

TEACHERS COLLEGE, COLUMBIA UNIVERSITY

MAY 2021

Strategies for Improving Postsecondary Credential Attainment Among Black, Hispanic, and Native American Adults



Thomas Brock Doug Slater

Contributing Authors

Jessica Brathwaite Nikki Edgecombe Hoori Santikian Kalamkarian Richard Kazis Lindsay A. Leasor Armando Lizarraga Andrea Lopez Salazar Ava Mateo Julia Raufman



The Community College Research Center (CCRC), Teachers College, Columbia University, has been a leader in the field of community college research and reform for 25 years. Our work provides a foundation for innovations in policy and practice that help give every community college student the best chance of success.

Acknowledgments

Funding for this research was provided by Lumina Foundation. The views expressed in this publication are those of the authors and do not necessarily represent those of Lumina Foundation, its officers, or employees. The authors would like to thank Amber Garrison Duncan and Wayne Taliaferro for helpful comments on earlier drafts. The authors would also like to thank Stacie Long, who designed the publication.

TABLE OF CONTENTS

1 Introduction Thomas Brock

5 **Study 1.**

Aligning Short-Term Credentials with Community College Degree Programs Richard Kazis and Lindsay A. Leasor

16 Study 2. Bundling and Sequencing Student Support Services

Hoori Santikian Kalamkarian, Andrea Lopez Salazar, and Armando Lizarraga

29 > Study 3.

Culturally Sustaining Supports and Instruction

Jessica Brathwaite, Julia Raufman, Nikki Edgecombe, and Ava Mateo

- 38 Conclusion
- 40 **•** References
- 48 Appendix A. States, Colleges, and Organizations Consulted
- Appendix B.
 Illustration on Aligning Short-Term Credentials and Associate Degree Programs
- 50 Appendix C. State Use of CARES Act GEER Funding to Support Short-Term Credentials



Community colleges are a key resource for adults who seek postsecondary credentials as a means to increase their employability and earn higher pay.

Introduction

Thomas Brock

he COVID-19 pandemic resulted in the highest unemployment that the U.S. has seen since the Great Depression, with particularly heavy job losses for Black, Hispanic, and Native American¹ workers. In this set of studies commissioned by Lumina Foundation, the Community College Research Center (CCRC) explores some actions that states and community colleges can take to address the needs of racially minoritized adult learners who are pursuing postsecondary education and training as a path to re-employment, better jobs, and higher incomes. We focus on three topics:

- 1. Study 1. Aligning Short-Term Credentials with Community College Degree **Programs** describes how some states are creating and scaling opportunities for adults to earn occupational certificates that employers value and that lead to associate and bachelor's degrees.
- **2. Study 2. Bundling and Sequencing Student Support Services** explains how community colleges can improve the design and delivery of advising and other critical support services to help adults attain their education and employment goals.
- **3. Study 3. Culturally Sustaining Supports and Instruction** offers examples and guiding principles that colleges can use to create programs and services that address the interests and needs of adults from diverse racial and ethnic backgrounds, and that encourage persistence in and completion of postsecondary credentials.

To describe these approaches and why they show promise, we draw on telephone interviews we conducted between November 2020 and January 2021 with state policymakers, community college leaders, and content area experts (see Appendix A for a list of the states, colleges, and organizations we consulted). Some of the policies and programs we profile have been evaluated; others represent promising strategies that will require further study to determine whether they improve education and employment outcomes and advance racial equity.

Why Focus on Black, Hispanic, and Native American Workers?

The economic shock delivered by COVID-19 on the U.S. labor market has been unprecedented. The nation experienced job losses across all geographic areas, industries,

¹ Throughout this volume, we use various terms—Asian, Black, Hispanic, Latinx, Native American, White—to discuss racial and ethnic group identity in the United States. Our terms often derive from those used in statistics from the U.S. government or other sources we cite. We recognize that these terms are contested and that racial and ethnic group categories mask substantial within-group heterogeneity in terms of ancestry, culture, history, and language.

and occupations except essential retail (such as pharmacies and grocery stores) and nursing.² While the economy has partially rebounded, a nationally representative survey by the Pew Research Center found that half of adults who lost a job due to the coronavirus are still unemployed, and many workers who did not lose their jobs had to reduce their hours or take a pay cut. Those most affected include lower-income adults, those without a college degree, and Black and Hispanic Americans.³ The Pew study does not break out responses for Native Americans, but analysis of the U.S. Census Bureau's Current Population Survey shows that Native Americans had higher rates of unemployment compared to Whites and Blacks before the pandemic and suffered severe job losses after the pandemic erupted.⁴

With passage of both the Coronavirus Aid, Relief, and Economic Security (CARES) Act and the American Rescue Plan Act (ARPA), and the distribution of COVID-19 vaccines, the economic outlook for 2021 is improving. Still, the Congressional Budget Office (CBO) and the Federal Reserve predict that unemployment rates will remain above 5% over the next two years.⁵ Historically, workers with no more than a high school education are the most likely to be unemployed. And workers with only a high school diploma or those who have taken some college courses earn less on average than individuals with a postsecondary degree. For example, adults age 25 and over with a high school diploma or equivalent had median weekly earnings of \$746 in 2019, as compared to \$833 for individuals with some college and \$1,248 for workers with a bachelor's degree.⁶

Differences in educational attainment—the product of systemic failures in K-12 and postsecondary education—help explain why Black, Hispanic, and Native American workers are suffering such high rates of unemployment relative to Whites and Asians during the pandemic. As shown below, 42% of Blacks, 58% of Hispanics, and 50% of Native Americans age 25 and over have not advanced beyond high school; the corresponding figures for Whites and Asians are 31% and 25%, respectively. The starkest gap by race/ ethnicity is at the bachelor's level. Nearly 60% of Asians and 42% of Whites have completed a bachelor's degree or higher, as compared to 27% of Blacks and 19% of Hispanics and Native Americans.⁷ Throughout the pandemic, workers with a bachelor's degree or higher have had the lowest unemployment rate among those at all education levels.⁸

² Handwerker et al. (2020).

³ Parker et al. (2020).

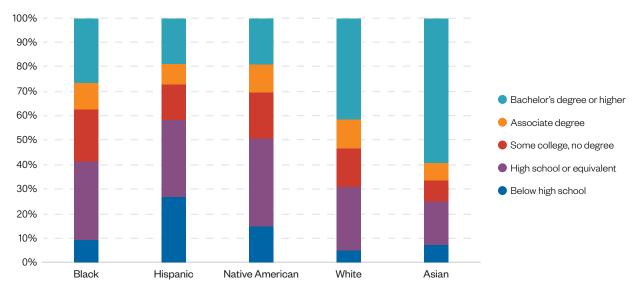
⁴ Feir & Golding (2020).

⁵ Falk et al. (2021).

⁶ U.S. Bureau of Labor Statistics (2019).

⁷ CCRC calculations using the U.S. Census Bureau Current Population Survey Table Creator (2018 data).

⁸ Falk et al. (2021).



Highest Level of Educational Attainment for Adults Ages 25-64, by Race and Hispanic Origin

Source. Author calculations using the U.S. Census Bureau's 2018 Current Population Survey.

Note. Black = Black or African American alone; Hispanic = respondents of all races who indicated they are of Hispanic origin; Native American = American Indian or Alaska Native alone; White = White alone; and Asian = Asian alone. Respondents who said they were two or more races are not shown.

Community colleges are an obvious resource for adults who seek postsecondary credentials as a means to increase their employability and earn higher pay. Community colleges are located in every state and almost all major cities and regions. They are affordable, particularly as compared to most four-year institutions and for-profit colleges. And they offer a wide variety of workforce credentials that can lead to good jobs, including middle-skill jobs in fields like health care, engineering, and business management. Community colleges offer associate degrees in these and other fields, and—with appropriate advising and support—they can put students on a path to earning bachelor's degrees.⁹

A key challenge for community colleges is how to attract and retain Black, Hispanic, and Native American adults, both in occupational programs that lead directly to good jobs and in transfer-related programs. Community colleges have been struggling with declining enrollments for adult students (defined as age 25 and over) of all races and ethnicities for more than a decade,¹⁰ and enrollments for this age group have dropped 11% since the onset of COVID-19.¹¹ While enrollments may rebound once the health crisis is over, the long-term trend suggests that community colleges need to do much better at designing, implementing, and marketing programs and services that appeal to adults.

First and foremost, community colleges need to place more emphasis on career development and job placement, and help more adults get on and stay on a path toward earning postsecondary degrees—including the bachelor's degree. This may require

⁹ Carnevale et al. (2020).

¹⁰ CCRC analysis of fall enrollment trends by sector and age using data from the National Center for Education Statistics (NCES) Integrated Postsecondary Education Data System (IPEDS), 1996-2017.

¹¹ National Student Clearinghouse Research Center (2020).

changes in state policies related to articulation and transfer. Second, community colleges may also need to make fundamental changes in how support services and programs of study are structured and delivered to meet the needs of part-time students who are balancing work and family obligations while attending school. Third, while community colleges generally pride themselves on having deep roots in their communities, they may need to do more to make historically marginalized racial and ethnic groups feel fully welcomed, recognized, and included in all campus-based services and programs. In the studies that follow, we offer strategies for how these goals might be achieved.



STUDY 1.

Aligning Short-Term Credentials with Community College Degree Programs

Richard Kazis and Lindsay A. Leasor

n recent years, interest has been growing in the expansion of short-term, non-degree occupational credentials as a tool to help adult learners advance in the labor market. Several distinct innovations in higher education and workforce development have supported and accelerated the scaling of short-term credentials, including the \$2 billion Trade Adjustment Assistance Community College and Career Training (TAACCCT) grant program,¹² Credit for Prior Learning,¹³ and individual college efforts to better align noncredit and credit programs in the same technical fields.¹⁴

As millions of Americans have left the workforce due to the COVID-19 pandemic, with an estimated 42% of layoffs resulting in permanent job loss,¹⁵ the interest in short-term credentials has taken on great urgency. In an August 2020 survey, 25% of adults expressed a preference for pursuing a non-degree credential—higher than the proportion of respondents interested in an associate or bachelor's degree.¹⁶ Why? Adults view non-degree programs as efficient, career-relevant, and a lower-cost option. Similarly, employers and policymakers see these programs as a way to help get many unemployed Americans—particularly in hard-hit Black, Hispanic, and Native American communities—back to work with upgraded skills.¹⁷

However, the research on stand-alone short-term credentials is cautionary. While there is evidence that short-term credential holders earn an annual income \$15,000 above the national median,¹⁸ research by CCRC and others finds that, on their own, short-term credentials have widely varying effects on wages, and many fail to provide a significant wage boost.¹⁹ More than half of adults with a very short-term certificate (of fifteen or fewer weeks in duration) who are employed earn less than \$30,000 a year.²⁰ Black and Latinx adults who hold a very short-term certificate earn significantly less than White adults with a similar credential.²¹

Despite this variation in labor market outcomes, the number of certificates conferred by public institutions increased by 117% over the last two decades.²² Importantly, *higher-quality* short-term credential programs tend to be small in scale and limited to certain

¹² Blume et al. (2019).

¹³ The term "prior learning assessment" (PLA) is often used interchangeably with Credit for Prior Learning (CPL). WCET defines PLA as the processes through which out-of-classroom learning is assessed for academic credit, including examinations, review of military or agency training, and portfolios prepared for faculty reviewers.

¹⁴ Education Strategy Group (2020).

¹⁵ Barrero et al. (2020).

¹⁶ Strada Education Network (2020).

¹⁷ Sáenz & Sparks (2020).

¹⁸ Strada Education Network et al. (2019).

¹⁹ Bailey & Belfield (2017); Carnevale et al. (2020).

²⁰ Ositelu (2021).

²¹ Ositelu (2021).

²² Hussar et al. (2020).

high-demand sectors, such as health care, advanced manufacturing, and information technology (IT). As short-term credential programs continue to expand within and beyond these broad sectors, community colleges must ensure that new and existing credentials are valuable to both employers and the students they typically serve.²³

For short-term, non-degree options to be a more equitable component of workforce education, particularly for minoritized adult students, policymakers and college leaders need better information on: which students are choosing high-quality, high-return programs; how they fare in those programs; and whether they continue on to advance in the labor market or further education. In addition, many institutional and state leaders see a path for reversing the marginalization of high-quality short-term non-degree credentials— and the students who enroll in them—by aligning and integrating these credentials with college degree programs, a strategy often referred to as "stackable credentials."²⁴

WHAT ARE NON-DEGREE CREDENTIALS, AND HOW MIGHT THEY "STACK"?

The two most common short-term, non-degree credentials are certificates and certifications.²⁵

- **Certificates**: credit-bearing or noncredit credentials awarded by a college following completion of all program requirements, including coursework and tests.
- Industry certifications: credentials awarded by a certification body (not a school or government agency) based on students' demonstration, through an examination process, that they have acquired the knowledge and abilities to perform a specific occupation.

Public two-year colleges award around half of all certificates earned nationwide. Community colleges also offer courses needed for many certifications, for apprenticeship certificates tied to particular industries and trades, and for licenses awarded by a government agency that allow the holder to practice in a specific field.

To enable short-term credential earners to advance efficiently to a next credential with greater labor market value and ultimately to a college degree, colleges and their partners take steps to make first credentials "stackable." A **stackable credential** is part of a sequence of occupation-specific educational credentials that are of short duration, have labor market value by themselves, can be earned over time, and provide a clear pathway for advancing in a career. **Vertical stacking** begins with a short-term program and leads to a higher-level degree or credential. **Horizontal stacking** leads to the accumulation of short-term credentials, allowing workers to expand into other specializations.²⁶ For low-income adults with little college experience, stackability provides flexibility to alternate work and college training with the assurance that credits earned in a first credential transfer to the next program in a pathway.

²³ Buckwalter (2017).

²⁴ The language around evolving credentialing models is fluid and varies across states. For example, the formulation "Credentials as You Go" is gaining traction in New York and Texas. Some prefer emphasizing the importance of degrees by focusing on the "embedding" of short-term credentials into certificate or degree programs rather than on the stacking of short-term credentials on the path to a degree.

²⁵ Duke-Benfield et al. (2019).

²⁶ Ganzglass (2014).

Descriptive evidence from Ohio, which initiated a statewide stackable credentials initiative through legislation in 2007, shows promise for this approach.²⁷ From 2005 to 2013, many students who earned one credential "stacked" a second credential within two years—59% and 33% in IT and health care fields, respectively. Among these students, almost three in four stacked to the associate level and 9% to the bachelor's level within four years. Yet, while Black students and adult learners were overrepresented in short-term credential programs, they were less likely to stack additional credentials relative to White and younger students.²⁸

A randomized controlled trial of Washington State's Integrated Basic Education and Skills Training (I-BEST) program provides evidence on the causal effects of a stackable credentials model that combines basic English and math instruction with credit-bearing classes in occupations such as automotive service and repair, nursing assistant, and welding. Though short-term by design—I-BEST programs range in length from one to two quarters—each includes a longer-term pathway leading to college degrees. The median age of students in the study was 26. Most students had no more than a high school diploma or the equivalent. Two years after random assignment, I-BEST increased the completion of credentials (either an occupational certificate or an associate in applied science degree) by more than 32 percentage points, and increased college enrollment by 22 percentage points.²⁹

In the text that follows, which draws on telephone interviews CCRC researchers conducted with state policymakers, education leaders, and others (see Appendix A for a list of interviewee affiliations), we highlight several leading states and higher education systems that are beginning to bridge the divide between short-term credentials and degree programs and that are making stackable pathways more accessible to racially minoritized adults. To do so, states and their colleges are reworking the structures and incentives shaping student, institution, and employer decisions.

State Efforts to Expand Short-Term Credentials Linked to College Degrees

State- and institution-level strategies to align high-quality, short-term credentials with college degrees must address multiple areas of policy and practice, including:

- Approval processes for new credentials linked to employer demand;
- Curricular alignment and sequencing of noncredit and credit degree programs;
- > Transfer agreements for credits and credentials earned;
- > Data systems to track labor market outcomes;
- > Financial support for institutions and low-income adults; and
- Adult-targeted advising and career planning.

²⁷ Daugherty et al. (2020).

²⁸ Daugherty et al. suggest that the lower rates of stacking among Black and adult students may be due to the fact that these students were more likely to enroll at an Ohio Technical Center (OTC). The authors found that stacking rates were lower at OTCs compared to other types of institutions.

²⁹ Glosser et al. (2018).

States are pursuing different approaches and priorities as they advance this agenda. Some states have leveraged legislation and financial incentives to drive this work; in others, the state higher education authority or a coalition of colleges directs the efforts. Few, if any, have crafted a comprehensive statewide strategy for aligning noncredit and credit occupational programs.

As states make progress in promoting scale, quality, and equitable access to these credentials, the obstacles they encounter, as well as their creative solutions, provide helpful lessons. This section describes developments in three states: Virginia, Wisconsin, and Texas. We focus on Virginia and Wisconsin because these states have been working for a number of years on issues of program approval, curricular alignment and sequencing, the integration of data systems, and the launching of innovations in advising and career planning appropriate for adult learners. We focus on Texas less for its progress to date than for its ambitious and thoughtful plans to partner with business leaders and to integrate short-term credentials into Guided Pathways reforms across the state's community colleges.

Virginia: Moving from short-term credentials to stackable career pathways

The Commonwealth of Virginia has made significant strides in building out a community college-based system of workforce training suited to adult learners' needs. In 2015, the general assembly directed the Virginia Community College System (VCCS) chancellor to develop a plan to address the demand from employers for well-trained, "middle-skill" workers. The following year, the legislature substantially increased what had been a minimal state investment in noncredit workforce training to expand the number of Virginians who earn short-term credentials with labor market value.

Over 24,500 individuals, or 93% of enrollees, have since earned a credential through the state's FastForward initiative. FastForward training programs offered at all 23 Virginia community colleges typically last 6–12 weeks and prepare participants for entry into high-demand occupations, as defined by the state workforce board. A majority of completers have experienced wage gains of 25–50%.³⁰ Almost all credentials earned have been in the state's top 12 occupations. The initiative's budget has grown from \$4.5 million annually to the current \$13.5 million. Over 40,000 Virginians have filled out applications for short-term credential programs since the pandemic began.

FastForward is reaching a population that VCCS has had trouble enrolling. To the system's surprise, two thirds of participants have no prior college experience. The average age is 36 years old, and about 40% are students of color. Participants are twice as likely as degree-seeking community college students to be receiving TANF or SNAP benefits. To maintain this diverse adult population, FastForward encourages colleges to reach out to community- and faith-based organizations in neighborhoods with low college-going rates, and the system runs a robust, targeted social media recruitment campaign. To keep completion rates high, FastForward-specific career coaches have been hired on each campus to support new students. These coaches work with students to help them determine which credential programs are best suited to their interests and goals. They

³⁰ Zaleski (2019).

also assist students with financial aid applications, enrollment paperwork, and preparing for job interviews in their chosen field.

FastForward is funded through a pay-for-success partnership: The student pays one third of the cost, or \$1,100 on average. The state pays the college the remaining two thirds of the cost, up to \$3,000, when the student completes the training program. Students earning below 200% of the federal poverty level can tap the state's Financial Aid for Noncredit Training Leading to Industry Credentials (FANTIC) program for up to 90% of the student's share of tuition.

Although the General Assembly specified that colleges should articulate noncredit credentials to academic credit to the extent possible, the number of FastForward students enrolling for a second credential or associate degree is still modest. In response, the state is pursuing strategies to publicize noncredit programs as an efficient route to credit-bearing certificate and degree opportunities. In support of this messaging and coordination, VCCS restructured the system office to put academic and noncredit planning and support staff under the same leadership.

VCCS sees expansion of credit granted through Prior Learning Assessments, initially designed to address the needs of those leaving the military, as an important tool to help more adults earn credentials. A new VCCS initiative, supported by philanthropy, will expand the recognition of learning through PLA and support the curricular crosswalks that enable adult learners to leverage workforce credentials for academic credit. In addition, a public-private partnership called Virginia Ready has raised \$15 million to fund awards of \$1,000 and provide a job interview for up to 7,500 individuals each year who complete one of 28 industry certifications in fields that include health care, advanced manufacturing, and IT.

These efforts align well with Governor Northam's signature workforce initiative: Get Skilled, Get a Job, Give Back (G3). Northam ran for office vowing to implement this free college variant targeting health care, IT, skilled trades, public safety, and early childhood education. Northam took \$5 million from the Governor's discretionary fund to flip certain high-demand occupational degree programs upside down, putting technical learning upfront and moving general education requirements later in the course sequence. This curricular sequencing flip makes it possible to offer a FastForward certificate as a seamless first-third of an associate degree. Legislation providing \$36 million for financial aid and marketing was enacted in March 2021.

Wisconsin: Embedding industry credentials into associate degree programs

The Wisconsin Technical College System (WTCS) has been building out its strategy to embed short-term technical diplomas into degree programs for nearly a decade. WTCS secured several U.S. Department of Labor TAACCCT grants that funded the development of career pathways in high-demand occupational fields. Today, Wisconsin's pathways work is now sustainably operationalized through revised processes and policies and enhanced data systems. Wisconsin built backward: Beginning with existing associate programs, WTCS revised program curricula with guidance from industry leaders, enabling students to earn a certificate with demonstrated labor market value early in the course sequence. A 2012 TAACCCT grant of nearly \$15 million focused on aligning industry-recognized certifications, certificates, diplomas, and other credentials in advanced manufacturing. All 16 colleges in the system participated. The most prominent strategy was the development and expansion of new and modified pathways beginning with occupational certificates awarded upon completion of coursework bundled together from an already approved longer-term "parent" program, mostly one- and two-year technical diplomas focused on occupational skills, that lead into associate degrees and even bachelor's degrees.³¹

New applied programs generally undergo a two-step approval process: first, the WTCS board evaluates the program, and then it is reviewed by the system office. In 2016, WTCS streamlined the approval process for embedded short-term credential programs so they require review only by the system office. The criteria for approval is the same—the program must be tied strongly to labor market needs in the college's district—but new short-term programs are now easier for colleges to launch.

An external evaluation³² of a set of TAACCCT welding, machine tool, and industrial maintenance programs found that they were well suited to adults, age 36 on average, with little or no college experience. Three quarters of participants had never enrolled before, and half received Pell grants in their first semester. Although the treatment sample was nearly three-quarters non-Hispanic White, this reflected greater diversity than Wisconsin's overall population.

Participants had better outcomes than a matched comparison group: They were 19 percentage points more likely to complete a non-degree credential, and significantly more likely to complete multiple non-degree credentials. Over one third of adults who completed one short-term certificate went on to complete a technical diploma.

A leader in serving adults who lack basic academic skills, Wisconsin was the first state to open up federal financial aid opportunities to high school non-completers through a statewide Ability to Benefit determination process.³³ WTCS has invested significantly in systems to collect and publicize outcomes data, through a homegrown reporting system and a set of dashboards that track students from their first credential through an associate degree and beyond, including employment and wage outcomes.³⁴ According to WTCS leaders, the next phase of their career pathways work begins with a focus on equity. A 2018 system-wide equity report³⁵ documents progress and gaps in access, success, and employment for low-income students, students of color, women, and students with disabilities. The report encourages system-wide use of a "culture of equity" tool to guide decisions and resource allocation.

Texas: Integrating short-term credentials as a part of Guided Pathways reforms

Across the state of Texas, 80% of first-year students at public institutions attend a community college.³⁶ In recent years, Texas community colleges have demonstrated a commitment to scaling Guided Pathways practices to assist students in the selection

³¹ WTCS (2021a).

³² Valentine & Price (2019).

³³ WTCS (n.d.).

 ³⁴ WTCS (2021b).
 ³⁵ WTCS (2018).

 ³⁶ Fletcher et al. (2021).

and completion of structured degree programs with labor market value. One essential pillar of the Guided Pathways model³⁷ and the Texas Pathways strategy is to map programs of study to students' end goals, which includes the alignment of short-term credential programs to longer-term programs within "meta-majors," or topical program groupings.³⁸

Given the pandemic-related jump in adult unemployment and community colleges' unique ability to respond, the Texas Success Center (TSC) is also supporting the Texas Reskilling and Upskilling through Education (TRUE) initiative. TRUE aims to prepare students for in-demand careers by accelerating their transition to work while also building an educational infrastructure that supports a thriving economy throughout the diverse regions of the state.

The TRUE initiative supports ways that colleges can improve the value of industrycertified credentials. The Texas Association of Community Colleges recently established a business advisory council, including representatives from prominent firms, to advise on actions necessary to build effective employer-aligned, demand-driven education, training, and reskilling opportunities so Texans can obtain the skills necessary to succeed post-pandemic.

Working toward supporting stronger regional talent pipelines that start at community colleges, TSC sees the alignment of short-term credentials and degree programs as key to expanding the appeal and strength of Guided Pathways reforms. These efforts include using regional labor market data to identify in-demand skills, refining and developing short-term credential programs aligned with in-demand skills, accelerating the mapping of short-term credentials to degree programs, and ensuring that students know how to secure a job in an in-demand field and then return to college in the future for additional training. Working with the Aspen College Excellence Program at the fall 2020 Texas Pathways Institute, TSC provided college leaders with a "data workbook" that included program enrollments, student-level data, and labor market outcomes within the state regions that colleges serve. With this data, colleges could see which students were enrolling in programs that lead to a high-wage career, allowing them to focus more intentionally on racial equity in program access and completion.

TSC complements its efforts to promote institutional change with a state advocacy and policy agenda to fund and support data that can track patterns of recruitment, enrollment, completion, and earnings for students who start in both noncredit programs and more traditional occupational pathway programs.

Areas of Need and Opportunity

As states and colleges make progress toward more systemic alignment of short-term credentials with degree programs, challenges of scale, quality, and equity remain. In this concluding section, we highlight common challenges and provide examples of innovative

³⁷ Jenkins et al. (2018).

³⁸ A recent CCRC study of three Guided Pathways colleges in Tennessee (Klempin & Lahr, 2021) also highlights the importance of integrating noncredit credentials into degree pathways and the need for adequate support for adult student decision-making and progress.

state and institutional responses. Appendix B illustrates the partnerships and state- and institution-level priorities that may accelerate this work while better serving Black, Hispanic, and Native American adults.

1. Develop systemic processes for linking non-degree credential and degree programs.

Align competencies and coursework across related programs. Aligning noncredit and credit programming in the same field so that credits are transferable and portable is labor-intensive. This work requires the collaboration of instructors and administrators to identify competencies, crosswalk and sequence learning in related programs, and change curricula as needed with input from industry leaders.

Example

Building off of several years of work with four-year colleges to establish transfer pathways, the **Michigan Center for Student Success**, which provides state-level support for Michigan's 28 community colleges, has launched a new philanthropy-supported effort to identify competencies expected in certain high-demand, high-value short-term credential programs. This will involve faculty collaboration to undertake the crosswalk required to align these credentials with related associate programs.

Integrate short-term credentials in statewide transfer and articulation systems. Some states working to align non-degree and degree programs are implementing statewide transfer and articulation policies that establish a uniform process for granting credits for student-demonstrated competencies, wherever they are learned. In this way, prior credits retain their value if a student changes institutions, stacks an additional credential, or stops out to work before returning for further training. For the purposes of efficiency, consistency, and portability, transfer credit agreements are best conducted at the state level.

Examples

Ohio's One Year Option allows graduates of Ohio Technical Centers who hold an approved industry-recognized credential and meet certain credentialing pathway requirements to receive 30 credits toward an associate degree at an Ohio community college. Statewide articulation agreements in **Florida** grant college credit for students who successfully earn a nationally recognized industry certification.

Expand statewide credit for prior learning systems. Credit for prior learning (CPL) correlates with greater credential attainment for adult students, as it allows them to earn credentials more quickly and at a lower overall cost.³⁹ However, CPL take-up rates are lower for Black and Native American adult students. A soon-to-be-released state policy toolkit from Research for Action guides stakeholders in the development of systems for recognizing, rewarding, and transferring creditworthy out-of-classroom learning.⁴⁰ Particular attention must be given to forms of prior learning that are most common among minoritized and lower-income adults.

³⁹ Klein-Collins et al. (2020).

⁴⁰ Shaw & Callahan (forthcoming).

Example

In 2020, the **Colorado** legislature passed a measure mandating development of standards across higher education institutions to award transferable credits for work-related prior learning through the state's Guaranteed Transfer Pathways system.

2. Design on-ramps and financial supports that encourage enrollment and completion.

Partner with community groups and employers to recruit adults. Substantial barriers prevent adults, particularly those without prior college experience, from enrolling in short-term credential programs. While information on program requirements, costs, and labor market outcomes is increasingly available, a growing number of states and colleges rely on community and employer partnerships to expand recruitment and marketing to low-income adults.

Examples

Broward College in Florida has launched Broward UP, a program that reaches six local zip codes with the highest average unemployment and lowest education attainment levels, to deliver non-degree credentials with labor market value. Nearly 2,500 residents have enrolled. In **Washington**, I-BEST adult training programs delivered at local community colleges recruit through community-based organizations while also leveraging industry contacts to identify low-wage workers who seek to advance.

Expand financial aid for adults in short-term programs. For low-income individuals, the financial costs, and in particular the opportunity costs, of attending college can dissuade them from enrolling, even in short-term programs. Funding for noncredit programs is typically limited—many states do not reimburse colleges for noncredit enrollments. To rebound from the pandemic, some states leveraged CARES Act relief funds to subsidize tuition and improve visibility of short-term credentials, sparking sharp increases in adult enrollment (for a list of states, see Appendix C). Similarly, when the U.S. Department of Education piloted an expansion of federal Pell Grant eligibility to include short-term programs,⁴¹ enrollment and completion increased by about 10%.⁴² In March 2021, federal lawmakers introduced the JOBS Act, a bipartisan bill that would expand Pell eligibility to eight-week programs that articulate to longer-term programs in high-demand sectors.⁴³ In the meantime, to more rapidly recover from pandemic-related job loss, states can allocate funds to make initial enrollment in stackable programs more affordable.

Examples

The **Future Ready Iowa** last dollar scholarship is available for adults age 20 and older who enroll in high-demand occupational programs at a local community college. **Indiana's Workforce Ready Grant** is allowing Ivy Tech to rapidly

⁴¹ We acknowledge that expanding Pell Grants to include short-term credentials is controversial (Jacobs, 2020) and should not proceed without the establishment of clear and equitable standards by states for the quality assurance of these credentials (Jacobs et al., 2021). For two views, see Merisotis & Peller (2021) and Bustillo & Laitinen (2021).

⁴² Thomas et al. (2021).

⁴³ Office of U.S. Senator Tim Kaine (2021).

scale enrollment in short-term, industry-recognized credential programs that lead to high-paying careers. The college has piloted programs enrolling 10,000 adults statewide and plans to expand its effort to reach as many as 130,000 adults in several dozen fields.

3. Build out stackable credential pathways that support adult student completion and advancement.

Leverage employer knowledge to shape curriculum and career preparation. The more effective the interaction with employers, the more likely that a program will align with local industry skill needs. Employers will then be more likely to view the college as a quality provider of upskilling opportunities, easing students' transition into the labor market.

Example

Utah's Strategic Workforce Investments initiative requires that groups of five or more employers representing a regional industry sector must provide input and support for education institutions' grant applications to create credential pathways.

Provide financial support and incentives for colleges. Colleges need financial support to create new programs and to expand the availability of high-demand programs to adults who might be interested. State funding can support infrastructure building. And states can shape incentives facing colleges so that delivering more non-degree credentials is financially attractive. Equalizing the state funding rate for credit and noncredit courses— for example, as Kentucky did in 2001 by shifting all noncredit programs to credit-granting and as California and North Carolina have done more recently—can promote short-term credential enrollment and encourage greater transparency and transferability of credits.

Examples

Through the **Florida** Career and Professional Education Act (CAPE), colleges receive \$1,000 for each industry certification earned by a student, up to a maximum allocation of \$5 million. **Ohio**'s legislatively mandated performance-based funding system includes the attainment of technical certificates that articulate to longer-term credentials, contributing to a large increase in the supply of stackable certificates.

Integrate non-degree program students into the campus mainstream. Adults learners in non-degree programs are often marginalized within the college. They may not have access to the same advising and academic supports as degree-seeking students; these supports can guide non-degree students in making informed program choices, understanding stackable credential pathways, and persisting to credential completion. To this end, some colleges are breaking down the silos between credit and noncredit divisions, and reorganizing by program field and content.

Examples

Several years ago, **Mott Community College** in Michigan revised its student transcript so that noncredit health programs were included. North Carolina's

Wake Technical Community College is integrating its credit and noncredit divisions (a change likely accelerated by the state legislature's 2019 decision to fund noncredit and credit programs equally).

4. Unify data systems to track learning and monitor credential quality.

Include non-degree programs in state postsecondary data systems. To track progress of all students in a state's public institutions, regardless of where they start their postsecondary learning, unified data systems are needed to assess student outcomes over time, across colleges and other training providers, and into the labor market. As of 2018, only 13 states collected significant data on noncredit certificates awarded by the state's public institutions, and only nine collected data on industry certifications awarded by certification bodies.⁴⁴ Data system users need to be able to disaggregate education and employment outcomes by race/ethnicity, age, and other demographic characteristics, for institutions and specific programs.

Examples

In 2018, **The Workforce Data Quality Campaign** produced a step-by-step guide for states on how to identify credentials of value and measure non-degree credential enrollments and completions using student-level administrative data.⁴⁵ A 2019 **Education Strategy Group** toolkit specifies how states can identify, validate, incentivize, and report on non-degree credential attainment and equity gaps.⁴⁶ **CCRC** has also developed a tool to help states and colleges examine the racial and ethnic composition of their academic and workforce programs and what this means for future earnings of program completers.⁴⁷

Comprehensive, unified data systems facilitate the development of quality assurance criteria for non-degree credentials and enable states to engage in continuous improvement by tracking and promoting equity in credential access and attainment.



⁴⁶ Education Strategy Group (2019).

⁴⁴ Leventoff (2018).

⁴⁵ Leventoff (2018).

⁴⁷ Fink & Jenkins (2020).

STUDY 2.

Bundling and Sequencing Student Support Services

Hoori Santikian Kalamkarian, Andrea Lopez Salazar, and Armando Lizarraga

growing consensus holds that good advising and support services—which may encompass a wide range of support—can help students complete a college credential.⁴⁸ For example, academic advising helps students select and stay on a program pathway that aligns with their longer-term goals.⁴⁹ And academic supports such as tutoring or writing centers help students pass courses through direct help with course material.⁵⁰ Ideally, support services also help students address nonacademic challenges that may interfere with their ability to succeed in college, such as food and housing insecurity and transportation and childcare needs.⁵¹

Effective advising and support services are especially important for the retention and completion of racially minoritized adult students. Black, Hispanic, and Native American students, compared to their White and Asian peers, are more likely to be placed into developmental education courses, which can be stigmatizing and create barriers to progress. And minoritized adult students are more likely than other adult learners or traditional-age peers to struggle financially, work at least part-time, and take care of children or other dependents. Academic, financial, and other nonacademic services can provide the added support that these students need to achieve their goals. Moreover, positive engagement with advisors, counselors, faculty, or other institutional staff can foster a sense of inclusivity, helping students of color who often report feeling isolated in college develop a stronger sense of belonging.⁵²

Unfortunately, advising and support services at community colleges are often underresourced. Advising caseloads range as high as 1,200 students.⁵³ With so many students to serve, advisors typically reach only those who opt in for help, and even then, the focus is usually on immediate academic needs, such as registering for courses for the next semester.⁵⁴ Advising and support services may also be siloed, particularly on large community college campuses. These circumstances place the onus for getting help on students themselves; students must seek out, make sense of, and piece together disparate pieces of support, leading to an experience that may feel disjointed and inconsistent.⁵⁵ Moreover, without policies and processes in place to ensure sustained engagement

⁴⁸ Center for Community College Student Engagement [CCCSE] (2018); Karp (2011); Montelongo (2003).

⁴⁹ Research finds a positive association between the use of advising services and outcomes, including credit completion and grade point average (Kot, 2014; Young-Jones et al., 2013; Pascarella & Terenzini, 2005).

⁵⁰ Cooper (2010).

⁵¹ Wood et al. (2016); Geckeler (2008).

⁵² Jain & Crisp (2018).

⁵³ CCCSE (2018).

⁵⁴ Kalamkarian & Karp (2015).

⁵⁵ Rassen et al. (2013).

with each student, those who need help the most often do not get the help they need, especially after the first year of enrollment when supports designed to onboard students are no longer applicable.⁵⁶

Students pursuing short-term credentials, who are typically older and from racially minoritized backgrounds, are especially likely to have a disjointed advising and support experience. Short-term programs are often organized as part of the careertechnical education or workforce division of a college, separate from academic programs of study.⁵⁷ This structure makes it challenging for students in short-term programs to access the services housed within academic programs and available to degree-seeking students, including support for transferring credits and financial aid from a certificate program to a degree program.

Many community colleges recognize these problems, and some have taken steps to

WHAT ARE BUNDLING AND SEQUENCING?

Bundling is the integrated delivery of academic and nonacademic supports.

Example: In a bundled design, guidance on what courses to take also includes resources to address potential barriers to success in those courses, such as transportation vouchers to ensure that students can get to class.

Sequencing is the aligning of supports with students' needs through each stage of their college journey.

Example: In a sequenced model, an advisor or counselor helps students explore careers in the connection and entry stages, and, in later stages, build on this exploration by helping students identify and prepare for a specific postsecondary pathway.

ensure that students get the advising and support they need when they need it. Two interrelated constructs are foundational to many redesign efforts: *bundling* and *sequencing*. Bundling is defined as the integrated delivery of academic and nonacademic supports. Bundling creates a more cohesive support experience for students. Sequencing is defined as the alignment of supports with students' needs at each stage of their trajectory through college, from initial connection with the college to entry into a noncredit or credit certificate program or a degree program, through each stage of coursework, and finally completion.⁵⁸ By tailoring services to each student's needs at each stage in their tenure, sequencing makes support experiences more efficient and meaningful.

Evidence from two randomized controlled trials of community college programs that employ a bundled and sequenced approach for degree-seeking students—the Accelerated Study in Associate Programs (ASAP) at the City University of New York (CUNY) and the Stay the Course (STC) program in Texas—shows large, positive effects on degree completion.⁵⁹ A majority of students in each study sample (78% for the ASAP study and 70% for the STC study) identified as either Black or Hispanic. ASAP serves a more traditional-age student population (the average age in the study was 21.5) and bundles intensive advising with tutoring, tuition waivers, financial support for books and basic needs, and counseling as needed throughout participating students' tenure in college. The STC program serves a slightly older population (the average age in the study was 24) and assigns participants a social service provider. The provider helps students develop

⁵⁶ Schreiner (2018).

⁵⁷ Zachry Rutschow et al. (2021).

⁵⁸ Rassen et al. (2013).

⁵⁹ Specifically, the ASAP evaluation found that the program increased the three- and six-year graduation rates of participants by an estimated 18 percentage points and 10 percentage points, respectively. The program also had positive effects on timeto-degree and transfer (Weiss et al., 2019). The STC evaluation found that the program increased persistence and three-year graduation rates among women (Evans et al., 2020).

a plan that includes action steps and milestones for accomplishing their goals, monitors student progress on their plans, and provides coaching, mentoring, and referrals as needed. STC also provides students emergency aid.⁶⁰

Community colleges should aspire to bundled and sequenced delivery of services for all students in order to provide them with a cohesive academic and nonacademic support experience throughout their college journey. In the figure below, we illustrate how bundled and sequenced services can create a cohesive support experience for students. We highlight both strategies that are universally applicable and those that are targeted to supporting adult learners in short-term programs. The broad goal for institutions is improved learning and improved student outcomes in terms of retention, transfer, and completion of a certificate or degree.

A Cohesive Support Experience Throughout the Student's Tenure

| CONNECTION | ENTRY | PROGRESS | COMPLETION / ADVANCEMENT |
|--|--|--|--|
| co first enrollment choi Referral from employer or community-based organizations to college Exploration of postsecondary & career goals to ensure alignment with college offerings Program exploration (of courses, noncredit and credit certificate pathways, or degree pathways that align with job upskilling or career goals) Completion of enrollment pre-requisites (registration, application) Completion of Prior Learning Assessments (PLAs) Transfer of prior postsecondary credits Submission of financial aid, scholarship, or tuition reimbursement forms Engagement with students, staff in spaces designed to support social integration | boice C Exploration of careers that align with goals; development of a career plan Program selection Pevelopment of an education plan that maps courses from start to finish and includes foundational content as early as possible Connection to employer or community partners related to student's field of study (for students in short-term programs) Enrollment in introductory courses Tutoring, writing, & other academic support (inside & | From program entry to completion of 75% of program requirements Refinement of career goals; adjustment of career plan Career & job readiness training, practice Exploration of transfer institutions (if applicable) Enrollment in program courses Education plan adjustments Tutoring, writing & other academic support (inside & outside of classroom) Application for financial aid, scholarship, or tuition reimbursement Financial plan adjustments Connection to affinity groups & other opportunities for social integration Continued engagement with alumni mentors | From completion of program requirements to job placement, four-year transfer, or further education at community college Enrollment in remaining program courses Completion of graduation requisites Submission of applications to transfer institutions (if applicable) Planning for or application to other community colleges to advance careed (if applicable) Application for financial aid, scholarship, or tuition reimbursement Resume development Job search in field of study, placement Networking with alumni in chosen field of study with support from alumni mentors |

Note. Adapted from a framework developed by Completion by Design (n.d.).

⁶⁰ Evans et al. (2020); Weiss et al. (2019).

Innovative Strategies for Bundling and Sequencing

Getting historically marginalized students the academic and nonacademic help they need when they need it requires institutions to get to know their students well, to check in with them regularly, and to adjust the services students participate in based on their evolving needs. We draw on three models that serve as or make use of an advising and student services framework—SSIPP (which emphasizes a sustained, strategic, integrated, proactive, and personalized approach to advising),⁶¹ the whole-college Guided Pathways reform model,⁶² and the Family Education Model (developed in part by Native American educators)⁶³—to identify strategies that seem most relevant to Black, Hispanic, and Native American adult students. These include (1) recruitment and service design in partnership with external organizations; (2) co-located support services; (3) assigned advisors or cross-functional support teams; (4) identification of student needs; (5) education, career, and financial planning; and (6) engagement with student families and communities. We describe these strategies below and—drawing on telephone interviews we conducted with college personnel from several institutions (see Appendix A)—provide examples of colleges implementing these strategies in innovative ways to support racially minoritized adults.

1. Leverage external partners for recruitment and program design.

Community-based organizations serving racially minoritized adults can serve as key partners for colleges in recruiting and enrolling students. These organizations often work intimately with individuals and thus learn about what potential students want to do in their lives as well as the personal circumstances—including familial, financial, or employment responsibilities—that may make it challenging for them to pursue and achieve their goals. Community-based organizations can become a strong referral base for colleges. Colleges can also leverage the insights that external partners provide to design programming that is responsive to diverse students' needs.

Examples

Community College of Aurora (CCA), a Hispanic-Serving Institution in Aurora, Colorado, partners closely with the Mi Casa Resource Center to administer two certificate programs in financial services: Banking Essentials and Supervision Fundamentals. Both programs are 16 credits and stack toward a bachelor's degree in banking at the Metropolitan State University of Denver (MSU). Mi Casa helps individuals develop their businesses or connects them to jobs or educational opportunities. In partnership with other local organizations, Mi Casa also offers legal, technological, mental health, and financial resources. Mi Casa is integral to CCA's recruitment for these certificate programs. Mi Casa staff connect students who express interest or may be a good fit to the business department at CCA, which runs the programs. Mi Casa staff and the chair of the business department work together to support each student's matriculation, which helps CCA learn about the important

⁶¹ Klempin et al. (2019).

⁶² Jenkins et al. (2018).

⁶³ Heavyrunner & DeCelles (2002).

nonacademic circumstances and, in partnership with Mi Casa, ensure that each student's needs are met.

San Antonio College's Empowerment Center is intimately connected with community-based services. The Center offers comprehensive services—including childcare referrals, parenting support, educational re-entry services, referrals to community-based resources, scholarship help, referrals for job skills development, GED services, and other special programming—for women and adult students. It also has certified academic advisors who serve as the assigned advisors for students served by the Center. The Empowerment Center conducts intensive recruitment and has a strong referral base from community-based programs. Because of the Center's close partnership with referring programs, high schools, and community-based services, the Center staff often have some insights into the needs of referred students. Based on these insights—and coupled with needs assessments and discussions occurring during the intake process—students are connected to relevant departmental or college services.

2. Provide co-located support services.

To establish the infrastructure for bundling, one strategy is to co-locate services physically in a centralized location. Various terms are used for this arrangement, including "one-stop" or "hub." Students can then access multiple services in the same center, making it easier for them to seek out the academic and nonacademic help they need and for center staff to bundle the delivery of the services. These centers may also serve as a social gathering spot for students from various backgrounds, complementing the social environment of the larger college community. To accommodate working adults, hubs are open at least one day a week before or after typical business hours of 9 am – 5 pm and at least a few hours on weekends.

Physical co-location on campus also has benefits for the virtual delivery of services. Co-located centers with web pages use live chat, video calls, and short forms to get students connected to the resources that they need. Some also have set up a "lobby" in a virtual welcome center to mimic the experience of physically dropping into the center. Moreover, the relationships built among staff due to co-location make it easier to maintain coordination of supports amidst campus closures and virtual delivery of services.

Examples

Nashville State Community College's (NSCC) Reconnect Café is designed to serve adult learners pursuing a certificate or an associate degree who have or who are eligible for funding from the Tennessee Reconnect grant. Faith-based organizations also serve as partners with the Café for recruiting adult learners for the Reconnect grant. The Café helps students enroll in college and register for courses. The Café staff check in with students at minimum once every month to help them stay on track—and texting students during the pandemic has worked well to reach students. The Café also helps facilitate nonacademic supports. Students can frequent the Café to grab a snack or socialize (pre-COVID); the staff leverage campus and community-based partnerships to get students the resources they need. The Reconnect Café was previously co-located within the student services building and, once the campus re-opens, it will be part of a new student success center. Co-location with application and other service areas has helped students who may qualify for the Reconnect grant connect with the Café. For example, when the campus is open for in-person services, the Café staff can walk students filling in an application over to the Café.

Central New Mexico Community College's Connect Services offers a physical space where academic coaches connect certificate- and degree-seeking students to college and community resources and work with students on academic planning, financial management skills, and study skills development. Connect Services are designed to bundle academic support with financial, familial, and career and employment related asset-building, which are critical for students who are working parents. Connect coaches are able to address general questions pertaining to different departments, reducing the need for referrals. For example, academic coaches have access to data screens to answer common financial aid questions. Coaches help students with more complex financial aid questions through a warm handoff such as a direct phone call from the coach to a financial aid advisor. Connect coaches are well versed in community-based resources addressing food insecurity, homelessness, and mental health. Some coaches are assigned as liaisons to specific community organizations, including a program that serves single mothers and a program that supports domestic violence survivors; these coaches facilitate onboarding of students referred by these organizations, helping the college leverage these external partners for recruitment and enrollment of students who are typically adults. The college texts students to check in and remind them of upcoming deadlines. These nudges are customized based on the student's stage in college and the status of key items, like completion of the FAFSA. During the pandemic, Connect Services pivoted to a virtual environment that still allows a student to "walk in" remotely and access academic advising and community-based support on-demand. The college is planning to further develop its coaching model by assigning students a single coach for the duration of their college experience.

3. Assign an advisor to each student, or use cross-functional support teams.

Another key strategy is assigning a single individual to support students through each stage of their college journey. This individual can be the same person from connection through completion, or colleges can assign individuals for each stage. Either way, the objective is for the student to have a single person they know they can go to for help and who will follow their progress at each stage, intervening as needed. The assigned provider facilitates bundling by connecting students to the various academic, career, financial, and basic needs resources available at the institution or from community partners.

Like using a series of assigned advisors, the deployment of assigned, cross-functional teams can also facilitate a bundled and sequenced student support experience. These teams—often referred to as success teams, completion teams, or a network—consist of staff from various support services and typically include an academic advisor, career counselor, and financial aid counselor. Similar to assigned advising, assigned teams help

students get on a program pathway and monitor their progress, intervening as needed to get students back on track. Success teams facilitate bundling by making it easier for providers to coordinate with one another, referring students to others within the team as needed, and checking in with team members to "close the loop" on a referral. Typically, cross-functional teams meet regularly to discuss students' progress, making it easier for academic and nonacademic providers to integrate the way they support students and align their guidance over time.

Examples

Bakersfield College, a Guided Pathways institution in California, has organized short-term (credit and noncredit) programs and associate degree programs into nine disciplinary areas called meta-majors. Completion coaching teams are embedded into these meta-majors, and all students regardless of age or full-time/part-time status—are assigned a team by their meta-major. Each team includes an education advisor, administrator, peer advisor, discipline-level faculty member, academic development faculty member, student support specialist, financial aid advisor, and counselor. In addition, each team has a data coach, who supports providers in monitoring the overall progress of students in the meta-major. The college also has affinitybased teams for athletes, veterans, students with disabilities, students who were foster youth, and students who are part of African American initiatives, Educational Opportunity Programs, and the Kern Promise transfer program. (Students who belong to one of these affinity groups may receive support from both their meta-major and their affinity coaching teams, but often engage most closely with their affinity coaching team members.) Advisors monitor students' progress on program pathways and intervene if a student falls off track. Advisors also respond to early alert flags connecting students to resources, including other team members, depending on the flag. Peer advisors support academic advisors in monitoring students by regularly checking in with students via phone calls, text, email, or social media, and by informing advisors if a student may need further intervention. Data coaches conduct analyses to inform improvements in programs and supports for students in the meta-major. In general, team members coordinate academic and nonacademic support of advisees to deliver a cohesive support experience for students.

Cuyahoga Community College (Tri-C) in Ohio uses a case management advising model to serve specific student cohorts, including those in short-term programs. Under this model, assigned student success specialists provide wraparound services focusing first on addressing any challenges students are facing outside of the classroom that prevent them from succeeding at Tri-C. For example, working parents may receive counseling and support to manage home environments before specialists begin working with them on academic planning. Student success specialists typically facilitate referrals to academic support services, financial aid, career center, and personal counseling. Specialists also reach out to students who are flagged on an early alert survey (see next section) within 48 hours of submission of the flag. Within the context of short-term programs, student success specialists coordinate support with program managers, who directly help students complete entry assessments and connect with financial, tutoring, and community-based services. Student success specialists and program managers also coordinate checking in with students regularly to ensure that they are attending courses, completing course requirements, and, once courses are complete, taking the steps they need to get a job or pursue other training opportunities.

4. Identify student needs in a methodical way.

To connect students to a bundled set of services, colleges need to know what help students need. Strategies for needs assessments include surveys, early alerts, and predictive analytics. Surveys ask students questions designed to capture factors that may signal the need for additional support, such as if a student is a single parent. These surveys are typically administered to incoming students during the intake process. Some colleges have plans to expand the use of surveys to each semester the student is enrolled, in recognition that students' life conditions change over time. A student who was not a parent at intake, for example, may be a parent by their third semester and could benefit from childcare resources.

Early alert systems leverage insights from faculty to identify students who may need support. Faculty can "raise a flag" directly through the early alert system or by responding to a survey that pertains to a roster of students enrolled in the faculty member's course(s). Surveys are typically administered within a few weeks of the start of the semester. Flags refer to a range of academic or nonacademic conditions, such as "missing assignments." Raising a flag automatically generates a message to the student and, ideally, to an assigned advisor who can then follow up with the student. Establishing streamlined communication from faculty to advisor is especially important for short-term programs. In these programs, faculty may work more closely with students on charting their job or career pathway than advisors, making it even more important for faculty to have a way of notifying advisors if a student needs more intensive support.

Predictive analytics systems use algorithms to predict a student's likelihood of success in a course or program. Students receive a risk score based on prior performance and other data, including, in some cases, demographic data. This practice can be controversial, and runs the risk of reinforcing racial or gender bias. Predictive analytics is best used to anticipate student needs and to help colleges plan for and offer more support, rather than to restrict opportunities to students. Early alert and predictive analytics tools are increasingly used for needs assessments in degree-granting and short-term creditbearing programs. Use of these tools or other formal processes for identifying students' needs in noncredit pathways or as students transition from noncredit to credit is under development. Colleges described refining this transition, including the coordination of financial and other services, as the next phase of their efforts.

Examples

Northeast Wisconsin Technical College (NWTC) uses surveys, early alert systems, and predictive analytics to identify students' needs and connect them with resources accordingly. The survey consists of 18 questions and is administered to all new students during the intake process. Faculty also

raise early alert flags by responding to a survey generated in the early alert system at the start of each semester, and they are responsible for following up with students that they flag. The college's early alert system includes a range of flags. In response to the pandemic, the college added flags pertaining to computer and internet access; in response to flags from faculty indicating a concern that the student may not have access to the necessary technology, the college checked in with students and provided several hundred laptops and hotspots. The early alert system is used in credit-bearing courses as well as in some noncredit courses. Predictive analytics is a recent addition at NWTC. The college is using these data for aggregate analyses and subgroup analyses by race and ethnicity. These various sources of data are used to connect students to support services, including food and housing insecurity resources, supplemental funding for childcare, affinity groups, and, for the college's indigenous population, programming in partnership with local tribes.

Sinclair Community College (SCC) in Ohio offers certificate programs in computer information technology, retail and business management, unmanned aerial systems, and criminal justice using a competency-based education (CBE) model. CBE courses are fully online, with the exception of in-person lab components for some courses. Coaches assigned specifically to these CBE courses conduct intensive program monitoring and performance intervention, following a weekly coaching guide that specifies check-in points and templates for proactive email communication. SCC worked with its Institutional Research department to calculate the midpoint of a CBE course in terms of the amount of material covered. Coaches have access to a dashboard that, based on these calculations, flags students who are not on pace, prompting an intervention from the coach.

5. Help students visualize their goals and see their progress.

Some community colleges are now engaging students in education and career planning starting as early as the initial connection with the institution. Education planning includes identifying a certificate or degree pathway and developing a personalized plan for completing their chosen credential. Early career planning discussions with prospective and new students focus on exploration; as students progress, support providers work with them to refine their goals and prepare for the next stage in their career pathway through practical exercises including networking in fields of interest and developing a resume. For students in short-term programs, career planning discussions can help students understand how certificates stack toward an associate or bachelor's degree. Areas for further development include identifying how these planning activities can be coordinated, what technological platform can facilitate the endeavor, and how plans should connect to or trigger advising and other services. Colleges are also exploring ways to introduce financial planning discussions early in a student's tenure in a way that complements academic and career discussions.

Examples

At **San Antonio College** in the Alamo College District, advising and student supports align with the connection, entry, progress, and completion framework.

The Student Academic Advising Plan outlines the achievements that students are expected to reach at each stage of their trajectory. For students in associate degree pathways, the achievements are broken down by credit hour and year (first year: 0-15 hours, 16-30 hours; second year: 31-45 hours, 45+ hours). Achievements address credential, career, and financial goals and effectively serve as a guide both for the student and the advisor. Students can check the plan at any time to see what they should be thinking about, and advisors can tailor discussion of these topics during required advising sessions at the completion of particular milestones. For short-term credit and noncredit programs, assigned support staff check in with students regularly throughout the duration of their enrollment in a course; attendance and pre- and post-assessment scores are among the indicators that support staff use to determine if a student is making progress or may need help to complete the program.

Northern Virginia Community College (NOVA), with support from the State of Virginia's FastForward short-term workforce credential program, offers industry certifications in information technology, healthcare, and other areas aligned with growing labor market demand (a requirement of the FastForward program). For Virginia residents who meet citizenship requirements, FastForward pays for two thirds of the cost of completing these programs. Student support staff work with students entering these programs to identify financial resources that, when coupled with FastForward, can cover most it not all of the program costs. During these initial enrollment discussions, staff also connect students to other campus and community-based resources, including the food pantry and NOVA's emergency financial assistance services. As part of the work of implementing programs supported by FastForward, NOVA has formalized pathways between some noncredit and credit-bearing credentials. For these pathways, students who pass the national or state certification exam can get credit for this prior learning toward a credit program by simply presenting the certification. The college is working on visual aids to demonstrate how these noncredit programs articulate to credit-bearing pathways.

FastForward has also contributed to the creation of a "Labor Market Institute (LMI)" dashboard, an interactive tool that students and institutional staff can use to explore labor market conditions in the region for various occupations as well as the noncredit and credit-bearing training offered at NOVA to support entry into those fields. The college's student support staff who work with students in workforce programs use the dashboard to help students understand the economic implications of different certification options. NOVA's employer relations staff are in the beginning stages of streamlining post-credential pathways, including working with employers to refine requirements for entry-level positions. For adult learners who have previous relevant work experience but are not able to dedicate a year post-credential to an internship or another job to demonstrate experience, this streamlining can remove barriers to career advancement.

Bakersfield Community College's Program Pathways Mapper facilitates academic and career exploration and planning—even before the student is

enrolled at the college. The Mapper allows all prospective or current students to access a visual representation of the college's catalog that is customized for each program pathway, including noncredit and credit-bearing short-term certificates. Students who enter the Mapper first select from among the college's nine meta-majors. From there, students can see programs organized into three groups: those that lead to low-unit or noncredit certificates, high-unit certificates, and degrees. On the same page, students can also see descriptions of related careers, the education level required for each career, the average salary, and the expected job growth in the industry. Mapper is easily accessible on mobile devices and does not require any other sign-in, removing all barriers to access including enrollment at the college. The college reports that "on-path" enrollment is higher among students who utilize Mapper and that, among students who use Mapper, there is no difference in the percentage of "on-path" students between racial subgroups.

6. Engage with students' families and communities.

One challenge many adult learners face is how to integrate school with their roles as parents and their interests and commitments off-campus. Strategies for engaging families and communities in the support process may include: (1) orienting the college's promotional and recruitment material to be accessible to students and family members who may not speak and/or read English or may not have attended college; (2) opening up orientation to include family members and childcare; (3) including families and community members in campus-based social and cultural events; (4) building partnerships with community-based social, health, and legal services organizations; and (5) broadening campus-based social services to include families. These strategies all are based on the premise that family and community function as assets that can be leveraged to support students.

Examples

Central New Mexico College welcomes family members at each phase of the intake process and during advising sessions. Coaches and other service providers encourage students to bring with them anyone they think will help them achieve their college goals. The college also has initiatives and resources that are oriented to children, making it easier for students who are parents to also meet the needs of their kids. For example, they have play areas and a toy-lending program partner at one of their campuses. The college also has a Native American Task Team, which includes campus leaders, faculty members, and staff from support service departments including financial aid. This task force works with local tribal leaders in campus events, services, and policy development. For example, this task force and tribal leads worked together to develop a policy regarding language credit for native indigenous languages.

San Juan College in New Mexico serves a growing population of Latinx students. The college's Herencia Latina Center is a cultural and student support center designed to cultivate an inclusive environment and help students receive the academic and nonacademic support they need to stay on track in

their programs. At the beginning of the semester, staff send a personalized letter to each incoming student who self-identifies as Latinx on the application, introducing themselves and the services available at the Center. Students are also introduced to the Center through advising. At the Herencia Latina Center, students have access to computers and printers, tutoring, office hours with professors, and advising (advisors come in twice a semester). Prospective and enrolled students are welcome to include family members in advising sessions. Center staff also act as a "connector" to other campus and community-based resources. In response to the pandemic, Herencia staff checked in one-on-one with students. Herencia staff also connect students to the statewide grassroots initiative, ENgaging LAtino Communities for Education (ENLACE), which is also available to students and their families. ENLACE is two blocks away from the college. Part of ENLACE is the Student Ambassador Program, a mentoring program for Latinx students. ENLACE also offers students and their families DACA clinics; it is the go-to center for community needs. ENLACE has several programs that cater to student parents, including Abriendo Puertos (Opening Doors) and Parent Empowerment.

Considerations for the Field: Getting Buy-In and Covering Costs

Several conditions enable the successful implementation of the strategies described in the previous section. Changes in support services are more likely to translate into improvements in the way students experience support if those implementing the changes have a shared commitment to the objectives of the redesigns. The colleges we interviewed where innovative structural and practice changes had taken hold described a strong, shared focus at the college on student success. Several colleges described starting with an exercise to identify what was making it difficult for students to access services, and then redesigning structures and practices accordingly. Developing a studentcentered, bundled and sequenced approach that is responsive to racially minoritized adults also calls for a clear articulation of and shared commitment to diversity, equity, and inclusion goals. Without them, improvements to advising and support services may be short-lived, particularly when budgets are tight or when there is staff turnover.

In addition to buy-in and support from campus staff, faculty, and leaders, the bundling and sequencing of services generally require colleges to increase investment in student supports. Intensive practices like checking in with students regularly and monitoring progress on a program pathway usually require smaller caseloads among advisors and other support staff—meaning that colleges may need to increase their numbers of support providers. For example, to implement the college completion teams and other advisingrelated reforms, Bakersfield College hired additional staff including 15 academic advisors.⁶⁴

Likewise, early alert systems, predictive analytics, communication tools, and platforms for shared notetaking can all help colleges assess needs and coordinate services among staff. But these technologies must be purchased, and integrating these tools also

⁶⁴ Jenkins et al. (2020).

raises additional personnel costs. Launching and maintaining technologies requires involvement of information technology and institutional resource staff, among others, meaning increased staff time from these positions to support student services.⁶⁵ New types of jobs—like one dedicated to managing early alert, predictive analytics, and other needs assessment processes and interventions⁶⁶ or one focused on targeted services for adults—may also require additional costs.

Encouragingly, some colleges have shown that the added costs of bundling and sequencing support services are not prohibitive. A study of the costs of implementing Guided Pathways reforms found that colleges increased their expenditures on advising and student services by about \$150 per student per year.⁶⁷ Some colleges have covered these costs through external grants or targeted cost-cutting in other areas of the institution; others have imposed modest fee increases on students. And even when the cost was passed on to students, the increased likelihood of completing a certificate or degree on time may mean that students pay less for their credential in the long run. CCRC has developed a guide⁶⁸ on funding Guided Pathways that may serve as a resource for college leaders redesigning advising and student supports in a Guided Pathways or other context. In broad terms, colleges should consider the costs of student services reforms while also assessing the potential savings (in terms of cost per credential) from improved retention and completion.



⁶⁵ Desrochers & Staisloff (n.d.).

⁶⁶ Kalamkarian et al. (2020).

⁶⁷ Belfield (2020).

⁶⁸ Jenkins et al. (2020).

STUDY 3.

Culturally Sustaining Supports and Instruction

Jessica Brathwaite, Julia Raufman, Nikki Edgecombe, and Ava Mateo

raditionally, community college supports and instruction are offered broadly to students and are not specific to the varied needs or historical contexts of diverse populations. Institutions and practitioners are increasingly aware that the status quo practices deployed by colleges to educate and support students may not be effective for students from marginalized groups when they are incongruent with their personal experiences, identities, or culture. Furthermore, many students from marginalized groups experience outright discrimination, bias, and racism on community college campuses.⁶⁹ In recognition of the discrimination and marginalization that particular groups have experienced in higher education, colleges can strive to offer culturally sustaining supports and instruction, which leverage students' culture and identities to minimize the cultural exclusion that students may feel as they interact and learn on the college campus.

The goal of creating culturally sustaining offerings is to build and maintain an engaging campus environment that intentionally rectifies historical and current discrimination and neglect experienced by racial and language minorities, first-generation college goers, and individuals from low-wealth backgrounds so that they feel welcome, prepared, and supported to achieve their college and career goals. In response to decades of student success research focused on how students can be socially and academically integrated within the institutional culture,⁷⁰ Samuel Museus developed the Culturally Engaging College Environments (CECE) framework⁷¹ to shift the responsibility for integration from students to institutions. Museus describes several elements of a Culturally Engaging College Environment, such as cultural familiarity, cultural relevance, and proactive philosophy, which are established both inside and outside of the classroom. Though much work remains to establish the efficacy of these elements across a range of student outcomes, their premise is compelling and a useful framework for policy and practice intended to reduce disparities in postsecondary education outcomes.

In what follows, we use the CECE framework to illustrate how community colleges can more effectively serve the Black, Hispanic, and Native American adult students they enroll. To describe these approaches and why they show promise, we draw on telephone interviews we conducted with state policymakers, community college leaders, and content area experts (see Appendix for a list of the states, colleges, and organizations we consulted). We begin by describing how a Culturally Engaging College Environment is

⁶⁹ Long (2016).

⁷⁰ Tinto (1993).

⁷¹ Museus (2014).

created by providing culturally sustaining offerings that are implemented and maintained over time to mitigate obstacles that historically underrepresented students face. We then provide case studies of two community colleges that have built the institutional capacity required to create, refine, and continue these offerings over time. We conclude with strategic actions to consider in creating a Culturally Engaging College Environment.

The CECE Framework in Community Colleges

How culturally sustaining offerings help students

Culturally sustaining offerings include a combination of proactive and holistic academic, financial, and nonacademic services and programs that are designed with the needs of the target population in mind, such as learning communities and need-based scholarships for Black STEM students. Culturally sustaining offerings are humanistic in that they strive to have students feel that college faculty and staff value their presence as individuals at the college and have a shared sense of commitment to their success. These offerings are also culturally familiar, affirming and building on the knowledge and experiences students bring to college in an effort to deepen connections with college staff and other students who understand or share their background and experiences.⁷² This is especially important for racially minoritized adult students, who often have jobs and other obligations that complicate access to typical supports, making it more difficult for them to establish critical relationships with college personnel and peers.

Culturally sustaining offerings also situate students' learning and interactions within their community. Here, "community" refers not only to geographic settings but also to other shared features of kinship and belonging (common ethnicities, histories, and rituals). The offerings provide opportunities for students to learn more about their cultures, to connect their cultural understandings with their education, and to be of service to their community. For example, offerings may include a course project that asks students to learn how Native Americans have used engineering skills to adapt fishing practices to various environmental conditions and community needs over time. Or a course project may require students to design a public health awareness campaign connected to a particular concern or crisis in their community. Having a space to learn about and discuss cross-cultural social issues and solutions empowers students as learners and citizens. Such activities also underscore the importance of the communities that students come from, and they help students understand how their education is relevant and meaningful.⁷³ For students from marginalized backgrounds, these kinds of offerings are a signal that the institution prioritizes and respects their experiences and history.

Culturally sustaining instructional practices support students' learning and sense of belonging by enacting the curriculum in ways that actively engage students in their own learning, build connections to their existing knowledge, and value students' communication and contributions. Establishing a sense of collegiality

⁷² Museus (2014).

⁷³ Kern et al. (2015); Museus (2014); Young et al. (2017).

between students in the classroom is another important feature of a culturally sustaining instructional practice. Instructors emphasize a collectivist orientation, rather than an individual-centered competitive orientation, because this can help students feel affirmed and create a sense of community within the classroom.⁷⁴ At Bakersfield College, a community college in California, African American students are encouraged to enroll in Umoja learning communities, which serve students aged 18 to 50, where they are taught alongside other Umoja students using Africanfocused material.⁷⁵ For example, an Umoja math class may teach students about the ancient Egyptian mathematicians who preceded the ancient Greek mathematicians, such as Pythagoras, that math courses typically focus on. This African focus and an emphasis on project-based learning aim to make the course content more engaging and meaningful for students. The cohort structure of Umoja learning communities along with their classroom norms and expectations also build a sense of community in which students feel responsible for one another. Research on Umoja learning communities in California Community Colleges found stronger academic performance and retention among first-year participants compared to a statistically equivalent peer group. Umoja participants were also found to be more likely to be transfer-ready to have earned an award within four years.⁷⁶

Institutional commitment, capacity, and connections

Institutional capacities and investments are required to design, coordinate, and continually refine culturally sustaining offerings and maintain a Culturally Engaging Campus Environment. Being culturally sustaining is not a static or permanent feature of an institution. Rather, institutional leaders must have an ongoing vision for equity at their college and continually stress the importance of a culturally engaging college environment. A college president that is committed to equity is a key factor both in establishing an equity-oriented mindset among administrators and in providing the oversight and accountability to ensure that offerings are cohesive, holistic, and comprehensive. Institutional leaders must also be adept at identifying the dimensions of their institutional culture that may be lacking. Data on student access, outcomes, and experiences are critically important in identifying and addressing these areas.

In addition to commitment and vision from leadership, resources both for culturally sustaining programming and professional development are essential. Colleges must have the capacity to enact their vision by providing robust professional learning in which instructors and staff learn how to refine their practices to be more culturally relevant and responsive and to teach and advise without bias or racism. Skyline Community College in California uses its Center for Teaching and Learning to help faculty and staff build the cultural competencies and empathy necessary to implement culturally sustaining practices. This professional learning is institutionalized, as all instructors are required to take courses in these topics annually.

Colleges must also create authentic and respectful relationships within their surrounding communities and the communities of the students they serve in

⁷⁴ Center for Community College Student Engagement (2014).

⁷⁵ More than 50 community colleges in California have Umoja programs (Umoja Community, 2017). The word umoja means

[&]quot;unity" in Swahili.

⁷⁶ RP Group (2020).

order to identify potential partnerships and opportunities and to contextualize the experiences of their students. Community colleges are particularly well positioned to take on these tasks given their missions grounded in the social and economic needs of their local regions. The culturally engaging community college campus may draw on lessons from Historically Black Colleges and Universities (HBCUs) and Tribal Colleges and Universities (TCUs), which have a longstanding commitment to practices that embrace and appreciate the culture of their student populations. Many have done an exemplary job of making their curricula culturally relevant and of creating a culturally sustaining learning experience.

For example, at Salish Kootenai College (SKC), a private tribal land-grant community college in Montana, Native American and Salish/Kootenai culture is integrated into the college's curriculum, and students are provided with opportunities to help their community. While the college offers culturally relevant courses in which students engage with Native and Tribal culture, the focus on culture is also carried into traditional academic fields such as business, science, forestry, history, and education. Business and other students are encouraged to create reservation-based enterprises and organizations. Forestry students are educated on ways to address water resource challenges on Tribal land.⁷⁷ In the education program, SKC offers courses such as Teaching the American Indian Child. This course is designed to prepare teachers for the specific educational needs of American Indian elementary and middle school students. Additionally, education students at SKC are encouraged to utilize traditional Indian teaching methods in the classroom.⁷⁸

Similar to TCUs, HBCUs were formed to meet the growing demand for higher education among Black students excluded from White institutions. HBCUs channeled the effects of that exclusion in constructive directions by focusing on inclusivity and by specializing in programs, such as STEM, in which White institutions struggle to retain Black students. For example, Southern University at Shreveport, the historically Black community college of the Southern University system in Louisiana, created the Williams Center for Undergraduate Achievement to improve the completion rates of Black men and increase their rates of transfer to a bachelor's degree program at the Baton Rouge university campus.⁷⁹ The Williams Center recruits men majoring in STEM, allied health, or education and provides them with a full scholarship and funding for college expenses, an advisor with whom they meet weekly, professional growth opportunities including leadership development and mentorship from community professional liaisons, and courses that are offered in learning communities. Together, these program features are designed to expose Black men, who are the least likely to enter a STEM career, to a wide range of STEM opportunities and to help them persist in their chosen programs of study. Intrusive advising and the cohort experience are designed to create a communal and caring environment for participants.

⁷⁷ Salish Kootenai College (n.d.).

⁷⁸ Grob (2009).

⁷⁹ Williams Center (n.d.).

Case Studies

Northeast Wisconsin Technical College (NWTC): Building student-focused equity and creating the Next One Up program

NWTC, located in Green Bay, Wisconsin, serves a student population that is 81% White, 7% Latinx, 4% Black, 4% Asian, and 0.1% Native American, and about 60% of its students are age 25 and over.⁸⁰ With a strong institutional commitment to equity, robust professional learning, and consistent attention to data, NWTC offers support that is culturally sustaining and designed to support racially minoritized students at the predominantly White institution.

As part of NWTC's Diversity, Equity, and Inclusion (DEI) strategy, the college has established the goal of providing support over the span of a student's college pathway so that their sense of belonging, motivation, and self-efficacy are continually developed in each phase. This strategy is described in a college equity guide that includes an illustration called the Equity Road Map,⁸¹ which depicts all of the support points along a student's journey through college, from connection and entry to progression and completion. Stakeholders at the college describe this ongoing support as the "culture of the college" in that all programs and institutional actors are expected to adhere to the college's equity and transformational learning focus. While it is essential for DEI efforts to be embedded in institutional culture when creating a Culturally Engaging College Environment, this visioning and strategy can also be more intentionally targeted toward the particular needs of a college's minoritized groups.

In fall 2020, through a two-year grant from InsideTrack, NWTC launched an initiative called Next One Up to support first-year students of color who are enrolled in the college's business department, where administrators recognized that there was a particular gap with regard to this student population's sense of belonging at the college (informed in part by disaggregating surveys of student experiences by race and ethnicity). Next One Up is a one-year program designed to build a sense of community among first-year business students and to help them establish other relationships within the business department. The program is designed to be humanistic and culturally familiar so that students build relationships with persons who know, understand, and care about them, which contributes to an increased sense of belonging at the college. Participating students' cultures are validated both by having students take part in activities in which they reflect on and discuss their particular experiences at the college and by having their experiences reflected in the curriculum, especially in a contextualized, first-year college success course called College 101. Students also discuss what did and what did not work for them in their first semester in an open forum with their peers as well as advisors in the program.

The program pairs one full-time advisor to work solely with a cohort of incoming ethnically diverse students and provides them with personal development, college knowledge skills, and academic support. To establish cultural familiarity, NWTC advisors are required to attend NWTC's Inclusively Course Series, which consists of four sessions meant to provide employees with tools that can be used to foster

⁸⁰ NWTC IR Office (2020).

⁸¹ NWTC Diversity and Inclusion Department (n.d.), p. 11.

an inclusive environment, promote social justice, enhance cultural competence, and develop inclusive leaders. Next One Up staff proactively provide students with needed information in monthly workshops focused on business topics and potential careers. Given that the program is based in an academic department, students build connections with faculty, peers, and staff members who can also provide participants with useful knowledge, resources, and connections. While Next One Up is still in the early stages of implementation, the college will continue to use its data analysis capacity to assess program implementation and impact, in alignment with DEI goals. One consideration for this program will be how it will support students beyond their first year, as they move through their course requirements.

In the program's first semester of implementation, the students were taught study skills and college-life skills, and they were given mental health and career counseling, which included training in interviewing skills. Additionally, this cohort of students was in their own section of the college's student success course, College 101, which focuses on additional competencies deemed important for college persistence and retention. Programming in the second semester will focus on personal development; participants will use guiding questions to reflect on what they have learned about themselves in the first semester as college students, how they see themselves currently, and how they see themselves as leaders at NWTC.

Next One Up represents an important new initiative at the college. More broadly, a presidential and executive leadership team has worked collaboratively with employees at the college to develop strategies for equity put forth by employees at the college; they explicitly named racial justice, equity, and supporting every student's worth as values of the institutional mission. This was critical to garnering institution-wide buy-in for and engagement in culturally responsive practices. Equally important have been partnerships with intermediary organizations and foundations that have supported NWTC's efforts to reform practices, which have provided resources for promoting equity at each stage of a student's postsecondary pathway.

Lastly, a focus on the hiring and training of diverse and culturally competent staff has increased stakeholder buy-in of these practices. Faculty and staff established employee involvement groups that gave employees a stronger voice in the college's strategic goals. This has helped to provide an inclusive environment for employees to create better understandings of community issues. Stakeholders we spoke with also mentioned the existence of affinity spaces—developed for both employees and students—that offer "consistent spaces for individuals to explore their different identities." Both employees and students have the opportunity to create new affinity groups if desired. Through these practices, the college has developed culturally sustaining programming that targets the specific needs of minoritized cultural groups and embeds these practices in broader institutional DEI efforts, moving the institution closer to becoming a Culturally Engaging Campus Environment.

Cuyahoga Community College (Tri-C): Advancing cultural engagement throughout the college and beyond

Tri-C, located in and around Cleveland, Ohio, serves a student population that is 60% White, 26% Black, 7% Latinx, 3% Asian, and 0.3% Native American. About 40% of

its students are age 25 and over.⁸² With strong leadership, vision, and strategy, Tri-C provides humanistic and culturally familiar offerings with opportunities for community service and cross-cultural interactions. These and other reforms have helped the college triple the percentage of its students who graduate within three years.⁸³

In response to dismally low graduation rates and the recognition that student supports were too isolated and peripheral to the student experience, Tri-C turned its focus to the coordination and increased efficiency of the various student supports offered across campuses and programs of study. With data and institutional research support from Achieving the Dream, Tri-C refined student support offerings and instruction to be culturally sustaining and aligned across campuses to meet students' needs along their entire trajectory, from connecting with the institution through completion and entry into the labor market. This support also helped Tri-C coordinate its student support initiatives across noncredit workforce education, adult education, and credit-bearing courses.

To be culturally relevant at the point of connection, Tri-C redesigned its website and marketing materials to be more welcoming to adult students; for example, the website now includes more photos of adult students of color alongside younger and majority race students. After connection, Tri-C creates a caring and humanistic environment by proactively offering academic and nonacademic support to students. When students arrive at college, advisors ask about their basic needs before discussing academic goals. This is done so that students feel holistically supported and to mitigate any potential nonacademic obstacles to learning that may arise. To provide culturally familiar support, the leadership at Tri-C made the decision to hire professionals with backgrounds that are similar to their students in education level, race/ethnicity, and life circumstances.

Tri-C has also established multicultural centers to facilitate cross-cultural engagement and community service throughout students' tenure in college. There is a center on each of Tri-C's four main campuses where students can socialize, receive support, collaborate, and attend events. The multicultural centers were also designed as spaces in which students can have difficult conversations about what is happening in their communities and what they can do about it. There is a weekly conversation series, titled Let's Talk About It, in which students gather to discuss social issues. There is also a Black American Council and a Hispanic Council housed within the multicultural centers; they are funded through a \$1 million budget that is allocated annually for student success initiatives. When Black and Hispanic students enroll at the college, they are notified about the Black American Council and the Hispanic Council, and the councils are also notified of new students and proactively reach out to them. The councils also have their own newsletters. Tri-C is striving to increase awareness about the centers, the councils, and other resources for racially minoritized students.

The culturally sustaining offerings at Tri-C can be attributed in large measure to strong college leadership and collaboration, initiated by the president, Dr. Alex Johnson. His motto is "One door, many opportunities," and he believes that Tri-C should function as a portal through which students have access to a range of opportunities that are designed for them to succeed. To realize this vision,

⁸² Tri-C (2019).

⁸³ Tri-C (n.d.).

Dr. Johnson created a number of staff–administrator partnerships and executive full-time positions. The staff–administrator partnerships were designed to increase efficiency in the use of financial resources and staff and faculty time.⁸⁴ The new executive positions—aligned with the strategic goals of the college—include the vice president of access and completion, the vice president for access and community, and the vice president of learning and engagement. They report to the president and are tasked with creating initiatives that help the college meet its goals. For example, the vice president for access and community is tasked with creating partnerships and opportunities with community organizations; through this office, Tri-C has established access points throughout the Cleveland area that introduce potential students to college. These access points have increased Tri-C enrollments as prospective students who may have been unlikely to come to a campus to learn about Tri-C can now get information or even enroll at Tri-C at a location very close to where they live. They can also take student development courses at these access points.

Guiding Principles

While there is no single template for creating and maintaining a Culturally Engaging College Environment and the culturally sustaining offerings within it, colleges may want to consider a set of short-, medium-, and long-term commitments.

- Immediately, institutions can start to examine the experiences and outcomes of their students and features of the campus culture to begin developing the vision and strategy necessary to shift toward a Culturally Engaging College Environment.
- 2. To measure progress in achieving this vision, institutions should define relevant measures and **collect data** on student success, employee engagement, and community contribution. They should also **establish equity goals** for improvement along these measures, disaggregating results as appropriate to gauge progress.
- **3.** To build capacity to achieve these goals, institutions can **provide training for college stakeholders** on anti-bias and anti-racist practices. Institutions can also provide professional development on understanding the challenges that marginalized students face. The idea is to increase empathy and allow faculty and staff to provide holistic and culturally familiar support and instruction.
- **4.** To develop culturally sustaining practices, institutions can **design support and instructional offerings in affirming and relevant ways**, which reflect the belief that a diversity of student cultures is an asset for the college. Offerings are especially beneficial to marginalized students when institutional actors share the students' background or are familiar with their experiences.
- 5. To provide students with a sense of belonging at college and in their prospective careers, institutions can facilitate opportunities for students to establish supportive and communal relationships. Students benefit from the opportunity to interact with and learn from their peers. Similarly, they benefit from

⁸⁴ Miller (2017).

relationships with institutional, community, and workforce stakeholders who can help them navigate higher education and careers.

- 6. To help students mitigate obstacles to their success, colleges can provide **holistic resources** that cover students' financial, academic, and nonacademic needs. These resources can be made more visible and more integrated within the student experience via targeted programming if necessary. When possible, intrusive support offerings should be used.
- 7. Over the long term, colleges must work toward an **institutional culture grounded in equity mindedness**, where stakeholders draw attention to inequities in student outcomes and take responsibility for eliminating these inequities.⁸⁵ Leadership drives this shift by consistently messaged and enacting its vision for equity as a model for all administrators, instructors, and staff.



 $^{^{85}}$ Center for Urban Education (n.d.).

Conclusion

Thomas Brock

he COVID-19 pandemic upended the lives and livelihoods of people across the U.S. and had disproportionate impact on Black, Hispanic, and Native American communities. These populations suffered high rates of illness and death, and also experienced the most job loss—in part because they were more likely to be employed in low-wage service industries that were negatively affected by the pandemic.⁸⁶ The studies in this volume spotlight some of the ways community colleges can direct their energies and resources to help racially minoritized adults fully recover from the crisis and advance in the labor market. Most people age 25 and over do not have the luxury of enrolling as a full-time college student; if they are out of work, they need to find a job quickly, and if they are working but not earning enough to make ends meet (or are working in a job that is unsatisfying), they need to get on a better career path. Community colleges can help minoritized adults achieve these goals.

By aligning short-term credentials with community college degree programs,

community colleges can help workers earn a certificate, industry certification, or other credential with labor market value and build credits toward an associate or bachelor's degree. This approach, often referred to as stackable credentials, requires careful planning and attention to ensure that individual courses and programs are designed and sequenced so that students earn credentials that employers recognize and value, and that build credits toward a college degree. This is important, as adults who earn an associate or bachelor's degree are more likely than adults with some or no college to be employed and to earn higher wages, including in an economic downturn. States can also play a significant role in scaling stackable credentials and promoting equitable access to programs by appropriating funds for institutions and adult learners and by simplifying and strengthening credit articulation and transfer policies within and across two- and four-year colleges.

Students from every background benefit from strong advising and other support services to help them through college, and it is reasonable to assume that Black, Hispanic, and Native American adults may need additional assistance in the wake of the pandemic. **Bundling and sequencing student support services** will create a more cohesive and responsive experience for adult students at each stage of their academic journey. For example, when adults first enroll, they will likely need help transferring prior credits, applying for financial aid, exploring careers, and selecting a program. Later on, students may need assistance finding tutors and other academic supports on campus, connecting with other students and employers in their chosen fields, and

⁸⁶ Falk et al. (2021).

exploring other programs to advance their careers. Strategic partnerships between community colleges, public agencies, and community-based organizations can help ensure that students have access to nonacademic services (such as childcare, housing, food, and transportation assistance) they need to complete a program. Colleges can help adult students take full advantage of these supports by co-locating services and assigning students to single advisors or teams that make it their job to get to know the students and track their progress at each stage of the college experience.

Community colleges typically enroll a diverse student population and therefore may not see a need to explicitly address the personal identities and cultures of the students on their campuses. But what if these identities and cultures were brought to the foreground? Would greater numbers of Black, Hispanic, and Native American adults choose to enroll? Would they feel a stronger sense of belonging and self-efficacy and thus be more likely to achieve their academic and career goals? To deliver **culturally sustaining supports and instruction**, institutions will need to think differently and more creatively about the programs, courses, and services they offer and what they can do to make the college experience more enriching and affirming for racially minoritized adults. Creating and maintaining a culturally sustaining environment requires ongoing communication with students and community members about their interests and needs. Affinity groups and dedicated spaces on campus for students from different cultural groups can help to open up conversations and demonstrate a college's commitment to diversity and inclusion.

In sum, there are multiple strategies colleges may adopt to increase credential attainment and employment opportunities for Black, Hispanic, and Native American adults. The approaches described in these pages are intended to be mutually reinforcing, and multidimensional initiatives may yield the best results. Colleges will need to monitor students' progress and disaggregate data by race, ethnicity, age, and other characteristics to measure progress toward their goals and to identify areas for improvement. Entering students will also appreciate information about what prior cohorts of students have achieved with respect to credential attainment, places of employment, and starting wages in order to help them decide on a career path. Disparities by race arise from many sources and will not go away overnight, but with the right ideas and resources, and a sustained focus on equity, colleges can increase the number of credentials earned and improve employment outcomes for racially minoritized adult learners.



References

Bailey, T. & Belfield, C. (2017). *Stackable credentials: Do they have labor market value?* Columbia University, Teachers College, Community College Research Center. https://ccrc.tc.columbia.edu/publications/stackable-credentials-do-they-have-labor-market-value.html

Barrero, J. M., Bloom, N., & Davis, S. J. (2020). *COVID-19 is also a reallocation shock* (NBER Working Paper No. 27137). National Bureau of Economic Research. https://www.nber.org/papers/w27137

Belfield, C. (2020). *The economics of guided pathways: Cost, funding, and value* (CCRC Working Paper No. 123). Columbia University, Teachers College, Community College Research Center. https://ccrc.tc.columbia.edu/publications/economics-guided-pathways-cost-funding-value.html

Blume, G., Meza, E. Bragg, D. & Love, I. (2019). *Estimating the Impact of nation's largest single investment in community colleges*. New America. https://www.newamerica.org/education-policy/reports/estimating-impact-taaccct/

Buckwalter, V. (2017). *Four ways to increase the value of short-term credentials:* A *guide for community colleges*. Jobs for the Future. https://www.jff.org/resources/four-ways-increase-value-short-term-credentials-guide-community-colleges/

Bustillo, D., & Laitinen, A. (2021, April 20). *Letting employers off the hook*. Inside Higher Ed. https://www.insidehighered.com/views/2021/04/20/ offering-pell-grants-short-term-training-could-have-adverse-consequences-opinion

Carnevale, A. P., Garcia, T. I., Ridley, N., & Quinn, M. C. (2020). *The overlooked value of certificates and associate's degrees: What students need to know before they go to college.* Georgetown University, Center on Education and the Workforce. https://cew.georgetown.edu/cew-reports/subba/

Center for Community College Student Engagement. (2014). *Aspirations to achievement: Men of color and community colleges*. The University of Texas at Austin, Program in Higher Education Leadership. https://eric.ed.gov/?id=ED561115

Center for Community College Student Engagement. (2018). *Show me the way: The power of advising in community colleges.* The University of Texas at Austin, Program in Higher Education Leadership. https://www.ccsse.org/NR2018/

Center for Urban Education. (n.d.). *Equity mindedness*. University of Southern California. https://cue.usc.edu/about/equity/equity/mindedness/

Completion by Design. (n.d.) *Loss/momentum framework*. https://www.completionbydesign.org/s/cbd-lmf

Cooper, E. (2010). Tutoring center effectiveness: The effect of drop-in tutoring. *Journal of College Reading and Learning*, 40(2), 21–34. https://doi.org/10.1080/107 90195.2010.10850328

Cuyahoga Community College. (n.d.). *Resources and Integrating systems for student success.* https://www.tri-c.edu/administrative-departments/human-resources/diversity-and-inclusion/documents/student-success-equity-statement.pdf

Cuyahoga Community College. (2019). *Tri-C at a glance*. https://issuu.com/lj719/ docs/17-1596-at-a-glance_6-17_web?e=2373789/54362852

Daugherty, L., Kramer, J. W., Anderson, D. M., & Bozick, R. (2020). *Stacking* educational credentials in Ohio: Pathways through postsecondary education in health care, manufacturing and engineering technology, and information technology. RAND Corporation. https://www.rand.org/pubs/research_reports/RRA136-1.html

Desrochers, D. M., & Staisloff, R. L. (n.d.) *Technology-enabled advising and the creation of sustainable innovation: Early learnings from iPASS*.rpk GROUP. http://rpkgroup.com/wp-content/uploads/2020/06/rpkgroup_iPASS_whitepaper-Final_rev021219.pdf

Duke-Benfield, A. E., Wilson, B., Kaleba, K., & Leventoff, J. (2019). *Expanding opportunities: Defining quality non-degree credentials for states*. National Skills Coalition. https://www.nationalskillscoalition.org/resource/publications/ expanding-opportunities-defining-quality-non-degree-credentials-for-states/

Education Strategy Group. (2019). *Credential currency: Resources to drive attainment across K-12, higher education, and workforce development*. http://edstrategy.org/wp-content/uploads/2019/06/Building-Credential-Currency_FINAL-1.pdf

Education Strategy Group. (2020). A more unified community college: Strategies and resources to align non-credit and credit programs. http://edstrategy.org/wp-content/uploads/2020/10/A-More-Unified-Community-College_FINAL.pdf

Evans, W. N., Kearney, M. S., Perry, B., & Sullivan, J. X. (2020). Increasing community college completion rates among low-income students: Evidence from a randomized controlled trial evaluation of a case-management intervention. *Journal of Policy Analysis and Management*, 39(4), 930–965. https://doi.org/10.3386/w24150

Falk, G., Carter, J. A., Nicchitta, I. A., Nyhof, E. C., & Romero, P. D. (2021, April). *Unemployment rates during the COVID-19 pandemic: In brief* (CRS Report R46554). Congressional Research Service. https://crsreports.congress.gov/product/pdf/R/ R46554

Feir, D., & Golding, C. (2020, August 5). *Native employment during COVID-19: Hit hard in April but starting to rebound?* Federal Reserve Bank of Minneapolis. https://www.minneapolisfed.org/article/2020/ native-employment-during-covid-19-hit-hard-in-april-but-starting-to-rebound Fink, J., & Jenkins, D. (2020). *Unpacking program enrollments and completions with equity in mind.* Columbia University, Teachers College, Community College Research Center. https://ccrc.tc.columbia.edu/publications/unpacking-program-enrollments-completion-equity.html

Fletcher, C., Cornett, A., & Webster, J. (2021). *State of student aid and higher education in Texas.* Trellis Research. https://www.trelliscompany.org/state-of-student-aid-2021/

Ganzglass, E. (2014). Scaling "stackable credentials": Implications for implementation and policy. Center for Postsecondary Readiness and Economic Success. https://eric.ed.gov/?id=ED561777

Geckeler, C. (2008). Helping community college students cope with financial emergencies: Lessons from the Dreamkeepers and Angel Fund emergency financial aid programs. MDRC. https://www.mdrc.org/publication/ helping-community-college-students-cope-financial-emergencies

Glosser, A., Martinson, K., Cho, S. W., & Gardiner, K. (2018). Washington State's Integrated Basic Education and Skills Training (I-BEST) program in three colleges: Implementation and early impact report (OPRE Report No. 2018-87). U.S. Department of Health and Human Services, Administration for Children and Families, Office of Planning, Research, and Evaluation. https://www.abtassociates. com/sites/default/files/files/Insights/reports/2018/i_best_implementation_and_ early_impact_report_508.pdf

Grob, A. (2009, November 4-6). *Educational empowerment of Native American students: A tribally controlled college leads the way* [Paper presentation]. The Native American Symposium, Durant, Oklahoma. https://www.se.edu/international-student/wp-content/uploads/sites/85/2019/09/NAS-2009-Proceedings-Grob.pdf

Handwerker, E. W., Meyer, P. B., Piacentini, J., Schultz, M., & Sveikauskas, L. (2020, December). Employment recovery in the wake of the COVID-19 pandemic. *Monthly Labor Review*. U.S. Bureau of Labor Statistics. https://www.bls.gov/opub/mlr/2020/article/employment-recovery.htm

HeavyRunner, I., & DeCelles, R. (2002). Family education model: Meeting the student retention challenge. *Journal of American Indian Education*, 41(2), 29–37. http://www.pieducators.com/sites/default/files/HeavyRunner.pdf

Hussar, B., Zhang, J., Hein, S., Wang, K., Roberts, A., Cui, J., Smith, M., Bullock Mann, F., Barmer, A., & Silig, R. (2020). *The condition of education 2020* (NCES 2020-144). National Center for Education Statistics. https://nces.ed.gov/pubsearch/ pubsinfo.asp?pubid=2020144

Jacobs, J. (2020, January 21). Fixes for short-term Pell. *Inside Higher Ed.* https://www.insidehighered.com/views/2020/01/22/essay-short-term-credentials-and-equity-agenda-community-colleges

Jacobs, J., Cormier, M., & Brock, T. (2021, May 20). Short-term Pell Grants must be designed to protect students, taxpayers. *CCRC Mixed Methods Blog.* https://ccrc.tc.columbia.edu/easyblog/short-term-pell-protection.html

Jain, D., & Crisp, G. (2018). Creating inclusive and equitable environments for racially minoritized adult learners: Recommendations for research, policy, and practice. The Association for the Study of Higher Education and the National Institute for Transformation and Equity. https://cece.sitehost.iu.edu/wordpress/wp-content/ uploads/2017/02/Creating-Inclusive-and-Equitable-environments-for-raciallyminoritized-adult-learners-FINAL.pdf

Jenkins, D., Brown, A. E., Fay, M. P., & Lahr, H. (2020). *Funding guided pathways: A guide for community college leaders.* Columbia University, Teachers College, Community College Research Center. https://ccrc.tc.columbia.edu/publications/ funding-guided-pathways-guide.html

Jenkins, D., Lahr, H., Fink, J., & Ganga, E. (2018). *What we are learning about guided pathways*. Columbia University, Teachers College, Community College Research Center. https://ccrc.tc.columbia.edu/publications/what-we-are-learning-guided-pathways.html

Kalamkarian, H. S., & Karp, M. M. (2015). *Student attitudes toward technologymediated advising systems* (CCRC Working Paper No. 82). Columbia University, Teachers College, Community College Research Center. https://ccrc.tc.columbia.edu/ publications/student-attitudes-technology-mediated-advising-systems.html

Kalamkarian, H. S., Pellegrino, L., Lopez Salazar, A., & Barnett, E. A. (2020). *Lessons learned from advising redesigns at three colleges.* Columbia University, Teachers College, Community College Research Center. https://ccrc.tc.columbia.edu/publications/lessons-learned-advising-redesigns-three-colleges.html

Karp, M. M. (2011). Toward a new understanding of non-academic student support: Four mechanisms encouraging positive student outcomes in the community college (CCRC Working Paper No. 28). Columbia University, Teachers College, Community College Research Center. https://ccrc.tc.columbia.edu/publications/non-academicstudent-support-mechanisms.html

Kern, A., Howard, M. A., Navickis Brasch, A., Fiedler, F., & Cadwell, J. (2015). The fish weir: A culturally relevant STEM activity. *Science Scope*, 38(9), 45–52. https://par.nsf.gov/servlets/purl/10015373

Klein-Collins, R., Taylor, J., Bishop, C., Bransberger, P., Lane, P., & Leibrant, S. (2020). *The PLA boost: Results from a 72-institution targeted study of prior learning assessment and adult student outcomes*. The Council for Adult & Experiential Learning. https://files.eric.ed.gov/fulltext/ED608563.pdf

Klempin, S. C., Kalamkarian, H. S., Pellegrino, L., & Barnett, E. A. (2019). *A framework for advising reform* (CCRC Working Paper No. 111). Columbia University, Teachers College, Community College Research Center. https://ccrc.tc.columbia.edu/publications/framework-advising-reform.html

Klempin, S. C., & Lahr, H. (2021). *How guided pathways reforms can improve support for adult students: Lessons from three Tennessee community colleges.* Columbia University, Teachers College, Community College Research Center. https://ccrc. tc.columbia.edu/publications/guided-pathways-adults-tennessee.html

Kot, C. F. (2014). The impact of centralized advising on first-year academic performance and second-year enrollment behavior. *Research in Higher Education*, 55, 527–563). https://link.springer.com/article/10.1007/s11162-013-9325-4

Leventoff, J. (2018). *Measuring non-degree credential attainment*. National Skills Coalition. https://files.eric.ed.gov/fulltext/ED607434.pdf

Long, A. (Ed.). (2016). Overcoming educational racism in the community college: Creating pathways to success for minority and impoverished student populations. Stylus Publishing, LLC.

Merisotis, J., & Peller, J. (2021, April 20). *An infrastructure for our nation's talent*. Inside Higher Ed. https://www.insidehighered.com/views/2021/04/20/ pell-grants-should-be-offered-high-quality-and-connected-short-term-programs

Miller, K. (2017). Success and completion at Cuyahoga Community College. Strategic Enrollment Management Quarterly 5(2), 88–93. https://www.aacrao.org/ research-publications/quarterly-journals/sem-quarterly/article/volume-5/issue-2/ success-and-completion-at-cuyahoga-community-college

Montelongo, R. (2003, April 21–25). Latina/o undergraduate involvement with college student organizations and its effects on specific student outcomes at two, large, predominately White, Midwestern universities [Paper presentation]. Annual Meeting of the American Educational Research Association, Chicago, IL, United States. https://eric.ed.gov/?id=ED477440

Museus, S. D. (2014). The culturally engaging campus environments (CECE) model: A new theory of success among racially diverse college student populations. In M. B. Paulsen (Ed.), *Higher education: Handbook of theory and research* (vol. 29, pp. 189–227). Springer. https://doi.org/10.1007/978-94-017-8005-6

National Student Clearinghouse Research Center. (2020). *Term enrollment estimates: Fall* 2020. https://nscresearchcenter.org/wp-content/uploads/CTEE_Report_ Fall_2020.pdf

Northeast Wisconsin Technical College. (n.d.). *Employee involvement groups*. https://www.nwtc.edu/about-nwtc/overview/diversity/employee-resource-group

Northeast Wisconsin Technical College, Diversity and Inclusion Department. (n.d.). *Everyone has worth*. Northeast Wisconsin Technical College. https://www.nwtc. edu/about-nwtc/overview/diversity

Northeast Wisconsin Technical College, Institutional Research Office. (2020). 2019-2020 student profile fast facts. Northeast Wisconsin Technical College. https:// www.nwtc.edu/NWTC/media/About-Us/1Updated-2019-2020-Student-Profile-Fast-Facts_1.pdf Office of Senator Tim Kaine. (2021). *JOBS Act frequently asked questions* (FAQ). https://www.kaine.senate.gov/imo/media/doc/Kaine,%20Portman%20JOBS%20 Act%20FAQ.pdf

Ositelu, M. O. (2021). *Five things policymakers should know about short-term credentials.* New America. https://www.newamerica.org/education-policy/reports/ five-things-policymakers-should-know-about-short-term-credentials.

Parker, K., Minkin, R., & Bennett, J. (2020, September 24). *Economic fallout from COVID-19 continues to hit lowest income Americans the hardest.* Pew Research Center. https://www.pewsocialtrends.org/2020/09/24/economic-fallout-from-covid-19continues-to-hit-lower-income-americans-the-hardest/

Pascarella, E. T., & Terenzini, P. T. (2005). *How college affects students: A third decade of Research, Volume 2.* Jossey-Bass.

Rassen, E., Chaplot, P., Jenkins, P. D., & Johnstone, R. (2013). Understanding the student experience through the loss/momentum framework: Clearing the path to completion. Completion by Design. https://ccrc.tc.columbia.edu/publications/understanding-student-experience-cbd.html

RP Group. (2020). The importance of belonging and acceptance to Black student success. https://rpgroup.org/Portals/0/Documents/Projects/Umoja_Evaluation/Resources/umojaBrief_digital_final.pdf?ver=2020-03-08-132907-650

Sáenz, R., & Sparks, C. (2020). *The inequities of job loss and recovery amid the COVID-19 pandemic* (National Issue Brief #150). University of New Hampshire, Carsey School of Public Policy. https://scholars.unh.edu/carsey/412/

Salish Kootenai College. (n.d.). *Areas of academic interest.* https://www.skc.edu/areas-of-academic-interest/

Schreiner, L. A. (2018). Thriving in the second year of college: Pathways to success. *New Directions for Higher Education*, 2018(183), 9–21. https://doi.org/10.1002/ he.20289

Shaw, K. & Callahan, K. (forthcoming). *All learning counts: State policy toolkit*. Research for Action.

Strada Education Network. (2020). *Strada Center for Consumer Insights public viewpoint survey, April 15-Aug.* 6 [Powerpoint]. https://www.stradaeducation.org/wp-content/uploads/2020/08/Public-Viewpoint-Charts-August-26-2020.pdf

Strada Education Network, Gallup, & Lumina Foundation. (2019). Certified value: When do adults without degrees benefit from earning certificates and certifications? https://www.luminafoundation.org/resource/certified-value/

Thomas, J., Gonzalez, N., Wiegand, A., Paxton, N., & Hebbar, L. (2021). *The effects of expanding Pell Grant eligibility for short occupational training programs: Results from the experimental sites initiative* (NCEE 2021–001). U.S. Department of Education, Institute of Education Sciences, National Center for Education Evaluation and Regional Assistance. https://ies.ed.gov/ncee/pubs/2021001/pdf/2021001.pdf

Tinto, V. (1993). *Leaving college: Rethinking the causes and cures of student attrition* (2nd ed.). University of Chicago Press.

Umoja Community. (2017). *Umoja: Just the facts*. https://umojacommunity.org/ umoja-q-2017

U.S. Bureau of Labor Statistics. (2019). *Unemployment rates and earnings by educational attainment*. https://www.bls.gov/emp/chart-unemployment-earnings-education.htm

Valentine, J. L., & Price, D. (2019). Embedding non-degree credentials within stacked and latticed pathways to improve education outcomes for adults. In *Impacts* of key community college strategies on non-degree credential completion by adult learners. DVP-PRAXIS Ltd. https://www.luminafoundation.org/wp-content/ uploads/2019/11/impacts-of-key-community-college-strategies-on-non-degreecredential-completion-by-adult-learners.pdf

Weiss, M. J., Ratledge, A., Sommo, C., & Gupta, H. (2019). Supporting community college students from start to degree completion: Long-term evidence from a randomized trial of CUNY's ASAP. *American Economic Journal: Applied Economics*, 11(3), 253–297. https://doi.org/10.1257/app.20170430

Williams Center for Undergraduate Student Achievement. (n.d.). *Williams center* [Brochure]. Southern University at Shreveport. https://www.susla.edu/assets/susla/ TheWilliamsCenter/WILLIAMSCENTERBrochure.pdf

Wisconsin Technical College System. (n.d.). WTCS Ability to benefit user guide. https://mywtcs.wtcsystem.edu/?s=ability+to+benefit

Wisconsin Technical College System. (2018). *System-wide equity report*. https://www.wtcsystem.edu/assets/WTCS-System-wide-Equity-Report.pdf

Wisconsin Technical College System. (2021a). *Educational services manual*. Chapter 4. https://mywtcs.wtcsystem.edu/educational-services/instructional-resources/educational-services-manual/

Wisconsin Technical College System. (2021b). *Graduate outcomes: Job placement and employment data for 2020 graduates*. https://www.wtcsystem.edu/impact/publications/graduate-outcomes-report/

Wood, J. L., Harris III, F., & Delgado, N. R. (2016). *Struggling to survive, striving to succeed: Food and housing insecurities in the community college*. Community College Equity Assessment Lab (CCEAL). https://cceal.org/food-housing-report/

Young, J. L., Young, J. R., & Paufler, N. A. (2017). Out of school and into STEM: Supporting girls of color through culturally relevant enrichment. *Journal of Interdisciplinary Teacher Leadership*, 1(2), 28–34. https://doi.org/10.46767/ kfp.2016-0010 Young-Jones, A. D., Burt, T. D., Dixon, S., Hawthorne, M. J. (2013). Academic advising: Does it really impact student success? *Quality Assurance in Education*, 21(1). https://www.emerald.com/insight/content/doi/10.1108/09684881311293034/ full/html

Zachry Rutschow, E., Tessler, B. L., & Lewy, E. (2021). Advising for opportunity: Perspectives and considerations for supporting movement across workforce and academic programs in community colleges. MDRC. https://www.mdrc.org/ publication/advising-opportunity

Zaleski, R. (2019, March 4). *Early wage data reveals strong* gains for Workforce Credentials Grant recipients. Virginia's Community Colleges. https://www.vccs.edu/news/ early-wage-data-reveals-strong-gains-for-workforce-credentials-grant-recipients/

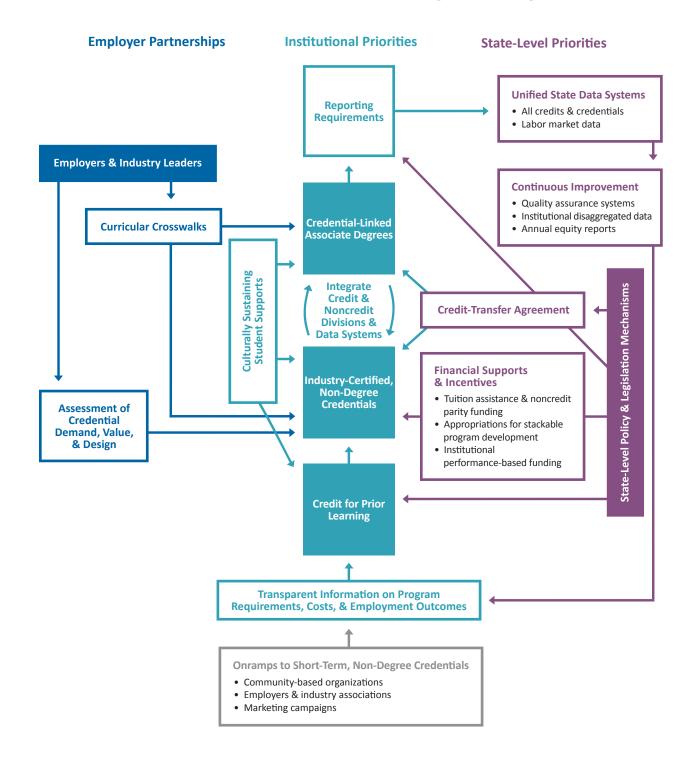
APPENDIX A.

States, Colleges, and Organizations Consulted

| STUDY1 | STUDY 2 | STUDY 3 |
|------------------------------------|--|--|
| DVP-PRAXIS Ltd | Bakersfield College | Achieving the Dream |
| Education Strategy Group | Big Bend Community College | Amarillo College |
| Georgetown University Center on | Central New Mexico Community College | Bakersfield College |
| Education and the Workforce | Cuyahoga Community College | Connecticut State Colleges and Universities |
| Jobs for the Future | Indian River State College Cuyahoga Community College Nashville State Community College Cuyahoga Community College Northeast Wisconsin Technical College Eastern Educational Resou Northern Essex Community College Collaborative Northern Essex Community College Illinois College of Education | |
| Michigan Student Success Center | | Cuyahoga Community College |
| National Skills Coalition | | |
| New America | | |
| Research for Action | | for Community College Research and |
| SUNY Empire State College | San Antonio College | Leadership |
| Texas Success Center | San Juan College | Northeast Wisconsin Technical College |
| Virginia Community College System | Sinclair College | System |
| Virginia Office of the Governor | United Tribes Technical College | Penn State University College of Education, Center for the Study of Higher Education |
| Wisconsin Technical College System | | |
| | | Skyline Community College |
| | | South Texas Community College |
| | | Trident Technical College |

APPENDIX B.

Illustration of External Partnerships and State- and Institutional-Level Priorities for Aligning Short-Term Credentials and Associate Degree Programs



APPENDIX C.

State Use of CARES Act GEER Funding to Support Short-Term Credentials

The \$2.2 trillion Coronavirus Aid, Relief, and Economic Security (CARES) Act included approximately \$3 billion for the Governor's Emergency Education Relief (GEER) Fund. State allocations were based on a formula stipulated in the March 2020 legislation. Each state submitted an application to the U.S. Department of Education detailing how they would use their GEER funds to support early childhood, K-12, and/or higher education. This table, based on the GEER Fund Utilization database maintained by the Hunt Institute, shows which states opted to use a portion of their GEER funds to support short-term credentials for adult students. (This list does not include funding mechanisms to support college re-opening plans, operating costs, technology assistance, or students' living expenses.)

| STATE, TOTAL GEER FUNDING | FUNDING FOR SHORT-TERM CREDENTIALS | INITIATIVE TO SUPPORT STUDENTS AND/OR INSTITUTIONS | INVESTMENT IN DATA INFRASTRUCTURE |
|------------------------------|--|--|---|
| Arkansas \$30.7 million | \$4.5 million | Expands workforce education training opportunities at two-year institutions to allow for continuation and upgrading of employability skills in high-wage and high- demand careers. | Ready for Life initiative (\$10.2 million): Launches a platform that connects job seekers with career opportunities and online training resources. The website also gives employers access to job seekers' resumes and training results. |
| Florida \$173.5 million | \$35 million | Increases capacity around short-term, in-demand certification and training programs at the state's 28 Florida College System institutions and 48 technical colleges to support rapid credentialing. These programs include technical certificates, clock-hour career certificates (i.e., vocational training), and industry certification preparation courses. | Pathway to Job Market Dashboard (\$2.5 million): Creates a tool for internal and external stakeholders that includes quantitative data on all CTE courses and programs at the state and regional level. The tool will provide internal and external CTE stakeholders a view of the performance of Florida's credentials of value. |
| Louisiana \$50.2 million | \$35 million | Increases capacity around short-term, in-demand certification and training programs at the state's 28 Florida College System institutions and 48 technical colleges to support rapid credentialing. These programs include technical certificates, clock-hour career certificates (i.e., vocational training), and industry certification preparation courses. | |
| Maryland \$45.6 million | \$10 million | Supports community colleges in providing workforce development courses and continuing professional education that leads to government or industry certification or licensure. | |

(table continues on next page)

| STATE, TOTAL GEER FUNDING | FUNDING FOR SHORT-TERM CREDENTIALS | INITIATIVE TO SUPPORT STUDENTS AND/OR INSTITUTIONS | INVESTMENT IN DATA INFRASTRUCTURE |
|----------------------------------|--|--|--|
| Michigan \$89.4 million | \$4.5 million | Expands workforce education training opportunities at two-year institutions to allow for continuation and upgrading of employability skills in high-wage and high- demand careers. | |
| Missouri \$54.6 million | \$1 million | Supplements the Fast Track Incentive Grant Program, which addresses workforce needs by helping adults pursue a certificate, degree, or industry-recognized credential in a high-need area. | |
| North Carolina \$95.6 million | \$35 million | Increases capacity around short-term, in-demand certification and training programs at the state's 28 Florida College System institutions and 48 technical colleges to support rapid credentialing. These programs include technical certificates, clock-hour career certificates (i.e., vocational training), and industry certification preparation courses. | |
| Oklahoma \$39.9 million | \$15 million | Provides tuition assistance for community college students who are seeking training in high-demand workforce programs. | |
| Pennsylvania \$104.4 million | \$10.5 million | Funds Career and Technical Education Centers to support industry credential assessments for students and the effective continuity of education programs, such as summer and other expanded programming. | |
| South Dakota \$7.9 million | \$2.2 million | Launches UpSkill, a program to support workers in earning credentials at little or no cost. UpSkill consists of 22 online certificate programs in high-demand fields, including business, healthcare, information technology, and manufacturing. | |
| Texas \$307 million | \$46.5 million | Provides targeted financial aid to upskill and reskill displaced workers in high- demand fields, including workers who have earned some college credit but no credential. Doing so will allow for new paths into the workforce with higher earning potential. | Data systems (\$15 million): Supports a strategic education and workforce data infrastructure to provide timely, actionable intelligence to students, institutions, employers, and policymakers. Scales and expands existing technologies and tools that support college and career advising and help students stay on track to earn high-value credentials. |
| Virginia \$66.7 million | \$4.9 million | Provides last-dollar scholarships for displaced adults who enroll in stackable credential programs leading to jobs in targeted industry sectors. | |

CCRC COMMUNITY COLLEGE RESEARCH CENTER

TEACHERS COLLEGE, COLUMBIA UNIVERSITY

Community College Research Center Teachers College, Columbia University 525 West 120th Street, Box 174 New York, New York 10027 212.678.3091 ccrc@columbia.edu @CommunityCCRC ccrc.tc.columbia.edu