



How Education and Industry Partner on Work-Based Learning

Lessons Learned from an Evaluation of Oakland Health Pathways

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Evaluation of the Oakland Health Pathways Project

This brief presents findings from the Oakland Health Pathways Project (OHPP), a joint initiative of Oakland Unified School District, Alameda Health System, and Alameda County Health Care Services Agency. The initiative is designed to improve educational and long-term employment outcomes for youth of color in Oakland (Alameda County), California, while expanding and diversifying the local health care workforce. It applies Linked Learning, an approach to college and career preparation that combines classroom learning with real-world work experiences.

Funded by The Atlantic Philanthropies, a limited life foundation, the Oakland Health Pathways Project began in 2014. SRI Education was engaged from the outset to evaluate the initiative. This brief draws on interviews with key personnel from the three partner organizations to distill lessons learned on effective cross-sector partnerships and delivery of authentic work-based learning.¹ These lessons are timely as 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.² Findings from this Oakland initiative can help other communities better align K-12 education and student experiences with projected local labor needs.

This is the first in a series of products resulting from SRI's evaluation of the project. Subsequent releases will address the student experience in Oakland health pathways, describe outcomes for participants (e.g., graduation rates, postsecondary enrollment), and provide a cost analysis of the project.

Lessons Learned:

How Education and Industry Partner on Work-based Learning

This brief presents lessons relevant to people and organizations leading education-industry partnerships, especially those involved in high school health care partnerships that deliver work-based learning. SRI's findings, drawn from the experience of OHPP partners and presented as lessons learned, are summarized below and described in depth throughout the balance of this brief (following a next page that further describes the project).



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.

About the Oakland Health Pathways Project

In 2014, The Atlantic Philanthropies, a limited life foundation, awarded two grants totaling \$21 million to agencies charged with working together to support and expand health career pathways for high school students in Oakland. Oakland Unified School District (OUSD) and the Alameda County Health Care Services Agency (ACHCSA) received a grant of \$11 million, and the Alameda Health System (AHS) received a grant of \$10 million.³

These health career pathways use the Linked Learning approach, which organizes education around industry-specific pathways and integrates four pillars—rigorous academics that meet college-ready standards; sequenced, high-quality career and technical education; work-based learning; and comprehensive support services—to help students graduate from high school ready to pursue meaningful postsecondary opportunities.⁴ OUSD has been implementing Linked Learning since 2010, including three health career pathways that pre-dated the Oakland Health Pathways Project (OHPP).⁵

To guide their work together early in the initiative, the partners developed a logic model that identified three intermediate-term goals:

- **Partnership:** Institutionalize partnerships between OUSD, AHS, and ACHCSA.
- **Work-based learning:** Increase the quantity and quality of work-based learning experiences and career exposure for OUSD students and particularly for youth from underrepresented groups.
- **Health pathways:** Create new health career pathways in additional schools, and enhance existing health pathways by serving more students or increasing quality.

Project Partners

Oakland Unified School District serves approximately 37,000 students in district run schools.⁶ Nearly half of them speak a language other than English at home, and over 70% receive free or reduced-price meals.⁷ Student enrollment across OUSD is approximately 26% African American, 13% Asian, 42% Hispanic or Latino, 11% white, and 8% other races or ethnicities.⁸ OUSD district staff support health pathways with work-based learning coordination and provide coaching on how to integrate preparation for health careers into instruction. OUSD also worked with schools to manage their use of Atlantic grant funds.

Alameda Health System is an integrated public health care system that operates multiple regional hospitals including Highland Hospital, Alameda Hospital, and San Leandro Hospital. AHS supported the development of health pathways by opening its hospitals to local students to participate in internships and other career development programs. AHS runs HealthPATH, a workforce development initiative that prepares youth and young adults for health care careers.

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. These centers provide students access to basic health care services as well as onsite work-based learning opportunities.



Creating and Maintaining an Education-Industry Partnership

A goal of the Oakland Health Pathways Project was to develop and institutionalize a partnership between the three participating organizations that would be sustained beyond the end of the grant. This type of cross-sector partnership between K-12 education and industry holds great promise for revitalizing career and technical education and improving outcomes for students, but it typically also faces major implementation barriers that all partners must work to overcome to be successful.⁹ Education and industry have different missions, organizational structures, cultures, and operational languages. Partnerships between education and health care organizations can be particularly challenging because both have complex bureaucratic structures and tight regulations to ensure both student and patient safety and privacy. In what follows, we share lessons learned drawn from both the challenges and successes experienced by the OHPP in developing the 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.**



Establish a shared vision that builds on the existing goals and assets of each partner organization.

In developing a cross-sector partnership, it is critical to begin by establishing a shared vision for the work that can serve as the starting point for the development of more concrete short- and intermediate-term goals. This shared vision can also be a lodestar for partners as they confront the challenges in forging and sustaining their new collaborations.

In developing a shared vision, the OHPP partners capitalized on a preexisting commonality in their organizations' missions. All three organizations shared a commitment to serve disadvantaged youth in Oakland and Alameda County. The partners drew on this commonality to develop their shared vision of improving the educational and employment outcomes of OUSD's low-income students of color by enhancing and expanding health career pathways and work-based learning experiences.

The OHPP partners were also intentional about leveraging programs already in place in each organization that were aligned with this overall vision. OUSD was able to capitalize on existing health career pathways in several high schools as well as a long-term district commitment to the Linked Learning approach. ACHCSA's Center for Healthy Schools and Community oversaw some of the school-based health centers in OUSD, and the agency's Alameda County Health Pipeline Partnership ran programs aimed at engaging youth and young adults in health careers. AHS's onsite internship program, Health Excellence & Academic Leadership (HEAL), introduced middle and high school students to health care professions through job shadows, skills workshops, seminars, and field trips. By identifying and leveraging these programs, the OHPP built on existing partner assets rather than starting from scratch.

This shared vision for both the long-term goals of the partnership and the intended population of participants set the foundation for the work and enabled the partners to retain their focus on helping the most high-needs students. Many education-industry partnerships intentionally or unintentionally limit access to work-based learning experiences to higher achieving or more economically advantaged students who have fewer barriers to participation. By orienting their work to improving outcomes for the most disadvantaged students and diversifying the health care profession pipeline so that it better reflects the community, the OHPP partners included students in alternative schools, those enrolled in summer school, and students with special needs. The partners embarked on the project prepared to commit resources to reduce the barriers these student populations face in participating in health pathways and work-based learning.

OHPP partners were intentional about leveraging programs already in place in each organization that were aligned with their overall vision.

Identify a clear leadership structure for the partnership, meet regularly, and plan for turnover.

The Oakland Health Pathways Project was established as a collaborative partnership with no lead agency, so that each partner would have equal footing and voice in directing the project. This structure meant that none of the partners owned the responsibility of driving the work alone, which could be both an asset and a drawback. The OHPP leadership structure included staff from each organization's leadership level, and the foundation hired an external facilitator to regularly convene the partners. The facilitator handled the logistics of setting agendas and running meetings and supported the development of the logic model. Partners emphasized the importance of having these regular facilitated meetings, particularly early in the process of developing the partnership. The meetings helped them get on the same page, work through challenges, and keep the work of the initiative from falling to the bottom of the busy individuals' priorities. As one lead staff member explained:

“ [T]he same language means something different in one sector than it does in another. So [it's helpful] just having this commitment to—I guess it's a leadership table—to address where maybe there's some breakdown in implementation. It's almost a no-brainer that we need to have concrete goals and a strategic plan, but where it gets hard and really impactful is where we have an investment together, and so we may try something, but then we need to have the commitment and tenacity to revise it and try again. [We need to understand] there's not a road map, because even within a department it can be difficult, but we all at least speak the same language, centralized. So, I think there's something about a long-term commitment to create a space for collaboration—like a common culture between two different cultures.

The partners valued the facilitator role and continued to fund a new facilitator out of their own grant funds when the foundation sponsorship of the role ended. This second facilitator remained for another year, at which point the partnership leads continued meeting on their own. One lead felt the partnership needed ongoing leadership from a consistent external organization to keep the work moving forward:

“ One thing that has really surfaced for me is that there needs to be a backbone agency which is independent from the active partners... or someone who can help navigate across the agencies that are doing the work, because there are so many questions that exist, because our meetings went from every other week with some structure to once a month with, like, “What is our agenda this week?” It wasn't that extreme, but it's, like, what can we accomplish within this time, because everyone is already spread so thin, and there's so much preparation that goes into it is the thing [and] that [is] why it would be good to have someone in a position who is dedicated to moving the process forward—not moving the content forward. So, the backbone agency is, I think, essential to a large initiative.

Regular meetings with a consistent group of people across agencies supported the development of relationships and established focused time to work together. However, turnover hindered the group's progress. In particular, turnover among OUSD leaders resulted in a need to renew relationships and orient new participants to the partnership work. In hindsight, new members reflected that they would have benefited from a better orientation to both the overall goals of the partnership and a concrete action plan for how the partners would work together.

Finally, having experienced different configurations of organizational leads at the partnership table, members reflected that it is critical to have representatives who have the authority within their home organizations to make decisions and carry out the work of the partnership.

Understand each other's organizational structures and engage the appropriate decision-makers.

Establishing an effective education-industry partnership requires taking time for leaders to understand each other's organizational structures and strategize on how best to work within them to accomplish their common goals. Health care and education organizations typically have different processes for decision-making, and K-12 school districts themselves vary greatly in the extent to which decision-making is centralized at the district versus decentralized to the school. OUSD has a strong history of site-based leadership, meaning that the day-to-day decisions that affect pathway implementation, including which work-based learning opportunities will be offered and how they will be integrated into the curriculum, occur at the site or pathway level. This decentralized decision-making structure was reinforced beginning in 2014, when Oakland residents voted to pass a parcel tax providing additional funding for college and career pathways (Measure N) that specified that 90% of the funds would go directly to school sites and that high schools would be responsible for developing customized plans for developing their pathways.

OUSD recognized that the partners needed more direct access to specific school decision-makers.

Early in the OHPP, partners struggled to make meaningful progress on expanding work-based learning opportunities for OUSD students in some schools and pathways because they were working primarily with central office staff who served as intermediaries between partner organizations and school staff to protect teachers' time. By the end of the initiative, OUSD recognized that the partners needed more direct access to specific school decision-makers. For example, the partners had long wanted to offer more school-year internships, but district staff had told them that internships would not work within the constraints of the normal school-day schedule. Eventually, district staff recognized the need for the partners to meet directly with school decision-makers. Once they were able to get the right school and partner organization members together in a room at one school site, the school staff was able to alter the master schedule for the next year to accommodate internships.

OUSD staff also strategized on how to ensure sustainability of the OHPP work given the district's decentralized decision-making structure. One approach was to use Atlantic funding to support the initial implementation of a specific program or hire a specific support staff member as a "proof point," with the assumption that if schools found these programs and supports valuable, they would continue to fund them through their site-level budgets after the grant ended. For example, OUSD initially used Atlantic dollars to fund student internship stipends, but by the 2018-19 school year, all pathways were setting aside some site-level funds for the stipends.

It was also important for OUSD to understand the organizational culture and structure of the public health partners. One OUSD staff member reflected:

“ I think that both sides [schools and partners] need translators. I think the school folks don't understand how totally damaging it is to the hospital to ask multiple doctors to leave their stations. They're volunteering their paid— basically, like, their prep period, the equivalent of a prep period for a teacher—they're volunteering that time to participate in a career exploration visit... and I don't think the school people have enough of an appreciation of what it means if not enough kids come, because they're surrendering their very little time during their very long work day to be present with these [students]. And then on the other side, I don't think the hospital folks don't readily understand the significant logistics and politics around getting 25 students released from various classes, on a bus, and [to] show up professionally ready. So, I think there's a tendency to overshare or undershare, so there's fatigue from oversharing or lack of empathy from undersharing.



All organizations involved in an education-industry partnership need to take responsibility for both learning about their partners' structures and cultures and orienting their partners to how to most effectively engage with their own organization. In the OHPP partnership, it was also critical that partners kept an open line of communication, enabling them to continue to address barriers and misunderstandings as they arose.



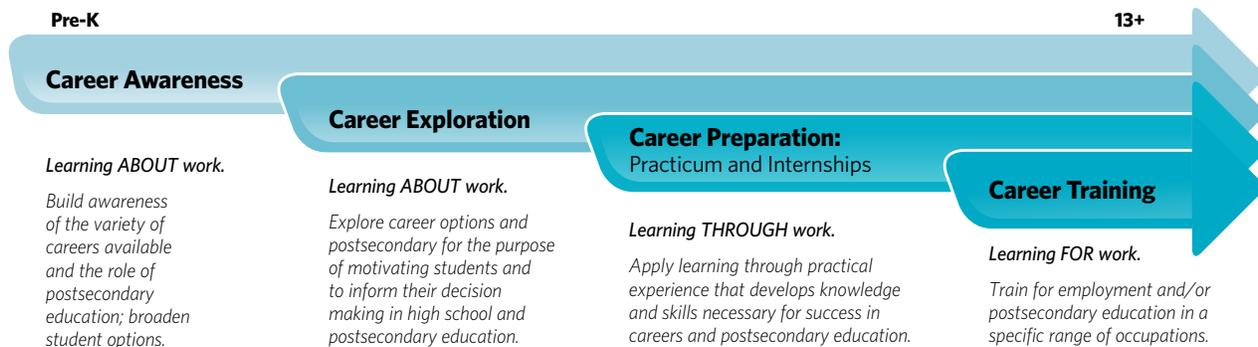
Working Together to Build Authentic Work-Based Learning Experiences

One of the accomplishments of the Oakland Health Pathways Project to date has been the greater quality and quantity of work-based learning experiences for students. (The visual below further describes work-based learning.) Over the course of the initiative, the partners reported increasing both the number of work-based learning opportunities and the number of students served. In this section, we highlight three lessons learned from the partners' collaborative efforts to expand access to and improve the quality of work-based learning:

- **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.**

ABOUT WORK-BASED LEARNING

Work-based learning is an instructional strategy that exposes “students to future options and provide(s) opportunities for skill development and mastery over time,” involves industry or community professionals, and connects to classroom instruction. Work-based learning opportunities span a continuum from career awareness to career training.



Source: Work-Based Learning in Linked Learning: Definitions, Outcomes, and Quality Criteria, Field Review Draft. (2012). Linked Learning Alliance. Retrieved from <http://www.temescalassoc.com/db/lia/files/2015/05/WBL-Definitions-Outcomes-Criteria.pdf>

Reduce barriers to participation and thereby broaden access to work-based learning.

A long-term goal of the Oakland Health Pathways Project is to diversify the health care workforce by creating a pipeline of diverse future workers. For groups traditionally underrepresented in health care, work-based learning can be an important means for building the workplace skills, networks, and knowledge they need to succeed in such a career. Students from traditionally underrepresented groups, however, may find accessing opportunities more difficult than do their peers with greater financial resources. Participating in intensive work-based learning experiences such as internships may compete with work or family obligations and require reliable transportation—significant barriers for low-income youth.

Through their work with the district, the industry partners began to understand the barriers to students' participation in work-based learning and made efforts to mitigate them to create more equitable access and attract a wider range of students. In the following section we identify some of the promising strategies the OHPP supported in this regard.

Stipends. The Atlantic grants helped support stipends for summer internships and other extended work-based learning opportunities targeted at young men of color and alternative school students. Partners, district staff, and school staff viewed the stipends as critical for attracting the highest need students who otherwise might have taken paying jobs.

Shorter work-based learning experiences to pair with summer credit recovery. Noticing that extended summer internships excluded students who needed to attend summer school, AHS and OUSD collaborated to create a shorter, one-week summer work-based learning opportunity. Lower achieving students are the ones who most need to be reengaged with school, and coupling work-based learning with credit recovery provided an opportunity to do so.

PARTNERING WITH ALTERNATIVE SCHOOLS IN WORK-BASED LEARNING

Industry partners may be reticent to engage alternative schools in work-based learning. Alternative schools can pose challenges to partners due to unique student needs. For instance, many students may enroll in alternative schools for only a short time before returning to traditional schools.

Nonetheless, there are good reasons for industry partners to attempt to engage alternative school students, who are often the most in need of meaningful extracurricular experiences to help them stay on track to graduate and enter the workforce.

The OHPP industry partners learned that alternative schools often have greater flexibility to implement creative work-based learning opportunities. An example is the Mentoring in Medicine and Science (MIMS) partnership with Dewey Academy. Because Dewey operates on a six-week semester schedule instead of a traditional semester, MIMS created a 12-week program for Dewey's health care career pathway students. This abbreviated work-based learning program provided greater flexibility for students to gain meaningful hands-on clinical experience with health professionals without making a long-term commitment they might have been unable to fulfill.

Targeted work-based learning for young men of color. Health pathways have traditionally had more difficulty attracting young men of color, and many health care professions, such as nursing, historically have been female dominated and may not be seen as a viable option by young men. Although pathways in OUSD start in grade 10, a Health Scholars Program created as part of OHPP targeted young men of color in grade nine in an effort to build their understanding of and engagement with health care careers. The program intentionally brought male emergency medical technicians of color to work with the students so they could see themselves reflected in the field.

Summer internships aligned with district work readiness program. The partners worked with OUSD to develop new or tailor existing internships to better align with OUSD's summer Exploring Career, College and Community Options (ECCCO) program. As part of ECCCO a supervising teacher supported student success in internships by facilitating weekly group meetings, visiting internship sites, and troubleshooting barriers to participation (such as transportation). ECCCO also provided a work readiness curriculum to better prepare students to understand workplace expectations and develop the interpersonal and self-management skills to succeed at work. Students accessing internships through the district ECCCO program could earn class credit in addition to the stipend.

Onsite opportunities. With transportation expensive for students and pathways and often logistically challenging to arrange, school-based health centers can provide opportunities for work-based learning. Although health privacy concerns can preclude clinical involvement at these centers, other learning experiences are possible. ACHCSA has been working to reframe visits to school-based health centers to expand the focus beyond receiving services to also include information on health care careers. In addition, the development of youth advisory boards at school-based health centers is seen as a way to engage youth and work on skill development through youth-led research using a Youth Participatory Action Research (YPAR) curriculum.¹⁰



Support students to obtain the health clearances they need for authentic exposure to medical settings.

Onsite work-based learning opportunities in health care often require students to meet certain health requirements, such as showing proof of a negative tuberculosis (TB) test or specific immunizations. Obtaining health clearances can be difficult because students may not have access to regular health care. Even students who have regular access to care may have difficulty navigating the process of obtaining clearances because they must understand their insurance, know the types of records or tests they need, find and communicate those needs to their medical office, have the proper forms filled out, and obtain parent permissions.

The partners explored ways to ease barriers to student completion of health clearances as part of their work together. While the partners did not find a universal solution, we highlight three approaches the partners tried: leveraging school-based health centers, helping students navigate the health clearance process, and revisiting requirements.

Leveraging onsite health services. School-based health centers provided an onsite option for some students to obtain health clearances. The partners had initially hoped that school-based health centers could be a systemic solution, whereby all students would obtain the suite of necessary health clearances at the beginning of the school year and then participate in any opportunities that emerged throughout the year. Efforts to leverage school health centers created greater awareness and use of them for health clearances, but did not produce a universal solution. Depending on their health insurance coverage (state Medicare or MediCal, private coverage, or uninsured), not all students could access all the services needed for the clearances (for example, some students were ineligible to receive immunizations through the school clinics). In addition, school-based health centers did not necessarily have the capacity to provide services to clear large groups of students at the same time.

Support for navigating the process. To help students in obtaining health clearances, the OHPP created materials to help them navigate the process and provided hands-on support. The materials explained the various health clearances needed, such as the flu shot, and specific requirements for the OHPP-related internships. In addition, district personnel worked with students one-on-one, scheduling group visits to the school-based health centers and following up with students on paperwork. The extra district support removed the burden from the pathway teachers, who did not have the time to navigate this process. While helpful for moving students through the clearance process, such support was labor and staff intensive.

Revisiting requirements. ACHCSA examined its summer internship requirements to identify ways to ease the clearance process for students. Working with its internal legal and human resources departments, ACHCSA determined that students no longer needed background checks or TB tests and that OUSD's school health clearances were sufficient for their onsite internships. This enabled ACHCSA to develop a form to allow the district to sign off on student health clearances.

Alternative experiences. Using the Atlantic grant funding, AHS built a simulation lab to provide hands-on learning for students outside a clinical setting. This has allowed AHS to provide students with career exploration visits without the need for health clearances.

The efforts to lower the barrier of student health clearance did not result in a comprehensive solution for the issue. However, the partners built greater awareness of the health clearance process and school-based health centers as a potential solution and identified additional challenges they needed to address.

Engage teachers with industry partners to integrate work-based learning into the school curriculum.

Connecting work-based learning to classroom learning fosters student engagement by reinforcing academic lessons and underscoring their real-world relevance. Integration of work-based learning cannot be done well without the active involvement of the pathway teachers, who can help students prepare for these experiences and connect them to what students are learning in school. Although the OHPP took promising steps to support this integration, building connections between industry partners and teachers proved challenging.

Curriculum mapping. District personnel worked with pathway teachers to map work-based learning opportunities to their curriculum in the first year of OHPP. The intention was to support teachers in developing a scope and sequence of desired activities aligned with the pathway curriculum, and to provide an outline of pathway work-based learning needs to partners. During the next year, the partners were invited to the mapping meeting so they could better understand what types of experiences were needed and at which points in time in order to support more thoughtful advance planning. However, participants did not universally view the curriculum mapping as valuable. Some pathways had existing processes for mapping so the OHPP-led process felt redundant and burdensome; other pathways were at such an early stage of developing their curriculum that the mapping felt premature.

Pathway teachers can help students prepare for these experiences and connect them to what students are learning in school.

Teacher externships. Externships are useful for increasing pathway teachers' expertise and understanding of the industries aligned with their pathway themes because they provide an opportunity for teachers to learn from industry professionals in their work environment. Recruiting professionals out of a high-demand field such as health care into teaching can be difficult. Teachers may not come into a health pathway with industry experience and if they do, that experience may be dated. To increase teachers' understanding of the health care profession, the OHPP partners offered externships to pathway teachers. Teachers found externships valuable for understanding their students' work-based learning experiences and for informing classroom instruction. At one school, for example, a teacher integrated new information on adolescent health, dating abuse, and STDs/STIs into an educational psychology class, having learned about this content while visiting a psychiatric facility for adolescents and a recovery center for adults. To support the externships, the district provided stipends and required teachers to create lessons based on their summer externships. Despite teachers' initial strong interest, the loss of the externship coordinator reduced the support teachers received in arranging these opportunities and translating their experiences into the curriculum.

Professional learning community. To build a stronger connection between health care career pathways and industry partners, the district convened a health professional learning community (PLC). Full-day meetings provided an opportunity for extended interactions and relationship building between pathway personnel and partners. The agenda for the meetings varied but always included opportunities for teachers to learn from partners, who served as guest speakers, provided feedback on curricular units, and shared with teachers the types of services they might provide to them. One partner described the meeting's value:

“ [The PLC] helps me get a better understanding of the curriculum and how the teachers are trying to be intentional about bringing in guest speakers [and] developing curriculum and getting feedback from partners who are in the field on what they're teaching. That is one part of the [PLC's] design. The other part has been just getting a sense of what teachers are doing and what health issues they're focusing on throughout the year and how to connect them with other health professionals that could be part of that, either [by] hosting a tour, hosting a visit, or just by having a guest speaker come in.

However, the PLCs had challenges with health pathway teachers' attendance. Not all teachers were able to find coverage to attend a full-day meeting offsite, which diminished the value of networking and reach of the PLC opportunity.



Conclusion

The Oakland Health Pathways Project represents an ambitious effort to forge a lasting partnership between OUSD and the region's public health sector. Both sectors are highly regulated to ensure safety and protect privacy, and they have very different organizational structures and cultures, creating barriers to collaboration that slowed the progress of the initiative. Yet, this collaboration was necessary to grow work-based learning opportunities for students. The partners' experiences working through these barriers to collaboration and expanding work-based learning offer lessons that may benefit those undertaking future similar efforts.

Establishing effective partnerships takes time and dedication. Even with a shared core value as fundamental as a commitment to reaching underserved students, partners need to meet to develop shared language and learn how to effectively interact with one another. Figuring out who needs to be at the table from each organization is an important first step, and documenting decisions as well as codifying a concrete action plan for how the partnership will operate is crucial to avoid losing momentum due to staff turnover.

This collaboration was necessary to grow work-based learning opportunities for students.

Despite these challenges, the OHPP partners capitalized on their shared commitment to implement innovative approaches to increase access to work-based learning opportunities in health care fields for disadvantaged students. These efforts included reducing the financial and logistical barriers to participation and targeting recruitment to young men of color. Looking forward, more fully engaging pathway teachers will be critical to realizing the full benefits of these opportunities.

Endnotes

- 1 SRI interviewed 16 individuals in spring 2015, seven individuals in winter 2016, 22 individuals in spring 2016, 16 individuals in fall 2016, 26 individuals in spring 2017, and 37 individuals in spring 2018. At key partnership organizations and programs, these interviewees were executive directors and program managers and, within OUSD, included a Linked Learning director, dual enrollment coordinator, work-based learning coordinators, career and technical education specialist, director of alternative education, and economic development coordinator. At health pathway schools, SRI interviewed school administrators; pathway directors, coaches, and teachers; and work-based learning liaisons. SRI also conducted two focus groups with grade 12 health pathway students in spring 2017 and three student focus groups in 2018. SRI researchers also attended select meetings and regularly reviewed notes and agendas from other standing meetings to stay abreast of the partnership developments.
- 2 Center for Health Workforce Studies. (2016). Health care employment projections, 2014-2024: An analysis of Bureau of Labor Statistics projections by setting and by occupation. Rensselaer, NY: Center for Health Workforce Studies. Retrieved from www.chwsny.org/wp-content/uploads/2016/04/BLS-Health-Care-Employment-Projections_2016.pdf

Kacik, A. (2017). Healthcare industry to create 4 million jobs by 2026. Modern Healthcare. Retrieved from www.modernhealthcare.com/article/20171027/NEWS/171029879
- 3 The original series of grants also included #YesWeCode, a national initiative to increase the representation of minorities in the technology industry by offering training and job opportunities to primarily Black and Latino young adults, age 18-27.
- 4 Linked Learning Alliance. (n.d.). About Linked Learning. Retrieved from www.linkedlearning.org/en/about/
- 5 Oakland Unified School District. (n.d.). High school Linked Learning. Retrieved from <https://www.ousd.org/domain/4013>
- 6 Enrollment and demographic data is for non-charter schools run by OUSD.
- 7 California Department of Education. (2018). 2017-18 Enrollment by Subgroup for Charter and Non-charter Schools: Oakland Unified District Report (01-61259). Retrieved from <https://dq.cde.ca.gov/dataquest/dqcensus/EnrCharterSub.aspx?cds=0161259&aggllevel=district&year=2017-18>
- 8 California Department of Education. (2018). 2017-18 Enrollment by Ethnicity for Charter and Non-Charter Schools: Oakland Unified District Report (01-61259). Retrieved from <https://dq.cde.ca.gov/dataquest/dqcensus/enrethlevels.aspx?aggllevel=District&year=2017-18&cds=0161259>
- 9 McLaughlin, M., Lundy-Wagner, V., & Groves, B. (2017). Two years into CCPT: Many challenges & great promise. Oakland, CA: Jobs for the Future. Retrieved from https://jfforg-prod-prime.s3.amazonaws.com/media/documents/CCPT_Executive_Summary_031517.pdf

Alvarado, M., & Vargas, J. (2017). Now and then: Balancing quick wins with lasting progress when working across sectors to change systems. Oakland, CA: Jobs for the Future. Retrieved from <https://jfforg-prod-prime.s3.amazonaws.com/media/documents/NowandThen100217.pdf>
- 10 University of California San Francisco provides curricular materials to support YPAR (Youth-led Participatory Action Research).



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.

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.

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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