228 ## Workforce Data and Outcomes
229
230 Today's students and incumbent workers rely on a community college education to
231 obtain the skills needed to be competitive and keep pace with a rapidly changing
232 workplace. Because many employers require job applicants to demonstrate
233 workplace readiness skills (sometimes called "soft skills") and competencies in
234 specific skill-sets, there is increased demand for short-term training programs in
235 addition to traditional associate degree and certificate pathways.
236
237 Short-term training options are often aligned with a third-party credential, such as a
238 state license or an industry certification. Short-term training options can also be
239 linked together to form "stackable certificates," thus enabling students to continue
240 to work while pursuing a degree. Some students (called "skills-builders") elect to
241 take one or two community college courses that help them solidify or gain skills
242 required for ongoing employment and career advancement, without completing a
243 program of study.
244
245 Colleges rely on access to robust metrics and outcome data (such as degrees,
246 completions, certificates, employment) in order to continuously improve pathways
247 within career technical education, identify which programs employers' value, and
248 align their program and course offerings to local and regional labor market needs.
249 Faculty and administrators also use students' employment outcome information for
250 continuous program improvement.
251
252 In recent years there has been an increased focus on measuring student success in
253 both state and federally funded workforce programs. California community colleges
254 have made progress in measuring critical momentum points and student outcomes.
255 The Student Success Scorecard reports attainment of degrees, certificates and
256 transfer to four-year institutions. A set of common metrics has been adopted to
257 track student progress and outcomes in CTE grants funded by the Chancellor's
258 Office. The Chancellor's Office's Salary Surfer reports average earnings and wage
259 increases by program of study for students who complete a certificate or degree.
260 Also in development is a new tool, called the LaunchBoard, which provides
261 program-level information to community college faculty and administrators on
262 student course-taking, completion, employment, and labor market information.
263
264 While these tools now make some CTE outcome information more accessible to
265 faculty, students and policymakers, the following data challenges remain:
266
267 • Metrics and metric definitions vary by individual programs and funding
268 sources.
269
270 • Many certificates offered by the community colleges are in low-unit degrees
271 (fewer than 12 units) and are therefore not counted as success in statewide
272 accountability metrics.

- There is no statewide data system that tracks students from high school through the higher education segments and no formal data exchange that allows community colleges and workforce investment boards to share student program and outcome information.

- Third-party credential data from outside entities (like licensing boards and industry certifications) are frequently required reporting metrics, but difficult to obtain because of actual and perceived legal hurdles.

- Information on student employment data and labor market information often requires analytical skills to interpret and apply to college decision-making.

For a more in-depth discussion of this issue refer to the Task Force background paper entitled, *Moving the Needle: Data, Success, and Accountability for Workforce Programs.*

RECOMMENDATIONS

1. Create common workforce metrics for CTE programs.

   a. Develop, streamline, and align common outcome metrics for all state-funded CTE programs and ensure, to the extent possible, that they are compatible with federal reporting requirements.
   b. Expand the definition of student success to better address workforce training outcomes for both "completers" (students who attain certificates including low-unit certificates, degrees, transfer-readiness, or enrollment in 4-year institutions) and "skills builders" (workers who are maintaining and adding to skill-sets required for ongoing employment and career advancement).
   c. Report outcomes by student demographic characteristics.

2. Establish a student identifier for high school students and older to enable California to track workforce progress and outcomes for students across institutions and programs. Increase the ability of governmental entities to share employment, licensing, certification, and wage outcome information

   a. Require the sharing of employment/wage outcomes and third party licenses/certification data across governmental entities.
   b. Explore barriers, both real and perceived, and create new incentives for the timely sharing of data.

316   c. Ensure data sharing activities are for the purpose of continuous program
317   improvement, while also protecting student, college and employer
318   privacy rights.
319
320 3. Improve the quality, accessibility, and utility of student outcome and labor
321   market data to support students, educators, colleges, regions, employers, local
322   workforce investment boards, and the state in CTE program development and
323   improvement efforts.
324
325   a. Provide labor market, workforce outcome, and student demographic
326   data/information that are easily accessible and usable.
327   b. Ensure that industry partners validate labor market supply and demand
328   information.
329   c. Provide technical assistance along with data visualization and analysis
330   tools to colleges on the use of labor market and student outcome data.
331   d. Develop the state's capacity to capture changes and gaps in workforce
332   supply and demand and to assess each region's educational capacity to
333   address workforce gaps.
334

Curriculum

The framework for the community college curriculum development and approval is provided in the California Education Code and Title 5 regulations. Myriad curriculum standards and processes exist requiring a mix of local, regional, and state level review as well as approval depending upon whether the course is for non-credit or credit. Local faculty has primary responsibility for curriculum development and delivery and for ensuring that instruction meets various compliance and accreditation standards. Processes may differ from campus to campus, but the CTE curriculum development, revision and approval at any college is generally the same as for other course or programs.

The CTE curriculum development process does differ in two respects:

1. CTE faculty work with advisory committees composed of local community, business and industry leaders in industry sectors that are related to their programs to help ensure that programs are responsive to labor market needs and that students who complete the programs will have the required skills and knowledge to obtain employment.

2. CTE program proposals must also be reviewed by the regional consortium prior to submission to the Chancellor's Office. The regional consortia help validate the need for a new program or avoid unnecessary duplication of programs that may oversupply regional labor markets.

A rapidly changing labor market and diverse student body present a series of challenges for career technical education. Although lengthy local and statewide processes can slow curriculum development and revision, faculty strives to keep courses and programs current. The current approval processes have valuable aspects that allow colleges to serve their particular communities, however various elements of these process could be streamlined and/or clarified for greater efficiencies.

For a more in-depth discussion of this issue refer to the Task Force background paper entitled, *Essential Elements for Strong Programs: Curriculum Development and Instructors.*

Recommendations:

1. Evaluate, strengthen, and revise, as appropriate, the curriculum development process to ensure alignment from education to employment.
    a. Create mechanisms for improved engagement of business and industry in the curriculum development process.
    b. Provide state level coordination in developing 1) model curriculum that can be adopted and customized by colleges, and 2) needs assessments in

380		emerging priority areas to help manage and incentivize the risk
381		associated with new program start-up.
382	c.	Create a process for the development of collaborative programs between
383		colleges.
384	d.	Develop and expand the use of contract training to meet the education
385		and training needs of business and industry.
386		
387	2.	Improve the program review, evaluation, and revision processes to ensure
388		program relevancy to both students and the labor market.
389	a.	Ensure engagement of business, labor, and other workforce professionals
390		in the program development and review process.
391	b.	Provide ongoing program improvement and, as appropriate, program
392		discontinuance based upon labor market data, student outcomes and
393		input from students, college staff, employers, and workforce partners.
394		
395	**3.**	Evaluate and revise the local, regional, and statewide CTE curriculum approval
396		process, as appropriate, to ensure timely, responsive, and streamlined
397		curriculum approval.
398	a.	Provide state level coordination to develop a streamlined curriculum
399		approval process.
400	b.	Provide sufficient staffing and resources in the Chancellor's Office to
401		speed up the state-level curriculum approval process.
402	c.	Identify best practices in local curriculum adoption processes and
403		provide technical assistance to colleges in ways to improve their local
404		adoption processes.
405	d.	Streamline the approval process for revision of existing curriculum.
406		
407	4.	Facilitate student portability across institutions.
408	a.	Scale up and resource the "C-ID" (course identifier) system for CTE
409		courses, certificates and degrees to enable articulation across institutions
410		and statewide.
411	b.	Recognize prior learning and work experience and award credits or
412		advanced placement toward CTE pathways.
413		
414	5.	Create CTE effective practices.
415	a.	Develop a website repository of CTE curriculum models that
416		faculty/colleges can select and adapt to their own needs.
417	b.	Develop an interactive system where industry stakeholders can provide
418		feedback to both validate and rate CTE curriculum program quality.
419		
420	6.	Improve CTE student progress and outcomes.
421	a.	Enable student advancement based upon mastery of competencies for
422		specified occupations as appropriate through mechanisms such as
423		authentic, performance-based assessments.

424   b. Support cross-disciplinary implementation of contextualized basic skills
425   and work readiness skills into CTE and career-related content into
426   general education using evidence-based practices.
427

428   7. Clarify practices and/or address issues of course repetition for CTE courses
429   when course content evolves to meet changes in skill requirements.
430   a. Clarify interpretation of course repetition regulations to assist colleges in
431   implementing policies and practices.
432   b. Identify and disseminate best practices in using noncredit to provide
433   opportunities for CTE students to build skills and knowledge.
434   c. Revise state-required audit fee so that colleges may offer auditing as an
435   option for students to refresh their skills and knowledge.
436

Instructors

A system of minimum qualifications for hiring community college faculty was adopted in legislation in 1988 by Assembly Bill 1725 (Vasconcellos). Minimum qualifications are established by the Board of Governors, based on recommendations by Academic Senate of the California Community College (ASCCC), and are used to determine a candidate's eligibility for faculty positions in the community college system. Some claim that the minimum qualification process, in conjunction with salary differentials in high-paid fields may limit a college's ability to employ a qualified poll of faculty for CTE courses and program.

The minimum qualification for most CTE faculty is a bachelor's degree in any major and two years of professional experience, or any associate degree and six years of professional experience. However, a number of technical disciplines, such as engineering, home economics, nursing, dietetics, accounting, and business management require the minimum qualifications require a masters' degree in the discipline of the assignment or a bachelor's degree in the discipline of the assignment and a master's degree in a reasonably related discipline.

While specific hiring processes vary from district to district, all faculty hired must meet minimum qualifications or equivalency criteria for their disciplines. The local equivalency process is governed by Title 5 regulations and varies by college district. Each community college governing board and its academic senate develops its own process, criteria, and standards to assess equivalencies. Regulations require that both minimum qualifications and equivalency procedures be established by the college. Granting of equivalency allows a faculty member to teach all courses within the appropriate discipline; equivalency for individual courses (single course equivalency) is not allowed.

For a more in-depth discussion of this issue refer to the Task Force background paper entitled, *Essential Elements for Strong Programs: Curriculum Development and Instructors.*

Recommendations

1. Increase the pool of qualified CTE instructors by addressing CTE faculty hiring practices.
    a. Clarify legislative and/or regulatory barriers to hiring CTE instructors who do not meet minimum qualifications but possess significant industry experience.
    b. Consider single-subject equivalencies and other creative options for meeting equivalencies in priority sectors to better integrate industry professionals into CTE instructional programs.

483	c.	Identify and disseminate effective practices around recruitment, hiring,
484		minimum qualifications, equivalencies, and providing education and
485		training pathways for experts in CTE fields.
486	d.	Create statewide models for colleges to recruit and mentor industry
487		professionals to teach in community colleges.
488	e.	Encourage business and industry professional organizations to develop
489		teaching talent with the necessary qualifications to teach in the
490		community colleges.

491 2. Enhance professional development opportunities for faculty
492   a. Provide all faculty with training in pedagogical teaching methods and
493   strategies.
494   b. Create fiscal incentives for professional development to support
495   externships and other methods of skill upgrades to ensure currency.
496   c. Provide professional development activities for counselors to learn and
497   effectively use educational planning tools.
498
499 3. Explore solutions to attracting faculty in high-salaried occupations.
500   a. Create and share models and best practices developed as part of local
501   labor negotiations to address the salary differential needs in high paid
502   fields.
503   b. Explore partnership with industry and the local community to support
504   salary differential needs.
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Structured Career Pathways

The career pathway movement – both nationally and in California – is focused on providing a seamless sequence of academic and CTE coursework across K-12 and postsecondary education that provides a positive outcome for all students and leads to employment. Developed and implemented in partnership with workforce partners and industry intermediaries, career pathways is a strategy that works for both traditional high school students and adult learners. This strategy is especially effective for individuals with low education and skill levels. Well-designed pathways move students to successively higher levels of education and training while providing multiple entry and exit points, related work experience opportunities at each stage, and wrap-around support services.

Quality career pathways integrate and align academic and technical skills to move students through a progression of coursework. They provide multiple on-ramps and off-ramps with modularized curriculum that make it easy for students to move through a pathway, exit for personal reasons, and then re-enter to complete their career objectives. Smooth and well-articulated transitions between education and workforce systems help ensure that students move successfully from high to postsecondary or from adult education to postsecondary. Student support in areas such as basic skills and counseling is provided within the pathway setting to help with student success. Industry engagement in both program design and identification of work-based learning opportunities results in pathways with strong employment outcomes.

Career pathways are embedded in a number of current state, federal, and foundation-funded reform efforts, which raises concern about coordination of these initiatives both at the state and regional level. Strategies such as dual enrollment and model pathways can serve to align efforts among high school, adult education, and community college providers.

For a more in-depth discussion of this issue refer to the Task Force background paper entitled, *College-to-Career Pathways: Getting From Here to There on the Roadmap for a Stronger California Economy* and *Structured Career Pathways and Student Support.*

Recommendations

1. Develop regionally-aligned strategies and structured industry-informed pathways, coordinated with other workforce partners and industry intermediaries, that seamlessly transition high school and adult students to community college CTE certificates, associate, and/or transfer degrees programs.
   a. Identify and remove barriers to career pathway implementation.

555 b. Develop industry-driven, competency-based and portable pathways that
556   include stackable components and modularized curricula, develop work-
557   based learning opportunities, and link to other support services.
558 c. Contextualize Basic English and math, ESL, and workplace readiness skills
559   into pathway curricula.
560 d. Develop applied English and math courses that meet both CTE and
561   Associate Degree requirements.
562 e. Support the on-going development and implementation of current
563   initiatives to develop programs of study tools to bridge high school and
564   adult education preparation into community college CTE pathways to
565   help community college students plan their CTE course taking.
566 f. Develop and implement effective career and educational planning tools
567   for high school, adult education and community college counselors.
568
569 2. Develop CTE model curriculum
570   a. Align model curriculum with high schools and adult education to enable
571   articulation, dual enrollment and CTE pathways between high schools,
572   adult education and community colleges.
573   b. Collaborate with high school, adult education and community college
574   educators on the development of model curriculum.
575
576 3. Ensure career pathways meet the needs of non-traditional students – such as
577   displaced workers, veterans, and other reentry adult populations.
578   a. Design pathways with multiple entry and exit points that correspond to
579   industry-recognized skills.
580   b. Adopt prior learning and competency assessments to support re-entry
581   students.
582   c. Provide counseling, orientation, prior learning and competency
583   assessments, and pro-active support systems - such as cohorts, wrap-
584   around services and other internal and external supports.
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588

589 ## Student Support
590
591 In 2012, the Student Success Task Force adopted a series of recommendations to
592 improve student outcomes in California's community colleges. Student support was
593 at the core of the recommendations and resulted in the new Student Success and
594 Support Program. The program's goal is to help student persist in college and
595 complete their educational objectives by providing a range of core student services
596 such as orientation, assessment, counseling, and other general education planning
597 services.
598
599 However, students in CTE programs often need a suite of additional support
600 services, such as:
601
602 ▪ Career awareness and exploration of the many occupations and the
603 associated skill requirements, labor market demand, and earning potential
604 allows students to make informed choices about programs of study.
605
606 ▪ Career pathway planning with academic and contextualized support services.
607
608 ▪ Identification and development of work-based learning opportunities giving
609 students real workplace experience and employability skills.
610
611 ▪ Job placement either concurrent with college or upon completion of a course
612 of study.
613
614 More targeted and integrated supports that are aligned with regional labor market
615 demands of business and industry would help students set appropriate career goals
616 and acquire the skills and abilities necessary to complete college and obtain
617 meaningful employment.
618
619 For a more in-depth discussion of this issue refer to the Task Force background
620 paper entitled, *College-to-Career Pathways: Getting From Here to There on the*
621 *Roadmap for a Stronger California Economy* and *Structured Career Pathways and*
622 *Student Support.*
623
624 **Recommendations**
625
626 1. Enhance career planning and student support for students on community college
627 campuses.
628 a. Broaden student support and career center services to raise the
629 awareness of career planning and provide information to high school,
630 adult education and community college students on labor market demand
631 and earnings potential.
632 b. Provide students with a rich array of information, resources, and support
633 on career awareness, preparation, and exploration; CTE pathway and

634	education planning; workplace readiness skills; work-based learning, and
635	local and regional employer needs and job requirements.
636	c. Work with industry, labor, and other workforce partners to develop and
637	coordinate work-based learning, internship and apprenticeship
638	opportunities.
639	
640	2. Develop robust connections between community colleges, business, industry,
641	labor and other regional workforce development partners.
642	a. Create a network of regional sector-based efforts to scale-up industry
643	engagement in coordination with employers, industry associations,
644	intermediaries, local workforce boards, community college deputy sector
645	navigators, labor, and economic development entities.
646	b. Utilize the California Community College Centers of Excellence, Deputy
647	Sector Navigators, and local workforce boards to inform work with key
648	and emerging industry sectors and align college programs with regional
649	and industry needs.
650	c. Develop and coordinate connections with industry to identify required
651	work-based and skill competencies
652	d. Establish coherent pathways with multiple on-ramps and off-ramps to
653	the world of work that align with industry employment opportunities and
654	allow students to move between school and work in a logical and
655	progressive fashion.
656	e. Create and sustain ongoing connections between sector-based efforts and
657	student support and career centers.
658	
659	
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661	

662   ## Regional Coordination
663
664   Regional delivery of career technical education and workforce development services
665   presents both opportunities and challenges. State, federal and foundation-funded
666   initiatives to address workforce and economic development often have similar and
667   overlapping goals. This can result in a fragmentation of efforts, duplication of
668   services, poor connection among programs, and confusion to both students and
669   employers. However, successful integration of these initiatives can result in effective
670   practices that braid multiple resources to meet student, job seeker, and employer
671   needs.
672
673   In recent years, community colleges and their workforce partners have moved
674   toward a regional approach to workforce development in order to respond more
675   effectively to regional labor market needs. Current national and statewide efforts
676   support the move to organize workforce services regionally. The newly enacted
677   federal Workforce Innovation and Opportunities Act (WIOA) focuses on regional
678   action, partnering with workforce and education professionals to meet industry
679   needs, integrating service delivery, and braiding resources to improve service
680   delivery. Key elements of California's 2015-16 Budget Act also address regional
681   program alignment, adoption of common performance measures, and employer
682   engagement in the workforce development system.
683
684   Colleges have also made progress in identifying the kinds of activities that can be
685   accomplished more effectively at a regional level. The CCCCO *Doing What Matters*
686   *for Jobs and the Economy* (DWM) framework, created in 2012, braids resources and
687   provides incentives to support CTE programs in key and emerging industry sectors.
688   DWM works with Regional Consortia, Sector/Deputy Sector Navigators and
689   Technical Assistance Providers to identify activities that are best delivered on a
690   regional scale. This developing regional work promises to support college efforts to
691   respond to their dynamic regional economies.
692
693   For a more in-depth discussion of this issue refer to the Task Force background
694   paper entitled, *Thriving Regions, Thriving California.*
695
696   **Recommendations:**
697
698   1. Enhance the regional governance framework within the community college
699   system to improve the coordination and leadership of CTE efforts and provide
700   greater alignment to the system's overall governance.
701   a. Provide an overall organizational structure for Doing What Matters that
702   clarifies the role of the Regional Consortia, Sector Navigators, and Deputy
703   Sector Navigators and their relationship with the CCCCO and the colleges.
704   b. Identify the following as functions of the regional governance framework:
705   ▪ In coordination with regional employers, designating priority and
706   emerging sectors in alignment with labor market needs;

707   • Coordinating the delivery of shared programs;
708   • Standardizing CTE entry pathways and industry-valued
709   credentials;
710   • Sharing of best practices;
711   • Conducting joint marketing and facilitating asset/equipment
712   sharing;
713   • Delivering joint professional development of faculty and
714   counselors to respond to evolving skill needs of industry sectors;
715   and
716   • Providing other shared needs and strategies as prioritized by the
717   region.
718

719 2. Modify state regulations to allow colleges to regionalize course articulation
720   along career pathways utilizing regional or state curriculum models.
721

722 3. Develop regional leadership and operational partnerships among community
723   college, industry, and other workforce and economic development entities to
724   improve the delivery of CTE efforts.
725   a. Coordinate industry and labor engagement tied to sector strategies.
726   b. Develop feedback methods from industry and labor that provide for
727   continuous program improvement.
728   c. Articulate skills sets embedded within industry-valued credentials across
729   regions.
730   d. Supporting college collaborations to leverage multiple state and federal
731   CTE and workforce funding streams to build capacity to meet regional
732   needs.
733   e. Create a sustained public outreach campaign to industry, high school
734   students, counselors, parents, faculty and staff to promote career
735   development and attainment and the value of career technical education.
736
737

Funding

Workforce preparation is a primary mission of the California community college system. Yet, since the 2000-01 academic year, CTE's share of community college enrollment has declined from 31.3% to 28.2%. This decline comes at a time when California is struggling to meet the need for middle-skilled jobs and anticipates an increasing demand for these jobs in coming years. The decline in CTE course offerings also has impact on student success and future earnings. College records indicate that the median wages of workers five years after receipt of an associate's degree in a vocational discipline is over 70 percent higher than those with non-vocational associate degrees.

CTE courses receive the same dollar amount for a full-time-equivalent student (FTES) as a general education, lecture-based course that do not incur the same higher startup and operating costs. CTE courses are often more expensive because of the need for:

- Labor market research and analysis to establish demand for a program;

- Specialized equipment and facilities required for program operation;

- Smaller class sizes required by regulation or safety requirements;

- Faculty time to interact with business and industry to ensure program relevancy;

- Curriculum development and retooling to retain course and program relevancy;

- Faculty professional development in industry settings; and

- Data collection to provide employment, wage and other program outcome information.

Other states have addressed the issue of high-cost courses/programs by creating differential base-line funding formulas; supplemental funding streams that support increased costs; differential tuition based upon program cost; and performance funding where all or a portion of funds are tied to program outcomes.

For a more in-depth discussion of this issue refer to the Task Force background paper entitled, *Funding Career and Technical Education (CTE) Programs at California Community Colleges.*

Recommendations:

1. Establish a sustained, supplemental funding source to increase community college capacity to create, adapt, and maintain quality CTE courses and programs responsive to regional labor market needs.
   a. Analyze cost differences in CTE and non-CTE courses/programs to determine appropriate funding levels for high-cost programs-allowing for higher start-up and operating costs, increased needs for professional development, and more frequent curriculum revision and program review.
   b. Create a supplemental and sustainable categorical funding stream to augment general purpose funding for high-cost CTE courses and high-cost courses that provide entry into CTE pathways.
   c. Provide additive fiscal incentives to support high-valued outcomes and evaluate the results to determine effectiveness in ensuring continuous improvement in workforce development.

2. Create a separate, predictable, and sustainable funding stream that leverages multiple state, federal, and local CTE and workforce funds to support an infrastructure for collaboration at the regional level; regional funding of program start-up and innovation; and support of other regional coordinating activities.

3. Review laws and regulations related to:
   a. Apportionment to enable expansion of best practices for student success.
   b. Student fees for disposable and consumable materials; evaluate their impact on CTE programs and students; and if warranted explore options for funding support that does not limit student access, such as covering the cost of fees under the BOG waiver.

4. Provide CTE equipment support from a sustainable and adequate Equipment and Facilities categorical funding stream.

5. Analyze and improve facilities regulations to provide funding for new and modernized facilities for high-demand CTE courses.

6. Create incentives, streamline processes, and develop best practices among community colleges; local workforce investment boards; apprenticeship and incumbent worker programs; and other federal, state and local workforce funding streams to support public workforce training efforts for priority sectors within regions.