an exploratory major by selecting only a meta-major (known as a “program and career pathway” at Lorain County and as a “career community” at Stark) rather than selecting a specific program within a meta-major. The exploratory major allows students to develop a better understanding of program options by initially taking courses that apply to multiple programs within the meta-major. Students can stay in the exploratory major until they have completed a certain number of credits (24 credits at Lorain County, 15 credits at Stark), but they are encouraged to work with career services to select a program, and at Stark State they are also required to see an advisor to register as long as they are in the exploratory major. Lorain County also leverages an existing incoming student inventory survey (a custom internal intake survey will be launched in 2021-22) that provides students and advisors with information to help identify their level of career decision confidence and any resource gaps for which the college can provide additional assistance. This intake survey, in addition to the exploratory major, helps advisors and career counselors identify students who are unsure about their pathway selection and target outreach for additional follow-up.

Similarly, **Southern State**, **Owens**, and **Sinclair** all provide additional advising and career counseling for students who are uncertain about their path. At Southern State, new students who are in a general pathway or who are simply unsure about the program they selected have another advising appointment by the fourth week of the semester to discuss their experience so far, talk more about career options, and learn about resources that may be helpful (such as group study opportunities as a way to connect with peers). Owens makes an effort to identify undecided students early on and provide more career advising up front. Finally, at Sinclair, students may meet with a career advisor if they are completely undecided, or they meet with an academic advisor who specializes in a particular meta-major (“career community”). This allows students to explore related programs within a meta-major or to get broad career advising for interests that overlap meta-majors.



Accelerated entry into program coursework. While lack of clarity about goals delays entry into a program for some students, developmental education requirements prevent others from doing so. Previously, **Cincinnati State** placed students testing into developmental educational courses in a noncredit “pre-curriculum” program and restricted access to college-level courses until students successfully completed their developmental education courses. As part of its guided pathways reforms, the college implemented tailored supports to help students in developmental education enter a program path sooner. These reforms included two major changes to onboarding for new students. First,

Cincinnati State overhauled the developmental education placement process. To limit the number of students required to take developmental courses, the college replaced the Accuplacer test with a multiple measures assessment procedure reviewed on a case-by-case basis by an advisor using guidelines developed by faculty. Second, the college discontinued the policy of preventing students placed into developmental education from selecting a program until after the completion of all developmental course requirements. All students, including those who place into developmental education, now select a meta-major (called a “career interest group”) when they apply and are immediately connected with an advisor in their chosen meta-major.



Required education planning with an assigned advisor. Professional advisors at **Edison State Community College** are assigned based on meta-major and are now known as “career pathways advisors.” The career pathways advisors schedule an initial hour-long advising appointment with each student after they apply, prior to orientation. As part of the appointment, students take a short version of the Holland Career Assessment. Advisors also use the results of the assessment to guide subsequent meetings. Similarly, at **Marion Technical** all new students have an individual onboarding meeting with a meta-major advisor. In addition, to ensure advisors have time for these substantive meetings, the college reduced advising caseloads to 200 students. Finally, at **Southern State** students meet with a program-specific or meta-major advisor for a personalized introduction to the college upon acceptance to discuss program and career options.

Columbus State, Cuyahoga, Lakeland Community College, Lorain County, and North Central State College all include creating an education plan as a required assignment in their first-year experience courses. At Lakeland, Lorain County, and North Central State, education planning begins with students’ first advising meeting. At Lakeland, students meet with an academic counselor (advisor) during orientation to begin making an education plan. They continue working on the plan during the first-year experience course and meet again with an academic counselor to finalize it. At Lorain County, students create an initial plan during their first meeting with an advisor, explore either their chosen or exploratory academic program through a reflective process in the first-year experience course, and then finalize their graduation plan during the course. At North Central State, students initially create a two-semester plan with assistance from a success coach responsible for new student advising. They then complete the plan in a first-year experience course with the assistance of an academic liaison (division advisor). Both success coaches and academic liaisons are associated with one of the three main academic areas of the college (health sciences; business, industry, and technology; and liberal arts and public service).

At Columbus State and Cuyahoga, students are introduced to education planning during the first-year experience course and then work with an advisor to complete a plan as an assignment for the course. At Columbus State, students are required to meet with an advisor as part of the process of creating an education plan for the first-year experience course. And at Cuyahoga, advisors reinforce the first-year experience course assignment to create an education plan by reviewing it with each student during mandatory first-semester advising appointments.

Conclusion

A key takeaway from this report is that guided pathways can serve as a framework for reforming college-wide structures—which results in important organizational elements such as meta-majors and program maps—as well as for personalizing supports that are central to the student experience. Creating changes that are both universal *and* personalized is critical for increasing equity in students' college outcomes. Universal structures and policies are needed for supporting all students at scale. Personalized activities are needed so that students receive support aligned with their interests and knowledge about college and careers, which can help institutions ensure that they are meeting the needs of students who have been historically underserved. The importance of providing universal and personalized supports is evident in the guided pathways work the Ohio colleges are doing in several areas:

- **High-school-to-college pathways.** Beginning academic and career exploration in middle and high school and aligning high school and college coursework to build clear on-ramps from high school to college are universal guided pathways practices intended to benefit all students. At the same time, examples in this report illustrate how exploration can be tailored based on student interests and how tailoring support to focus on students in particular high schools can advance an equity agenda.
- **New student orientation.** While orientation to college (whether online, in-person, or some combination) is a universal activity at most community colleges, those that have adopted meta-majors can create field-specific communities and thus tailor orientation activities based on student interests. Furthermore, by making program and career exploration mandatory from the start, colleges can give all students an opportunity to meet peers, faculty, and others in their field of interest. And when programs and policies are designed to help all students enter a program or meta-major from the start, it becomes clearer which students may need more attention, such as undecided students, students who are placed into developmental education, and some adult students.
- **Advising.** By implementing a mandatory case management model in which advisors are assigned to work with students in specific programs or meta-majors as opposed to serving as generalists who work with students in all programs, advising becomes a practice that is both universal and more personalized. Advisors develop deep content knowledge that makes them well positioned to help students make a program choice and create a full education plan, monitor student progress, and offer

guidance tailored to a student's program. As assigned advisors working with the same students over time, they are also able to offer more individualized guidance based on each student's situation. This kind of tailored and individualized approach to advising has been recognized as an important strategy for increasing equity in student outcomes (Lawton, 2018).

It is important to recognize that personalizing student support need not be a costly endeavor. Recent CCRC research has found that the largest expense in implementing guided pathways is the hiring of additional advisors (Belfield, 2020; Jenkins et al., 2020), and indeed many of the Ohio colleges in this report have hired new advisors. Nonetheless, colleges approaching onboarding through a guided pathways lens also illustrate that there are less resource-intensive ways of personalizing support, such as involving faculty members in orientation so that students are able to connect with a professor in their field of interest (Zane State) and designing assignments for first-year experience courses tied to students' program and career interests (Cuyahoga). Another way of personalizing support without incurring significant costs is triaging services—identifying students who may benefit from extra support, such as students who are undecided about their goals, and tailoring additional resources for those students rather than attempting to provide the same intensity of services for all students.

Overall, CCRC's research in Ohio suggests that, particularly in institutions that have limited resources for student advising, redesigning onboarding in ways that personalize the experience for everyone and that also provide particular supports to those students who need them offers a way to engage students early on and help them gain early momentum in a program aligned with their goals. Understanding the development of personalized supports among these Ohio colleges may be helpful to other colleges planning or undertaking guided pathways reforms.

Endnotes

1. Meta-majors are the several broad career-focused fields—such as business, health sciences, and STEM—into which colleges organize all their programs of study to help students understand the range of pathways and options that are offered. Program maps indicate, for each program of study, which default courses students can take and in what sequence, along with cocurricular requirements and important program milestones, to complete a program; they are used as the basis for developing individual student education plans (Jenkins et al., 2018).
2. The SOAA (CCRC, 2017) is a tool for studying how and to what extent colleges are adopting guided pathways reforms; it includes questions about essential guided pathways practices organized under the four main areas of the pathways model. For each practice, colleges are asked to describe their implementation progress and next steps, and to indicate the extent to which a practice is implemented at scale. Ohio’s community and technical colleges have completed the SOAA three times since 2016; 22 of the 23 colleges completed it in 2020.
3. CCRC researchers conducted approximately half of the calls in February 2020. We paused the calls due to COVID-19 and resumed them in June 2020.

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