

Policy Goals of Career –Technical Education in an Era of Standards and Accountability:
A Federal and State Perspective

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Overview

In order to inform the Planning Meeting on “The Role of Career-Technical Education (CTE) in an Era of Standards and Accountability,” this paper will examine the goals of CTE embodied in current and proposed federal laws and in California state laws and policies that govern CTE.

Current Federal Law – The Carl D. Perkins Vocational and Technical Education Act of 1998

The federal government actually has a fairly long history of involvement in what is now known as CTE. One of the first forays of the federal government into education occurred in 1917 with the passage of the Smith-Hughes Act. The Smith-Hughes Act provided federal funding for agricultural, domestic science, and industrial education programs in the high schools, and for the college-level preparation of teachers in these subjects (Tanner & Tanner, 1980). Thus, the thrust of the Act was pragmatic: specific training in industry-based skills relevant to the early 20th century economy.

The Carl D. Perkins Vocational and Technical Education Act of 1998 (Perkins) now provides the bulk of federal funding and policy for CTE in the United States. Perkins represents a somewhat wider-reaching set of goals than Smith-Hughes, reflecting in turn corresponding change in the demands of the 21st workforce and postsecondary education.

To glean the goals of Perkins, one must examine several different parts of the Act. At the broadest level are the Act's stated purposes. The four purposes of the act as are as follows:

“The purpose of this Act is to develop more fully the academic, vocational, and technical skills of secondary students and postsecondary students who elect to enroll in vocational and technical education programs, by--

- `(1) building on the efforts of States and localities to develop challenging academic standards;
- `(2) promoting the development of services and activities that integrate academic, vocational, and technical instruction, and that link secondary and postsecondary education for participating vocational and technical education students;
- `(3) increasing State and local flexibility in providing services and activities designed to develop, implement, and improve vocational and technical education, including tech-prep education; and
- `(4) disseminating national research, and providing professional development and technical assistance, that will improve vocational and technical education programs, services, and activities.”

Clearly, these purposes are much broader than providing training in specific job-related skills. One new emphasis in the 1998 Perkins reauthorization (Perkins III) is an increased focus on integrating CTE and academics. Whether this rhetorical goal in the law has resulted in real change is an open question. According to the National Assessment of Vocational Education, by far the most definitive and comprehensive assessment of the Perkins law: (NAVE; Silverberg, Warner, Fong, and Goodwin, 2004):

“The current legislative approach of encouraging “integration” as a way to move secondary education toward academics has been slow to produce significant reforms. In large part, the pace and path of improvement are hampered by a *lack of clarity over the program's fundamental purpose and goal* (emphasis added).

To be fair, other parts of Perkins 1998 took more specific steps – at the time considered far-reaching - toward promoting more accountability for the law's broad goals. These

steps are included in two other sections of the Act regarding “Accountability” and “State Plans,” respectively.

Accountability and the State Plan. The 1998 Perkins Act outlined a short list of performance indicators that all states must use to evaluate their programs. For Perkins, this was a qualitative change in approach – toward objectivity and specificity - which surprised many states. One can also see, however, evidence of the “lack of clarity” and a broadness of purpose cited in the NAVE report:

“(2) INDICATORS OF PERFORMANCE-

“(A) CORE INDICATORS OF PERFORMANCE- Each eligible agency shall identify in the State plan core indicators of performance that include, at a minimum, measures of each of the following:

“(i) Student attainment of challenging State established academic, and vocational and technical, skill proficiencies.

“(ii) Student attainment of a secondary school diploma or its recognized equivalent, a proficiency credential in conjunction with a secondary school diploma, or a postsecondary degree or credential.

“(iii) Placement in, retention in, and completion of, postsecondary education or advanced training, placement in military service, or placement or retention in employment.

“(iv) Student participation in and completion of vocational and technical education programs that lead to nontraditional training and employment.”

The NAVE report comments:

“Perkins III (1998) offers a conflicting picture of priorities for vocational education improvement – academic achievement, technical skills, high school completion, postsecondary enrollment and degree completion, and employment and earnings.”

The current Perkins Act is a political document. As such, it clearly embodies, and attempts to bridge, some of the major arguments as to the most effective and equitable approach to vocational education.

Many recent reports have essentially equated successful CTE with concurrent college readiness. The American Diploma Project (ADP, 2004) and the Stanford Bridge Project (Venezia et al. 2004) assert that high schools are falling far short in facilitating high school completion and providing students with the skills they need to succeed in college and/or the workforce. Both the ADP and the Stanford Bridge Project found a striking similarity between the skills required for good jobs (with benefits) and the skills required for success in undergraduate education (ADP, 2004; Venezia et al., 2004). These studies argue for a “K-16” model of education that involves cooperation between elementary and secondary education systems, institutions of higher education, and employers.

Perkins is unclear whether or not it envisions academic programs of an equal level of rigor for both CTE and non-CTE students. There is a growing awareness about the inequities of opportunities offered to poor and minority students with regard to the rigor of courses available and the distribution of highly qualified teachers. For example, a recent NRC report on Advanced Placement and (AP) International Baccalaureate (IB) programs (NRC, 2002) -- two of the most established approaches to rigorous, advanced high school curriculum -- notes three key points: 1) minorities and low-income students are much less likely to have access to rigorous courses; 2) teachers have substantial leeway in implementing AP and IB courses, raising issues of varying quality and effectiveness; 3) validity for assessing student understanding and acquisition of knowledge from AP and IB courses is lacking and in many instances such assessments are superficial and narrowly focused.

Underlying these concerns is the fear the students with certain characteristics – poor, minority – are unfairly tracked away from more academic coursework and guided instead onto the vocational track under the assumption that they are incapable of more rigorous academic coursework. What is the role of career and technical education in this new environment? Is the high school coursework rigorous enough to enable students to exercise either or *both* of the work and college options? Are too many poor and minority students uniformly directed to a non-college track? The NRC report “Engaging Schools” (2004) argues for the elimination of tracking and for the access of all students to a demanding, college-prep curriculum. At the same time, the report summarizes some studies of small occupational theme-based high schools showing that at-risk students in such schools had improved school attendance, completion of core academic courses, and graduation rates when compared to at-risk students in traditional high schools.

Current Federal Law - The No Child Left Behind Act (2002)

The No Child Left Behind Act of 2002 (NCLB) emphasizes many of the themes underlying this debate over CTE, albeit at a more basic level. Over 70% of NCLB Title funds – the lion’s share of NCLB funding -go to elementary schools, with a focus on basic academic subjects like reading, writing, and mathematics.

But the differences between the Perkins Act and NCLB go beyond that. NCLB is based on a more systemic and vertical approach to educational reform. While often viewed as a departure from previous federal education reforms, NCLB actually builds on the Goals 2000 Act of 1994 and the Elementary and Secondary Education Act (ESEA) Reauthorization of 1994, the predecessors to NCLB. Both Goals 2000 and ESEA 1994

promoted building a framework and a set of state standards and accountability systems that would guide education reform. In short, NCLB was based on previous policies that required states to develop content standards, performance standards, and accountability systems that would narrow achievement gaps between more advantaged students and their “disadvantaged” peers. The current Perkins law is playing catch-up on all these fronts. The purpose of the NCLB law is clearly stated in its statute. Contrast these purposes with those of Perkins III:

“The purpose of this title is to ensure that all children have a fair, equal, and significant opportunity to obtain a high-quality education and reach, at a minimum, proficiency on challenging State academic achievement standards and state academic assessments. This purpose can be accomplished by--

- `(1) ensuring that high-quality academic assessments, accountability systems, teacher preparation and training, curriculum, and instructional materials are aligned with challenging State academic standards so that students, teachers, parents, and administrators can measure progress against common expectations for student academic achievement;
- `(2) meeting the educational needs of low-achieving children in our Nation's highest-poverty schools, limited English proficient children, migratory children, children with disabilities, Indian children, neglected or delinquent children, and young children in need of reading assistance;
- `(3) closing the achievement gap between high- and low-performing children, especially the achievement gaps between minority and nonminority students, and between disadvantaged children and their more advantaged peers;
- `(4) holding schools, local educational agencies, and States accountable for improving the academic achievement of all students, and identifying and turning around low-performing schools that have failed to provide a high-quality education to their students, while providing alternatives to students in such schools to enable the students to receive a high-quality
- `(5) distributing and targeting resources sufficiently to make a difference to local educational agencies and schools where needs are greatest;
- `(6) improving and strengthening accountability, teaching, and learning by using State assessment systems designed to ensure that students are meeting challenging State academic achievement and content standards and increasing achievement overall, but especially for the disadvantaged;
- `(7) providing greater decision-making authority and flexibility to schools and teachers in exchange for greater responsibility for student performance;

- `(8) providing children an enriched and accelerated educational program, including the use of schoolwide programs or additional services that increase the amount and quality of instructional time;
- `(9) promoting schoolwide reform and ensuring the access of children to effective, scientifically based instructional strategies and challenging academic content;
- `(10) significantly elevating the quality of instruction by providing staff in participating schools with substantial opportunities for professional development;
- `(11) coordinating services under all parts of this title with each other, with other educational services, and, to the extent feasible, with other agencies providing services to youth, children, and families; and
- `(12) affording parents substantial and meaningful opportunities to participate in the education of their children.”

These goals present real differences from the purposes of Perkins 1998. First is the emphasis on the performance of “disadvantaged” students and the closing of achievement gaps between these students and their peers. Second is the assumption of, and the desire to build further upon, an existing system of standards and accountability and the desire to promote such systems. This stands in stark contrast to Perkins, where standards and accountability are being built more “on the fly,” i.e., it does not call for content standards, performance standards, or elaborate accountability systems.

Also, unlike Perkins III, under NCLB states and local districts are subject to increasingly stringent and wide-reaching consequences if they do not meet their goals to raise student achievement and close achievement gaps. Perkins encourages such consequences but leaves it open as to what should trigger them and what the severity of action should be.

Proposed Changes to Perkins III – H.R. 366 and S. 250

Both the U.S. House and Senate passed their own respective packages of Perkins III revisions during 2005. These have yet to be resolved in conference. Despite the criticisms of Perkins III by the NAVE report, both sets of changes are relatively modest.

H.R. 366 changes only three words in the “purposes” section of Perkins III, inserting “challenging and rigorous” before the word “integrating” in paragraph 2 (see above). The Senate bill, S. 250, makes more numerous though arguably cosmetic changes in the purposes section adding a number of new purposes:

1. striking the term “vocational” and inserting the term “career” each time the term “vocational” appears
2. striking `standards' and inserting “including technical standards, and to assist students in meeting such standards, including student academic achievement standards, especially in preparation for high skill, high wage, or high demand occupations in emerging or established professions”
3. adding language on the need to disseminate information on best practices stemming from national research.
4. adding several new purposes:
 - (a) promoting leadership, initial preparation, and professional development for CTE teachers at the State and local levels, and developing research and best practices for improving the quality of career and technical education teachers, faculty, principals, administrators, and counselors;
 - (b) supporting partnerships among secondary schools, postsecondary institutions, baccalaureate degree granting institutions, area career technical centers, local workforce investment boards, business and industry, professional associations, and intermediaries; and

(c) developing a highly skilled workforce needed to keep America competitive in the global economy in conjunction with other Federal education and training programs, including workforce investment programs, that provide lifelong learning for the workforce of today and tomorrow.'

These modest revisions suggest little movement toward focusing the goals of Perkins, aside from promoting a new purpose of professional development, a goal which appears elsewhere in current Perkins law.

State Plans and Accountability. The accountability section of H.R. 366 makes little change to current Perkins law, most notably in the sense that the core performance indicators remain essentially changed. The House bill does add performance indicators for postsecondary institutions that include the following:

- `(i) Student attainment of challenging academic and vocational and technical skill proficiencies.
- `(ii) Student retention in postsecondary education, attainment of an associate degree or postsecondary credential, or transfer to a baccalaureate degree program.
- `(iii) Placement in military service or placement or retention in employment.
- `(iv) Student participation in and completion of vocational and technical education programs in nontraditional fields.';

Unlike NCLB, the proposed Perkins reauthorization in H.R. 366 does not specify how the achievement or non-achievement of such core indicators will be rewarded or sanctioned.

H.R 366 does take one new step in requiring localities to develop “model sequences of courses for vocational and technical content areas that--

- `(i) incorporate both secondary and postsecondary education elements;
- `(ii) include rigorous and challenging academic content and vocational and technical content in a coordinated, nonduplicative progression of courses that align secondary education with postsecondary education to adequately prepare students to succeed in postsecondary education;
- `(iii) lead to a postsecondary 1-year certificate, associate or baccalaureate degree, or a proficiency credential in conjunction with a secondary school diploma; and
- `(iv) may be adopted by local educational agencies and postsecondary institutions to be offered as an option to students (and their parents as appropriate), when choosing future coursework”

As is the case with the current Perkins law, these goals represent positive steps which have not been comprehensively addressed in the national, state, and local CTE system, but their impact is questionable given the lack of enforcement, guidance, and additional resources included in the bill.

SB 250 differs in a number of ways from H.R. 366 in its state plan requirements. First, the word “state and local” is added in a number of places in lieu of “state” accountability goals. Whether this implies increased state control over local programming or more local flexibility is unclear, but the bill does allow the locality to set its own local performance indicators as an alternative to those of the states.

The Senate bill also adds some core performance measures that augment and expand those in the current law. These include:

- `(i) Student achievement on technical assessments and attainment of career and technical skill proficiencies that are aligned with nationally recognized industry standards, if available and appropriate.

`(ii) Student attainment of challenging academic content standards and student academic achievement standards, as adopted by the State under section 1111(b)(1) of the Elementary and Secondary Education Act of 1965 and measured by the academic assessments described in section 1111(b)(3) of such Act, consistent with State requirements.

`(iii) Student rates of attainment of--

`(I) a secondary school diploma;

`(II) the recognized equivalent of a secondary school diploma;

`(III) technical skill proficiency;

`(IV) an industry-recognized credential;

`(V) a certificate; and

`(VI) a degree.

Because S.B. 250 does not clarify the consequences of not meeting these indicators for states or localities, the impact of these proposed accountability provisions is open to question. The achievement of state performance standards is already a requirement of the NCLB law.

Summary of Current and Proposed Federal Policy

Current Federal policy toward CTE, embodied largely in The Carl D. Perkins Vocational and Technical Education of 1998, is broad-ranging and arguably unfocused in its goals. In effect, the law functions largely as a block grant that allows states to expend funds on an array of activities. Its broad and ill-defined goals (NAVE) range from technical preparation for post high school occupations to college-prep. Despite efforts to focus the program and institute a system of accountability, there is little evidence that these changes in the law have resulted in real systemic change. Undoubtedly, many exemplary programs utilize Perkins funds effectively to prepare students for careers and

postsecondary education. But as the NAVE report suggests, the goals of the federal law are too diffuse to effect that change on a systematic basis.

One solution may be to focus Perkins on one or two discrete goals, such as preparation to enter a skilled technical career, either at graduation or following further career-related training or apprenticeship. Again, such goals would have to be balanced carefully against the concerns around tracking raised previously in this report.

California Law and CTE

Course Requirements. California law offers students a number of options, and a few new hurdles, to completing high school and qualifying for post high school employment and education. It is much less specific than the Perkins Act in terms of goals and requirements for CTE, although this has the potential to change under implementation of California Assembly Bill 1412 (Wright, 2002).

Most notably, California has two alternative curriculum tracks that high school students must complete in order to graduate. The first is a basic track for students not planning to go to a four-year college. Students must take 12.5 courses to meet this requirement – 3 in English, 2 in mathematics, 2 in science, 3 in history and social science, 1 course in either the arts or a foreign language, 1 in physical science, and .5 in any other course.

In order to gain admission to state 4 year public and private universities, students must take at least 14 year-long courses. This is known as the A-G sequence. To meet both the basic track and college-prep requirements students must take a total of 17 specific

courses (the basic track calls for an additional year of history and a year of physical education).

The difference between the two tracks is not merely one of numbers, however. Courses in the A-G track are generally more advanced and rigorous. For example, the A-G track requires Algebra II to satisfy one of the math requirements, while the basic track does not. In addition, A-G courses must be approved by the University of California (UC) as being rigorous enough to qualify for admission to the UC system. In the basic track, districts determine the type and rigor of the courses that students take to satisfy the basic requirements.

In addition, all California high school students must now take an exit exam in order to graduate, including those in the basic track and/or those concentrating on CTE.

Students and their parents should be able to decide what course of study they want to pursue. But they should also have options. It is not clear how well American high schools in general, and California high schools provide access to a college-prep curriculum for all students. Poor and minority students have less access to AP courses (NRC, 2002). Some studies suggest they have less access to information, about postsecondary education through school counselors, GEAR-UP, TRIO, etc.

Model Curriculum Standards and AB 1412. California policy on CTE is fairly general. Mirroring the issues in the paragraph above, general policy follows very closely

along the lines of the Stanford Bridge Project (Venizia et al.) and the American Diploma Project. As the California State Plan for Vocational and Technical Education states:

“Jobs with good wage potential now demand higher education or advanced training beyond high school. More education has become not just desirable but essential to economic success and quality of life.”

Similarly, the California Institute on Human Services at Sonoma State University concludes:

“Career technical education must prepare *all* students for careers, whether they enter the workforce directly after high school or continue on to higher education. The knowledge and skills gained in high school career technical education must provide a solid foundation for whatever paths students choose to pursue.”

To this end, The California State Legislature, in 2002, passed AB 1412 which requires the state to establish model curriculum standards for CTE. The legislature in the same year passed SB 1934 which requires the state to develop career technical education frameworks to accompany the standards. The goal of these new laws is to “move away from the language of activities and tasks that serve as guides for classroom instruction and performance assessment to statements that capture the underlying knowledge skills that are taught through a technical and academic curriculum (Sonoma State).”

In short, the new laws seem intended to infuse CTE with a basic academic curriculum which embodies more general assumptions about what all students should know and be able to do. In other words, it assumes CTE students must master the same basic

academic skills as other students and the CTE and basic academic instruction need to be integrated (the same point emphasized in Perkins III).

At present, draft standard areas have been developed, by a diverse advisory commission, for 15 industry sectors. These include 11 foundation “standards”:

1. Academics (California content standards and performance standards for key academic subjects).
2. Communications
3. Career Planning and Management
4. Technology
5. Problem Solving and Critical Thinking
6. Health and Safety
7. Responsibility and Flexibility
8. Ethics and Legal Responsibilities
9. Leadership and Teamwork
10. Technical Knowledge and Skill
11. Demonstration and Application

Summary and Analysis

This paper briefly reviewed the goals of CTE policy at the federal and state (California) level. One can note some similar themes across CTE law and policy as well as some marked, though potentially complementary, contrasts.

One theme running throughout all CTE policies is the need to integrate CTE with basic academics. One sees this theme running from the basic purposes of Perkins through the work of the California advisory commission implementing AB 1412. As one moves from the federal to state level, the goals and policies become more specific. This is a typical progression as one moves from higher to lower levels of government.

Encouragingly, this pattern offers the potential for complementary approaches to CTE to advance the field. Congress speaks to integration at the broader level; California attempts to operationalize what such integration means. Overlaying this is NCLB, which mandates states and districts to close achievement gaps in both high school and K-8 systems. This provides a possible mitigating check against the effects of tracking that some fear discriminates against typically underserved population (poor, minority, limited English proficient, students with disabilities).

Still, further work will be needed to flesh out these ambitious goals. The AB 1412 advisory group has made great headway in providing a conceptual framework for integrating CTE and academics. But the specific task of developing actual standards

under each of the above 11 categories, and applying these to 15 industry sectors, is a daunting one as the history of standard setting in academic content areas suggests.

A final concern is whether all of these structural changes will find their way down to students. First, the California model curriculum standards will be voluntary, leaving it an open question as to whether they will be adopted at the local level. Second, in contrast to the findings of the NAVE report, neither federal nor state legislation seems to have made a serious effort to tackle the problems of teacher training and professional development essential to achieving these efforts. As the NAVE report suggests:

“While positive change is certainly happening at the high school level, secondary vocational education itself is not likely to be a widely effective strategy for improving academic achievement or college attendance without substantial modifications to policy, curriculum, and teacher training.”

Nevertheless, consensus does seem to be growing around a common set of goals principles and progress is being made, albeit slowly, toward finding solutions.

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