



INSTITUTE FOR HIGHER EDUCATION  
LEADERSHIP & POLICY

# CAREER OPPORTUNITIES:

Career Technical Education and the College Completion Agenda

**Part IV: Aligning Policy with Mission for Better Outcomes**

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# Executive Summary

The California Community Colleges are vital to closing the projected shortfall of Californians with a postsecondary credential and sustaining the state's economic competitiveness. Increasing the number of students who pursue and earn certificates and associate degrees in career technical education (CTE) fields is an important component of the postsecondary completion challenge, but one that has been under-emphasized in a system with a strong and historic commitment to its transfer mission. In today's economy, well-designed CTE programs offer economic security to students and the foundation for further educational and economic gain.

IHELP's examination of the current CTE mission within the California Community Colleges has resulted in a series of reports, the culmination of which is this systematic study of the degree to which system and state policies, as codified in statute and regulation, are supportive of the mission. With extensive input from faculty and staff in the field (see acknowledgements box), we learned about the challenges facing colleges to design and deliver quality CTE programs that help students earn credentials of value in the workplace. We studied statutes and regulations to identify instances where policies are not ideally aligned with the goals of CTE.

The policies governing the community colleges were designed with the historically important transfer mission

foremost in mind. Policies matter, as they set forth the expectations and create the incentives and rules that influence students' experiences and outcomes. As the role of the colleges to promote workforce development has become increasingly vital to the state's economy, it is important to adapt the infrastructure of policies to serve students most effectively, whether or not they are intending to transfer prior to starting a career.

We used the framework depicted in the figure below to impose conceptual order on a highly complex set of issues. As with all four reports in this *Career Opportunities* series, we defined an effective CTE mission in terms of seven criteria that we derived from a review of the literature on the community college career education mission. Drawing on our findings from all parts of this project, we organized potential barriers to more effective CTE into three recurring themes. We then identified those sections of the Education Code and Title 5 of the Code of Regulations that seemed applicable to the potential barriers. Our analysis produced a set of options for revising policies and adopting new policies that would help to remove barriers to satisfying the criteria for an effective CTE mission. We hope that our suggestions will serve as a resource to the community college system as it continues to work to improve student success.

## Framework for Policy Reform to Strengthen CTE

### Barriers to Satisfying 7 Criteria for Effective CTE Mission, by Theme:

- A. The CTE mission is marginalized from the academic core of the institution
- B. There is an insufficient focus on programs and their outcomes
- C. Individual colleges are expected to do too much in isolation, creating excessive workload and variability in policy and practice that do not benefit students

### Policy Change:

Education Code  
Title 5

### Vision for Student Success (per the 7 criteria for effective CTE mission):

1. K-14 articulation
2. CTE advising
3. Program offerings
4. Pathways
5. Learning outcomes
6. Labor market value
7. Resource support

## Strengthening the CTE Mission

The suggested policy reforms can be found at the end of each section. Here we highlight some suggested reforms to show how the CTE mission could be strengthened with changes to statutory and regulatory policy:

### A. Better Integrate CTE Mission into Academic Core of Colleges

- Replace short-term, competitive grant funding with stable funds in order to provide equitable access by students across the state to high-need, high-value programs.
- Establish and encourage the use of orientation programs for CTE faculty to help integrate them into shared governance processes and to connect them with faculty who teach general education courses taken by their CTE students.
- Collaborate with the California Department of Education to develop and encourage the widespread adoption across school districts of a comprehensive career exploration curriculum in middle school and high school.
- Ensure that high school and community college counselors have a better understanding of career pathways served by CTE programs, and that academic counseling is to include advising students about programs of study, not only about “general academic requirements and course selection.”

### *Supporting these Criteria for Effective CTE Mission: K-14 articulation, CTE advising, pathways, resource support*

### B. Focus on Programs and Outcomes

- Shift colleges’ focus from courses to programs. Ask colleges to offer roadmaps for progression through programs to help students achieve their goals and to better account for enrolled students’ progress and outcomes.
- Improve processes for program approval, review, and discontinuation to ensure that low priority or outdated programs are phased out and energy and resources are directed to high-need, high-value programs.
- Improve accountability for student outcomes, *by program*.
- Address ways to ensure that students enrolled in certificate programs attain proficiency in basic skills and workplace readiness as appropriate to their programs.

- Develop pathways through which students may progress from short-term certificates into longer-term certificates and/or associate degree programs, and build better connections between noncredit programs and these credit pathways.
- Offer the applied associate degree (AAS) as is done in 48 states, or recast the non-transfer associate degree to prepare students for employment.

### *Supporting these Criteria for Effective CTE Mission: program offerings, pathways, learning outcomes, labor market value*

### C. Reduce variation and excess burden across colleges by scaling programs, sharing resources, and collaborating for improved outcomes

- Develop statewide skills and competency standards for CTE programs for optional and incentivized college use.
- Designate, and provide capacity for, an entity to be the primary provider of labor market information and analysis to the regional consortia and member colleges in order to keep programs responsive to market needs without excessive burden on individual college faculty.
- Modify resource allocation to accommodate the high costs of many CTE programs and the essential non-teaching tasks of CTE faculty.
- Ensure stable, long-term funding for the emerging regional structures necessary to support regional collaboration across colleges.

### *Supporting these Criteria for Effective CTE Mission: learning outcomes, labor market value, resource support*

## Acknowledgements

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# Introduction: Policy Can be More Supportive of the Career Technical Education (CTE) Mission

## The Unmet Potential of Career Technical Education in California

The role of community colleges in the national college completion agenda is under-appreciated. With a large share of projected job openings requiring college education of less than a bachelor's degree and offering family-supporting wages, community colleges can make a huge contribution to a competitive workforce. Community colleges offer a broad array of career-oriented certificates and associate degrees through the "career technical education" (CTE) portion of their multiple missions. Community colleges can fulfill their promise of contributing to social and economic vitality by offering programs well designed to address labor market needs that are accessible to students with different levels of preparation and at different stages of their careers. Recent high school graduates, under-employed and unemployed adults, incumbent workers looking for career advancement, veterans, and college graduates seeking retraining all can benefit from CTE programs that offer clear pathways to credentials of value.

Our prior research revealed that this great potential for CTE to contribute to college completion and economic vitality is not being realized in California. Students in the California Community Colleges (CCC) are not widely encouraged to pursue CTE programs, and those who do make far more progress in completing coursework than they do in acquiring credentials in their fields. Although one-third of community college course enrollments are in courses classified as vocational, only 3% of all entering degree seekers earn vocational associate degrees and only 5% earn certificates.<sup>1</sup> Improving student success in the community colleges is essential to addressing the daunting unmet need for Californians with college degrees, for closing the performance gaps across racial/ethnic populations, and for addressing the shortages of skilled workers.<sup>2</sup>

This report is the last of a four-report series called *Career Opportunities*, aimed at identifying ways that state and system policy can best support California's community colleges. The introduction of associate degrees for transfer, as authorized by SB1440 in 2010,<sup>3</sup> is expected to help many more community college students transfer and earn bachelor's degrees. But there has been no corresponding state policy effort to smooth pathways for students seeking one- and two-year college credentials to enter, or advance in, the workforce.

State policy is a powerful influence on student success as it provides the infrastructure of rules and incentives that can shape student behaviors and college practices. In January, 2012, the CCC Chancellor's Task Force on Student Success issued a final report with 22 recommendations for improving student outcomes in the CCC, many of which involve state and system policy action.<sup>4</sup> The Student Success Act of 2012 codified several of these recommendations into statute and implementation is underway.<sup>5</sup> Our work in this *Career Opportunities* project focuses more specifically on policy changes that have the potential to improve student success in CTE programs.

Figure 1  
IHELP Report Series on CTE Mission

- I. Overview of structure and funding for CTE and identification of key issues (January 2012)
- II. Inventory and analysis of CTE certificates and vocational associate degree programs (February 2012)
- III. Effective state policy approaches used in other states to support CTE (September 2012)
- IV. Comprehensive analysis of state policy environment affecting CTE in California and suggestions for policy change (this report)

With the historic importance of the transfer function in California under the Master Plan, decades of state and system policies have built up that were developed with the transfer function foremost in mind. In recent decades, the role of the CCC in promoting workforce development through sub-baccalaureate credentials (certificates and vocational associate degrees) has grown in importance, becoming vital to the economic recovery of the state. We undertook this project because we suspected that the policy infrastructure might not have adapted to this heightened emphasis on CTE. If certain state or system policies fail to encourage, or even create barriers to, the student and college behaviors that are known to be successful, student success in CTE programs will be constrained.

Figure 1 summarizes the four parts of this project.<sup>6</sup> The project was guided by seven criteria that characterize an effective community college CTE enterprise, drawn from an extensive review of the literature on career education and workforce preparation (Figure 2).

Figure 2  
Criteria for Effective Career Technical Education Mission

1. Programs articulate with K-12 where appropriate
2. Prospective students are helped to identify and enroll in CTE programs of interest
3. Program offerings adapt to changing labor market needs
4. Efficient pathways exist for transition into entry-level credentials and advancement through credential levels
5. Students and employers understand the skills and competency outcomes of credential programs
6. Credentials offered have market value for students, as validated by outcomes data
7. Resource allocation for CTE programs is predictable and responsive to workforce priorities

From our research in Parts I and II we identified several issues and described how the seven criteria are not being well satisfied, with the expectation that we could find some explanation for the shortcomings in the misalignment of policy with the CTE mission. We then looked for guidance from other states, issuing a report (Part III) highlighting state-level policies in a number of states that seem to support CTE well. For this final report (Part IV), we examined a broad range of state-level policies in California, as codified in the Education Code and Title 5 of the California Code of Regulations, and confirmed our expectation that policies appear misaligned with CTE objectives in many cases.

## A Policy Agenda to Complement Ongoing Administrative Changes

Since we began this project two years ago the California Community College Chancellor's Office has led major developments in the organization and operation of CTE. Through the efforts of its Division of Workforce and Economic Development, the Chancellor's Office is making fundamental changes to target college CTE programs more purposefully toward regional needs in priority and emerging industry sectors. Designated as "Doing What Matters for Jobs and the Economy,"<sup>7</sup> the Chancellor's Office initiative takes a strategic approach to combining funding streams, coordinating college activities in regions, integrating and restructuring CTE and Economic and Workforce Development (EWD) staff and activity around industry sectors, and introducing new metrics and processes that shift attention from activities and inputs to outcomes.

We have developed our approach to this final report in cooperation with the Chancellor's Office so that system officials will have a menu of policy changes to consider as a complement to the administrative changes that are underway.<sup>8</sup> While the administrative changes being implemented are significant, their impact may be limited if current statutes and regulations discourage or prevent certain approaches to increasing student success in CTE programs.

# Introduction: Policy Can be More Supportive of the Career Technical Education (CTE) Mission

The research methods we used for this final report are listed below. We began with a comprehensive framework of potential policy issues<sup>9</sup> and narrowed it down to those we learned from the field to be most important to CTE mission effectiveness. Within those areas we again drew on expertise from the field to identify a set of potential problems – or barriers – presented by current policies. We explored those issues and identified sections of Education Code and Title 5 that seemed relevant to each issue. We then sought feedback, via surveys, on a set of policy papers that identified problems, relevant laws, and possible changes to policies. Throughout the

project we benefitted greatly from a set of volunteer advisors from among CTE faculty and staff in the CCC (see acknowledgments box in Executive Summary) who helped us understand the range of issues colleges confront in attempting to design and deliver quality CTE programs for their students. Over fifty advisors participated in phone calls, meetings, interviews, and surveys. While we sought their feedback and refined our results accordingly, we acknowledge a range of opinions among them and take ultimate responsibility for the research, analysis, and the menu of policy options.

## Research Methods

- We devised a comprehensive framework for policies that could affect CTE mission effectiveness.
- We solicited advisors from across the CTE community to help us refine our research design and, later, to provide feedback on drafts.
- We held conference calls with the advisors to discuss issues and potential barriers related to major policy topics related to CTE, and followed up with individual telephone interviews and meetings with Chancellor's Office and California Department of Education staff.
- We examined the Education Code and Title 5 to identify applicable laws and regulations.
- We drafted policy papers that identified (1) problems, (2) relevant laws, and (3) possible policy responses and surveyed advisors for reactions.
- Based on survey responses, we revised the papers and produced a set of working papers that can be accessed at [www.csus.edu/ihelp](http://www.csus.edu/ihelp).
- Over fifty individuals from colleges, districts, the Chancellor's Office, the California Department of Education, and other organizations participated in interviews, conference calls, and/or submitted one or more survey responses.
- We organized our findings according to the seven criteria for an effective CTE mission, in order to build on the approach used throughout the *Career Opportunities* series.

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## A Menu of Options Organized Around Three Themes

Through our research on all parts of this project, we identified a number of problem areas or potential barriers to a more effective CTE mission. The issues fell into three themes:

### **A. The CTE mission is marginalized from the academic core of the institution**

Part I of the *Career Opportunities* series documented that funding streams and organizational structures for the CTE mission have kept it from being fully institutionalized into the academic core. There are powerful societal values and institutional cultures that combine to diminish the stature of CTE in ways that are out of sync with the needs of today's economy and students.

### **B. There is an insufficient focus on programs and their outcomes**

The CCC system as a whole has traditionally conducted its planning around courses, adjusting class schedules up or down depending on the resource capacity of colleges to offer programs, hire faculty, and accommodate student demand. In Part II of this series we linked the proliferation of certificate and degree programs to an insufficient focus on programs with proven outcomes for students and regional economies.

### **C. Individual colleges are expected to do too much in isolation, creating excessive workload and variability in policy and practice that do not benefit students**

Student-centered institutions must find ways to balance the important dimensions of local autonomy with the benefits of collaborative action and consistency in those aspects of curriculum and policy that will serve students most effectively. Across the CCC, each college works mostly independently on many tasks which, done collaboratively, would ease workload, free up resources, and serve students better through more consistent programs and policies.

The remainder of this report is structured around seven criteria for an effective CTE mission. For each criterion, we begin with a vision for student success to emphasize that the purpose of policy reform is to increase opportunities for students to be successful. We then describe the problems or potential barriers to greater effectiveness grouped into the above three themes. In each of the seven sections, we suggest policy changes that could alleviate the identified problems.

We are *not* offering recommendations in the usual sense of endorsing a full set of changes. Instead we are providing a menu of options that resulted from our systematic review of potential barriers to greater student success and analysis of the statutes and regulations that we linked to those potential barriers. We have provided these options with no expectation that all of them are equally feasible and with no sense of what the priority among them might be for the system. Our intention is that the menu of options, with specific code sections referenced in the Appendix, will become a resource for the system to consider as it moves to align policies with mission to accompany the powerful administrative changes underway to improve CTE student success.<sup>10</sup>

# Criterion 1: Pathways Articulate with K-12 Where Appropriate

## Vision for Student Success

Students in middle and high school have opportunities to take CTE courses that are part of a well-defined career pathway that could be continued at a community college. From their school-age exposure to CTE, they understand what logical next steps along a pathway would be in a community college setting and they receive appropriate credit for the relevant high school courses they have completed. Schools and colleges work together as institutions and systems, not just as individual faculty, to craft coherent career pathways to serve students who move from high school to a community college in the region.

## Problems/Barriers

### A. K-14 CTE Pathway Development Structured as a Non-Core Mission

Improved alignment between K-12 and community college is a well-accepted goal but one that, with respect to CTE, has not been fully embraced as a core institutional mission. Efforts to build career pathways from high school to college have been largely dependent on SB70 (now SB1070<sup>11</sup>) and other competitive grants. This disadvantages students whose colleges lack grant-getting capacity. The enhanced accountability requirements under SB1070 place unrealistic expectations that small short-term grants can fundamentally improve student outcomes. A grant-based approach may inadvertently suggest a somewhat lesser obligation by the system to serve students who are pursuing career programs. Yet SB1070 is scheduled to sunset June 30, 2015, leaving unsettled the source of support for CTE pathway development.

### B. Insufficient Focus on Programs of Study

Local efforts under SB70 have been focused on articulating courses between an individual high school and a community college whether or not those courses are part of a coherent career pathway encompassing a sequence of courses related to a field of study. Consequently, despite "Career Pathway Initiative" funding and efforts, many high school students take articulated CTE courses without gaining any momentum toward a career pathway in a community college.

### C. Variability in College Policies Raises Equity Issues for Students

The various mechanisms available to colleges to build pathways (i.e., articulation of course sequences, dual credit, and concurrent enrollment) are not well understood by colleges and are not clearly laid out in system policy, leaving colleges to emphasize one or the other, or none, for reasons often unrelated to the benefits to students. Consequently, the potential benefits of these options are unequally available to students across the system. Even where such options are available, district policies regarding eligibility, fees, and the awarding of college credit to high school students vary widely, creating confusion and inequities for students.

## Possible Policy Changes

- 1.1 Develop, as a complement to the transfer associate degree curricula being developed pursuant to SB1440, statewide articulated pathways from high school to community college for selected CTE programs that will streamline credits needed to earn associate degrees in occupational fields. Such pathways would become the basis for consistent policies across colleges in the awarding of college credit for courses taken by high school students.
- 1.2 Incorporate incentives into the basic college funding model for student completion of associate degrees and certificates in occupational fields, as a means of embracing the building of career pathways as a core mission of the college system to be supported from base funds.

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- 1.3 Develop a proposal for replacing the competitive grant funding from SB1070 and other sources that support development of career pathways with stable funds (including apportionments) with the goal of providing equitable access by students across the state to career pathways in high-value, high-need programs of study.
  - 1.4 Adopt or modify Title 5 regulations to clarify the distinct, but related, goals of articulation, concurrent enrollment, and dual credit and to standardize college policies regarding eligibility, fees, and award of credit to assure equal access and portability of credits.

# Criterion 2: Prospective Students are Helped to Identify and Enroll in CTE Programs of Interest

## Vision for Student Success

Whether a prospective student is interested in transferring to pursue a bachelor's degree or training for employment that does not immediately require a bachelor's degree, students have equal opportunity to acquire information, guidance, and support for their educational goals. Whether entering directly from high school or as an adult with or without prior job experience, students have good opportunities to learn about college CTE programs that may interest them and serve their needs.

## Problems/Barriers

### A. CTE as a Lesser-valued Mission

Support for the career counseling function in K-12 and community college is sorely inadequate with unrealistically high student-to-counselor ratios. Furthermore, high school counselors are more equipped and encouraged to provide students with guidance about A-G requirements<sup>12</sup> for university eligibility than to provide information on career planning and the implications for college choice. Community college counselors are more equipped and encouraged to direct students toward transfer pathways than into CTE programs. These institutional priorities reflect societal values, which have seemingly not caught up to the 21st Century economic opportunities that one- and two-year credentials can offer to students.<sup>13</sup>

### B. Program of Study Options Not Well Understood

System planning, scheduling, and accountability are largely organized around courses, not programs of study that set forth clear roadmaps for a student seeking to complete a certificate or degree. Whether attempting to access community college CTE from high school, from the workplace for purposes of career advancement, or from a position of unemployment, students are not normally counseled about program options and the roadmaps for completing them, and course schedules are not typically constructed to facilitate convenient progression through a program.

### C. Local Variability as Potential Barrier to Good Information

The task facing high school and college counselors to inform students of CTE programs is made vastly more difficult by the huge array of programs (we found an average of over 100 certificates and associate degrees offered per college) and the variation across similar programs.

## Possible Policy Changes

- 2.1 Amend Title 5 (Section 55523) to specify that academic counseling at community colleges will include advising students about programs of study available at the college, not only about "general academic requirements and course selection."
- 2.2 Amend Title 5 (Section 55523) and/or Education Code (Section 87356) to clarify the respective roles of counselors and faculty in career advising, with counselors expected to advise students about broad career pathways and faculty authorized to advise students about specific careers within those pathways.
- 2.3 Amend Title 5 (Section 88532) to explicitly state that the mandate for professional development to improve delivery of CTE applies to counselors (considered faculty in the CCC) so that they have more awareness about CTE.

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2.4 As part of collaborative efforts between the CCC and the California Department of Education, the two systems should develop the means to provide for widespread adoption across school districts of a comprehensive career exploration curriculum in middle school and high school, perhaps as part of the implementation of the Common Core State Standards.

2.5 Expand assessment processes to include a workplace/career readiness assessment for entering students pursuing a CTE program to assist with referral to courses where they may receive appropriate developmental or supplemental instruction.

# Criterion 3: Program Offerings Adapt to Changing Labor Market Needs

## Vision for Student Success

Community colleges offer programs that are responsive to dynamic local and regional labor market needs, with current curricula that provide students with the skills and competencies that are valued by employers and that serve students well in workforce entry and advancement.

## Problems/Barriers

### A. CTE Faculty Marginalized from “Academic” Core of the College

College faculty are the builders and keepers of the curriculum. The processes for approving programs and revising curricula are owned by faculty committee processes into which CTE faculty are not typically well integrated. Many CTE programs are small, leaving just one full-time faculty to try to advocate effectively for programs to a body that is often less familiar and possibly less supportive of CTE than of liberal arts and sciences programs. CTE faculty who are unaccustomed to working in traditional academic cultures can be disadvantaged in these processes, to the detriment of their students. Such divisions between liberal arts and CTE faculty can limit collaboration on curriculum and teaching strategies that would benefit students. Also marginalized from the institutional core are the EWD faculty and staff whose knowledge of the field could be an important influence on keeping curriculum current.

### B. Processes Not Focused on Ensuring Strong Program Outcomes

The available set of CTE programs is a result of the interaction of three processes: program approval, program review, and program discontinuation. As of 2011, these processes had yielded a system inventory of about 8,000 certificate programs and 4,500 associate degree programs in 142 CTE fields of study, with very few of the fields (about 7%) accounting for half of all enrollments and completions.<sup>14</sup> Only about 3% of entering students seeking a college credential earn an associate degree in a CTE field within six

years and only 5% earn certificates.<sup>15</sup> A more targeted program inventory is impeded by processes that lack rigorous review of labor market need and program outcomes, that fail to prevent unnecessary program duplication, and that lack incentives for colleges to collaborate to offer programs as a way to take advantage of scale.

As the economy shifts and changes, colleges serve students best by phasing out low-need programs in favor of higher priorities. Yet colleges are challenged to respond because of the difficult decisions, political and administrative, about what to do with tenured faculty in programs that are no longer serving students well. While a problem for all academic areas, it can be more challenging in CTE because of the specialized nature of faculty training and expertise.

### C. Local Colleges Expected to do Too Much on Their Own

The processes that yield the inventory of programs are localized to the individual college level. This can be burdensome for CTE faculty because programs are often quite small, with the curriculum development and maintenance burden falling on just one person. Additionally, state law requires that CTE programs undergo review every two years (the requirement does not apply to non-CTE programs). As part of the review, for example, each college program is expected to obtain and analyze labor market information to support its program’s structure and continuation, but many programs lack the capacity, resources, and expertise to adequately evaluate labor market information. Furthermore, labor market analysis, as relates to program offerings, is more meaningfully carried out at a regional level.

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## Possible Policy Changes

- 3.1 Develop a system policy to establish and encourage use of orientation programs for new CTE faculty that would have the twin goals of (1) helping new faculty understand the academic culture and shared governance processes and (2) connecting the new CTE faculty with faculty who teach general education courses that would be taken by the new faculty member's CTE students.
- 3.2 Require faculty to have professional development plans that could address the potential and timeline for earning additional academic credentials, if warranted, as well as steps to develop additional areas of expertise that could facilitate their reassignment if it should become necessary.
- 3.3 Make several changes to the program approval processes
- Remove the requirement that a program belong to a single college. Allow a program to be developed and owned by a district or a consortium of colleges, perhaps in accordance with new guidelines developed for collaboration among colleges. This will maximize student access to programs of breadth and quality and prevent individual colleges from stretching too thin to offer programs for which they lack critical mass of faculty and facilities. In multi-college districts, approve all new programs as belonging to the district, not a college, to incentivize collaboration and use resources more efficiently. (Education Code Section 70902; Title 5 Section 55130)
  - Devise an alternative, fast track program development option under which a college (or a consortium of colleges) could start a CTE program that would automatically be discontinued if the labor market outcomes did not justify its continuation. Any new faculty hired for such programs would be hired on limited-term contracts. The burden of proof would, in effect, be reversed so the college would justify the program on the basis of its outcomes rather than its promise. (Title 5 Section 55130)
- 3.4 Make several changes to the program review processes
- Allow for exceptions to the requirement that every approved program be included in the college catalog before it is offered, in order to permit faster implementation of programs that respond to emerging needs. (Title 5 Section 55070)
  - Develop and implement a rigorous and comprehensive approach to tracking labor market outcomes (employment and earnings) for all CTE programs with agreed-upon definitions and metrics, and use these metrics in required program reviews. (Education Code Section 78016)
  - Ensure that the biannual program review required under the Education Code for CTE programs is rigorous and meaningful by specifying (1) the kinds of data and information to be included and (2) newly defined roles for the regional consortium, the regional and statewide advisory committees, and the local Workforce Investment Board in providing input to the review. Specify that one metric is the number of students enrolled in the program – a change that will require better data collection on students' intended programs of study. (Education Code section 78016)
  - Establish a schedule as part of the two-year program reviews by which all programs in the same industry sector at all colleges (e.g., all health science or all information technology programs) are reviewed in the same year, to make better and more efficient use of regional and statewide advisory committees and encourage information sharing among faculty within the same disciplines. (Education Code section 78016)

# Criterion 3: Program Offerings Adapt to Changing Labor Market Needs

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## 3.5 Make two changes to the program discontinuation processes

- Adopt systemwide criteria to be used in considering program discontinuation (currently each college determines its own criteria) and clarify that program discontinuation is a possible outcome of program review. (Title 5 Section 51022)
- Remove the automatic one-year termination requirement by the Chancellor's Office for an unsuccessful program review, to be replaced by the new systemwide criteria (recommended immediately above) for colleges to use in considering program discontinuation. (Education Code Section 78016)

## 3.6 Designate, and provide capacity for, an entity to be the primary provider of labor market information (LMI) and analysis to the regional consortia and member colleges. This entity could be the Centers of Excellence, or a new entity created as part of the ongoing reorganization of EWD/CTE, or an entity under the Workforce Investment Act/Board umbrella. Colleges could rely on this source to guide the CCC's program development and planning, but could use other sources as appropriate. (Title 5 Section 55130)

## 3.7 Establish an advisory committee for each CTE program at the regional level, organized by industry sector (perhaps with subcommittees for specialized programs), rather than by individual program. Such regional committees would replace local college advisory committees where appropriate and provide for better alignment across local advisory committees where local committees were judged necessary. Develop procedures by which these regional advisory committees would be informed by, and inform, the Statewide Advisory Committees funded under the federal Carl D. Perkins Act. (Title 5 Section 55601)

# Criterion 4: Efficient Pathways Exist for Career Advancement through Credential Levels

## Vision for Student Success

Students seeking a career-oriented credential can earn shorter- and longer-term certificates, in a logical sequence, that help them gain entry into the workforce, followed by career advancement as they earn additional credentials, including associate degrees that encompass general education and the CTE specialized coursework. In those CTE fields that comprise a progression of professional and technical competencies appropriate to associate degree-level learning, students understand how they can move through beginning, intermediate, and advanced credentials, and their lower-level coursework counts toward higher-level credentials. Students beginning in noncredit CTE or short-term job training programs are informed of options for moving into credit programs in similar fields, including options to convert noncredit learning into credits as appropriate.

## Problems/Barriers

### A. Career Credentials a Lesser-valued System Mission

Student pathways through career credentials are impeded by a weak priority on the award of career-oriented credentials that reflects the historically important role of transfer across the system. Associate degree options are weak for students seeking career entry directly from community college, as the traditional associate degree was designed to reflect the two-plus-two transfer pathway under which students are expected to complete only 18 credits in a substantive field, far fewer than students need to acquire expertise in a career field. No effort to develop associate degrees for non-transfer-bound students has accompanied the promising SB1440 transfer associate degree reform. California is one of only two states that does not award *applied* associate degrees intended for students who seek employment upon community college completion.

Most certificates awarded are short-term<sup>16</sup> – and may not be parts of sequences that students can readily combine as they progress through levels of skill acquisition. While some short-term, stand-alone certificates likely serve some students well, particularly incumbent workers looking to obtain or upgrade specific job skills, most students would be well served by a more deliberate approach to the development of sequential certificates, or longer-term certificates, that provide a clear pathway to career entry and advancement.

A serious barrier to associate degree completion is the absence of basic skills proficiency requirements for most certificate programs and the lack of priority given to ensuring adequate basic skills instruction for CTE students pursuing certificates. Since certificate completion does not require completion of college-level English or math, these students are generally advised away from the regular basic skills sequence as they do not have to demonstrate “college readiness.” CTE faculty report that they try to teach needed basic skills as part of the technical curriculum, but systemwide support for such “contextualized” instruction has been weak and the CTE courses that have been designed to provide contextualized basic skills do not count as prerequisites for degree-applicable English or math courses. Consequently, most CTE students never get on an associate degree pathway, which limits their credential options to certificates.

Barriers to smooth pathways to completing CTE programs are found as well in administrative structures designed for the transfer mission. There is limited flexibility within the traditional structure of the academic semester, the course registration process, and the contact hour basis of faculty compensation to offer CTE programs in short-sequenced, cohort, or academy formats that may be more effective in moving students through to completion. Some colleges find ways to work around the systems but the systems themselves are not well adapted to these needs.

# Criterion 4: Efficient Pathways Exist for Career Advancement through Credential Levels

## B. Insufficient Focus on Program Outcomes

The CCC is well known for the strength of its data systems and the breadth of its accountability report. However, as will be discussed in greater detail for criterion number six, accountability for CTE has not involved individual program outcomes. This approach reinforces a lack of attention to structuring strong programmatic pathways for students that could lead to more students earning certificates and degrees. Students have a wide variety of courses, certificates, and degrees from which to choose, but when the value and sequencing of various offerings are not clear, student progress through stages of skill building can be impeded. Student pathways from noncredit workforce training into credit programs would also be strengthened by greater attention to programs and their outcomes. California supports noncredit workforce training in a variety of ways but there is no systematic, proactive effort to help students move seamlessly from noncredit to credit, to facilitate “on-ramps” to CTE pathways and eliminate the need to repeat coursework.

## C. Variability in College Practices and Programs Confusing to Students

As the Legislative Analyst has documented in a recent report on adult education,<sup>17</sup> there is no systemwide consistency to the distinction between for-credit CTE and noncredit CTE. The same courses or programs are offered for credit in one college and noncredit in another, or even both ways within a single college, creating confusion for students and potentially creating barriers to credential completion. Local variability in the structure of CTE programs themselves can also impede student movement through pathways. For example, if system policy encouraged colleges to stack or sequence more certificate programs in consistent ways within like fields, students would have clearer roadmaps to follow to advance in their chosen fields.

Certificate offerings fall into two general types – industry-recognized and locally-developed. For the former, there are external standards that could guide colleges toward less local variability and more structured pathways. For the latter, there is currently no expectation or incentive for the system to try to achieve more consistent program structures and pathways where such would better serve students.

## Possible Policy Changes

- 4.1 Develop a resource for colleges that shows how short-term certificates have been sequenced to form longer-term certificates and/or associate degree programs in selected fields. Address both industry-recognized certificates and locally-developed certificates since the latter, especially, present a complex variety of options for students.
- 4.2 Authorize the community colleges to offer the applied associate degree (AAS) as is done in 48 states. Alternatively, modify relevant Title 5 sections to recast the non-transfer AA/AS degrees to make them more explicitly aimed at preparation for employment since, at present, they do not serve students well either for transfer or for employability. (Education Code Section 66010; Title 5 Section 55061-63)
- 4.3 Consider ways to improve the acquisition of basic skills by CTE students
  - Adopt a policy to address basic skills proficiency in certificate programs that recognizes the diversity of certificate programs. For example, programs over a certain unit length could choose from a set of options including use of an industry-approved certification exam, a standardized workplace readiness assessment instrument, or a capstone assessment developed with industry input.

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- Designate a funding source to support the development, implementation, and evaluation of contextualized approaches to basic skills to serve students enrolled in CTE programs. In order to be affordable and scalable, consider designing courses to serve students enrolled across a broad cluster of related programs of study (e.g., health/medical, computer/media, engineering/science) rather than courses to serve more specialized purposes.
  - To ease pathways for CTE students into college-level English and math courses, establish conditions under which contextualized courses are designated as acceptable prerequisites for degree-applicable math and English, and modify assessment/placement processes to direct students to assessment after they complete contextualized courses that are not designated as prerequisites.
- 4.4 Devise standardized means for colleges to register and account for students in sequences of short courses and to compensate faculty workload in ways that equitably support non-traditional delivery designed to increase student learning and reduce time to completion.
- 4.5 Consider ways to improve articulation of credit with noncredit
- Develop systemwide guidelines to improve consistency across colleges in what CTE courses are offered for credit versus noncredit. Consider ways that such a policy could encourage colleges to minimize the for-credit offering of stand-alone, short-term certificates that may serve immediate industry needs but do not help students earn more substantive college credentials.
  - Develop systemwide guidelines for articulating noncredit and credit courses for both pre-collegiate and CTE coursework to facilitate seamless movement from noncredit to credit and maximize credit awarded for learning already attained.
  - Modify Title 5 section on credit-by-exam to offer standards, models, or guidelines to ensure more consistency across the system for how students may gain credit from noncredit coursework and to maximize portability of such credits across the system. Consider allowing credit-by-exam on a more flexible basis than just for individual CTE courses, in order to allow students to demonstrate skills and competencies that would match learning outcomes for more than one course. Colleges taking advantage of this flexibility would help students accelerate progress toward completion. Perhaps limit such options to programs that have developed statewide learning outcomes. (Title 5 Section 55050)

# Criterion 5: Students and Employers Understand the Skills and Competency Outcomes of Credential Programs

## Vision for Student Success

Students understand, when they select a CTE program of study, what the program is preparing them for and which skills and competencies they can expect to acquire if they complete the program. Similarly, employers understand the value of credentials that students bring to them, in terms of skills and competencies. Wherever possible, according to the characteristics of various industry sectors, the skill and competency learning outcomes of CTE programs reflect industry standards and/or industry expectations for technical skills, basic skills proficiency, and soft skills. Students can transfer CTE program credits easily between colleges because similar programs at different colleges are aimed at meeting the same industry-aligned learning outcomes.

## Problems/Barriers

### A. Academic Quality Control Not Fully Extended to CTE

Community college faculty, through academic senates, are the appropriate guardians of academic content and rigor. The guardianship role has not extended fully to CTE in that there are no systemwide standards for basic skills proficiency among certificate completers and no systemwide processes for ensuring that students who earn college certificates attain minimum levels of proficiency. Yet the national consensus is that “career readiness” entails the acquisition of some minimum competencies, including reading, writing, and math. Employers regularly report that new and prospective hires lack basic career readiness skills. With inconsistent approaches to teaching basic skills as part of technical coursework, neither students nor employers can be assured that students will acquire these basic proficiencies by completing college certificate programs.

One widely recognized consequence of the lesser priority accorded to CTE, however implicit or inadvertent, is that institutional silos separate CTE and its EWD counterparts from the core academic units of the college system. In theory, EWD representatives are in close contact with industry and employers and can use their knowledge of economic and workforce trends to help keep CTE programs vital. In practice, EWD has had insufficient impact on curriculum.

### B. Insufficient Focus on CTE Programmatic Learning Outcomes

With just a few exceptions, statewide curriculum frameworks and learning outcomes have not been developed for CTE programs in the community colleges. Yet many CTE programs would seem to lend themselves to just such frameworks, as evidenced by the development of frameworks for the state’s K-12 CTE programs, the existence of industry standards from groups like the National Association of Manufacturers and the National Restaurant Association Educational Foundation,<sup>18</sup> and the federal funding, under the Carl D. Perkins Act, of statewide advisory committees. Yet the CCC has traditionally approached enrollment, planning, and learning outcomes more in terms of courses than in terms of academic programs.

### C. Excessive Local Variation Devalues Students’ Credentials

Substantive learning outcomes of college programs, in general, are defined by faculty and are increasingly subject to assessment as driven by accreditation and other forces. Many CTE programs are aimed at specific employers, industries, and/or jobs for which external expectations on which to base learning outcomes can be discerned and which are, in many cases, quite standard across regions of the state and the nation. Many of the CTE faculty with whom we consulted strongly favor reducing the variability across similar programs so that students, regardless of which and how many colleges they attend, can be assured of instruction aimed at industry standards.

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These faculty question the value for students of having each college independently identify relevant learning outcomes and develop its own curriculum to address those outcomes, except for programs explicitly designed to meet a unique local need. As a result of decentralized processes, similar programs at different colleges, even in the same region, can be of vastly different scope and content, sending confusing signals to students and employers about the expected skills and competency outcomes of CTE programs. The variability of program content across colleges impedes student transfer among institutions and devalues the credential because employers can't be sure what skills and competencies a credential entails and students cannot be sure whether they are choosing a program that will make them employable.

While many CTE faculty would favor systemwide curriculum standards to guide their own program development, there is no central resource to help faculty identify the skill and competency standards that are endorsed by industry or otherwise sought by employers (e.g., industry certification standards, licensing requirements, standards of a professional organization) and no incentive for faculty to come together to develop systemwide skill and competency standards for a discipline. Colleges are required to have local industry advisory committees that, in theory, can help with curriculum development. But these mechanisms operate at quite varying levels of effectiveness across the system and at an insufficient scale to help produce statewide curriculum frameworks. The Statewide Industry Advisory Committees have not been assigned a clear role to develop such frameworks or to engage with local advisory committees. Consequently, those faculty who want to work toward more consistent curriculum in their fields, across the system, lack support and resources for doing so.

## Possible Policy Changes

- 5.1 Authorize a process to develop statewide standards and frameworks for CTE programs, for optional, and incentivized, college use. Key participants could include the Statewide Advisory Committees, discipline faculty, and EWD industry sector representatives. Frameworks would set forth the standards for basic, intermediate, and advanced certificates as well as for associate degrees in each field. Incentives for colleges to use these frameworks could be in the form of simplified and assisted program review, or in the case of new program proposals, in an expedited approval process.
- 5.2 Develop an expedited approval process for CTE programs that adopt a common, standardized curriculum as maintained in a "program library" by the Chancellor's Office. Programs will be submitted to the Chancellor's Office for inclusion in the program library by systemwide discipline groups that develop statewide learning outcomes for degree and certificate programs. Certificate programs that would be prime candidates for the library are those designed to prepare students to pass industry certifications that will help them obtain employment. (Title 5 Section 55130)
- 5.3 Develop and maintain a listing of external sources of skill and competency standards as a resource for college faculty to ensure that curricula will best serve students in the workplace. These sources would include licensure requirements, industry certifications (both optional and required certifications), specialized accreditation, and industry-endorsed learning outcomes and standards.

# Criterion 6: Credentials Have Market Value for Students, as Validated by Outcomes Data

## Vision for Student Success

Students choose from a set of college CTE programs that are targeted to meet the needs of the region and are valued by regional employers. Employers are engaged with the colleges to ensure that programs are vital and students are well prepared. Colleges monitor the outcomes of each program offered, including completion rates, employment, and wages, and modify the program mix and curriculum as outcomes data warrant. Students are helped to understand their educational goals (which may or may not include completing a certificate or degree program) and colleges use data on student goal achievement to understand how well students are served.

## Problems/Barriers

### A. Critical Aspect of CTE Mission Poorly Supported

Work-based learning opportunities help students develop the skills and behaviors that employers seek and build connections with employers that can enhance employment prospects upon program completion. But work-based learning opportunities are not well supported in the CCC. Comparatively few students participate in Cooperative Work Experience Education (CWEE) or apprenticeships, which are the main work-based learning opportunities. The high workload involved to administer quality work experiences for students is beyond the capacity of many CTE programs and college budgets. Employers lack incentives to engage with colleges around work-based learning, particularly as they may be approached by multiple colleges to do similar work.

### B. CTE Program Outcomes Not Well Accounted For

Community college students are not required to declare majors (also called “programs of study”) as they are in California’s public universities. Therefore, colleges lack comprehensive data on which students are attempting to complete which program. Without such data, there is no basis to fully account for program outcomes, including the rates of program completion or employment,<sup>19</sup> or even the health of such programs in terms of numbers of enrolled students. Instead, accountability in CTE has consisted primarily of counts of credentials awarded in each field and *course* completion rates, neither of which

tells us enough about the effectiveness of CTE programs. The Chancellor’s Office has developed a means to infer a student’s intended program based on the courses they have taken over three years, but this method does not help colleges identify and appropriately advise students while they are attempting their programs.

Meaningful accountability for the labor market value of certificate programs poses a particular challenge, because certificates vary greatly in length and scope and value may come from combining a number of certificates. Accounting for outcomes is further complicated by the fact that students may achieve employment or wage gains by completing one or more courses to upgrade skills or prepare for an industry certification. Labor market outcomes like employment and wage gains are important indicators to complement completion data, but good data to assess these outcomes by program are not yet available.

### C. Too Much Dependence on Individual Colleges

Colleges and their limited CTE faculty are expected to do too much individually to engage fruitfully with local and regional industry and employers to develop and maintain vital programs, analyze labor market needs and outcomes, devise better methods of assessing outcomes, and provide for the kinds of work-based learning experiences that will increase students’ employment prospects. With multiple colleges in each region, there are many benefits of scale that could be realized to make faculty workload more manageable and ultimately serve students and employers better.

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## Possible Policy Changes

6.1 Initiate efforts to revitalize formal apprenticeship programs for community college students to include consideration of the following:

- Enact tax or other incentives to encourage more employers to participate in apprenticeship programs with community college programs.
- Strengthen the Chancellor's Office role to help colleges develop articulation between apprenticeship programs and certificate and associate degree requirements so that more students in apprenticeship programs earn credits toward a degree or certificate in addition to earning the industry-recognized credential of apprenticeship completion.

6.2 Consider ways to improve work-based learning to help students be employable upon program completion.

- Amend Title 5 (Section 55252) to remove the general work experience component of CWEE in order to place priority on work-based learning related to a student's program of study.
- Amend Title 5 (Section 55252) to allow for consortia of colleges and districts to jointly operate occupational CWEE programs to take advantages of scale and reduce the workload burden on faculty and employers.
- Develop new regional approaches to work-based learning, geared to the industry sector priorities established by each region; devise means to fund work-based learning through apportionments.

6.3 Improve accountability for student outcomes by program

- Specify that Education Code section 84754, which conditions receipt of funds on the provision of data, includes the provision of records on the numbers of students enrolled in each CTE program, using students' declaration of course of study as will soon be required by the Student Success Act.
- Expand the new CTE completion rate developed as part of the Accountability Reporting for Community Colleges (ARCC) system<sup>20</sup> to include measures of progress and completion by CTE program area. The

new metric reports only aggregate CTE completion rates for each college but does not report rates by program area.

6.4 Devise systemwide metrics to differentiate between "non-completers" who drop out of a program and "non-completers" who complete the few courses they enrolled in for purposes of skill development or career advancement.

6.5 Expand the range of student outcomes that are routinely reported.

- Amend Title 5 (Section 55072) to clarify that districts will automatically award certificates and degrees to students who have completed all requirements, rather than making students apply to receive them.
- Record all completed certificates on a student's transcript with a notation as to whether a certificate is approved by the Chancellor's Office. (Currently only those certificates that require Chancellor's Office approval are transcribed.) If the colleges refocus certificate offerings on those with proven workplace value, through more rigorous program review and better alignment with industry certifications and standards, it is reasonable that all earned certificates be on transcripts. There could also be a notation to indicate if a certificate is industry recognized. (Title 5 Section 55070)
- Incorporate exam pass rates into accountability metrics for programs preparing students for occupations with state licensure exams. This will require that the state agencies administering the exams provide data on pass rates to the Chancellor's Office.
- Include in program reviews available data on how well students perform in gaining national, state, or industry credentials, placing an emphasis on alignment with external certifications. (Education Code 78016)
- Require the Division of Apprenticeship Standards of the Department of Industrial Relations to share information with the Chancellor's Office about student completion of apprenticeship programs, and include completion of apprenticeship in relevant accountability metrics in ARCC.

# Criterion 7: Resource Allocation for CTE Programs is Predictable and Responsive to Workforce Priorities

## Vision for Student Success

As an issue of equity, a student who enrolls in a community college seeking a career-oriented certificate or degree is served by a program and faculty that are as equipped to offer a quality program as is the case for a student who enrolls in a transfer-oriented program. Essential components of an effective CTE mission is accommodated in regular funding and faculty workload compensation such that student success is not excessively dependent on a college's capacity to compete for non-state funds.

## Problems/Barriers

### A. Core Aspects of CTE Mission Not Recognized in Resource Allocation

Many CTE programs cost more than non-CTE programs because their technical and specialized character requires smaller classes and specialized lab equipment and supplies. Yet in the CCC all enrollment is funded at equal rates. As a consequence of their higher cost, CTE programs that could be justified on the basis of need may not be fiscally sustainable. CTE courses have taken disproportionate cuts in recent years as college officials have been forced to sacrifice CTE courses for courses that yield higher enrollments for a given expenditure. A similar issue arises because faculty workload compensation in the college system is based solely on teaching, but CTE faculty typically incur essential non-teaching workloads. They are expected to maintain ongoing interactions with employers, establish and work with industry advisory boards, acquire external funds and comply with myriad reporting requirements, design and maintain laboratories, stay abreast of rapidly changing technologies, conduct statutorily mandated program reviews every two years (other programs are reviewed about every six years for accreditation purposes), and obtain and analyze labor market data. These tasks are either undertaken by faculty without explicit compensation or they are done incompletely, which reduces the quality of the program.

With insufficient core funding, CTE programs are reliant on an array of competitive grants. Such reliance on external funds creates inequities across colleges to the disservice of students not fortunate

to attend a college with extensive grant-writing capacity. It also can work at cross purposes to the development of a stable, coherent CTE strategy as colleges pursue short-term grants for purposes that may not align with their top priorities. Grant-supported activities are often not sustainable when the grant expires.

### B. Insufficient Program/Outcomes Focus

The system's orientation to resource planning on the basis of enrollment and courses, rather than programs of study, has not served CTE students optimally. As budget reductions have forced cuts to class schedules, colleges have eliminated courses that are low enrolled and/or taught by adjuncts, rather than eliminating programs that are of lower priority or quality. This can lead to degradation across all programs rather than to protection of high-quality, high-need programs. The reliance on myriad external funding sources also can compromise program quality and integrity as colleges are forced to comply with individual funding source requirements rather than use available funds to sustain priority purposes.

### C. Excessive Costs from Failure to Realize Benefits of Scale

Although concerted efforts are underway to strengthen regional planning, state and system policies are heavily geared toward each individual college working independently. Each college now must develop programs and curricula, obtain and analyze labor market information, establish and cultivate partnerships with industry, employers, schools, workforce investment boards, and

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community organizations, and seek opportunities to acquire external funds. There are many lost opportunities for colleges to work together to be both more effective in serving students and more cost-effective in avoiding duplicative activity. In some cases, colleges may need fiscal or other incentives to work collectively and in others they may need only a change in the policies that now require them to work as independent entities.

## Possible Policy Changes

- 7.1 Modify the basic college funding model in one or both of two ways to recognize the value and cost of the CTE mission: (1) fund colleges for enrollment *and* for student completion of associate degrees, including those in occupational fields, as a means of embracing the building of career pathways as a core mission of the college system to be supported from base funds; and (2) introduce differential funding whereby enrollments in courses that meet certain definitions of high-cost/high-need would generate higher per-student dollar amounts.
- 7.2 Institute a cost-differential fee program for designated high-cost programs, according to a set of criteria for what constitutes “high-cost.”
- 7.3 Loosen the restrictions on which instructional materials fees can be charged to students in order to increase resources available to students in the classroom. (Education Code Section 76365; Title 5 Section 59400)
- 7.4 Develop a proposal for phasing out competitive grant funding to meet SB1070 career pathways goals and instead using available funds (including apportionments) to support equitable access by students across the state to career pathways in high-value, high-need programs of study.
- 7.5 Develop models to demonstrate how non-teaching workload (e.g., internship coordination, lab equipment design, curriculum development) could be credited to faculty through such means as extended year, stipends for overload, or summer pay, and how this workload could be shared across colleges within a district or region to achieve economies of scale and reduce workload burden on individual faculty. Adopt policies to encourage use of these models.
- 7.6 Develop various incentives – financial and otherwise – to encourage colleges to work together in consortia and/or regions, e.g., to share programs, align curriculum, consolidate industry and employer engagement activities, and share administrative duties for work-based learning.
- 7.7 Examine the funding model for noncredit CTE to see if there are noncredit classes that warrant funding at the same level as credit classes.
- 7.8 Ensure stable, long-term funding for the emerging regional structures necessary to support regional collaboration across colleges. College base funding is not sufficient or structured to support the work of convening, facilitating, and managing regional collaborative efforts. Much of this is currently funded by federal grants and EWD funds.

# Conclusion – A Framework for Guiding Policy Reform

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The California Community Colleges are vital to closing the projected shortfall of Californians with a postsecondary credential and sustaining the state's economic competitiveness. Increasing the number of students who pursue and earn certificates and associate degrees in CTE fields is an important component of the postsecondary completion challenge, but one that has been under-emphasized in a system with a strong and historic commitment to its transfer mission. In today's economy, well-designed CTE programs offer economic security to students and the foundation for further educational and economic gain.

An increasing emphasis on student success is evident across the community college system. As might be expected in such a large and decentralized system, considerable energy and reform efforts are occurring at the individual college level through experimentation and changes in institutional practices. Achieving change on a systemic scale is always a challenge – one that can be addressed in part through changes to state policy to align expectations, standards, and incentives with student success goals. Owing in part to the work of the Student Success Task Force, which issued recommendations in 2011, significant policy changes are being enacted to ensure that student success gains can occur on a systemwide scale and in a consistent manner that treats students equitably irrespective of the college they attend.

Although many aspects of the focus on student success pertain to students regardless of their educational goals, unique characteristics of the CTE mission warrant special attention to ensure that students have the opportunity to earn skills and competencies that are valued in the labor market. This report is intended to enhance the policy impact of the Student Success Task Force by focusing explicitly on policy as it affects the CTE mission. The Chancellor's Office is introducing fundamental changes intended to strengthen CTE, and college faculty and staff are working to respond to the new expectations. These changes have the potential to improve college practices considerably. But their impact will be greater if they are accompanied by policy reforms that establish consistent expectations, standards, and incentives for CTE student success on a systemwide scale.

In many cases, the policies that currently guide the actions of students and colleges have not been purposefully designed to support the CTE mission. Our research was intended to address this shortcoming through a systematic analysis of laws and regulations that may create barriers to more effective CTE. We offer a menu of ideas for revising some policies and adopting new ones. Changes to the policy infrastructure that shapes the CTE mission may ease the constraints faculty and staff face in serving students and their regions. In addition, we direct the reader's attention to Part III in this series which includes many examples of specific state policies in other states.<sup>21</sup>

Across the community college system, an array of impressive programs are preparing Californians to enter and advance in the workforce. It is to the immense credit of the community college system that such programs have been built and maintained in the face of daunting challenges – including the less-than-ideal policy environment that we have outlined in this report. But results are inadequate for students and the state. Much more can be done within a policy environment that is more supportive of the CTE mission. Programs will be more vital, more students will know about and choose them, and more students will earn credentials and skills that will serve them well in today's economy. It is undeniable that California's future depends on better educational outcomes and that the career education provided by the community colleges must be a central part of reform efforts.

# Appendix

Relevant Criteria	Education Code Section	Brief Description of Statute
1,4	48800	Provides that local governing boards may authorize students who would benefit from “advanced scholastic or vocational work” to attend classes at a community college, with their principal’s recommendation and parental consent. The school and community college determine the appropriate credit that these students receive.
2	49600	Allows, but does not require, school district governing boards to provide a comprehensive educational counseling program to include academic counseling, education planning, college planning, and career and vocational counseling.
1,2,7	51220(i)	Requires the adopted course of study for grades 7-12 to include CTE in the numbers appropriate to the needs of the state and the community and relevant to the career desires and needs of the pupils.
5	51226	Provides legal authority to State Board of Education to develop the CTE standards and framework for K-12.
6	51760.2	Authorizes regional and local business organizations, in conjunction with school districts and community colleges, to develop guidelines for establishment of work-based learning programs within the context of the state's CTE plan and state board standards. Specifies that the guidelines shall ensure that workplace learning opportunities are linked to academic learning objectives and provide skills for future employment or postsecondary education.
4	66010.4(a)(1)	Indicates that CCCs may grant associate in arts and associate in science degrees.
3,5	70901-2	Sets forth respective roles of Board of Governor and local district governing boards in setting academic standards, determining curriculum, and approving programs.
2	72620	Allows, but does not require, community colleges to provide counseling to include educational, career, and personal counseling.
1	76001 - 76002	Defers to school and community college district boards the determination of whether a student who completes a concurrent enrollment course will be awarded high school credit, college credit, or both. Allows governing boards to limit enrollment of high school students based on age, grade level, and eligibility based on assessment results.
1	76300	Allows, but does not require, local college districts to exempt high school students from enrollment fees for concurrent enrollment courses.
7	76365	Specifies the conditions under which districts may require students to provide materials that are of continuing value to the student outside of the classroom setting, including, but not limited to, textbooks, tools, equipment, clothing, and those materials that are necessary for the student's vocational training and employment.
3,6	78015	Directs governing board to conduct a job market study of the labor market area before establishing a vocational or occupational training program to determine whether the program is justified given both the anticipated employment demand and the existing supply of vocational programs.

# Appendix

Relevant Criteria	Education Code Section	Brief Description of Statute
3,6	78016	Requires each vocational program to be reviewed every 2 years by the governing board to ensure that it (1) meets documented labor market demand, (2) does not represent unnecessary duplication of other programs in the area, and (3) is of demonstrated effectiveness as measured by employment and completion success of students. Any program that does not meet these standards should be terminated within one year. Review shall include comments by local Private Industry Council ( <i>now called WIBs</i> ).
2	78212	Sets forth colleges' responsibility to help students develop an education plan leading to a course of study and students' responsibility to identify an academic and career goal upon application and to declare a specific course of study after a specified time period or unit accumulation.
6	78214	Requires all districts, with the assistance of the chancellor, to maintain institutional research to evaluate the effectiveness of the Student Success and Support Program. The metrics for the research shall include educational goals and courses of study, and the evaluation shall include assessment of effectiveness in helping students to define their academic and career goals and declare a course of study.
4	78401	Authorizes governing boards to maintain classes for adults for the purpose of providing instruction in civic, vocational, literacy, health, homemaking, technical and general education.
4,7	84750.5	Sets conditions for apportionment of state funds to districts based on full-time-equivalent enrollment.
6	84754.5	Establishes a program for the annual reporting and evaluation of district-level performance in achieving priority educational outcomes with several components, including requirements that (a) districts provide data to the Chancellor's Office as a condition of receiving funds specified in the annual Budget Act; (b) Chancellor's Office prepares an annual report using performance data for each district; (c) the report's outcomes measures include student progress and achievement related to degrees, certificates and transfers, and vocational, occupational and workforce development; and (d) each district board review and adopt its contributions to the annual report at a public meeting.
4	84760.5	Describes funding allocation for noncredit, including Career Development and College Preparation.
3	84890	Allows districts to establish a flexible calendar, subject to approval of Board of Governors (BOG) (having a flexible calendar is a condition for the "flex time" approach to professional development).
3	87150 - 87154	Establishes the Community College Faculty and Staff Development Fund under which districts can receive an allocation up to 2% of the prior year's fiscal revenues for professional development uses, subject to annual appropriations for the fund in the Budget Act.
2,3,6	87356 - 87359	Instructs BOG to adopt regulations to establish and maintain the minimum qualifications for faculty, including counselors and apprenticeship instructors. States that a person performing counseling services shall be qualified as a counselor. Also directs BOG to: define "discipline" (based on Academic Senate advice); maintain a list of disciplines that are reasonably related to one another, including a list of disciplines in which the master's degree is not generally expected or available; periodically review each district's application of minimum qualifications; and set forth a process authorizing local governing boards to employ faculty who do not meet minimum qualifications but possess qualifications at least equivalent.

Relevant Criteria	Education Code Section	Brief Description of Statute
3	87743 - 87746	Requires tenured and probationary faculty to be given proper notice of the termination of their services for either a reduction in attendance or discontinuance of a particular service. Directs governing boards to make assignments and reassignments appropriate to faculty seniority and qualifications. Each college must establish faculty service areas and identify which area(s) each faculty is qualified for, and use that as a basis for assignment/reassignment. Outlines rights of regular employees who have been terminated under these provisions.
1,2,6,7	88532(a)(b)	Calls for Chancellor and Superintendent to improve linkages and CTE pathways between high schools and community colleges, increase the readiness of school-age pupils for postsecondary education and careers in high-need, high-growth, or emerging regional economic sectors, and to ensure seamless transitions. Calls for institutions to "...provide professional development to middle and high school <i>teachers</i> and community college <i>faculty</i> to improve their delivery of career-oriented academic and technical education."
1,7	88532(c)(f)	Directs Chancellor and Superintendent to award first priority for SB1070 grants or contracts to those applicants that can demonstrate regional collaboration to create new pathways that begin with foundational preparation or exploration in middle school, continue with high-school-level courses that combine rigorous academics with career education, and are articulated with local community colleges and universities. Requires grantees to submit annual outcome-based data for evaluation that would be considered in determining eligibility for renewal of funding.
Relevant Criteria	Title 5 Section	Brief Description of Regulation
2	51018(b)(c)	Directs the governing boards of community college districts to provide and publicize an organized and functioning counseling program in each college to include academic, career, and personal counseling. Services shall be provided to first-time students enrolled in more than six units, students enrolled provisionally, and students on academic or progress probation.
3,6	51022	Directs the governing board of a college, within six months of formation, to adopt and carry out policies for the establishment, modification, and discontinuance of courses or programs. Such policies shall incorporate statutory responsibilities regarding vocational or occupational training programs in Ed Code section 78016 (i.e., required two-year review).
3,5	53200 - 53203	Defines curriculum and educational program development as "academic and professional matters" about which local governing boards must "consult collegially" with the academic senate.
2,3	53400 - 53430	Establishes provisions regarding minimum qualifications for faculty, including credit faculty, counselors, noncredit instructors, and apprenticeship instructors. Specifies that community service and contract classes not awarding college credit are not subject to minimum qualifications.

# Appendix

Relevant Criteria	Title 5 Section	Brief Description of Regulation
3,4,5	55000 - 55003	Defines prerequisite as a "condition of enrollment that a student is required to meet in order to demonstrate current readiness for enrollment in a course or educational program." Specifies that a course shall have a prerequisite when curriculum committee determines that a student would be highly unlikely to pass without knowledge or skills not taught in the course and that, if success depends on communication or computation skills, the course shall require eligibility for enrollment in associate degree courses in English and/or mathematics. Outlines processes for establishing prerequisites and makes their establishment optional for courses not offered for associate degree credit.
4	55050	Requires that credit by exam be conducted and awarded separately on a course-by-course basis.
1	55051	Defines "articulated high school course" as a high school course that the faculty in the appropriate discipline have determined to be comparable to a specific community college course. Indicates that governing boards may adopt policies to permit articulated high school courses to be applied to community college requirements for a certificate program or the major or area of emphasis requirements in a degree program (not GE).
4,6	55061 - 55063	Specifies English/math standards for associate degree along with GE and major area of emphasis of 18 credits each; allows courses taught by other departments to count for English/math if entrance skills are equivalent to those needed for the English/math requirement. Directs governing boards to confer the associate degree on a student who has demonstrated competence in reading, writing and math, and who has completed at least 60 semester or 90 quarter credits of degree-applicable coursework.
4	55064	Requires governing boards to establish procedures for a student to petition to have a noncredit course counted toward satisfaction of the requirements for an associate degree, and to grant the petition if the instructor of the noncredit course certifies that the student has achieved competence in the subject matter at a level equivalent to that required for a degree-applicable credit course.
3,4,5,6	55070	Defines a certificate of achievement as any sequence of courses of 18+ semester credits, subject to approval by the Chancellor. Indicates that listing such a certificate on a transcript symbolizes successful completion of a pattern of learning experiences designed to develop certain capabilities that may be oriented to career or GE (but not basic skills/ESL). Specifies that shorter certificate programs can be offered with approval of the college curriculum committee and governing board but may not be listed on a transcript (though those of 12+ credits may be submitted for approval by the Chancellor), and indicates that each approved program must be included in the catalog.
6	55072	Instructs governing board to award a certificate to any student who has completed the prescribed curriculum leading to that certificate.
3	55100	Allows governing board to approve individual degree-applicable courses offered as part of a program approved by the Chancellor, non-degree applicable courses, and degree-applicable courses not offered as part of a program. Effective 2013, Chancellor must approve non-degree applicable courses and degree-applicable courses not offered as part of a program.

Relevant Criteria	Title 5 Section	Brief Description of Regulation
3,6	55130	Specifies approval process for credit programs, including need to obtain Chancellor's approval, required components of application for approval, and role of faculty in program development and evaluation. Approval is effective until program is discontinued or substantially modified. Authorizes Chancellor to evaluate approved programs and terminate those that should no longer be offered.
4	55150 - 55151	Describes approval processes for noncredit programs and articulates which noncredit courses are eligible for enhanced funding as Career Development and College Preparation.
6	55250 - 55257	Requires districts to adopt, for Chancellor's Office approval, a detailed plan for Cooperative Work Experience Education programs in order to claim apportionment. Specifies that work experience education in apprenticeable occupations must be consistent with regulations and standards of the California Apprenticeship Council. Specifies two types of work experience education including general work experience (supervised employment not necessarily related to students' goals) and occupational work experience (supervised employment extending classroom-based learning). Sets conversion of work hours to credits and limits on credits earned.
2	55523	Calls for colleges to make reasonable efforts to ensure all nonexempt students who (1) are on probation, (2) have not declared a specific educational goal, or (3) are in basic skills, receive counseling services, and that colleges make available to all students counseling and advisement on general academic requirements and course selection. Specifies that "appropriately trained instructor/advisors and/or other appropriately trained staff" can work in consultation with counselors to provide general advisement.
3,5	55601	Requires governing boards to appoint a vocational education advisory committee to develop recommendations on each vocational program and to provide liaison between the district and potential employers. Specifies composition of committee.
6	55675	Notes that the State Board of Education, the BOG and the Division of Apprenticeship Standards have jointly issued regulations (set forth in Title 8) regarding the calculation and payment of excess costs of apprenticeship classes in community colleges.
3	55700 - 55732	Allows districts with an approved flexible calendar program to designate as "flexible time" for faculty up to 8.57% of their contractual obligation for hours of classroom instruction, to be used for instructional improvement activities (up to 15 out of 175 days).
6	58008 - 58024	Specifies time accounting and funding for apprenticeship courses and related supplemental instruction.
7	59400	Prohibits the governing board of a community college district to require a student to pay a fee for any instructional materials required for a credit or noncredit course, unless the materials could be of use to the student outside the classroom setting.

# Notes

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- 1 Shulock, N., Moore, C., & Offenstein, J. (2011). *The road less traveled: Realizing the potential of career technical education in the California community colleges*. Sacramento, CA: Institute for Higher Education Leadership & Policy.
- 2 Dennis Jones, President of NCHEMS, presented data to the California Assembly Higher Education Committee on February 19, 2013 documenting that (1) California has a projected shortfall in college degree attainment (associate degree and higher) of 3.5 million degrees to reach the national goal of 60% attainment by 2025, (2) increasing high school graduation rates, college going rates, and graduation rates from public universities to the nation's best levels would close only 25% of the gap, and (3) most of the remaining gap could be closed if community college completion rates rose to match the leading states.
- 3 *California Community Colleges: Student Transfer*, Chapter 428, Statutes of 2010 (SB1440 Padilla).
- 4 The final report of the task force can be accessed on the Chancellor's Office website at: <http://californiacommunitycolleges.cccco.edu/PolicyinAction/StudentSuccessTaskForce.aspx>.
- 5 *Community Colleges: Seymour-Campbell Student Success Act*, Chapter 624, Statutes of 2012 (SB1456 Block).
- 6 All four reports are available at our website: [www.csus.edu/ihelp](http://www.csus.edu/ihelp). In addition, a policy brief summarizing parts I and II is available on the website and in hard copy.
- 7 See <http://doingwhatmatters.cccco.edu/>.
- 8 We do not mean to imply that Chancellor's Office officials endorse all of our suggested policy actions – only that they see the benefit of considering policy changes to complement administrative changes.
- 9 We built this framework based on the Bill and Melinda Gates Foundation framework for their *Completion by Design* Initiative that envisioned four points to a student's interaction with a college: connection, entry, progress, and completion. For each of the four areas we noted two levels of policies that could affect student success: governance policies (e.g., funding, data systems, approved degrees) and educational policies (e.g., concurrent enrollment, education plans, credential program structure, student support).
- 10 Where we can be specific, we list the section of statute or regulation that pertains to the suggested policy change, although we are not legal experts and may have failed to identify some relevant sections of law. We specified those that we could as a convenience for those interested in looking into the changes but they should not be considered an exhaustive list of potential target policies. There may also be more fruitful ways to address some of the concerns that we have raised than to change state law or regulation. The scope of this project, however, is state policy and how the infrastructure of policies aligns or misaligns with the goals of CTE. Therefore, our menu of options is limited to policy change, in full knowledge that there are other steps that could be taken that would improve program effectiveness and student success.
- 11 *Career Technical Education Pathways Program*, Chapter 433, Statutes of 2012 (SB1070 Steinberg).
- 12 The University of California and California State University require entering freshmen to complete certain courses in high school. These courses are called the "a-g" courses because of the letter each subject area is assigned: "a" is for History/Social Science, "b" is for English, etc.
- 13 According to Tony Carnevale, Executive Director of the Georgetown University Center for Education and the Workforce, 62% of middle-skill jobs pay \$35,000 or more per year and 14% pay \$75,000 or more. Thirty-one percent of entry-level associate-degree jobs and 27% of jobs requiring some form of licensure or certification pay more than entry-level Bachelor's of Arts positions. From interview accessed from: <http://www.communitycollegetimes.com/Pages/Workforce-Development/Preparing-America-for-middle-skill-work.aspx>.
- 14 Moore, C., Jez, S., Chisholm, E., & Shulock, N. (2012). *Career opportunities: Career technical education and the college completion agenda – part II: Inventory and analysis of CTE programs in the California community colleges*. Sacramento, CA: Institute for Higher Education Leadership & Policy.
- 15 Shulock, et al., 2011.
- 16 We found that over two-thirds of certificates awarded were of less than 30 credits. See Figure 18 in Moore, et al., 2012.
- 17 Legislative Analyst's Office (2012). *Restructuring California's adult education system*. Sacramento, CA: Author.
- 18 The National Association of Manufacturers (NAM), through The Manufacturing Institute, is partnering with ACT on a Manufacturing Skills Certification System to increase the number of qualified workers. The initiative will align industry-recognized skills certifications with career and educational pathways. The National Restaurant Association Educational Foundation has developed "ProStart" - an industry-driven curriculum leading to an industry-recognized certificate signaling the attainment of requisite industry skills.
- 19 Colleges are required to calculate program completion and employment outcomes as part of federal reporting requirements under the Carl D. Perkins Act. The method relies on identifying program concentrators based on their course enrollment over three years and is not useful for identifying and appropriately advising students as they are attempting to follow a program.
- 20 The CCC's new framework for its annual accountability reports can be found at <http://extranet.cccco.edu/Divisions/TechResearchInfoSys/Research/ARCC/ARCC2.aspx>.
- 21 Shulock, C., Chisholm, E., Moore, C., & Harris, L. (2012). *Career opportunities: Career technical education and the college completion agenda – part III: Promising CTE policies from across the states*. Sacramento, CA: Institute for Higher Education Leadership & Policy.





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