

Taking Stock of the California Linked Learning District Initiative

Sixth-Year Evaluation Report
Executive Summary

Miya Warner
Kyra Caspary
Nicole Arshan
Regie Stites
Christine Padilla
C.J. Park
Deepa Patel
Betsy Wolf
Samantha Astudillo
Erin Harless
Naa Ammah-Tagoe
Matt McCracken
Nancy Adelman



Introduction

Since 2006, The James Irvine Foundation has invested more than \$100 million in Linked Learning, an approach to transforming education in California.

In 2009, Irvine launched the California Linked Learning District Initiative to demonstrate this approach in nine districts. The multiyear evaluation for this large initiative has a two-fold purpose: to document the work, results, and lessons from districts that are applying Linked Learning systemically; and to measure the effect of this comprehensive implementation on student outcomes.

About Linked Learning

The Linked Learning approach integrates rigorous academics that meet college-ready standards with sequenced, high-quality career-technical education, work-based learning, and supports to help students stay on track. Linked Learning pathways are organized around industry-sector themes. Ideally, the industry theme is woven into lessons taught by teachers who collaborate across subject areas with input from working professionals, and reinforced by work-based learning with real employers. This approach is designed to make learning more like the real world of work, and help students answer the question, “Why do I need to know this?”

This approach is gaining momentum among K–12 and postsecondary educators, policymakers, and business leaders. In early 2013, 63 districts and county offices of education were selected to participate in the California Linked Learning Pilot Program, which serves as a test of how Linked Learning can be expanded across the state. In June 2014, 39 partnerships received a total of \$250 million through the California Career Pathways Trust (CCPT), a competitive grant designed to develop work-based learning infrastructure, create regional partnerships, and improve and expand career pathway programs statewide. In 2015, a second round of CCPT grants provided an additional \$250 million to district and community college partnerships across the state.

A meaningful difference

Sixth-year evaluation shows that, compared with similar peers, students participating in certified Linked Learning pathways:

- Earn more credits over the four years of high school
- Are less likely to drop out of high school and more likely to graduate

Moreover, certified pathways are having a strong positive effect for students entering high school with low academic skills.

In addition, fifth-year evaluation showed that students participating in certified Linked Learning pathways report greater confidence in their life and career skills.

Four Core Components

The Linked Learning approach calls for the close integration of four core components:



Rigorous academics that prepare students to succeed in college.



Career-technical education courses in sequence, emphasizing real-world applications of academic learning.



Work-based learning that provides exposure to real-world workplaces and teaches the professional skills needed to thrive in a career.



Comprehensive support services to address the individual needs of all students, ensuring equity of access, opportunity, and success.

About the District Initiative

Through the California Linked Learning District Initiative, Irvine is supporting nine districts in developing systems of career pathways that are available to all high school students.

Each of these districts focuses on developing pathways to college and career that meet criteria for quality certification. A total of 40 pathways are certified across the nine participating districts as of July 2015. Certification is provided through a set of Linked Learning partners led by ConnectEd: The California Center for College and Career.

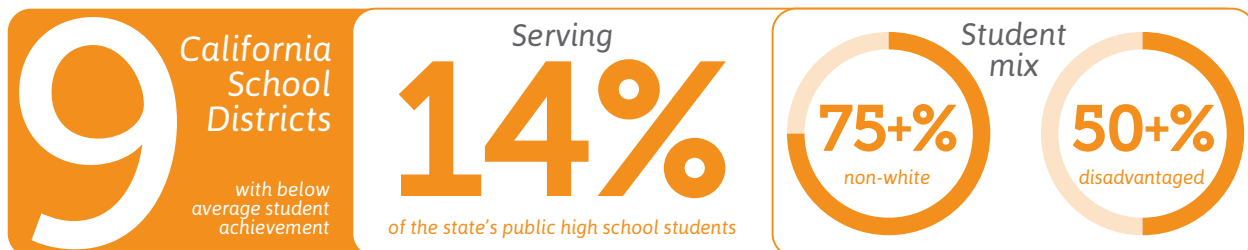
The District Initiative is a vehicle for enhancing Linked Learning, determining what makes it successful at a systemic level, and demonstrating its viability as a comprehensive approach for high school reform. The lessons learned from these nine districts can inform other districts that are beginning to implement Linked Learning.

Participating School Districts

Antioch Unified
 Long Beach Unified
 Los Angeles Unified
 Montebello Unified
 Oakland Unified
 Pasadena Unified
 Porterville Unified
 Sacramento City Unified
 West Contra Costa Unified

About the Districts

The nine districts participating in the California Linked Learning District Initiative vary in size, and include rural and urban geographies. High school enrollment in these districts ranges from more than 5,000 to almost 195,000 students. Collectively, they serve more than 281,000 of the nearly 2 million high school students enrolled in California public schools.



About this Evaluation

The California Linked Learning District Initiative has been evaluated in each year of its implementation by SRI International, an independent nonprofit research institute.

This sixth annual report captures a transitional moment: 2014–15 marked the final year of funding for the initiative from The James Irvine Foundation, as Irvine shifts from a district-focused strategy to a regional approach for advancing and scaling Linked Learning. This period also ushered in unprecedented state and federal funding, supporting the development of regional partnerships for the expansion and improvement of career pathways programs. Most notably, the CCPT grants awarded in 2014 and 2015 significantly increased the resources available for the nine initiative districts in support of regional infrastructure development for student work-based learning opportunities and transitions to postsecondary education.

It is within this context of increased funding for regional expansion of Linked Learning that we present this sixth-year evaluation report. For the first time, this report offers findings on student high school graduation and college eligibility. It also examines districts' progress in expanding pathway access and ensuring equity, looking at patterns in student enrollment and persistence in pathways. Finally, we explore the influence of regional expansion efforts on districts' progress in developing work-based learning systems, their relationships with postsecondary institutions, and their plans for expanding and sustaining Linked Learning while maintaining pathway quality and fidelity. Lessons gained from the experiences of the nine initiative districts are highly instructive for new regional collaborations that are just beginning to engage with or scale up Linked Learning.

Read the [full report](#) based on sixth-year evaluation of the California Linked Learning District Initiative.

Student Outcomes

A central goal of the initiative is to increase student engagement in school and ultimately improve high school graduation rates. The initiative also seeks to increase successful transitions to a full range of postsecondary education opportunities, particularly for low-income and disadvantaged youth. In this sixth-year report, we were able to track — for the first time — a cohort of students in all nine districts from enrollment in a Linked Learning pathway through high school graduation using data from the class of 2014. In the coming year, we will update this analysis to include the class of 2015 as well.¹

We examined end-of-high-school outcomes, with an emphasis on graduation and indicators of college eligibility, to assess the impact Linked Learning had on students throughout their high school careers. To do so, we compared outcomes for students in Linked Learning certified pathways with those of similar peers enrolled in traditional high school programs in each district.²

High School Graduation

The Linked Learning approach did make a difference for high school students, leading to more credits, decreased dropout rates, and higher graduation rates. The results held only for certified pathways and reinforce the strongest and most consistent findings from our prior evaluations — certified pathways students completed more credits and remained in their district longer than similar peers in traditional high school programs. We found:

- On average, students enrolled in certified pathways accumulated 13.3 more credits than similar peers in traditional high school programs — equivalent to 2.6 more courses or approximately one-half of a semester of coursework over the four years of school.³
- On average, students in certified pathways were 1.9 percentage points less likely to drop out of high school and 3.7 percentage points more likely to earn a high school diploma than similar peers in traditional high school programs.

Students enrolled in certified pathways complete

+13.3 more credits

on average than similar peers in traditional high school programs.



Increasing the graduation rate of pathway students is a critical initiative accomplishment given recent national trend data indicating that high school graduates earn approximately 60 percent more than high school dropouts.⁴

College Eligibility

Alongside increasing graduation rates, it is also important that Linked Learning graduates be adequately prepared to transition to college or careers. We assessed students' progress toward college eligibility, as measured by a combination of course-taking and test outcomes. These analyses of credits accumulated and a–g completion are based on data from students in six of the nine districts.⁵ We found:

- Linked Learning students were equally likely as similar peers in traditional high schools to complete college-preparatory course requirements for public four-year colleges and universities in California (a–g requirements).

It is important to consider that pathway students have the demands of completing a career technical course sequence in addition to the more traditional academic curriculum. We found no evidence that these additional requirements were interfering with pathway students' completion of the a–g requirements. In addition, certified pathways are doing just as well as traditional programs at helping students complete the a–g requirements even as they retain more students who might otherwise have dropped out and are unlikely to pursue the full college preparatory curriculum.⁶

Further, those certified pathway students who do complete all requirements will have an easier time with the postsecondary transition. Specifically, we found:

- On average, certified pathway students had California State University (CSU) GPAs that were 0.14 points higher than similar peers in traditional high school programs, increasing their postsecondary eligibility.⁷
- On average, certified pathway students were 5.3 percentage points more likely than similar peers to be classified as ready or conditionally ready for college in ELA on the Early Assessment Program exam, exempting them from remediation at the majority of California's postsecondary institutions.

Certified pathways students had

**+0.14 point higher
CSU GPAs**

on average than similar peers in traditional high school programs.



Evidence also pointed to areas of growth for the Linked Learning approach. Interviews with pathway leads suggest that the lack of a–g approved pathway career and technical education (CTE) courses and the lack of a foreign language course remained barriers to pathway students completing four-year college entrance requirements within their pathway program of study.

Student Equity and Access

The Linked Learning approach strives to provide all students with equitable access and opportunities for full participation in a variety of high-quality career-themed pathways — regardless of race, class, prior achievement, or special learning needs. To assess equity and access, we examined the relationship between a district’s choice and recruitment policies and the degree to which pathways are representative of that district’s high school student population. We also analyzed student persistence in pathways — including students with special learning needs, and compared academic outcomes for Linked Learning student subgroups with similar peers in traditional high school settings.

Enrollment and Persistence

To improve pathway access to all students, some districts are changing their policies to offer wider pathway choice (students can access most or all pathway options in the district) and more centralized recruitment (the district organizes recruitment for all pathways, ensuring a level of consistency). We found:

- Though student preferences can complicate the relationship between policies and pathway enrollment patterns, districts that use districtwide choice and district-driven recruitment practices appear better positioned to enroll a student body in pathways that is reflective of district demographics. The two districts with the most representative populations of students in pathways centralized their recruitment strategies *and* allowed incoming students open choice of high school pathways and programs.

Districts that use **districtwide choice** and **district-driven recruitment practices** appear better positioned to enroll a student body in pathways that is reflective of district demographics.

Enrolling students in pathways is only the first step in ensuring equitable access — we also examined if students remained in the *same* certified pathway they initially enrolled in as an indicator of whether they were provided with necessary supports. We found:

- Over 70 percent of students who started out in a certified pathway in its lowest grade level were still enrolled in the same pathway by the time they reached 11th grade. However, students with low prior achievement, English learners, and special education students had lower than average rates of persistence in certified pathways. In part, these trends are due to scheduling challenges, and difficulty for small pathways to meet the needs of these students.⁸

Subgroup Academic Outcomes

For our analysis of academic outcomes by student subgroup — African Americans, Latinos, females, English learners, and students with low prior achievement — we examined each outcome presented earlier.⁹ We found:

- On average, students with low prior achievement in certified pathways were 4.1 percentage points less likely to drop out, earned 21.8 more credits, completed 1.9 more a–g courses, and had GPAs 0.16 points higher than similar peers in traditional high school programs.
- On average, English learners in certified pathways earned 15.2 more credits than similar peers in traditional high school programs.
- On average, African American students in certified pathways earned 29.3 more credits — more than an additional semester’s worth — than similar students in traditional high school programs.
- Findings for female and Latino students mirrored the overall results for students in certified pathways — most likely because female and Latino students, respectively, account for 50 percent and 58 percent of the total student sample.

On average, students in certified pathways with low prior achievement:

- Were **4.1** percentage points less likely to drop out
- Earned **21.8** more credits over the four years of high school
- Completed **1.9** more a–g courses
- Had GPAs **0.16** points higher

These results confirmed that the overall positive or neutral effects of pathway participation are not masking negative effects for specific subgroups. The observed effectiveness of Linked Learning for students entering high school with low academic skills is consistent with the literature, which suggests that pathways’ prescribed course of study may be particularly beneficial for disadvantaged students who might otherwise find themselves tracked into lower level classes.¹⁰ These students may also find the real-world relevance and greater structure and supports provided by a certified pathway key to thriving in school.

On the other hand, these findings suggest that African American and English learner students may not experience the full benefits of participating in a certified pathway. Interviews with high school counselors indicated that scheduling conflicts with required language classes often prevented English learners from fully participating in a pathway’s course sequence — including the interdisciplinary projects offered across these classes. This obstacle may temper the effect of pathway enrollment on outcomes for these students.

Student Outcomes in Noncertified Pathways

As the regional expansion of Linked Learning encourages pathway development beyond the nine initiative districts, it is important to determine if the approach must be implemented with fidelity to achieve optimal results. We estimated differences between noncertified pathway students and similar traditional high school peers for all outcomes, and explored patterns of student enrollment and persistence in noncertified pathways.¹¹

We found:

- Students in noncertified pathways did not experience the positive graduation and college eligibility outcomes observed for certified pathways students. Noncertified pathway students were equally likely to drop out and graduate from high school, completed the same number of credits and college-prep requirements, had comparable college-admission GPAs, and performed as well on the ELA EAP exam as similar peers in traditional high school programs.
- In almost all districts, student persistence in certified pathways was higher than in noncertified pathways. The lack of positive findings for students in noncertified pathways may be partially explained by the fact that students were less likely to remain in noncertified pathways through the 11th grade, making them less likely to reap the full benefits of pathways.

Students enrolled in noncertified pathways did not experience the same positive outcomes in **high school graduation and college eligibility** as students in certified pathways.

These findings suggest that a career theme alone is inadequate to produce positive effects on student outcomes. Certification indicates that pathways have implemented certain structures (e.g., work-based learning systems, course sequencing). When these structures were in place, we observed positive effects on high school graduation and college eligibility.

Pathway Quality and Fidelity

Linked Learning leaders have concurred that a slower pace of pathway development and expansion is desirable and promotes more consistent quality in implementation. Even in districts actively pursuing creation of new pathways, Linked Learning leaders expressed the desire to slow the pace of implementation and direct more attention to quality assurance. The lack of positive findings for noncertified pathways provides some validation of a focus on quality over rapid expansion.

Through interviews with Linked Learning staff, we found:

- Several districts set up systems to assess pathway quality and better understand progress toward meeting Linked Learning certification criteria. The most successful used data to provide targeted supports to pathways and emphasized continuous improvement over accountability.
- As districts increase their attention to continuous pathway quality improvement, some are seeing certification as a secondary priority, whereas others continue to place a high value on certification as a marker of quality.

Regional Expansion

State (CCPT), federal (Youth CareerConnect), and Irvine Foundation grants supporting the development of regional consortia of K–12 school districts, postsecondary institutions, and local industry partners strongly influenced the activities of the nine initiative districts in 2014–15. These regional consortia hold promise for furthering two areas of Linked Learning that have been previously underdeveloped: work-based learning and postsecondary transitions.

Work-based Learning

As documented in prior evaluation reports, districts have difficulty providing students with higher level work-based learning experiences such as job shadows and internships. The nine districts have struggled to create the type of districtwide work-based learning systems that would ensure all students in pathways have access to the sequence of high-quality, real world experiences called for in the Linked Learning approach.

Work-based learning became a much higher priority in 2014–15, largely because of the CCPT grants. All nine districts in the initiative received first-round CCPT grants in 2014, and two received second-round CCPT grants in 2015. The grants appear to be gradually changing the status quo for work-based learning, with activities in several of the districts pointing to the possibility that work-based learning systems may emerge over the next year or so.

CCPT grants are supporting this development in two primary ways:

- Districts can hire additional work-based learning staff — potentially increasing available learning opportunities and providing more administrative support for connecting students to those opportunities.
- Some regional consortia have contracted with or developed intermediary organizations to engage industry partners, coordinate between partner organizations, and lessen the burden on pathway teachers of locating work-based learning experiences.

Although districts are making substantial progress on developing these systems, efforts have unfolded slowly in this first year of CCPT grant implementation. Finding staff with the background and skills needed can be difficult. The ideal candidate should have industry-specific knowledge and connections, and also understand how work-based learning can be used to enrich traditional schooling by making academic learning more real and relevant.

State and Federal Funding for Regional Partnerships

District	CCPT Round 1 (2014)	CCPT Round 2 (2015)	Youth Career Connect (2014)
Antioch Unified	✓		
Long Beach Unified	✓		
Los Angeles Unified	✓		✓
Montebello Unified	✓		
Oakland Unified	✓		
Pasadena Unified	✓	✓	
Porterville Unified	✓	✓	
Sacramento City Unified	✓		
West Contra Costa Unified	✓		

Despite the additional funds, districts are still challenged to find and train the personnel who are able to navigate both education and industry settings. As a result, these systems are not yet fully operational and pathway teachers remain responsible for both securing work-based learning opportunities and integrating them into instruction. Thus, student access to quality experiences continues to be uneven within districts.

Postsecondary Partnerships

Another major focus of the funding for regional expansion is bringing K–12 districts and postsecondary institutions together to address cross-level barriers to students' success in postsecondary education. We found:

- Districts have used grant resources to initiate or deepen K–12 and postsecondary partnerships. Several districts reported that this type of collaboration was one of the greatest successes in the 2014–15 school year.
- Regional consortia have made progress in removing some of the bureaucratic and policy barriers to students' transitions between K–12 and postsecondary systems. In particular, initiative districts were working to develop more dual-enrollment opportunities for students. A few districts began creating regional agreements that would enable students to receive credit for articulated courses at community colleges within the region.

Building Sustainable Linked Learning District Systems

In addition to regional expansion efforts to enhance work-based learning and postsecondary partnerships, Linked Learning leaders in the nine initiative districts are deeply engaged in three core areas critical to sustaining the approach:

- Establishing stable and distributed leadership
- Securing core funding
- Institutionalizing Linked Learning by integrating the approach into key district policies and priorities

Leadership

Distributed ownership of Linked Learning facilitates problem solving during implementation and protects the reform in the face of leadership turnover. In 2014–15, we found that districts were actively working to ensure the sustainability of Linked Learning by establishing distributed leadership structures, although turnover in district leadership has slowed these efforts in some places. Interviews with Linked Learning leaders in the nine districts suggested:

“The goal is shared responsibility for Linked Learning — to share the responsibility of championing the approach.”

– *Linked Learning director*

- To implement Linked Learning effectively and comprehensively, districts engaged human resources personnel, professional development providers, coaches, counselors, and other personnel to allow strategic planning across departments.
- In districts where leadership of Linked Learning remains concentrated under the Linked Learning director alone, consolidation of leadership and decision-making authority has prevented relevant stakeholders, such as other district leaders and pathway leaders, from taking ownership of the initiative.

Stability among high-level district leadership, including superintendents and Linked Learning directors, has facilitated the implementation of the approach and the creation of strong distributed leadership structures. However, consistent, stable leadership is more the exception than the norm. During 2014–15, four districts in the initiative had new superintendents who verbally committed to sustaining Linked Learning implementation, but veterans of the initiative in two of the districts also reported some frustration that progress had slowed. In one case, organizational changes made by the new superintendent may actually set Linked Learning implementation back a year or two.

Funding

The sustainability of Linked Learning will rely not only on stable and consistent leadership, but also on stable and consistent funding. Districts should transition from viewing Linked Learning as primarily a grant-funded initiative to providing core support with district general funds. Some are taking steps in this direction by using general funds to support Linked Learning staff, and by using new funding sources from grants and public ballot measures to build infrastructure that will help them sustain Linked Learning. The advent of the Local Control Funding Formula (LCFF) in 2014 has aided this shift, distributing public education funding based on average daily school attendance, with greater weight given to certain grade levels and targeted groups of high-need students. LCFF also provides districts greater control by collapsing most previous categorical funds into a single stream. In this sixth year:

- Two districts shifted the salaries of key Linked Learning staff members from grant funds to general funds for the first time.
- Two districts set aside a portion of their LCFF money for Linked Learning costs, such as support services like instructional and CTE coaches, pathway coordinators, and planning time for pathway leads.

Despite these positive steps, some smaller districts still experience budgetary constraints that may impact how Linked Learning supports and services can or will be maintained when grant funding is no longer available. Beyond earmarked funding, integrating Linked Learning into key district policies and practices is another important element in sustaining this reform.

Policies and Priorities

The LCFF requires districts to develop three-year Local Control Accountability Plans (LCAPs) that identify goals and establish metrics for measuring progress. Five districts explicitly incorporated Linked Learning into their LCAP. Districts also worked to combine Linked Learning with their curriculum and instruction improvement efforts through three major strategies:

1. Integrating Linked Learning in the curriculum and instruction departments

Two districts moved the Linked Learning department under the district's instructional umbrella. District staff and pathway teachers both viewed this as a positive development.

2. Instituting formal systems that encourage collaboration

Three districts created formalized systems that encouraged collaboration among the Linked Learning and the curriculum and instruction departments.

3. Aligning the graduate student profile with Linked Learning outcomes

Some districts were also integrating the initiative into curriculum and instruction by aligning their student graduate profile with Linked Learning outcomes such as project-based learning, student collaboration, and participation in work-based learning opportunities.

Seven districts used one or more of these three strategies to align Linked Learning with planned reforms of curriculum, instruction, and/or assessment related to the Common Core State Standards or graduate profile. This is strong evidence that Linked Learning is becoming thoroughly institutionalized in the majority of the districts.

Looking Ahead

Four years of student outcomes analysis have highlighted the promise of the Linked Learning approach. This year's results indicated that Linked Learning certified pathway students are less likely to drop out and more likely to graduate than similar peers in traditional high school programs. Collectively, our analyses produced limited but positive evidence that certified pathway students are more likely to be college eligible than their peers.

There is still room to grow. Pathway students were equally as likely to complete a–g course requirements as similar students in traditional high school programs. To substantially improve Linked Learning graduates' college eligibility, pathways will need to ensure that students have access to and complete all required a–g courses. Districts have been responding to this deficiency by revisiting pathway courses of study and revamping CTE courses to meet a–g standards.

This year, we also saw evidence of a clear long-term commitment from most initiative districts to sustain Linked Learning. Districts are creating distributed leadership structures, integrating Linked Learning into district policies and priorities, and shifting key staff positions from grant funds to general funds.

Over the course of the initiative, Linked Learning leaders in the nine districts have come to a consensus that a slower pace for pathway development and expansion is desirable — they are concentrating on developing systems to assess and improve pathway quality. As we look ahead to the regional expansion of Linked Learning in California, districts interested in adopting the approach would do well to learn from these experiences. The lack of positive student outcomes findings for noncertified pathways — programs that are career-themed but may not adhere to the Linked Learning approach — further validates this emphasis and provides a note of caution to districts interested in rapidly scaling Linked Learning pathways.

State, federal, and Irvine Foundation grants supporting the development of regional consortia of K–12 school districts, postsecondary institutions, and local industry partners strongly influenced the activities of the nine initiative districts in 2014–15. These regional efforts hold great promise for helping districts advance two areas of Linked Learning that have been underdeveloped in the initiative districts: work-based learning and postsecondary transitions. The regional approach provides an opportunity for industry, communities, districts, and postsecondary institutions to form productive partnerships and tackle cross-sector issues that are challenging for any one organization to take on alone. These partnerships have the potential to offer students more real-world experiences and support them in the postsecondary transition.

Most districts are committed to supporting Linked Learning in the long-term through leadership, policy integration, and shifting to use of general funds to sustain key staff positions.

Despite the promise of the regional expansion for supporting systems and building partnerships, much work remains to change day-to-day instruction in Linked Learning classrooms. A fundamental transformation of teaching and learning requires ongoing coaching and job-embedded support for pathway teachers. The initiative districts are making some movement in this area with the hiring of dedicated internal coaches who are charged with supporting pathway teams with curriculum, instruction, and assessment. As Linked Learning further expands, stakeholders will need to continue focusing on high-quality teaching and learning. Without this focus, Linked Learning is unlikely to impact student learning in a meaningful way.

Districts received their final round of grant funding from Irvine through ConnectEd during the 2014–15 school year. In the next year of the evaluation, we will report on the progress of the nine districts as they transition to supporting Linked Learning implementation in new ways. We will examine districts' plans for sustaining and scaling Linked Learning and will continue to document the role of new regional partnerships in expanding work-based learning opportunities and smoothing students' postsecondary transitions. The next evaluation report will also describe how well Linked Learning graduates fare compared with similar peers as they transition to postsecondary endeavors.

As Linked Learning expands regionally, particular attention to job-embedded support for pathway teachers, along with built infrastructure that enables work-based learning opportunities and a smooth postsecondary transition, will bring lasting benefits for students.

Endnotes

- ¹ Outcomes findings for students in certified pathways are based on data available from eight of the nine districts involved in the initiative. One district did not have certified pathways at the time of analysis.
- ² To examine student enrollment and retention patterns within pathways, as well as outcomes for students in certified pathways compared with similar peers in traditional high school programs, we used student-level demographic and achievement data from the districts. For the analysis of student outcomes, we assigned students their pathway status on the basis of the academic program in which they enrolled in the 9th or 10th grade, whichever was the lowest grade level served by the pathway. When we examined course-related outcomes, we excluded dropouts to disentangle the effects of Linked Learning on dropping out from any effects it has on outcomes that can be measured only for students who remained in school.
- ³ We compared credits accumulated for students who remained in school through 12th grade. In prior reports, we typically provided larger estimated differences for each of 9th–11th grades. The difference in size of this year’s estimate and prior years’ is likely due to the exclusion of students who dropped out before 12th grade.
- ⁴ U.S. Census Bureau (2009). Survey of Income and Program Participation, 2008 Panel. Retrieved from: <https://www.census.gov/hhes/socdemo/education/data/sipp/2009/tables.html>
- ⁵ Students from Antioch, Oakland, and Sacramento are not included in the analyses of credit accumulation or a–g completion.
- ⁶ In the fifth-year report, we reported that certified pathway students in the 10th grade were more likely to be on track to complete a–g requirements than similar peers, but there were no statistically significant differences for students in the 9th and 11th grades. One key difference this year is that we excluded students who dropped out of school when examining a–g completion. Prior findings that students in certified pathways were more likely to be on track to complete a–g requirements may have been driven by the greater likelihood that students in traditional high school dropped out (and thus did not earn a–g credits).
- ⁷ A student’s GPA in a–g courses has important implications for college admission to California’s four-year public universities. Students must earn at least a 3.0 GPA to be eligible for the UC system. Students qualify for admission to the CSU system with a GPA of 3.0 or higher and are ineligible for admission with a GPA below 2.0. Our calculation of GPA closely mirrors the CSU system’s formula to calculate high school GPA for applicants.
- ⁸ Our analysis of persistence differed from the dropout analysis because here we explored whether students remained in the *same* certified pathway that they initially enrolled in, whereas in the dropout analysis we examined whether students remained in school at all, regardless of pathway or program. Additionally, these results are purely descriptive so we cannot draw any comparisons to traditional high school programs.
- ⁹ For this analysis, we limited the sample to students in the subgroup of interest. Then we compared outcomes for students in certified and noncertified pathways with those of similar students in the subgroup in traditional high schools. Not all districts and certified pathways are represented in the analyses because student populations varied by district and subgroup. Although both special education and low socioeconomic status students are also of particular interest to this initiative, we chose not to run separate analyses for either group. Special education students constituted 8 percent of the analytic sample, a sample size too small to conduct a separate analysis using the same methods as the overall analysis. Low socioeconomic status students were a majority of our sample — 79 percent — so results therefore closely mirror those of the overall sample.
- ¹⁰ Fowler, W. J., Jr., & Walberg, H. J. (1991). School size, characteristics, and outcomes. *Educational Evaluation and Policy Analysis*, 13(2), 189–202.
- ¹¹ For this analysis, we included any career-themed pathways identified by districts as “noncertified pathways.” Interviews with district staff indicated that pathways in this category covered a wide range of adherence to the Linked Learning approach. Some pathways were themed in name only, whereas others were nearing certification. We believe this wide range of adherence to the Linked Learning approach translates to a wide range in the quality of noncertified pathways within the districts. Our findings may therefore help inform districts debating the value of pathway certification and continuous improvement.



This study was commissioned by The James Irvine Foundation.

Suggested citation:

Warner, M., Caspary, K., Arshan, N., Stites, R., Padilla, C., Park, C., Patel, D., Wolf, B., Astudillo, S., Harless, E., Ammah-Tagoe, N., McCracken, M., & Adelman, N. SRI International. (2015). *Taking Stock of the California Linked Learning District Initiative. Sixth-year Evaluation Report*. Menlo Park, CA: SRI International.