Center for American Progress

Preparing Students of Color for the Future Workforce

Lessons From Communities in Indiana and New Mexico

By Ashley Jeffrey and Laura Jimenez   April 22, 2021

When it comes to readying students for the jobs of the future, America's K-12 education system too often does not sufficiently prepare Black, Latinx, and Indigenous students. Research has shown that this negatively affects these students' life outcomes, specifically in terms of their long-term career prospects and economic security.[1] For example, Black, Latinx and Indigenous people are currently underrepresented in high-wage jobs but overrepresented in low-wage work and among the unemployed.[2] This is particularly significant because unemployment for low-wage workers—who are overrepresented as service industry essential workers—has soared during the coronavirus pandemic.[3] To change this dynamic, K-12 schools and districts need to do much better at preparing Black, Latinx, and Indigenous for the future workforce. This means preparing them for college, training them to receive high-quality credentials that lead to good jobs with decent pay, and appropriately enrolling them in work-based learning experiences such as internships and apprenticeships. To benefit most from these experiences, students must be prepared for them long before they reach high school. And K-12 systems must also ensure that Black, Latino, and American Indian students are not tracked into low-quality programs[4] or out of a college degree, as such options continue to provide them economic gains.

The K-12 education system is critical to enhancing this preparation cycle and should ensure that Black, Latinx, and Native American students receive the knowledge and credentials they need to secure stable, high-paying jobs in the future workforce. To achieve this, schools must apply community-centered policies in their student preparation efforts; in community-centered policymaking, lawmakers use a race equity lens to consider proposals' potential impacts on communities of color.[5] Applying such an approach to policymaking means encouraging and fostering community input and collaboration and ensuring that policies are sufficiently flexible to accommodate communities' unique assets and needs. Community-centered policies can take the form of a rural school ending its partnership with an urban company to instead partner with a local agricultural company. Applying a race equity lens could entail analyzing curricula for racial representation, ensuring educators honor students' native languages, or investigating advanced course enrollment rates by race.[6]

To understand what community members view as necessary to prepare students for the future workforce, the Center for American Progress conducted conversations via virtual forums with Black, Latinx, and Indigenous communities in Indiana and New Mexico. The conversations helped the authors understand community leaders' thoughts as well as brainstorm potential solutions to issues raised during the forums.

This issue brief applies a race equity, community-centered lens to understand how to prepare Black, Latinx, and Indigenous students for college and the future workforce. Major themes emerged from these community conversations, which have allowed the authors to identify major gaps that obstruct student preparation—including a lack of funding for college and career preparation and a lack of partnerships between K-12, higher education, and workforce systems. To address these gaps, K-12 schools and districts, higher education systems, employers, and local and state policymakers must work together to clarify future workforce changes and help students, teachers, and families build career knowledge. They must also ensure that Black, Latinx, and Indigenous students receive equitable and holistic preparation so that they can develop not only academic knowledge but also technical and 21st-century skills.[7]

Background on CAP's community conversations

To ensure that CAP's policy proposals are sound and co-created with those who will be affected by them, the authors used community conversations to center the voices and perspectives of those closest to the issues . In these conversations, the authors connected with students, parents, teachers, administrators, district leaders, school board members, and employers from 21st Century Charter School in Gary, Indiana, and from rural and urban communities across New Mexico. In Indiana, conversations were conducted in June 2020 with 13 participants; in New Mexico, conversations took place in October 2020 and included 16 participants. The authors chose to focus on Gary due to the city's majority Black population and because the area has over the past several decades experienced significant shifts in employment, especially related to manufacturing. The authors chose New Mexico in order to connect with the state's many Indigenous and Latinx communities living in rural areas.

During the discussions, the authors asked participants a series of questions about the future of work, including how participants would define "good jobs" and identify viable future career options. Participants also discussed holistic, or well-rounded, preparation for the future of work, community-based needs in existing preparation programs, and how to hold schools, districts, and states accountable for student readiness. Three main themes cut across the conversations: 1) describing what the future of work entails; 2) building student, family, and educator knowledge on career options; 3) and ensuring students receive equitable and holistic preparation.

These conversations—and others—with students, parents, educators, advocates, policymakers, and employers will inform a full set of policy recommendations that CAP will publish in a more extensive report later this year.

Barriers to preparing students of color for the future of work

In these conversations, community members identified two major challenges to preparing students for the future workforce: 1) significant gaps in partnerships between K-12, higher education, and workforce systems; and 2) a lack of funding for K-12 college and career preparation. These challenges—and the larger conversations with community members—inform the policy recommendations detailed below.

Significant gaps in partnerships between K-12, higher education, and workforce systems

Participants in both Indiana and New Mexico noted the need for sustained, formal partnerships between K-12, industry, and higher education systems. Some participants spoke of formal agreements for work-based learning opportunities that exist between their high school or community college and local employers, as well as dual enrollment courses between their high school and community college. But most participants, especially those currently working or who had children in K-8 schools, did not have such partnerships. One participant in New Mexico who works with corporations explained the difficulty in fostering K-12 and employer partnerships:

> We do have a lot of companies that are interested in participating in training, and other opportunities of mentoring and internships ... We have that problem where employers say they're ready to go, but they can't jump through all the red tape [at the state education department] to create programs and opportunities.[8]

Although this example is narrow in scope, it highlights the types of opportunities that students could access if K-12 and industry systems coordinated partnership. Without such partnership, students miss out on professional growth opportunities, and employers cannot help them become career ready by identifying needed workplace skills.

Why partnerships matter

K-12, higher education, and industry systems tend to function in silos,[9] so they do not coordinate their efforts to prepare future workers. By eliminating those silos, coordinating preparation efforts, and designing equitable programs, the three systems can help Black, Latinx, Pacific Islander, Native, and certain Asian American students gain the skills and knowledge they need to enter college or the workforce.[10] The systems should coordinate to design equitable programs by defining what race-conscious workforce development looks like and how their programs will address racial economic inequality.[11] For example, partnerships between K-12 and industry allow students to access more work-based learning experiences such as internships and apprenticeships,[12] which increase graduation and employment rates for students from marginalized racial and ethnic backgrounds.[13] In fact, some union-sponsored apprenticeships and training programs have higher wages and completion rates for people of color.[14] For example, the New York City Department of Education and Pittsburgh Public Schools have seen success in their labor management partnerships that included unions; with those inclusive partnerships, the entities strengthened pathways for Black students to enter jobs in education.[15] Partnerships also make it easier for states to create policies that allow K-12 students to leave school grounds during the school day.[16] States could allow students to go to a college campus, for example,[17] and still count this trip as school attendance, even if students' time is spent not in a classroom but in an internship or other work-based learning experience.

One promising example of a partnership between K-12 schools, community colleges, and industry is the P-TECH model, through which students in nine U.S. states and various countries receive "rigorous and hands-on academic, technical and workplace experiences."[18] P-TECH integrates high school and college coursework, and students participate in workplace opportunities such as internships.[19] One report on New York City's P-TECH 9-14 schools studied a sample of mostly Black and Hispanic students and found that they experienced increased career exposure and were more likely to earn credits in work-based learning than students at non-P-TECH high schools in New York City.[20]

Formal agreements for partnership can expose educators, students, and parents to college and career preparation opportunities. This partnership can support students' academic and professional growth, while also ensuring that schools meet the attendance requirements necessary to receive state funding.

Lack of funding for K-12 college and career preparation

Participants from Indiana and New Mexico also highlighted that K-12 schools and districts lack the funding they need to fully prepare Black, Latinx, and Indigenous students for college and their careers.

School officials in New Mexico noted that their schools do not receive enough federal funding for career and technical education (CTE)—and districts, especially those that are smaller, find it too burdensome to apply for such funding. They also highlighted that sufficient funds should be dedicated to K-8 student preparation. Nationwide, data show that middle schools receive less CTE funding for career preparation opportunities than high schools.[21] When asked about barriers to preparing K-8 students for the future of work, participating school officials highlighted issues with the Strengthening Career and Technical Education for the 21st Century Act (also known as Perkins V),[22] the federal law that funds CTE programs.

> "[Perkins V] is not funded enough ... It requires so much paperwork and so much time to keep the grant going … The amount of money that we would qualify for was not worth the time and effort that we would invest into [the application]."[23]
>
> – Michael Chavez, superintendent,
> Hatch Valley Public Schools, New Mexico

Although schools can use federal CTE funds as early as the fifth grade,[24] states often target money to the high school level.[25] K-12 schools need to receive enough funds for both high school and K-8 student preparation. They also need information on program quality to ensure students interested in CTE have access to high-quality, evidence-based programs. Additionally, if schools think that a lengthy application for limited funds is too burdensome, they may opt out of resources that can help their students. Simpler grant applications—and more help to complete them—will benefit schools, districts, and students alike.

Why more funding matters

Unfortunately, states distribute fewer public education funds to schools with a majority of students of color.[26] According to EdBuild, K-12 school districts with a majority-white student population receive around $14,000 per student, but districts with a majority-nonwhite student population receive only $11,682 per student.[27] As a result, these schools are less likely to have school counselors.[28] And according to the Foundation for Excellence in Education, such schools are also less likely to offer courses that prepare Black, Hispanic, and American Indian, and Pacific Islander students for college and careers.[29]

When Black and Latino students attend better-resourced schools, they are more likely to graduate, enroll in college, and find good jobs.[30] This may also contribute to civic outcomes, as data show a link between increased education, income level, and civic participation, including higher rates of voting.[31] With more college- and career-preparation funds, K-12 schools and districts can provide the resources that make a difference in preparing students for college and the future of work. These resources include hiring school counselors[32] and high-quality instructors to enhance CTE programs.[33] Counselors and high-quality CTE programs are linked to reduced high school dropout rates.[34] While only 4.2 percent for white students, the high school dropout rate is 6.4 percent for Black students, 8 percent for Hispanic students, and 9.5 percent for American Indian and Alaska Native students.[35]

How to prepare students of color for the future of work

After discussing existing barriers to student preparation, participants discussed some misconceptions and potential solutions. Participants considered what future careers and jobs will look like, how students can enter into those careers, and how to develop students holistically by strengthening their academic and social-emotional skills.

What the future workforce will look like

Participants in Indiana and New Mexico had different ideas about what the workforce of the future will look like, including what jobs will be available in the next few years.

Educator, parent, and student participants in Indiana thought that traditional occupations such as doctors, lawyers, and engineers would be relevant in the future but said manufacturing jobs would plummet. They believed that automation, such as robots and artificial intelligence, would replace workers in most industries. As one student at 21st Century Charter School in Gary said, "I think the future won't be more hands-on but more computerized … When I think of the future of work, I think of artificial intelligence taking over."[36] McKenya Dilworth, a teacher at the school, agreed: "We know that some of these jobs are going to be obsolete through automation. That has [already] happened."[37]

Manufacturing jobs have indeed largely declined due to new technologies, and automation is likely to increase worker displacement in some industries.[38] Some service sector occupations such as retail and hospitality—which are disproportionately staffed by people of color—are also at high risk of job loss due to automation.[39] However, research shows that technology tends to create new tasks for workers and more jobs in different industries.[40] Automation does not have to lead to catastrophic job loss,[41] especially if employers ensure that the labor market functions better for its workers.[42] For example, as the auto manufacturing industry shifts toward electric vehicles, the United States will need to ramp up domestic electric vehicle production. They will also need to transition manufacturing jobs, such as those related to internal combustion engines, to high-quality, good-paying jobs across the electric vehicle value chain.[43] K-12 schools, districts, and employers should better understand and work to clarify which industries will change and what job creation will look like in order to prepare students for jobs that are unlikely to be affected by future industry shifts.[44]

K-12 schools and districts should partner with employers and use a race equity lens to understand and create solutions for unequal employment trends in Black, Latinx, and Indigenous communities. This can include providing students with transferable skills and stackable, industry-recognized credentials[45]—meaning a sequence of credentials that can be accumulated over time along a career pathway—that may stay relevant amid changing industry demands.[46] Stackable credentials also help to fulfill the requirements of higher degree programs, ensuring that students can continue their education without paying for credits that will not transfer to the higher credential. One study suggests that policies that support stacking credentials can reduce racial inequalities in labor market success.[47] By utilizing these tailored solutions, K-12 schools and districts can ensure parents, educators, and Black, Latinx, and Indigenous students have clarity about and are prepared for future job availability.

Building knowledge about career options

Participants in Indiana and New Mexico identified strategies that would help families, teachers, and students learn more about career options. The most commonly mentioned strategies included communicating with students' families, providing professional development for teachers, and encouraging students to explore different careers.

K-12 schools and districts should communicate and engage with families

Parent participants advised that K-12 schools and districts engage and communicate with families to strengthen relationships and improve student preparation. As Carol Hernandez, a parent from New Mexico, shared, "I think [there] definitely needs to be more participation with parents and schools; more of a bridge."[48] Another parent, from Indiana, discussed the significant communication from their child's school, saying, "[Our school] is constantly letting the parents know what's going on at the school, the progress of the student, and if there are any changes. You always get a call or e-mail or text—whatever you're set up to get. And I think communication is very important."[49]

This desire for schools to provide consistent communication and partner with parents is in line with a recent CAP survey on family-school communication. As part of the survey, parents selected "resources and information about preparation for college and/or career opportunities" as the third most important type of information to receive.[50]

Strong communication between schools and parents leads to stronger communication between parents and children.[51] This is significant, as parental values and expectations influence K-8 students' career aspirations.[52] Students are more likely to have a successful occupational future when they have support and open lines of communication with their parents.[53]

To foster communication, especially communication that is culturally and linguistically responsive, K-12 schools and districts should partner more frequently with parents to help support students. One strategy to do so is to frequently share college and career information with students and families, especially in light of increased distance learning during the COVID-19 pandemic. Puget Sound College and Career Network (PSCCN) in Renton, Washington, found success when it not only shared information with families but also engaged families in students' college and career path planning.[54] To ensure equity for Spanish-speaking families, PSCCN also broadcasts a weekly Spanish radio program to discuss financial aid and college access.[55]

By strengthening communication channels, K-12 schools can engage parents and families and increase their participation in the knowledge-building process.

Professional development helps teachers build career knowledge

Participants in Indiana and New Mexico emphasized that K-12 teachers should have current information on career options, as they are students' and families' primary communicators of career knowledge.

> "How our students are going to learn about these jobs is through us. We see their strengths, we see what their motivation is, and we point out, 'Hey, have you thought about this? … Have you considered this career?'"[56]
>
> – Erika Dilosa, director of special education,
> 21st Century Charter School, Gary, Indiana

To ensure teachers are prepared, K-12 schools should offer professional development to teachers on building knowledge about various careers. By partnering with local and state employers, teachers can access labor market information and incorporate that data into their career curricula.[57] Teacher externships are also beneficial, as they immerse teachers in a company for a few weeks to learn about needed skills and competencies in an industry.[58] Teachers can bring that real-world knowledge back to the classroom to help their students understand and develop certain skills and discuss what career options exist.

Students need to widely explore career options

Participants in Indiana highlighted their school's partnership with local employers and dual enrollment classes. These partnerships and classes help students build knowledge on various career options such as barbering, social work, and robotics. Educator participants in both New Mexico and Indiana spoke about encouraging students to explore careers online, in books, and through life experience. Rural participants from New Mexico emphasized that online research is important in areas with limited job diversity.

> *"If [students] can't see it, they can't be it. The [professional role] models out in our community are limited ... There's not anybody that they know who's doing what they think they want to do."[59]*
>
> *– Elizabeth LeBlanc, director of teaching and learning,*
> *Taos Academy Charter School, New Mexico*

A recent CAP report supports this idea, noting that students of color, especially younger ones, benefit from accessing role models who deviate from cultural and occupational stereotypes.[60] One educator in New Mexico identified virtual career talks, such as those offered at DreamWakers,[61] as helpful in exposing students to various career role models from the comfort of their classroom. DreamWakers aims to "close the opportunity gap" for underresourced students through consistent exposure to professionals with diverse backgrounds.[62]

K-12 districts should increase family communication as well as opportunities for teachers' professional development and students' career exploration. If they do so, educators, families, and students will have access to essential career information.

Helping students prepare for college and careers in an equitable and holistic manner

Participants in Indiana and New Mexico highlighted strategies to ensure equitable and holistic preparation in their individual communities. They discussed the importance of developing academic and 21st-century skills; cultural competence for all students, especially Black, Latinx, and Indigenous students; and social and emotional learning skills. Additionally, participants noted that in order to be equitable, schools need funds for student supports related to issues outside of school such as internet access and wraparound services.

Defining equitable preparation

Equitable preparation means tailoring preparation efforts to students' unique needs, including addressing disparities in student outcomes. Holistic preparation ensures that students develop all skills needed to succeed in the future workforce, including academic skills, technical skills, and 21st-century skills.[63] The Employability Skills Framework, which lists nine key skills that make up holistic preparation, is one example of this.[64] Under this framework, skills are organized into three categories: 1) applied knowledge, which includes applied academic and critical thinking skills; 2) workplace skills, which includes resource management, information use, technology use, communication skills, and systems thinking; and 3) effective relationships, which includes interpersonal skills and personal qualities.[65]

Cultural competence is important, as is fostering social and emotional learning skills

While holistic preparation includes improving academic, technical, and 21st-century skills, participants in Indiana and New Mexico suggested that, for Black, Latinx, and Indigenous students, it should also include cultural competence and social and emotional learning skills. Cultural competence means students learn about their own and other cultures.[66] It also means that academic content is accurate, cultivates curiosity, and encourages critical thinking. Social and emotional learning efforts teach students to manage their emotions, create meaningful relationships, and make responsible decisions.[67] When asked about holistic readiness for grades K-8, Andrea Thomas, a teacher in Central Consolidated School District in New Mexico, emphasized that students should understand their culture before entering the workforce:

> *Ninety-eight percent of my students are Navajo or identify as Native American. One thing I think is missing from helping the growth of students is … allowing students to understand their culture [to] help solidify their foundation before they go out and start to get the other skills that are going to help them [in a career]. If you get just the skills, you're missing a deeper part of who you are as a Diné person.[68]*

Participants also believed that both students and teachers should develop cultural competence. One report suggests that the "self-awareness" component of social and emotional learning[69] could help students build a positive racial and ethnic identity.[70] Doing so could help students of color develop buffers from the negative impacts of institutional oppression[71] such as when their culture is devalued in school or work.[72] For teachers, understanding their students' cultures means they can connect students' cultural assets to academic skills[73] and, ideally, promote students' academic success.[74]

Increased funds for student supports are necessary

Educator participants in both New Mexico and Indiana also desired more funds for student supports, including wraparound services that address poverty-related issues that exist outside of school but affect students' academic success.[75] Participants also mentioned increasing student access to laptops and the internet, providing food for students, and increasing staff members' ability to provide academic and emotional support. One study found that students who received wraparound services had half the high school dropout rate as students who did not receive such services.[76] With these supports in place, students will face fewer barriers on their pathway to success after high school.

By incorporating cultural competence and social and emotional learning into instruction and curricula and increasing funds for wraparound services, K-12 schools and districts can ensure that Black, Latinx, and Indigenous students are holistically and equitably prepared for college and careers.

Conclusion

Black, Latinx, and Indigenous students need to be fully prepared for the future workforce. In CAP's community conversations, Black, Latinx, and Indigenous participants identified major gaps in student preparation. These included gaps in partnerships between K-12, higher education, and workforce systems and a lack of funding for college and career preparation. If K-12, higher education, and workforce systems do not shift their approach to preparing those students, they will be excluded from stable, high-quality jobs and continue to be unequally affected by automation and unemployment amid crises such as the coronavirus pandemic.[77] Moreover, if a shift in approach does not prevent tracking Black, Latinx, and Indigenous students into low-quality options, those students will be further removed from moving up the economic ladder.

Black, Latinx, and Indigenous students and families need to understand what the future of work entails, build career knowledge, and have equitable and holistic preparation. To make that happen, K-12 schools and districts, higher education systems, companies and industry, and Black, Latinx, and Indigenous communities need to partner with each other—and they need increased funding for college and career preparation. If K-12 schools and districts combine these efforts under a race equity, community-centered lens, they can help reduce disparate educational and career outcomes for Black, Latinx, and Indigenous students and set them up for success in college and future careers.

Ashley Jeffrey is a policy analyst for K-12 Education at the Center for American Progress. Laura Jimenez is the director of Standards and Accountability for K-12 Education at the Center.

The authors would like to thank the community conversation participants from Indiana and New Mexico, who shared openly and honestly.

Endnotes

1 National Skills Coalition, "The Roadmap for Racial Equity" (Washington: 2019), available at https://www.national-skillscoalition.org/wp-content/uploads/2020/12/Racial-Equity-Report_6x9_web.pdf.

2 Bob Salsberg and Angeliki Kastanis, "AP analysis: Blacks largely left out of high-paying jobs," The Associated Press, April 2, 2018, available at https://apnews.com/article/76b a3a042b454d0b8f5341f37490c6cc; National Equity Atlas and Burning Glass Technologies, "Workers of Color are Disproportionately Impacted by the Labor-Market Impacts of COVID-19, New Study Finds," Press release, June 4, 2020, available at https://www.policylink.org/sites/default/files/NEA_BG%20Press%20Release.pdf.

3 Dany Bahar and others, "Reopening America: How to Save Lives and Livelihoods" (Washington: Brookings Institution, 2020), available at https://www.brookings.edu/wp-content/uploads/2020/06/Brookings-Reopening-America-FINAL.pdf.

4 Sonali Kohli and Quartz, "Modern-Day Segregation in Public Schools," The Atlantic, November 18, 2014, available at https://www.theatlantic.com/education/archive/2014/11/modern-day-segregation-in-public-schools/382846/; Donna Martinez, "School Culture and American Indian Educational Outcomes," Procedia - Social and Behavioral Sciences (116) (2014): 199–205, available at https://www.sciencedirect.com/science/article/pii/S1877042814001955.

5 Scott Sargrad and others, "A Quality Education for Every Child: A New Agenda for Education Policy" (Washington: Center for American Progress, 2019), available at https://www.americanprogress.org/issues/education-k-12/reports/2019/07/02/471511/quality-education-every-child/.

6 National Association of Secondary School Principals, "Position Statement: Racial Justice and Educational Equity" (Reston, VA: 2021), available at https://www.nassp.org/wp-content/uploads/2021/01/NASSP21ADV-0060_WS_Position_Statements_Racial_Justice_P2a.pdf.

7 Laura Jimenez, "Preparing American Students for the Workforce of the Future: Ensuring Every Student Readiness for College, Career, and Civic Life" (Washington: Center for American Progress, 2020), available at https://www.americanprogress.org/issues/education-k-12/reports/2020/09/14/490338/preparing-american-students-workforce-future/.

8 Anonymous, staff member, New Mexico-based nonprofit, personal communication with author via video chat, October 15, 2020, on file with author.

9 Autumn A. Arnett, "It's time to break silos, look at education as a continuum, leaders say," Higher Ed Dive, May 7, 2018, available at https://www.highereddive.com/news/its-time-to-break-silos-look-at-education-as-a-continuum-leaders-say/522869/.

10 National Skills Coalition, "The Roadmap for Racial Equity;" Anthony Mann and others, "Dream Jobs? Teenagers' Career Aspirations and the Future of Work" (Paris: Organization for Economic Cooperation and Development, 2020), available at https://www.oecd.org/education/dream-jobs-teenagers-career-aspirations-and-the-future-of-work.htm.

11 Livia Lam, "A Design for Workforce Equity: Workforce Redesign for Quality Training and Employment: A Framing Paper" (Washington: Center for American Progress, 2019), available at https://www.americanprogress.org/issues/economy/reports/2019/10/16/475875/design-workforce-equity/.

12 Matt Greenfield and Katrina Stevens, "Promising Trends and Challenges in Work-Based Learning: A Market Scan of Organizations and Tools," Jobs For The Future, June 10, 2018, available at https://www.jff.org/points-of-view/promising-trends-and-challenges-work-based-learning-market-scan-organizations-and-tools/.

13 Jacqueline Rodriguez, Heather Fox, and Heather McCambly, "Work-Based Learning as a Pathway to Postsecondary and Career Success," Insights on Equity and Outcomes (18) (2016), available at https://files.eric.ed.gov/fulltext/ED574535.pdf; Harry J. Holzer and Robert I. Lerman, "Work-Based Learning to Expand Jobs and Occupational Qualifications for Youth," Challenge 57 (4) (2014): 18–31, available at https://www.cbpp.org/sites/default/files/atoms/files/4-2-14fe-holzer.pdf.

14 Robert W. Glover and Cihan Bilginsoy, "Registered apprenticeship training in the US construction industry," Education + Training (47) (2005), available at https://www.emeraldinsight.com/doi/pdfplus/10.1108/00400910510601913; Lawrence Mishel, "Diversity in the New York City union and nonunion construction sectors" (Washington: Economic Policy Institute, 2017), available at https://www.epi.org/publication/diversity-in-the-nyc-construction-union-and-nonunion-sectors/.

15 Karla Walter, "Public Sector Training Partnerships Build Power" (Washington: Center for American Progress, 2019), available at https://www.americanprogress.org/issues/economy/reports/2019/10/03/475355/public-sector-training-partnerships-build-power/.

16 Melinda Mechur Karp, Katherine L. Hughes, and Maria Cormier, "Dual Enrollment for College Completion: Findings from Tennessee and Peer States" (New York: Community College Research Center, Teachers College, Columbia University, 2012), available at https://ccrc.tc.columbia.edu/media/k2/attachments/dual-enrollment-college-completion-TN-peer-states.pdf.

17 Ibid.

18 P-TECH, "The Model: a seamless program for students," available at https://www.ptech.org/how-it-works/the-model/ (last accessed March 2021).

19 Ibid.

20 Rachel Rosen and others, "Bridging the School-to-Work Divide" (New York: MDRC, 2020), available at https://www.mdrc.org/sites/default/files/P-TECH_Report_2020.pdf.

21 Rachel Bird Niebling and Phillip Lovell, "Never Too Late: Why ESEA Must Fill the Missing Middle" (Washington: Alliance for Excellent Education, 2015), available at https://mk0all4edorgjxiy8xf9.kinstacdn.com/wp-content/uploads/2015/05/NeverTooLate.pdf.

22 Perkins Collaborative Resource Network, "Perkins V," available at https://cte.ed.gov/legislation/perkins-v (last accessed March 2021).

23 Michael Chavez, superintendent, Hatch Valley Public Schools, personal communication with author via video chat, October 6, 2020, on file with author.

24 Meg Benner and Scott Sargrad, "Creating Strong Building Blocks for Every Student: How Middle Schools Can Lay the Foundation for Rigorous High School Pathways" (Washington: Center for American Progress, 2020), available at https://www.americanprogress.org/issues/education-k-12/reports/2020/08/05/488493/creating-strong-building-blocks-every-student/.

25 Association for Career and Technical Education, "Career Exploration in Middle School: Setting Students on the Path to Success" (Alexandria, VA: 2018), available at https://www.acteonline.org/wp-content/uploads/2018/02/ACTE_CC_Paper_FINAL.pdf.

26 Jay Croft, "A new report finds predominantly white school districts get $23 billion more in funding than nonwhite ones" CNN, February 27, 2019, available at https://www.cnn.com/2019/02/27/us/education-funding-disparity-study-trnd.

27 Ibid.

28 The Education Trust, "School Counselors Matter" (Washington: 2019), available at https://www.schoolcounselor.org/getmedia/b079d17d-6265-4166-a120-3b1f56077649/School-Counselors-Matter.pdf.

29 The Foundation for Excellence in Education, "College and Career Pathways: Equity and Access" (Tallahassee, FL: 2018), available at https://excelined.org/wp-content/uploads/2018/10/ExcelinEd.Report.CollegeCareerPathways.CRDCAnalysis.2018.pdf.

30 Anthony P. Carnevale and others, "The Unequal Race for Good Jobs: How Whites Made Outsized Gains in Education and Good Jobs Compared to Blacks and Latinos" (Washington: Georgetown University Center on Education and the Workforce, 2019), available at https://1gyhoq479ufd3yna29x7ubjn-wpengine.netdna-ssl.com/wp-content/uploads/Full_Report-The_Unequal_Race_for_Good_Jobs.pdf.

31 Meira Levinson, "The Civic Empowerment Gap: Defining the Problem and Locating Solutions," *Handbook of Research on Civic Engagement in Youth* (2010): 331–361, available at https://dash.harvard.edu/bitstream/handle/1/8454069/Levinson+The+Civic+Empowerment+Gap.pdf?sequence=1.

32 Laura Owen and Erik Westlund, "Increasing College Opportunity: School Counselors and FAFSA Completion," *Journal of College Access* 2 (1) (2016): 6–26, available at https://files.eric.ed.gov/fulltext/EJ1167398.pdf.

33 Jessica Cardichon, "Perkins Reauthorization: An Opportunity to Address Career and Technical Education Teacher Shortages," Learning Policy Institute, May 23, 2017, available at https://learningpolicyinstitute.org/blog/perkins-reauthorization-opportunity-address-career-technical-education-teacher-shortages.

34 Association for Career and Technical Education, "Career and Technical Education's Role in Dropout Prevention and Recovery" (Alexandria, VA: 2007), available at https://www.acteonline.org/wp-content/uploads/2018/03/Dropouts.pdf; Taheera Blount, "Dropout Prevention: Recommendations for School Counselors" (Raleigh, NC: North Carolina State University, 2012), available at https://files.eric.ed.gov/fulltext/EJ981196.pdf.

35 National Center for Education Statistics, "Fast Facts: Dropout rates," available at https://nces.ed.gov/fastfacts/display.asp?id=16 (last accessed March 2021).

36 Anonymous, student, 21st Century Charter School, personal communication with author via video chat, June 25, 2020, on file with author.

37 McKenya Dilworth, teacher, 21st Century Charter School, personal communication with author via video chat, June 26, 2020, on file with author.

38 James Manyika and others, "Jobs Lost, Jobs Gained: Workforce Transitions in a Time of Automation" (San Francisco, CA: McKinsey Global Institute, 2017), available at https://www.mckinsey.com/~/media/McKinsey/Industries/Public%20and%20Social%20Sector/Our%20Insights/What%20the%20future%20of%20work%20will%20mean%20for%20jobs%20skills%20and%20wages/MGI-Jobs-Lost-Jobs-Gained-Report-December-6-2017.pdf.

39 National Skills Coalition, "The Roadmap for Racial Equity."

40 Manyika and others, "Jobs Lost, Jobs Gained;" Daron Acemoglu and Pascual Restrepo, "Automation and New Tasks: How Technology Displaces and Reinstates Labor," *Journal of Economic Perspectives* 33 (2) (2019): 3–10, available at https://pubs.aeaweb.org/doi/pdfplus/10.1257/jep.33.2.3.

41 Marcus Casey and Sarah Nzau, "Robots kill jobs. But they create jobs, too.", Brookings Institution, March 18, 2019, available at https://www.brookings.edu/up-front/2019/03/18/robots-kill-jobs-but-they-create-jobs-too/.

42 Mark Muro, Robert Maxim, and Jacob Whiton, "Automation and Artificial Intelligence" (Washington: Brookings Institution, 2019), available at https://www.brookings.edu/wp-content/uploads/2019/01/2019.01_BrookingsMetro_Automation-AI_Report_Muro-Maxim-Whiton-FINAL-version.pdf.

43 Karla Walter and others, "Electric Vehicles Should Be a Win for American Workers: How Federal Policies To Expand Electric Vehicle Production Can Ensure a Good Jobs Future for the United States" (Washington: Center for American Progress, 2020), available at https://www.americanprogress.org/issues/economy/reports/2020/09/23/489894/electric-vehicles-win-american-workers/.

44 World Economic Forum, "The Future of Jobs Report: Chapter 1: The Future of Jobs and Skills" (Switzerland: 2016), available at https://reports.weforum.org/future-of-jobs-2016/chapter-1-the-future-of-jobs-and-skills/; World Economic Forum, "The Future of Jobs Report: Employment Trends" (Switzerland: 2016), available at https://reports.weforum.org/future-of-jobs-2016/employment-trends/.

45 Jane Oates, "Training and Employment Guidance Letter No. 15-10," U.S. Department of Labor, December 15, 2010, available at https://wdr.doleta.gov/directives/attach/TEGL15-10.pdf; National Skills Coalition, "The Roadmap for Racial Equity."

46 Muro, Maxim, and Whiton, "Automation and Artificial Intelligence."

47 Katharine Meyer, Kelli A. Bird, and Benjamin L. Castleman, "Stacking the Deck for Employment Success: Labor Market Returns to Stackable Credentials" (Providence, RI: Annenberg Institute at Brown University, 2020), available at https://edworkingpapers.org/sites/default/files/ai20-317.pdf.

48 Carol Hernandez, parent of students in New Mexico, personal communication with author via video chat, October 6, 2020, on file with author.

49 Anonymous, parent of student at 21st Century Charter School, personal communication with author via video chat, June 24, 2020, on file with author.

50 Meg Benner and Abby Quirk, "One Size Does Not Fit All: Analyzing Different Approaches to Family-School Communication" (Washington: Center for American Progress, 2020), available at https://www.americanprogress.org/issues/education-k-12/reports/2020/02/20/480254/one-size-not-fit/.

51 Kristen Anne Jungen, "Parental Influence and Career Choice: How Parents Affect the Career Aspirations of Their Children" (Menomonie, WI: University of Wisconsin-Stout, 2008), available at https://minds.wisconsin.edu/bitstream/handle/1793/42711/2008jungenk.pdf?sequence=1&isAllowed=y.

52 Ibid.

53 Ibid.

54 Puget Sound College and Career Network, "Family Engagement," available at https://www.psccn.org/readiness/family-engagement (last accessed March 2021).

55 Ibid.

56 Erika Dilosa, teacher, 21st Century Charter School, personal communication with author via video chat, June 26, 2020, on file with author.

57 Oklahoma Edge, "Benefits of Business and Education Partnerships" (Oklahoma City, OK: Oklahoma State Department of Education, 2019), available at https://www.okedge.com/wp-content/uploads/2019/07/Benefits-of-Business-and-Education-Partnerships-2019.pdf; Oklahoma Edge, "Business & Education Partnership Guides," available at https://www.okedge.com/business-community/partnership-guides/ (last accessed March 2021).

58 Colorado Succeeds, "Educator Externships," available at https://coloradosucceeds.org/work-based-learning-roadmap/educator-externship/ (last accessed March 2021).

59 Elizabeth LeBlanc, director of teaching and learning, Taos Academy Charter School, personal communication with author via video chat, October 6, 2020, on file with author.

60 Benner and Sargrad, "Creating Strong Building Blocks for Every Student."

61 DreamWakers, "Connecting Classrooms to Career Role Models," available at https://www.dreamwakers.org/ (last accessed March 2021).

62 DreamWakers, "Intelligence Is Equally Distributed. Opportunity Is Not.", available at https://www.dreamwakers.org/learn/ (last accessed March 2021).

63 Jimenez, "Preparing American Students for the Workforce of the Future."

64 U.S. Department of Education, "Employability Skills Framework: Overview of the Employability Skills Framework Resources" (Washington: 2020), available at https://lincs.ed.gov/sites/default/files/employability-skills-framework-overview-of-resources.pdf.

65 Ibid.

66 Robert Jagers, Deborah Rivas-Drake, and Teresa Borowski, "Equity & Social and Emotional Learning: A Cultural Analysis" (Chicago: The Collaborative for Academic, Social, and Emotional Learning, 2018), available at https://casel.org/wp-content/uploads/2020/04/equity-and-SEL-.pdf.

67 The Collaborative for Academic, Social, and Emotional Learning, "CASEL's SEL Framework: What Are the Core Competence Areas and Where Are They Promoted?" (Chicago: 2020), available at https://casel.org/wp-content/uploads/2020/12/CASEL-SEL-Framework-11.2020.pdf.

68 Andrea Thomas, teacher, Central Consolidated School District, personal communication with author via video chat, October 6, 2020, on file with author.

69 Ibid.

70 Jagers, Rivas-Drake, and Borowski, "Equity & Social and Emotional Learning"; Alex Casillas, Patrick C. Kyllonen, and Jason D. Way, "Preparing Students for the Future of Work: A Formative Assessment Approach," in Frederick Oswald, Tara Behrend, and Lori Foster, eds., *Workforce Readiness and the Future of Work* (New York: Taylor & Francis/Routledge, 2019), available at https://www.mawilearning.com/wp-content/uploads/2020/04/Casillas-et-al-2019-preparing-students-for-future-of-work.pdf.

71 Jagers, Rivas-Drake, and Borowski, "Equity & Social and Emotional Learning."

72 Ibid.

73 Ibid.

74 Partnership for Public Education, "Promoting Culturally Competent Teaching" (Newark, DE: University of Delaware, 2017), available at https://cpb-us-w2.wpmucdn.com/sites.udel.edu/dist/8/4456/files/2017/09/Cultural-Competency-Brief-092217-web-1-1l7jxku.pdf.

75 Abel McDaniels, "Wraparound Services: the Next Phase of Education Reform," RealClearEducation, September 26, 2017, available at https://www.realcleareducation.com/articles/2017/09/26/wraparound_services_the_next_phase_of_education_reform_110207.html; City Connects, "The Impact of City Connects: Student Outcomes" (Boston: 2016), available at https://www.bc.edu/content/dam/files/schools/lsoe/cityconnects/pdf/City%20Connects%20Progress%20Report%202016.pdf#_blank.

76 Ibid.

77 Abbie Langston, "Race and the Work of the Future: Advancing Workforce Equity in the United States" (Oakland, CA: PolicyLink, 2020), available at https://www.policylink.org/research/race-and-the-work-of-the-future; Bahar and others, "Reopening America."