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Helping Underserved Students at Higher Performing iPASS Colleges

An Exploration of Support Practices

Hoori Santikian Kalamkarian | Andrea Lopez Salazar | Elisabeth A. Barnett | Armando Lizarraga | Noemi Garibay | Cameron Diwa

CCRC COMMUNITY COLLEGE RESEARCH CENTER
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The Community College Research Center (CCRC), Teachers College, Columbia University, has been a leader in the field of community college research and reform for over 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.

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Inside This Report

Good advising and support services are instrumental in helping college students—and especially Black, Latinx, and low-income students—stay in school and complete a college credential. One widespread approach to improving advising and supports makes use of advising technologies—such as education planning, early alert, predictive analytic, and case management tools—to better enable advisors and others facilitate more focused and meaningful experiences with students. This approach, complemented by organizational changes designed to increase effectiveness, was a central focus of 26 broad-access two- and four-year colleges across the nation that in 2015 began to adopt or enhance technology-mediated advising practices as part of the Integrated Planning and Advising for Student Success (iPASS) initiative. The goal of the iPASS initiative was to improve students' advising experiences and, in doing so, improve student retention and completion.

In this report, we share results of research undertaken in 2020 and 2021 to understand the practices that higher performing iPASS institutions implemented or were actively pursuing in their efforts to improve outcomes among Black, Latinx, and low-income students. In the first phase of research, we identified five higher performing iPASS colleges. Our selected colleges include three community colleges—Doña Ana Community College (DACC), Northeast Wisconsin Technical College (NWTC), and Queensborough Community College (QCC)—and two four-year universities—Colorado State University (CSU) and University of Central Florida (UCF). All five are broad-access institutions. These five institutions were chosen because outcomes and improvements among their Black, Latinx, or low-income students—measured primarily through an analysis of key performance indicator (KPI) data—were stronger than at other iPASS colleges in their respective sectors, suggesting that an exploration of their practices could reveal promising approaches for serving underrepresented students.

During the second phase of the study, in summer and fall 2021, we conducted virtual interviews and focus groups with faculty, advisors, and other support providers; Diversity, Equity, and Inclusion (DEI) staff; other senior leaders; and students—all through Zoom calls. The objective was to gain a deeper understanding of what these institutions were doing during and after the iPASS grant period to advise and support Black, Latinx, and low-income students, both inside and outside of the classroom. Our data collection was informed in part by Hurtado et al.'s (2012) Multicontextual Model for Diverse Learning Environment, a framework for identifying how institutional history, staff and student composition, and organizational structure help shape an institution's racial climate.

Our findings describe how Black, Latinx, and low-income students are supported at the five participating colleges, how the climate of the colleges affects the experiences of these students, and what practices the colleges are undertaking to prioritize equity in outcomes across racial and socioeconomic subgroups. We also describe situational factors, including the pandemic and the fraught political climate at the time of our data collection, that our research suggests may have slowed down progress in creating effective enhancements to student supports aimed at underserved students at the colleges.

How are Black, Latinx, and low-income students supported at participating colleges?

- Comprehensive supports that are universally available at the colleges—including academic advising, financial aid, career counseling, and nonacademic resources—were perceived to be foundational for supporting Black, Latinx, and low-income students.
- These universally available supports may be tailored to be more accessible and to better serve racially minoritized students. Some colleges were reviewing their policies and practices in order to tailor universal supports and eliminate biases.
- To reorient the way providers interact and advise students from Black, Latinx, and low-income backgrounds, a number of colleges provided professional development on equity and on understanding the experiences of students from racially minoritized backgrounds.
- Targeted supports that were provided by the colleges focused on specific sets of students, using eligibility criteria defined by one or more student characteristics.
- College representatives and students saw targeted programs focusing on specific racial/ethnic, cultural, gender, or other identities as instrumental for facilitating student belonging.

How are Black, Latinx, and low-income students supported in the classroom?

- The colleges were undertaking efforts to improve the classroom experience for students. Efforts were underway by individual professors, departments, and at the institutional level.
- Efforts on the part of individual faculty to make courses more equitable and inclusive appeared to be the most common.
- Some college departments also engaged in efforts to address implicit instructor bias and to make course content more culturally responsive.
- At the college level, programming has been developed to improve experiences for racially minoritized and low-income students. There was also work underway to offer professional development to improve the classroom experience of underserved students.

How do participating colleges' (overall and racial) climates affect the support experiences of Black, Latinx, and low-income students?

- The colleges were working to achieve a welcoming and positive climate. Leadership that was seen as prioritizing equity was especially important in this effort.
- The primary tools used by colleges to influence climate were professional development and college communication strategies.
- The colleges' responses to incidents of bias were viewed by students as especially indicative of the racial climate.

What management and organizational practices are participating colleges utilizing to prioritize equity in outcomes across racial and socioeconomic subgroups?

- Administrators, faculty, and other staff noted that cross-campus dialogue on racial equity fostered awareness and a collective understanding of inequities on campus.
- Campus-wide platforms—like working groups or book clubs—have created space for staff to learn how the work in different areas of the college contributes to equity goals.
- The colleges created senior-level and department-based positions to lead DEI efforts. Interviewees agreed that senior-level roles underscored an institutional commitment to DEI and empowered the work; department-based positions created an infrastructure for broader integration of DEI efforts.
- Institutions that disaggregated data by race/ethnicity, income, and other characteristics found that this type of analysis revealed unexpected inequities in practices and in student outcomes, which informed efforts to reduce adverse effects. Sharing disaggregated data also promoted broader buy-in for reform.

We also found that efforts to improve classroom and broader support experiences for students have been slowed by four factors in particular: (1) participation in a multiplicity of initiatives, leading to burnout, (2) dependence on adjuncts with little time to devote to special projects, (3) the prevailing political climate in some geographic areas, and, of course, (4) the pandemic.

Our exploration of practices at these five higher performing institutions—selected from among a cohort of 26 colleges and universities—offers several considerations for the field.

College dialogues. Especially in light of the political and racial climate at the time of data collection, at each of the participating colleges, college leaders, at minimum, engaged in some dialogue and learning to understand what racial equity means and how it intersects with the services delivered at their institutions. We found that this dialogue—especially when structured to engage staff from different areas of the institution—was foundational for efforts to center equity goals.

Responsiveness. At the participating colleges and, likely colleges nationwide, students are standing up, expecting more of their institutions, and making that clear. Specifically, students want immediate responses from colleges on racial incidents on and off their campuses. They want college representatives to speak strongly, especially in moments of crisis. A timely and college-wide response to these moments from college leaders is an important step toward creating an inclusive environment.

DEI leadership. Organizationally, positions dedicated to diversity, equity, and inclusion may help bolster efforts to improve racial equity in the delivery of services and outcomes. However, as we learned from the colleges in our study, college leaders need to be intentional in establishing these roles in ways that facilitate shared or collective action toward equity-oriented goals. Colleges should avoid establishing DEI positions that assume sole responsibility for this work and are fragmented from other areas of the college.

Student supports. The participating colleges have more work to do to integrate culturally responsive content and practice into universal support structures, including

general or program-based academic advising. Similarly, equity considerations in classrooms are nascent. Individual faculty at participating colleges shared some promising examples, but these are limited in scope. A more systematic approach is required to improve the experiences of Black and Latinx students college-wide.

Professional development. The colleges shared a wide range of approaches to professional development. Inclusive dialogues that span stakeholder groups are important for establishing institutional norms related to racial equity at a college. Moreover, diversity, equity, and inclusion trainings that are intended for all staff as well as modules focused on the specific job function of advisors, faculty, and other positions are necessary to support culturally responsive practices.

Data use. Data disaggregation by race/ethnicity and socioeconomic status was valuable for understanding the equity implications of practices at the colleges. This type of analysis can reveal unexpected disparities in practice that negatively shape the experiences and outcomes of Black, Latinx, and other groups. Providing disaggregated data to advisors and others may result in a deeper understanding of the relationship between practice and equity.

This report contributes to our understanding of strategies that institutions are using to support Black, Latinx, and low-income learners, but there is much more that research can do to inform the continued work of institutional reform. Studies exploring other contexts and the later stages of implementation and outcomes of the strategies discussed in this report are necessary to inform practice that promotes racial and socioeconomic equity in higher education.

Introduction

Evidence suggests that good advising and support services are instrumental in helping college students complete a certificate or degree (Center for Community College Student Engagement, 2018; Karp, 2011). Academic advisors can work with students to clarify their academic goals and chart a pathway to achieving those goals (Kot, 2014; Young-Jones et al., 2013). Other support services can help students address food and housing insecurities, mental health, transportation, and childcare needs, among other nonacademic challenges that may be making it difficult to focus on schoolwork (Geckeler, 2008; Wood et al., 2017). Effective advising and support services may be especially vital to support the retention and completion of Black, Latinx, and low-income students. Many of these students are also first-generation college students with less access to guidance from their familial networks on navigating college processes (Cejda & Hoover, 2010; Strayhorn & Johnson, 2014). While they often enter college with important motivational strengths such as resilience that stem from strong emotional support from their families, these students face multiple barriers to the achievement of their postsecondary education goals. Compared to White and higher income students, Black, Latinx, and lower income students are more likely to be placed into developmental education courses, which delay progress toward credential attainment (Jain & Crisp, 2018). Racially minoritized and low-income students are also more likely to experience financial hardships and to have substantial work and family responsibilities, including caring for dependents. Good advising and student support programs can help address these barriers. A recent study showed that racial equity gaps decreased at institutions with strong advising practices, such as having small caseloads and using a case management approach (Bryant et al., 2022).

In light of growing awareness of the potential of improved advising to better support student success, especially among underrepresented groups, institutions are redesigning advising and student support practices. One widespread approach utilizes advising technologies—such as education planning, early alert, predictive analytic, and case management tools—to better enable advisors to facilitate more focused and meaningful advising experiences. This approach, complemented by organizational changes designed to increase effectiveness, was a central focus of the Integrated Planning and Advising for Student Success (iPASS) initiative. For more information on iPASS, see the box on the next page.

Integrated Planning and Advising for Student Success

In 2015, 26 broad-access two- and four-year colleges across the nation began to adopt or enhance technology-mediated advising practices in an effort to improve the way they support students. These institutions were part of the Integrated Planning and Advising for Student Success (iPASS) initiative, supported by the Bill & Melinda Gates Foundation, which aimed at promoting technology-supported advising redesign with implementation guidance from Achieving the Dream and EDUCAUSE. The colleges received modest grants to facilitate their work over a three-year period. The goal of the iPASS initiative was to improve students' advising experiences and, in doing so, improve student retention and completion (Pellegrino et al., 2021).

The iPASS initiative, on which the current research was built, was launched with the expectation that the use of education planning, early alert, predictive analytic, and other technologies could enable more meaningful and focused advising interactions between advisors and students. Degree planning technologies enable students, with support from advisors, to develop multi-semester education plans that provide students with clear information on courses that they need to take to complete their degree. These plans are visible to multiple stakeholders, allowing advisors to monitor students' progress and help students adjust their plans as needed. Early alert systems and predictive analytics allow advisors to identify students who may need extra support and intervene accordingly. Communication tools can make it easier for advisors to disseminate information to students on topics important to navigating and succeeding in college.

CCRC has conducted research on iPASS to learn how advisors leverage technology in their practice and how colleges develop and implement technology-mediated advising reforms. Based partly on this research, CCRC researchers developed an evidence-based framework for advising redesign called SSIPP (advising that is sustained, strategic, integrated, proactive, and personalized), which provides useful guidance for institutions (Klempin et al., 2019). Lessons learned from iPASS emphasize the importance of reforms that go beyond just introducing new technology and that account for structural, process, and attitudinal dimensions at colleges (Kalamkarian et al, 2017). The current study builds on these lessons by exploring advising and student support practices in iPASS colleges with comparatively stronger outcomes for Black, Latinx, or low-income students.

In this report, we share the results of research undertaken in 2020 and 2021 to understand the practices that five iPASS institutions—three community colleges and two four-year public universities—implemented or were actively pursuing in their efforts to improve outcomes among Black, Latinx, and low-income students. These five institutions were chosen because outcomes and improvements among their Black, Latinx, or low-income students were stronger than at other iPASS colleges, suggesting that an exploration of their practices could reveal promising approaches for serving underrepresented groups. While each of the five institutions would acknowledge that more work is needed, the practices we describe in this report may be helpful to other colleges considering ways to improve the experiences and outcomes of racially minoritized and low-income students.

Project Design

This study was conducted in two phases, and the body of this report focuses on findings from the second phase. In Phase 1, we chose five higher performing iPASS colleges among 23 in total to participate in the second phase. We first used administrative data to identify iPASS grantee institutions that showed the strongest results in key performance indicators (KPIs) among students from Black, Latinx, and/or low-income groups. We then used screening calls to make final determinations about colleges for inclusion in Phase 2. Our KPI analysis focused on:

- Credit momentum (proportion of students who attempted 15 credits in the first term)
- Percentage of credits earned (percentage of attempted credits that were earned during the first academic year
- Retention (percentage of students who continued to be enrolled in the second year after initial enrollment)

For each KPI, we measured (1) post-grant outcomes for each racial/ethnic and income subgroup, (2) change in outcomes within subgroups from the pre to the post period, (3) post-grant racial/ethnic and income equity gaps, and (4) change in equity gaps from the pre to the post period. We thus used a total of 12 measures per institution for each subgroup. We compared these measures for Black, Latinx, and low-income students[1] across institutions within each sector.[2] We found that improvements in the two change measures ([2] and [4]), even among higher performing colleges, were often modest in scale and often concentrated in one or two of the subgroups of interest. (See Appendix Tables A1–A3 for KPI results for each of the colleges that participated in Phase 2.) No institution was high-performing for every KPI measure for every subgroup. We then selected 10 higher performing iPASS institutions—three community colleges and three four-year universities with the highest KPI measures, along with four alternate colleges that ranked among the top five on one or two indices and that based on the institutional profiles that we created appeared to be successful in helping underserved students through enhanced advising and support services. We invited each of the six institutions with the highest KPI measures to participate in the second phase of the study; ultimately four of these institutions and one alternate institution agreed to participate.

During the second phase of the study, in summer and fall 2021, we collected additional qualitative data at the five colleges. The objective was to gain a deeper understanding of what these institutions were doing during and after the iPASS grant period to advise and support Black, Latinx, and low-income students. Our selected colleges include three community colleges—Doña Ana Community College (DACC), Northeast Wisconsin Technical College (NWTC), and Queensborough Community College (QCC)—and two four-year universities—Colorado State University (CSU) and University of Central Florida (UCF). The colleges vary in size and in the proportion of students served from underrepresented racial/ethnic and low-income groups. We summarize key institutional characteristics in Table 1 and further describe each college in Appendix C.

Table 1.
Characteristics of Participating Colleges

College/Location	Sector	Urbanicity	Fall Enrollment	MSI Status	% Black	% Latinx	% Low-income
Doña Ana Community College (DACC) Las Cruces, New Mexico	2-year	Rural	7,028	Yes	1	74	46
Northeast Wisconsin Technical College (NWTC) Greenbay, Wisconsin	2-year	Urban	10,763	No	4	10	23
Queensborough Community College (QCC) Queens, New York	2-year	Urban	12,405	Yes	22	31	46
Colorado State University (CSU) Fort Collins, Colorado	4-year	Urban	24,792	No	2	14	23
University of Central Florida (UCF) Orange County, Florida	4-year	Suburb	61,401	Yes	10	28	36

Source. 2020 data from IPEDS.

Phase 2 data collection included interviews and focus groups with faculty, advisors, and other support providers; Diversity, Equity, and Inclusion (DEI) staff; other senior leaders; and students. All interviews and focus groups were conducted virtually.

Our data collection was informed in part by Hurtado et al.'s (2012) Multicontextual Model for Diverse Learning Environments. This framework identifies five institutional dimensions that together shape an institution's racial climate:

- **Institutional history:** An institution's legacy of inclusion or exclusion of racial and ethnic groups shapes the institution's attitudes toward diversity and willingness to engage in reform designed to improve the campus climate for various racial and ethnic groups.
- **Staff and student composition:** The racial, ethnic, gender, and other demographic characteristics of administrators, faculty, staff, and students that may affect students' ability to interact with other students and staff with whom they identify, their perceptions of the racial climate, and the way students from different identity groups interact with one another.
- **Organizational structure:** Institutional practices and policies—such as student recruitment strategies, staff hiring practices, and decision-making processes—that may have embedded biases that benefit some groups compared to others and that may thus shape the institutional climate for diversity.
- **Student perceptions of racial climate (psychological dimension):** How students perceive institutional commitment to racial diversity and inclusion and how this shapes their impression of the institution's racial climate.

- **Interactions between different identity groups (behavioral dimension):** The frequency and quality of formal (e.g., classroom-based) or informal (e.g., in co-curricular settings) social interactions among administrators, faculty, staff, and students across diverse racial and ethnic backgrounds, and how this contributes to the college's racial climate.

We considered these five dimensions in exploring the racial climate of participating colleges and, more broadly, the experiences of Black, Latinx, and low-income learners. Based on this framework, in addition to questions about support practices inside and outside of the classroom, interview protocols for college personnel included questions pertaining to the institution's history, composition, and organizational structure. We interviewed students to learn about their perceptions of the institution and interactions on campus with support providers, faculty, and peers. Interviews were transcribed and coded in Dedoose. Phase 2 methods and data collection activities are further described in Appendix B.

We use the interview/focus group data gathered in the second phase of the study to answer the following research questions, which also organize the discussion in the next section of this report:

1. How are Black, Latinx, and low-income students supported at participating colleges?
2. How are Black, Latinx, and low-income students supported in the classroom?
3. How do participating colleges' (overall and racial) climates affect the support experiences of Black, Latinx, and low-income students?
4. What management and organizational practices are participating colleges utilizing to prioritize equity in outcomes across racial and socioeconomic subgroups?

We also describe situational factors, including the pandemic and the fraught political climate, that our research suggests may have slowed down progress in creating effective enhancements to student supports aimed at underserved students at the colleges. It is important to recognize that this study was originally conceptualized and launched in early 2020, just prior to the onset of the COVID-19 pandemic and the current racial justice movement. Relatedly, the data used to measure change in KPIs within and between different racial and income groups pre-dates these events, which has implications for the application of these data to the current experiences of students. To the extent possible, we pivoted our research design for Phase 2 to address these circumstances. We expanded the scope of data collection (both in terms of the range of stakeholders recruited for the study and in terms of the nature of the topics explored through interviews).

Inequities in Higher Education

Racial and socioeconomic inequities in postsecondary outcomes are well documented. For instance, results from the 2018 Current Population Survey show that, while 31% of White respondents ages 25 and older had not pursued education beyond high school, 42% of Black respondents and 58% of Latinx respondents ages 25 and older had not done so. And 42% of White respondents had earned a bachelor's degree, compared to 27% of Black and 19% of Latinx respondents (Brock, 2021). Because workers with a postsecondary credential tend to earn more in the labor market, racial inequities in postsecondary outcomes translate to inequities in earnings and related socioeconomic conditions.

Inequities in postsecondary outcomes are related to educational policies and practices that students encounter before and during college as well as to nonacademic circumstances that shape students' pathways. For example, Black and Latinx students are more likely to place into developmental courses compared to their White and Asian peers, elongating their pathway to completion. Black and Latinx students are also more likely to work while enrolled in college and take care of dependents, which affect the time and resources that they are able to allocate to academic pursuits (Jain & Crisp, 2018).

The COVID-19 pandemic further exacerbated inequities in outcomes by disproportionality impacting the socioeconomic conditions of Black, Latinx, and low-income students. Following the onset of the pandemic, community colleges experienced a 10% enrollment decline from fall 2019 to fall 2020, compared to no decline at all among public four-year colleges (National Student Clearinghouse Research Center, 2020). Further, the pandemic resulted in job losses across sectors and hardship in paying bills, but workers with bachelor's degrees or higher experienced the least unemployment (Parker et al., 2020). Given that Black, Latinx, and low-income students are more likely to attend community colleges and less likely than their White and high-income peers to attain a bachelor's degree, the pandemic has disproportionally impacted students from these groups. In addition to the current health crisis, the nation's racial awakening at the start of summer 2020 further intensified conditions for Black and Latinx learners.

Findings on Research Questions

How are Black, Latinx, and low-income students supported at participating colleges?

Summary of Findings

- Comprehensive supports that are universally available at the colleges—including academic advising, financial aid, career counseling, and nonacademic resources—were perceived to be foundational for supporting Black, Latinx, and low-income students.
- These universally available supports may be tailored to be more accessible and to better serve racially minoritized students. Some colleges were reviewing their policies and practices in order to tailor universal supports and eliminate biases.
- To reorient the way providers interact and advise students from Black, Latinx, and low-income backgrounds, a number of colleges provided professional development on equity and on understanding the experiences of students from racially minoritized backgrounds.
- Targeted supports that were provided by the colleges focused on specific sets of students, using eligibility criteria defined by one or more student characteristics.
- College representatives and students saw targeted programs focusing on specific racial/ethnic, cultural, gender, or other identities as instrumental for facilitating student belonging.

All the colleges in this study provided both universal and targeted supports for students. The provision of high-quality comprehensive support services for students requires a number of interwoven practices. Interviewees talked extensively about how their supports relate to one another. They also noted that universal supports that are available to all students can be tailored to better serve traditionally underrepresented students. Yet institutions varied in the degree to which universally available supports were redesigned to better meet the needs of Black, Latinx, and low-income students. Moreover, while some form of targeted supports—supports intended for particular student populations—were available at all institutions, the breadth and scope of targeted services varied.

Universal Supports

At each of the participating colleges, centralized or department-based academic, career, and financial aid advising as well as tutoring and other academic support services are universally available. Interviewees described efforts to facilitate high-touch and holistic advising and supports through these universally accessible services. For example, in the last few years, NWTC has expanded resources for nonacademic supports. As one NWTC administrator put it, "What we have now is a whole menu of social services." These services include licensed mental health counselors, a career closet that students can access to prepare for job interviews, a food pantry, and emergency funds for unexpected financial

needs. These services complement intensive academic supports, including assigned advising by major and academic coaching or tutoring. As the same administrator noted, "We're really trying to holistically support students [through these services]."

NWTC has also implemented practices to effectively connect students to these resources. As another administrator noted, "We know our students sometimes just don't ask for help. So even if they don't ask for help, we want to be intentional about giving them the support." As one way to identify students in need, the college utilizes the Starfish early alert system. Faculty raise "flags" when students are struggling, and advisors follow up to "to check in on our students at the right time, so that they can get the services and referrals that are needed."

While participating colleges described broad reforms to universal supports, efforts to modify universal services to optimize them for specific groups of students are still relatively new. At the time of the interviews, colleges were only beginning to explore applications of these universally available advising and support resources in ways that advance racial and socioeconomic equity. For example, one CSU administrator noted ongoing discussion of ways to make centralized services like tutoring and career services more accessible to students through increased coordination with other areas of the campus that students typically frequent, such as residence halls and cultural centers. Similarly, a QCC administrator said that the college physically relocated the food pantry to the center of the campus; by making the food pantry more visible, the college hoped to reduce the stigma that may be associated with using this resource.

To center equity in universal supports, colleges were reviewing policies and procedures in order to identify and eliminate biases. At UCF, one administrator described advising, student accounting, financial aid, and housing departments, among others, working together on "tearing down some of the barriers that we as an institution had really put in place to really prevent students from registering and continuing at the university." For example, by adjusting the dollar amount threshold that would trigger a financial hold, the university was able to reach and assist students before their student bills reached levels that would make it insurmountable to pay and register.

To improve how Black, Latinx, and low-income students experience universal support structures, participating colleges were also facilitating professional development opportunities for advisors and other support providers. These opportunities were, as one QCC administrator described them, largely exploratory trainings designed to help staff "really understand the concept of equity—understand who we are, who we serve." For example, QCCs 22 advisors, career specialists, and early engagement specialists (staff who support students through the onboarding process) had at the time of data collection recently completed equity trainings. The same QCC administrator noted that these trainings provided the advising and student support staff some background to understand "who they serve as a student and how what they do on a daily basis makes students feel, and what needs to take place as a consideration every time they meet with a student." From this administrator's perspective, understanding cultural differences could help advisors and other support providers break down biases in their practice.

One CSU advisor described how participating in similar trainings focused on understanding the concept of racial equity helped them build stronger connections with students from racially minoritized backgrounds. The advisor said,

> *I've really become more aware of, or just mindful of, the ability to make connections with students and develop those student–advisor relationships in ways that I previously hadn't before. Some of those trainings [were about] what their college experience looks like and what they may be needing while they're here at CSU.*

This advisor added that the steps the university has taken to offer trainings, including trainings on racial trauma, signals that the university is "really starting to become more and more aware about the whole student experience and where these students are coming from and what they're bringing with them in their life experience." The advisor characterized this shift as developing a "more mindful" approach toward advising and supporting students.

Some student interviewees suggested that universal advising services can be further improved to better serve Black and Latinx students with increased racial diversification of advising staff. One student described the importance of working with someone in advising with whom she identified racially. The student said,

> *I think it would be beneficial to have more people that I can relate to in the advising programs, like a Black woman who also has done what I'm trying to do. You know what I mean? Hiring people who can relate to the students that they're advising better, so that they're actually equipped to talk about the things that the student needs to know about. I know they're not a counselor, but they should at least understand the experiences without it being a shock.*

This student added that she personally has had the best experiences with advising when she worked with individuals who "are centered and focused on supporting students with my identity."

Targeted Supports

Some supports at each of the colleges were designed to serve specific groups of students. Colleges targeted services for Black, Latinx, and low-income students in two ways. First, colleges conducted outreach strategically to engage students from these groups. This practice was especially well developed and at scale at CSU. The university's action plan for creating equitable learning environments includes a framework for proactive outreach from advisors; it guides advisors to identify and reach out to first-generation, racially minoritized, and low-income students among their caseload using the university's case management tool.[3] The framework also encourages a focus on first-generation, racially minoritized, and low-income students who are not part of other targeted services. In fall 2021, in alignment with this framework, advisors reached out to first-generation, racially minoritized, and low-income students who were new (within the first four weeks of enrollment) to the university, under an initiative called First Four Weeks. As one advisor described it, it was an effort to "check in with them and say, 'Hey, we're here,' within the first four weeks when they're brand new at CSU, as a way to reach out and get them connecting to us and starting to form those relationships."

In addition to targeted outreach, targeted services often include programs focused on a specific racial, cultural, or gender identity. For example, CSU has four cultural centers—the Asian Pacific American Cultural Center, the Black/African American Cultural

Center, El Centro, and the Native American Cultural Center. In addition, they have a Pride Resource Center focused on supporting LGBTQ+ students, a Women and Gender Advocacy Center, and a Student Disability Center. These centers are, as one CSU advisor noted, "student-centered resource(s)" that offer a range of services including advising, tutoring, peer mentoring, and other academic and social supports.

These centers conduct outreach to students who align with the racial or other identities that the center represents. For example, at the start of the year, the cultural centers reach out to students who identify as a racially minoritized individual on their application. In addition, in some cases students from various backgrounds can access the resources that these centers provide. Another CSU advisor noted that the peer tutoring offered by the Native American Cultural Center is popular and open to all students.

Other targeted services focus on supporting low-income students. For example, CUNY community colleges, including QCC, offer the College Discovery program. Students participating in this program receive financial support that supplements their financial aid package as well as assigned academic advising, tutoring, and access to computers at an exclusive support center. Eligibility for College Discovery is based on family income. Similarly, the Accelerated Study in Associate Programs (ASAP) at QCC and other CUNY institutions offers participating students financial support including subway and textbook vouchers, academic and career advising, intensive personalized advising, and cohort-based course schedules. While limited income is not among the formal eligibility criteria for ASAP at QCC, one administrator who works closely with the program described intensive efforts to recruit underrepresented groups, including low-income students, for ASAP.

The colleges recognized the intersectionality of students' identities and, at times, utilized multiple criteria to identify students for targeted services. For example, the Black Males Initiative at QCC offers activities that are intended to support Black men in building a sense of community at the college. While the initiative has not been active in recent years, it is under new leadership and, as one advisor put it, has been "given a new life." The First-Generation Program at UCF focuses on reaching first-generation students who are often also Pell eligible and from racially minoritized backgrounds. The First-Generation Program offers academic advising as well as guidance on financial aid, internships, and career pathways.

Interviewees also discussed recent expansions in targeted programming for racially minoritized students pursuing specific programs of study. Just prior to the start of the COVID pandemic, CSU launched United in STEM, an initiative to connect students from Black, Latinx, and other racially minoritized backgrounds pursuing STEM fields. The objective of this initiative is to facilitate opportunities for participating students to connect with others pursuing similar pathways and with whom they identify. The initiative includes events that facilitate both peer-to-peer networking and networking with local companies. Other program-specific initiatives at CSU include Minorities in Agriculture, Natural Resources, and Related Sciences (MANRRS) and Native Students in Science and Engineering (NSSE). NWTC's Next One Up program is designed for first-year students from Black, Native American, and other racially minoritized backgrounds pursuing programs within the College of Business. One NWTC administrator described Next One Up as a "regular series of in-person and

virtual meetings, where students converse with one another, get to know each other, do some social things, and build a sense of community with one particular advisor who's assigned to leading that effort." Campus closures made it difficult to sustain this program, which launched just before the pandemic; the college was planning to relaunch it in fall 2021.

In some cases, targeted programs are facilitated by community partners external to the institution. For example, Engaging Latino Communities for Education, or ENLACE, is a collaborative with a statewide presence in New Mexico. In addition to providing policy advocacy and professional development resources, ENLACE offers academic advising, peer mentoring, nonacademic supports, and special programs for students and their families at participating high schools and colleges. ENLACE is available at DACC, although there is no formal referral process that support providers follow to connect Latinx students to this resource.

Black, Latinx, and low-income students who participated in targeted programs characterized them as instrumental in helping them feel that they belonged on campus. One student described how the university's cultural centers had positively shaped her experience at the institution: "I feel those cultural centers do a good job of being a welcoming and comforting place to go and talk about issues you have." The student added that while some areas of the campus "feel off, once you find a good place where you feel like you're comfortable and welcome, you really just forget about the other parts."

CSU students further noted that they felt that they belonged at the cultural centers because they were able to interact with other students with whom they identify, a perspective that underscores the relationship between numerical representation of students of color and an institution's racial climate in Hurtado et al.'s (2012) framework. Another student, who also serves as peer mentor in the Black/African American Cultural Center (BACC), described turning to the center for emotional support following experiences of racism: "I go to the BACC office because I know that I'm going to have support, and I know that I can also support the [other] people who are being impacted. We're all sharing this impact together, and that's usually the only place I go." Similarly, another student said, "[BACC] is where I spend most of my time if I'm on campus; that's what kept me here." In contrast to the cultural center, the student said that in the classroom "I've had or lack of connections that I've been able to make with my peers, because, being a journalism major, there's some diversity, but not a lot. And most times, I will be either the only person of color or woman of color, or I'll be one of two, three." From these students' perspectives, receiving support from individuals who can identify with the student experience is critical, and the BACC provides that resource.

At some colleges, programming focused on racial or cultural groups is limited. DACC students expressed a need for this type of programming. One student who had transferred to a four-year university described the academic and financial resources the student was able to access through the university's Chicano Programs. The student noted that these resources allow "the students to be able to talk to each other, communicate, learn about each other, learn about the people in their community." The student added that they had not experienced that type of support and connection at DACC.

How are Black, Latinx, and low-income students supported in the classroom?

Summary of Findings

- The colleges were undertaking efforts to improve the classroom experience for students. Efforts were underway by individual professors, departments, and at the institutional level.
- Efforts on the part of individual faculty to make courses more equitable and inclusive appeared to be the most common.
- Some college departments also engaged in efforts to address implicit instructor bias and to make course content more culturally responsive.
- At the college level, programming has been developed to improve experiences for racially minoritized and low-income students. There was also work underway to offer professional development to improve the classroom experience of underserved students.

All of the colleges involved in this study were making efforts to improve the classroom experience for Black, Latinx, and low-income students. This is a critical aspect of equity efforts that is especially important at commuter colleges, where students spend more time in classrooms interacting with faculty than in any other college service or activity (Tinto & Posner, 2006). Further, classroom learning is at the heart of the education enterprise—the reason why students are in college—and therefore central to actions to advance student success.

Individual Approaches

Many of the faculty interviewed discussed ways that they sought to make their courses more equitable and inclusive. Some used class materials by diverse authors or assigned readings representing the experiences of different groups. Across colleges, individual approaches appeared to predominate. One DACC professor spoke of her efforts to make connections with individual students which she described as worthwhile but requiring extra effort.

> *So I had a student this summer I sent an email to after day two, and he said, "Oh, that was really smart of you to think of going to my Gmail." And so I think that sometimes even if it's that kind of early intervention, students still see that there's someone who's interested and doesn't want [them] to fall through the cracks.*

In another example given by a student, an NWTC professor noticed that a student's child had been present while she was taking an exam; the professor opened up a subsequent exam for the student two days ahead of time so she could take the exam at a time that was best for her.

Students generally expressed support for these efforts. However, they also mentioned a number of situations in which they thought more action was needed. In one case, a student questioned whether faculty were making good choices of materials across subject areas:

> *I think there also should be a push to check these teachers' curricula to make sure they are including other voices. Because … the only time I hear of people of color in agriculture is when they're picking cotton or vaguely mentioned.*

In another case, a student believed that peers were often insensitive when culturally relevant topics were taught in classes.

> *Because when people get a chance to talk, they say some crazy things. … I'm sitting in world literature, and we're trying to talk about American authors, and somebody's sitting there justifying Thomas Jefferson raping slaves. And it's just like, I don't need that right now.*

Departmental Approaches

At each college, some work was underway at the departmental level to make the classroom more inclusive. This has been emphasized in STEM fields for some time, but we found evidence of efforts being made in both STEM and non-STEM fields. The focus ranged from addressing faculty implicit bias in teaching practices to helping students develop a sense of self-confidence and a sense of belonging. One UCF instructor described revisions to course content in computer science as part of an effort to attract and retain more women. The instructor said:

> *I've been leading a group in computer science. Again, the primary focus is for increasing women in computer science, but it's really about the concept of increasing diversity. And what we've been looking at are some of what I'll call systemic issues, that is, looking at implicit bias, looking at the classroom, and what we're doing in the classroom, and how we're representing the topic in this computer science to all students.*

At both QCC and DACC, English departments were redesigning course syllabi, removing biased content, modifying material with an imbalance toward cultural representations of White people, and providing broader perspectives by more non-White authors and scholars. One QCC instructor described the process as "de-centering whiteness." Similarly, a DACC instructor noted:

> *We're definitely shifting away from the English departments of the past, which seemed very centered on a right way to write. And we're opening up channels for students to explore their voices through writing, through whichever background they come from, in order to build their sense of confidence and belonging and ownership with writing.*

College-Led Approaches

Our interviews revealed approaches to improving the classroom environment that were led at the institutional level. These were two main types: (1) programmatic approaches set at the college level and (2) the provision of professional development and training for faculty. Several programmatic approaches were noted. The most sophisticated of these was the Key Communities offered at CSU, which focus on entering students and are intended to honor and center student identities in the predominantly White institution. Building on the learning community model, students enroll in a first-year seminar course and co-enroll in other classes that are part of the university's core curriculum.

Students can apply directly to a community or may be referred through the Community For Excellence, a network of CSU and community partners including local high schools focused on helping racially minoritized and low-income students access college. The university offers four communities: one for residential students, one for commuters, one for student athletes, and one for second-year and continuing students. Participating students have peer mentors who are also teaching assistants in the seminar course.

CSU also emphasizes high-impact practices (American Association of Colleges and Universities, n.d.) as a way to improve the classroom experience for students of different backgrounds. All students are asked to choose to participate in one of these practices, such as a capstone course or internship, as part of their degree plan. This is seen as especially beneficial to first-generation students and others who may be less familiar with university opportunities, so it is aimed at making access more equitable. An advisor stated, "And so I think it's really been beneficial to students who may have not known where to seek those types of experiences out on their own." According to one administrator, the college is investigating how students from different backgrounds are connected to work-based learning opportunities, one high-impact practice pursued at the college. They are seeking to identify and resolve any potential biases in this practice.

In another example of a college looking to identify bias in programming, NWTC is encouraging internal reviews of classroom policies that may disproportionately disfavor certain groups. One example given was late policies for assignments; questions were raised about whether overly strict policies could disadvantage students with heavy work schedules or home responsibilities.

Administrators from four colleges discussed offering professional development intended to positively influence the classroom environment. Representatives from NWTC described four 20-hour training programs offered to staff and faculty: (1) Living Inclusively, a training program taken by all full- and part-time employees, (2) Teaching Inclusively, required for all full-time faculty, (3) Serving Inclusively, required for non-faculty staff, and (4) Managing Inclusively, for anyone who has a leadership role. These were viewed as major commitment to making the college more welcoming to diverse students; the session on teaching inclusively was seen as especially likely to have an impact on the classroom environment. Other examples of college-wide professional development include CSU's Institute for Learning and Teaching, which offers optional training on inclusive pedagogy for instructors and advisors. An interviewee indicated, however, that more persons should participate in the training.

An interviewee from UCF talked about how she plays a role in new faculty orientation to help participants to think about how they can meet the needs of Latinx students, in particular. She said,

> *I make them aware that we're an HSI and what our principles are. At one point I had a checklist. I asked, "How many letters of recommendation have you written this year? How many of those letters were for Latino students? Undergraduate research in your lab? Look at the representation in your lab. Who's there? Who isn't there?'*

QCC's faculty professional development includes three components that center DEI. First, the college created best practices in anti-racist pedagogy, including guidance

on language, representation, assessment, and teacher evaluation. The practices are discipline-specific with suggestions for anti-racist instruction in the arts, humanities, STEM, and social sciences. Second, the college is an institutional member of the National Center for Faculty Development and Diversity, which allows college faculty to access mentoring, webinars, and other professional development resources offered by this association. In addition, the college connects junior faculty from racially minoritized backgrounds with mentors at the college, providing an additional layer of support for these faculty on topics including institutional policies related to tenure and promotion. Finally, the college facilitates a course for faculty called Inclusive Teaching for Equitable Learning. Faculty who complete the course receive a badge acknowledging their accomplishment.

Students interviewed were very cognizant of the backgrounds and levels of awareness of DEI issues among their instructors, further underscoring the importance of these professional development reforms. A student at CSU was unhappy about the lack of diversity in her department, stating: "I have not had any women of color or men of color teaching me at all. At all. I think maybe one time I had a TA. One time. So that's a problem to me." In addition, a number of students believed that some faculty were not sufficiently aware of important issues that affect their lives, even in colleges that have a wide range of equity initiatives in place. One student stated,

> *There's definitely some professors that just get it, understand what's going on. They themselves are in the learning process. And then there are other professors that are like, "I have my Ph.D. in social work, so I already know everything, and an undergrad student of color isn't going to come and tell me any different."*

While we learned about a range of practices that are intended to improve Black, Latinx, and low-income students' experiences in the classroom, none of the participating colleges considered themselves to have achieved an ideal state in this regard.

How do participating colleges' (overall and racial) climates affect the support experiences of Black, Latinx, and low-income students?

Summary of Findings

- The colleges were working to achieve a welcoming and positive climate. Leadership that was seen as prioritizing equity was especially important in this effort.
- The primary tools used by colleges to influence climate were professional development and college communication strategies.
- The colleges' responses to incidents of bias were viewed by students as especially indicative of the racial climate.

Broadly, interviewees felt that colleges best worked toward a climate that was welcoming and supportive of Black, Latinx, and low-income students through strong leadership, the training of college personnel, and thoughtful communication. It was widely believed that leadership commitment to equity and actions promoting equity

was critical. And professional development was described by interviewees as having the potential to contribute to a positive campus climate. Finally, the ways that leaders and others at the college handled incidents of bias were regarded as vitally important as a measure of the college climate, especially by students.

Leadership Commitment

Presidents and other top college leaders were understood to be critical in creating a climate that embraces diversity, equity, and inclusion, even when there is pushback from students. For example, an interviewee from QCC believed that leadership was supportive of DEI: "With a new president that actively champions DEI work and an advisor to the president that is focused on this work, there is a general sense that the college is committed to placing equity at the center of its work." Another interviewee from the same college believed that there was interest in diversifying college personnel. At NWTC, despite the presence of some White students who have questioned the college's emphasis on DEI, an administrator pointed out that leadership at the college has not "backed down."

Practices to Improve the Campus Climate

To improve campus climate, colleges were most likely to offer professional development and use college communications strategies to observe and celebrate different racial and cultural identities. The most common way that colleges sought to improve their climate was through the use of training/professional development for college personnel, such as the four 20-hour trainings offered by NWTC described above. An NWTC college leader said,

> *Some people are far along and some people are at the very beginning stage. [Racism is] not going to go away after next year. It's going to be a continuous process that we go through with our teams, and we're going to have setbacks."*

Colleges also advanced a positive racial climate by observing and celebrating different racial and cultural groups. Colleges utilized various communication strategies to engage the college community, including mass emails, college-wide lectures on diverse topics, and refinement of the college website. One student described diversity-focused emails and lectures followed by small group sessions.

> *Sometimes they'll send out a massive email. … They have a whole month dedicated to one race. And a couple months later, a new race, and a couple months later, another race. They have different ones, and they just do a whole bunch [where] one really big person from that culture will do a mass Zoom with a lot of the students. And they'll talk about their struggles, how to overcome them, how they got to be the person that they were today. [Then students go into small groups and] do a lot of sharing together, a whole group bond.*

Another student commented on the images on the college's website and how they might affect applications to the college by diverse groups: "So let's say when you go on their website, you open 'admission,' and you see people smiling at you. At least, just looking at the image, you realize that—let's say there's a person from the Black race, from the

White race, Hispanic—at least you find different people coming together, at least smiling at you."

One student from a different college shared that it should do more to consider language barriers that limit parental engagement among culturally and linguistically diverse families. The student recommended that the college provide families with access to information and services in other languages, because not all families are able to speak, understand, read, or write English fluently:

> *And also, a big thing is, how do we integrate families into the student's life? So, for example, I notice that a lot of the communication to parents is in English only (I'm on my family email because I'm the one that manages it for my family). A lot of the times, my parents are, like, "Delete, delete, delete, delete," because they're like, "I'm not going to read three paragraphs of English that I'm going to have a hard time understanding."*

Responding to Incidents of Bias

The colleges' responses to negative incidents were often viewed as an indication of the prevailing racial climate, especially by students, with a number of student interviewees highlighting cases where they thought the response was inadequate. Stakeholders at CSU described several incidents of racial bias, including one that took place in a residence hall. The president spoke almost immediately to students in the residence hall, but students interviewed described university-wide outrage that the senior leadership was slow to respond publicly. Some students also believed that their institution was not sufficiently responsive to incidents of hate speech—such as the posting of White supremacy flyers—sometimes classifying it as free speech.

What management and organizational practices are participating colleges utilizing to prioritize equity in outcomes across racial and socioeconomic subgroups?

Summary of Findings

- Administrators, faculty, and other staff noted that cross-campus dialogue on racial equity fostered awareness and a collective understanding of inequities on campus.
- Campus-wide platforms—like working groups or book clubs—have created space for staff to learn how the work in different areas of the college contributes to equity goals.
- The colleges created senior-level and department-based positions to lead DEI efforts. Interviewees agreed that senior-level roles underscored an institutional commitment to DEI and empowered the work; department-based positions created an infrastructure for broader integration of DEI efforts.
- Institutions that disaggregated data by race/ethnicity, income, and other characteristics found that this type of analysis revealed unexpected inequities in practices and in student outcomes, which informed efforts to reduce adverse effects. Sharing disaggregated data also promoted broader buy-in for reform.

To implement equitable practices, colleges needed organizational strategies for defining and elevating equity goals and identifying areas for reform. Practices that interviewees highlighted as important in advancing equity-oriented efforts included: (1) cross-campus dialogues on racial equity, (2) creating and making full use of DEI staff positions, and (3) using data to encourage movement toward greater equity.

Dialogue on Racial Equity

Each of the colleges was engaged in some form of cross-campus dialogue on issues of racial equity. One way colleges facilitated this dialogue was by convening a cross-functional working group involving both academic and nonacademic staff to discuss what racial equity means and how it applies to the college environment. For example, at DACC, the president, a small subset of administrators from different areas of the college, including student affairs, and faculty came together to discuss racial inequities at the college and ways to address implicit bias. Several administrators noted that the group formed after the murder of George Floyd. As one administrator put it, "That stirred a lot of emotions in a lot of us." The group, the administrator added, "is trying to figure itself out," emphasizing that the efforts are in the early stages and require further refinement.

Campus-wide book clubs also served as spaces for cross-functional discussions on racial equity and related issues. For example, at QCC, administrators and faculty noted that the president convened an optional book club; several reading selections addressed diversity, equity, and inclusion. One faculty member noted that the book club was a "really wonderful way for us to come together—especially in a time when we're all working from our homes—to come together and talk about some of these things in an informal way." The same faculty member appreciated that the cross-functional aspect of the book club made it possible to "hear from people from across the college and get their perspectives on how these ideas and concepts connect to the work that they do."

Similarly, NWTC hosted a series of informal forums called A Place at the Table. These forums were opportunities for staff, as one administrator said, "to just be in a space that was non-judgmental" and to share how they were feeling about topics related to racial justice and equity. Each forum focused on the experiences of a different group, including Black, Latinx, and Asian people. Hundreds of employees, including faculty, participated. Students were also welcome. The series, as the administrator noted, "gave our students and our employees voices."

Interviewees characterized these platforms for cross-functional dialogue as foundational to building an awareness of racial inequities and an understanding of the need for reforms to better serve Black, Latinx, and low-income learners; however, informants also emphasized the need for more intensive and larger scale action to achieve equity goals. As one DACC faculty member noted, the working group efforts marked "some progress," but the college needed "something that's more present in everyone's mind." Similarly, a QCC administrator noted that while individual faculty or administrators have been reflecting on inequities in students' experiences and outcomes, the college is building on these efforts by "integrating that kind of awareness" into a systematic review and reform of policies and practices.

Organizational Structure and DEI Positions

Beyond facilitating dialogue, four of the colleges redesigned organizationally to address DEI efforts.[4] All four institutions described senior-level roles dedicated to DEI. NWTC created the role of Chief Officer for DEI; this position is part of the president's cabinet. QCC established an executive-level position to advise the president on equity, inclusion, and belonging and to lead a college-wide strategy for closing equity gaps. CSU renamed the Office of Diversity, Equity, Inclusion, and Justice as the Office for Inclusive Excellence staffed by a Vice President, an Associate Vice President, and three Assistant Vice Presidents for Inclusive Excellence.

Interviewees emphasized that formalizing senior-level roles dedicated to DEI created an avenue for campus-wide DEI efforts and signaled the emphasis that the college was placing on reducing inequities and promoting an inclusive environment. As one NWTC administrator put it, elevating the role of the DEI director to a cabinet-level position provided the position "more of a profile on campus," empowering the individual holding that office to advance college-wide equity-oriented initiatives such as making the college's multi-part DEI training mandatory. As one QCC faculty member noted, hiring someone in the position of an executive advisor to the President on DEI "sets a tone on campus and on some of the priorities."

In addition to senior roles, QCC, CSU, and UCF created DEI positions within departments and other units. For example, QCC created the position of Faculty Fellow for DEI to guide classroom or course-level reform; the Fellow led the redesign of course syllabi described in the previous section. CSU recently established a DEI representative within each of the university's eight colleges. One administrator described the work of the DEI representative within his college as "being a resource for our students within our college to submit reports or concerns of any bias incidents and things like that." From this administrator's perspective, the position allows the college to be more responsive to students' needs, including addressing situations that may make "students feel uncomfortable or offended or hurt," which could help contribute to a welcoming environment.

Establishing DEI positions both among senior leadership and across departments creates the infrastructure for integrating DEI work into the various operations of an institution. Reaching this potential, however, requires alignment across the institution in vision and objectives for DEI. One UCF administrator described the inconsistency in the efforts of DEI staff within different colleges of the university:

> *I've seen a continued evolution and commitment to understanding that colleges have a role and responsibility to retaining our students of color—that it's not external to what their responsibilities are. Getting there is more work, and I do think there's an increasing, continued commitment to that. And some of [DEI staff within colleges] do it quite well, and for others it's clunky and there's some of the bumping that happens, but there's pockets of where it is really strong.*

From the administrator's perspective, the inconsistency in the application of the college-based DEI positions was at least in part due to a lack of coordination between college- and university-level DEI offices. The administrator said, "It was like, they had

their charge within the college, and they were doing their thing within the college, and the university office was doing whatever they needed to do at the university level. And I don't know that there was a lot of interaction."

At CSU, the newly rebranded Inclusive Excellence (IE) office was designed to facilitate cross-campus coordination of DEI efforts. In addition to a new name, the IE office was restructured to include faculty and staff recruitment and retention efforts as well as oversight of the institution's cultural centers, which were previously part of student affairs. IE staff also meet regularly with the college-based DEI representatives. By positioning IE to oversee DEI efforts involving faculty, staff, and students, interviewees said, the restructuring aimed to create more opportunity for alignment and integration of DEI efforts throughout the campus.

Use of Data

Analysis of student data disaggregated by race/ethnicity, income, and other characteristics also emerged as an important organizational practice. College personnel described how robust data analysis can help identify and address inequities both in support practices and in student outcomes. One NWTC administrator described the types of questions pertaining to practice that the college seeks to answer through disaggregated data analysis:

> *We've had a focus on disaggregating our data. Who are we serving? Are we serving equitably? Are we indeed serving the population? … Do we need to target certain activities? Do we have the right blend of activities? Are we getting referrals from the right faculty for the right students in order to serve emergency funds? Things like that.*

Understanding differences in how students from different racial/ethnic, income, or other backgrounds experience college supports can inform redesigns of support practices to reduce unintended adverse effects. For example, NWTC uses the Starfish early alert system; in addition to flags indicating problems, instructors are strongly encouraged to raise kudos, or congratulatory alerts. In an effort to understand the equity dimensions of early alert practices, the college's institutional research staff calculates a kudos-to-flags ratio and disaggregates this metric by race/ethnicity. One administrator said that these analyses revealed that while White students were receiving, on average, over two kudos per flag, Black and Native American students were receiving, on average, half a kudo for every flag and comparatively more flags. These analyses sparked discussion, with some interpreting the findings as evidence of bias and others noting that the congratulatory alerts reflect broader disparities in academic preparedness. The college responded by creating new kudos designed to acknowledge positive choices, such as effective use of support resources and persisting through a tough challenge.

Similarly, a QCC administrator described program-level data analyses intended to determine if racially minoritized students are underrepresented in programs that lead to higher paying positions, especially in STEM areas. The administrator said, "STEM … has a huge impact on social mobility. We know those students are going to earn more when they graduate. So we want to make sure that students are equally represented."

Sharing disaggregated progression data helped deepen understanding of the effects of inequities and increase buy-in to strategies intended to improve equity. For example, analyses disaggregating student persistence through gateway courses by race/ethnicity was, as one QCC administrator put it, "really eye-opening data." Sharing these outcomes broadly throughout the college helped the administration underscore the extent of racial inequities and the impact it has on students from minoritized groups.

The colleges are building capacity for advisors and faculty to analyze their own caseload and classroom data, empowering them to identify and respond to inequities. This type of analysis will allow advisors and faculty to better understand where inequities occur in the educational journey of the students they directly serve. At the time of data collection, one institution, NWTC, had these kinds of dashboards in place. One administrator stated:

> *We even take it a step further with our data, where our teams have their own data disaggregated. So my advising team has dashboards that show them exactly where their students are, who are at risk, who needs reach-out. My enrollment team has the same series of dashboards. Even our career services personnel have dashboards, where they're looking to see where students are engaging in internships and [their access to] high-wage programs.*

QCC was in the process of developing a similar dashboard allowing individual faculty to see disaggregated outcomes of students in their courses by race/ethnicity, gender, and other characteristics.

In addition to student outcome data, CSU, QCC, and NWTC were using surveys of students and/or staff to understand perceptions of the institutions' racial climate. Survey questions generally included feedback on college initiatives related to DEI and students' sense of belonging or comfort at the college, among other topics. These data were also disaggregated by race/ethnicity and other characteristics, allowing, as administrators from these institutions noted, the leadership to understand variation in perceptions of racial climate across different groups.

Factors Mediating Reform Efforts

In the Findings on Research Questions section above, we refer to student support and classroom practices, climate conditions, and organizational strategies that the participating colleges have engaged in that hold promise for enhancing the experiences of Black, Latinx, and low-income students, which could be consequential in improving their outcomes. No single college was engaging in all of the practices and strategies outlined in the previous section; the variation in colleges' approaches offers insight into factors that may mediate efforts to enhance the experiences of students in these groups. Our data suggest that efforts to improve classroom and broader support experiences for students have been slowed by four factors in particular: (1) participation in a multiplicity of initiatives, leading to burnout, (2) dependence on adjuncts with little time to devote to special projects, (3) the prevailing political climate in some geographic areas, and, of course, (4) the pandemic.

Our research took place during the coronavirus pandemic, which undoubtedly contributed to faculty and staff workload and stress. However, some sources of burnout mentioned had origins in earlier times and often involved the tendency of colleges to have multiple initiatives underway at any given moment. One person from DACC expressed concern about burnout:

> *A lot of these initiatives we do are faculty driven, and oftentimes more senior faculty will have to step back because they're just so tired and burned out. … But then junior faculty are also burned out. And so it makes it hard to say, okay, who's going to lead the charge when you're all very, very tired.*

An interviewee from the same college pointed out that adjunct faculty often comprise more than 80% or more of the faculty in various departments, making it difficult to take care of all necessary work. Advisors—some of whom are also part-time—often expressed similar distress at the number of initiatives and the time needed to orient to each reform effort.

Interviewees from three of the participating colleges highlighted the difficulties involved in working in the current political climate. The racial awakening in the summer of 2020 catalyzed attention to issues of racial equity on campus, which held a strong presence at all of the colleges at the time of our fieldwork. However, the nature of changes at the colleges that followed the summer of 2020 was shaped by local political contexts. One DACC faculty member said that they had tried to make their classroom curriculum more culturally relevant but was met with resistance: "In my own classes, I've tried bits and pieces of things. But students have said, 'Oh, that's too political. Or that's too much about race. Or that's too much.'" Interviewees also felt that the surrounding political climate and personal political beliefs intersected with staff's willingness to employ organizational practices focused on equity. For example, several interviewees believed that the college made only limited efforts to disaggregate data by race/ethnicity and income and that this was shaped, at least to a degree, by the broader political context.

Finally, the pandemic has resulted in challenging educational and personal experiences for some interviewed students, especially those who were not enamored of online learning. While some appreciated the flexibility of online courses, especially students who were older and with family responsibilities, others did not. Student interviewees described low student engagement generally and professors who "just lectured" and "did not turn on" their cameras. Interestingly, though, one CSU student felt more comfortable having conversations with faculty via Zoom: "Talking to [faculty] in person was more difficult, just because I didn't want to seem dumb or anything. So online, you could turn off the cameras and just ask them questions so it wouldn't be as personal or intimate." Student interviewees expressed a similar range of preferences with respect to virtual advising and student support opportunities.

Supporting Students During the Pandemic

When the COVID-19 outbreak forced colleges online in March 2020, the study colleges responded by offering virtual office hours, online appointments for advising and other student services, and online and hybrid courses. Despite the challenges associated with this rapid transition, students reported wanting online and hybrid options post-pandemic. At DACC, survey results showed that about a third of students preferred face-to-face instruction, a third preferred online only, and a third preferred hybrid. While some students struggled with the transition from in-person to online, students reported it was easier to communicate with faculty and schedule office hours. They also found that advisors were easily accessible. DACC therefore adjusted its course formats to provide more online instruction. At NWTC, advising moved to phone and video platforms. CSU leveraged social media to disseminate information to students, given the decline in student engagement. The university continues to use social media to keep students engaged. At QCC, instructors offered more flexible deadlines and placed a heavier emphasis on online discussion boards to encourage student engagement. One QCC faculty member stressed the importance of mental health in his classes. He often played the guitar toward the end of each class during the pandemic. He told his students, "'I'm going to play for five to ten minutes" and shared that "the class would stay. … I found they needed a break."

Colleges also responded to COVID-19 by increasing students' access to technology. NWTC added WiFi access to their parking lots and tried to open up extra hours for students to study on campus. As one administrator said, "We have a lot of students who do almost all their work on campus, right? Because … they don't have a place in their own house where they can focus or they just don't have the equipment. So we really tried to get back to at least some access as soon as we could." DACC created the XCITE iPad initiative to distribute iPads to 3,000 to students who were Pell eligible, had completed 12 credit hours, and had achieved at least a 2.5 GPA. The lack of WiFi among students also motivated DACC to set up hotspots around the city and in more rural areas so students could complete their coursework.

Targeted programs provided additional support to Black, Latinx, and low-income students during the pandemic. At DACC, Avanza, which provides integrated supports to low-income students, used Zoom pop-in meetings to build community and disseminate information. Students were able to drop in and ask questions regarding financial aid and scholarships. At QCC, the peer leadership program for College Discovery provided extra support with technology. One advisor said, "Many students had never done online courses, had never logged into their Blackboard accounts, and so having those peer leaders work with those students one-on-one on the technology … was huge."

Conclusion: Considerations for the Field

In this report, we explore practices at five institutions selected from among a cohort of 23 colleges and universities engaging in iPASS advising reform; these five institutions were selected because, compared to the other institutions in the cohort, they demonstrated more improvement or higher success in outcomes among Black, Latinx, and low-income students. The findings presented in this report offer several considerations for the field.

College dialogues. Especially in light of the political and racial climate at the time of data collection, at each of the participating colleges, college leaders, at minimum, engaged in some dialogue and learning to understand what racial equity means and how it intersects with the services delivered at their institutions. We found that this dialogue—especially when structured to engage staff from different areas of the institution—was foundational for efforts to center equity goals. Yet, even at the colleges where these discussions were more formalized, actionable, and inclusive of various segments of the institution beyond college leadership, there is much more work to be done. At our study colleges—and other institutions similarly considering equity-oriented work—cross-functional dialogue is an important initial step; maintaining and building on this momentum is critical.

Responsiveness. At the participating colleges and, likely colleges nationwide, students are standing up, expecting more of their institutions, and making that clear. Specifically, students want immediate responses from colleges on racial incidents on and off their campuses. They want college representatives to speak strongly, especially in moments of crisis. A timely and college-wide response to these moments from college leaders is an important step toward creating an inclusive environment, especially for racially minoritized students.

DEI leadership. Organizationally, positions dedicated to diversity, equity, and inclusion may help bolster efforts to improve racial equity in the delivery of services and outcomes. However, as we learned from the colleges in our study, college leaders need to be intentional in establishing these roles in ways that facilitate shared or collective action toward equity-oriented goals. Colleges should avoid establishing DEI positions that assume sole responsibility for this work and are fragmented from other areas of the college. Strategies to consider include establishing an executive-level person responsible for leading DEI and empowering the individual with the authority, clout, and staff to lead equity-oriented projects college-wide. Establishing this position also indicates the significance that institutional leaders are attributing to this work. DEI staff embedded in departments or colleges throughout the institution can also serve to integrate equity-oriented goals into college services generally. Creating processes to align and coordinate efforts across colleges is critical.

Student supports. In terms of student supports, targeted services or programs are important and, according to students, helpful in fostering belonging and supporting academic progress. However, these types of programs alone cannot serve all racially minoritized and low-income students. The participating colleges have more work to do to integrate culturally responsive approaches into universal support structures,

including general or program-based academic advising. Similarly, equity considerations in classrooms are nascent. Individual faculty at participating colleges shared some promising examples, including reviewing syllabi to remove biases and racial/ethnic imbalances in content. These efforts, however, are currently limited in scope and require much more attention and a systematic approach to improve the experiences of Black and Latinx students college-wide.

Professional development. The colleges shared a wide range of approaches to professional development. Internal discussion among executive staff is important and can facilitate necessary personal development in understanding racial equity. However, this approach is not sufficient. Inclusive dialogues that span stakeholder groups is important to establish institutional norms related to racial equity at a college. Moreover, diversity, equity, and inclusion trainings that are intended for all staff as well as modules focused on the specific job function of advisors, faculty, and other positions are necessary to support culturally responsive practices. Partnering with external providers with expertise in racial equity in higher education and institutional reform, as one study college had done to train advisors, can be instrumental in delivering effective professional development and guiding broader reform.

Data use. Data disaggregation by race/ethnicity, gender, socioeconomic status, and other characteristics, including intersectional identities, such as Black men, is valuable for understanding the equity implications of current practices and potential reforms. This type of analysis can reveal unexpected disparities in practice that negatively shape the experiences and outcomes of Black, Latinx, and other groups. These analyses do present methodological challenges, such as how to define groups and how to account for groups with few students, which can make comparisons difficult. Nonetheless, an openness to looking at data from this perspective is critical to understanding how students from minoritized groups are doing and how their experiences may be related to institutional policies and practices. Moreover, making it possible for staff working directly with students, including faculty and advisors, to access disaggregated analyses for their caseloads may result in a deeper understanding of the relationship between practice and equity.

This report contributes to our understanding of strategies that institutions are using to support Black, Latinx, and low-income learners, but there is much more that research can do to inform the continued work of institutional reform. Further research investigating the impact of the strategies described in this report on the experiences and outcomes of Black, Latinx, and low-income students is necessary to determine if these promising approaches do contribute to higher or improved performance. What is more, we cover only strategies from a unique set of institutions with experience in advising redesign. These strategies may look different at other institutions; much more can likely be learned from other colleges and universities entering this work. Studies exploring other contexts and the later stages of implementation and outcomes of the strategies discussed in this report are necessary to promote racial and socioeconomic equity in higher education.

Endnotes

1. We define low-income students as those who qualify for Pell grants.
2. We created three overall indices (one each for Black, Latinx, and low-income students) to identify colleges with the strongest KPI measures in each sector, two-year and four-year colleges. We describe our process for developing these indices and further elaborate on other components of the Phase 1 analysis in Appendix A.
3. The university uses EAB Navigate to conduct "campaigns" or communications that can be delivered to specific subsets of students and can be tracked.
4. As previously noted, one dimension of Hurtado et al.'s (2012) Multicontextual Model for Diverse Learning Environments is organizational structure. From the perspective of this framework, organizational structure may inherently favor certain groups, and redesigning organizational structure can help create a more inclusive culture by removing biases. The importance that the colleges placed on creating senior-level DEI positions and thereby elevating the contribution that individuals in these positions can have toward decision-making at the institution aligns with Hurtado et al.'s conceptualization of how organizational structure interacts with racial climate.

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Appendix A. Phase One Study Design, Methods, and Results

The objective of the first phase of this study was to identify iPASS institutions with stronger outcomes and stronger improvement in outcomes among Black, Latinx, and low-income students. To do this, the team conducted a series of key performance indicator (KPI) analyses using existing administrative data for full-time in college (FTIC) fall enrollees at iPASS institutions from the year 2011 through fall 2017. In addition, given the limitations of KPIs, we developed institutional profiles for each college detailing characteristics (including status as a Minority Serving Institution [MSI]), insights from previous CCRC research, information gathered from a website scan, and retention and completion rates using IPEDS data for the 2017 and 2018 cohorts (which are not included in full in our existing administrative data). The research team conducted initial screening calls with each of the six highest performing colleges. We utilized these calls to determine if each institution would be an appropriate college for our study and to confirm their availability and interest in our study. We ultimately conducted Phase 2 fieldwork at four of these colleges and at one high performing alternate college. We elaborate on each step of our analysis below.

A1. KPI Analyses

Our analysis focused on the following KPIs: (1) credit momentum (proportion of students who attempted 15 credits in the first term), (2) percentage of credits earned (percentage of attempted credits that were earned during the first academic year), and (3) retention (percentage of students who continued to be enrolled in second year after initial enrollment).

We took the perspective that improvements in advising and supports (such as helping students develop an education plan and stay on track with the plan) were most likely to influence KPIs such as attempting 15 credits in the first term and returning the second year. Advisors and other support personnel can also help students develop effective study skills and access academic help in a timely manner. We reasoned that the influence of this important but indirect role of support personnel on early performance is more readily observed through a change in aggregate outcomes (i.e., credits earned vs. not earned) rather than a marginal improvement in grades; moreover, a measure such as GPA is likely shaped by other factors including instruction and program of study. We therefore focused on the percentage of credits attempted that were earned and did not consider KPIs referencing GPA. Finally, our data did not allow observation of completion within three years after implementation of the iPASS grant. Therefore, we did not consider degree completion in this analysis.

For each KPI, we measured (1) post-grant outcomes for each racial and income subgroup, (2) change in outcomes within subgroups from the pre to the post period, (3) post-grant racial and income equity gaps, and (4) change in equity gaps from the pre to the post period. We thus used 36 KPI measures per institution, 12 for each subgroup of interest. For the first two KPIs (credit momentum and percent of credits attempted that were earned during the first academic year), we used the 2012 cohort for our pre-iPASS measures and the 2016 cohort for our post-iPASS measures. The 2012 cohort is the earliest cohort with complete data prior to

the start of the iPASS grant in 2015; given that colleges had engaged in advising reform in the years leading up to the start of their iPASS grant, we used the earliest possible cohort instead of the cohort of the last year prior to the grant period as the pre-iPASS cohort. The 2016 cohort is the last cohort of complete data. To measure the third KPI (retention), we again used the 2012 cohort for our pre-iPASS calculations. For this KPI, we used the 2015 cohort for our post-period calculation; this is the last cohort for which we have a full year of second-year data.

We then created three indices—one for each subgroup of interest—per sector based on results of these KPI measures. The top five institutions for each KPI measure in each sector received 1 point (no points were awarded when equity gaps increased). We then tallied the total number of points for each college for each subgroup. These results are shown in the tables below for those colleges that participated in Phase 2 research.

Table A1.

Black Student KPI Measures for Colleges Participating in Phase 2 of the Study

		DACC	NWTC	QCC	CSU	UCF
Credit Momentum	% Black 2016	**11.8**	**8.3**	**13.1**	**68.8**	**70.0**
	% Black 2016 - % Black 2012	**8.1**	-2.0	**8.2**	**4.5**	**18.8**
	% White - % Black 2016	**3.1**	12.3	**4.0**	**-6.7**	**-13.5**
	% White/Black Gap 2016 vs. 2012	**-1.9**	1.0	0.1	-2.7	**-16.9**
Percentage of Credits Earned	% Black 2016	**57.9**	46.5	**70.8**	82.6	**87.4**
	% Black 2016 - % Black 2012	11.5	**17.3**	-4.7	-3.8	-2.3
	% White - % Black 2016	**3.6**	18.1	**6.8**	6.9	4.1
	% White/Black Gap 2016 vs. 2012	**-8.8**	**-14.9**	1.9	2.6	3.8
Retention	% Black 2015	**50.0**	35.6	**57.7**	83.9	84.8
	% Black 2015 - % Black 2012	-5.6	**4.5**	-12.5	**3.6**	0.3
	% White - % Black 2015	**9.0**	16.1	11.0	**-2.3**	1.5
	% White/Black Gap 2015 vs. 2012	13.5	**-1.8**	6.9	**-4.3**	1.2
	Index Point	9	5	6	6	5

Note. Bolded results indicate KPI measures for which the college was ranked among the top five within its sector.

Table A2.

Latinx Student KPI Measures for Colleges Participating in Phase 2 of the Study

		DACC	NWTC	QCC	CSU	UCF
Credit Momentum	% Latinx 2016	4.7	**13.8**	**15.7**	57.8	**62.2**
	% Latinx 2016 - % Latinx 2012	**2.9**	**8.8**	**9.5**	0.4	1.1
	% White - % Latinx 2016	10.2	6.8	**1.3**	**4.3**	**-5.7**
	% White/Latinx Gap 2016 vs. 2012	3.3	**-9.8**	**-1.1**	1.4	0.9
Percentage of Credits Earned	% Latinx 2016	**58.1**	49.4	**74.9**	89.5	**89.8**
	% Latinx 2016 - % Hispanic 2012	**1.6**	**20.0**	-2.5	-0.5	-0.6
	% White - % Latinx 2016	**3.4**	15.3	**2.7**	**0.0**	**1.7**
	% White/Latinx Gap 2016 vs. 2012	1.1	**-17.6**	**-0.3**	**-0.7**	2.1
Retention	% Latinx 2015	**58.7**	50.3	**65.0**	**83.3**	**87.2**
	% Latinx 2015 - % Latinx 2012	-0.7	**4.1**	-8.0	-0.8	1.9
	% White - % Latinx 2015	**0.3**	**1.3**	**3.6**	**-1.7**	**-0.9**
	% White/Latinx Gap 2015 vs. 2012	8.6	**-1.4**	2.4	0.1	**-0.4**
	Index Points	6	8	9	5	7

Note. Bolded results indicate KPI measures for which the college was ranked among the top five within its sector.

Table A3.

Low-Income Student KPI Measures for Colleges Participating in Phase 2 of the Study

		DACC	NWTC	QCC	CSU	UCF
Credit Momentum	% Low Income 2016	**6.1**	**16.4**	**14.7**	60	62.6
	% Low Income 2016 - % Low Income 2012	**3.2**	-0.9	**8.8**	5.0	**10.8**
	% High Income - % Low Income 2016	3.4	3.6	**0.5**	**1.9**	**-2.8**
	% High Income/Low Income Gap 2016 vs. 2012	1.1	**-1.3**	**-0.6**	**-3.8**	**-8.1**
Percentage of Credits Earned	% Low Income 2016	**60.6**	56.5	**72.6**	86.5	88.2
	% Low Income 2016 - % Low Income 2012	**5.2**	**5.5**	-4.5	-0.4	-0.8
	% High Income - % Low Income 2016	**-2.0**	7.8	**2.9**	3.0	2.9
	% High Income/Low Income Gap 2016 vs. 2012	**-8.8**	-4.2	2.0	**-1.3**	1.2
Retention	% Low Income 2015	**61.1**	45.7	**67.3**	77.7	**85.6**
	% Low Income 2015 - % Low Income 2012	**5.1**	2.2	-7.2	**3.4**	**3.2**
	% High Income - % Low Income 2015	**-5.7**	9.0	**-2.6**	4.7	**1.6**
	% High Income/Low Income Gap 2015 vs. 2012	**-9.1**	0.9	-1.5	**-5.0**	**-2.5**
	Index Points	10	3	8	5	7

Note. Bolded results indicate KPI measures for which the college was ranked among the top five within its sector.

We conducted the above analyses for 23 of 26 institutions. Two institutions did not meet our threshold of having 30 Black or Latinx students in each cohort year; fewer students would make subgroup analyses challenging. Therefore, we removed these two institutions from consideration. Further, our demographic data for one institution appeared entirely inaccurate; we thus removed this institution from consideration.

Of the 23 institutions included in our analysis, eight institutions reported greater that 15% missing race/ethnic demographic data in one or more cohort years and/or greater than 15% of students who identify as mixed race (which has implications for how we can interpret analyses reporting on single racial subgroups). We chose to carry out KPI calculations for these eight institutions given that, even with missing or mixed race reporting, subgroup enrollments in at least one racial/ethnic subgroup of interest met the 30-student threshold.

A2. Institutional Profiles

We developed institutional profiles specifying (1) institutional characteristics, including MSI status; (2) insights from previous CCRC research (primarily interview data collected in summer 2020 from 23 of 26 iPASS institutions); (3) information gathered from a website scan with particular attention to diversity, equity, and inclusion initiatives; and (4) retention and completion rates using IPEDS data for the 2017 and 2018 cohorts. Institutional profiles also included the final score on each applicable index as well as notes on data quality considerations.

A3. Initial Site Selection

Once KPI analyses and institutional profiles were complete, the research team discussed each institution's KPI results alongside other indicators and qualitative data specified in their profiles. We began first by discussing each institution that had not ranked among

the top five institutions on any of the six indices. We removed six institutions from consideration at this stage.

Next, we discussed 17 institutions that had ranked among the top five in at least one index. Three community colleges and three four-year institutions were ranked among the top five in all three indices for their respective sectors. We reviewed the profiles for each of these institutions to determine if the qualitative and website data aligned with the KPI outcomes and if the KPI outcomes were limited in any way due to data quality issues. We determined that all six merited screening calls but that alternates were also needed because three of the institutions (one community college and two four-year institutions) had data features that make subgroup analyses comparing outcomes of racial/ethnic groups challenging, such as having greater than 15% of students identifying as mixed race.

To select alternates from among the institutions that ranked among the top five on one or two indices but not all three, we reviewed institutional profiles. We looked for institutions with no data limitations and with evidence of equity-related reform work. We also looked for variation in concentration of Latinx and Black students. We used these criteria given the difference in institutional resources for targeted and intensive supports across sectors and the likelihood that the concentration of students among an underrepresented group is related to the nature of the support that institutions place on serving these students. We identified four institutions as alternates.

A.4 Screening Calls

We conducted screening calls with each of the six high-ranked institutions. They were designed to provide additional context and determine each institution's willingness to participate in the study. Screening calls addressed the following topics; (1) the college's targeted supports for Black, Latinx, and/or low-income students; (2) clarification on information specified on institutional profiles; (3) our data collection plans and the institution's willingness to participate.

While all six institutions participated in screening calls, two institutions subsequently determined that they did not have the capacity to engage in further data collection. Despite efforts to postpone data collection to a later semester, neither institution was able to participate in the study. At that point, the research team was in a position to pursue further data collection at only one alternate site, which we did.

Appendix B. Phase Two Study Methods

In the summer and fall of 2021, we conducted two-day virtual site visits at each of the five participating institutions. Data collection activities included interviews with senior administrators; Diversity, Equity, and Inclusion (DEI) staff; and directors of targeted support services. We also conducted focus groups with faculty and advisors. These staff interviews and focus groups were designed to learn about the institution's history, racial composition, and organizational structure. We also addressed current or upcoming institutional reforms; the institution's racial climate; and considerations of diversity, equity, and inclusion in curriculum, advising, and other areas of the institution.

At each institution, we also conducted both student focus groups and individual student interviews. The student focus groups were designed to learn about students' experiences generally and with advising and other support services. Student focus group participation was based on responses to a mass recruitment email sent by the institution. Individual interviews focused specifically on Black, Latinx, and low-income students participating in targeted support programs and were designed to understand the individual experience with these programs. Phase 2 data collection activities are summarized in the table below.

Table B1.
Summary of Phase 2 Data Collection Activities

		DACC	NWTC	QCC	CSU	UCF	Total
Individual Interviews	Students	7	5	7	6	0	25
	Advisors	2	0	0	1	0	3
	Faculty	1	0	0	0	0	1
	Administrators	2	5	7	6	2	22
	College Leaders	2	1	0	1	3	7
Focus Groups	Students	6	2	6	2	0	16
	Advisors	4	2	5	2	0	13
	Faculty	3	3	4	0	0	10

Interviews and focus groups were transcribed and coded in Dedoose. Parent codes included: *leadership, institutional history, student composition, curriculum and pedagogy, student support–universal, student support–targeted, staff professional development, data*, and *racial climate*. These codes were informed by Hurtado et al.'s (2012) Multicontextual Model for Diverse Learning Environments as well as thematic reads of transcripts during the codebook development and test coding stages.

Appendix C. College Descriptions

Doña Ana Community College

Doña Ana Community College (DACC) is a community college located in Las Cruces, New Mexico. It is part of the New Mexico State University (NMSU) system. DACC currently has five locations, two campuses and three centers throughout the rural part of New Mexico in Doña Ana County. DACC enrolls approximately 7,000 students each fall, with 74% identifying as Latinx. White students make up the second largest ethnic/racial group at 16%. Given the large Latinx student enrollment, DACC has been designated as a Hispanic-Serving Institution (HSI). DACC campuses differ in educational offerings based on location. The two campuses offer associate degrees and certificate programs, while the three centers focus on adult education, vocational training, and certification.

DACC has a centralized advising system, which includes about 15 advisors who offer general advising. The college uses EAB Navigate to support degree planning, early alert, and other advising and student support services. Along with academic advising, DACC has student success advocates, who are charged with connecting students to supplementary academic

resources like tutoring and nonacademic supports like the food pantry, depending on the needs of the students.

In addition to providing general academic advising to the broader student body, DACC offers targeted programs for racially minoritized students. One such program is Avanza, which DACC created after receiving a grant from the W.K. Kellogg Foundation to holistically support students by offering one-on-one coaching sessions, assistance with scholarship applications, goal-setting mentorship, budgeting support, and access to local food pantries. Avanza uses collaboration to meet its objectives; it works with other local community partners to meet all program goals. Another targeted program is ENLACE, a retention program housed in most K-12 education systems in New Mexico. However, after finding that a large proportion of high school seniors in the ENLACE program continue to DACC, ENLACE created a program on site that focuses on supporting DACC students. Currently, the ENLACE program supports about 400 students per year, 90% of whom self-identity as Latinx. In addition to Avanza and ENLACE, DACC students have access to TRIO, Upward Bound, and College Assistance Migrant Program (CAMP) programming via NMSU.

Northeast Wisconsin Technical College

Northeast Wisconsin Technical College (NWTC) is a community college with main campuses in Green Bay, Marinette, and Sturgeon Bay and five regional centers throughout the state of Wisconsin. Across all locations, the college enrolls approximately 10,700 students each fall, the majority of whom identify as White. Ten percent of students identify as Latinx. Programs of study at the college are organized by career pathways: health sciences and education, business, trades and engineering, public safety, and general studies.

NWTC assigns each student a success network. Network members include instructors, an academic advisor, and other staff who are assigned to students based on their career pathway. The college utilizes Starfish to support advising functions, and students can see their network members and make appointments via this platform. NWTC also utilizes community partnerships to facilitate nonacademic supports, such as the food pantry.

The college has new and upcoming targeted programs for racially underrepresented students. Next One Up is designed for incoming students from BIPOC (Black, Indigenous, and People of Color) backgrounds who are enrolled in programs within the College of Business. Participating students are assigned a full-time advisor who facilitates personal development, academic support, and guidance in navigating college. The college plans to launch a similar program called Learning Power with grant funding. This program will also be focused on racially underrepresented students in the College of Business and will include financial support.

Queensborough Community College

Queensborough Community College (QCC) is a community college located in Bayside, New York City. QCC serves approximately 12,400 students each fall and is an Asian American and Native American Pacific Islander-Serving Institution as well as a Hispanic-Serving Institution. Black, Latinx, and Asian students make up larger proportions of the student body than White students. QCC is organized into five pathways or academies: business, health-related sciences, liberal arts (including education and criminal justice), STEM (science, technology, engineering, and math), and VAPA (visual and performing arts).

Academic advising at QCC is organized by academy. Students access advising within their academies or from special programs described below. The college utilizes Starfish for early alerts.

In addition to academy-based advising, the college offers Accelerated Study in Associate Programs (ASAP) and College Discovery. Supports for ASAP students include subway and textbook vouchers, academic and career advising, intensive personalized advising, and cohort-based course schedules. Similarly, students participating in College Discovery receive financial support in addition to their financial aid package, assigned academic advising, tutoring, and exclusive access to a support center with computers. Moreover, the college is launching or revitalizing affinity groups such as the Black Male Initiative. The college is also embarking on a strategic planning process centered on equity.

Colorado State University

Colorado State University (CSU) is a four-year university located in Fort Collins, Colorado. CSU enrolls approximately 24,000 undergraduate students each fall and is a Hispanic-Serving Institution. The university comprises eight different colleges that focus on agricultural sciences, business, health and human sciences, liberal arts, natural sciences, veterinary medicine and biomedical sciences, engineering, and natural resources. Approximately 15% of undergraduate students at CSU identify as Latinx.

At CSU, students are assigned an advisor and are required to meet with the advisor at least once a semester for the first two years in order to register for classes. Advisors are assigned to students based on major, scholarship programs, cultural centers, or other cohort programs detailed below. Advisors utilize Starfish to support their advising practice, including tracking advising appointments and taking notes.

Targeted supports at CSU include cohort programs that provide wraparound academic and social support for participating students. For example, Communities for Excellence is a network of centers and offices at the university that includes the Access Center, Student Diversity Programs and Services, the Academic Advancement Center, and the Collaborative for Student Achievement. Thirty-two staff from these centers mentor participating students, facilitate curricular and cocurricular opportunities, and help students navigate the university's resources and requirements. Participating students also receive financial support beyond their financial aid packages. Incoming first-year students from first-generation, racially minoritized, and/or low-income backgrounds are eligible to participate. Students must also come from pre-collegiate programs, including high schools, with which the university has an established memorandum of understanding. Participating students receive support throughout their tenure at the university. The program serves approximately 1,700 students; roughly 72% identify as first-generation, 81% as a racial minority, and 65% as low-income.

Another cohort program is Key Communities, which are learning communities for first-year and continuing students. Participating students are placed into cohorts of approximately 19 students. Cohorts take the first-year seminar course and enroll in other classes together. Each cohort is assigned a peer mentor who also serves as a teaching assistant for the seminar course. The objective of the Key Communities is to create an inclusive and welcoming environment for students. Engaging in dialogue on diversity, equity, inclusion, and justice is one of the central tenets of Key Communities.

The university's cultural centers play an instrumental role in serving Black and Latinx students. In addition to cultural programming, centers like El Centro and the Black African American Cultural Center facilitate academic advising and provide welcoming study spaces. CSU has also built strong community partnerships with programs like Wolves to Rams, which supports low-income first-generation students who are transferring to CSU from Colorado Community College.

University of Central Florida (UCF)

Located in Orlando, Florida, UCF is a public four-year institution enrolling approximately 61,000 undergraduate students each fall, making it the largest university by enrollment in Florida. More than 28% of UCF's undergraduate students identify as Latinx, and its enrollment of underrepresented minoritized students is about 52%. The university's student body reflects the populations of Central Florida and Florida in general. UCF is a Hispanic-Serving Institution. The majority of UCF's underrepresented minoritized students are transfer students.

For many years, UCF had a decentralized advising department composed of full-time and part-time advisors before transitioning to a centralized advising model. In the past, first-time college students were advised by a unit called First-Year Advising and Exploration and would remain so throughout their first year. After the first year, they dispersed to the college of their major. In August 2020, UCF established advising centers at their colleges. First-time college students are immediately connected with the college of their major, with the exception of undeclared or undecided students. The Knights Major Exploration and Transition Center, which operates the Major Exploration Program, helps undeclared or undecided students find a path. Once students declare a major, they see advisors at the advising office in their college.

Recently, in addition to a new advising model, the college developed a training and professional development team specifically for college advisors. One senior leader shared that the objective behind the training is for advisors to "understand that every student is not the same and that you may need to engage in certain techniques for some students rather than other students."

In addition to providing advising services to the general student body, UCF offers several programs specifically designed for Black, Latinx, and low-income students. Multicultural Academic and Support Services (MASS) is a division of Student Development and Enrollment Services that supports multicultural and first-generation students, which largely includes students from racially minoritized backgrounds. MASS offers peer mentoring, academic success workshops, support for education planning, and scholarship application assistance, among other academic and student supports and cultural programming. The McNair Scholars Program is a TRIO program designed to help undergraduate students from backgrounds that are typically underrepresented in graduate school prepare to pursue doctoral degrees. In fall 2021, the college launched a survey to collect information about the experiences of Black and Latinx students in and out of the classroom. The goal is to use student feedback to inform improvements in advising and other support services.

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