
The “Fifth Pillar”

**THE SAN DIEGO AND IMPERIAL COUNTIES EMPLOYMENT
READINESS AND JOB PLACEMENT SERVICES PROJECT REPORT**

February 20, 2018

ACKNOWLEDGMENTS

WestEd would like to thank the many individuals and organizations that contributed to this report. The recommendations were informed by input from individuals throughout the region who work tirelessly to offer the best community college experience for students in San Diego and Imperial Counties.

Community college staff and students from across the region provided their insights through interviews, focus groups, and virtual engagements. We are especially grateful to the ERJC Committee members who gave crucial feedback in an iterative and collaborative way throughout the process.

COMMITTEE MEMBERS

- Al Taccone, CE Dean and Committee Chair, MiraCosta College
- Donna Davis, Faculty Director/Career Studies & Services, MiraCosta College
- Claudia Estrada-Howell, Supervisor/Transfer, Career and Evaluations, Mesa College
- Scott Finn, Counselor, Southwestern College
- Richard Gholson, Interim CE Dean, San Diego Continuing Education
- Larry McLemore, CE Dean, Cuyamaca College
- Renee Nasori, Interim Student Development Services Supervisor, Grossmont College
- Mona Patel, Career Center Coordinator, Miramar College
- Kimberly Teston, DSN, Life Sciences & Biotechnology, San Diego Community College District
- Mollie Smith, Chair, Regional Consortium
- Molly Ash, Coordinator, Regional Consortium

TABLE OF CONTENTS

INTRODUCTION	1
Project Description	1
Organization of This Report	3
CONTEXT AND EFFECTIVE PRACTICE	4
Regional Consortium Structure	4
Regional Economic Need	4
System Components for Student Success: Mounting Evidence for Needed Change	9
System Change Principals to Inform Implementation	17
RECOMMENDATIONS	21
Introduction	21
Overarching Recommendations	23
Recommendations for Strengthening and Aligning Processes to Support Students	24
Recommendations for Tools to Support Student Success	30
Recommendations Related to Implementation	37
TAKING ACTION	38
Introduction	38
Phase I – Consolidate and Launch	39
Phase II – Act Quickly and Strategically	40
Phase III – Improve Continuously	42
REFERENCES	43
LIST OF APPENDICES	48

INTRODUCTION

The “Fifth Pillar” report is a culmination of a set of activities in Phase I of the *Employment Readiness and Job Placement Services Project* (ERJP project). Working closely with and guided by the Employment Readiness Committee (committee), a representative subgroup of the San Diego and Imperial Counties Regional Consortium (consortium), WestEd conducted a series of research and engagement activities to inform the recommendations contained in this report. Below we provide details about the project and approach to the work.

Project Description

PURPOSE AND GUIDING PRINCIPLES

This ERJP project addresses the need to develop an infrastructure and processes for a regional system that will provide all ten of the San Diego and Imperial County colleges with access to programs to support students in preparing for future careers and acquiring employment upon completion of their programs of study. WestEd is working with the colleges to develop a system with the following three key functions:

1. proactive career planning and career preparation, including the development of 21st Century Employability Skills;
2. proactive, case-managed job placement for, especially in the priority sectors (health, life sciences/biotech, advanced transportation/renewables) and emerging sectors (advanced manufacturing and ICT/digital media); and
3. an online management system that provides for student tracking of progress, benchmark intervention, and documentation of all services provided, including job placement.

Once complete and fully implemented, the proposed system will allow students to transport their career plans among the colleges, access regional career exploration and internship opportunities, develop the work readiness skills required by employers, get help to find a job in their field, and have the skills needed to navigate their careers over time.

The three functions of the system are interconnected, employing both human and technology resources for use by staff, students, and other stakeholders (e.g., employers). Human and technology systems that support student progress will be designed and deployed to allow for flexible use, depending on the needs of students, but with some features highly encouraged for all students, in alignment with the Guided Pathways initiative and other “best practice” models.

In carrying out the project, several guiding principles framed the work. Specifically:

- Use a human-centered design approach, with practice shaping technology
- Leverage what is already working while introducing beneficial innovations based on best practices research
- Recommend system enhancements that leverage staff skills, and build staff capacity as needed
- Leverage and align with existing initiatives, such as Guided Pathways

METHODOLOGY

With the goal of developing a set of recommendations to facilitate a regional comprehensive employment readiness and job placement approach (including processes and tools) for Career Education (CE) students, we conducted a set of environmental scans, research on best practices, and in-depth stakeholder engagement strategies to gather critical information that directly informed our recommendations. Input from this range of sources, in addition to details on existing tools that provide case-managed career preparation and placement services, rounded out our efforts to date. Summarized below are methods used to collect feedback from these engagements.

- **Development of Roadway and Glossary.** Using research, best practices, and national exemplars as an initial guide, we drafted an “ideal” comprehensive roadway map that a student may travel on from high school, adult schools, or other points of departure, all the way through to job placement and beyond. Through a highly iterative process, we shared this roadway and glossary with key stakeholders including interviewees, committee members, and focus group members, to obtain feedback and revise. Along the way, committee members weighed in and helped make final decisions on the makeup of the roadway and accompanying glossary.
- **Key Informant Interviews.** By obtaining referrals from each of the college committee members, we conducted over 25 interviews across all ten colleges and representing the range of roles including academic counselors, career center staff, faculty, deans and other administration leadership, job development/internship coordinators as well as consortium leadership. Detailed protocols were developed for each role and key themes and findings were summarized for incorporation into our recommendations. Out of these interviews, we were invited to participate in an existing meeting of Career Center Directors across San Diego and Imperial Counties to hear about their unique perspective. This opportunity yielded additional considerations that informed the recommendations. See full list of interviewees in Appendix A.
- **Virtual Engagements.** To delve deeper into topics raised during the key informant interview, we conducted virtual focus groups, using webinar technology. Four sessions were held with college staff including deans, counselors, and instructional faculty. Each session focused on a pillar of Guided Pathways. A fifth session was held with students representing several of the ten colleges.
- **Best Practice Research.** A thorough examination of literature on best practices from nationally recognized experts in the field were combined with an environmental scan of existing local initiatives to build the best understanding of how local needs can be combined with best

practices. This investigation brought us to key national exemplar sites illustrating best practices in enrollment, planning, student support, and career preparation. Findings from these national exemplars will help inform selection for any site visits in phase two of the project.

- **Tools Analysis.** Sixty-eight technology-based tools were catalogued; 39 passed the first selection phase criteria, and 20 tools were evaluated to date. A two-part tool evaluation rubric was developed and used to assess the value of technology solutions currently used by the colleges as well as other products in the same categories. Evaluation criteria were applied during interviews and demonstrations with vendors and community college staff using the tools. An extensive tools inventory was created, detailing functionality and usage of dozens of technology solutions.
- **Employment Readiness Committee Engagement.** During bi-weekly meetings, leadership of the committee was briefed on progress and provided critical expertise and thought partnership to inform our methods, progress, and findings. Monthly meetings with the full committee provided opportunities to delve into specific topics, discuss regional needs or issues, and solicit feedback on early drafts of this report.

Organization of This Report

What follows are three main sections. In *Context and Effective Practices*, the report outlines the context in which the colleges operate and highlights key data that inform decisions related to the recommendations. This section also includes a review of the research and principles for student success, ending with a summary of the research on change management.

The next section, *Recommendations*, is organized into four groups: overarching, process, tools, and implementation. These are followed by *Taking Action*, which itemizes specific action steps to implement the recommendations.

References and extensive appendices are also included to supplement and support the main report.

CONTEXT AND EFFECTIVE PRACTICES

Regional Consortium Structure

The San Diego and Imperial Counties Regional Consortium includes ten community colleges:

- Cuyamaca College
- Grossmont College
- Imperial Valley College
- MiraCosta College
- Palomar College
- San Diego City College
- San Diego Continuing Education
- San Diego Mesa College
- San Diego Miramar College
- Southwestern College

In addition to the colleges themselves, the consortium’s organizational structure includes three critical entities to guide the work of supporting students’ educational and career success. These three groups include the San Diego-Imperial Counties Community Colleges Association (SDICCCA) that provides policy leadership to the consortium, the Regional Oversight Committee (ROC) that ensures that the work aligns with the vision and strategic priorities of the consortium, and the Workforce Development Council (WDC) that supports the consortium’s program operations.

Guided by these entities, the project and its resulting recommendations and call to action consider the needs of the ten community colleges in the San Diego and Imperial Counties region as well as the region’s economic and workforce development needs.

Regional Need

At the heart of the consortium’s work is a shared vision of regional prosperity and economic mobility for all populations within the region. The Strong Workforce San Diego Workforce Partnership together with the workforce development boards of both San Diego and Imperial Counties developed a joint workforce development plan to build an integrated workforce development system. Drawing on the results of interviews and surveys with scores of businesses in the region, agencies identified five high-wage, high-demand priority sectors on which to focus their development efforts, including:

- Advanced Manufacturing and Renewable Energy
- ICT Digital Media
- Health
- Life Sciences / Biotech
- Small Business

These planning activities also highlighted the need for coordinated engagement with regional employers and collaboration among educational providers in the areas of data-sharing, assessing regional workforce needs, and in the provision of training and placement services. Specifically, the Strong Workforce plan prioritized “[c]oordinating industry engagement and developing a single entry point for business customers” (San Diego and Imperial Counties Regional Consortium, 2017, p.8). A regional approach to pathway development may also facilitate strategic investments and enable students access to high-quality specialized programs that best fit their interests and goals. ERJP Committee members affirmed that some colleges were developing pathways not available at other colleges, based on local priorities.

REGIONAL PERSISTENCE

Students’ persistence in college pathways aligned to the priority sectors suggests the need for strategies to strengthen programs in these sectors. While students are persisting in individual courses, they are not completing full pathways within their selected career area, as seen in the data presented below. Exhibit 1 contains a subset of data drawn from the LaunchBoard Program Tables tab¹ across the region’s ten colleges for programs aligned to regional priority sectors. As shown below, the average course success rate (defined as the percentage of enrollments in credit-bearing courses where students earned a passing or satisfactory grade) is 78 percent. Course retention rates (defined as the percentage of enrollments in credit-bearing course where students did not withdraw and received a valid grade) are even higher, registering at 88 percent.

EXHIBIT 1

Selected Program Data in Pathways in Priority Sectors Across SDIC Colleges

Data Element	Percent
Course Success Rate	78%
Course Retention Rate	88%
Regional Term-to-Term Retention Rate*	34%
Regional Persistence Rate**	13%

Source: LaunchBoard 2015-16 Data. (2017).

* Calculated within a single academic year, excluding intersession and summer sessions.

** Data are not available until two years after the selected year. The table above reflects 2015 data.

¹ The LaunchBoard, a statewide data system supported by the California Community Colleges Chancellor’s Office and hosted by Cal-PASS Plus, provides data to California community colleges on progress, employment, and earnings outcomes for both CE and non-CE pathways. The Program Tables tab provides detailed information on programs, grouped into categories including program size, student characteristics, milestones, success, employment, and regional labor market information. For more see <https://www.calpassplus.org/Launchboard/Home.aspx>.

Relatively few students, however, appear to continue within their pathways. Only 34 percent subsequently enroll in an aligned course in the next term, and even fewer — 13 percent — remain within the pathway across any of the colleges within the San Diego/Imperial County region. In addition, at one college in the region, earning gains overall have been increasing since 2010, but only 47 percent earned a living wage in 2013–14 (Booth, 2017).

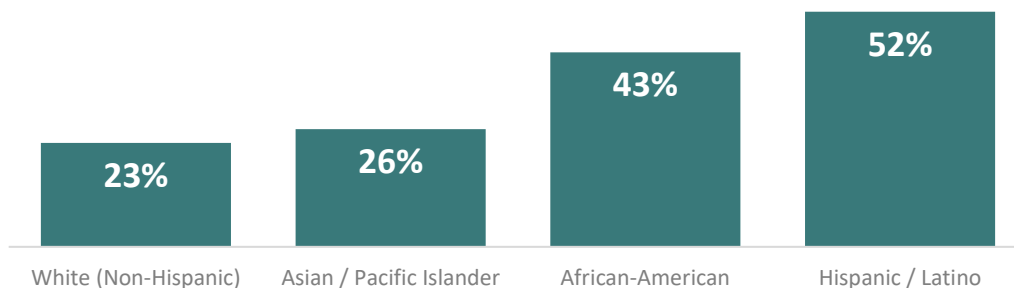
The populations of San Diego and Imperial Counties and their community college students have pressing needs for access to opportunities and robust, differentiated instructional and support services to ensure student persistence, completion, and long-term success.

POVERTY AND ENGLISH LANGUAGE

Over a million people across the two-county region are living at or near poverty levels. Minority households in the region are particularly disadvantaged, with African American and Latino households at 43 percent and 52 percent, respectively, likely to have incomes below the California Self-Sufficiency Standard.²

EXHIBIT 2

Households with Incomes Below the California Self-Sufficiency Standard, by Race and Ethnicity³



Source: Center on Policy Initiatives. Retrieved from <http://www.cpisandiego.com/MEM/index.html>

With poverty comes food insecurity and other financial challenges that compromise students’ ability to focus on their coursework. A 2017 national study (Blagg, Gunderson, Whitmore-Schanzenbach, & Ziliak, 2017) found that approximately 13 percent of community college students were food insecure. While these data are not available for San Diego and Imperial Counties, one interview respondent highlighted food insecurity as a serious concern.

² Imperial County data were not factored into the Center’s calculations (analyses included San Diego County only).

³ The Self-Sufficiency Standard was developed by Dr. Diana Pearce while she was the Director of the Women and Poverty Project at Wider Opportunities for Women (WOW), with funding from the Ford Foundation. <https://insightccd.org/old-site/uploads/cfes/2014/MethodologyAppendix-2014.pdf>

English-language ability is also a significant barrier to access to employment and training opportunities for many, and a challenge to persistence and success in college courses. Across the two-county region, 39 percent of the population speaks a language other than English at home. In Imperial County, the need for English language support is particularly great, with 24 percent of the adult population reporting they speak English “less than very well.” Across the region’s community colleges, there’s a wide range of needs. The proportion of students who enrolled in at least one credit or noncredit English as a Second Language (ESL) course ranges from 5 percent of the student body in one college, to as high as 38 percent in another. According to state data,⁴ only approximately 31 percent of students who start college in a below-transfer-level ESL course successfully complete a transfer-level ESL or English course, extending their time in college and jeopardizing their ability to complete their programs of study.

LEVEL OF EDUCATION

Thirty-four percent of the adult population within the region — over 750,000 people — has only a high school diploma or less and therefore lacks the basic credentials required for career success in most occupations. Within the San Diego/Imperial County region, the population without a high school diploma numbers 334,296 — just over 15 percent of the adult population.

EXHIBIT 3

Educational Attainment, 25 Years and Over

Highest Level Achieved	Number	Percent
Less than high school diploma	334,296	15%
High school graduate (includes equivalency)	419,691	19%
Some college or associate’s degree	692,985	32%
Bachelor’s degree or higher	747,150	34%
Total	2,194,122	100%

Source: SDIC Regional Consortium, 2017

AGE RANGE OF STUDENTS

The age range among community colleges in the region is large, suggesting the need to attend to a wide variety of student needs and concerns. Forty-six percent (46%) of the students are over 25 years old, and of those, most are over 30. Many of the students are already working at least part-time⁵ and have family responsibilities that can take priority over coursework (Carnevale, Smith, Melton, & Price, 2015).

⁴ CCCCO 2017 Student Success Scorecard, Remedial Progress Rate (ESL): Percentage of credit students tracked for six years through 2015–16 who first enrolled in a below-transfer-level ESL course during 2010–11 and completed a college-level course in ESL or English.

⁵ According to the Georgetown University Center for Education and the Workforce, 70 to 80 percent of all undergraduate students are employed full- or part-time.

Community College Student Age Range

Age Range	Percent
19 or Less	22%
20 to 24	32%
25 to 29	15%
30 to 34	8%
35 to 39	5%
40 to 49	7%
50 +	10%
Total	100%*

Source: CCCCO MIS Data Mart 2016-17 Data, Annual / Term Student Count Report

* Percentages may not total 100% due to rounding.

Twenty-two percent (22%) of students in the region are under the age of 20, and the proportion of students in this age bracket appears to be growing. Between the 2014-15 and 2016-17 academic years, enrollments by students under the age of 20 increased nearly 7 percent. Younger students face their own challenges, especially if they have not had the opportunity to explore career options before arriving at the college.

Adding a layer of complexity to the age-related issues, approximately 38 percent of students in the region are first-generation college students — that is, the first in their families to attend college.⁶

STRONG WORKFORCE ALIGNED TO GUIDED PATHWAYS AS A FRAMEWORK TO SUPPORT STUDENT SUCCESS

“Guided Pathways” has taken hold nationally as an approach that can help support student success and equitable outcomes — whether certificates, employment, or transfer — by providing structured course sequences, careful intake and planning processes, rich learning opportunities, and robust support services. There is a growing body of research showing that students — especially low-income and underprepared students — do generally worse with the “cafeteria-style” approach to course selection which colleges traditionally offer (Bailey, Smith Jaggars, & Jenkins, 2015a; Scott-Clayton, 2011). For consortium colleges to see improvements in the success rates of their students, they will need to provide more “guided” opportunities — all the way through transition and employment.

⁶ Median Percentage of First-Generation Students for six out of the ten colleges within the region, for which data were available. Data reflect 2015-16 academic year. Calculations by WestEd. Source: 2017 Student Success Scorecard.

System Components for Student Success: Mounting Evidence for Needed Change

Colleges are implementing a variety of initiatives that align to the Employment Readiness and Job Placement Project, including SSSP, Student Equity planning, Basic Skills Transformation, and the Strong Workforce Program. The most encompassing and current of these is Guided Pathways. The Guided Pathways movement has gained momentum in recent years among colleges seeking to improve retention, persistence, and completion. At the core of this approach is a fundamental reconfiguration of college experience that focuses on student needs and provides “intrusive” or proactive direction that guides students to completion and success. Rather than working with a subset of students, Guided Pathways is a college-wide undertaking that provides a framework for integrating all of the California-based initiatives. Three colleges in San Diego are participating in the Guided Pathways pilot: Cuyamaca, MiraCosta, and Southwestern.⁷

The following section highlights key system components identified through a review of the literature, interviews, and focus groups as critical for student success in college, employment, further education, and long-term careers. The components are closely aligned with those supported by the Guided Pathway initiative, with additional emphasis on career-related experiences and employment services.

PRE-ENROLLMENT ENGAGEMENT

Pre-enrollment engagement is defined by activities conducted prior to matriculation with prospective students to facilitate enrollment, and aid in their understanding of the educational options, pathways, and services available. Examples of activities include:

- Articulated or dual enrollment career exploration and college readiness courses offered at local high schools or adult schools.
- College or career success modules or workshops offered at local high schools, adult schools, community-based organizations, adult jails, or other environments.
- Online or print college and career exploration resources encouraging independent exploration and planning for college.
- “College Days,” which may include campus tours, meeting with faculty, or other early engagement strategies which help students identify their interests and programs that may be aligned with their goals.
- College outreach activities, including pre-enrollment orientations; information about pathways, courses, learning experiences, financial aid, and services; sessions with parents as appropriate.
- Opportunities for students to share information about their goals and needs.

Research suggests that early engagement for college and career planning with prospective students increases the likelihood of successful completion of high school diplomas, and also correlates with

⁷ For more information about the California Guided Pathways Initiative, see www.caguidedpathways.org.

higher persistence rates in postsecondary (Edwards & Belfield, 2012; Barnett, 2016; Barnett, Fay, Trimble, & Pheatt, 2013). Research conducted into Guided Pathways colleges has also found that mandatory pre-enrollment orientation for first-time students, when conducted in conjunction with cohesive integrated advising procedures, results in higher persistence rates and student satisfaction (Completion by Design, 2016).

Focus group participants also noted the value of knowing students' full "stories" in order to be able to provide appropriate guidance on career options and available student services. Agencies actively coordinating with area high schools, for example, through initiatives like CCPT, may already be doing this work, though it is unclear how broadly the information is captured and shared in the transition from K–12 to community college. To address this, one suggestion was to develop custom fields in CCCApply to collect supplementary information that might assist staff in obtaining a fuller picture of students' needs — an approach which one agency has already begun testing.

MATRICULATION AND COMPREHENSIVE ASSESSMENT

Matriculation and comprehensive assessment is defined as the process of enrolling in a community college and completing the necessary assessments and plans to pursue a pathway. Steps include application; orientation (to the college, pathway, and other services); assessment of academic, career, 21st Century Employability Skills, and other interests, skills, and needs; and access to financial aid, financial planning, and financial literacy services, as well as labor market information.

Research suggests transition into the college environment begins with coordinated "high-touch" engagement to assist students in aligning skills and interests with career and educational goals; help students understand and effectively navigate administrative requirements, timelines, and financial aid; and provide guidance with course selection and scheduling, as well as access to student supports.

Two aspects of the matriculation and assessment process are discussed below: Intake/Orientation and Assessment.

Intake/Orientation

Intake and orientation provide opportunities for colleges to acquaint new students with the full spectrum of pathways, courses, experiences, and services available at the college. The most effective of these begin prior to matriculation, so that upon entry, students are equipped with information and supports needed to successfully navigate and complete programs of study (Completion by Design, 2016).

Many interviewed noted the importance of incorporating career assessment and early exploration activities (or minimally meeting with a career advisor) into the orientation process. Focus group participants also expressed a desire to front-load career planning into orientation, which ideally would be customized based on students' interest, program area, and/or needs.

SPOTLIGHT:

Northeast Wisconsin Technical College

At the Northeast Wisconsin Technical College in Green Bay, Wisconsin, students are offered a detailed 15–20 question survey upon intake that asks questions anticipating barriers to success. Each at-risk response is linked to a robust referral system with help from Starfish and its early alert functionality. The alerts go directly to the appropriate student support department staff members who follow up by email and text with the student about these potential risks to success, pointing them to the steps they can take to address the need. The system also tracks student performance tied to how they responded to that referral during the semester, offering important feedback information to staff about that student’s grades, persistence, use of supports, etc. This proactive assessment and early alert system connects the student quickly and efficiently to the resource and staff support available.

Assessment

Assessment refers to the evaluation of academic as well as career-related skills and interests. Assessment occurs early in students’ enrollment and helps shape students’ career and education plans. It is also used by faculty to determine whether students are meeting learning outcomes.

Academic skills are evaluated using a multiple measures approach and conducted in conjunction with career assessments and skills inventories (Completion by Design, 2016; Jenkins & Fink, 2015; Mejia, Rodriguez, & Johnson, 2016). Measuring attainment of student learning outcomes through the use of targeted assessments is a key feature of effective pathways (Jenkins, Lahr, & Fink, 2017).

Many interviewees noted the importance of incorporating career assessment and early exploration activities (or minimally meeting with a career advisor) into the orientation process. The preferred sequence of steps involves 1) identifying students’ aptitudes, 2) career exploration activities, 3) pinpointing a preferred pathway, and 4) creating a detailed education plan. However, since career exploration and assessment are not required, students typically skip this and jump right into coursework. College staff discussed the need for quality assessments of employability skills and a consistent structure for administering and using those assessment results to link directly to services or supports needed.

CAREER EXPLORATION

Career exploration is defined as the process of learning about career options through workshops, classes, tours, career-related research projects, informational interviews, and job shadows, based on identified interests and goals. Career exploration experiences that involve employer engagement are considered to be early-stage work-based learning. (See “Applied and Work-Based Learning.”)

Career exploration is a key element of high-quality career technical education (CDE & CCCCCO, 2008). It is also a key element of Guided Pathways (Jenkins et al., 2017). Career exploration should be iterative and developmental, providing opportunities for students to develop their decision-making and metacognitive skills (Karp, 2013). It should also precede academic planning, and continue throughout a student's tenure at the college, with successive work-based learning experiences, and even during the job placement stage, to help students respond flexibly to the outcomes of job-seeking.

Data collected during the interview and focus group processes suggest many entering students in the SDIC region have little understanding of career goals. Establishing interests, financial aspirations, career goals, and aligning education planning to the goals, is critical to determining if the college or pathway is the right fit, even before the educational planning process begins, according to interviews and focus groups. Data collected through the interview process support the recommendation that career exploration should begin even before students enroll in the college. One student said: “[It would be] Helpful to make career resources part of orientation, from the beginning.”

CAREER AND EDUCATION PLANNING

Career planning is the process of developing a career plan, which includes the following components: a student's interests, skills, and values; the career options that the student is interested in pursuing; and the educational and work-related experiences that will lead to one or more long-term career goals. A career plan should be updated with successive educational, life, or work-related experiences that may impact the student's interests or goals. The career planning process includes the following steps, among others:

- Self-assessment of interests, needs, and values, through the use of validated assessments, reflection, and other activities
- Assessment of career options through research and career exploration, as well as understanding of labor market data and economic forecasts
- Understanding of educational and work-related requirements for various options
- Guidance and coaching from a counselor, staff member, or mentor, as appropriate
- Identification of goals based on assessments and coaching
- Identification of steps to attain goals

Education planning is the process of developing an education plan, which includes the documentation of the courses needed for a student to complete a specific degree, certificate, or transfer program of study and fulfill their educational goals, both at the community college and beyond. While often prepared separately from the student's career plan, it can also be considered a subset of a student's career plan, to the extent that it serves to advance the student's long-term career goals.

Best practices documented in the literature suggest career and education planning is a long-term endeavor (Scrivener, Weiss, & Sommo, 2012), informed by outcomes of pre-engagement activities, assessments, and skills inventories (Karp & Stacey, 2013), which should culminate in academic and

career plans that are utilized by both students and advisors throughout college (Jenkins et al., 2017; Kalamarian, Karp, & Ganga, 2017a). Career advising and planning should precede academic advising, enabling students to explore options before making selections about coursework (Karp, 2013).

Focus group participants noted little, if any, career planning actually occurs until students are nearing the end of their degree programs. Education plans — a requirement of SSSP funding — could serve as a catalyst for this early on, but are generally treated as a pro forma activity necessary for continued funding. Despite acknowledging the value of career planning, much of the support provided by advisors is focused on completion of administrative tasks, such as registration for courses. Most conversation objectives are related to selecting a major, rather than identifying career goals.

Those interviewed echoed the literature in recommending that career exploration and planning occur prior to developing educational plans. They also recommended closer connections between academic and career advising functions overall, as well as between career advisors and program faculty. Additional recommendations included a tighter integration of career center services with instruction, as well as better alignment of career and education planning.

PATHWAY PARTICIPATION AND CAREER PREPARATION

Pathway participation and career preparation is defined as engagement with the courses and experiences offered in a career pathway. The California CTE State Plan highlights integrated curriculum as fostering learning by making academics relevant for students; curriculum should be aligned with industry needs and coursework designed to develop skills and competencies needed to succeed in a student's chosen field (CDE & CCCCO, 2008). Students are provided opportunities within the first year to begin coursework in their chosen field of study (Jenkins, 2011; Jenkins & Cho, 2013). Basic skills courses should be accelerated and tailored to student areas of interest through contextualization and/or modularization. Co-requisite strategies also facilitate acceleration and encourage persistence (Denley, 2017).

Some interviewees noted that faculty do not always have time to connect to the tools and resources provided on campus. While perceived as focused on their student's academic needs, faculty have limited availability to aid career exploration, engagement, or placement. This is particularly true for CE faculty who are seen as less "looped-in" to campus initiatives.

A challenge identified by staff were strategies for embedding employability skills into CE classrooms, and connecting students to available services when needed. Helping students prepare for careers "creating a culture of career engagement," as noted by one participant, should be seen as everyone's responsibility.

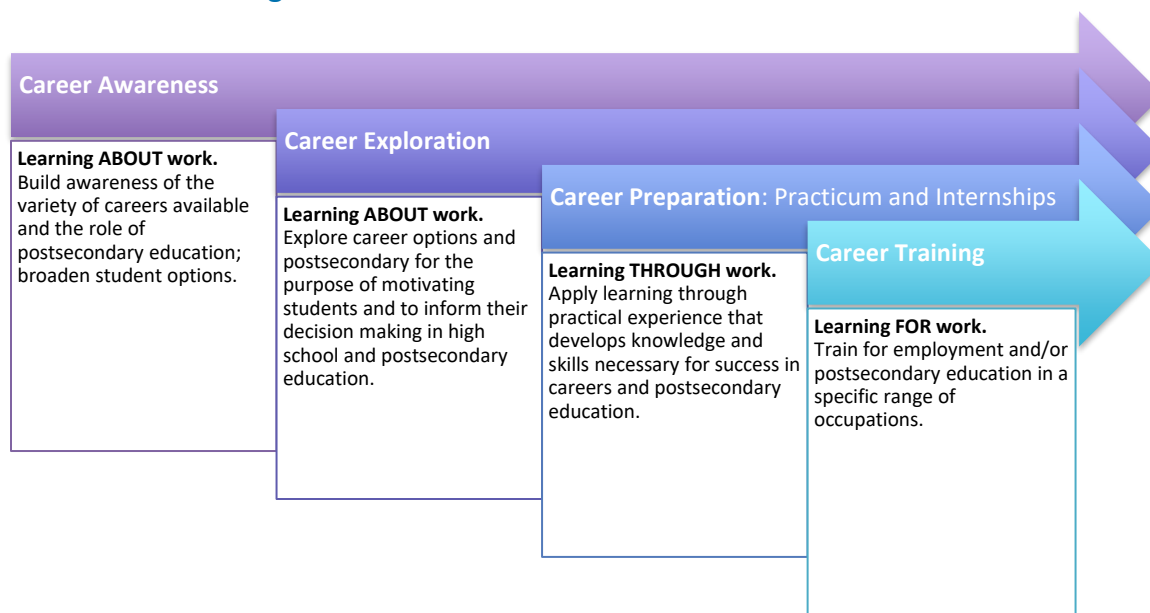
APPLIED AND WORK-BASED LEARNING

Applied and work-based learning (WBL) are strategies that deepen learning and support career awareness, career exploration, and career preparation through engagement with real problems and projects. In addition, WBL connects students directly to employers and real work opportunities. Work-

based learning experiences are offered along a continuum, ranging in intensity, from tours and job shadowing, which expose students to career options, to internships, work experience, co-op, and apprenticeships, which teach both general and specific career-related skills through actual work, as illustrated in Exhibit 5. High-intensity WBL can also include projects completed, or services performed, in classrooms, if employers are directly involved, or if the projects and services are being developed/performed for a client outside of class. Examples include a web development project or service for a local nonprofit organization. Any high-intensity WBL experience requires a learning plan, assessment, and adherence to other criteria for high quality and safe practice. Work-based learning, while sometimes coordinated by staff outside the pathway, is integral to pathway participation, career preparation, employment preparation and connects these efforts.

EXHIBIT 5

Work-Based Learning Continuum



Source: [Linked Learning Alliance \(2012\)](#).

Work-based learning, offered through internships, apprenticeships, and service learning, motivates learning and supports deep engagement and the development of higher order thinking skills. It also exposes students to career options, builds social capital, helps students develop an understanding of workplace practices, builds 21st Century Employability Skills, and builds career navigation skills (Bailey, Hughes, & Moore, 2004; Darche, Nayar, & Bracco, 2009; Holzer & Lerman, 2014; Cahill, 2016). Applied learning, including project-based learning as well as other strategies, is also seen as critical to student success within career pathways (Jenkins et al., 2017; CDE & CCCCO, 2008).

Focus groups and interviews suggest that within SDIC agencies, faculty tend to be the primary conduits for work-based learning opportunities and job placement with local sites, whereas internships tend to be administered programmatically. The lack of coordination around these functions was identified as

one of the challenges to incorporating applied learning consistently within and outside of classrooms. Practical considerations, such as transportation, attire, and limited availability were also noted as barriers to systemic implementation of work-based learning opportunities.

STUDENT SUPPORTS

Student supports encompass the full range of services needed to successfully complete pathways. Traditionally, academic supports include tutoring, testing for special education, peer study groups, as well as assessment and accessibility supports for students with disabilities. Nonacademic supports consist of logistical and life-related supportive services to address an array of personal needs such as just-in-time housing services, transportation and parking, food and nutrition, child care, financial assistance, and other subsidies.

Literature has shown numerous positive effects for students provided with proactive and integrated student supports. These include a range of academic and non-academic supports that extend beyond those typically provided through traditional academic advising. Counselors, faculty, and other staff work together to monitor student progress and proactively intervene to help students find the help they need — academic or otherwise — when they appear to be at risk of failing or dropping out (Kalamkarian, Karp, & Ganga, 2017b; Bailey, Jagers, & Jenkins, 2015a). “Enhanced” or “intrusive” advising anticipates student needs and connects them to resources whether students know they need them or not — and then closes the loop for students once those referrals are made, as in the Northeast Wisconsin Technical College spotlight above.

SPOTLIGHT: Valencia College

Valencia College in Orlando, Florida has demonstrated excellence in high graduation, transfer, job placement rates as well as exemplary workforce training programs, due in part to a deliberate investment in proactive student supports. Embedded career staff work with faculty in each program track to identify and address student needs right from the start. One key component is their New Student Experience course. In it, students and instructors work together to develop educational and career plans while learning how to navigate the various functions at the college. Since it is taught by program faculty, it also provides a chance for faculty and students to build personal relationships deemed essential for long-term success.

Investments in technology and system improvements are generally one of the first steps taken by colleges seeking to implement this kind of advising approach, but research suggests that this alone is insufficient for ensuring long-term system change (Karp, Kalamkarian, & Klempin, 2016). While technology improvements can effectively aid in academic and career planning, counseling and coaching, and risk management — and ideally, all three — they are nevertheless a means to an end — that end being the development of long-term relationships with students (Kalamkarian et al., 2017b).

Focus groups and interviews corroborated the need to proactively engage students around support services available. Students reported that they had not been aware of many of the services the college provides until much later in their academic careers when they needed or sought it out on their own based on a specific need. In addition to these services, interviews and focus groups highlighted the importance of nonacademic supports that students need, including transportation, food security, financial services, transportation, and health.

EMPLOYMENT PREPARATION AND TRANSITION

Activities that prepare students to transition into further education, formal training, and/or the workforce are considered part of employment preparation and transition. These may include resume writing, interview skills; mock interviews, job search and placement services; letters of recommendation, as well as job placement supports, such as job boards, curated interviews, and feedback and coaching opportunities. These also include transfer preparation services.

Employment preparation programs are often implemented in collaboration with workforce development and community-based organizations (Martinson & Holcomb, 2007). While traditional college employment preparation efforts stop short of job placement, some colleges have begun to reframe their mission to make it a more explicit part of their value proposition. As captured in the proceedings of a recent conference at Wake Forest University entitled “Rethinking Success,” college leaders asserted the need for proactive employment-related services, emphasizing the importance of research and building networks among influencers and alumni, and boldly advocated for broad and ongoing public reporting of job placement outcomes (Chan & Derry, 2013).

As described by interviews and focus groups, career centers in the SDIC region provide employment and transition planning services in addition to other career preparation services, though students usually only utilize these services near the end of their time in college. Only a few SDIC colleges have dedicated employment services staff, with most employment functions staffed by part-time advisors or student employees. Data collected suggest a relative lack of investment in employment and placement services. Job boards at each campus serve to connect students with local employers, but usage data are not tracked systematically across all colleges. Respondents advocated for more robust services with more powerful tools and adequate staffing.

With regard to transfer services, many within the community college system highlight the premium placed on transfers by their colleges. Yet research suggests that roughly 25 percent actually transfer, and worse, only 17 percent actually earn a bachelor’s degree (Jenkins & Fink, 2015). Further, only around 15 percent of transfer students complete their bachelor’s degree within six years (Crosta & Kopko, 2014; Shapiro, Dundar, Chen, Ziskin, Park, Torres, & Chiang, 2012). These data suggest that more could be done to support the success of transfer students, including better integration of education and transfer planning with career planning, among other improvements.

System Change Principles to Inform Implementation

Below we describe key concepts that support successful implementation over time. We break them into two areas for consideration: 1) the adoption of a tool or specific set of tools, and 2) the multi-dimensional change process that is required to ensure successful implementation.

PRINCIPLES OF SUCCESSFUL TOOL ADOPTION

There are a number of factors or principles to keep in mind when adopting a new tool or set of tools. Whether it's a systemwide implementation, or a small, contained implementation, the same decision-making principles apply. Key principles for decision-making include:

- **Determine readiness.** The success of a tool adoption hinges on the structures, systems, policies, people, and norms (human interactions) that it is intended to support. It is critical to honestly assess the capacity of these component parts (i.e., structures, systems, etc.) to adopt a given tool. Do new workflows need to be defined? Does it require closer interaction across departments currently working separately? Does it align with current practices and norms or will these practices/norms need to be modified? How difficult will that be? How much new content needs to be developed and/or managed before going live? Is there capacity to produce this content?
- **Determine data needs and requirements.** Tools are typically facilitators of data and information management. Therefore, when adopting a new tool, a college will need to consider how the data that currently exists will be managed, how the data or data system will interact with the new tool, what new data management requirements will need to be defined, and so on.
- **Determine desired feature set.** There are many great tools to choose from and none of them can be implemented successfully in all contexts. It is therefore important to identify the priority features or functionalities required ("must haves"), separate from the "nice to haves." The priorities can serve as a filter or checklist for decisions about whether the tool is the "best fit."
- **Determine integration requirements.** Some tools are most useful when integrated with other systems (e.g., when data access is needed to avoid duplication), and other tools work well on their own. If integration is required, it will be important to understand what is needed and if it is possible to implement the integration (e.g., in view of data security concerns).
- **Conduct thorough cost analysis.** Considerations when conducting a cost analysis should not be limited to a price tag for software at the time of purchase. A tool that may appear more expensive up front, may actually be less costly in the long-run when implementation costs, support agreements, and other costs are considered. Implementation costs to consider may include training, integration with existing systems, hiring new staff, documentation, and so on.
- **Determine capacity to implement.** Roll out of a new tool will vary depending on a number of readiness and contextual factors. It will be important to be clear on what is possible and

reasonable for the college staff to adopt — with regard to both whole tools and to tool components or features. Additionally, the adopters should assess any vendor’s capacity to follow-through on implementation support, training, and ongoing maintenance of the tool.

Once a tool or set of tools have been selected, a number of implementation strategies will be key to success, including:

- **Start small, focusing on something manageable with immediate utility.** If a tool offers multiple features, begin with the one that will generate the most buy-in at the outset. As comfort levels increase, move on to implement additional features.
- **Set expectations.** As soon as the tool is launched, set expectations that it will be used. Look for opportunities to model the use of it or find “teachable moments” to move people away from how they do it now, to the new way of doing business. Also, avoid opportunities for “work arounds.”
- **Identify “the why.”** Be clear about the problem the tool is solving and why it will improve workflow, communication, data management, etc.
- **Identify influencers, not necessarily early adopters.** In the early stages of implementation, focus on organizing “a network of champions” who are fully invested in the initiative. “It’s most important not that early adopters adopt, but that influencers adopt” (Capterra Blog Post, June 8, 2017).
- **Link the new tool with an established process or activity.** If there is a clear connection with a familiar or accepted practice or process, it will be easier to integrate its use, than if it requires a parallel set of tasks or activities that are not clearly relevant to overall workflow.

EFFECTIVE CHANGE MANAGEMENT

The selection of a tool or set of tools is only the first step, albeit a big step, in implementing the vision of the Employment Readiness and Job Placement Services Project. Tool(s) are only part of a larger initiative that will require a multi-pronged approach supported by effective change management strategies.

Clearly, change cannot occur overnight. Further, high-quality implementation and the commitment of stakeholders are critical to the sustainability of systemic change (Fixsen, Naoom, Blasé, & Wallace, 2007; Adams, 2003; Christensen, Horn, & Johnson, 2008; Grubb & Tredway, 2010). Implementation will require change in policies and practice. While it is not within the purview of this report to address all the fundamental improvements needed, research on change (Fullan, 2007; Wheatley & Frieze, 2006; Fixsen et al., 2007; Kirst & Meister, 1985) suggests a number of principles that would inform the overall change process. These principles include the following:

- **Start from “the bottom up.”** Change occurs most effectively through “emergent” local action, connected through networks, nourished through the building of communities of practice, and

illuminated so the efforts can spread (Wheatley & Frieze, 2006; Bryk, Gomez, & Grunow, 2010). Start small and engage with all stakeholders. Encourage rapid, low-risk innovation and build evidence through small tests of change.

- **Build support.** Fullan (2007) asserts that the “key to large-scale reform is whether the strategy can get a large number of leaders (change agents) to jointly own the enterprise.” Fullan adds that “the main measure of an overall strategy is whether it is motivational — mobilizing a large number of people to spend their energy and otherwise invest in what will be required to reap and sustain major improvements.” Fullan’s recommended overall approach includes as its first strategy establishing a guiding coalition to ensure constant communication among all stakeholders. Similarly, Kirst and Meister (1985) posit “powerful constituencies” as central to the sustainability of change. Change will only last to the extent that stakeholders buy in and support the new direction.
- **Connect local efforts and build capacity.** “Bottom up” local action, even coupled with high-level support, is not sufficient, however. Wheatley and Frieze (2006) warn, “If these changes remain disconnected, nothing happens beyond each locale” and Fixsen et al. (2007) stress the importance of high-quality implementation. The colleges and various support organizations can play a critical role in connecting local initiatives and building communities of practice. In addition, the colleges can play a critical role, in partnership with other support organizations, to build capacity, another key strategy in Fullan’s approach. Capacity building includes providing ongoing professional development, identifying and sharing effective practices, and developing resource materials, among other activities.
- **Provide incentives for change.** Two of the other components of Fullan’s recommended overall strategy for large-scale reform include “growing the financial investment” and “evolving positive pressure.” In concert with these strategic components, the colleges need to ensure that adequate resources are invested and that these are made in partnership with the educational community. “If done well,” Fullan asserts, “these investments are lucrative to society. They produce direct economic development and benefits; they save money” (Fullan, 2007). Belfield and Levin (2007) have corroborated this.
- **Set aspirational targets, but keep learning.** Another of Fullan’s strategies is “negotiating aspirational targets,” but he warns that “a basic premise of the overall strategy is to be evidence-based, to learn as we go” (Fullan, 2007). Indeed, change can only be sustained if it is monitored through “easily-accessible evidence” of progress (Kirst & Meister, 1985) and if new structures themselves remain adaptable over time. Century (2009) in *EdWeek* writes, “The key to sustaining change must come from our ability to adapt our best knowledge to ever-changing contexts and conditions and to work together as a field to systematically organize, process, and construct the learning that comes from those adaptations.” Consistent with the thinking of Wheatley and Frieze (2006), this statement suggests the need for both ongoing learning and a willingness to continuously adapt to new learning.

RECOMMENDATIONS

Introduction

As described in the introduction of this report, this project employed a number of research and engagement strategies to inform the recommendations detailed below. We facilitated engagements with the Employment Readiness Committee, researched best practices, collected and reviewed exemplars, conducted over 30 key informant interviews, and held five virtual focus groups with staff and students. These activities informed the development of a “roadway” graphic and related glossary as a way to illustrate the vision for a comprehensive path for students entering community college.

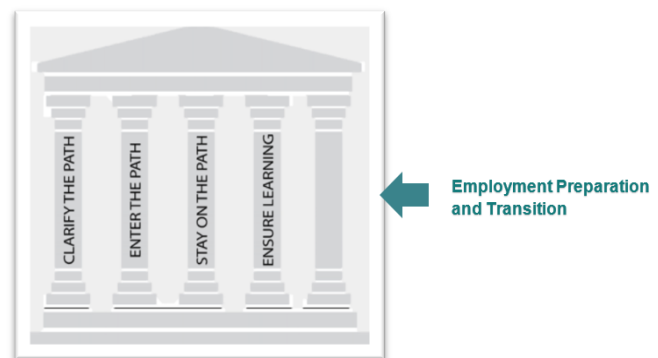
The first product produced was the Community College Student’s Road to Success (Exhibit 7), a graphic which represents the continuum of a student’s academic and career journey from pre-enrollment to employment and beyond. Segments of the roadway include:

- Pre-Enrollment Engagement
- Matriculation and Assessment
- Career and Education Planning
- Pathway Participation and Career Preparation
- Applied and Work-Based Learning
- Employment Preparation
- Transfer Services
- Job Placement Services
- Job Retention and Wage Gains
- Career Navigation

The graphic includes the four pillars of Guided Pathways (Clarify the Path, Enter the Path, Stay on the Path, and Ensure Learning) with two important changes. First, the Stay on the Path and Ensure Learning pillars have been switched to suggest that strong engagement with learning coupled with strong entry to the path are of primary importance and lay the foundation for students to stay on the path; “staying” can then be bolstered with additional support services. Second, we have added a fifth pillar to represent Employment Preparation and Transition, as well as to highlight career exposure and preparation in the other stages — components which are suggested in Guided Pathways but not explicit.⁸ During all stakeholder engagement activities, the graphic was used to frame conversations as well as solicit feedback, which was incorporated into the refined document throughout the project.

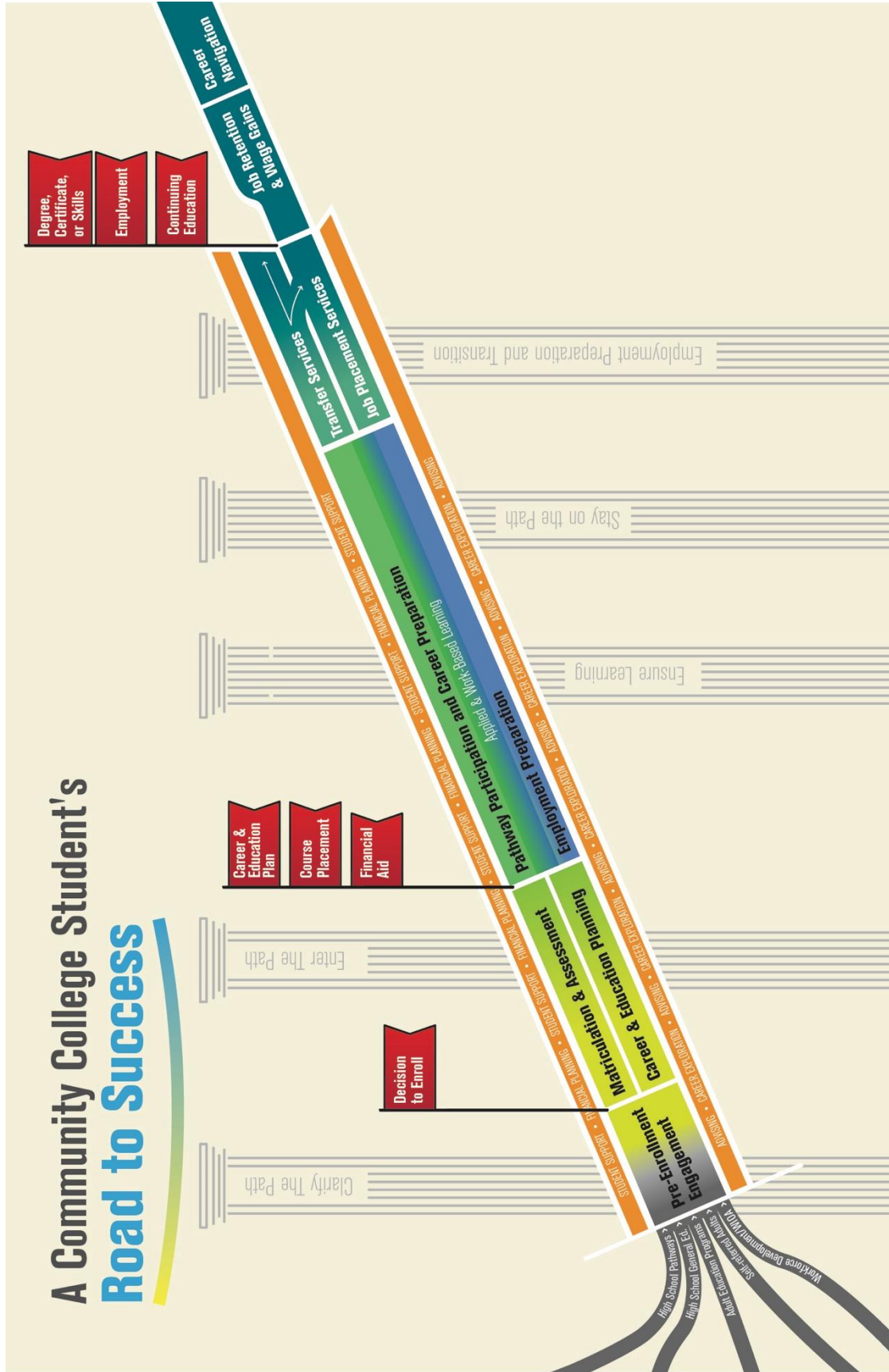
EXHIBIT 6

The Four Pillars of Guided Pathways



⁸ The Fifth Pillar concept is intended to suggest that all students — in general education, career education, or integrated programs — can benefit from career exposure, whether they plan to transfer or go straight to work (See Exhibits 6 and 7).

Exhibit 7: A Community College Student's Road to Success



To complement the graphic, a second document was created at the request of the committee to define the key terms used in the graphic (see Appendix B: Roadway Glossary). A third document rounds out the other two. *Milestones Along the Road to Success* details specific activities that occur along the roadway that involve students, staff, and/or employers. The content of this document is based on criteria/frameworks from Guided Pathway, The Community College Research Center, The Center for Law and Social Policy, and the Aspen Institute, as well as input gathered during key informant interviews. Activities are organized along the five pillars.

The recommendations below are written in alignment with Guided Pathways practices, and with the intention — as with Guided Pathways — that they would benefit all students, not only those in career education (CE) programs. It was the profound conviction of the stakeholders interviewed for this report that all students, whether headed directly to employment from the community college or transferring to a four-year university and then employment, would benefit from the recommended approaches, programs, and services.

Nearly all functions — from initial career and education planning to employment — require iterative cycles of engagement with students across departments and offices within a college; this, in turn, requires close communication and collaboration which is facilitated not only by technology, but by colocation and other organizational design solutions.

Overarching Recommendations

1. Recognize career preparation as a central purpose of the college experience for all students, and add a “fifth pillar” to the Guided Pathways model to reflect this view.
2. Develop a regional approach to career preparation and job placement that builds coherence across all ten colleges for both students and employers.
3. Integrate career preparation into instruction and student support delivered throughout the students’ college experience, from first entry through transfer and employment, to ensure successful transition and job placement.
4. Align institutional and program-level student learning outcomes to reflect a focus on career preparation for all students.
5. Make career-related services and tools — including tools for career planning, career exploration, internships, and job placement — readily accessible to all students.
6. Expand the scope of the learning environment to include workplaces and communities, positioning work-based learning as integral to career preparation and student success.
7. Ensure adequate staffing and strengthen processes, supported by technology, to engage all students in comprehensive career planning and career preparation activities, keep them engaged, and monitor their success through employment, as well as to engage employers for advisory services, work-based learning, and job opportunities.

8. To support students in navigating their college experience from pre-enrollment to employment, provide students a comprehensive and articulated set of the services, resources, and tools — including tools for career planning, career exploration, internships, and job placement.

Recommendations for Strengthening and Aligning Processes to Support Students

ENTERING THE PATH

1. Pre-Enrollment Engagement

- 1.1 **Connections with high schools and adult schools.** Begin the pre-enrollment process with linkages to high schools and adult schools. Expand opportunities for dual and concurrent enrollment classes, work with high schools and adult schools to locate college counselors or advisors in their schools to begin the exposure and orientation process before students arrive at the colleges. Also collaborate with WIOA staff in America’s Job Centers to ensure that students referred to the colleges have clear goals before they arrive on campus.
- 1.2 **Intake forms.** Develop a pre-enrollment “intake form” for prospective students and ensure opportunities for students to engage with career services or otherwise allow students to describe their circumstances and goals.
 - a. Pre-applications would not be used for screening but rather to provide a more complete picture of the student’s needs and facilitate more efficient marshaling of services.
 - b. The right balance must be struck between using technology (which allows for capturing information electronically) and providing face-to-face interaction to ensure that there is sufficient communication to understand responses in the intake form.
 - c. Resources must be allocated for pre-enrollment services.
- 1.3 **Early career exploration.** Offer students career exploration opportunities, such as career assessments and time to speak with career guidance staff. Leverage other funding sources to collaborate with middle schools, high schools, adult schools, and WIOA staff in offering informational interviewing, job shadowing, and other employer-engaged career exploration opportunities before the students arrive at the colleges.

2. Matriculation and Comprehensive Assessment

- 2.1 **Differentiated orientation.** Offer comprehensive orientation to campus programs and services. Create separate orientations for students coming from high schools and adult schools, based on groupings suggested by the intake forms. For example, young first-generation college students may need orientation to different services than mature students returning to college for

advanced certificates. Similarly, students in varying pathways need exposure to the opportunities provided in their pathway.

- 2.2 ***Comprehensive assessment.*** Use comprehensive assessments with multiple measures, including career, academic, 21st Century Employability Skills, and other factors that will affect the student’s success in college and future careers.
 - a. Provide comprehensive career assessments administered by skilled career advisors, together with needed academic assessments.
 - b. Provide adequate resources to thoughtfully debrief assessment results with students, allowing the students to validate, explain, or expand upon results.
 - c. Provide access to programs and curricula that impart 21st Century Employability Skills, and offer opportunities for early self-assessment of these skills.
 - d. Align academic assessment processes with career and education planning processes.
- 2.3 ***Consistent and coordinated advising.*** Assign students to faculty advisors who will support the students’ progress throughout their tenure at the college and track alerts and services provided to the students, leveraging early alert tools described below. Coordinate counseling and advising across departments on a given campus — for example, CalWORKS, general counselors, career advisors, EOPS staff, and faculty — to ensure that all staff have up-to-date information and are coordinating their messages to students, either in their direct contacts or through an assigned advisor, and that each knows what services the others offer.

3. Career and Education Planning

- 3.1 ***Transfer plans linked to career and education plans.*** Connect transfer plans to career plans, just as education plans are connected to career plans.
- 3.2 ***Career plans before education plans.*** Provide students with career planning services before developing an education plan to enable clarification of long-term goals. Early conversations and intake processes will reveal whether students are clear about their goals and career assessments will help point students in one or more directions.
 - a. Education plans should be seen as tentative until the second semester and any preliminary plans should be followed by comprehensive plans for all students.
 - b. Review the SSSP policy requiring counselors to produce a preliminary plan in the first semester as these are often completed with inadequate information about students’ interests and goals.
 - c. Ensure that any preliminary plans are followed up with comprehensive plans.
- 3.3 ***Early career exploration opportunities for students.*** Provide students with career exploration exposure at the onset of their college experience to include a wide variety of WBL activities that involves direct engagement with employers. A wide range of activities should be used to engage students with employers and the work environment, from in-class engagement with

employers to mock interviews and job shadowing. As described under “Applied and Work-Based Learning” below, identify how staff and faculty will work together to provide students with these opportunities.

- 3.4 **Staff capacity-building.** Ensure that all students have access to advising and staff who can assist with career as well as education plans. There are a number of options:
- a. Professional development for all staff involved in providing career advising to students to present a coordinated effort.
 - b. Professional development for instructional faculty to augment faculty’s capacity in advising.
 - c. Professional development for counseling faculty to augment counseling faculty’s capacity in career development and to increase the confidence and competence of those counselors with little or no career assessment and career advising experience.
- 3.5 **Career preparation orientation courses.** Provide dedicated resources to support separate credit and noncredit courses for career preparation, as part of the orientation to the college (with professional development for career staff), before students create education and career plans and select courses.

ENSURE LEARNING

4. Pathway Participation and Career Preparation

- 4.1 **Embedded career preparation.** Infuse career preparation into existing pathway courses, with support for faculty. Create or adapt existing career development course modules and embed them into pathway course offerings, with the support of career center staff. Include “21st Century Employability Skills” as one module to set the stage and augment skills learned through technical skill instruction.
- 4.2 **Support to faculty.** Provide faculty with necessary support and professional development to embed 21st Century Employability Skills into coursework. Use available materials and 21st Century Employability Skill standards, as described in the Career Cluster “Career Ready Practices” and the U.S. Department of Education Employability Skills Framework.⁹

5. Applied and Work-Based Learning

- 5.1 **Rigorous applied and work-based experiences for all.** Offer rigorous applied, project-based, WBL experiences through classroom instruction, giving all students the opportunity to learn

⁹ See the CTE Standards facilitated by Advance CTE, formerly the National Association of State CTE Directors Consortium, at <https://careertech.org/CCTC> and <https://careertech.org/career-ready-practices>, which include the 21st Century Employability Skills. See also the U.S. Department of Education Employability Skills Framework: <http://cte.ed.gov/employabilityskills/>.

and practice the 21st Century Employability Skills of collaboration, communication, critical thinking, and creativity (among others) in addition to technical skills.

- 5.2 **Applied learning strategies integrated into coursework.** Integration of applied learning strategies helps to make academic subjects relevant and meaningful, and promotes persistence.
- 5.3 **Continuum of work-based learning for all.** Provide all students with access to a continuum of career exploration and work-based learning experiences throughout their college tenure, linked to coursework when possible. Begin with early career exploration experiences such as informational interviews and job shadowing, continuing through industry-informed projects, internships, and career training opportunities such as apprenticeships. (See Exhibit 5 and Appendix C for the complete Work-Based Learning Continuum.) Provide faculty with professional development and support to assist them in expanding opportunities for students.
- 5.4 **Embedded practice-based experiences.** Make experiential learning with employers, such as internships (practice-based learning), an embedded component of the CE curriculum.
- 5.5 **Industry-informed projects to address transportation issues.** Offer industry-informed projects that can be completed in class, in addition to campus employment to provide all students with opportunities. Examples of industry-informed projects include: employer-juried robotics projects, business plans that are reviewed by Chamber of Commerce volunteers, videos or websites built in class or at home for nonprofit organization clients, construction projects completed on campus for Habitat for Humanity, waste water projects designed and submitted to local government agencies.
- 5.6 **Regional approach.** Take a regional approach to employer engagement, to streamline contacts for employers and maximize access to opportunities for students. Link students to regional opportunities through electronic systems and sharing of information among coordinators across colleges (see “Tools” below).
- 5.7 **Engagement with the Workforce Development Council to identify regional employer resources by sector.** Engage the WDC to identify regional employers by sector, that can support work-based learning for students throughout the region; leverage the efforts of regional advisory committees.
- 5.8 **Coordination with faculty to support and expand upon employer contacts.** Develop processes that allow faculty to maintain connections with employers with whom they have pre-existing relationships — especially with smaller, local companies — while leveraging college-wide and regional resources to expand upon faculty connections.
- 5.9 **Adequately resourced and coordinated employer engagement.** Ensure adequate staffing to engage with employers for development of opportunities and coordination with faculty, for example, by engaging job developers to work with career services staff. Coordinate employer engagement regionally with Deputy Sector Navigators, to foster expertise among staff in distinct in-demand industries and occupations.

- 5.10 **Assessment and measurement.** Assess and track the attainment of critical skills (acquired through course content and WBL) through portfolios or other means that signal students' accomplishments to employers and other educational institutions; track data to inform program improvement.

STAYING ON THE PATH

6. Academic Supports and Career Exploration

- 6.1 **Co-requisite courses.** Create co-requisite courses that enable students to master academic content and strengthen areas of weakness — whether English language or other basic skills — at the same time, whenever possible.
- 6.2 **Academic support.** Provide students with adequate academic support such as embedded and peer tutoring, distance learning strategies, supplemental instruction and other methods.
- 6.3 **Career exploration to support persistence.** Employ targeted career exploration to help students understand how coursework relates to areas of career interest and thereby promote persistence in the face of challenges.

7. Financial Planning and Other Support Services

- 7.1 **Financial planning services.** Provide financial planning services to all students as needed. This has been demonstrated to be particularly important to help ensure the income security of low-income students. Incorporate financial literacy, including sustainability planning, into financial planning processes or other curricula to support students' self-sufficiency.
- 7.2 **Proactive referral based on stated needs.** Create referral systems at each college to differentiate advising and other support services based on needs expressed in the intake form. This referral practice will help provide students with adequate support and engagement with needed services at the onset of their college experience.
- 7.3 **Closing the loop.** Create a feedback process that ensures all referrals were addressed and that students have adequate support services, including financial planning services, health services, transportation, childcare, and other needed services.
- 7.4 **Collaboration for comprehensive services.** Build capacity for providing support services at the college by leveraging local community-based organizations through centers such as "Sparkpoint."

EMPLOYMENT PREPARATION AND TRANSITION

8. Employment Preparation

- 8.1 **Comprehensive and coordinated employment preparation and job placement.** Facilitate transitions to employment by providing comprehensive employment preparation and

employment advising and job placement services that are coordinated with career planning functions, pathway (technical) instruction, and delivery and assessment of WBL experiences.

- a. Embed career awareness and resources into program curricula and provide students with opportunities to earn credit for participating in career-related experiences as part of their classes.
- b. Create capstone classes or capstone experiences in existing classes that allow students to engage in a culminating project or work-based learning experience, refine resumes, prepare for employment, practice interviewing skills, or engage in transfer activities.
- c. Support the development of research and networking skills, and actively support participation in networks such as LinkedIn.
- d. Track interview and employment results to provide support to students who are struggling with the employment process.

8.2. **Staffing for employment preparation and job placement.** Provide adequate staffing for the employment preparation and placement functions, while leveraging technology and community resources, to ensure that students are receiving the needed support.

8.3. **Tracking and dissemination of employment data.** Make student employment-related outcome data available to faculty and staff for program improvement purposes and to outside stakeholders as a means to showcase student successes and bring visibility to the importance of career and employment services.

9. Transition Services

9.1 **Assistance for obtaining and/or applying for degrees and certificates.** Provide students with assistance in securing their degrees and certificates, including degree audits, as these processes are often cumbersome.

9.2 **Services for alumni.** Provide access for recent graduates to employment preparation services, including job-seeking, resume-writing, mock interviews, and networking skills. Such services will support successful employment and strengthen employment outcomes. Providing these services will also support continued engagement of alumni with the colleges, building loyalty and encouraging later re-enrollment for career advancement, providing support to students through mentoring and perpetuating work-based learning opportunities.

9.3 **Co-locate transfer and career services.** To help students connect their transfer plans to their long-term career goals, and facilitate students' consultation with both transfer staff and career services staff, consider co-locating transfer and career services.

Recommendations for Tools to Support Student Success

TOOL REVIEW PROCESS AND SELECTION CRITERIA

Several important activities were undertaken to assess technology use, needs, and solutions as they relate to the implementation of a comprehensive system to support student success. Ultimately, the goal of the review process was to identify a tool or set of tools that best meet the criteria for implementing such a system. Key activities included:

- Establishing and managing an inventory of all relevant tools identified during research activities; referred by stakeholders; or currently used by the colleges (see Exhibit 8 for a summary of tools reviewed).
- Engaging with college stakeholders, including students, in interviews and virtual focus groups to determine the landscape of current tool use and desired functionality for potential new tools.
- Researching tools through existing information online such as archived webinars, case studies, and whitepapers.
- Meeting with tool vendors to learn about the company, existing clients, implementation work, client support, and strategic planning.
- Participating in and documenting product demonstrations.
- Conducting interviews with current tool adopters.
- Compiling all product information into dossiers with background information, impressions, feature lists, and screen capture images (see Appendix D for product dossiers).
- Developing first and second stage Evaluation Rubrics. The first stage rubric determined which tools in the inventory would be evaluated. The second stage rubric rated tools on how well they met criteria for selection (details provided below).

First stage **selection** criteria included basic prerequisites and functionalities. Prerequisites for inclusion included:

- Endorsed by Experts
- Sustainable
- Reliable
- Scalable
- Designed for Interoperability

Additionally, at this stage of evaluation, minimal functional requirements included:

1. The tool addressed at least one of the following project focus areas:
 - Proactive CE career planning (includes self-assessment, analysis of options, and leads to plan)
 - Proactive job readiness skills development (leads to resume, lists of leads, interviews completed, etc.)
 - Proactive, case-managed job placement for CE students

2. The tool addressed at least one project goal, as stated in the Request for Proposals for the project:
 - transport their career plans among the colleges
 - access regional internship opportunities
 - develop the work readiness skills they need
 - get help to find a job in their field

This second stage evaluation was much more detailed. A rubric was developed that itemized tool requirements as determined through the various stakeholder engagement activities and each requirement was labeled as either *must-have* (requirement is essential) and *nice-to-have* (requirement is not essential, but important). The requirements were organized into four categories and each category was assigned a point value as follows:

- *Background/Overview*: Detail the tool’s history, reliability, and reputation, as well as the availability of independent reviews and user community activity. (10 points)
- *System Features*: Detail the tool’s features and how they address the project’s use cases and requirements. (50 points)
- *Accessibility and Usability Features*: Detail the tool’s user friendliness and accessibility. (25 points)
- *Technical Considerations*: Detail the software, hardware, and network requirements. (15 points)

A fifth category, *Implementation Considerations*, was also included in the rubric to identify the cost and effort to purchase and implement the new tool(s). However, this category was not included in the evaluation of the tools at this stage of the selection process.

Each category has a set of features and each feature was designated as either a “Must Have” or a “Nice To Have” based on interviews and focus groups.

Each tool was reviewed by assigning a rating for each of the features listed in the rubric as follows:

- *Does Not Meet Requirement*: The tool does not address, comply with, or meet the requirement as it is understood. (0 points)
- *Somewhat Meets Requirement*: The tool partially meets the requirement but does not fully address it. (0.5 point for each Must-Have and 0.25 point for Nice-To-Have)
- *Fully Meets Requirement*: The tool meets the requirement as it is understood. (1 point for each Must-Have and 0.5 point for each Nice-To-Have)

For each evaluation category, a given tool was awarded a total point value based on the number of Must-Have and Nice-To-Have features met (as detailed above). This number was then divided into the total number of element points possible for that category to arrive at a “percentage met” score. The “percentage met score” was then applied to the total number of points possible for that category. See example to the right.

Example of Point Calculation

The category *Background/Overview* (worth 10 points) has 5 Must-Have and 1 Nice-To-Have features, for a total possible score of 5.5 feature points.

An example tool meets 3 Must-Have features Somewhat (1.5 points), 1 Must-Have feature Fully (1 point), and 1 Nice-To-Have feature Somewhat (0.25 points) for a total feature score of 2.75 points out of 5.5 or 50%.

For a section total weight of 10 points, this example tool would receive 5 points for this section.

SUMMARY OF TOOL EVALUATION

In total, 68 tools/systems were cataloged. Of these, 39 tools passed the first selection phase criteria, of which 19 were determined to not meet the criteria for emerging recommendations. Twenty tools were evaluated in the second stage, with the final 12 being rated with the second evaluation rubric. Exhibit 8 below summarizes the tools reviewed and identifies which components of the student journey they address. A summary of tools’ ratings is contained in Appendix E.

EXHIBIT 8

Summary of Tools Evaluated

	Career research	Case mgt. and academic planning	Alert / notification systems	Work-based learning	Employment prep. and placement	Outcomes and data tools
Alumni Insight						X
Career Coach	X					
Civitas		X	X			
College Central Network					X	
Dropout Detective			X			
EAB – Navigate		X	X			
Earn and Learn				X		
Ellucian		X	X			
GradGuru			X			
GradLeaders	X			X	X	X
Here to Career	X					
ImBlaze				X		
Jobspeaker	X			X	X	X
LaunchPath				X		
My Next Move	X					
Portfolium					X	
SARS		X	X			
Starfish		X	X			
Symplicity	X			X	X	X
Viridis	X				X	X

TOOLS RECOMMENDATIONS

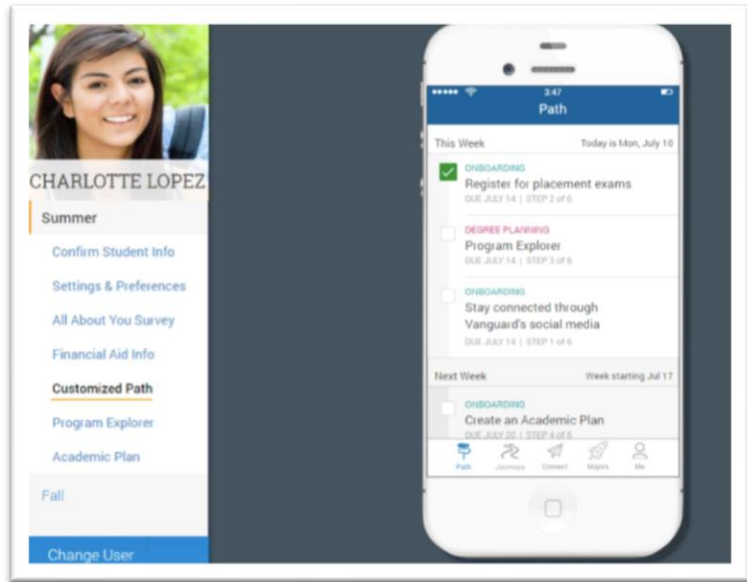
High-Need Categories. While tools along every segment of the student roadmap were evaluated, the detailed tool evaluation process focused on two categories: 1) Planning and Support and 2) Career Preparation and Employment. Combined, these two categories support student success. These two areas of focus were selected to address the Scope of Work identified in the project RFP, specifically the need to develop “proactive, case-managed job placement for CTE students” (now CE) and “an online management system that provides for student tracking of progress, benchmark intervention, and documentation of all services provided, including job placement.” Additionally, stakeholder engagement and key informant input corroborated these two areas as the most critical technology needs.

Planning and Support Tools. These tools allow student services staff, faculty, and advisors to communicate important information to students, identify at-risk students, coordinate interactions, and track student progress in one system. These systems are often a combination of complementary tools, including: onboarding/intake surveys, degree planning and registration tools, appointment scheduling, early alert management, service referrals, and tracking of student interventions. When used together, the features can provide a streamlined, technology-supported experience for students as they articulate their education and career goals, track completion of activities, plan and register for courses, receive feedback on their performance, and access support resources to which they have been referred.

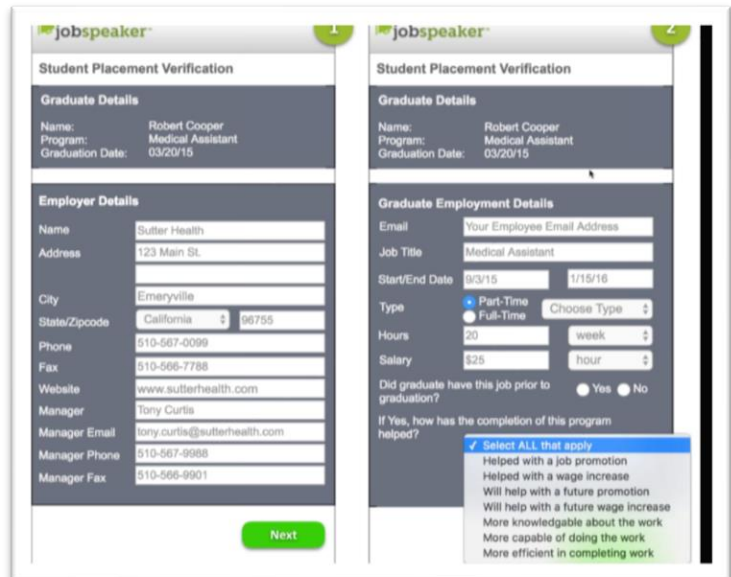
Career Preparation and Employment Tools. These tools (or systems) allow for employers to post internships and job opportunities; for students to prepare for employment, search for and apply for internships and jobs; and for career services and other college staff to vet opportunities and case-manage students’ employment preparation and job search and placement activities. These tools often provide multiple levels of features, including: employment preparation tools such as resume wizards and mock interview tools; online resumes and portfolios, some of which automatically map student skills/experience from other campus data systems; career exploration tools such as salary information and projections; internship hours and survey tracking tools; career services tools that allow college staff to monitor students’ progress and provide feedback and support; searchable job boards and application workflows; and alumni surveys for outcomes tracking.

Recommended Tools. Based on the results of the review process, two tools are recommended for consideration, one for each of the two high-need categories described above. Specifically:

- EAB Navigate** is a planning and support platform offering a continuum of tools to students and staff following the four pillars of Guided Pathways. An intake process initiates a student’s engagement, followed by career research and goal setting, academic planning with a link to registration, and a customized to-do plan with corresponding notifications and resources. College staff and faculty may issue kudos or alerts along the way and direct students to appropriate interventions, as needed, using embedded appointment scheduling and tracking tools. The tool is the most modern and best designed of those reviewed but also boasts exceptional planning and implementation support. The image below shows a student’s view of the Custom Path tool.



- Jobspeaker** is an employment collaboration platform with student, college, and employer interfaces. The student’s profile features verifiable skills mapped to SIS/LMS data on courses the student has completed and integrates with online badges such as LinkedIn and New World of Work to highlight skills to employers. The system provides career research tools through an integration with Burning Glass labor market content; allows for coordination of work-based learning activities such as job shadowing and internships; and includes a robust employment verification process for tracking student outcomes. In addition, its mobile-first user experience is modern and one of the most intuitive of the products evaluated. Feedback from current adopters, including a consortium of 6 colleges in Los Angeles County, is outstanding for customer support and scalability. The image below shows the two-step student and employer verification process for tracking outcomes.



TOOLS ADOPTION RECOMMENDATIONS

Below are key recommendations to support the successful adoption and implementation of the two recommended tools.

1. **Support a differentiated approach to address the need.** 1) recognize colleges that have effective technology tools already in place, as well as initiatives underway to adopt new tools and systems; 2) implement offline process changes and the understanding that colleges are at different stages of institutional readiness; 3) complete discovery of the current IT landscape at each campus, including adoption policy, infrastructure, procurement rules and process, and staffing needs; and 4) provide adequate planning and decision-making time for the consortium regarding a cohesive technology approach, especially if a single system serving all 10 colleges is a shared goal for at least one tool category — for example, that which supports work-based learning and job placement. Specific recommendations include:
 - a. Conduct required discovery and planning with key informants, IT, and other stakeholders.
 - b. Pilot adoption with a subset of colleges, possibly leveraging related activities in colleges that are piloting other tools.
 - c. Start with one or more priority sectors (health, life sciences/biotech, advanced transportation/renewables) or emerging sectors (advanced manufacturing and ICT/digital media).
 - d. Implement only certain features at a time (e.g., starting with early alert and then looking at degree planning).
 - e. Begin with tools with easier IT implementation requirements (Job Placement/Employment Preparation tools).

2. **Define and implement a college by college adoption approach to EAB.** For the adoption of EAB Navigate, complete a self-assessment process to define the adoption approach for each of the individual colleges. This should include the following steps:
 - a. Review existing advising processes and readiness to coordinate an advising and communication approach for students across the campus.
 - b. Review existing student intake and onboarding processes.
 - c. Assess staff resources required to engage in the project and identifying roles and responsibilities.
 - d. Engage with IT staff to discuss technology adoption policies and considerations for integration with existing systems (e.g., SIS, LMS), especially in relation to ongoing technology initiatives and projects.
 - e. Assess currently used tools in this category and what transition to a new tool would require.
 - f. Assess the quality and availability of source data.

3. **Define and implement a regional adoption approach to Jobspeaker.** For the adoption of a regional employment tool, the following activities are recommended:
 - a. Establish governance process for key implementation considerations (e.g., design of outcome surveys, triage process for vetting employers and jobs, marketing and rollout responsibilities).
 - b. Define phasing approach (e.g., a subset of colleges or programs) based on readiness to engage.
 - c. Determine process for managing regional procurement and ongoing costs.

4. **Support linkages of the tools, both new and existing, to create a seamless support structure for students.** Recognizing that a single electronic system cannot address every aspect of the student’s experience, the systems that provide online tools in their categories should, whenever appropriate, coordinate. Ideally, we should attempt to minimize the number of systems that faculty, staff, and students must access. This can be achieved technically in various ways with different levels of effort. Listed from least to most technical, these include:
 - a. Design the college website in a way that clearly shows students what tools they need to access for which activities and provides links to access those tools.
 - b. Embed links within a tool that the student is already using, such as the Student Information System or Learning Management System (e.g., a link to the job board within Canvas).
 - c. Use case management or notification system that allows for notifications to be sent to students with customized referral information, including what needs to be done with a link to the appropriate system that the student should access to complete that activity.
 - d. Provide single-sign-on capabilities so the student may access multiple systems with a single login. There is usually a “platform” page that the student will access to select which tool to use.
 - e. Create APIs (application programming interface) that allow systems to communicate with each other, passing through data from one system to another (e.g., a student’s grades are sent to an early alert system to automatically flag at-risk status).

5. **Leverage existing pilots to inform college-specific and regional approaches.** In addition to the two tools recommended through the ERJP project, there are several additional tools currently being piloted or implemented at a number of colleges (e.g., LaunchPath, Starfish, GradLeaders). Much can be learned from these existing efforts. Therefore, it will be important not only to leverage this work but to also coordinate efforts in order to minimize duplication of effort, share lessons learned, and define common approaches and implementation strategies.

Recommendations Related to Implementation

PROFESSIONAL DEVELOPMENT

1. Build awareness among all faculty, staff, and administrators about the importance of career preparation to ensure equity of opportunity for all students.
2. Build a model of professional learning that emphasizes peer-to-peer learning and problem solving.
3. Provide targeted professional development and learning opportunities to all stakeholder groups.

STRUCTURAL OR ORGANIZATIONAL DESIGN SOLUTIONS

1. Align organizational structures and resources to support student career preparation as an integral aspect of learning, for example, by incorporating career preparation under Instructional Services.

LEVERAGING OF RESOURCES

1. Align SSSP Student Equity Planning and other programs with the goals of the Guided Pathways and Strong Workforce initiatives, to support the development of a comprehensive and coordinated system for student success through transfer and employment.
2. Leverage collaborations built through the California Pathways Trust initiative to support middle school and high school college and career preparedness activities, including career exploration opportunities, to facilitate decisions about pathway and course selections when students arrive at the college.
3. Leverage collaborations built through the Adult Education Block Grant Program to support successful transitions of adults from adult schools to the colleges.
4. Leverage collaboration with the Workforce Development Board to explore co-location strategies and other means to share tools and processes that can benefit both transitioning adults seeking to enroll in the colleges and college students needing America's Job Center services.

TAKING ACTION

Introduction

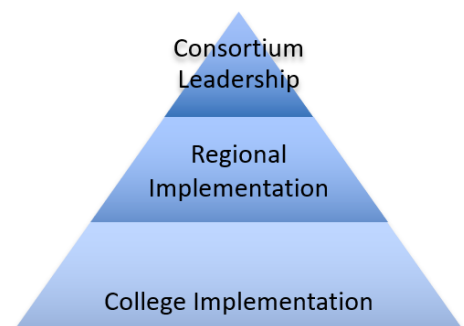
Below are described specific actions to take in order to move forward on the recommendations outlined above. These steps are framed by the considerations in the System Change Principals to Inform Implementation section on page 16. Action steps will require coordinated and iterative processes at the regional and local levels, with the regional effort benefitting from local pilots and tests of change, and the local efforts benefitting from regional peer learning and economies of scale. The proposed actions address process improvement considerations and tool implementation considerations.

To make fundamental and lasting changes the work needs to occur at three levels (see Exhibit 9 below):

1. Consortium Leadership – to provide strategic leadership and guidance (SDICCCA), and oversight (ROC and WDC).
2. Regional Implementation – to focus on *Career Preparation and Employment* (including work-based learning) in order to define a regional approach rather than college by college. This is consistent with the San Diego Workforce Partnership workforce development plan, the Southern Border Region’s Regional Plan, and the Doing What Matters for Jobs and the Economy Framework.
3. College Implementation – to focus on implementation of *Planning and Support*. It should be addressed at the individual college level as the context and needs of each will influence how *Planning and Support* will be implemented.

EXHIBIT 9

Regional Structure

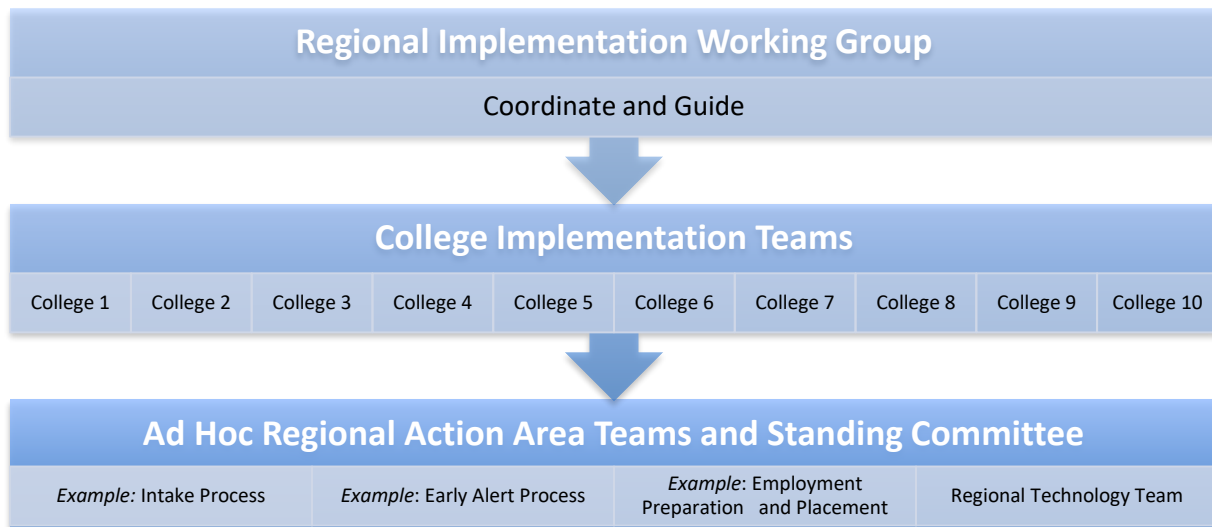


To build and maintain momentum, ensure consistent communication, and make steady progress, we propose establishing a tiered set of working groups and teams that leverage existing task groups and committees. Exhibit 10 below illustrates this tiered approach. Specifically, we propose that select members of the Workforce Development Council and Regional Oversight Committee serve as a Regional Implementation Working Group (IWG), with representation from each of the colleges. The purpose of this working group is to coordinate and guide a regional approach to the implementation work. The IWG will coordinate with College Implementation teams (CITs). The CITs will focus on implementation requirements at the individual colleges conducting the self-assessments, informing tool adoption plans, building buy-in, and so on. The IWG will also coordinate with a Regional Technology Team (comprised of IT staff from each of the colleges) that will launch, guide, and monitor the piloting of tools. Lastly,

members of the CITs will form ad hoc action area teams as needed. An action area team will focus on a key implementation topic (e.g., intake process) for a short period of time to support rapid decision making and implementation efforts. The added benefit of these teams is that colleges will have the opportunity to share learnings and problem-solve together. To be mindful of time commitments, not all colleges will need to participate in all action area teams.

EXHIBIT 10

Tiered Implementation Working Groups



Below we outline specific action steps organized in three phases:

- Phase I – Consolidate and Launch
- Phase II – Act Quickly and Strategically
- Phase III – Improve Continuously

Phase I – Consolidate and Launch

AFFIRM VISION

1. Establish SDICCCA as the regional leadership body for the Employment Readiness and Job Placement Initiative, not only to secure approval but to align multiple regional efforts, including career pathway development, Guided Pathways efforts at pilot sites, SSSP, and related initiatives.
2. Secure approval from the colleges’ leaders to move forward with recommendations for both processes and tools.

3. Create a regional communications plan to disseminate recommendations widely, build the case for change and, at the appropriate time, introduce the piloting and adoption of new tools. See Appendix F for a sample communication plan template.

LAUNCH IMPLEMENTATION

1. Establish and convene¹⁰ a Regional “Fifth Pillar” Implementation Working Group (IWG) within the Workforce Development Council, with representation from each of the colleges. The IWG will coordinate the evaluation of needs and development of strategies to address recommendations for each campus, in alignment with Guided Pathways efforts.
2. Convene college level “Fifth Pillar” implementation teams to identify process needs at each college, based on Guided Pathways or other self-assessment processes (see suggested enhancements to CCRC Guided Pathways self-assessment tool in Appendix G1).¹¹
3. Work with existing Guided Pathways subcommittees or representatives at the colleges to align efforts with the Employment Readiness recommendations.
4. College implementation teams complete a technology needs assessment, inventory, and gap analysis using a technology adoption readiness assessment (see Appendix G2).
5. Conduct stakeholder implementation work sessions that bring together a variety of “user/stakeholder” groups representative of all 10 colleges, including instructional faculty, counselors and advisors, employers, IT staff, and students. The purpose is to fully elaborate stakeholder needs by group across the region and identify concrete implementation strategies to be carried out through the IWG.
6. Using the results of self-assessment, technology needs assessment, inventory, and gap analysis, and stakeholder work sessions, develop college-specific implementation plans that incorporate or build on current pilot efforts (e.g., LaunchPath, Starfish).
7. Conduct cost analysis which should include detail about the software, hardware, and network requirements; the cost to acquire, use, and maintain the system; and the cost and effort to implement the new tool(s).
8. Communicate results of implementation launch (i.e., college plans) with key stakeholders.

Phase II – Act Quickly and Strategically

BUILD MOMENTUM WITH QUICK WINS

While the assessments are being completed, below are steps that can be taken immediately, based on project research findings.

¹⁰ Recommendation is for the Employment Readiness Committee to lead convenings (as referenced throughout this section) with support, as appropriate, from consultants to organize, prepare for, and facilitate the convenings.

¹¹ The assessment tool will leverage existing assessments to avoid duplication of effort.

1. Develop or review existing intake forms to ensure that they capture all the information needed to refer students appropriately to both counselors for career and education planning, and to campus services.
2. Create a college orientation course that includes career exploration as well as career planning, educational planning, and general orientation components that can be implemented in multiple colleges. Implement the course on a pilot basis in at least one college that is not already implementing such a course.
3. Build buy-in by conducting demonstrations of tools under consideration.

REVIEW COLLEGE-LEVEL PLANS AND MOVE TO ACTION

1. Convene Fifth Pillar Regional Implementation Working Group to identify areas of common implementation and professional development needs across the colleges from college-level plans.
2. Build action area teams around discrete action areas — for example, linking career planning with academic planning — thereby harnessing faculty and staff expertise across the region to rapidly address issues of common interest across colleges.
3. Engage with IT staff to discuss technology adoption policies and considerations for integration with existing systems (e.g., SIS, LMS). See Appendix H for draft questions.
4. Leverage pilot efforts or recent technology adoptions to inform implementation of recommended tools and design of a regional approach. Colleges that are currently adopting tools of this nature can provide guidance to the region on lessons learned; these include Palomar College (Starfish), Grossmont College and Cuyamaca College (GradGuru and LaunchPath), Mira Costa College (GradLeaders), and Mesa College (College Central Network).

LEVERAGE REGIONAL EMPLOYER-RELATED ACTIVITIES

1. Leverage any existing high-level employer advisory panels for the region, organized by in-demand industry sectors, to set foundational guidelines for work-based learning and job placement functions in their respective industries. Develop guidelines in partnership with workforce development and K–12 partners. The guidelines will need to include protocols to identify regional (shared) versus local employers, and guidance regarding coordination activities. The panels would also provide guidance about critical skills needed in their industry.
2. Establish regional goals for work-based learning and job placement processes, including goals for numbers or percent of students that will participate in work-based learning opportunities at each level, ranging from career exploration (informational interviewing and job shadowing) to career training (internships and apprenticeships), as well as job placement goals.

Phase III – Improve Continuously

REVIEW PROGRESS ON COLLEGE-LEVEL PLANS AND SURFACE CHALLENGES TO CHANGE

1. Convene IWC members to review progress on plans. Identify challenges and steps to overcome them. Adjust plans as needed.
2. Identify local policies, organizational structures, funding, and capacity issues that may inhibit change and report these to the Workforce Development Council, the Regional Oversight Committee (ROC), and SDICCCA for action.
3. Communicate progress with key stakeholders.

ESTABLISH CROSS-REGIONAL PROFESSIONAL DEVELOPMENT STRATEGIES TO SUPPORT LEARNING

1. Identify regional professional development opportunities and strategies that will build collective understanding of student and employer needs.
2. Develop targeted professional development opportunities to address specific learning needs of faculty, counselors, and staff.

ASSESS PROGRESS AND IDENTIFY NEXT PHASE OF IMPLEMENTATION

1. Review results of regional and college activities, analyze progress, and determine next steps.
2. Share learnings among Area Action Teams and identify next steps.
3. Develop the next phase of plan implementation for IWG and colleges.
4. Share results of progress analysis and details about next phase implementation with stakeholders.

REFERENCES

- Adams, J. (2003). *Successful change: Paying attention to the intangibles*. *OD Practitioner*, 35 (4).
- Bailey, T. R., Hughes, K. L., & Moore, D. T. (2004). *Working knowledge: Work-based learning and education reform*. New York and London: Routledge Falmer.
- Bailey, T. R., Jaggars, S., & Jenkins, P. D. (2015a). *What we know about guided pathways*. Retrieved from <https://academiccommons.columbia.edu/catalog/ac:185800>
- Bailey, T. R., Smith Jaggars, S., & Jenkins, D. (2015b). *Redesigning America's community colleges: A clearer path to student success*. Cambridge, MA: Harvard University Press.
- Barnett, E. (2016). *Building student momentum from high school into college. Ready or not: It's time to rethink the 12th grade*. Jobs for the Future. Retrieved from <http://files.eric.ed.gov/fulltext/ED564836.pdf>
- Barnett, E. A., Fay, M. P., Trimble, M. J., & Pheatt, L. (2013). *Reshaping the college transition: Early college readiness assessments and transition curricula in four states. A state policy report*. Community College Research. Retrieved from <http://files.eric.ed.gov/fulltext/ED565659.pdf>
- Belfield, C. R., & Levin, H. M. (2007, August). *The return on investment for improving California's high school graduation rate*. Santa Barbara, CA: California Dropout Research Project, University of California.
- Blagg, K., Whitmore-Schanzenbach, D., Gunderson, C., & Ziliak, C. (2017). *Assessing food insecurity on campus*. Washington, DC: Urban Institute. Retrieved from <https://www.urban.org/research/publication/assessing-food-insecurity-campus>
- Booth, K. (2017, October 27). *CTE, GE, and You* [PowerPoint presentation to Mesa College]. San Francisco: WestEd.
- Bryk, A. S., Gomez, L. M., & Grunow, A. (2010). *Getting ideas into action: Building networked improvement communities in education* (essay). Stanford, CA: Carnegie Foundation for the Advancement of Teaching. Retrieved from <http://www.carnegiefoundation.org/spotlight/webinar-bryk-gomez-building-networkedimprovement-communities-in-education>
- Cahill, C. (2016). *Making work-based learning work*. Jobs for the Future. Retrieved from <http://www.jff.org/sites/default/files/publications/materials/WBL%20Principles%20Paper%20062416.pdf>
- California Department of Education & California Community Colleges Chancellor's Office. (2008). *California state plan for career technical education*. Sacramento, CA: California Department of Education.

California Community Colleges Chancellor's Office. (2017). *Management Information Systems Data Mart*. Retrieved from <http://datamart.cccco.edu/datamart.aspx>

Capterra Blog Post (2017, June 8). *Top 5 Project Management Software Adoption Best Practices*. Capterra Technology Blog. Retrieved December 4, 2017 from <https://blog.capterra.com/the-top-5-project-management-software-adoption-best-practices/>

Carnevale, A. P., Smith, N., Melton, M., & Price, E. (2015). *Learning while earning: The new normal*. Center on Education and the Workforce. Washington, DC: Georgetown University. Retrieved from <https://assets.documentcloud.org/documents/2494478/working-learners.pdf>

Center for Community College Student Engagement. (2013). *A matter of degrees: Engaging practices, engaging students (High-impact practices for community college student engagement)*. Austin, TX: The University of Texas at Austin, Community College Leadership Program.

Center on Policy Initiatives. (2017). *Making ends meet: A look at the self-sufficiency standard – The income needed for families of various sizes to cover basic living expenses – And the San Diegans whose wages don't reach that level*. Retrieved from <http://www.cpisandiego.com/MEM/index.html>

Century, J. (2009). The vanishing innovation. Why “sustain change” must be as important as “scaling up.” *EdWeek*, 29(5). Retrieved from <http://www.edweek.org/ew/articles/2009/09/30/05century.h29.html>

Chan, A., & Derry, T. (2013). *A roadmap for transforming the college-to-career experience. Rethinking success from the liberal arts to careers in the 21st century*. Wake Forest University, North Carolina.

Chaplot, P., Rassen, E., Jenkins, D., & Johnstone, R. (2013). *Principles of redesign: Promising approaches to transforming student outcomes*. Retrieved from <https://ccrc.tc.columbia.edu/media/k2/attachments/principles-redesign-promising-approaches-cbd.pdf>

Christensen, C. M., Horn, M. B., & Johnson, C. W. (2008). *Disrupting class: How disruptive innovation will change the way the world learns*. New York: McGraw Hill.

Completion by Design. (2016). *Building guided pathways: Practical lessons from Completion by Design Colleges*. New York: Teachers College, Columbia University, Community College Research Center.

Crosta, P. M., & Kopko, E. M. (2014). *Should community college students earn an associate degree before transferring to a four-year institution?* (Working Paper No. 70). New York: Columbia University, Teachers College, Community College Research Center.

Darche, S., Nayar, N., & Bracco, K. (2009). *Work-based learning in California: Opportunities and models for expansion*. San Francisco: The James Irvine Foundation.

Denley, T. (2017). *Tennessee Board of Regents Technical Brief No. 1: Co-Requisite Remediation*. Tennessee Board of Regents, The College System of Tennessee. Retrieved from: https://www.tbr.edu/sites/tbr.edu/files/media/2017/02/TBR%20CoRequisite%20Study%20-%20Update%20Spring%202016_1.pdf

EdSurge HigherEd. (2017, March). *Crossing the finish line: Vetting tools that support student success*. Burlingame, CA: EdSurge.

Edwards, L., & Belfield, C. (2012). *Dual enrollment: Helping make college a reality for students less likely to go*. ERIC. Retrieved from <https://eric.ed.gov/?id=ED533753>

Fixsen, D. L., Naoom, S. F., Blasé, K. A., & Wallace, F. (2007, April). Implementation: The missing link between research and practice. *APSAC Advisor Excerpt*, 19(1 & 2). Tampa, FL: University of South Florida, Louis de la Parte Florida Mental Health Institute, National Implementation Research Network. Retrieved from http://cfs.fmhi.usf.edu/cfsnews/cfsnews_pubs/NIRN_APSACExerpt.pdf

Fletcher, J., Grant, M., Ramos, M., & Karp, M. M. (2016). *Integrated Planning and Advising for Student Success (iPASS): State of the literature* (CCRC Working Paper No. 90). New York: Community College Research Center at Teachers College, Columbia University. Retrieved from <http://files.eric.ed.gov/fulltext/ED570697.pdf>

Fullan, M. (2007). *The new meaning of educational change, fourth edition*. New York: Teachers College Press.

Grubb, W. N., & Tredway, L. (2010). *Leading from the inside out: Expanded roles for teachers in equitable schools*. Paradigm Publishers.

Holzer, H., & Lerman, R. (2014). *Work-based learning to expand jobs and occupational qualifications for youth*. Washington, DC: Center on Budget and Policy Priorities.

Jenkins, D. (2011). *Get with the program: Accelerating community college students' entry into and completion of programs of study* (Working Paper No. 32). New York: Community College Research Center at Teachers College, Columbia University. Retrieved from <http://files.eric.ed.gov/fulltext/ED518094.pdf>

Jenkins, D., & Cho, S. W. (2013). Get with the program...and finish it: Building guided pathways to accelerate student completion. *New Directions for Community Colleges*, 2013(164).

Jenkins, D., Lahr, H., & Fink, J. (2017). *Implementing guided pathways: Early insights from the AACC pathways colleges*. New York: Community College Research Center at Teachers College, Columbia University. Retrieved from <https://ccrc.tc.columbia.edu/media/k2/attachments/implementing-guided-pathways-aacc.pdf>

Jenkins, D., & Fink, J. (2015). *What we know about transfer*. New York: Columbia University, Teachers College, Community College Research Center.

Kalamkarian, H. S., Karp, M. M., & Ganga, E. (2017a). *Creating the conditions for advising redesign*. New York: Columbia University, Teachers College, Community College Research Center.

Kalamkarian, H. S., Karp, M. M., & Ganga, E. (2017b). *What we know about technology-mediated advising reform*. New York: Columbia University, Teachers College, Community College Research Center.

Karp, M. J. M. (2013). *Entering a program: Helping students make academic and career decisions*. New York: Community College Research Center at Teachers College, Columbia University. Retrieved from <https://ccrc.tc.columbia.edu/media/k2/attachments/entering-a-program.pdf>

- Karp, M. M. (2011). *Toward a new understanding of non-academic student support: Four mechanisms encouraging positive student outcomes in the community college*. New York: Community College Research Center at Teachers College, Columbia University. Retrieved from <http://files.eric.ed.gov/fulltext/ED516148.pdf>
- Karp, M. M., & Bork, R. H. (2012). *They never told me what to expect, so I didn't know what to do: Defining and clarifying the role of a community college student* (CCRC Working Paper No. 47). New York: Community College Research Center. Retrieved from <http://files.eric.ed.gov/fulltext/ED535078.pdf>
- Karp, M. J. M., & Stacey, G. W. (2013). *Student success courses for sustained impact*. New York: Columbia University Academic Commons. Retrieved from <https://academiccommons.columbia.edu/catalog/ac:170511>
- Karp, M. M., Kalamkarian, H. S., & Klempin, S. (2016). *How colleges use Integrated Planning and Advising for Student Success (iPASS) to transform student support* (CCRC Working Paper No. 89). New York: Columbia University, Teachers College, Community College Research Center. Retrieved from <http://files.eric.ed.gov/fulltext/ED568156.pdf>
- Kirst, M., & Meister, G. (1985). Turbulence in American secondary schools: Will reforms last? *Curriculum Inquiry* 15(2). Ontario, Canada: The Ontario Institute for Studies in Education.
- Linked Learning Alliance. (2012). *Work-based learning in linked learning: Definitions, outcomes, and quality criteria* (Field Review Draft). Sacramento, CA: Linked Learning Alliance.
- Luna-Torres, M., Leafgreen, M., & McKinney, L. (2017). Leveraging guided pathways to improve financial aid design and delivery. *Journal of Student Financial Aid*, 47(2), Article 5. Retrieved from <http://publications.nasfaa.org/cgi/viewcontent.cgi?article=1621&context=jsfa>
- Martinson, K., & Holcomb, P. (2007). *Innovative employment approaches and programs for low-income families*. Washington, DC: Urban Institute.
- Mejia, M. C., Rodriguez, O., & Johnson, H. (2016). *Preparing students for success in California's community colleges*. San Francisco: Public Policy Institute of California. Retrieved from http://www.ppic.org/content/pubs/report/R_1116MMR.pdf
- NAF Gold Standards National Academy Foundation (NAF). (2011). *Gold standards for high school internships*. New York: National Academy Foundation.
- San Diego and Imperial Counties Regional Consortium, San Diego Workforce Partnership, Imperial County Workforce Development Board. (2017). *Southern Border Regional Workforce Development Plan San Diego and Imperial Counties 2017–2020*. Retrieved from http://doingwhatmatters.cccco.edu/portals/6/docs/sw/RegionalPlans/SDIC_SBRWFDPlanFINAL.pdf
- Scott-Clayton, J. (2011). *The shapeless river: Does a lack of structure inhibit students' progress at community colleges?* (CCRC Working Paper No. 25). New York: Community College Research Center. Retrieved from: <https://ccrc.tc.columbia.edu/media/k2/attachments/shapeless-river.pdf>

Scrivener, S., Weiss, M. J., & Sommo, C. (2012). *What can a multi-faceted program do for community college students? Early results from an evaluation of Accelerated Studies in Associate Programs (ASAP) for developmental education students*. New York: MDRC.

Shapiro, D., Dunder, A., Chen, J., Ziskin, M., Park, E., Torres, V., & Chiang, Y.-C. (2012). *Completing college: A national view of student attainment rates* (Signature Report No. 4). Herndon, VA: National Student Clearinghouse Research Center.

U.S. Census Bureau. (2016). *Selected housing characteristics, 2012-2016 American Community Survey 5-year estimates*. Retrieved from https://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ACS_16_5YR_S1601

Waugh, A. (2016). *Meta-majors: An essential first step on the path to college completion*. Jobs for the Future. Retrieved from <http://files.eric.ed.gov/fulltext/ED567866.pdf>

Wheatley, M., & Frieze, D. (2006). *Using emergence to take social innovation to scale*. Spokane, WA: The Berkana Institute. Retrieved from http://www.berkana.org/pdf/emergence_web.pdf

LIST OF APPENDICES

APPENDIX A	Key Informant Interview List
APPENDIX B	Roadway Glossary
APPENDIX C	Work-Based Learning Continuum (long version)
APPENDIX D	Product Dossiers
APPENDIX E	Summary of Tool Evaluation Rubric Results
APPENDIX F	Communication Plan Template (sample)
APPENDIX G	Self-Assessment Tools: <ol style="list-style-type: none"> 1. Guided Pathways/Strong Workforce “Fifth Pillar” Essential Practices Self-Assessment Tool 2. Evaluating Your College’s Readiness for Technology Adoption, CCRC
APPENDIX H	Technology Adoption Discovery Questions (Draft)
APPENDIX I	Tool Evaluation Rubrics
APPENDIX J	Functional Requirements for Tools