Four Responses to CAPR's *Five Principles for Reforming Developmental Education: A Review of the Evidence*

In October 2022, the Center for the Analysis of Postsecondary Readiness (CAPR) released a systematic review of evaluation literature on developmental education reforms to identify interventions found to have positive effects on student outcomes. The report, titled *Five Principles for Developmental Education: A Review of the Evidence,* aims to provide guidance to colleges, college systems, reform leaders, and practitioners seeking to improve postsecondary education practice for incoming students.

To supplement findings and recommendations found in the report, CAPR invited four individuals knowledgeable about developmental education to respond to the report based on their own experiences and perspectives. We are grateful to Dr. Tamara Bertrand Jones, associate professor of higher education at Florida State University; Dr. Aisha Lowe, vice chancellor for educational services and support at the California Community Colleges Chancellor's Office; Dr. Desmond Lewis, associate vice chancellor for college readiness at Houston Community College; and Dr. Maxine Roberts, director of Strong Start to Finish, for contributing the short essays presented below. Their views and insights—based on many years of engagement with developmental education practice, policy, research, and reform—are a valuable complement to the CAPR report.

A key commonality in their responses is that while the current developmental education reform movement has produced real benefits for students, it still requires more intentional and targeted approaches to promote equity in student success. Another is that the perspectives of students themselves should serve as an essential component of developmental education innovation, as students can provide firsthand knowledge about their experiences. In order to sustain progress in developmental education reform, respondents also argue that decision-makers at the state and system levels should play a leadership role in advancing the principles described in the report.

Intentional Progress Toward Educational Equity

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For the last seven years, I have been researching, writing, and thinking about developmental education reform. The state where I live, Florida, passed many policies that have directly impacted developmental education reform, including sweeping reform through Florida Senate Bill 1720. Such large-scale reform has been particularly impactful for community colleges across the nation, and in Florida's case has been the source of focused research for almost a decade. The evidence, compiled in the new report, *Five Principles for Reforming Developmental Education*, underscores what we have learned in Florida: Developmental education reform has, indeed, improved student access to college-level courses and increased student success in both developmental education courses and college-level courses. Moreover, many aspects of the policy changes have improved all students' success, not only students in developmental education. Broadening support for those believed to be the least prepared results in additional supports for all students. Essentially, a rising tide lifts all boats.

Yet, despite the progress, the evidence points to a question that highlights systemic issues not only in developmental education but higher education more broadly: How do we move beyond our focus on "fixing" students to changing our policies, practices, and paradigms to transform higher education? I believe accomplishing this major feat involves an intentional focus on educational equity in both our practice and research. While disaggregating data can help to identify a concern, doing so is not the center of equitable practice. An intentional approach to equity (1) acknowledges students' differential inputs as well as outcomes and uses these data to design targeted solutions and (2) examines how campus personnel and institutional leaders' mindsets about student populations contribute to or hinder student success.

Equity is often confused with equality, yet the terms are distinct. Equality says that each student, or group of students, is given the same resources and opportunities. Equity, on the other hand, acknowledges that each student, or group of students, has had different experiences and opportunities, and the resources necessary to achieve equal outcomes may also be different. Inequality is typically highlighted when we disaggregate data and observe how diverse student populations perform differentially. These distinctions in performance, described as achievement gaps, then support our focus on providing additional services that focus on "fixing" students by remediating their deficiencies. To appear fair and neutral, institutions provide these resources for all students. Unfortunately, this focus on addressing student deficiencies without examining inequities in resources, policies, or opportunities perpetuates colorblindness and keeps us focused on equality and not true equity.

Recent developmental education reform has upended many traditional approaches to pedagogy, instruction, and institutional policy. The *pedagogy of preparation* (see **Brower et al., 2021**)—the notion of meeting students where they are academically, regardless of their prior preparation—was traditionally adopted by many developmental education faculty and has been increasingly adopted by college-level faculty who recognized that students arrive at their classrooms with various levels of preparation and may require differential instruction. As pointed out in Principles 3 and 4 in the CAPR report, students benefit from student-centered and equity-minded approaches to pedagogy that contextualize and personalize learning and its application. Institutions have also enhanced targeted and tiered supports, as highlighted by Principle 2 in the CAPR report. The evidence as presented suggests that institutions have, indeed, provided more resources to support student learning and have begun examining their standard processes, like placement testing and advising, and made changes to further support student success. This signals a shift from the band-aid solution of simply remediating student deficiencies by providing more academic support designed to improve achievement to more systematic change like revamping or eliminating practices that erect barriers to student success. The use of multiple measures of assessment is one example of this shift.

Institutions have recognized that the traditional ways of assessing and placing students using standardized tests are indeed fraught with issues, yet research mentioned in the CAPR report suggests that campus personnel may default to biased sorting mechanisms and deficit mindsets about achievement when placing and interacting with students, particularly Black and Latinx students. Campus personnel are not solely to blame—they are simply part of a system. Education in the United States is made up of institutions. Institutions are made up of people with lived experiences, perspectives, opinions, and subjectivities that can and do manifest (unconsciously and consciously) in their interactions with students. These individual ways of thinking (paradigms) influence institutional policies that shape institutional practice.

Institutional practice can support, or hinder, student progress unintentionally, as the evidence in the CAPR report demonstrates. For example, when institutions removed or reimagined placement tests, access and success increased for many student populations. I would argue that institutional leaders and campus personnel have not been intentionally setting out to limit diverse students' access and success through the traditional use of placement tests, but this obstacle exists and must be addressed if true equity is to be achieved. Campus personnel can occupy an *outsider within position* in education. While they can be complicit in perpetuating inequities, they are also well positioned to disrupt the system to ensure equity is possible. An equity-focused approach also requires research that examines individual mindsets and broader institutional cultures to name unconscious (and conscious) practices, policies, and paradigms that hinder all student success.

I would argue for a deeper examination of the reasons for differential success (and failure) for diverse student populations so that institutional approaches to addressing inequalities

can be specific and targeted toward the students who need the assistance most. In turn, interventions can be designed intentionally with the differential inputs and outcomes in mind and evaluated with critical and intersectional lenses to identify contributors and mediators of success for specific student populations. Broad institutional efforts to improve outcomes may indeed help diverse students, but such a result may be serendipitous and not because interventions were originally designed with specific student populations in mind. Answering questions of what works for whom and under what circumstances requires different types of data to not only identify the distinctions but also examine the causes and identify potential targeted solutions.

Building on the evidence presented in the CAPR report, researchers and practitioners should acknowledge the lived experiences of students and those of campus personnel and institutional leaders and explore the implications of these on individual and institutional practices and policies. This can result in critical questions being asked about differential experiences, highlight unintentional ways campus personnel and even institutions may be complicit in perpetuating inequities through individual mindsets, institutional cultures, practices, or policies. The evidence of these inquiries can be used to create further intentional targeted progress toward educational equity.

Ensuring That Developmental Education Reform Fulfills Its Promise

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As I consider the significant progress that has been made on remedial education reform across the nation and within the state of California, I cannot help but reflect on the historical significance of this work and how decades of institutional barriers to student success are being dismantled. Historically, the increased presence of diverse students was met with the creation of policies and practices to thwart the goals of true integration and inclusion, resulting in gatekeeping systems that blocked students of color, low-income students, and students with disabilities from accessing the courses needed for educational advancement. In this one reform, we are upending a legacy of biased policies and practices that have disproportionately hindered BIPOC students from making academic progress and achieving their goals. Remedial education reform is one of the most significant and impactful education reforms of our time, and its continued implementation must be shepherded with that in mind. It is essential that we remember this historical context as we continue this important work.

The CAPR report shows the strong effects of remedial education reform, particularly in terms of placement; the results in California have been similar. Statewide, we have found that direct placement into transfer-level coursework yields greater course completion rates than starting students in remedial courses. We see that positive benefit for all students— across racial groups and gender, and across other population groups such as foster youth and students with disabilities. These results are true no matter the highest level of math students completed in high school, no matter how long students have been out of school, and no matter the type of disability a student has. Even students who begin in and fail a transfer-level course are still more likely to successfully complete it (in a subsequent term) than if they had begun in a remedial course. Direct placement into transfer-level math and English is proving to be an effective success strategy for all students.

Educational systems and policymakers must ensure that remedial education reform fulfills all of its potential and has the lasting positive effects on students' academic progress, time to completion, and credential attainment it is positioned to provide. Moreover, to fully achieve equitable placement, support, and completion, we must attend to all of the strategies laid out in the CAPR report.

To achieve equitable placement:

- We must ensure that every student has access to transfer-level courses as a default placement with very limited exceptions. Some of those exceptions might include

coursework for students in CTE programs that have a specific course requirement per industry standards that cannot be met with an available transfer-level course, or educational assistance courses for students with disabilities. In California, we have found high school GPA to be the best predictor of students' college course success. We must honor the work done by our K-12 colleagues to educate and prepare our students and not require students to repeat coursework. This is the original form of credit for prior learning we must support.

- We must ensure that previous remedial education course sequences are not redeveloped as noncredit course sequences or as elongated transfer-level course sequences. We must help faculty understand that the scaffolding of content is not about course types or levels but rather about carefully crafting a learning experience that builds students' competencies.

- We must understand the influence of counseling practices, schedules, and course availability on what courses students enroll in. It is not enough to simply place students into transfer-level courses; we must also ensure that they enroll in those courses. So we must also attend to the courses provided. Students often make course choices based on what is available and fits their schedule. We must ensure there are a wealth of transfer-level course offerings with various forms of support.

To provide equitable support:

- We must implement effective corequisite support, which requires that we thoroughly research various concurrent support models and empower faculty and administrators with that knowledge. In California, we are finding that corequisite courses are particularly beneficial for African American and Latinx students. Now we must drill deeper to understand why and in what forms.

- We must provide faculty the support they need to lead this curricular transformation. Faculty must lead the efforts to contextualize curriculum, develop corequisite courses, design the math canon of the future, and shift to a focus on competencies and mastery, aligned to industry and academic needs. This work requires time and expertise, and we must ensure faculty are given both. This work also requires a significant identity shift for faculty; we must provide them the training and technical assistance they need to play their essential role in remedial education reform.

- We must invest in campus Institutional Research and Effectiveness offices and ensure colleges have the internal research and evaluation staffing and expertise to engage in the cycles of continuous improvement any long-lasting transformation requires. Campus researchers must work hand-in-hand with faculty to help design the interventions and to measure their impact in real time. Campus researchers must help faculty and academic leaders implement reform with embedded evaluation.

- We must also provide institutions the funding needed to effectively implement reforms. Relearning and upskilling are required across college campuses to help the various stakeholders shift their mindsets and see their students, themselves, and their work

differently. Designing new curriculum, reinventing course sequences, building research offices, and retraining faculty and staff costs money. Funding cannot be the barrier (or the excuse) that hinders this historical work.

To ensure equitable completion:

- We must engage in all this work with equity and student needs at the center of every decision made, every policy enacted, every process designed, and every practice implemented. We must center students' needs across the full spectrum of the social determinants of academic success—meeting students' needs for self-actualization, safety, belonging, and self-esteem.

- We must focus on and make a concerted effort to close racial achievement gaps. In California we are finding that while all student groups have benefitted from remedial education reform, racial equity gaps remain as "all boats rise." We must figure out how to create a mighty tide specifically for traditionally marginalized students to close these gaps.

- We must also retain the "community" in community colleges and ensure we sustain ESL and adult education programs—so we remain the institutions community members come to when they lack a U.S. high school education.

- Last, but perhaps most important, we must ensure that our college campuses are environments of love, acceptance, and belonging in which all students can thrive. Love, acceptance, and belonging are at the very center of human need, and a student cannot be successful in an environment missing these essential elements. This is the work of pairing rigor and high expectations with opportunity and high levels of support. Either without the other is a recipe for student failure: This has been the unseen psychological effect that remedial education reform has had on students and is why students who previously would have failed remedial education courses are being successful in transfer-level courses. The power that expectations have on students' motivation and success is a well-established phenomenon in psychological research. Educational environments must be psychologically and emotionally safe for students to succeed, particularly for our BIPOC students who are carrying the weight of bias as they seek to succeed in an arena in which they are often considered unable to do so, contributing to stereotype threat that can affect academic performance. Safety in one's identity must be present from the administrative office to the parking lot, from the classroom to the cafeteria. As educators, we are here to serve and support our students. That ethos must permeate the campus and be readily evident in every interaction a student has.

Policymakers can help colleges achieve these goals by providing the enabling conditions for this work to blossom and be sustained.

Policymakers can and should:

- craft evidence-based legislation to push colleges to fully implement remedial education reform,

- require that relevant data and information be collected and fund comprehensive research studies,

- work with their system offices and colleges to understand the complexities of implementation and create corresponding initiatives to remove barriers,

- provide systems and colleges the funds needed to implement changes,

- make use of their networks and influence to attract needed professional development providers, and

- utilize the bully pulpit to champion the cause of remedial education reform and be a key voice in the case-making this work requires.

As we continue the "good trouble" of fully implementing remedial education reform in systems of higher education across this nation, we must do so with a fierce determination to ensure every student we serve has access to every beneficial educational opportunity and is given the support they need to fully engage in those opportunities and be successful. To do anything less than that is criminal. As John Lewis stated, "If you see something that is not right, not fair, not just, you have a moral obligation to do something about it."

Accelerating Developmental Education: Giving Students Tools for Success and the Opportunity to Use Them

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The developmental education continuum was created as a means to remedy the lack of readiness for the rigor of postsecondary education for large numbers of students following completion of their K-12 education. Some think traditional developmental education—made up of sequences of pre-college-level courses—has failed this mission. But one can ask whether this criticism is reasonable given that learning gaps develop over long periods of time and colleges are expected to bridge those gaps relatively quickly via development education. Still, the transition between K-12 and higher education can be an opportunity to develop better college onboarding protocols, align student success interventions and supports, and factor cultural competencies into classroom and extracurricular learning to help students develop useful skills and make connections between their high school and college experience.

Recent developmental education reform efforts are a response to national shortfalls in completion rates among students identified as needing academic help to become college ready, often based on a single placement assessment. Over the past couple of decades, concerted efforts have been made to address the placement of large numbers of students—especially from marginalized populations—into often lengthy developmental education sequences, which many do not finish. These efforts can be collectively termed accelerated developmental education, which includes a wide range of approaches such as compressed course design, modularization, and corequisite models. Student placement into lengthy sequences has been historically determined at the institutional level in alignment with state-based college readiness standards. Thus, approaches and strategies that are more conducive to desirable student success and completion outcomes must too be designed in a dynamic process that allows for national, regional, state, and local restructuring to meet ongoing changes in skills needed for a 21st century global workforce. The CAPR report provides compelling arguments for such adaptive restructuring. The report reviews appropriate recent literature that captures the essence of much of the scholarly research on the current reform movement. Yet there are other important areas of research that are relevant to this kind of the literature review, such as adult learning theory and validation theory, which might offer further context for observed phenomena and possibly suggest actions to address said phenomena. Nevertheless, this report summarizes findings that are critical to guide further developmental education reform. In what follows, I respond to findings related to each Principle described in the CAPR report.

Principle 1. Grant students access to college-level math and English courses.

Greater access to college-level math and English courses can provide momentum to students' trajectories and improve student success and completion. Still, the need for online instruction due to the pandemic suggests that we need to know more about digital literacy and synchronous and asynchronous online instruction for developmental education populations. The rapid migration to an online instructional environment for all student populations has revealed comprehensive misalignments in students' expected literacy and numeracy levels and their actual literacy and numeracy levels, which uncovers an opportunity to better serve students' needs. For instance, could the pandemic have unintended positive impacts on the kinds of digital support that are offered by providers of self-paced, modular programming, which could in turn bolster success for developmental student populations? Questions like these merit further investigation.

Principle 2. Provide targeted and tiered supports to address students' academic and nonacademic needs.

Targeted and tiered supports emphasize the need for alignment between instructional services and student services. Principle 2 thus suggests a need for guidance in aligning needs assessments (through mechanisms such as testing, ADA accommodations, intake information, Pell status, etc.) with broad college resources. While targeted support is key to successful student performance, noncognitive challenges can lead to misaligned supports; therefore, the design of supports must be clearly thought out with such challenges in mind and should be implemented with professional development for faculty and staff to help students, faculty, and staff develop greater agency for addressing individual needs. The development of a dynamic, intrusive, holistic student support system that accompanies students throughout their tenure at college would provide a great benefit to those traditionally referred to developmental education.

Principle 3. Employ contextualized curriculum and student-centered pedagogy.

Contextualization presents an opportunity to build learning communities and/or cohort models that can be used to reinforce learning outcomes from courses using frameworks such as project-based learning. For example, a cohort of STEM majors may be given a shared assignment across disciplines (such as math, English, biology, etc.) that divides a project into segments of work that result in a single product that relates to STEM. Such an assignment provides students with practical experience in communication with others; it places their theoretical lessons into a context that provides relevance and purpose. Using transferable skills with others in a group assignment underscores bonding mechanisms between students that may also lead to a stronger sense of belonging and connection to the institution.

Principle 4. Use equity-minded approaches for design and implementation.

Culturally responsive practices that validate the experiences of students of color and low-income students should be considered as means to build student agency. Another equity consideration is generational differences across students. Digital literacy skills and learning loss may present particular challenges to older students. Accounting for these challenges is critical for equity and inclusion. The pandemic-induced shift to online learning gave all of higher education a glimpse into difficulties that are encountered in developmental education. Many students struggled to learn in a new environment and required support and scaffolding. The pandemic highlighted the need for targeted outreach to marginalized student populations, including many older students, with feedback loops of conversations and subsequent actions.

Principle 5. Implement developmental education reforms alongside comprehensive, sustained supports to impact long-term term outcomes.

Normalizing supports as an expected component of instruction may be a path to a sustainable culture shift that leads to increases in student success and other positive outcomes for students. With whole-college reforms such as guided pathways, the adaptability of developmental education as an on-ramp to specific academic and career pathways provides students with a clear way to receive support when and where it is most beneficial.

The five identified evidenced-based principles for developmental education reform in the CAPR report offer a comprehensive and pragmatic framework to address marginalized students' challenges. The recommendations for accessibility, contextualization, professional development, cultural nuance, and strategic, comprehensive support suggest a need for personalized learning pathways. Implementing these pathways will require significant investment. A budget statement can be considered a value statement, yet fiscal realities play a large role in the choice of interventions by a college, many of which are severely under-resourced. Cost-sharing opportunities through work-based learning partnerships (such as apprenticeships, internships, etc.) that align with community and industry needs may to some extent serve as a sustainable means to integrate the principles into existing institutional practices.

Reforms to traditional developmental education have garnered national attention and support as efforts to address inequities in college placement, shortfalls in student success, and low completion rates among students in marginalized populations. Research findings on multiple measures assessment, changes in pedagogical approaches, and well-aligned supports (as well as cost-benefit considerations of particular interventions) make a strong case for continued developmental education reform and future research. Developmental education reforms are making gradual gains in helping students and in providing a path toward equity in outcomes for underserved students.

Two Sets of Principles, the Importance of Addressing Inequities and Student Perspectives, and the Benefits of System-Centered Reform

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Although developmental education (DE) was created with the express intention to prepare students deemed underprepared for college-level math, reading, and writing courses, it is a barrier to students' academic progression in college. This is especially true for students who are racially minoritized, those with low incomes, and returning adults. This is the premise of Strong Start to Finish (SStF), a national network of higher education state and system leaders, researchers, and practitioners who are working to reform DE. Here I address how CAPR's *Five Principles for Reforming Developmental Education*, based on a review of recent rigorous research, connects with another set of principles with a similar aim that has been developed by practitioners, researchers, policy experts, advocacy organizations, and philanthropies and modified through several iterations since 2012: the *Core Principles for Transforming Remedial Education Within a Comprehensive Student Success Strategy*. The **2020 version[1] of the Core Principles**—informed by interviews with more than 30 individuals and developed by a broad range of experts—provides higher education leaders with guidance to scale DE reforms by building a new model for student success. Rather than focusing solely on fixing the traditional DE approach of prerequisite remediation, the core principles prompt leaders to shift policies and practices that have long guided beliefs about the best ways to prepare students to complete college courses successfully. These principles were published by SStF and adopted as foundational for its work with colleges and systems. As such, I refer to them below as SStF's Core Principles for brevity.

In what follows, I show that CAPR's Five Principles and SStF's Core Principles align well, which is reassuring given that they were developed independently. Next, I argue that addressing racial and socioeconomic inequities represents a ripe area for future reform efforts. I also note that state-, system-level, and policy-focused efforts are essential to DE reform, as they can influence and impact many individual institutions, which is critical to scaling. Finally, I emphasize the importance of incorporating students' perspectives in informing innovations in DE reform.

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1. The 2020 version of the Core Principles was prepared by Sova.

Focus on Inequities

The table below presents a comparison of both sets of principles. The left column lists the five principles described in the CAPR report, and the right column lists which of SStF's seven core principles best reflect similar ideas. The comparison shows that CAPR's Five Principles and the SStF Core Principles are aligned, work toward similar purposes, and raise several important ideas for the field. One idea that is particularly valuable is addressing inequities by embracing equity-minded policies (rules and systems for accountability) and practices (implementation of the rules). As described by the USC Center for Urban Education, this **process** is essential if we hope to address racial and socioeconomic inequities in DE reform in systematic and sustainable ways.

Relationship Between Two Sets of Guiding Principles for Reforming Developmental Education

CAPR's Five Principles	SStF's Core Principles
1. Grant students access to college-level coursework.	**Principle 2:** Placement of every student is based on multiple measures, using evidence-based criteria, instead of through a single standardized test. **Principle 4:** Program-appropriate college-level math and English courses are offered to every student through evidence-based, integrated support models designed to accelerate gateway course success.
2. Provide targeted and tiered academic and nonacademic supports.	**Principle 3:** Campus communities transform policies and practices to ensure that every student is provided with high-value learning experiences and with the supports needed to remove barriers to success—especially students from historically underrepresented, disenfranchised, and minoritized communities.
3. Employ contextualized curriculum and student-centered pedagogy.	**Principle 5:** Every student is provided access to multiple pathways, such as statistics and data science, that integrate rigorous math appropriate to different disciplines and to the well-paying careers of today and tomorrow.
4. Use equity-minded approaches for design and implementation.	**Principle 3:** Campus communities transform policies and practices to ensure that every student is provided with high-value learning experiences and with the supports needed to remove barriers to success—especially students from historically underrepresented, disenfranchised, and minoritized communities. **Principle 7:** Efforts to improve the student experience, meet the evolving needs of students, and remove barriers to student success are visibly prioritized by the institution through the use of mechanisms that elevate the voices and lived experiences of students—and the entire campus community.
5. Pair developmental education with comprehensive, sustained supports.	**Principle 1:** Every student's postsecondary education begins with a well-designed process that empowers them to choose an academic direction and build a plan that starts with passing credit-bearing gateway courses in the first year. **Principle 3:** Campus communities transform policies and practices to ensure that every student is provided with high-value learning experiences and with the supports needed to remove barriers to success—especially students from historically underrepresented, disenfranchised, and minoritized communities. **Principle 6:** Every student is supported in staying on track to a postsecondary credential through the institution's effective use of early momentum metrics and mechanisms to generate, share, and act on finely disaggregated student progression data.

The mention of equity in conversations about DE reform is not new. However, the inclusion of "equity-minded approaches" in CAPR's 4th Principle incorporates race-conscious efforts and extends beyond common practices such as using disaggregated data to compare reform outcomes by race/ethnicity and socioeconomic status. An equity-minded, race-conscious approach pushes us to pair disaggregated data analysis with questions such as, "Which students do not have access to reformed courses even after changes have been made?" and "What are the policies and practices that maintain racial disparities in student experiences and outcomes in these reform structures?"[2] Such questions are pertinent as we take the next steps in DE reform. They prompt us to pay close attention to what is happening before students enter the classroom and when they are in the classroom, rather than waiting until the end of a semester. The questions also prompt us to consider how we can make courses and supports work better for racially minoritized students, those with low incomes, and returning adults. Elaboration of SStF's Core Principle 7 encourages faculty and staff to reflect on their practices using qualitative and quantitative data, and elaboration of CAPR's 4th Principle extends this idea with an explicit focus on the importance of employing race-conscious and equity-minded approaches in DE reform efforts.

State- and System-Based Change

The materials cited from the USC Center for Urban Education emphasize institutional policies and practices; equity-minded DE reform also benefits from state- and system-level involvement. Applying equity-minded policies and practices at the state- and system-level—including through legislation—can influence changes enacted at all institutions within their boundaries. CAPR's Five Principles and the SStF Core Principles can provide direction for such efforts, but they are just a start. To make impactful and sustainable changes in DE, state and system leaders must enact the ideas captured in both sets of principles as part of a comprehensive process that involves a complex interaction of actors and actions.

An **evaluation of college systems** (in New York City, New York State, Ohio, and Georgia) that are involved in scaling DE efforts based on the SStF Core Principles suggests that motivated site leaders are already moving toward a comprehensive approach. Leaders are creating goals that extend beyond employing any one principle and are undertaking approaches that allow them to demonstrate improved outcomes using several metrics, including credit accumulation and entrance into programs of study by the end of the first year. Organizations that serve state and higher education leaders—like Education Commission of the States and the State Higher Education Executive Officers Association—can also help state and system leaders by exposing them to promising reform measures through policy briefs and convenings with their members.

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2. For information about how to use data to guide equity-minded inquiry, see the USC Center for Urban Education (2020) publication, *Equity-Minded Inquiry Series: Data Tools*, pp. 35–41).

State-level policy that centers on students who are negatively impacted by traditional DE is also important for advancing reforms. In 2021, with support from the Illinois Legislative Black Caucus, state lawmakers passed **DE reform legislation** requiring implementation of new assessment and placement practices, disaggregation of data, and attention to student outcomes, "particularly for Black students." Including this combination of practices, metrics, and students in legislation is valuable given the disproportionate numbers of Black students placed into DE courses.

Incorporating Students' Perspectives

Finally, it is important to include multiple perspectives when implementing and evaluating DE reforms, including those of students. Students who have participated in traditional or reformed DE (e.g., corequisite courses, new placement practices, etc.) have insights that can help us assess the efficacy of practices, identify challenges with reform implementation, and point to new ways forward. In 2017, for example, English and academic literacy faculty at the Community College of Baltimore County implemented a self-directed placement (SDP) system to align their placement process with other DE reform efforts. SDP includes the use of an online tool that helps students assess their subject skills and determine their course placement. Faculty solicited students' input and feedback during tool development and refinement. They then used the information to design faculty professional development, refine the SDP process, design curricular interventions, and enhance academic support services (e.g., tutoring).

Researchers have also studied the experiences of students in colleges that have reformed DE. As reports on these students are beginning to emerge, it is clear there is more to be done. In an SStF-funded **study**, researchers at the University of Houston, in collaboration with Houston Community College, drew on student, faculty, and dean perspectives to identify the structures and practices that were most and least effective for student success in corequisite courses and to create strategies for improving the effectiveness of corequisite models. Their **findings** provide the field with a glimpse into how students are navigating corequisite courses, how classroom practices affect outcomes, and what the next steps are for supporting student success in these courses. The field would benefit from more studies that help us learn about DE reforms through the student experience.

Conclusion: Guidance for Reform

Like SStF's set of Core Principles, CAPR's *Five Principles for Reforming Developmental Education* provides a guide to address barriers to students' academic progression in college. In particular, CAPR's recommendation to "use equity-minded approaches for design and implementation" of DE reforms moves beyond standard suggestions to focus on critical structural and pedagogical changes in DE reform. Combining guidance from CAPR and SStF with support from state organizations, policy, and learnings from the experiences of students themselves are critical next steps as we continue to dismantle barriers to college success.

Acknowledgments

For more information about CAPR, visit **postsecondaryreadiness.org**.