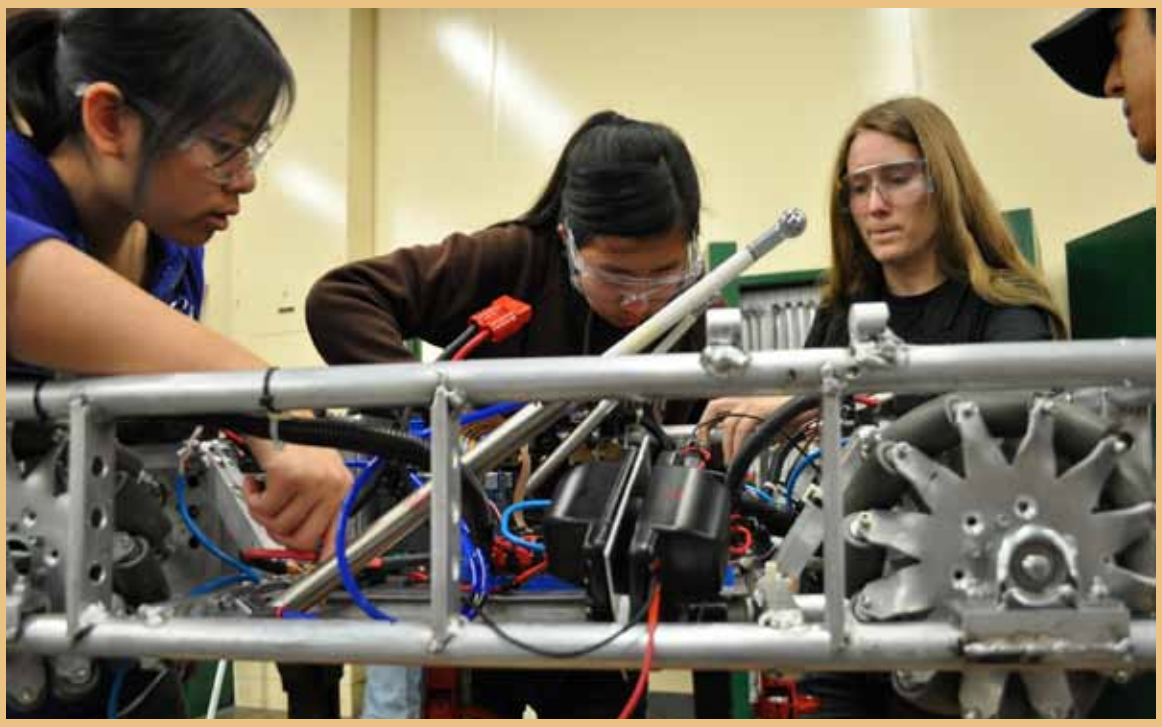
Linked Learning Case Study Series
Stanford Center for Opportunity Policy in Education



Linked Learning in Sacramento: Organizing the District and Community for Sustainable Reform

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The Stanford Center for Opportunity Policy in Education (SCOPE) supports cross-disciplinary research, policy analysis, and practice that address issues of educational opportunity, access, equity, and diversity in the United States and internationally.

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Cover Photo: Technology, Engineering & Design Academy at Hiram Johnson High School

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Overview

About Linked Learning

Sacramento City Unified School District (SCUSD) is one of many districts across California that has pursued reform efforts to increase graduation rates and prepare students so that they leave the K-12 system both college and career ready. An ever-increasing demand for a highly educated workforce, particularly in high-growth job sectors such as business, arts and design, healthcare, and transportation, places increased pressure on school districts to prepare students for college and career success.[1]

Among the most promising district reforms in California is Linked Learning. Formerly known as "multiple pathways," Linked Learning stresses the integration of academic instruction with a demanding technical curriculum, field-based learning, and student supports. The term "pathway," used frequently in this case study, refers to a formal program that implements these core components and the guiding principles of Linked Learning. The model is flexible and can be implemented in various educational settings including, but not limited to, career academies or smaller career-themed schools. Linked Learning also requires collaboration among district, school, industry, civic, higher education, and other community stakeholders in support of student success.

Linked Learning is different from traditional vocational and career technical education high school programs, which provide explicit career preparation for students but "often lack the academic and technical rigor required for success in post-secondary education and high-skilled careers."[2] Linked Learning is based on an integrated model that offers both the academic and the technical skills necessary for a complete education and successful future.

The California Linked Learning District Initiative is a statewide effort launched by the James Irvine Foundation in 2008. As of 2012, this initiative supports nine California school districts, including SCUSD, to develop, implement, and sustain a system of high-quality pathways that are accessible to every student in the district. The initiative focuses on systems, culture, and conditions in order to build, improve, and sustain high-quality pathways. The Stanford Center for Opportunity Policy in Education (SCOPE) is partnering with the James Irvine Foundation and ConnectEd: The California Center for

College and Career to provide professional development for district and pathway leaders and to capture and share knowledge from the field.

Context for this Case Study

This case study is one of three district-level case studies written by SCOPE about districts participating in the California Linked Learning District Initiative. Case study districts were selected to represent both urban and rural areas and for their widely varying contexts in terms of their history with career and technical education, vision for Linked Learning, leadership turnover, and community context.

The case studies take a close look into the role of district leadership in implementing Linked Learning. They aim to provide insights that will benefit other Linked Learning districts as well as offer important lessons for districts undertaking other systemic reform. The cases are not meant to be evaluative; rather, they illuminate different approaches to district leadership, best practices, emerging lessons, and new challenges. All three cases will be part of a cross-case analysis, to be published by early 2013.

Each case study is framed around one overarching research question: *How does district leadership guide and support the development and implementation of the Linked Learning Initiative?*

Methodology

Data for this case study were collected between February 2010 and August 2012. Data collection activities included formal interviews with district, site, and community leaders; observations of activities related to district planning and implementation; and a review of essential documents. Additional access to district and school leadership, industry partners, and board members was made possible during the Initiative's District Leadership Series — a professional development series for participants that SCOPE facilitated in partnership with ConnectEd. In addition to these formal data collection activities, the ongoing relationship between SCOPE and SCUSD has enabled further understanding through informal dialogue with district and site leaders, community members, and coaches.

Data were organized and coded by central themes to inform the writing of case studies. Follow-up interviews were conducted with key informants to fill in gaps in the data. The case studies were completed and checked with key members within the district for accuracy of factual information.

A detailed description of data collection activities is provided in Appendix A.

District and Community Context

As the 12th largest school district in California, SCUSD serves about 44,000 K-12 students and employs approximately 2,500 teachers. SCUSD is an urban school district with a relatively dense population within the Sacramento city limits. Some students from surrounding communities such as Elk Grove and Rancho Cordova also attend SCUSD.

SCUSD currently has 13 high schools, six K-8 schools, nine middle schools, one 7-12 school, and 54 elementary schools. Among these schools, five are dependent charter schools and eight are independent charter schools. Of the district's 13 high schools, five are large comprehensive high schools, six are small high schools, one is a continuation school, and one is an independent study school. As of the end of 2011-12, nine of the 13 high schools supported a Linked Learning pathway with one more comprehensive school opening pathways as of 2012-13.

Students and the Community

Located at the northern edge of California's Central Valley, Sacramento is the sixth most populous city in California, with approximately 466,000 residents living within the city limits. Touted by *Time* magazine in 2002 as the country's "most integrated city,"[3] Sacramento remains a racially and ethnically diverse community. While White (34.5%) and Latino (26.9%) residents make up more than half of the population, the Asian (18%) and African American (13.9%) populations are also substantial (See Table 1, page 4). Nearly 36% of all Sacramento residents speak a language other than English at home.

SCUSD's student population is similarly diverse, though the racial and ethnic demographics are significantly different from those of the broader community. As Table 1 illustrates, SCUSD serves a proportionally higher number of Latino students (36.5%) and a proportionally lower number of White students (18.6%). The district's Asian (19.1%), African American (18.0%), and multiracial (5.3%) enrollment are relatively proportional to the city's demographics.

Nearly 24% of students in SCUSD have been designated as English learners while another 7.3% were recently re-designated as English proficient. In addition, 71% of students qualify for free or reduced-price lunch[4] and 73.3% are considered socioeconomically disadvantaged.[5] While the Linked Learning model is designed to help all students become college and career ready, it is particularly focused on closing the opportunity and achievement gaps for high-need populations such as these.

Economic and Workforce Context

Sacramento is the capital of California and the county seat of Sacramento County. The city supports a broad-based economy, with large governmental, transportation, information, business, and technology sectors[8]. The most recent recession, however, struck a

Table 1: SCUSD and Community Demographics

	SCUSD Student Population	City of Sacramento
Population		
Total Population	47,940	466,488
Race & Ethnicity		
African American	18.0%	13.9%
American Indian	0.8%	0.6%
Asian	19.1%	18%
Hispanic or Latino[6]	36.5%	26.9%
Pacific Islander	1.7%	1.4%
White	18.6%	34.5%
Multiracial[7]	5.3%	4.5%
English Learner Designation		
Language other than English spoken at home	47%	35.5%
English Learners	23.7%	
Re-designated English proficient	7.3%	
Education Level for 25 and Older*		
Less than a high school degree	18.7%	18.3%
High school diploma or higher	44.8%	53.6%
Bachelors degree or higher	20.7%	28.1%

*15.7% of SCUSD parents declined to state their educational status.
Sources: City data from the 2010 Census or 2006-10 American Community 5-Year Estimates at *http://factfinder2.census.gov/faces/nav/jsf/pages/index.xhtml*
District data from *http://www.cde.ca.gov/ds/*

significant blow to Sacramento's economy and by 2010, the city's unemployment rate had soared to nearly 13%[9]. That same year, the median income for families in Sacramento was $51,978, approximately $15,000 less than the median income for California families statewide. Children appear to have been particularly affected: 26.1% of children under 18 lived in poverty, in comparison to 19.2% of overall residents in 2010[10]. Yet despite these realities, recent reports have described the economy as experiencing a slow but steady "U-shaped recovery," with "job growth lagging economic growth by at least 12-18 months."[11]

The need for employment creation and workforce development in Sacramento makes it a logical site to implement Linked Learning, which fosters partnership between the school district and the community. The Metro Sacramento Chamber of Commerce Business Plan of 2011 specifically mentions Linked Learning pathways in SCUSD as a strat-

egy for preparing students for success in career and post-secondary education. Linking Education and Economic Development (LEED) Sacramento, a non-profit organization focused on linking and aligning the education and industry sectors "to meet current and forecasted regional workforce needs,"[12] also has a vested interest in the Linked Learning initiative. LEED has partnered with SCUSD to help expand and develop Linked Learning pathways.

History of Linked Learning in SCUSD

The Story at a Glance

SCUSD district leadership has embraced Linked Learning as its primary high school reform strategy. Nevertheless, the student participation rate in Linked Learning varies greatly by school size: at five of SCUSD's small high schools, 100% of students participate in Linked Learning; at the comprehensive schools only 16% of the student body participates. Four of the five comprehensive high schools supported at least one pathway at the end of the 2011-12 school year. The fifth school, John F. Kennedy, recently opened two emergent pathways at the beginning of the 2012-13 school year. (See Table 2, page 6).

By 2015, Superintendent Jonathan Raymond wants 50% of SCUSD high school students to be enrolled in a Linked Learning pathway. "We want to have pathways and academies in every one of our high schools and small schools, eventually down into our middle schools," he explains. The ultimate goal, he adds, is "to have every one of our students connected to a pathway or an academy."

In schools with Linked Learning pathways, there have been several early indicators of academic growth. As illustrated in Figure 1 on page 7, three of the small high schools—the MET, New Tech, and the School of Engineering and Sciences[13] —have experienced relatively steady increases in base API scores since 2008. George Washington Carver's scores have remained relatively flat but are nevertheless high, with a base API score of 750 in 2010 and a score of 748 in 2011.[14]

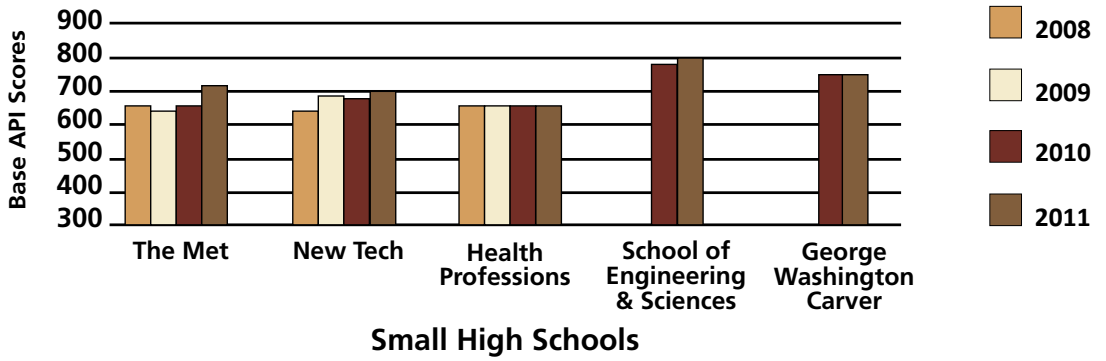
Decreased dropout rates provide another indicator of improved academic conditions and achievement outcomes at SCUSD's small high schools. As Table 3 on page 8 demonstrates, dropout rates at the small high schools clearly improved from 2008-09 to 2010-11.

In comparison to small high schools, the implementation of Linked Learning pathways at comprehensive high schools has been more challenging and is still in the early stages of development. Data from Hiram W. Johnson, which has the highest percentage of students enrolled in Linked Learning pathways (69%), suggests that the pathways model can work in the comprehensive high school setting. Serving a high percentage

Table 2: SCUSD and Linked Learning Pathway Participation (2011-2012)[15]

School	Linked Learning Pathway	LL Students	Total Students	% in LL Pathways
SMALL HIGH SCHOOLS				
Arthur A. Benjamin Health Professions HS	1. Careers in Health	363	363	100%
School of Engineering & Sciences	2. Engineering & Sciences	377	377	100%
George Washington Carver School of Arts & Science	3. Urban Edge (sustainability focus)	252	252	100%
Sacramento New Technology	4. School of Design	293	293	100%
The MET Sacramento	5. Learning through Internships	264	264	100%
Small High Schools Sub-Total		1549	1549	100%
COMPREHENSIVE HIGH SCHOOLS				
CK McClatchy HS	6. Law & Public Service Academy	54	2,285	6%
	7. Criminal Justice Academy	84		
Hiram Johnson HS	8. Technology, Engineering, & Design Academy	160	1,622	69%
	9. Health & Medical Science Academy	124		
	10. Johnson Corporate & Business Academy (JCBA)	274		
	11. Human & Legal Service Academy	292		
	12. Education Leadership Academy (ELA)	272		
Luther Burbank HS	13. Law & Social Justice Academy	258	1,835	14%
Rosemont HS	14. Green Academy	96	2,285	4%
John F. Kennedy HS	15. Culinary Arts pathway (Opened Fall 2012)	0	2,068	0%
	16. Design and innovation pathway (Opened Fall 2012)	0		
Comprehensive High Schools Sub-Total		1,614	10,095	16%
SCUSD HIGH SCHOOL POPULATION TOTAL		3,163	11,644	27%

Figure1: API Scores for Small High Schools, 2008-2011[16]



Source: *http://dq.cde.ca.gov/dataquest*

of students of color (92%), English learners (28%), and students who qualify for free or reduced-price lunch (70%),[17] Hiram W. Johnson has shown marked improvement in several measures of academic achievement in the past three years. Early indicators of improved academic achievement outcomes at Johnson include:

- Increased percentage of 10th grade students passing CAHSEE exam[18]
- Increased math pass-rate from 64% in 2008-09 to 78% in 2011-2012
- Increased pass rate for English language arts (ELA) from 59% in 2008-09 to 71% in 2011-12
- Improved CST test results,[19] particularly in math
- Decreased "below basic" and "far below basic" scores over time, from 53% in 2008-09 to 23% in 2011-12
- Increased base API score from 611 in 2008 to 669 in 2011
- Decreased dropout rates significantly from 40.3% in 2008-09 to 20.5% in 2010-11[20]

SCUSD's current commitment to and vision for Linked Learning largely stems from the successes and challenges of earlier high school redesign efforts. The district's most extensive reform was the Education for the 21st Century High School Redesign Initiative, or, as it is more commonly known, the e21 Initiative.

An Earlier Call to Action from the Community

The impetus for major change in SCUSD high schools began in 1996, when the Sacramento community sounded a "call to action."[21] Community members, including the former Sacramento mayor, Joe Serna, expressed concern about declining enrollments, the quality of high school graduates, and the economic viability of those students who had dropped out before graduation. A "Blue Ribbon Committee," comprised of district employees, teachers, parents, students, local government officials, business partners, and community organizations, was organized to examine the quality and performance

Table 3: Four-year Dropout Rates at SCUSD Small High Schools in 2008-09 and 2010-11

	2008-2009*	2010-2011
The MET	21.6%	17.5%
New Tech	19.1%	11.8%
Health Professions	15.9%	11.1%
School of Engineering & Sciences	N/A**	10.0%
George Washington Carver	56.4%***	34.5%***

Source: *http://dq.cde.ca.gov/dataquest*
*Last year of dropout data prior to Linked Learning implementation.
**Dropout rates were not available for the School of Engineering and Sciences in 2008-09.
***The calculations for GWC dropout data may be skewed due to district-charter transfers.

of the city's secondary schools. The committee's conclusion was clear and sobering: "High schools were too crowded, too big, too impersonal, and incapable of preparing students for a world that [was] radically different than it was a half century ago."[22]

Among the specific concerns were:

- **Lack of Educational Opportunity:** High school options were limited to five large comprehensive schools and two alternative programs. Concerns were raised about the quality of these schools, some of which had nearly 2,700 students.
- **Dropout Rates:** Between 1996 and 2000, the district's four-year derived dropout rate[23] averaged 22.6%. Rates for American Indian, Latino, and African American students were significantly higher, averaging 36.1%, 30.3%, and 28.2% respectively.[24]
- **Significant Gap in Academic Achievement Measures:** The academic performance of students of color, English learners, and economically disadvantaged students was particularly poor. This was glaring at schools like Luther Burbank and Hiram W. Johnson, which primarily served these populations and had significantly lower academic achievement outcomes than the district average.

Louise Stymeist, former ROP Coordinator, recalled the climate in Sacramento during that time:

> Our kids were failing in droves, dropping out in droves. We had spent a lot of years focusing on elementary and really pushing for elementary, and then nothing was happening at the high schools. People were leaving the district; they were taking their kids and going to private schools, or outside the district.

Early Action to Reform High Schools

During the early 2000s, SCUSD worked closely with the Blue Ribbon Committee to make some dramatic changes in the high schools. The Blue Ribbon Committee's major recommendations were to develop small, intentional learning environments of no more than a few hundred students and to personalize the learning experience, allowing teachers and students to develop closer relationships. These recommendations later served as the foundation of the e21 Initiative.[25]

While breaking down the comprehensive high schools into small learning communities (SLCs) was the primary modality for high school reform, SCUSD made a more dramatic change with Sacramento High School, which had been identified as severely deteriorated. According to a district administrator, "The district leadership at that time believed the only way to improve Sac High was to close it, so it was closed and then reopened [in 2003] as an independent charter." The closure and re-opening of SHS as an independent charter served as a clear call to the educational community that change was not only critical but also imminent.

Implementing the Small Learning Communities Reform

In 2001, with generous support from the Gates Foundation and Carnegie Corporation of New York, the district began to plan for the task of "reinventing" SCUSD high schools. The goals of the e21 Initiative were to break down the large comprehensive high schools into theme-based small learning communities and to open six to eight small high schools. The design of the small schools and SLCs was based on seven "essential elements" :[26]

1. Small, caring, personalized learning communities
2. Student-centered systems with student supports and safety nets
3. Student pathways to the world of work and post-secondary education
4. Rigorous, relevant, standards-driven teaching and learning
5. Culture of continuous learning
6. Collective responsibility
7. Home-school community alliances

Community stakeholders devised a plan of action to enroll every one of the district's nearly 14,000 high school students in a small learning community by 2003. School improvement facilitators, along with four small school principals, were hired for each school and, officially, the district met its goal.

Progress and Set Backs

During the e21 SLC Initiative, SCUSD made substantial progress in transforming a few key elements of the district's high school environment, including the following:

- Improving the safety of district campuses at both small high schools and large comprehensive high schools
- Emphasizing the need for and creating the structure to facilitate closer personal relationships between educators and students
- Alerting and involving the community in conversations about high school reform, safety, and graduate readiness
- Designing several theme-based, small high schools that could serve as models for other school sites. Though two of the original small high schools were shut down in 2008 and 2009 due to lack of acceptable academic gains, the e21 Initiative gave birth to four new small high schools that have served as strong models and remain open today: Sacramento New Technology, Arthur A. Benjamin Health Professions High School, The Met Sacramento, and School of Engineering and Sciences.[27]
- Forging relationships with industry sectors and facilitating more interactions between students and the world of work, particularly at small high schools like New Tech and Health Professions High School

Yet, in spite of these considerable accomplishments, the e21 initiative encountered a number of difficulties concerning implementation and impact that eventually contributed to the district's decision to pursue Linked Learning. Implementation problems largely affected the comprehensive high schools, where SCUSD attempted to reorganize existing structures into smaller learning communities. Several schools resisted the reform strategy, citing, among other reasons, a lack of buy-in to the SLC model, which was perceived as a top-down initiative with inconsistent and insufficient on-the-ground support for curricular and organizational challenges.

Site leaders also found it difficult to establish autonomous SLCs with clear identities. According to an educator who worked at a comprehensive high school when the e21 Initiative was conceptualized, schools were originally granted autonomy to "go out and look, visit, and decide" which SLC models would work best for a particular school site or group of students. Due to concerns about implementation and funding requirements, however, this autonomy was short-lived and SCUSD became stricter about the themes and design of SLCs. At the larger comprehensive schools, SLCs also struggled to form a unique identity that was truly supported and confirmed through a program of study. One site leader indicated that, even after several years of implementation, their SLCs lacked the essential components to thrive:

> It was just like saying, 'We're the Design Solutions house,' but we would have needed to have classes that were geared to that. But we didn't have

those classes, so from one SLC to the next, they were identical. It was kind of like, "Why are we calling ourselves this when we're not really this?" We didn't have staffing. We didn't have the resources. It just made it really hard. It just didn't seem authentic.

These implementation challenges were compounded by a series of concerns regarding the impact and results of the e21 Initiative. These issues centered on slower than expected academic achievement gains, instructional practices that still needed improving, and a need for more formal links to business and industry.

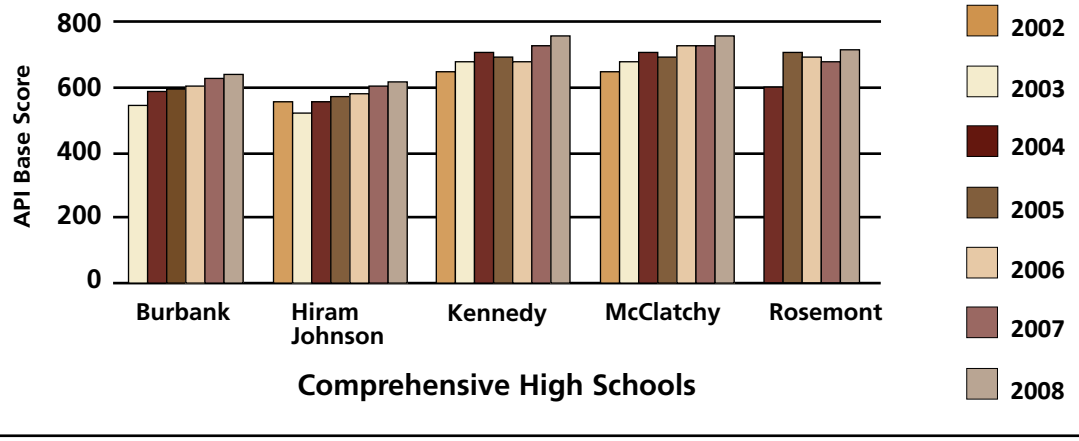
Slower than Expected Academic Achievement Gains

Student academic achievement outcomes at the high school level improved modestly between 2002[28] and 2008 (see Figure 2, below, and Figure 3, page 12), but the e21 reform efforts were not considered to be the major reason for this trend. While a few comprehensive high schools improved their API scores by nearly 100 points during this time, most of these gains occurred during the first two years of the initiative. Additionally, while the small high schools had created safe, close-knit communities, their achievement scores were not improving as hoped. In fact, two small high schools whose API scores never reached 600, America's Choice and Genesis, were closed down in 2009 and 2010.

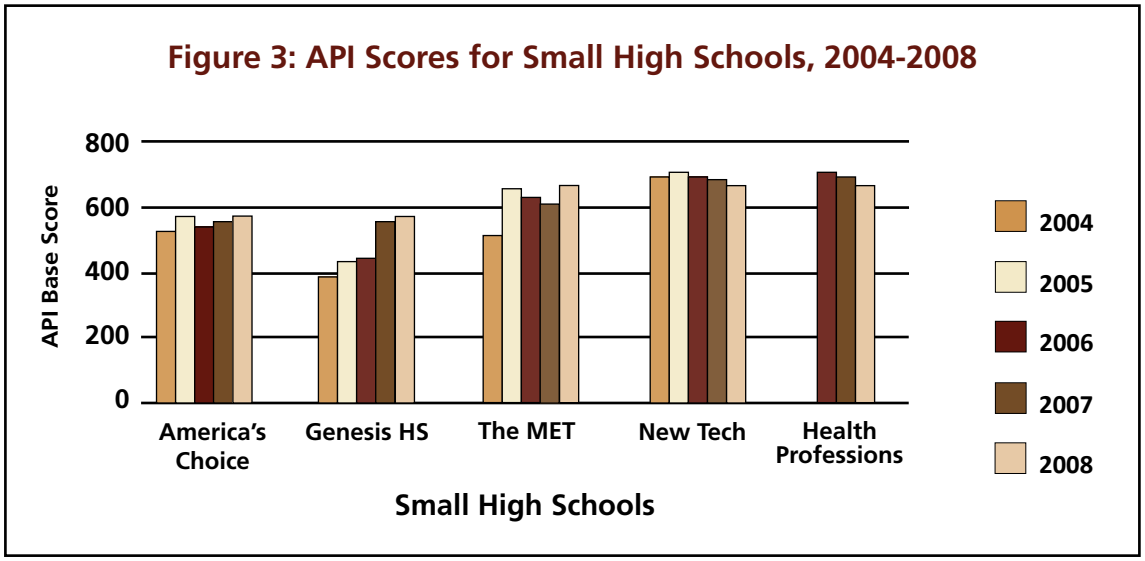
Instructional Practice Still Needing Improvement

While the e21 Initiative helped establish closer personal relationships between educators and students, instructional practice in high schools did not significantly change. As one district leader explained, a question commonly posed during that time was, "Now that the schools are safe, how do we get the engagement and the instruction right for students so schools retain freshmen through seniors and they're actually completely prepared for college and for career?"

Figure 2: API Scores for Comprehensive High Schools, 2002-2008



Source: *http://dq.cde.ca.gov/dataquest*



Source: *http://dq.cde.ca.gov/dataquest*

A Need for More Formal Links to Business and Industry

While several of the theme-based SLCs and small schools created initial connections to industry partners and post-secondary institutions, SCUSD was interested in a framework that would support much deeper, more formal relationships. As one district leader explained, in order to maximize the impact of these partnerships it was necessary to "go beyond simply getting businesses involved."

The Identification and Pursuit of Linked Learning

Linked Learning appealed to SCUSD officials on a number of levels. First, it provided the funding and support to sustain the SLC reform. But it also offered a framework that could address the weaknesses of the e21 Initiative. As one district official reflected, "I think Linked Learning really glued all of these major pieces together, where students have all of the experiences going through one pathway. I didn't see the smaller learning communities grant doing all the components and doing them well."

SCUSD district officials applied for and were awarded a planning grant from ConnectEd and the James Irvine Foundation to start developing of a system of Linked Learning career pathways in the fall of 2008. During the 2008-09 school year the district began preparing for Linked Learning implementation. SCUSD also applied for and was then awarded a two-year $1.2 million implementation grant, beginning in the fall of 2009, to support the continued development and implementation of a system of Linked Learning pathways.

Building Leadership and Coherence across the District

The leadership and organizational culture of a district play defining roles in how any educational reform, including Linked Learning, is understood, implemented, supported, and sustained. Such factors shape how those on the ground — schools, teachers, principals, students, parents, and the community — perceive and experience the reform. These factors also influence the extent to which these diverse groups of stakeholders will buy into and engage with goals of the reform.

Early on, SCUSD faced numerous obstacles in creating and maintaining a strong leadership team and organizational culture. Severe budget cuts forced drastic layoffs and personnel changes at both the district office and school-site levels. By the 2009–10 school year, most of the original district team members who had embraced the initiative in the first place had moved on.

In July 2009, Jonathan Raymond was named superintendent for SCUSD, just in time for the first official year of Linked Learning implementation. Superintendent Raymond and other district leaders took four types of strategic actions over the course of the first few years of implementation that changed the leadership and organizational culture to better sustain Linked Learning. These actions included the following:

- Establishing district leadership for Linked Learning
- Integrating Linked Learning into a district-wide strategic plan for College and Career Readiness
- Establishing coherence between Linked Learning and other district initiatives and priorities
- Expanding leadership and support within the greater Sacramento community

Establishing District Leadership for Linked Learning

During the first few years of implementation, SCUSD took three main actions to establish a district leadership for Linked Learning. These actions included a) solidifying a Linked Learning department team, b) reorganizing district departments and repositioning Linked Learning as part of the Academic Office and, c) expanding leadership and building capacity within the district office.

Solidifying a Linked Learning Department Team

For Linked Learning to take root and thrive in SCUSD, the district needed to assemble a strong core team at the district level to take primary responsibility for implementing Linked Learning. Over the first two years of implementation the Linked Learning and

Career and Technical Education Department, which will subsequently be referred to as the *Linked Learning department team*, evolved to include a number of new positions (see Table 4, page 15).

During the first year of the initiative SCUSD struggled to establish and maintain this core team. Matt Perry was hired as Director of Linked Learning, but was subsequently asked to return to his position as principal at Health Professions High School until a suitable replacement was hired. Without a full-time director, it was virtually impossible to grow and develop the initiative to its full potential. In addition, budget cuts led to a reduction in staff at the district level, delaying the development of the Linked Learning department team.

Since the 2010-11 school year, a more established team has raised the status and visibility of Linked Learning as a core part of secondary reform in SCUSD. One district official recalls the impact of Matt Perry's return to the position of Linked Learning Director: "[SCUSD] finally had a full-time Linked Learning Director. Matt understood the initiative and was able to build up more support at the district level." As a full-time director and a former small high school principal, Perry was able to communicate the promise and importance of this multi-year grant.

The Linked Learning district team now meets weekly, working on the Linked Learning implementation plan, focusing on essential goals, and working together to resolve systemic challenges.

Reorganizing District Departments and Repositioning Linked Learning as Part of the Academic Office

Developing a strong system of pathways in any district means expanding leadership for Linked Learning beyond a core department team. After taking office, Superintendent Raymond was not satisfied with the way the SCUSD district office was set up. He reorganized its internal departments to create an Academic Office and an Accountability Office. The Academic Office was to focus on instructional reform while the Accountability Office was to deal with achievement outcomes, compliance, data, and statistics.

The reorganization relocated the Linked Learning department team to the Academic Office. Chief Academic Officer, Dr. Olivine Roberts, thus became the key Linked Learning point person from the executive cabinet, meeting frequently with the Director of High School Reform and other core members of the Linked Learning department team. In describing some of the early structural and organizational work she and the team engaged in, Roberts said, "We began really aligning, tearing down the silos, and realigning the academic office, with a central component being Linked Learning." This included officially changing Matt Perry's title to Director of High School Reform.

Repositioning Linked Learning as part of the Academic Office was both a symbolic and a practical strategy. Perry explained that it made it easier for the Linked Learn-

Table 4: Linked Learning Department Team

Director of High School Reform	The Director is responsible for overseeing the growth, development, and maintenance of the Linked Learning initiative across district high schools. Originally identified as the "Director of Linked Learning," the job title was later revised to help communicate the broader objectives of the work.
Coordinator, Regional Occupational Programs (ROP)	The ROP Coordinator manages all ROP teachers in the district, overseeing the allotment of their positions, ROP curricula, and Carl Perkins funding. As ROP teachers represent about 75% of the technical instruction in the district, one of the ROP coordinator's primary responsibilities has been to incorporate ROP teachers into Linked Learning pathways and eliminate isolated positions.
Coordinator of Linked Learning	This person's primary responsibilities are to provide instructional coaching, professional learning opportunities, and operational support to pathway sites. This coordinator primarily focuses on campuses going through certification or with high numbers of special populations, such as English learners.
Coordinator, Smaller Learning Communities	The person in this position works directly with school leaders, mostly at comprehensive high schools, to support pathway development. This position was created in 2011 and funded by the Cohort 8, Small Learning Communities Grant.[29] Primary responsibilities include providing operational support to pathway leaders, managing and utilizing data, as well as overseeing grant programming and the half-time grant coordinators at school sites.
Educational Entrepreneur (STEM)	Five entrepreneur positions were originally created during the e21 Initiative to serve as liaisons between business partners and schools. Of the original five entrepreneurs, only one position, focused on STEM, remains. Responsibilities include assisting STEM-oriented pathways with partner development, coordinating work-based learning opportunities and serving as a point of contact for businesses.
Program Technicians	Two technician positions specifically were added to the team to support the goals of the Linked Learning initiative. Primary responsibilities include overseeing the Linked Learning budget and supporting Linked Learning programming.

Students at George Washington Carver School of Arts & Science, converting a car from gas to electric.

ing team to position themselves "as experts on college and career preparation," align resources for pathway needs, and engage in conversations about instructional change and academic rigor. Placing the initiative within the district's "academic heartbeat" and incorporating *all* high school reform into Perry's job title, also made it clear that SCUSD considered Linked Learning its primary high school reform measure.

Expanding Leadership and Building Capacity within the District Office

Resituating Linked Learning within the Academic Office indelibly linked Roberts to the Linked Learning department team. SCUSD has strived to build upon the Academic Office's investment in Linked Learning and deepen the involvement and leadership capacity of district leaders in other departments. SCUSD used two key strategies to expand and improve leadership support for the initiative:

1. **External Coaching:** As a district coach from ConnectEd, Rob Kessler brought the Linked Learning department team together with the superintendent, cabinet, and other relevant team structures to build a collective understanding of Linked Learning, assess the current system, and develop a shared strategy for implementation.

2. **Participation in the District Leadership Development Series:** The Linked Learning District Leadership Series, led by SCOPE and Con-

nectEd, has allowed district leaders from across SCUSD to collaborate in a facilitated arena. Several Linked Learning department team members have described the district-hosted residencies and learning institutes as turning points, strengthening both support for the initiative and the sense of distributed leadership across departments.

Attendance at these sessions has included not only the Linked Learning department team, but also the superintendent; chief academic officer; representatives from the accountability, curriculum and instruction, and youth services departments; as well as school-site administrators. Linked Learning Coordinator Lily Liemthongsamout described how these forums have benefited the SCUSD team:

> Having people attend [these meetings] that are not part of our department team is invaluable. The more people we bring that are in positions of making decisions that impact student learning, the further we get.

In November 2011, SCUSD hosted teams from each of the other eight participating districts as part of a learning residency. Core team members and other district officials reported that preparing for this experience helped leaders in the district office gain a deeper level of understanding of Linked Learning. It also helped them conceptualize Linked Learning as an umbrella for high school reform and how to better align their work with other initiatives.

Integrating Linked Learning into a District-Wide strategic plan for College and Career Readiness

For Linked Learning to become SCUSD's central reform measure instead of just another program, policy and practice changes were also necessary. Over the past three years, SCUSD leaders have worked to establish college and career readiness as a major goal and to identify Linked Learning as the primary vehicle for achieving this goal.

Establishing "College and Career Readiness" as a District Goal

In its 2010-14 strategic plan, Putting Children First, SCUSD declared its commitment to college and career readiness as one of its three foundational pillars for educational change. Written in consultation with teachers, school staff, parents, students, and community members, the strategic plan highlights both the district's and the community's commitment to Linked Learning's college and career readiness goals. Pillar I of the strategic plan, "Career- and College-Ready Students," has three main components:

1. Hold students to high academic expectations while providing them with a relevant, rigorous, and well-rounded education that that meets four-year college and university requirements and includes 21st Century career exploration as well as visual and performing arts.

2. Create an environment focused on learning and continuous improvement by offering professional development opportunities that are practical and have a high impact on student learning.
3. Eliminate achievement gaps by developing rigorous, holistic assessments to measure student progress.

The plan's two other foundational pillars—Family and Community Engagement and Organizational Transformation—are also relevant to Linked Learning. In the words of Superintendent Raymond:

> In many ways, Linked Learning is an ideal fit in our strategic plan, with a focus on core academics, career and technical project-based learning, and strong family engagement. These are embedded in all three pillars of our strategic plan.

Since the publication of the strategic plan, the Academic Office has developed several other framing documents to focus instructional reform efforts and clarify Linked Learning's role in preparing students for college and career. One such document, the Graduate Profile, identifies six major domains of knowledge, skills, and behaviors students need to be college and career ready. It was developed in a series of collaborative sessions with key stakeholders in the community, a group that included local employers and industry partners, post-secondary representatives, educators, and parents.

The SCUSD Graduate Profile consists of six college and career readiness indicators:

1. Critical thinking and problem solving
2. Post-secondary readiness
3. Creativity and innovation
4. Clear communication and effective collaboration
5. Efficient use and accurate evaluation of information and media
6. Life and career skills

District officials report that they plan to use the Graduate Profile both as a framework for creating quality Linked Learning pathways and as actual graduation criteria. "This profile will," Roberts explains, "influence everything we do in Sac City." Superintendent Raymond has said that the formal adoption of the Graduate Profile will be a "market contract" with the Sacramento community regarding SCUSD graduates' skills. District leaders plan to present the Graduate Profile to the school board for adoption during the 2012-13 school year.

Identifying Linked Learning as a Primary Vehicle to Achieve College and Career Readiness

Both the strategic plan and the Graduate Profile have been crucial to solidifying Linked Learning as one of SCUSD's primary strategies to realize district reform goals. While the

strategic plan explains why thinking about college and career readiness should be important to educators, board members, students, and community members, the Graduate Profile delineates what "college and career ready" means for SCUSD. In addition, the strategic plan and the Graduate Profile emphasize that Linked Learning is not simply an extension of career technical education, but rather an integrated approach that can positively impact all students. As a district official explained:

> The current reality at the time was that it still seemed to be viewed as CTE, and in isolation of the other secondary programs, primarily. Under Jonathan's leadership we said, "No, this is too powerful a design for it to just be seen as career tech. Is career tech one component of it?" Yes, but it is not the definition of Linked Learning.

Superintendent Raymond also recalled how the district's approach to Linked Learning has shifted greatly from when he originally took over as Superintendent in 2009:

> [Linked Learning] was a strategy that I think was alive, but I don't know that it was necessarily part of anything. It wasn't explicitly connected to preparing kids for college and career. It wasn't viewed as a high school reform strategy, which it is now. I think it was kind of a nice boutique program that was doing its nice thing, but I don't think it was really connected to anything, nor was it universally well known or part of a strategic focus of the district.

Establishing Coherence between Linked Learning and Other District Initiatives and Priorities

For Linked Learning to succeed as an effective umbrella reform, it is essential that its goals align with SCUSD's other initiatives and priorities. To achieve systemic coherence, Roberts and the Academic Office have laid out a vision for a holistic learning system that incorporates Linked Learning practices and goals. This system has three goals: to connect academic and technical learning to cognitive development; to create more complex systems of assessments that reveal a wider range of cognitive performances; and to align pre-school-12 and post-secondary instruction and performance expectations.[30]

To illustrate how the district intends to implement this learning system, Roberts released a "Framework for Action" (Figure 4, page 20) that breaks down the process into three main components:

1. **District Graduate Profile of College and Career Ready Students**: At the heart of the learning system is SCUSD's Graduate Profile. As previously explained, this profile serves to provide a clear set of 21st Century learning outcomes for all SCUSD students.

Figure 4: Framework for Action

2. **Instructional Coherence:** District leadership recognizes that simply adopting a Graduate Profile does not ensure instructional coherence within the system. District leaders have begun work with pathways to map overarching goals to concrete, measureable classroom outcomes. This includes showing pathway teachers how Linked Learning's instructional approach can help students demonstrate mastery in pathway outcomes, the academic and technical domains of the Common Core State Standards, and their individual course outcomes. Figure 5 (page 21) shows that these various outcomes all contribute to the ultimate goal of ensuring that students possess 21st-century skills and are college and career ready.

3. **Collaborative Support:** To align instructional practices and meet the objectives laid out in the Graduate Profile, Roberts and the Academic Office recognized the need for greater collaboration within pathways. This means supporting pathway teachers to use common planning time to develop and utilize common performance criteria, monitor student outcomes, investigate and shift instructional practices to better meet student needs, and develop shared plans for providing intervention for students.

Expanding Leadership within the Community

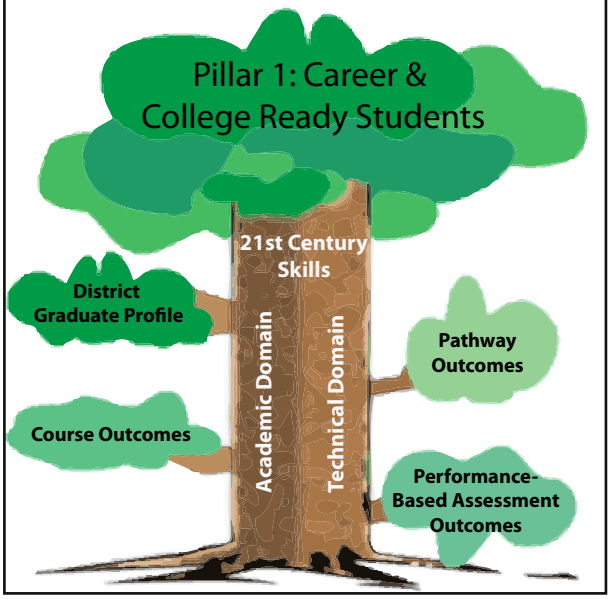
SCUSD has worked hard to strengthen its relationships and partnerships with its high school communities as well as to build leadership for Linked Learning throughout Sacramento. While a shift toward community involvement occurred during the e21 reform effort, district officials have ratcheted up their work with community members to foster support among industry and post-secondary partners and encourage them to assume leadership roles in the Linked Learning community.

Leadership Opportunities for Business and Industry Partners

In collaboration with school sites, district leaders have developed significant leadership opportunities for business and industry partners. These include serving on pathway-specific advisory boards, officially sponsoring a pathway, and becoming members of a district-wide broad-based coalition.

- **Pathway Advisory Boards:** As an essential component of the Linked Learning model, pathway advisory boards provide a transparent forum through which community and industry members can take on greater leadership roles in pathways, sharing information and interacting directly with each other and pathway personnel. Members of the Linked Learning department team have worked with several pathways to nurture more consistent, higher functioning advisory boards, though they acknowledge the need to expand these efforts for other pathways.
- **School Sponsorship**: The Linked Learning department team has been working to create systemic support for partnerships between specific pathways and major industry partners or post-secondary institutions. Using the Metropolitan Nashville Public Schools' "CEO Champion" as a model, SCUSD would like to match all pathways with formal sponsorships. One district leader suggested these would involve "systematically lining up a huge organization with a pathway," which has the "capacity to make really positive change that's related to the industry theme." Several organizations have been identified as "pathway sponsors," including:
  - Sacramento County Bar Association/Law Academy at McClatchy
  - California Air Resources Board/ School of Engineering and Sciences

Figure 5: Alignment of Student Outcomes



Students from Arthur A. Benjamin Health Professions High School participate in a simulated surgery

  - UC Davis School of Medicine/Health Professions High School
  - AT&T/Technology and Engineering Academy at Johnson

- **Broad-Based Coalition:** District-wide, business and industry partners have played a crucial leadership role in the development of Linked Learning framing documents, including the Graduate Profile. The community members and industry leaders involved in these conceptual and structural reforms essentially make up an informal broad-based coalition.

  The larger goal, Perry explains, is to build a more *formal* broad-based coalition. The plan is for one person from each of the sponsorship organizations, someone who is "established" and "embedded in the community," to serve as the head of their pathway's advisory board. The final step is to bring all of these advisory leads together to form the core of the district's formal broad-based coalition. This "layering" would ensure more stability at all levels of partner involvement.

Formalizing Connections and Commitments with Post-Secondary Partners

SCUSD has also worked to formalize their connection to post-secondary partners through initiatives such as the "Sacramento Promise." The Sacramento Promise is an agreement between the district and post-secondary institutions to work together to prepare SCUSD students (from pre-K through 12) for the academic and social challenges of post-secondary education and to provide more post-secondary opportunities to Linked Learning graduates. To date, SCUSD has established this type of agreement with Sacramento City Community College and Sacramento State University. Sacramento City Community College, for example, announced it would allow 63 SCUSD high school students to enroll in a guaranteed Associate of Science degree program.

Deepening Commitment and Implementation at School Sites

During the early stages of Linked Learning implementation, budget cuts and substantial teacher turnover caused concern among some teachers that funding and support for Linked Learning pathways would be fleeting. "The investment that goes into it…. You build it and you build it, then it gets pulled away," explains a pathway teacher leader at a comprehensive high school. "We've had academies where that has happened before."

Another obstacle to pathway implementation, particularly at comprehensive high schools, has been ongoing disenchantment with the previous SLC redesign effort, the e21 Initiative. As one district official reflected:

> We saw a lot of SLCs at comprehensive high schools that were not functioning. There were a lot of teachers and administrators around the district who assumed, because of their experience, that SLCs don't work even though they never experienced SLCs truly in the way they need to be designed in order to be effective for kids and staff. And that's left people questioning what Linked Learning's about.

Yet despite the numerous challenges surrounding buy-in, teacher support for Linked Learning has increased dramatically during the first several years of implementation. The district office is now focused on building commitment to Linked Learning and implementing a comprehensive system of pathways across school sites by the following means: improving messaging, fostering leadership support for Linked Learning at school sites, and developing site and pathway capacity for Linked Learning.

Improving Messaging

The clear articulation of purpose, vision, and expectations to both district teams and those charged with school-site implementation is crucial to the success of any education reform. The need for clear and consistent messaging has forced the Linked Learning department team to clarify how the initiative builds on prior reform efforts, how it differs from historical structures that have been entrenched in the high school system and can benefit students.

District team members have developed marketing materials and leveraged professional learning forums, coaching sessions as well as other outreach efforts with school staff to help address confusion about the initiative's purpose, vision, goals, and benefits. The following essential messages are at the heart of all these outreach efforts:

Linked Learning is the "Next Step" in our High School Reform Work

District leaders have worked to position Linked Learning as building upon, not replacing, the work of the e21 Initiative. Indeed, marketing materials refer to Linked Learning as the "the next step" in high school reform. As Matt Perry said, if the e21 reform was about building strong relationships, then "Linked Learning is that next generation of the upper level management saying, 'Okay, now it's time to get instruction correct.'"

Linked Learning is about the Integration of Academic and Technical Content

Some pathway teachers have struggled to see how Linked Learning differs from previous structures that have segregated CTE and "academic" programs. Linked Learning department team member Patrick Bohman explained, "Because there is such a significant history regarding career and vocational education, I think many [stakeholder] groups are quick to categorize Linked Learning as being about ROP programs for a specific group of kids." SCUSD is promoting the message that Linked Learning's major goals focus on *both* career and college readiness, particularly at large comprehensive high schools where ROP and CTE teachers have been historically segregated from "academic" teachers.

Linked Learning Should be Treated as a Major Priority at School Sites

District officials have made a clear effort to communicate that Linked Learning is, in fact, a major priority. Moreover, to ensure implementation of Linked Learning at school sites, they have provided school personnel with a list of five "SCUSD Linked Learning Pathway Non-Negotiables":

1. **Equitable Access:** Site administration and pathway faculty must collaborate to recruit all students who wish to participate in the pathway.
2. **Cohorted Students:** Site administration must ensure students are scheduled into grade-level cohorts within the pathway. Each grade-level cohort includes at least one technical core course and two academic core courses.

3. **Pathway Community of Practice:** Site administration must ensure pathway faculty are organized into a community of practice supported by twice-monthly meetings dedicated to pathway development.
4. **Student Membership:** Site administration and staff must use the district student information system to identify each student's pathway membership.
5. **Family Engagement:** Site administration must ensure pathway teachers participate in at least one annual home visit of a pathway student annually.

Linked Learning Pathways Require Rigorous, Academically Challenging Courses

Director Perry recalled an incident that occurred during a meeting with high school counselors, where it became clear to him that there were misunderstandings regarding the academic rigor and challenge of pathways:

> A counselor stated, 'Oh, Linked Learning is a lot of advising around careers; it's kind of like the old vocational programs, but it's not....' Then they started talking about the internship part, and I said, 'Why don't you get the academics?' They said, 'We don't see what's different. You can still put kids in low-level academic classes.... Parents want kids in a UC A-through-G education.'[31] I said, 'So do we!' and they replied, 'We do?'

Reflecting on the experience weeks later, the Linked Learning department team sent a message to the high school counselors and administrators to make it clear that pathways were expected to be academically rigorous. This message, Perry explained, was, "If you're in a Linked Learning pathway, we expect you to complete the UC A-through-G sequence with a C or better in every class, end of story."

Focusing on Leadership at School Sites

Within the first 100 days of his tenure, Superintendent Raymond established high-quality instruction and instructional leadership as top priorities. He spent a substantial amount of time at schools, observing classrooms and talking with students, teachers, and administrators to assess the state of these particular areas. As one Linked Learning team member explained, "He was trying to get principals into every school that understood instruction, and he pulled that off. I swear the guy would be on your campus twice a day. He must have been tired!"

After assessing the instructional situation and working with many school leaders to improve instruction, the superintendent then made significant personnel changes. He eventually replaced about a third of the principals.

Superintendent Raymond's sustained physical presence in classrooms, explicit focus on instruction, and reassignment of school-site leaders had a significant impact on the

Arthur A. Benjamin Health Professions High School students and their mentor at UC Davis on a job-shadow field trip at the UC Davis Medical Center in Sacramento.

district culture. His actions signaled a commitment to change and hands-on leadership. Yet the Linked Learning department team acknowledged that Raymond's actions alone would not be sufficient. School and pathway leaders would need more ongoing support.

The district's strategies to provide more ongoing support leadership at the school sites included the following:

External Coaching Support

External coaches, from ConnectEd and the University of San Diego, have worked with principals to develop and strengthen pathways. Their support has primarily focused on elucidating the essential elements of Linked Learning, increasing enrollment, developing curriculum, and supporting staff. One small high school also received support from a ConnectEd pathway coach during their Linked Learning certification process.

Internal Coaching Support

The Linked Learning Coordinator and the Smaller Learning Communities Coordinator provide one-on-one support for site administrators and pathway teachers. Both school-site administrators and pathway teachers have described this support as helpful, even "invaluable." At large comprehensive high schools, internal coaching has helped leaders with pathway design, development, scheduling, and enrollment. At small high schools, coaching has focused more on curricular and instructional development, as well as the

Linked Learning certification process. The Director of High School Reform also facilitates principals' meetings, held every two weeks, to provide collective support and networking opportunities.

Teacher Leadership Development

The roles and responsibilities of pathway leads vary considerably across pathways, as does the level of support available to these leaders. For the first few years of implementation, the district had offered little direct support for pathway leadership, leaving the development of pathway leads primarily to site administrators. During the 2011-2012 school year, however, the two coordinators started to work more directly with pathway leads to develop their knowledge and leadership. These efforts included monthly meetings and follow-up coaching support to focus on organizational challenges and instructional improvement within pathways.

Developing Site and Pathway Capacity for Linked Learning

In addition to focusing on messaging and leadership development, the district took deliberate steps to build pathway capacity to improve instruction and operations. Specifically, the district has offered professional learning opportunities and supported conditions at school sites that promote pathway success.

Providing Access to Professional Learning Opportunities

SCUSD officials have taken a variety of actions to provide pathway teachers and other staff with professional learning opportunities that will increase their understanding of the Linked Learning initiative and help them develop more rigorous and integrated instruction. These professional development opportunities have included the following:

- **Pathway Leadership Series:** SCUSD has used the Pathway Leadership Series, facilitated by ConnectEd and SCOPE, to build site capacity and learn about Linked Learning. This professional development sequence brought together pathway teams from all nine districts participating in the California Linked Learning District Initiative to focus on the essential components of Linked Learning (e.g. programs of study, master schedule, integrated curriculum, work-based learning, authentic assessment). To ensure strategic use of these sessions, SCUSD sent leaders from pathways that were pursuing certification as well as leaders from both small and large comprehensive high schools. The Director of High School Reform and the two Coordinators also joined the pathway teams at each event and followed up with ongoing support.
- **Resources and Autonomy for Site-based Professional Development:** During the first few years of implementation, pathway teams had access to $7,500 mini-grants from the district to design and conduct professional development for themselves. Not all pathways took advan-

tage of this opportunity, but those that did used the grants to conduct site-based summer institutes that focused on the development of mission and vision, integrated curriculum, student learning outcomes, and rubrics.

- **District-Led/Sponsored Professional Development and Coaching:** In response to requests from site and pathway leaders, the Linked Learning department team, often with the support of outside consultants and coaches, has created district-wide and pathway-specific forums to address the following targeted areas:
  - **Academic Literacy:** Designed to address the specific needs of English learners, this professional development strand has focused on incorporating academic language across multiple disciplines.
  - **Curriculum and Assessment:** Multi-day training sessions in backwards mapping have helped pathway teams as they develop interdisciplinary, career-themed projects. These sessions also have addressed integrating innovative assessment and grading practices within these projects to support student learning.
  - **Data-Based Inquiry:** Many pathway teams have received training in the "Data Wise" improvement process. This model structures each pathway's common planning time around finding collective solutions to a "learner-centered problem." Pathway teams reconvene later to discuss whether an intervention has addressed the original problem.
  - **Assessment of Pathway Quality:** The district team has provided various "tools and processes" to help pathways better utilize the certification criteria[32] and view the certification process as educative. These include a formal "gap analysis" tool that simplifies the process for pathway teams. District team members have pressed leaders to reflect on their pathway quality, build on their strengths, identify areas for improvement, and clarify their collective vision.

Supporting Conditions at School Sites

District officials have worked to foster the conditions at schools that are necessary for pathways to thrive. This support has been concentrated in the following areas:

- **Calendar and Scheduling:** District team members, and particularly the coordinator, have worked extensively with leaders at large comprehensive high schools to ensure that students are members of small learning communities and are scheduled into necessary pathway course sequences. To help schools recruit and schedule students into pathways, the coordinator developed a calendar and scheduling guide.

- **Use of Data:** The Linked Learning department team has used data inquiry methodology to gauge and promote pathway development. Team members, for example, have conducted transcript analyses to ensure that pathway students are enrolled in challenging course sequences that will put them on track to graduate.
- **Business and Industry Involvement:** As mentioned earlier, district leaders and Linked Learning department team members have reached out to Sacramento business and industry partners to play essential leadership roles. These roles have included supporting district leadership by participating in a broad-based coalition as well as site or pathway leadership opportunities in the form of advisory board participation or formal sponsorship. Pathways have also benefited from community and industry involvement at a more programmatic level. For example, community and industry partners have supported student internships, helped with integrated projects, made in class presentations, hosted field trips or provided direct support to students through mentoring and tutoring.

  While pathway and site leaders are still required to maintain productive relationships with business and industry partners, the district team has played an increasingly prominent role in the initiation and facilitation of industry partnerships. For example, the ROP coordinator, educational entrepreneur, and other team members have routinely assisted in partner recruitment and development as well as helped to secure actual internship sites.

Summary and Implications

After its first few years as a Linked Learning district, SCUSD has many accomplishments to applaud and several areas of growth upon which to reflect. This section summarizes areas of emerging impact as well as the ongoing challenges SCUSD faces as it works to further develop, sustain, and expand Linked Learning throughout the district.

Developing Strong, Distributive Leadership

Since the 2009-10 school year, Sacramento City has worked hard to develop a strong, distributive leadership culture at the district level. Two of SCUSD's most substantial achievements in this area are: 1) reorganizing the district office so that it is better situated to offer real support to the Linked Learning effort; and 2) developing a strong departmental team to do the heavy lifting associated with widespread pathway development. Maintaining this culture of stable, distributed leadership, however, could prove to be challenging, particularly with ongoing budget cuts and major personnel transitions.

Securing and supporting strong instructional leaders at the school-site level has also been a major priority for SCUSD. Starting at the very the beginning of his tenure, Superintendent Jonathan Raymond established clear expectations for instructional leadership. He and his team then made major personnel changes to introduce and maintain a cadre of effective instructional site leaders.

Encouraging the broader community to become involved and take leadership roles in the initiative has further strengthened Linked Learning in SCUSD. By soliciting input and partnerships from industry, post-secondary institutions, and other community members on important measures (such as the Graduate Profile and the "Sacramento Promise"), SCUSD has given others a stake in the initiative and distributed the responsibility for ensuring its success.

Still, SCUSD acknowledges that a lot of work remains to build a more sustainable and meaningful broad-based leadership for Linked Learning throughout the district and community. Specific areas of focus are:

- **Supporting Site "Champions":** Over the last couple of years, the number of site and pathway leaders who have demonstrated ownership of the Linked Learning model has significantly increased. Yet there is room for improvement, particularly at comprehensive high schools where many pathway teachers remain skeptical. To counter this skepticism, Linked Learning department team members are soliciting school and pathway leaders to champion the initiative at the school level.
- **Targeting Support for Pathway Leads:** While the Linked Learning department team, and the two coordinators in particular, have started to work more directly with pathway leads, some leads still report feeling confused about "how Linked Learning works" and their particular role in the initiative. Others leads have expressed concern about their ability to guide a peer group to successfully implement a Linked Learning pathway. Given these concerns, it is therefore necessary to continue to support and develop the leadership capacity of pathway leads.
- **Formalizing Leadership Opportunities for the Broader Community:** In spite of some clear progress in this area, Linked Learning department team members and school-site leaders highlight the need to foster more meaningful relationships with industry and community members, encourage deeper levels of partner involvement, and provide clearly delineated leadership opportunities both at the district and pathway levels. Efforts to strengthen these areas have included formalizing the school sponsorship model and broad-based coalition, as well as continuing to deepen relationships with post-secondary partners through the "Sacramento Promise."

Communicating Vision for Linked Learning

SCUSD leaders have taken deliberate steps to make college and career readiness a major goal and to distinguish Linked Learning as the district's major umbrella reform. Specifically, district leaders named college and career readiness one of three primary goals in the district's strategic plan and defined what "readiness" means in the Graduate Profile. In addition, SCUSD leaders, including the superintendent, have explicitly identified Linked Learning as one of the district's primary vehicles for students to achieve college and career readiness. There remains, however, an ongoing need to flush out and communicate a clear and concise vision that articulates the district's aligned goals for Linked Learning.

Clear and Consistent Branding

According to several site-based personnel, many pathway teachers are unclear on how Linked Learning differs from previous reforms and how it functions as an umbrella reform. As a pathway lead admitted, "I don't really know what's different.... I'm assuming it's because it's a new program and it hasn't really been able to gain footing." Similarly, a Linked Learning department team member said that it was "hard to push the Linked Learning brand" during the first couple of years of the initiative, most likely because of the history of high school reform in SCUSD. Team members believe that a more developed brand and marketing effort would help clarify the vision and highlight Linked Learning's essential elements for various stakeholder groups.

Addressing Issues of Coherence and Alignment

SCUSD leaders, particularly Chief Academic Officer Roberts, have taken important steps to communicate how Linked Learning aligns with other priority areas. This includes articulating a vision of a "learning system" that connects the district Graduate Profile with the Common Core Standards and pathway student learning outcomes. Despite the district's efforts to integrate these initiatives, however, most teachers and many administrators still view Linked Learning, the Graduate Profile, and the Common Core Standards movement as quite separate. A clearly articulated plan establishing coherence between Linked Learning and other SCUSD initiatives and priorities is critical to Linked Learning's success as an umbrella reform.

Supporting the Development of High-Quality Pathways

By the end of the 2011-12 school year, SCUSD had established 14 pathways and made plans to launch two more during 2012-13. Two of these pathways had already been granted certification and the district anticipates further certification of two to six pathways during the 2012-13 school year. This is clear progress toward the district's goal of having a 50% Linked Learning enrollment rate among high school students by 2015.

Furthermore, the district has stated that all students, including English Learners and special education students, must have equal access to the academically rigorous coursework of high-quality pathways. This coursework must include an interdisciplinary

curriculum, work-based learning opportunities, and an A-G course sequence. Pathways must also adhere to certain non-negotiable conditions and practices, such as establishing collaborative working communities that use data inquiry to support student and adult learning.

The Linked Learning department team and other district officials have taken measures to provide targeted support to pathways and improve conditions at school sites. For example, instructional and pathway development coaching for school and pathway leaders as well as professional learning opportunities for pathways focused on developing the core elements of Linked Learning and providing support for high-quality adult collaboration. Linked Learning, and support for high-quality adult collaboration. In addition, school-site staff have reported that the support offered by district coaches and external consultants for pathway development has become more available and more valuable. The district-sponsored data inquiry training and support for the pathway quality review process (during certification) were particular stand-outs.

Yet in spite of these efforts to support pathway development, pathway quality still varies widely across the school district. Several pathways, particularly those at comprehensive high schools, are still in the early stages of developing a clear program of study, defining student learning outcomes, integrating curriculum, and solidifying adult communities of practice. Conscientious of these realities, the Linked Learning department team members, school-site administrators, and pathway lead teachers have suggested that future pathway development should focus on the following areas:

Increasing Quantity and Quality of Common Planning Time and Collaboration

Budgetary challenges and master schedules have limited the extent to which all pathways have engaged in common planning time. Protecting and enhancing the use of common planning time in pathways is a crucial next step. Prioritizing common planning as an essential piece of the Linked Learning model will allow more teams of teachers to collaborate and reflect on assessments and instruction as well as participate in data-based inquiry.
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Expanding Participation in Professional Development

During the first three years of implementation, administrators and pathway teachers from small high schools were the most consistent participants in Linked Learning professional development opportunities. Moving forward, both district and site leaders cite the need for more consistent participation from comprehensive high school personnel.

Increasing Depth of Professional Development Opportunities and Articulating their Connection to Linked Learning

Several pathway teachers have voiced a need for more sustained and "comprehensive" professional learning opportunities that would allow them to go deeper into Linked Learning content and further integrate curricula. This would include building on professional development related to the Common Core Standards to help teachers see its

connection to Linked Learning. As coordinator Patrick Bohman explained, the district is looking to support pathway teams to "simply sit down and do the nitty-gritty cross-mapping that is necessary for integration." District leaders have already begun these efforts, aligning Graduate Profile outcomes with the Common Core Standards, the Linked Learning College and Career Readiness Framework, and the Career Technical Education Standards.

Supporting Rigor for All

The perception that Linked Learning pathways are not rigorous or only for "at-risk" students is starting to fade, but there is room to further dissolve these ideas. It is therefore essential to continue to ensure that course sequences are rigorous and enrollments equitable.

Incorporating External Partner Support More Systematically

While there has been tremendous growth in the quantity and quality of partnerships with business, industry, and community partners, pathway and site leaders have reported difficulties regarding the development and maintenance of these relationships. These concerns highlight the need for further programmatic support (e.g. work-based learning opportunities) as well as more systemic support (e.g. advisory boards) from the district.

Using Data and Employing Accountability Metrics

In the past two years, the Linked Learning department team has increasingly used data to drive pathway development. Coordinators have also worked with pathways to create pathway outcomes and use assessment tools to improve pathway quality. However, Linked Learning department team members have expressed a need to use data more

regularly and rigorously during coaching and collaboration with pathways. Formal accountability metrics and tools could ensure more even and purposeful pathway implementation across school sites.

The goal, according to Linked Learning department team members, is to create and formally implement "some real metrics for rigor" for pathways and include similar metrics as part of "principals' growth plan for their evaluations." One team member explained that without these types of metrics, "We're not providing a framework for measuring the success of pathways beyond our own little universe where we can talk about them anecdotally."

Setting the Stage for Deeper Commitment across Sacramento

With the community's encouragement and support, SCUSD has opened up Linked Learning options for high school students that emphasize learning for the future. In the last few years, district, site, and pathway leadership have demonstrated greater commitment and capacity to support the implementation of Linked Learning. Community, industry, and post-secondary partners are also involved at various levels of participation, providing support for pathway activities as well contributing on more systemic level. Moreover, a broad range of stakeholders has contributed to the development of a Graduate Profile. Their continued investment in these types of endeavors will help to anchor the work of the entire district as it moves forward and reaffirms its commitment to Linked Learning as a primary vehicle for students to achieve college and career readiness.

Appendix A: Data Log

Data were collected from the Sacramento City Unified School District in the form of interviews, informal correspondence, observations, and artifact reviews. The following list details the data collection activities between February 2010 and August 2012.

Interviews:

- Interview with superintendent (May 2012)
- Interview with chief academic officer (April 2012)
- Interviews with director of high school reform (February 2011, November 2011; April 2012; August 2012)
- Interviews with other members of the Linked Learning department team (February 2011; July 2011; May 2012; June 2012; August 2012)
- Interviews with ConnectEd district coach (November 2011; June 2012)
- Interviews with four high school administrators (October 2011, April 2012)
- Interviews with four pathway lead teachers (April 2012; May 2012)

Informal Correspondence:

Prolonged and continuous email and phone correspondence with:

- Director of high school reform
- Additional members of the Linked Learning department team
- Director of assessment, research and evaluation

Observations:

- Observations of district planning as part of District Leadership Series (February 2010; May 2010; June 2010; October 2010; November 2010; March 2011; June 2011; November 2011; June 2012)
- School visits and classroom observations (February 2011; April 2012)

Artifacts:

Review of district artifacts, policies, and leadership plans included:

- Strategic plan 2010-2014: Putting Children First
- E21 Report to the Community
- Linked Learning self-assessment
- SCUSD Linked Learning pathway non-negotiables
- Powerpoint from Linked Learning residency, hosted by SCUSD (November, 2011)
- Marketing and informational materials from district and pathways
- School board notes and powerpoint presentations (February 2011; June 2011; January 2012)
- Certification logs
- High school organizational chart

Endnotes

1. *Unlocking Doors and Expanding Opportunity: Moving Beyond the Limiting Reality of College and Career Readiness in California High Schools*. The Education Trust-West. July 2011

2. *The James Irvine Foundation: Linked Learning*. The James Irvine Foundation. (n.d.) The James Irvine Foundation: Linked Learning. Retrieved from http://www.irvine.org/grantmaking/our-programs/youth/linked-learning

3. As determined by The Civil Rights Project. The Civil Rights Project is an educational policy center housed at UCLA. At the time of the 2002 *Time Magazine* article, the organization was associated with Harvard University.

4. According to the CDE, qualifying for free or reduced-price school lunch is considered a proxy for "low-income." The data for English Learners and RFEP students are from 2010-11, because the 2011-12 the data were not yet certified or public when the case was written. It is likely that the percentage of ELs and RFEP students will be higher in 2011-12.

5. The CDE identifies any student who either qualifies for free or reduced-price lunch or has a parent that does not have a high school degree as "socioeconomically disadvantaged."

6. The U.S. Census reports whether someone is Hispanic or Latino separately from race. In this table we counted people who declared themselves Hispanic or Latino in only the Hispanic category and not in their other racial category (i.e. White, African-American, etc.).

7. Nearly 2% of the SCUSD student population did not report their race or ethnicity.

8. http://www.city-data.com/us-cities/The-West/Sacramento-Economy.html

9. http://blogs.sacbee.com/real_estate/archives/2010/08/unemployment-st-2.html

10. http://www.city-data.com/poverty/poverty-Sacramento-California.html

11. Leu & Sun, 2011, http://www.cba.csus.edu/sacbusinessreview/Sacramento_Business_Review/ Archives_files/ SBR_Labor_Markets_Web_jan11.pdf

12. http://leed.org/about/

13. The METs base API has grown from 669 in 2008 to 714 in 2011; New Tech's base API was 655 in 2008 and 699 in 2011; and the School of Engineering & Sciences reported a base API of 777 in 2010 and 800 in 2011.

14. The API is a single number, ranging from a low of 200 to a high of 1000, which reflects a school's, a local education agency's, or a subgroup's performance level, based on the results of statewide testing in California.

15. This chart includes schools supporting pathways as defined by SCUSD. This table does not include three SCUSD high schools. These include: West Campus, a small college preparatory academy; American Legion High School, the district's continuation school; and SCUSD's online course recovery school.

16. Source for Tables 3 and Figures 1-3: California Department of Education, DataQuest. http://dq.cde.ca.gov/dataquest/

17. Data come from http://dq.cde.ca.gov/dataquest and http://www.ed-data.k12.ca.us

18. Refers to the California High School Exit Exam, a set of exams in Math and English students are required to pass for graduation.

19. Refers to the California Standards Test, a major component of the Standards Testing and Reporting program. http://www.startest.org/cst.html

20. While the California Department of Education calculated both the 2008-09 and the 2010-11 dropout rates, the ways in which these rates were calculated were different. The earlier dropout rates are "adjusted derived 4-year dropout rates," estimated rates calculated without actual cohort data. However, in 2010-11, the reported dropout rates were calculated from actual cohort statistics.

21. http://www.aypf.org/documents/Sac-CityHSlRedesignInitiative.pdf

22. http://www.aypf.org/documents/Sac-CityHSlRedesignInitiative.pdf, p. 3

23. The 4-year derived dropout rate, which is calculated by summing up the dropout rates across grade levels for a single year, has been criticized for being an inaccurate measure of the dropout rate for a particular high school cohort. As a result, the California Department of Education stopped using this measure in 2009.

24. Source for dropout and graduate rates: http://dq.cde.ca.gov/dataquest

25. Source: http://www.aypf.org/documents/Sac-CityHSlRedesignInitiative.pdf26. Ibid

27. One additional small high school, George Washington Carver, was added after e21 work had officially ended, in 2009-2010.

28. Since the small high schools were not opened until 2003, the first school year they reported API results was 2003-04.

29. While both the Cohort 8 grant and e21 Initiative were focused on building and sustaining small learning communities, their funding streams were different. The Cohort 8 is a federal grant and the e21 Initiative was supported by grants from the Bill & Melinda Gates Foundation and the Carnegie Foundation.

30. Data presented here is from Dr. Olivine Robert's PowerPoint titled *Academic Office: Building a New Learning System* and presented at the Sacramento Linked Learning Residency in November 2011.

31. A "UC A-G education" refers to the specific high school courses required for entrance into the University of California and California State University systems. These requirements are often referred to as "A-G" because they include seven general subject areas.

32. The Certification Criteria for Linked Learning Pathways is a formal guide to help pathways build, improve, and sustain high-quality pathways.

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