CALIFORNIA**COLLABORATIVE**
on District Reform

Policy and Practice Brief

The Career Pathways Approach
A Way Toward Equity?

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A Note About COVID-19 and Career Pathways

In spring 2020, school closures in response to the COVID-19 pandemic dramatically changed the conditions in which students learn and experience schooling. This brief draws on insights from a meeting held in late 2019, and most of the writing took place before school closures began in March 2020. Nevertheless, given the varying conditions that districts face during this time, and the range of student needs now and when schools reopen, pathways may offer even more meaningful options to provide equitable educational opportunities to California students.

Introduction

Career pathways are offered in nearly one third of U.S. school districts,[1] including more than 500 Partnership Academies or Linked Learning programs in California.[2] Pathways typically start in ninth or 10th grade, align educational programming under a career theme, and provide small groups of about 150 students with three essential elements:

1. Rigorous academic coursework,
2. Applied or career technical coursework, and
3. Work-based learning.

Evidence increasingly suggests that pathways may improve student outcomes, enhancing the equity and effectiveness of our education system.[3] Therefore, in a time when state and national disparities are dishearteningly persistent, pathways provide hope.

In December 2019, the California Collaborative on District Reform (Collaborative) convened its membership in San Bernardino City Unified School District (SBCUSD) to discuss the purpose, design, and implementation of career pathways. This brief draws on dialogue that took place in this meeting aimed at interrogating the equity promise of pathways.

Career pathways can take several forms and are referred to in various ways. We use the language adopted by many schools and the form associated with two prominent models:

California Partnership Academies integrate

- Small learning communities
- Academic and career and technical curricula around a career theme
- Partnerships with local employers

Linked Learning pathways integrate

- Rigorous academics
- Career and technical education
- Work-based learning
- Comprehensive student support services

One District's Experience: Pathways in San Bernardino City Unified School District

SBCUSD adopted pathways nearly a decade ago. Located 60 miles east of Los Angeles in what is known as the Inland Empire, San Bernardino began to undergo serious economic challenges in the mid-1990s when rail shops, the local steel plant, and Norton Air Force Base closed. When the 2008 financial crisis hit, the city's foreclosure rates were 3.5 times the national average. Since 2008, San Bernardino has experienced a slower recovery than other similarly sized U.S. cities, and, by 2010, San Bernardino ranked second poorest of the 100 largest U.S. cities. In 2015, the *Los Angeles Times* labeled it a "broken city," with 41% of its residents and 44% of its children living in poverty.[4]

Amidst these challenges, the City of San Bernardino's political, business, school district, and community leaders began to articulate a vision of recovery.[5] In this vision, San Bernardino leaders would work together to benefit students and the community at large, in part by incorporating Linked Learning pathways into the school district. By 2018, nearly 60% of SBCUSD high school students were enrolled in one of 37 pathways associated with 13 industries.[6] By 2019, SBCUSD had created pathway opportunities enabling students to earn 21 industry certifications, take 57 California State University (CSU)/University of California (UC)-eligible A–G approved career and technical education (CTE) courses, and earn both high school and college credit in 10 concurrent-enrollment community college classes.

Today, six of the 37 SBCUSD pathways have earned the Silver Designation of the Linked Learning Alliance,[7] indicating that they implemented each of the four core Linked Learning components

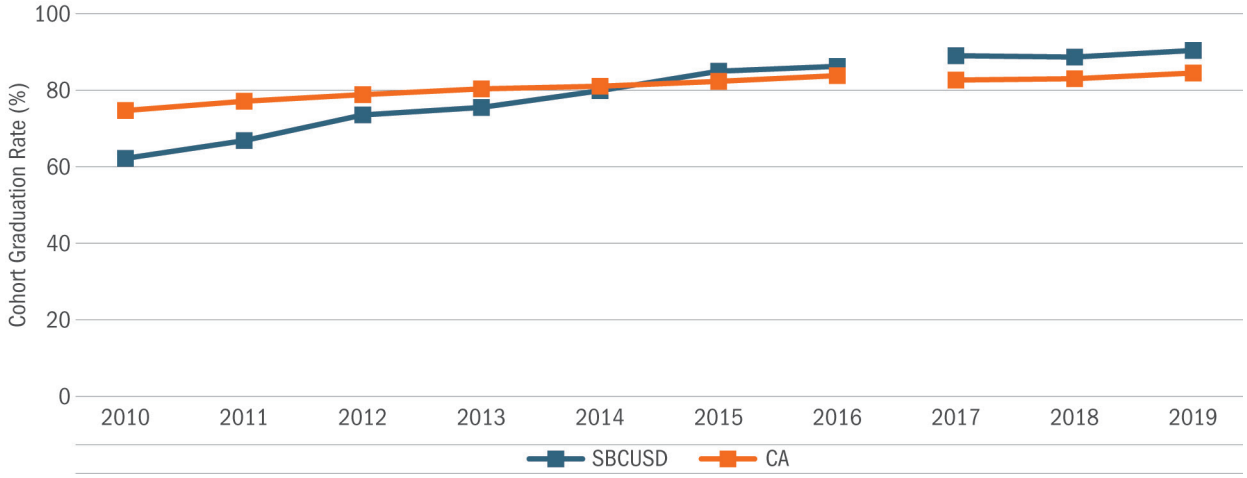
Photo courtesy of SBCUSD

(see the box on page 1). An additional two SBCUSD pathways have received the Gold Designation, indicating that the four core Linked Learning components are all implemented to a high-quality standard. Only 12 other California pathways have received this Gold Designation.

SBCUSD leaders believe that pathways—combined with their broader reform approach—have contributed to their district's mounting success. One indicator of this success is the SBCUSD graduation rate, which increased from 62% to 90% between 2010 and 2019. This nearly 30 percentage-point gain outpaced the state's 9 percentage point growth over the same period, and exceeds the state's overall 2019 graduation rate of 84% (see Figure 1).

With respect to equity and access, SBCUSD leaders also report that enrollment in pathways for each subgroup (including African American, Latino, low-income, and English learner students) mirrors the subgroup composition for the district as a whole. For example, in 2017–18, 68% of high school pathways students were from low-income families compared with 72% of high school students overall (see Figure 2).

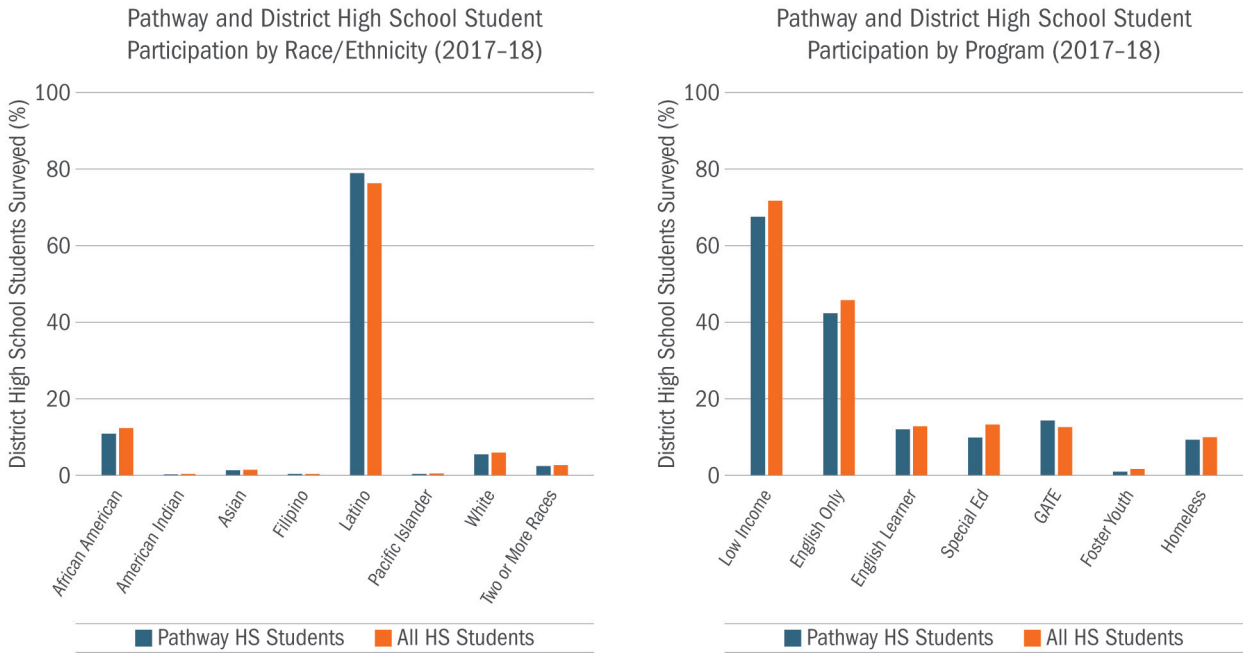
Figure 1. San Bernardino City Unified School District 4-Year Graduation Rates Grew by Nearly 20 Percentage Points More Than the Overall California Graduation Rate, 2010–19



Note. The methodology used to calculate the 4-year Adjusted Cohort Graduation Rate (ACGR) for the graduating classes of 2010–16 is not consistent with guidance from the U.S. Department of Education. For that reason, the California Department of Education (CDE) has since modified the 4-year ACGR calculation methodology to align with federal guidance effective for the graduating class of 2017 forward. As a result, CDE recommends against comparing the 4-year ACGR for 2017 onward with the 4-year ACGR for 2010–16. Because this change applied to all of California, this graph emphasizes the relative change between SBCUSD and the rest of California rather than over time.

Source. https://dq.cde.ca.gov/

Figure 2. San Bernardino City Unified School District Pathways Enroll Non-White, Low-Income, and English Learner Students at Comparable Rates to their Enrollment Districtwide, 2017–18



Note. 2018 Pathways participants: *N* = 6,809; total high school students: *N* = 14,282 (excludes Middle College High School); GATE = Gifted and Talented Education.

Source. Mitchell, K., Kempthorne, P., Gallardo, L., & Iniguez, D. (2019). *Presentation on pathways to post-secondary education and careers (Linked Learning pathways)* [PowerPoint presentation received directly from San Bernardino City Unified School District]. Slides 7–8.

The Equity Promise of Pathways

Discussions at the December 2019 California Collaborative meeting and prior research suggest three main ways that a well-implemented pathways approach can enhance equity.

Pathways can increase student engagement in school and academics. Because pathways embed applied and work-based learning into students' high school course of study, they have the potential to enhance academic relevance and student engagement beyond what would be the case in a more traditional high school approach. This pattern has implications for both achievement and persistence. For example, a recent evaluation of California's Linked Learning District Initiative found that pathways students were 2.1 percentage points less likely to drop out of school before Grade 12, and 3.1 percentage points more likely to graduate than their nonpathways peers.[8] Also, because Black, Latino, and low-income students typically drop out of school at higher rates than their White and wealthier peers, educational reforms that deepen the system of supports for underserved students should serve to improve racial and economic equity in educational outcomes. Consistent with this finding, students from an SBCUSD automotive technologies pathway spoke to the ways in which the connections between academic and technical learning improved their engagement in school: One student noted, because of hands-on experiences in the pathway's auto shop, "I concentrate more in physics class." Another added, "Auto shop has motivated me to go to school more, but also pay more attention in math and physics classes."

Pathways can provide students with social capital. White and affluent students have a broader array of access points to professional communities than do students of color and lower wealth peers. Professional communities can help students to understand the relevance of their schooling and to create a broad network of supports on which students can draw as they navigate school and career. Pathways can help all students build their social capital through work-based connections. Work-based learning provides early firsthand exposure to a career of interest, which can, in turn, help students build confidence and develop meaningful relationships with employers. By leveling the playing field in this way, pathways can enhance students' equitable access to careers and employers, and even to mentors and references. As one SBCUSD administrator noted, "The equalizer, when we're talking about equity, is relationships." The administrator continued, "A lot of times, when you want to get a job in the county, you have to know somebody. Now our kids know somebody."

Pathways can build "21st century skills." Students from lower wealth backgrounds are less likely to have opportunities through their families and communities to interact with the labor market. The implications of this limited exposure extend beyond the impacts on students' social capital, to the development of skills that students need to understand and manage themselves at work. These 21st century skills—such as ingenuity, initiative, contextualization, negotiation, collaboration, adaptability, problem solving,

Photo courtesy of SBCUSD

creativity, self-direction, leadership, work ethic, and accountability—are broad reaching and fundamental to workplace performance.[9] Evidence suggests that pathways can enhance 21st century skills by explicitly teaching the skills and dispositions that are required to succeed at work.[10] One of the students quoted above illustrated this point: "I focus more in my classes because the auto shop helps me for my future, for my work life. I realized that with auto shop, it helps me with my work ethic as well and interests me so much more." The jobs themselves also demand that students embrace responsibility. As another SBCUSD student explained, "Giving students responsibility is a bridge [that] shows them what life is like. Students can see what it's actually like—a slice of the real, adult world. Students crave that."

These potential advantages for advancing equity are especially salient given structural changes in the economy that have amplified challenges for youth employment, particularly for those already vulnerable.[11] At the same time, prevailing themes in the workforce literature emphasize a skills gap: In 2015, the National Skills Coalition estimated that 84% of jobs required postsecondary training, whereas only 74% of the workforce had the requisite skills.[12] Underserved youth and young adults—including Black and Latino populations, individuals from low-income families, and justice-involved individuals— have educational trajectories that reveal failures to prepare these students to meet the needs of the U.S. economy. [13] These trends suggest that future workers will not possess the necessary training to fill the jobs needed to support a thriving U.S. economy, and furthermore that current economic inequities along lines of race and class will persist and contribute to ongoing economic inefficiencies unless education and workforce systems address current shortcomings. Pathways may provide a viable tool to address these needs.

Photo courtesy of Linked Learning Alliance

The Threat to Equity in Pathways

Despite their promise, pathways come with risks. One of the most significant of these risks—tracking—is particularly insidious given surface similarities between pathways and traditional vocational education. Vocational education, like career pathways, was designed to leverage work-based learning to enhance students' career readiness. This goal is laudable. However, as opposed to the intention of pathways, vocational education programs were historically designed to prepare students for a single vocation, and not for the preparation required to succeed in college.[14]

Pathways differ from traditional vocational education by design in that they seek to combine rigorous academic preparation with workplace learning to provide all students with a range of options upon graduation. However, the key to pathways success lies in effective implementation, and there are many ways in which shortcomings in pathways implementation can undermine rather than enhance equitable access and opportunity. For example, teachers and guidance counselors can advise students and place them in pathways in ways that reflect unconscious bias and reinforce divisions among students with and without privilege. District and school leaders can establish pathways and

industry partnerships in ways that create significantly greater opportunity in advantaged neighborhoods while limiting the prospects of more vulnerable student populations. Master schedules, assignment of teachers to courses based on seniority, and other operational decisions also can contribute to disparities in unintended but consequential ways. Counteracting these tendencies requires district leaders and other educators to reflect on their implementation practices, identify and address their own biases—both conscious and unconscious—and regularly examine program design, implementation, and outcome data.

One SBCUSD student perspective offers evidence of how inequity can unintentionally creep into the implementation of pathways: "It's this huge weird subculture because the IB [International Baccalaureate] mentality is college-oriented and the pathway mentality is career goal-oriented." This point of view could signal that pathways students occupy a lower social status than IB students in the school or district. Furthermore, such student sentiments suggest that students do not see pathways as a viable entry point to college, when not offered alongside IB or other similar programming.

Photo courtesy of Linked Learning Alliance

To be a vehicle for equity, *all* pathways must be oriented toward both college *and* career, and must be perceived as such. Only in this climate of equitable opportunity and outcomes across different pathways, and between pathway and nonpathway educational programs, will students and educators be released from harmful stereotypes of their capabilities and free to learn and grow in and beyond the school environment.

A note about our sources: The information in this brief emerged primarily from presentations and conversations among Collaborative members and invited guests from the policy, practice, and advocacy communities who participated in a December 2019 meeting of the California Collaborative on District Reform in San Bernardino City USD. For additional resources about pathways, as well as a summary of the complete meeting, please visit https://cacollaborative.org/meetings/meeting40.

Five Conditions for Equity in Pathways Implementation

Lessons from research and practice suggest five conditions that can help district leaders and policymakers make good on the equity promise of a pathways approach.

1. Ensure rigorous learning opportunities across pathways learning components. For pathways to enhance equity, all three of their programmatic dimensions—academic, applied, and work-based learning—must be implemented to high-quality standards. Academic and applied courses must enable students to master Common Core State Standards and Next Generation Science Standards and to meet A–G eligibility requirements for admission to the UC and CSU systems. Also, work-based learning must adhere to relevant industry practices and, more than that, provide meaningful exposure that enables students to learn and develop industry-relevant skills. Pathways' applied learning and work-based learning components should ensure that students' gain access to the education necessary to improve their capacity to navigate a range of careers. Under these conditions, pathways will enhance academic learning, rather than supplant it. In doing so, pathways contextualize academics within a framework that answers the perennial student question: "Why do we need to learn this?" In the process, pathways implementers provide additional opportunities to ensure that graduates leave high school with a broad skillset that can serve them along any number of paths they pursue upon graduation.

Strategies for success: District attention to each of the following can help to support rigorous learning:

- Recruit, maintain, and train high-quality staff to teach in a pathways environment. Train teachers on effective interdepartmental collaboration, and provide cross-disciplinary exposure to relevant career experiences.
- Schedule classes so that students can gain access to rigorous academic and applied courses, and are not forced to choose between these pursuits.
- Seek out diverse employer and postsecondary partnerships to ensure that pathways are embedded in a rich network of resources.
- Maintain and measure student and teacher performance in reference to high-quality standards, integrating academic, applied, and workplace standards—such as A-G requirements, industry standards, and 21st century skills training.

2. Foster an inclusive environment that builds a sense of belonging for all students. Pathways can give students a sense of identity, regardless of whether they have previously considered themselves to "belong" in school settings. Student panelists at the December 2019 Collaborative meeting repeatedly stressed the importance of this sense of connection, describing a key teacher in whom they could confide or a sense of community they enjoyed. Students also described ways in which pathways can foster a community of peers within the high school setting. "In our pathway, they like to call us one big happy family," one student explained. "We bond personally [and] make friendships. We work together. [Before getting into a pathway] you feel small, but when you get into pathways you feel like part of something bigger." The Linked Learning Initiative emphasizes this need for belonging and inclusion by integrating a fourth component to the academic, applied, and work-based learning components focused on "comprehensive support services"[15] (see Figure 3). Such supports can ensure that students feel wholly integrated into the pathways experience, enhancing their capacity to thrive. These supports reflect research findings that have long emphasized the relevance of students feeling supported as well as emotionally and physically safe for improved student performance.[16]

Figure 3. Linked Learning Components

Source. https://www.linkedlearning.org/about/linked-learning-approach

Strategies for success: Districts might consider the following strategies to support student belonging:

- Provide students with ongoing counseling services to introduce an advocate for their educational and social-emotional development.
- Task one or more key staff, including but not limited to school counselors, with monitoring the social and emotional health of individual students as well as the broader school culture.
- Protect the smaller learning environment to create additional opportunities for students to experience a sense of belonging in school, and to avoid allowing students to fall through the cracks.
- Create unique pathway identities to which students can relate by investing in shared student experiences both within and beyond the classroom.
- Provide educators and administrators with intentional, evidence-based professional development to support positive youth development practices that engender belonging and performance.

3. Provide equitable access to an array of diverse and high-quality pathways. High-quality programming across varied fields is fundamental to serving a diverse student body well. Choice over program of study and workforce engagement opportunities enable student agency, which can, in turn, enhance students' self-efficacy. Prior research shows that when students experience agency and efficacy over their pursuits, they tend to display enhanced engagement, motivation, and outcomes.[17] Because measures of engagement, motivation, and outcomes reveal disparities between marginalized students and their more advantaged peers, enhancing students' self-efficacy can enhance equity as well.

Photo courtesy of SBCUSD

Strategies for success: Practices for enhancing equity and access in pathways include the following:

- Diversify the location of high-status pathways and remove transportation barriers to avoid geographically clustered high-status pathways near more privileged student populations.
- Invite families to participate in the pathway selection process.
- Recruit students who are underrepresented to participate in high-status pathways.
- Use data on student enrollment and graduation rates alongside student reports on their sense of belonging to support continuous improvement policies and practices.
- Design pathways with an understanding of the local workforce context to ensure programmatic relevance to students' later life opportunities.

4. Prepare students to succeed in an evolving work environment and to navigate their career trajectory. Under the traditional model of schooling, choosing work rather than school upon high school graduation could lead students to flail if there are limited opportunities for career advancement and unclear mappings for how to reenter postsecondary education after spending time in the workforce. As few people stay in one career for their lifetime, pathways will be most useful to students if the career preparation that students receive provides lessons that are transferable across jobs and industries. Internships, tours, job talks, and other forms of exposure to a multitude of positions within or across fields can help students understand what jobs in a particular field actually entail, and how to navigate across different jobs within and across fields. These experiences can help students to begin to understand the nuanced ways in which successful people navigate careers. Broad and meaningful work exposure, however, requires collaboration with diverse employer partners in ways that are challenging for school districts to engender. Employers often have limited experience working with K–12 students and see little incentive for investing time in their local schools.[18] For school

leaders, tensions can arise between offering workforce exposure to more students—which could mean access to the workplace but include menial job tasks—and ensuring meaningful student experiences for a fewer number of students.

Strategies for success: Although each community will require a unique approach based on its local industries, ways to connect pathways with a diverse set of businesses include the following:

- Coordinate employer outreach with external community partners, including the city chamber of commerce, faith leaders, and postsecondary institutions.
- Identify personnel at the school or within the city or county who can manage logistical and relational hurdles that may arise due to challenges in scheduling and in the experience of navigating relationships between students and employers.
- Consider a broad array of workplace learning opportunities, including local for-profit businesses, local universities, nonprofit organizations, and the school district itself.
- Create incentives for employers to become and stay involved, perhaps in the form of a tax credit.
- Consider attaching requirements to district contracts with outside vendors requiring, for example, that any vendor whose work with the district exceeds a particular financial threshold would need to commit to providing workplace opportunities for the district's students.
- Offer a range of opportunities for employers to support pathways besides inviting students to participate in paid internships. Possibilities include visiting a school as a speaker, hosting a company tour, or full- or part-day job shadowing. These opportunities can provide exposure to students and lay the groundwork for more intensive collaboration down the road.

5. Prepare students for a range of postsecondary educational opportunities upon high school completion. To ensure that pathways' students have the broadest array of opportunities in later life, they should leave high school prepared for a host of avenues, many of which require academic degrees or shorter duration credentials. One challenge with preparing students for postsecondary education are the barriers between high school and postsecondary institutions. These barriers can contribute to inequities in advancement as students from historically underserved backgrounds are significantly less likely to come from families with direct experience navigating the postsecondary education track.[19]

Photo courtesy of Linked Learning Alliance

Strategies for success: Strategies for enhancing the postsecondary readiness of pathways' students include the following:

- Develop clear maps of the range of postsecondary options, including multiple college and career opportunities, and share them with students and families at critical milestones in the student development process (e.g., as they enter the pathway and at yearly transition points).
- Work with postsecondary institutions to smooth the college transition by (1) providing college counseling, (2) integrating postsecondary training into students' high school education (e.g., through dual-enrollment programs), and (3) ensuring that all students complete the requisite course requirements (e.g., A–G course taking).
- Collaborate with postsecondary institutions and employers to identify ways to create new opportunities for students to participate in college.

Conclusion

Well-designed pathways connect students to real-world learning opportunities. In doing so, pathways enhance student engagement, broaden student access to social capital, and create a platform for teaching 21st century skills through the high school educational context. In these ways, pathways provide a more equitable approach for educating all students.

Pathways also benefit employers. When integrated into the educational context successfully, pathways create a more diverse and knowledgeable pipeline of employees. This two-way benefit may offer a source of hope in addressing mounting economic pressures. To realize that hope, however, pathways must be rigorous, foster belonging, be accessible to diverse students, and create authentic and measurable opportunities for all students to enter college and careers. With attention to these conditions—perhaps by considering the strategies outlined in this brief—pathways' implementers can come closer to making the high school experience a vehicle for improved access and outcomes for all students.

District leaders cannot implement pathways successfully alone, however. To maximize their potential, pathways require broad stakeholder engagement, including employers and other individuals of prominence, such as faith leaders and city agency personnel. By working together, these leaders can engender an effective and equitable educational framework to enhance student and societal outcomes.

ENDNOTES

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2. In 2019, the California Department of Education reported 340 California Partnership Academies. In 2020, the Linked Learning Alliance reported 500 Linked Learning academies. Because pathways can be certified by both entities, do not assume that you can add these numbers to understand the total number of pathways programs in California. Source information retrieved from https://www.cde.ca.gov/ci/gs/hs/cpaoverview.asp and http://linkedlearningdatamart.org/.

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CALIFORNIA **COLLABORATIVE** on District Reform

The California Collaborative on District Reform, an initiative of the American Institutes for Research, was formed in 2006 to join researchers, practitioners, policymakers, and funders in ongoing, evidence-based dialogue to improve instruction and student learning for all students in California's urban school systems.

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