

CROSSING BOUNDARIES TO DEVELOP EFFECTIVE PATHWAYS



Career Pathway Development Across 10 East Bay Community Colleges

IMPAQ International, LLC
The Career Ladders Project



As part of the Design it-Build it-Ship it (DBS) initiative, the Career Ladders Project and IMPAQ International present this article on career pathway development across 10 East Bay community colleges. This article highlights the accomplishments of the DBS consortium and its continuing work to establish effective and rigorous academic and technical pathways to success.



Developing effective career and educational pathways requires crossing boundaries between departments, colleges, agencies, and across district and county lines. Effective pathway development entails stepping out of traditional comfort zones and silos. This article focuses on initial steps toward developing new and innovative pathways at 10 San Francisco East Bay community colleges, with support from the Design It-Build It-Ship It (DBS) grant. DBS is a regional workforce development consortium funded by the U.S. Department of Labor Trade Adjustment Assistance Community College and Career Training (TAACCCT) grant program.



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TAACCCT provides funds to community colleges to expand and improve education and career training programs that can be completed in two years or less and that lead to one or more of the following outcomes:

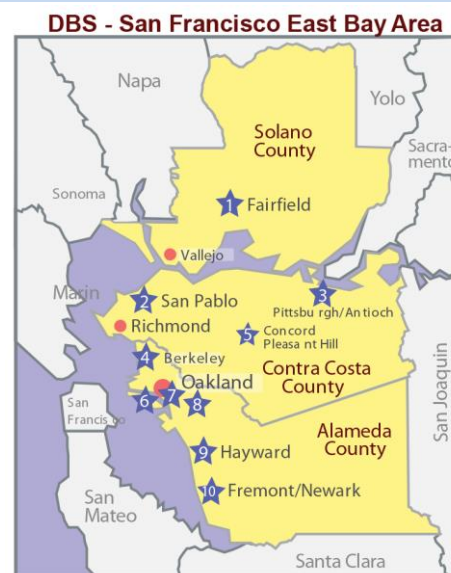
- Employment in high-skill, high-wage occupations
- Educational credentials such as certificates and degrees
- Transfer to four-year colleges and universities

DBS offers the East Bay an unprecedented opportunity to build accelerated, intensive, and regionally articulated programs of study. Through these programs, dislocated workers and unemployed adults can earn degrees and credentials enabling them to enter the workforce in high-demand industries with opportunities for career and wage advancement. In addition to the 10 community colleges, the DBS initiative includes five workforce investment boards, two four-year universities, local employers and industry, and key community partners. DBS focuses on three industries that are important to the regional economy: advanced manufacturing, transportation and logistics, and biosciences.

A key objective of DBS is to develop and strengthen career and educational pathways. According to the grant proposal submitted to the U.S. Department of Labor in 2012, DBS aims to create a regional workforce system that includes the following components:

1. Stackable certificates across the 10 participating community colleges, coordinated through an East Bay Skills Alliance that includes higher education, industry, WIBs, labor, national research labs, and economic development partners,
2. Stronger training, referral, and placement systems that integrate the colleges and the public workforce system (through the American Job Center Network) with jointly supported aptitude and career inventories, digitally mapped career pathways, electronic referral/enrollment, and systems for leveraging WIA, TAA, ETP and other training resources within the community colleges,
3. “Career transfer pathways” from the community colleges into the University of California and the California State University systems that articulate between CTE pathways in the community colleges and STEM-centered pathways in the 4 year systems.

As a strategic assistance partner, the Career Ladders Project (CLP) provides leadership and technical assistance to support the DBS grant outcomes. CLP facilitates the community college community of practice, or group learning, to focus on building a regional career pathway framework, that is responsive to the economic skills gap in the East Bay and employer needs. IMPAQ International, LLC, is the third-party evaluator of the DBS grant. IMPAQ’s evaluation work provides an independent and objective view of DBS implementation. The evaluation will also examine the educational and employment outcomes of students who participate in grant-funded training.



THE CAREER LADDERS PROJECT

The Career Ladders Project works with community colleges and their partners throughout California to help implement educational and career pathways. These pathways are designed to meet regional needs and ensure that underserved youth and adults successfully complete post-secondary educational goals to prepare them for 21st century careers. CLP provides strategic advisement, professional development, and technical assistance to education and workforce partners to develop career pathways, leverage resources, and align system efforts.

Why Career Pathways Matter

A Career Pathway is a series of structured and connected education programs and support services that enable students to advance over time to better jobs and higher levels of education and training. Pathways connect progressive levels of education and work experience to prepare students for success in both college and career, linking in-demand skills to the employment needs of high-wage growth sectors in the regional economy.

As part of the DBS grant, CLP is working with 10 East Bay community colleges and with employer partners to align redesigned CTE programs into a regionally coordinated collection of offerings. These programs enable entry level and incumbent workers to advance in both college and career with articulated entry, exit, and re-entry points. The career pathway infrastructure in the East Bay is a dual customer strategy focused on helping:

- Employers increase *regional* engagement with the community colleges, and
- Individual job seekers and incumbent workers connect with competency-focused college programs of study.

The robust infrastructure includes pathways aligned to employment, industry recognized credentials, core competencies, and increased on-ramps to programs, as well as portability of skills and certificates so that students can advance toward higher unit credentials.

High Impact Pathway (HIP) Institutes are one-day events bringing together community college faculty members for a working session to deeply engage with pathway development and mapping activities.

The Career Ladders Project Work with DBS Consortium

CLP plays a vital role in the implementation of DBS, facilitating the efforts outlined below.

Strengthen Sector-Based Career Pathway Development. CLP has brought together all 10 community colleges and key workforce partners through four High Impact Pathway Institutes to deepen sector-based career pathway development both at individual colleges and across the region. Colleges, local workforce investment boards, and employers have responded positively to using “pathway mapping” to help organize career advancement opportunities for both entry-level and incumbent workers. Colleges can use pathway maps¹ to redesign offerings and certificates or degrees to more effectively supply the regional demand for a prepared workforce.

Address Regional Workforce Skills Gap. Addressing the skills gap involves aligning education and training with in-demand skills in three major industry clusters: advanced manufacturing, transportation and logistics, and biosciences. Faculty are engaged in articulation processes that recognize stackable certificates and common courses, taking into account the mobility of students and incumbent workers. This process creates a well-knit web of certificate and degree programs essential to the economic development of the region.

Coordinate Connection of “On-Ramps” to Career Pathways. DBS also builds on the regional East Bay Career Advancement Academies (CAA) funded by the California Community College Chancellor’s Office. The CAAs provide “on-ramps” to career pathways using accelerated, cohort-based, and contextualized instruction to support low-income students who would not otherwise be able to access college-level programs. Connecting these on-ramps to existing pathways and stackable certificates has been a key component of DBS’s capacity building. CLP has been the statewide coordinator and technical assistance provider for the CAA demonstration project.²

Facilitate a Community of Practice. Across the colleges, faculty come together regularly to discuss program outcomes, student learning, and competencies. For example, a three-college conjoint industrial maintenance certificate has been piloted, and similarities in course and certificate curricula are under discussion. New certificates, redesigned CTE programs, and alignment of these programs to work experience and jobs are some of the key accomplishments to date. The DBS community of practice creates a responsive multi-college collaborative that expands the opportunities for students to “earn and learn,” increases opportunities for incumbent workers to add new skills, and promotes the portability of earned credentials through robust career pathways.

Addressing the skills gap involves aligning education and training with in-demand skills in three major industry clusters: advanced manufacturing, transportation and logistics, and biosciences.

¹ DBS pathway maps can be viewed at <http://www.careerladdersproject.org/dbscomp/>

² Seven of the 10 DBS colleges were original members of the CAA consortium.

PATHWAY DEVELOPMENT ACROSS 10 COMMUNITY COLLEGES: PRELIMINARY INSIGHTS

The funding for this ambitious three-year grant project began in fall 2012. The first few months involved planning and bringing key partners together. Colleges began implementing grant-funded activities in spring, summer, or fall 2013. The community colleges and other grant partners are still in the process of developing the DBS consortium and pathways. Some colleges are developing innovative courses, programs, and relationships with employers and universities. Others are revising existing curriculum and updating courses, tasks that the faculties did not, until now, have the resources to accomplish.

IMPAQ evaluators are collecting information about grant activities through observations of DBS events and meetings, interviews with key informants, and annual visits to each of the 10 participating colleges. Data collection will continue into 2015. The preliminary analysis presented in this brief is based on data collected during spring 2014, including:

- Transcripts from 72 interviews with college staff: coordinators, counselors, faculty members, deans, and administrative staff, and
- Fourteen focus groups with 100 students from all three target industry sectors

Four overarching themes have emerged so far from IMPAQ's preliminary qualitative analyses of these data. These initial themes include the fundamental requirements for a regional approach to career pathway development:

- Bridging of relationships with BOTH university AND industry partners,
- Horizontal articulation across colleges, districts and counties,
- Full-time CTE faculty who serve as champions of the process at their respective institutions, and
- A shared vision at the college level of a career pathway system.

Bridges: K-12, Community College, University, and Industry Partnerships

“It was really interesting to see what other colleges were thinking. It made me think, ‘That’s a good idea. We might implement that...’ They [CLP] opened our eyes to what industry has to offer.”

- Faculty member

Each of the 10 colleges started the DBS project at different points in the career pathway development process. All colleges had existing relationships with employers, but only some had articulation agreements with high schools and universities in place at the beginning of the grant period. A faculty member at one college reported that the curriculum was built in response to employer input, so it was well aligned with the employers’ needs. He continued, “We have had good success placing students in internships. The program is evolving in understanding the hiring processes with different employers.” As one administrator noted:

“We were ahead of the curve because we already had great links with the high schools...We did a great job of articulation and moving students through, providing training for (CTE) high school teachers, and updating curriculum with input from our industry advisory committee.”

An instructor at a different college described their existing relationships with universities in the region:

“ [UC] Berkeley’s engineering department has been great to us. We have a diverse group of students interested in engineering... We have articulation agreements with all the engineering programs at public universities in our area. We are most connected to San Jose State [University], UC Berkeley, and UC Davis.”

At colleges like these that had existing partnerships in place, the initial focus of DBS grant activities was on improving the quality of programs and strengthening the links between the colleges and local employers and universities.

Other colleges had to build relationships from scratch upon receipt of TAACCCT funding. A faculty member describes how CLP facilitated the initial stages of collaboration with other colleges and with employers:

I found the career- mapping workshop [provided by the Career Ladders Project] to be very helpful...It was really interesting to see what other colleges were thinking. It made me think, ‘That’s a good idea. We might implement that...’ They [CLP] opened our eyes to what industry has to offer.



Emerging collaborations among colleges, industry, and universities can translate directly into improved experiences for students.

Another faculty member was beginning to see the importance of learning about collaboration with local high schools and other colleges through DBS grant activities:

That was really good information on how to effectively [build bridges between K-12 and community colleges]. And the understanding of how important it is for colleges to collaborate, particularly if you're in the same [geographic] area.

At some colleges, the initial focus of grant activities was on building awareness among faculty of the potential of regional collaborations and of bridges between educational institutions and industry partners.

Emerging collaborations among colleges, industry, and universities can translate directly into improved experiences for students. One student in a college pre-apprenticeship program reported:

I just wanted to get a visual of what all this was, what you can do, the big picture.... I'm narrowing it down to two jobs, ironworkers and pipefitters. So far, I'm liking it. The field trips help. We visited the ironworkers work facility. I liked it. There's an orientation coming up.

“Company tours, information about internships, [and] meeting scientists and CEOs” all help students prepare for the job market.

Students notice the benefits of the relationships between colleges and employers. One student described the benefits this way: “The connections that professors have with the industry...it opens your eyes as to what you are really getting into.” This student went on to say that “company tours, information about internships, [and] meeting scientists and CEOs” all help students prepare for the job market.

Horizontal Alignment Across Colleges

A unique aspect of DBS is its regional, cross-systems approach to career pathway development. The 10 DBS colleges are housed in five community college districts. The colleges, like the region's workforce and industry partners, are scattered across three Bay Area counties. Thus, CLP's facilitation of collaboration among colleges across districts and counties has played a fundamental role in what the DBS consortium has accomplished so far.

Community college faculty sometimes lack the opportunity to collaborate within their departments, let alone with colleagues in other colleges and districts. While CTE programs are required to have industry advisory groups, college faculty rarely receive input from workforce and industry partners outside their immediate service areas. Yet individuals in the Bay Area often seek employment in a neighboring county, without regard to college district boundaries. The DBS grant takes a regional approach to career pathway development to address both industry and student needs. One faculty member describes collaboration that takes place:

The important thing to me with collaboration is to know what everyone is doing, so we can look at what students have done and what they need. I advertise other colleges' programs.... That's part of what this grant is about.

This faculty member points to one of the key purposes of cross-college collaboration: to create awareness throughout the region of the array of programs offered by the community colleges. Another comment illustrates how the pathway mapping process fosters the discussions required to increase horizontal alignment.

I thought [the pathway mapping] process was very useful. I want [the maps] so I can go to the website and see everything in the East Bay, all the programs. What we were trying to do during breakout sessions is put down the content of different classes at our colleges so we could see where we lined up.

CLP plays a valuable role in the consortium as the facilitator of these collaborative activities. As one respondent noted, "Through the Career Ladders Project, we are able to talk to other colleges and see what they're doing. We should do it more often!"

The pathway maps produced through the DBS work, in turn, support further regional collaboration and horizontal alignment, which benefit employers, job seekers, and incumbent workers. Interviewees reported that the examination and documentation in the mapping process are worthwhile. In this work, innovation and redesign emerge in ways that meet the goals of both the individual colleges and the regional consortium.

The DBS grant takes a regional approach to career pathway development to address both industry and student needs.

For example, discussions that take place at the High Impact Pathway institutes eventually result in the identification of regional curricular gaps. As one faculty member stated

I think meeting the other partners in DBS was extremely helpful... We found out that no one has any clean room experiences for their students. It allowed us to identify this really large key skill gap that we're now more urgently working to close.

The DBS grant has fostered new collaborative relationships across colleges that had not worked together prior to the award of the grant. One instructor said:

We hadn't had much contact with the program at [another college] prior to the grant, but we are trying to implement some things that they already have around automation. The grant has helped put us in the same room a number of times, so that has certainly helped expedite the collaboration process.

Similarly, a dean at another college remarked on new horizontal alignment as a result of DBS:

Collaboration across different colleges is awesome. I feel much more connected to the other institutions. I know what they're doing. I've been able to get to know their faculty. We've funneled students to one another. Without this grant, we wouldn't be where we are in terms of relationships.

When colleges in the region strategically collaborate and complement one another's offerings, students can choose from among multiple pathways. One student reported:

I completed microscopy at [College X]. I took some classes at [College Y], and they don't seem to have the diversity (of course offerings) that [College Z] does.

Understandably, not all courses can be offered at every college. Horizontal collaboration enables students like this one to continue their education in their selected sector without leaving the region.



I think instead of being a certificate program, it should be a degree program. I think more classes should be added. It shouldn't be just a vocational course.

– DBS Student

Champions of Pathway Development

A critical piece of career pathway development is full-time faculty who can champion the development process at each college. While CLP can provide guidance and resources, the process must be implemented from within the colleges to be effective. Furthermore, faculty play a crucial role in brokering relationships with universities and industry partners. These relationships are necessary to ensure that the pathways the consortium develops do in fact provide academic and career advancement opportunities.

Some faculty members were open to serving as career pathway champions, a role that requires vision, enthusiasm, and persistence. Champions persistently pushed for the development of new certificates that would be of value to both four-year institutions and employers.

Colleges more advanced in the pathway development process felt a sense of urgency to get the programs to the students. Instructors were determined to implement new programs and let the college as an institution catch up with regard to recognition. A strategy used by some faculty was to offer courses to students while awaiting state approval of new certificates. For example, one college administrator emphasized the importance of getting students on the career pathway immediately, but ensuring that they return for eventual state-recognized certifications:

We started our advertising of the pathway right away. [We'd] say that the state certificate was pending, give a local certification, and say, "It's essential you come back after the state approval," and add that retroactively.... That worked well to get people into the training program while still waiting for the official approval.

By contrast, faculty from colleges at earlier stages in the process of developing career pathways sometimes focused on the pathway mapping activity. They tended to look to outside partners to help drive institutional change. Some individuals noted that collaboration was necessary to move from concept to design. As one instructor put it:

One of the problems I had...was that I had the sense I was the only person doing this. I was alone drawing my own pathway.... All these stackable pathways for going from one level to another—it's new. I learned from other people. I had it in my mind to do this, but this gave me a better idea of how to proceed. [CLP] gave me ideas.

Clearly, champions require institutional support at the college level. Some respondents said that more senior leadership at the college was needed to make cross-campus collaboration work. For example, one administrator suggested that a campus level director be put in place in addition to a coordinator, because a director would have more clout and could serve as “the glue to hold it together. That makes you more effective when you go to other colleges.”

Grant funding was available to support faculty participation in pathway development. However, some faculty members experienced difficulties in obtaining release time or stipends. Though these difficulties may have resulted from miscommunication or bureaucratic delays, they ultimately left some faculty feeling frustrated that their institution did not fully support the process. Grant funding alone cannot address all of the institutional barriers to collaboration. Faculty champions need the support of their colleges in order to take on pathway development work.

Ultimately, it is the students who benefit from the work of these champions. Community college students recognize the opportunities that a fully articulated career pathway provides. They also tend to understand that a pathway does not have to end after one certificate.

The program introduced me to school and helped me see that I can continue and go to college. The certificate is what we get after nine weeks, but what we're getting is so much more. I served my 13 years in school, and I wasn't interested any more. I came here, and now I'm thinking about doing more. It's expanded our thinking way beyond forklift and the certificate. Why [stop at] driving a forklift? Why not be a manager of the warehouse?

Students in the DBS-funded programs are realizing that more is possible. Their comments emphasize the demand for rigorous, stackable programs with a variety of options. One student clearly conveyed the desire to build on what s/he had gained:

I think instead of being a certificate program, it should be a degree program. I think more classes should be added. It shouldn't be just a vocational course.

On the other hand, some students appreciate the quick access to the job market that TAACCCT-funded programs provide. For example, one student said:

[This program] prepares you for an entry-level position. I have gotten quite a few interviews with just the certificate. I wanted to get a degree in science, but then I realized this is a much quicker way to get into the field. There are a lot of companies that come to [our college].

Shared Vision

Career pathway development is a complex and dynamic process that requires engagement from college faculty and from university and industry partners. Effectively engaging partners in this process requires a shared vision of what can be accomplished.

In addition to that shared vision, colleges must foster a collaborative culture that supports the faculty in the persistent effort to move newly designed CTE programs forward. As one faculty member put it:

It's still in progress, the stimulation of the faculty to think outside of what they have been doing, to really push their curriculum into the newer directions where the emerging jobs are, [and] then not having to do it on their own, but to feel part of a team. People can rely on each other so there is a common way of thinking and talking about the whole pathway.

Though the career pathway process is still in its early stages, faculty are noticing progress in establishing a shared vision:

I have been in this job for two years. When I first came, everyone was just learning this stuff, and now the faculty, too, are talking about nesting, stacking certificates, how to get students the first entry to a job and still show them the path to the next thing. That shift is very important.



Champions persistently pushed for the development of new certificates that would be of value to both four-year institutions and employers.

One respondent used a hockey metaphor to describe pathway development:

Wayne Gretzky said, “I never skated to the puck. I skated to where the puck was going to be.” So, similarly, we look at, where are the jobs of the future in biosciences?

In order for all the key stakeholders to collectively see “where the puck is going to be,” collaboration is essential. Faculty must also be compensated for their participation, so that they can literally afford to play their crucial role in the process.

Students share the career pathway vision as well. One student discussed his DBS-funded accelerated training program and the realization that he can achieve more by progressing toward a degree. He described the decision to turn down his first job offer in order to continue along this path:

The program is a good program. It’s all about the individual. What they want to do with his or her life.... I have an OSHA certificate: hazmat and forklift. I got offered a job before, but I turned it down. I decided to do business and logistics [through the degree program].

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WHAT'S NEXT?

The effort to develop and strengthen meaningful career pathways has stimulated innovative thinking and collaboration across the East Bay region, among the 10 participating community colleges and among partner agencies including universities, the workforce development system, and employers. This work will proceed in several ways. First, CLP will continue DBS grant work with these 10 colleges and with regional partners to build on the pathway development accomplished thus far. California College Pathways Trust grants to the East Bay region offer further opportunity to deepen this work and articulate more closely with K–12 districts and schools.

Individual colleges will also continue to develop and expand their career pathways to develop on-ramps and bridges that align more intentionally with adult schools and universities. Continuing to collaborate with local workforce investment boards to expand internships, apprenticeships and other workplace experiences aligned with curricula is a significant area of focus. Across the region, the DBS work varies by sector, but includes vetting regional pathway inventories with employers and examining competencies across programs.

The development of pathways is an iterative process that involves engaging not only college personnel across roles and departments, but also industry, workforce development, and community partners. Pathways are a comprehensive approach to education reform which, when done well improves services to students with varied backgrounds: incumbent workers, re-entry students, veterans, adult school students, opportunity youth, and high school students, among others. Often the work of career pathway development begins with CTE faculty, but it is quickly recognized as a post-secondary framework that benefits *all* students.



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