WASHINGTON STATE
WORKFORCE TRAINING AND EDUCATION COORDINATING BOARD
MEETING NO. 155
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CAREER AND TECHNICAL EDUCAITON PROGRAMS OF STUDY POST-TECH PREP

The Carl D. Perkins Career and Technical Education Act of 2007 required the establishment of Programs of Study that provide students with career pathways that span secondary and postsecondary education. The Workforce Board responded by adopting a strategy building on the existing foundation of Tech Prep, that had established secondary-postsecondary articulation agreements around the state.

This Spring, the Congressional budget agreement included a provision that eliminates Tech Prep, effective July 1, 2011.

In response, staff from the Workforce Board, the State Board for Community and Technical Colleges, and the Office of Superintendent of Public Instruction met to discuss how to continue and expand Programs of Study in Washington given the defunding of Tech Prep.

In this tab is the proposal developed by the staff from the three agencies. The proposal is to build statewide model Programs of Study, beginning with four high-demand occupational clusters: advanced manufacturing/aerospace, healthcare, information technology, and agriculture.

Board Action Requested: Adoption of the recommended motion.

RECOMMENDED MOTION

WHEREAS, Programs of Study are a requirement of the Carl D. Perkins Career and Technical Education Act of 2007 and Programs of Study are intended to provide students with meaningful career pathways that combine secondary and postsecondary education; and

WHEREAS, Washington based its strategy for developing Programs of Study on the foundation of Tech Prep;

WHEREAS, The recent budget agreement adopted by Congress eliminates funding for Tech Prep, effective July 1, 2011, and;

WHEREAS, This funding change provides an opportunity to develop a new strategy for Programs of Study that builds on the foundation of Tech Prep and goes beyond it to provide more dependable and effective opportunities for students;

THEREFORE BE IT RESOLVED, That the Workforce Training and Education Coordinating Board adopt the proposed strategy to build model Programs of Study.

CAREER AND TECHNICAL EDUCATION PROGRAMS OF STUDY
POST-TECH PREP

Background

In the early 1980's, a broad-based reform initiative in Career and Technology Education (CTE) began with the goal of upgrading traditional vocational education to respond to the states' changing economic and workforce development needs. As part of this effort to overhaul and reinvent Career and Technology Education, Tech Prep was authorized in 1990 as a separate funding title within the Carl D. Perkins legislation, with the goal to improve student achievement and preparation for postsecondary training and careers.

Over the past 20 years in Washington, Tech Prep evolved into an effective program that links secondary career and technical education with postsecondary workforce training programs through signed competency-based articulation agreements. Approved curricula for these programs are based on CTE frameworks and industry-recognized skills standards. These programs promote partnerships in educational pathways that lead to high-wage, high-demand occupations. Today, nearly every secondary school district offers at least one Tech Prep course.

In 2006 Congress adopted the Carl D. Perkins Career and Technical Education Act. The Act mandated improved communication and coordination between secondary and postsecondary career and technical education programs, requiring Programs of Study. Each local recipient must have at least one Program of Study. A Program of Study must:

- ✓ Incorporate secondary and postsecondary education elements;
- ✓ Include coherent and rigorous content aligned with challenging academic standards and relevant career and technical content in a coordinated, non-duplicative progression of courses; and
- ✓ Lead to an industry-recognized credential or certificate at the postsecondary level, or an associate or bachelor's degree.

States incorporated Programs of Study into their state Perkins plans, and were given the option of maintaining Tech Prep separately, or merging their Title II grant with their Perkins Basic Grant. Washington considered the option to merge as we crafted our five-year Perkins Plan, but the Workforce Board decided to retain the separate funding stream. Part of the reason for maintaining Tech Prep was to assist with the required Programs of Study and to build upon successes of Tech Prep. As a result, the state's 22 Tech Prep directors assumed the role of Programs of Study facilitators, working with both the secondary and postsecondary institutions to identify and develop the required Programs of Study.

The Problem

Tech Prep was effectively de-funded as part of the FY 2011 federal budget negotiations, effective July 1, 2011. With the loss of Tech Prep, Washington needs to design new strategies to advance Programs of Study.

Below are features and weaknesses of the current Tech Prep/Programs of Study system:

Articulation agreements: There are currently more than 6,600 articulation agreements registered within the Student Enrollment Records System (SERS). Establishing such a large number of agreements has been a labor intensive process. Tech Prep funding has supported the development and maintenance of these agreement. Few, if any, of these articulations are statewide agreements. That means that while a high school class may articulate to several different colleges and/or postsecondary programs, each one requires a separate articulation agreement. The articulation/credit process has also been a problem across consortia, as in many instances school districts have had to pay a membership fee to the consortia where they want to articulate, and if the district has been unable to pay, the students in those articulated courses are unable to receive the credit.

By moving to statewide articulations, where possible, the process of linking the two education systems will be much less labor-intensive. Statewide agreements will also mean more equitable access for all students in those articulated classes.

Articulated dual credit opportunities: Students currently enrolled in a secondary CTE Tech Prep program under a signed articulated agreement, and who earn a B or better in their class, earn college credits, transcribed at a community or technical college. In 2009-2010 38,506 students earned 222,360 college credits through Tech Prep. However, only 33.64 percent of those who left high school with Tech Prep credits enrolled in postsecondary education. Of those who did enroll, only 4.66 percent continued in the program they were enrolled in during high school. Too often, Tech Prep credits have not resulted in students actually participating in Programs of Study.

Professional development: Tech Prep consortia have offered opportunities for secondary faculty to upgrade their skills by connecting with the community or technical college program, or with industry. They have offered summer workshops for high school counselors, acquainting them with college programs. In some consortia, these activities have provided great opportunities—in others, they do not exist.

CTE workshops for students: Many consortia provide students with visits to the college campuses. This provides a connection between their Tech Prep classroom and the postsecondary programs. Students have the chance to meet the faculty and students in the college program and to see where the classes are taught. Again, there is an inequity where these activities are not available to all CTE Tech Prep students.

Developments

The absence of Tech Prep funding provides us with an opportunity to reshape Programs of Study and more clearly define how CTE secondary programs link with postsecondary workforce education programs here in Washington, creating a more statewide approach, and meeting state statutes for improvements in articulation agreements and dual credit opportunities for career and technical education courses. (*2SSB 6377; HB 1710; ESSHB 1808*)[1]

Staff from the Workforce Board (WTB), Office of Superintendent of Public Instruction (OSPI), and State Board for Community and Technical Colleges (SBCTC) met on May 18, 2011 to discuss opportunities and options, given the loss of federal funds for Tech Prep.

Staff first identified the main components that were critical to maintain in retooling our state's Programs of Study work. These include:

- ✓ SERS – the system, developed by SBCTC, to assist with articulation and dual credit enrollments
- ✓ Articulation agreements
- ✓ Articulated dual credit for CTE students
- ✓ 2+2+2 program intent
- ✓ Recognized point(s) of contact to provide direction and leadership

Next they listed those components that should be considered as policies and procedures to be developed for rigorous Programs of Study:

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[1] **SSB 6377 / RCW 28B.50.108** (2008) A Washington Act *supporting the work of community and technical colleges, high schools, and skill centers in creating articulation and dual credit agreements for career and technical education students, in part by codifying current practice.*

Community and technical colleges shall create agreements with high schools and skill centers to offer dual high school and college credit for secondary career and technical courses. Agreements shall be subject to approval by the chief instructional officer of the college and the principal and the career and technical education director of the high school or the executive director of the skill center.

Community and technical colleges may create dual credit agreements with high schools and skill centers that are located outside the college district boundary or service area.

If a community or technical college has created an agreement with a high school or skill center to offer college credit for a secondary career and technical course, all community and technical colleges shall accept the course for an equal amount of college credit.

SHB 1710 (2011) A Washington Act designed *to develop a statewide strategic plan for secondary career and technical education. The strategic plan must include: a) A vision statement, goals, and measurable annual objectives for continuous improvement in the rigor, relevance, recognition, and student access in career and technical education programs that build on current initiatives and progress in improving career and technical education, and are consistent with targets and performance measures required under the federal Carl Perkins act.*

ESSHB 1808 (2011) A Washington Act establishing a *launch* year for seniors. *Twelfth grade will truly be the launch year as high schools increase the opportunities for students to take more advanced classes. In addition, this act provides for community and technical colleges and four-year institutions of higher education to publish a list of high school courses and adopt uniform scores for proficiency exams or competency requirements that will be given credit toward certificate or degree requirements.*

- ✓ Identifying opportunities for students to obtain high wage, high skills, or high demand jobs within the Program of Study (*as taken from Washington's 5-Year Perkins Plan, 2007)*
- ✓ Adding apprenticeship as an outcome/option when defining 2+2+2 programs
- ✓ Developing a streamlined and simplified statewide articulation system
- ✓ Where possible, adopting common frameworks or language between secondary and postsecondary
- ✓ Including an emphasis on industry certification.

(Attachment 1)

Proposal

Staff of the three agencies propose establishing workgroups to develop statewide Programs of Study that provide meaningful, useful pathways, linking secondary CTE with postsecondary career education and incorporating the required elements as defined by Perkins statute. The workgroups will use a sector/career cluster approach to develop statewide articulated Programs of Study models. Each program will include articulated dual credit, and must lead to a degree, diploma, certificate, or apprenticeship. (Attachment 2) During 2011-2012 the workgroups will focus on Programs of Study for four of our state's high-demand occupational clusters:

- ✓ Advanced Manufacturing/Aerospace
- ✓ Healthcare
- ✓ Information Technology
- ✓ Agriculture

Over time, models will be available for all industry sectors where the state provides approved CTE programs. These models will be available for adoption by secondary and postsecondary partners throughout the state. Through this approach, we expect to establish statewide articulation agreements that provide greater dual credit opportunities for students.

The three state agencies have committed to fund the participation by their respective system personnel (administrators, faculty, and other education leaders). They will be invited to serve on these workgroups. Business and labor representatives and the Centers of Excellence will also be invited to participate.[2] The workgroups will meet several times throughout the year to complete these models. The models will go through a review by respective curriculum approval committees for the secondary and postsecondary systems.

State agency staff will conduct regional and statewide presentations to assure that the models are functional, available and used, and assure that all students have access to Programs of Study.

A progress report will be presented to the Workforce Board in June 2012.

[2] Several employers have expressed interest in statewide programs of study, with customization for local employers. Microsoft will be offering academies within K-12 for IT certifications; NAM certifications within the manufacturing/aerospace programs are being emphasized, with a lead being taken by the COE in Snohomish County; and Bellevue COE is involved in conversations about healthcare informatics.

ATTACHMENT 1

Rigorous Programs of Study Design Framework: Listing of Components and Subcomponents

The Carl D. Perkins Career and Technical Education Improvement Act of 2006 (Perkins IV) calls for states to create secondary-to-postsecondary sequences of academic and career technical (CTE) coursework that lead students to attain a postsecondary degree, or industry-recognized certificate or credential.

Specifically, Perkins IV mandates that Programs of Study (POS), at a minimum:

- Incorporate and align secondary and postsecondary education elements;
- Include academic and CTE content in a coordinated, non-duplicative progression of courses;
- Offer the opportunity, where appropriate, for secondary students to acquire postsecondary credits; and
- Lead to an industry-recognized credential or certificate at the postsecondary level, or an associate or baccalaureate degree.

While these four components establish the minimal expectations for POS design, 10 components have been identified that support the development and implementation of effective programs of study. Although all components are important, they are neither independent nor of equal priority: POS developers must identify the most pressing components for state or local adoption, taking into consideration their relative need within their educational context.

A *program of study* is a structured sequence of academic and career and technical education courses that lead to a postsecondary-level credential.

- Operational definition of a program of study

Program of Study Components:

1. Legislation and Policies

State legislation or administrative policies promote POS development and implementation among collaborating agencies.

Legislation and policies:

- Provide for state and/or local funding for POS.
- Establish formalized procedures for the design, implementation, or elimination of POS.
- Provide opportunities for any secondary student to participate in a POS.
- Require secondary students to develop an individual graduation or career plan.

2. Partnerships among Education, Business, and Other Community Stakeholders

Collaborative relationships that support POS design, implementation, and maintenance.

Effective partnerships should:

- Create written memorandum of understanding that elaborate the roles and responsibilities of partnership members.
- Conduct analyses of economic and workforce trends to identify statewide (or regional) POS to be created, expanded, or eliminated.
- Identify, validate, and update the technical and workforce readiness skills that should be taught within a POS.

3. Sustainable Leadership and Shared Planning

Collaborations among educators within and across secondary and postsecondary education sectors, to provide the necessary supports for POS development and administration.

Evidence should include:

- A joint statement from partnering organizations laying out a common vision and goals for POS.
- Key leaders advocating for funding, equipment, and other resources within the educational system, as well as with business/industry and other community stakeholders.
- Within institutions, sufficient planning time for teachers and faculty to develop curriculum and instructional strategies.
- Interagency efforts to support POS design, for example providing opportunities for high school teachers and college faculty to engage in collaborative planning.

4. Rigorous Academic and Technical Standards Aligned with Curriculum and Assessments

Curricula and content that integrate industry-recognized technical standards and relevant academic standards that all students are expected to know and be able to demonstrate on assessments that are aligned to the identified standards.

Well-developed POS:

- Incorporate state-recognized academic standards that are required of all students for graduation and industry-recognized technical standards that are valued in the workplace.
- Integrate academic and technical standards, curriculum, and assessments across all POS to provide a real-world context for learning.
- Employ industry-based technical skill assessments, where available and appropriate, or rely on state developed or approved assessments where industry-based exams do not exist.

5. Aligned Secondary and Postsecondary Education Elements

Seamless connections between secondary schools and postsecondary institutions that allow students to transition across sectors without duplicating classes or needing remedial coursework.

Well-developed POS:

- Offer a non-duplicative sequence of courses, beginning no later than 9th grade, which culminates in the award of a postsecondary credential, certificate, or degree.
- Ensure that standards, curriculum, instruction, and assessments are aligned horizontally and vertically**.**
- Moves from broad knowledge and skill standards in the lower grades (i.e., Career Cluster essential, foundation, and pathway levels), to increasingly more occupationally specific coursework.

6. Credit Transfer Agreements

Opportunities for secondary students to be awarded transcripted postsecondary credit, supported with formal agreements among secondary and postsecondary education systems.

Well-development agreements:

- Provide a systematic, seamless process for students to earn college credit for postsecondary courses taken in high school, transfer high school credit to any two- and four-year institutions in the state, and transfer credit earned at a two-year college to any other two- or four-year institution in the state.
- Describe the expectation and requirements for, at a minimum, teacher and faculty qualifications, course prerequisites, postsecondary entry requirements, location of courses, tuition reimbursement, and credit transfer process.

7. Accountability and Evaluation Criteria

Process and outcome measures for the design and development of POS and strategies to collect appropriate student-level data that can be used to gauge program effectiveness and inform improvement efforts.

Well-designed systems should:

- Include the "*10 Essential Elements of A State Longitudinal Data System*" identified by the Data Quality Campaign.[3]
- Provide for administrative record matching of student education and employment data (i.e., Unemployment Insurance (UI) Wage Records).
- Yield valid and reliable data on key student outcomes (indicators) as referenced in Perkins and other relevant federal and state legislation.
- Provide timely data to evaluate and improve the effectiveness of the programs of study.

[3] The 10 elements are: (1) statewide student identifier; (2) student-level enrollment data; (3) student-level test data; (4) information on untested students; (5) statewide teacher identifier with a teacher-student match; (6) student-level course completion (transcript) data; (7) student-level SAT, ACT, and Advanced Placement exam data; (8) student-level graduation and dropout data; (9) ability to match student-level P-12 and higher education data; and (10) a state data audit system.

8. Guidance, Counseling and Advisement

Career guidance, academic counseling, and student advisement that support students in making informed decisions in planning their education and career pathways.

Comprehensive systems:

- Are based on state and/or local guidance and counseling standards and follow, to the extent practicable, OVAE's National Career Development Guidelines.[4]
- Offer information and tools to help students learn about postsecondary education and career options.
- Offer resources for students to identify their career interests and aptitudes and to select an appropriate POS, no later than in 9th grade.
- Provide information and resources for parents to help their children prepare for college and careers.
- Offer Web-based resources and tools for obtaining student financial assistance.

9. Professional development

Support program administrators, teachers, and faculty in developing and implementing POS.

Effective professional development:

- Is sustained, intensive, and focused.
- Supports the alignment of curriculum from grade to grade (9-12) and from secondary to postsecondary education (vertical curriculum alignment).
- Supports the development of integrated academic and career and technical curriculum and instruction (horizontal curriculum alignment).
- Offers a forum for the development and implementation of innovative teaching and learning strategies (see #10 below).

10. Innovative Teaching and Learning Strategies

Application of new and creative instructional approaches that encourage academic and technical teachers and faculty to collaborate in the design of how content can be integrated and delivered to engage students.

Well-designed strategies:

- Are jointly led, to the greatest extent possible, by interdisciplinary teaching teams of academic and technical teachers or faculty.
- Employ work-based, project-based, and problem-based learning.
- Incorporate team-building, critical thinking, and problem-solving

[4] See http://cte.ed.gov/acrn/ncdg/ncdg_what.htm.

ATTACHMENT 2

Program of Study
Example

South Kitsap High School
Olympic College
Washington State University