

***CAREER TECHNICAL EDUCATION:  
CREATING OPTIONS FOR HIGH SCHOOL SUCCESS***

**Executive Summary**

**LITTLE HOOVER COMMISSION**

*November 2007*

## *Executive Summary*

**A**s California grapples with high dropout rates and low proficiency scores, career technical education has entered the reform debate as one approach to keeping more students engaged in school and giving them the skills needed to succeed in a fast-changing economy.

CTE, formerly known as vocational education, is a new term that can mean vastly different things to different people. Although this has complicated the debate, it does not have to. The California Department of Education has issued CTE standards that make it clear that the content of CTE courses must be as rigorous as the content standards for high school academic courses.

From the state's perspective, the definition is clear: CTE means education that combines academic rigor and real world relevance. In many schools, however, CTE has all but disappeared. Where CTE survives, few courses meet the state's new CTE content standards.

The state is about to invest nearly \$400 million in CTE programs, much of it one time money. California voters have approved \$500 million more in bond money for CTE infrastructure.

The challenge the state faces in investing this money wisely is that it lacks a statewide strategy to integrate CTE into high school education, and it lacks a large body of conclusive research about what kinds of CTE programs produce improved student outcomes such as higher graduation rates, higher grades and greater academic proficiency.

Over the course of this study, the Commission found compelling evidence that academically rigorous career technical education could improve outcomes – compelling but not comprehensive or conclusive.

The Commission found that the state's system for governing and funding CTE mirrors the state's overall fragmented governance structure for its education system. Within CTE, governance and funding straddle three levels of government and two state departments. While these systems can and do work in concert, there also is discord and dysfunction. The fragmentation sometimes creates artificial barriers that limit access to CTE. In terms of accountability, the fragmentation makes it difficult to understand how much or how well money is spent on CTE.

It is clear that the present educational system is failing many. Roughly 30 percent of all ninth graders who enter high school disappear from the system before earning a diploma. In Los Angeles, home of the state's largest school district, the situation is even bleaker, with more than half of all high school students leaving before graduation. This, at a time when experts assert there is a shortage of workers needed for California's economy, both skilled technicians and college graduates.

The state cannot continue this failure without serious consequences. The state's economic well-being is at risk, as is the social fabric stretched by the growing number of Californians trapped in low-skilled jobs.

The Commission embarked on this study to better understand the research and issues so that it could make recommendations for how the state could best invest the new money available for CTE. The research, which suggests that CTE programs can keep students in school and help them learn skills required for future employment, is encouraging, but more evidence is required.<sup>1</sup> The state lacks data to track and measure outcomes of student participation in CTE. It needs to ramp up its data capacity – particularly the California Longitudinal Pupil Achievement Data System (CALPADS), its unique student identifier system – to enable policy-makers and educators to understand what is working.

Available research indicates that programs that combine career-themed coursework with rigorous academics are having a positive impact on students. Students participating in some of the state's CTE programs that have been evaluated are staying in school and graduating at rates higher than their peers. They are more likely to pass the high school exit exam; they are more likely to earn higher wages in jobs after high school; and, they are at least as likely to go on to postsecondary educational programs. Some studies show that those students at highest risk of dropping out benefit most from CTE participation. Other studies indicate certain subgroups of students who participate in CTE, including African Americans and Latinos, outperform their peers at even greater rates than CTE students overall.

Given the promising results, experts told the Commission that the state's schools need to make more academically rigorous CTE courses available to more students. It will not be the whole solution. But blending CTE into the state's overarching education strategy has the potential to improve outcomes for many – particularly those that are at greatest risk of dropping out.

## ***CTE – From the Margin to the Mainstream***

California must develop a strategy for integrating CTE into more schools across the state so that rigorous and relevant CTE courses can be an option for more students.

Career-themed high schools with programs touted as models have sprung up across California, but there is no process for measuring programs and ensuring effective programs are implemented statewide. The state has made a sound investment developing and adopting CTE standards and a framework, but schools lack the matching curriculum. The state also lacks any sort of mechanism to ensure that CTE content standards are embedded in CTE curriculum.

A few districts and schools have developed curriculum that meets the state standards, embedding statistics in classes on public health risks and high-level math to teach construction technology. The Commission found others have adopted nationally-acclaimed curriculum that meets state standards. But these represent only a small portion of the CTE courses taught statewide. The state must do a better job assisting local districts in developing and implementing successful CTE curriculum and program models.

New money has specifically targeted improving course progressions between high schools, Regional Occupational Centers and Programs (ROCPs) and community colleges so that students can progress along an established path that connects what they have learned from one course to the next. Still, there are exemplary programs at high schools and ROCPs with no corresponding linkage to community colleges. Likewise, there are outstanding community college programs with no feeder schools.

The governor and the Legislature have dedicated \$400 million over the next seven years to expand and improve CTE programs. The state has an opportunity with this cash infusion to make a difference for students and to improve California's economy by expanding its educated workforce.

**Recommendation 1: California must develop a strategy to, in the short term, evaluate, expand and replicate proven programs in districts that demonstrate they can support them. The state must use research results from its short-term strategy to create a long-term, evidence-based strategy to fully integrate academically rigorous career technical education into general education programs. Specifically, the state should:**

- ❑ **Expand and replicate successful career-themed high schools and effective CTE programs.** Through the Governor’s CTE Initiative grant program, the state should provide grant money to schools or districts that demonstrate they are implementing proven career-themed education models. The state should require those receiving grant money to track and report student performance. The state should provide technical assistance to help local districts identify and replicate academically rigorous CTE programs.
- ❑ **Expand the availability of academically rigorous CTE curriculum.** The state should specifically target a portion of its new CTE grants to expand academically rigorous CTE curriculum that meets state CTE standards. CTE grant recipients should be required to consult with business and industry in CTE curriculum development. Additionally, the state should provide grants for professional development to ensure that teachers are qualified to teach the new CTE standards.
- ❑ **Improve the process for qualifying CTE courses for the A-G requirements.** The state should require that all new CTE courses developed with CTE grant funding meet the California CTE standards and be rigorous enough to qualify for A-G credit. The University of California should be required to work with the Department of Education and local educational agencies to ensure rapid and consistent approvals of academically rich CTE courses so that more CTE classes meet the approval of the UC for its A-G requirements, particularly in core academic subject areas.
- ❑ **Align CTE courses into streamlined sequences.** The state should require all grant recipients to align their CTE courses and programs with course sequences in partner community colleges and ROCs. Such partnerships should include regional employers to help establish smooth paths for students in career-themed educational programs, as well as help them earn priority placement in postsecondary education programs that continue their career paths. The state should continue to evaluate the progress of the alignment effort and use evidence to further guide and improve course sequences.
- ❑ **Align funding.** The state should consolidate state CTE funding into one specific funding source to better coordinate and track CTE spending.

- ❑ **Measure results.** The state should fully implement the California Longitudinal Pupil Achievement Data System so that it can accurately measure dropout rates, graduation rates and the effectiveness of various educational programs, including CTE programs. The state should require local educational agencies to provide accurate data for CALPADS and provide funding to do so. The state also should further develop a data system to combine K-12, postsecondary and employment data information to measure post-high school outcomes.

## ***Connecting for CTE Success***

The state lacks a strategy for connecting education with workforce development and economic development. Previous efforts showed early signs of success, only to fall by the wayside when leadership changed or when funding disappeared. Efforts at the local level have shown mixed results.

As a result, California has not been able to sustain a state-level strategy for connecting education and workforce and economic development, and at the regional and local levels, many CTE programs lack the links that could align coursework with local economic conditions, enhancing connections and course sequences from high school to ROCP and community college programs. Such linkages are crucial to creating the work-based learning opportunities – such as job shadows, mentorships and internships – that both groups of stakeholders say they want.

Leaders from several model collaborative efforts described partnerships where high schools, districts, regional occupational centers, county offices of education and colleges had forged relationships with businesses, labor and local workforce investment boards. They used these partnerships to link curriculum and educational programs with state, regional and local workforce demands.

The state, as it works to reinvigorate the California Workforce Investment Board, should focus on bottom-up efforts at the regional and local level.

***Recommendation 2: To remain economically viable in the global economy and to ensure that education programs match workforce needs, California must better align its education, workforce development and economic strategies. Specifically, the state should:***

- ❑ ***Use existing money for incentives to develop and expand strong, high-level regional business and education partnerships.*** The state should commit part of existing CTE funding, including discretionary federal

money, to local county offices of education or community colleges to develop or expand regional partnerships that have demonstrated the capacity to produce measurable outcomes, such as creation of internships, job placement, successful CTE teacher recruitment or creation of a locally based CTE teacher credentialing program. These partnerships should work to advance integrated workforce development throughout the state. Local partners should include top local leaders, including superintendents from school districts and county offices of education; chancellors from local community colleges; presidents of local CSU, UC and private colleges, where applicable; leaders from the local workforce investment board; chief executive officers from local employers; and, county CalWORKs administrators. The regional partnerships should:

- ✓ Ensure CTE courses and sequences offered match high-demand jobs of the region and the state.
- ✓ Ensure that CTE curriculum and course sequences meet industry standards.
- ✓ Leverage local employers for work-based learning opportunities, such as job shadows and internships.

## ***Building Capacity***

The lack of educators qualified to teach to the state's new rigorous CTE standards is a major hurdle to sustaining and expanding CTE programs. The number of CTE course enrollments has declined 33 percent from 1987 to 2005, while the number of full-time equivalent CTE teachers has fallen 29 percent during the same period.<sup>2</sup> If schools are to upgrade their CTE curriculum to meet state CTE standards, they will need more teachers, and more teachers with better training. Experienced professionals find barriers that prevent them from easily moving into a teaching career.

In addition, career-themed schools require a new breed of leaders with different training and skill sets. Today's school leaders are accountable for improving academic proficiency, managing staff and students and forging partnerships with businesses, non-profit organizations and other educational institutions. A shortage of qualified counselors to guide students on career and college options also poses a barrier to expanding CTE.

The CTE credentialing process is a major barrier to increasing the number of teachers needed to expand CTE and upgrade programs with new curriculum that meets the state's CTE standards. The CTE credentialing system needs to be streamlined, aligning it with CTE

industry sectors to increase flexibility. Legislation to address this was passed in September 2007, and the California Teacher Credentialing Commission has formed an advisory committee to review this. Broader reform is needed. Artificial barriers, such as job-history requirements, prevent qualified professionals as well as teachers with previous industry experience from entering the CTE teacher workforce.

The Commission heard concerns that the state's primary training ground for new teachers, the CSU system, is not nimble enough to quickly adapt to the new standards. Most districts, however, lack training programs to help teachers upgrade their skills to teach more demanding CTE curriculum.

The state can address these issues by tapping county offices of education and local districts to develop and implement new training programs, pushing for a rapid overhaul of the credentialing process and removing barriers for qualified professionals. New money has been allocated for hiring more counselors. Some of it should be directed to developing CTE-specific counselors who can take the lead in working with a school's business community partners to create internships and other work-related learning opportunities.

***Recommendation 3: In order to improve student outcomes, the state must implement policies and remove barriers to expand the educational workforce, including teachers, administrators and counselors. Specifically, the state should:***

- ❑ ***Update and streamline the credentialing process.*** The California Commission on Teacher Credentialing should complete within two years its update of the CTE credentialing process, including aligning the CTE credential with the industry clusters established in the state board-adopted CTE standards and framework and eliminating barriers that make it difficult for industry professionals to enter the teacher workforce. Specifically, the commission should:
  - ✓ Revise the recent work history requirement.
  - ✓ Allow newly credentialed CTE teachers to participate in the Beginning Teacher Support and Assessment (BTSA) Induction Program.
- ❑ ***Require ongoing staff development.*** The state should require all Governor's CTE Initiative grant recipients to expand time for rigorous and structured staff development on blended CTE and academic curriculum. Specifically, the state should:
  - ✓ Require credentialing and other related education programs for principals to include training on developing and implementing CTE programs that meet the state's CTE standards.



- ✓ Provide incentives to local districts and schools to develop and expand their own credentialing programs to provide teacher certification for rigorous CTE courses. The state should provide incentives for districts and schools, where appropriate, to replicate successful district-based credentialing.
- ✓ Require CSU to assess teacher training and implement necessary changes to ensure new teachers are qualified to teach the rigorous CTE coursework based on the state's CTE standards.
- ***Provide incentives for professionals to teach.*** The state should implement programs and incentives to encourage mid-career and retiring professionals to enter the CTE teacher workforce. Specifically, the state should:
  - ✓ Provide incentives for team teaching approaches.
  - ✓ Consider tax incentives for businesses to loan professionals to schools.
  - ✓ Expand opportunities for summer externships so teachers get a better sense of the business world.
  - ✓ Lobby policy-makers at the federal level to eliminate the Social Security disincentive.
- ***Expand the number and role of counselors.*** The state should use previously approved money for local districts to expand the number of counselors trained in providing career advice, including postsecondary training and education options. CTE counselors funded with this money should take the lead role in outreach, serving as the main resource for generating internships and other job-based learning opportunities. The state should require Governor's CTE Initiative grant recipients to provide additional training for counselors about CTE programs and career options for students.