Picture this: High school students engaged in career possibilities they might never have imagined on their own. Public health providers preparing a skilled workforce that reflects and understands the populations they serve.

That is the inspiring vision behind Oakland Unified School District’s partnership with major health care systems in California’s East Bay. These partners connect local youth to new opportunities through seven health-themed pathways featuring the Linked Learning approach to college and career preparation. The Atlantic Philanthropies funded the Oakland Health Pathways Project and commissioned SRI Education to conduct a multi-year evaluation. The Linked Learning Alliance is sharing SRI’s findings to inform educators, employers, community organizations, funders, and policymakers working to help all young people discover their purpose and prepare for postsecondary success.
# Project Snapshot

Oakland Health Pathways apply Linked Learning, a research-based approach to integrated college and career preparation adopted by 70 California school districts and expanding in 19 states. This approach engages young people by combining rigorous classroom learning with real-world work experiences and student support services.

The Oakland Health Pathways Project involves nearly 1,500 students (2018-19 academic year). It is a partnership of three institutions in Alameda County, California:

**Oakland Unified School District** serves approximately 36,000 students. One third speak a language other than English at home, and over 70% receive free or reduced-price meals. Student enrollment is approximately 24% African American, 13% Asian, 42% Hispanic or Latino, 12% white, and 7% other races or ethnicities.

**Alameda Health System** is an integrated public health care system that operates multiple regional hospitals. AHS supported the development of health pathways by opening its hospitals to local students to participate in internships and other career development programs.

**Alameda County Health Care Services Agency** is a public health agency administered by Alameda County that provides health care services through a network of public and private partnerships. ACHCSA administers the County Office of Public Health as well as school-based health centers at a number of Oakland high schools.

### PARTICIPATING STUDENTS

- Earned more high school credits
- Graduated high school at higher rates
- Did not differ in academic achievement
- Enrolled in college at higher rates

*These results are for health pathways students compared with similar peers in traditional high school programs. Health pathway students’ outcomes did not differ from those of similar students in other career-themed pathways.*

### PARTICIPATING SCHOOLS

- Doubled the number of students in health pathways
- Increased the numbers and percentages of low-income and African American students in health pathways
- Improved the gender balance of students in health pathways

*These shifts align with the school district’s intent to expand and better represent student diversity in health pathways.*

This summary highlights key content drawn from the series of evaluation briefs:

- **How Education and Industry Partner on Work-Based Learning** distills lessons learned on effective cross-sector partnerships and delivery of authentic work-based learning.
- **Student Experiences in Health Pathways** describes the experiences of being enrolled in health pathways and the perceived impact of participation on college and career readiness.
- **Student Outcomes in Health Pathways** describes the high school and early postsecondary outcomes of students who participated in the OHPP.
- **Implementing Health Pathways in Continuation High Schools** identifies promising strategies for implementing a health pathway in alternative high school settings.
How Education and Industry Partner on Work-based Learning

The Oakland Health Pathways Project represents an ambitious effort to forge a lasting partnership between Oakland Unified School District and the region’s public health sector. The three participating agencies worked together, using the Linked Learning approach to support and expand seven health career pathways for high school students.

The health care industry is projected to account for about a third of total U.S. job growth through 2026, and includes 20 of the 30 fastest growing occupations nationally. Findings from this Oakland initiative can help other communities better align K-12 education and student experiences with projected local labor needs.

Through interviews with key personnel from the three partner organizations, SRI evaluators distilled a set of lessons on effective cross-sector partnerships and delivery of authentic work-based learning.

Creating and Maintaining an Education-Industry Partnership

• Establish a shared vision that builds on the existing goals and assets of each partner organization.
• Identify a clear leadership structure for the partnership, meet regularly, and plan for turnover.
• Understand each other’s organizational structures and engage the appropriate decision-makers.

Working Together to Build Authentic Work-based Learning Experiences

• Reduce barriers to participation and thereby broaden access to work-based learning.
• Support students to obtain the health clearances they need for authentic exposure to medical settings.
• Engage teachers with industry partners to integrate work-based learning into the school curriculum.

“[T]here’s something about a long-term commitment to create a space for collaboration—like a common culture between two different cultures.”

OUSD STAFF MEMBER

Get detail and data on these findings in the evaluation brief.
Student Experiences in Health Pathways

The aims of engaging young people in learning and increasing the relevance of school for a diverse student body are fundamental to Linked Learning—and at the heart of this educator-employer partnership. The evaluation sought to uncover the extent to which health pathway students experience integration of real-world applications and content into the curriculum, have opportunities to participate in quality work-based learning experiences, and perceive positive implications for students’ college and career readiness.

To shed light on experiences of students enrolled in health pathways and understand the perceived impact of participation on college and career readiness, SRI evaluators interviewed key school and pathway personnel, and they conducted focus groups and surveys of participating students in their senior year. Ten primary findings emerged from this exploration.

Classroom Connection to the Real World
- Schools chose health pathway themes and course content to interest students and to engage specific student populations.
- Most health pathways integrated technical and academic content through projects.
- Dual enrollment courses built on health pathway themes to help students prepare for postsecondary education.

Work-based Learning Experiences
- Schools increased participation and access by offering a range of work-based learning opportunities and intentionally targeting harder to reach students.
- Students faced barriers to participating in internships, but schools and partners offered supports to mitigate barriers.
- Students felt prepared by their teachers for work-based learning but these experiences could be further integrated into their academic courses.

College and Career Readiness
- Students reported increased clarity around career choices and interests.
- Students and staff saw increased postsecondary education planning and preparation.
- Students said they developed practical career readiness skills.
- Staff said students grew in confidence, self-efficacy, and sense of belonging.

61% of students reported that their pathway elective/CTE class was the reason they went to school, suggesting that pathway CTE courses can help improve student attendance.

Get detail and data on these findings in the evaluation brief.
Student Outcomes in Health Pathways

The pathways in Oakland Unified School District apply Linked Learning principles to make academic content more relevant to students and to give them exposure to health careers through a range of work-based learning experiences. SRI evaluators estimated the effects of the health pathways on a variety of student high school and postsecondary outcomes, comparing these with those of students who had similar demographic characteristics and prior achievement but were in two other programs of study: traditional high school programs, and other career-themed pathways.

Results of this study, summarized below, suggest that health pathways are a promising means to improving students’ high school and postsecondary outcomes.

### High School Success
- Health pathway students significantly outperformed traditional high school students in high school course credits earned and graduation. Health pathway student performance in course credits earned and graduation was no different from that of students in other career-themed pathways.
- Health pathway student outcomes were no different in high school English Language Arts and math achievement and drop-out rates when compared to students in traditional high school programs and in other career-themed pathways.

### Postsecondary Transition
- Health pathway students significantly outperformed traditional high school students in number of college eligibility requirements met and college enrollment. Health pathway student performance on these indicators was no different from that of students in other career-themed pathways.
- Health pathway students were no different in completion of college eligibility requirements and, among those who enrolled in college, were no more likely to enroll in a 4-year (rather than 2-year) college when compared to students in traditional high school programs and in other career-themed pathways.

**Evaluation notes**: In interpreting these results, it is important to remember they are for a single cohort of students attending a subset of health pathways. Moreover, because the majority of OUSD high school students were enrolled in some type of career-themed pathway at the time of these analyses, the students who chose to remain in the district’s shrinking traditional high school programs were potentially different from health pathway students in ways that evaluators could not statistically account for (e.g., lower motivation, engagement, stability of home environment). If this was the case, the effects on achievement of attending a health pathway rather than a traditional high school may be inflated.

Nonetheless, the size of the effects on credits earned, high school graduation, and college enrollment are substantial enough that even if there is some inflation present due to selection bias, it is unlikely to account for the full effects.

See detail and data on these outcomes in the **evaluation brief**.
Implementing Health Pathways in Continuation High Schools

As of 2019, approximately 4.5 million American young people between the ages of 16 and 24 years were neither working nor in school. As educators across the country seek ways to decrease youth disconnection from school, Oakland health pathways yield timely insights. As part of the initiative, Oakland Unified School District used the Linked Learning approach to develop health pathways in two continuation high schools. In California, a continuation high school is an alternative school, designed to accommodate students at risk of not graduating because of credit deficiencies, the need to work, or other family circumstances.

Integrated college and career pathways hold particular promise for this student population as pathways are designed to help students see the relevance of what they are learning to their lives after high school. Still, such settings require special considerations; they often enroll students for shorter time periods and serve youth who face unique challenges.

OUSD leaders saw opportunity to apply Linked Learning to benefit students in continuation high schools. Drawing on the district’s experience, SRI evaluators identified nine promising strategies for adapting the Linked Learning approach to continuation schools.

Integrated Career Technical Education and Rigorous Academics

- Focus on one career theme but foster broadly applicable employability skills.
- Integrate career technical content into courses students need to graduate.
- Break curriculum into smaller, stand-alone units that build on each other.
- Expose students to college-level coursework.

Work-based Learning

- Help students see themselves in careers.
- Make work-based learning opportunities accessible.
- Provide wrap-around student supports for internships.

Comprehensive Student Supports

- Start by understanding student assets and needs.
- Scaffold the transition to college and career.

"We’re given these opportunities and we see people put in so much effort for us to ... be able to move forward in life instead of staying stuck in that mindset that we’re not worthy …"

OHPP CONTINUATION HIGH SCHOOL STUDENT

Find strategy details and examples in the evaluation brief.
Pathways Toward Equity: Engaging More and Different Students

The highest-level goals of the Oakland Health Pathways Project were to improve educational and employment outcomes for low-income youth of color as well as expand and diversify employment in the local health care sector. Toward both of these aspirations, the initiative achieved noteworthy milestones.

Oakland Unified School District was adopting career-themed pathways, based in Linked Learning, as its overarching approach for all high school students in the academic years studied, 2014-15 to 2018-19. This direction helped fuel the addition of health pathways and boost student participation. In this context, the district:

More than doubled the number of students enrolled in health pathways.
Most of this expansion came through enrollment in new health pathways rather than growing enrollment in existing pathways. Total participation annually went from 548 to 1,444 students in the four-year period.

Increased the number of low-income students participating.
Overall, the number of students enrolled in health pathways who qualify for free and reduced-price lunch grew from 388 to 899 in the years studied. The percentage of students in all health pathways who qualify for free and reduced-price lunch increased from 72% to 79% in this period.

Increased the number of African American male students participating.
Enrollment of African American male students in health pathways across the district increased from 46 to 169 in the years studied. The percentage of students in all health pathways who are African American males increased from 35% to 40% in this period.

Increased the total number of male participants and improved gender balance.
While pathway participation had been more dominated by female students, gender balance within health pathways evened out steadily over time, from about 37 percent male at the outset to about 49 percent male by 2018-19, involving growth from 203 to 708 male participants.

Through OHPP, Oakland Unified School District went from three to seven health pathways and implemented important enhancements, such as more inclusive student recruitment practices and greater access to work-based learning experiences. By the end of the evaluation period, the set of seven health pathways had a more robust and representative body of participating students. This development suggests that these students may have expanded opportunities for meaningful employment—and that the future health care workforce in Alameda County may more closely resemble the communities it serves.

Data on this page is included in the final OHPP evaluation report compiled by SRI Education.
The Linked Learning Alliance serves the coalition of educators, employers, and community organizations dedicated to advancing equity and excellence through Linked Learning. The Alliance provides a collective voice for this field, advocates for policies that support the Linked Learning approach, sets the quality standard for Linked Learning in practice, and brings diverse stakeholders together to improve outcomes for students.

Linked Learning is a proven, systemic approach to education based on this simple idea: students work harder and dream bigger if their learning connects with them, and connects them to the world. Young people are introduced to career possibilities in sectors that drive their region’s economy, making education relevant to their passions and inspiring them to graduate from high school with the coursework and skills they need to thrive. By integrating rigorous academics with real-world learning and strong support services, Linked Learning prepares students for success in college, career, and life.

www.linkedlearning.org

Over 35 years, The Atlantic Philanthropies made grants totaling more than $8 billion to advance opportunity, equity and human dignity. After establishing Atlantic in 1982, Chuck Feeney quietly devoted his wealth to the service of humanity. In keeping with Mr. Feeney’s “Giving While Living” big bet philosophy, Atlantic has invested in systemic change to accelerate lasting improvements for people in Australia, Bermuda, Cuba, Northern Ireland, the Republic of Ireland, South Africa, the United States and Vietnam. Atlantic committed its final grants in 2016 and will conclude operations by 2020.

www.atlanticphilanthropies.org

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