Currently, one of the foremost questions many in the CTE field are asking is: How can the design and delivery of CTE programs promote equity? CTE is currently enjoying a resurgence in popularity with policymakers and practitioners, and its proponents want to avoid repeating the history of vocational education, which was too often used to “track” low-income and minority students away from college and into low-paying jobs that did not offer clear opportunities for career advancement. In contrast, many of today’s CTE initiatives attempt to offer access to middle-skill jobs in high-wage, high-demand fields. The most promising programs provide clearly articulated pathways from high school through postsecondary education, stackable credentials that pave the way for career advancement, and work-based learning experiences. However, questions remain about how students are selected for participation and how

1 “Stackable” credentials are those that can be earned along a pathway at ever-increasing levels of training. Each one provides evidence of increasing levels of expertise.
they are supported to achieve desired outcomes. The answers to these questions will reveal whether these new programs can avoid the mistakes of the past.

**BACKGROUND**

In the spring of 2019, MDRC invited practitioners from innovative CTE programs to discuss questions of equity. MDRC wanted to bring these people together so that they could share their knowledge about the barriers they must overcome to achieve their equity goals and their approaches to those barriers. While many of these programs serve different populations and have different aims, the conversation revealed that they share challenges. Topics of common concern included how to define “equity” and how to increase equity in both access and outcomes.

This policy brief summarizes the most common equity challenges that were raised in the discussion, along with ideas that emerged for how to address them. While the bulk of the brief comes directly from this conversation, several examples also come from MDRC’s other research activities. The brief begins with a short overview of how the group defined equity and the main causes of inequity. It continues with discussions of inequity in access and outcomes, covering the challenges identified in both areas and some proposed solutions. It concludes with a discussion of how research can help practitioners address equity, and how policymakers can support equitable delivery and outcomes.

**DEFINING EQUITY AND THE CAUSES OF INEQUITY**

Participants broadly agreed that “equity” meant all students and program participants should have access to high-quality opportunities and be supported to achieve equally high outcomes, regardless of their races, genders, socioeconomic backgrounds, or geographic regions. They also discussed the reasons equity is not fully realized in CTE, including the roles of systemic racism (the structural factors that serve to advantage some students over others) and implicit bias (the unconscious negative beliefs and attitudes about members of certain groups held by those in positions of power and decision-making). These two forces can undermine efforts to ensure that all students develop career-readiness skills, have access to the full variety of both academic and career options available to them, and have the skills and support they need to obtain positive outcomes.

Participants also recognized that as CTE becomes more popular, it could potentially reinforce existing inequities by creating a bifurcated system in which students with educational advantages fill high-quality, in-demand programs designed to provide entry into competitive, growth industries (for example, engineering, robotics, or health care), while students and trainees with fewer options only end up in those programs that are less well designed and funded, or that are in fields more like the old model of vocational education. These acknowledgments of the potential pitfalls in CTE set the stage for a discussion of how programs can be designed to avoid them.

**SUPPORTING EQUITABLE ACCESS**

Practitioners discussed the many challenges to providing CTE to a diverse group of students and participants. While some of the challenges they discussed were specific to a locality or sector (secondary, postsecondary, or workforce), others were shared. These common challenges touched on: (1) the information available to students (and parents) and adult participants; (2) eligibility or screening criteria that limit access; and (3) structural issues
and policies, such as geographically based access to employer partners, or the necessity of meeting funder requirements. Participants saw some of these challenges as lacking practitioner-level solutions. However, they also described many creative efforts that their programs are making to address them.

Practitioners discussed the idea that CTE access doesn’t begin at enrollment. Instead, it begins with the messages and outreach used to attract students and participants, and with the difficulty involved in applying. Recruitment efforts themselves (for example, the decision to recruit through word of mouth, ads placed on websites, guidance counselors, or flyers on bulletin boards) influence which potential participants receive messages about an opportunity, as can the language(s) that materials are available in. Applications that require the submission of multiple documents or that have multiple deadlines can also inadvertently create barriers to enrollment. Additionally, with so many new CTE opportunities being created, counselors and advisers at all levels may not have the most up-to-date knowledge about what is available. Combined, poorly delivered messages, complicated or arduous application processes, materials available only in English, and a lack of adequate counseling can create a selection process that unfairly weeds out certain potential candidates.

**CHALLENGE: Advising.** Many participants discussed the importance of helping students figure out whether a given CTE program is the best fit for their interests and talents. Across all sectors, there is a need for better advising to help students understand both the immediate and long-term benefits of a particular opportunity and the trade-offs they may be making by selecting it. This need presents an equity challenge because counselors in underfunded schools and open-access community colleges in particular often serve many students. They are juggling advising students about CTE choices and opportunities with numerous other responsibilities. In addition, a lack of diversity among counselors presents additional challenges. Some counselors may hold views on students’ abilities rooted in their race and socio-economic status that factor into the CTE options presented to these students. These factors reduce the likelihood that students in these settings have access to high-quality advising. Many students also lack access to other adults and mentors with broad knowledge of career options who can provide them with tools and insights for making fully informed career decisions.

**SOLUTION 1: Timing.** Provide students with career-exploration courses and opportunities before they need to commit to a given pathway or program of study. YouthForce NOLA has begun providing career-exploration opportunities in middle school to allow students to begin thinking about career options and opportunities earlier. Additionally, many states and districts across the country are beginning to experiment with middle school CTE programs, especially now that the new Perkins V legislation allows for middle-grade CTE beginning in fifth grade, rather than seventh grade.

As CTE becomes more popular, it could reinforce existing inequities by creating a system in which only students with educational advantages fill high-quality, in-demand programs.

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2 Nationally, approximately 75 percent of secondary school counselors are white. See John Bridgland and Mary Bruce, 2011 National Survey of School Counselors: Counseling at a Crossroads (New York: College Board Advocacy & Policy Office, 2011).
grade as was the case with the previous law. Early exposure to potential options also helps students who may not otherwise have access to a diversity of career role models. To ensure that early-exploration programs focus on expanding options rather than narrowing them, many of these early programs can be combined to present a full range of career and college opportunities.

**SOLUTION 2: Mapping tools.** At all levels, giving students and participants knowledge about program content, potential career trajectories, and expected labor-market outcomes helps them choose programs that provide the best opportunities for them and their future success. As part of the advising process, students should be given “maps” that lay out the careers and average salaries they can expect if they follow given pathways, for each level of training and experience. For example, CareerWise Colorado has provided students with a “subway map” of options that shows a set of various career tracks students can follow from each initial placement. Each track lists the average salary for entry-level, entry-level plus experience, and entry-level plus different levels of higher education and experience. Some of the NYC P-TECH schools also provide financial-planning classes that help students understand whether particular career options will support various lifestyle choices.

**CHALLENGE: Information flow.** Ensuring that information about CTE opportunities is transmitted to all relevant stakeholders — including students, participants, and parents — is a challenge. To do so, schools and programs must have the right people and enough resources to distribute messages about CTE opportunities widely and evenly, and must at the same time target different audiences with messages tailored to them, in different languages. In the absence of those people and resources, many schools and programs may be tempted to target specific students based on potentially arbitrary criteria as a way to fill program spots efficiently. In addition to transmitting messages about available opportunities, programs and schools must make sure students and parents have enough information about those opportunities to make informed choices.

**SOLUTION 1: Peer communications.** To get out messages about opportunities, some practitioners use students and program alumni to vouch for the opportunities their programs provide and to describe the programs in ways that resonate with their peers. For example, CareerWise Colorado has program participants and their parents share their experiences with prospective enrollees. Similarly, P-TECH schools and YouthForce NOLA use student ambassadors to recruit new students. Other practitioners have begun to develop “networks of influence” among students.

**SOLUTION 2: Sustained, nonintrusive contact.** A representative from Rutgers University-Newark said that when the university gives presentations about CTE opportunities at the start of the school year, it collects attendees’ email addresses and phone numbers. Afterward, text and email reminders are sent regularly to maintain contact with students. The precollege program is also working on making its admissions application mobile-friendly so it can include an application link in the text reminders.

**CHALLENGE: Stigma.** Largely because of the history of vocational education, CTE programs are still stigmatized, and many students and parents have outdated views of what it means to be enrolled in a CTE program. For example, some programs reported that even when students show an interest in pursuing CTE career pathways, parents push back because they want their children to get into “regular academic classes.” Such responses suggest that parents may not fully understand the opportunities available. Stigma is an equity challenge because some parents who still believe that
CTE is only for low-income students not bound for college may not want their children to participate, even though CTE is now an opportunity for many kinds of students to explore pathways to successful career opportunities.

**SOLUTION 1: Rebranding.** California Partnership Academies draws attention to its programs by marketing them as exclusive opportunities, claiming that it offers a “private-school education in a public school.”

**SOLUTION 2: Addressing parents’ concerns.** Practitioners talked about the need to create opportunities for parents to share their perspectives and concerns, and to provide them information on the academic and career courses offered and the work-based learning opportunities available, and how both can further students’ education and employment. Practitioners discussed the importance of emphasizing the transferrable skills students will gain from CTE classes, and the value employers place on these skills. One group uses focus groups and surveys of parents to obtain candid and honest concerns so it is better prepared to address these concerns when meeting with parents. Other programs also use parent ambassadors to communicate with parents.

**CHALLENGE: Enrollment criteria.** In some schools, criteria such as grades, test scores, and attendance are used to identify which students gain access to the most coveted opportunities. Many adult programs also require applicants to hold high school diplomas or to pass tests showing they can perform at a given grade level. While these requirements may provide easy ways to control access to oversubscribed programs, or to accommodate employer or funder requests, they may lead students to question whether programs they are interested in are really for people “like me.” In addition, they may end up keeping out students who could benefit the most from participation. Program screening criteria are an equity challenge because in the absence of evidence about whether given criteria actually predict success in particular programs or careers, they may reinforce existing structural inequities and biases about what kinds of students and participants can succeed in those programs or careers.

**SOLUTION 1: Bridge programs.** One way to promote equity in access is with bridge programs that help more students become “program-ready.” For example, Per Scholas has recognized that its entry requirements for training (testing at a tenth-grade level in reading and math) may limit access, so it is partnering with another organization to run a bridge program that aims to raise the reading and math levels of prospective students.

**SOLUTION 2: Set-aside seats.** The California Partnership Academy program requires that half of all seats in each academy be reserved for students who are identified as having a certain number of risk factors for dropping out. This provision creates academies that are equal mixes of students who are defined as “at-risk” and students who are interested in the program for other reasons.

**SUPPORTING EQUITABLE OUTCOMES**

Program access creates one set of challenges for providers; supporting students and program par-

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3 See California Legislative Code EDC 54690, “Partnership Academies” at http://leginfo.legislature.ca.gov/faces/codes_displaySection.xhtml?sectionNum=54690.&lawCode=EDC.
Participants once they are enrolled presents another. As they did with issues of access, practitioners discussed many barriers to program completion that impede student success. Some are beyond the scope of what program providers can easily address, for example, unequal access to transportation for students to move between school and work opportunities; inadequate resources, especially for programs that require expensive equipment; and policy lags that cause requirements for completing programs to become outdated relative to the innovations and opportunities that would be most responsive to employers’ needs. However, there were also many challenges that practitioners did feel empowered to address creatively.

**CHALLENGE: Soft skills.** Even when students and participants meet eligibility criteria for various programs, many of them lack training in or knowledge of “soft skills”; those skills that help individuals be successful in workplace environments, such as professional communication, collaboration, social awareness, problem solving, and teamwork. Lack of soft-skills preparation is an equity challenge because many underfunded schools and communities are unable to provide students with mentoring or training in soft skills. In addition, many employers, even those who provide work-based learning opportunities, are not prepared to work with younger students who are still maturing and may unconsciously expect students to behave like adult professionals from the outset. Students who arrive in workplaces unprepared for the behavioral expectations of a professional work environment are less likely to succeed or to be given opportunities to learn and advance.

**SOLUTION: Training in soft skills.** Several participants discussed the importance of providing students with support to develop their non-technical skills. This support can occur through bridge programs (in some cases offered before a program starts) or through employability-skills training offered alongside technical courses. For example, Youth Force NOLA requires all students to take 60 hours of soft-skills training before beginning internships.

**CHALLENGE: Social networks.** Many students who are involved in CTE programs lack access to well-developed professional networks. If they are from historically underrepresented communities, they may not know many other people who have pursued careers in their fields of interest, and may lack social support for completing programs, particularly when they do not have a vision of what success in those fields looks like, or role models in those fields who share similar backgrounds. In addition, students may feel isolated if they do not know other peers pursuing similar opportunities, which can make persistence in the face of challenges even harder.

**SOLUTION 1: Adult and alumni mentors.** Participants discussed various models of mentoring designed to support students. For example, some programs ensure that students have mentors who are professionals working in the relevant fields. In one case, these are mentors who come to the school to work with students, while in another, the program assigns a dedicated staff member to listen to students and guide them through their work-based learning experiences. Still other programs draw on their own alumni networks of successful program completers to provide mentoring to current program students and participants. To address staff diversity, Per Scholas identifies students from its classes to become future instructors so that at least 50 percent of its instructors are people of color who share similar backgrounds with the students in its programs. In some cases, the program helps these participants get teaching credentials.

**SOLUTION 2: Peer support and check-ins.** Some programs have found that students need peer support while they are engaged in CTE programs. To provide it, one program places a minimum of two student interns in any given workplace so
they can support each other during the placement. Another provides regular peer check-in meetings for program participants to share experiences.

**CHALLENGE: Employer preparedness.**
Several participants stated that employers engaged in offering work-based learning opportunities are not always prepared to work with students. Some employers struggle to provide high-quality learning opportunities. Some have unrealistic expectations of teenagers. Some carry unconscious biases into interactions with students from minority and other underrepresented backgrounds. These are equity challenges because frequently, out of a desire to please employers and keep them engaged as program partners, programs only put forward the highest-achieving students for employer-based opportunities. As a result, young people who may benefit from working with employers miss out.

**SOLUTION 1: Training employers to work with young people.** Several participants discussed the importance of conducting orientations and training with employers to prepare them to develop meaningful learning experiences for students, and if applicable, to prepare them to work with young people. It is particularly important to set age-appropriate expectations for students in workplace settings. Many providers also spoke about the importance of referring to their program as building a “talent pipeline” for employers, as opposed to just fulfilling an altruistic mission.

**SOLUTION 2: Addressing deficit language.** HERE to HERE has been developing a language guide made up of deficit-based terms that its students have heard used about them or about people like them (for example, “at-risk” or “low-skilled”). It is planning to use the language guide in a training session with employers focused on receiving young people in the workplace. Similarly, Per Scholas eliminated the deficit adjectives it used to describe its students (for example, “low-income,” “low-skilled,” and “disadvantaged”) so students think of themselves as the “talent” and employers view Per Scholas as a training institute.

**CONCLUSION**
Although the CTE field is currently enjoying a renaissance of innovation and enthusiasm supported by both practitioners and policymakers, there are still potential pitfalls. The CTE field must work to ensure that current programs ameliorate historical inequities, rather than falling into the trap of “tracking” in vocational education. Indeed, largely as a response to this past, many of today’s programs are consciously making efforts to ensure equitable student and participant access to programs, and to support equitable program completion and success in students’ and participants’ transitions to whatever comes next.

Practitioners are making valiant efforts to invest in programs that can lead to productive careers and futures. However, there are still many structural inequities that they are not equipped to address. Without the support of thoughtful policy that creates smart, equity-based incentives, expands the evidence base about equity in CTE, and invests in the expansion of evidence-based programs in ways that ensure equity, CTE runs the risk of losing traction and becoming just another fad. Researchers can support practitioners in their quest for more equitable programming by working with them to
evaluate existing programs and by incorporating equity goals as measurable outcomes of evaluation. They can also work with practitioners to develop and test equity-based interventions, and help programs engage in data-driven continuous improvement toward equity. CTE can offer alternative pathways to brighter futures for all students, but only with careful attention and creative energy devoted to ensuring equity in every stage of program development and delivery.

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