Tech Prep

Instructional Support Program Review

Fall 2010

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Table of Contents

Appendices

TECH PREP INSTRUCTIONAL SUPPORT PROGRAM REVIEW
October 2010

I. Introduction

> "With so many educational reform reports coming so fast, it would be easy to grow cynical—to say "These too will pass." But such an attitude will result in the loss of a tremendous opportunity. These reform reports provide motivation for taking some positive additional and public steps toward educational excellence at all levels, steps discussed for years and residing in the hopes and dreams of those who live their lives in the educational trenches of our schools and colleges. Now is the time to move toward educational quality — opportunity with excellence."
>
> **-- Dale Parnell, 1985**
> An Open Letter to the Leaders of American
> High Schools and Community Colleges

Dr. Dale Parnell, in The Neglected Majority (1985) started an important discussion within the national community college system that came to fruition as a funded initiative within the Carl D. Perkins Career Technical Education Act (Perkins). Tech Prep is a major national strategy for improving students' academic knowledge and technical skills while often earning college credit for their secondary coursework. Tech Prep programs lead to completion of a certificate in a specific career field, an associate degree and, ultimately, to high wage, high skill employment or advanced postsecondary training.

Relationship to College Mission

Citrus College Tech Prep supports the College's mission to "deliver high quality instruction that empowers students to compete globally and to contribute to the economic growth of today's society", most notably through compliance with the Carl D. Perkins Career Technical Act (Perkins) and, specifically, by formalizing connections between secondary and postsecondary Career Technical Education (CTE) programs.

Citrus College (selected) mission objectives

- Provide general, lower division coursework leading to an associate degree in the arts or the sciences;
- Prepare students to transfer to four-year colleges and universities;
- Award occupational certificates and degrees for career preparation and advancement;
- Increase career development support for students, faculty, and staff through career exploration; and

- Collaborate with local high schools in articulation and curriculum development.

Program Description

Tech Prep is a grant-funded* instructional support program with a pre-enrollment focus contributing to an increased percentage of high school students prepared to transition to college to complete certificate(s), become employed in high wage high demand occupations, complete an associate degree and, potentially, transfer to a four year institution. As a "set aside" of Perkins, Tech Prep becomes operational when the CTE program of study begins in the junior year of high school and the certificate/degree can be completed by the sophomore year of college. This distinction of Tech Prep is called a 2+2 program with a credit granting mechanism (when institutional and a course level articulation agreement approved by faculty in the appropriate discipline is in place).

> BACKGROUND: The secondary and postsecondary agencies planning and spending Perkins Title IC "entitlement" funds are to implement programs of study that 1) strengthen CTE and non CTE components through integration and a coherent sequence of courses and 2) link CTE at the secondary and post secondary levels (plus 7 additional requirements). At a minimum, entitlement funds are to strengthen CTE connections to college (the HS perspective) and course alignment/sequencing from the HSs (the college perspective). The law further requires that "at least one" CTE program of study comply with the State Plan definition: 1) incorporate secondary and postsecondary; 2) integrate CTE/non CTE in a nonduplicative progression of courses that align secondary with postsecondary to prepare students to succeed in postsecondary; 3) secondary students may earn postsecondary credit; and 4) lead to certificate completion, associate degree, and transfer.
>
> *Tech Prep assists the partners to accomplish the Perkins Title IC entitlement requirements and supports secondary students earning postsecondary credit by exam (#3 above) but the Perkins Title II Tech Prep requirement is specific to the 2+2 provision with a California state-mandated credit granting mechanism. Additionally, 2+2 programs are intended to result in workforce preparation for high wage, skill, or demand areas.

Tech Prep facilitates compliance with the broader Title IC, and narrower Title II, provisions through support of college CTE faculty and high school/regional occupational program instructor relationships to: align curriculum, strengthen course to course sequences, course comparability, course level articulation agreements, and administration of credit by exam. These activities, when consistently applied, shorten the time necessary for students to complete their education goal(s) and enter the workforce.

Tech Prep success is dependent upon interagency collaboration (with unified school districts) and multiple constituent groups, including industry and business liaisons, instructional personnel, administration, student support personnel, staff, students, and parents. Federal and state oversight agencies have authorized expenditures in the areas delineated below. Activities are intended to be added to, not in lieu of, Perkins Title IC and

implementation requires compliance with all instructional provisions, i.e., Title 5, etc. To achieve the 2+2 requirement, inter-jurisdictional governance is necessary. Grant funding may be used by a lead or partner agency for:

1. **Curriculum Development and Improvement** – to meet and exceed industry standards, create seamless aligned sequences and strengthen course outcomes;

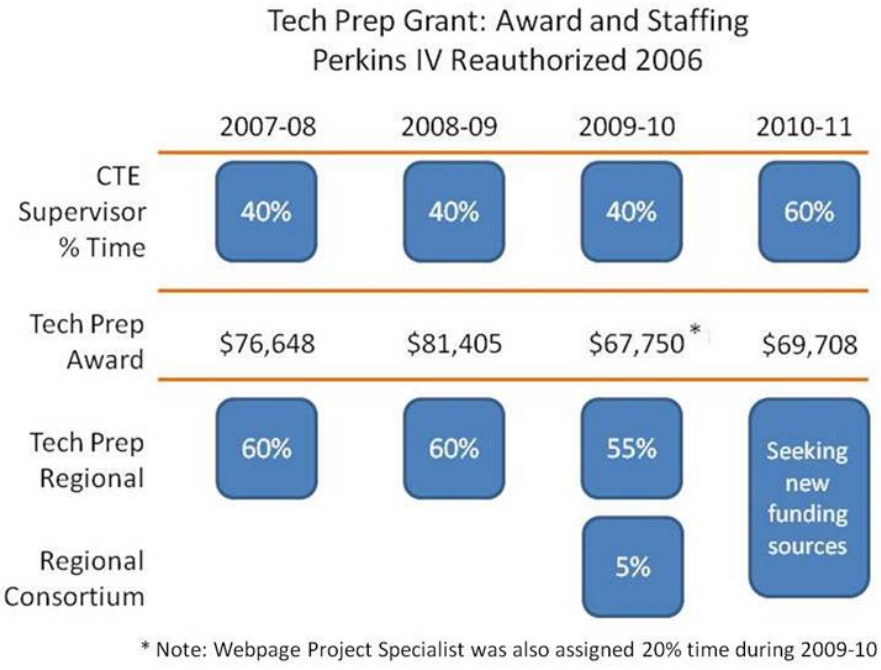
2. **Partnership Development/Articulation** – to increase collaboration, identify comparable college courses taught in HS/ROP, formalize course agreements, and increase the number of students eligible to participate in a faculty authorized credit by exam;

3. **Professional Development** – to increase institutional capacity to develop, improve and implement 2+2 programs in compliance with Title II; and

4. **Student Support Structures** – to advance the career preparation of students, facilitate timely transition to college, provide pre-enrollment services, and oversee the credit by exam system for HS/ROP students enrolled in articulated courses.

Organization

Tech Prep is overseen by the Dean of Career, Technical and Continuing Education and implemented by a classified Career Technical Education (CTE) supervisor who acquires grant funding, implements the work plan, and administers the award in compliance with federal, state, and local requirements. Historically, Tech Prep funding varies as does the percentage of assigned staff time. For example, in 2009 – 10, Tech Prep assigned to the CTE supervisor was budgeted at 40% and responsibilities were blended with related initiatives. For the 2010 – 11 school year, 60% of the CTE supervisor will be Tech Prep grant funded.



* Note: Webpage Project Specialist was also assigned 20% time during 2009-10

Faculty Minimum Qualifications

The employment of instructional personnel at the secondary and postsecondary level meets college minimum qualifications and high school teacher credential standards. College CTE faculty in programs that offer a certificate of achievement (Appendix A) are prospective Tech Prep participants.

Number of Students Served

Approximately 150 – 200 secondary students will be served at a minimum of six instructional sites at area high schools/regional occupational programs (HS/ROP). An estimated 10% of those students will take and then pass the credit by examination option and choose to enroll at Citrus College in summer or fall 2011.

Variables influencing the number of students served annually are:

- Word of mouth testimonials of students who have successfully transitioned to Citrus College and placed in the advanced course with college credit;
- Availability and scheduling of the HS/ROP articulated course;
- Number of sites with an articulated course (HS/ROPs with a college-comparable CTE course);
- Instructional personnel involvement in curriculum alignment and sequencing the nonduplicative progression of courses (beyond their institutional boundary, i.e., HS, ROP and college) and college faculty review and approval of college-comparable curriculum; and
- Collaboration on Student Learning Objectives and Assessments (SLOAs) for a progression of courses that begins at another institution and the new factors to be considered for articulated courses taught off campus (and assessed using credit by exam option).

Facility/Locations

Effective January 2009, Tech Prep was assigned to the Dean, Division of Career, Technical, and Continuing Education. Implemented by the CTE Supervisor, the office is located with the Dean in Technology Engineering (TE) building. The five unified school districts (USDs) in the Citrus College district are formal grant partners. The high schools, and ROPs, are prioritized for development of Tech Prep 2+2 programs of study, implementation of Perkins IC credit granting agreements, and career development resources (7th-12th grade).

USD	ROP
Azusa	East San Gabriel Valley ROP
Claremont	Baldy View ROP
Duarte	Los Angeles County ROP
Glendora	East San Gabriel Valley ROP
Monrovia	Los Angeles County ROP

Progress on Prior Program Review Recommendations

There have been no previous program reviews completed for the Tech Prep Program.

II. Integration and Coordination with Other Programs

Coordination with Other Instructional and/or Student Services Programs

Tech Prep depends on the involvement of many. Collaboration in multiple disciplines and the active participation of stakeholders is essential. Inter and intra agency efforts include work in areas beyond an institution's boundaries as well as across organizational units.

Tech Prep Advisory Committees (Appendix B) are comprised of industry and business liaisons, instructional personnel, key administration, student support personnel, and staff. The committees provide oversight and direction in compliance with the general Perkins requirements. To implement Tech Prep, their purpose is to *increase* collaboration, bring participants together to build 2+2, implement faculty approval of comparable college courses taught in HS/ROP, and formalize course agreements, credit by exam, and a system of transition in order to increase the number of prepared students completing certificates and entering the workforce.

As a result of collaboration, leadership, and commitment to Tech Prep, **faculty** have developed Tech Prep 2+2 programs that include a course level articulation agreement in **Automotive Technology** (five sites) and are in the final review stage for **Administration of Justice**, **Child Development,** and **Drafting**. Additionally, faculty in Audio Recording, Dental Assisting, and Wildland Resources/Forestry are exploring course comparability, and potential 2+2 program development (Appendix C).

Coordination with Instruction

Tech Prep requires seamless alignment of curriculum which is updated continuously to meet and exceed industry standards, so there are multiple points of contact with college faculty and school district personnel as necessary to accomplish daily activities. Areas of formal collaboration include:

- CTE Supervisor is a member of the Education Programs Committee. Involvement has facilitated an improved understanding of all instructional programs and provides an opportunity to increase awareness and understanding of Tech Prep.
- During 2009-10, CTE faculty, representing the programs listed above, were joined by colleagues representing Cosmetology, Dental Assisting, Electronics, Emergency Medical Technician, and Information Technology disciplines. Hosted by a liaison from the Statewide Academic Senate, they collaborated on the early advantage that Tech Prep students have in 2+2 programs and explored additional approaches that could introduce early advantages in linked secondary - postsecondary CTE programs.

- CTE programs in the Division of Career, Technical, and Continuing Education are supported by a CTE counselor; the counselor participates in committee and division discussions regarding Tech Prep.
- The inclusion of the CTE supervisor on CTE advisory committees facilitates the sharing of Tech Prep information with business representatives supporting Administration of Justice, Automotive Technology, Child Development, Dental Assisting, and Drafting programs.
- CTE Supervisor participates on the Citrus College Workforce Council (Perkins Title IC planning) and when invited, attends the unified school district's equivalent meeting.

Coordination with Student Services

Tech Prep collaborates with student service personnel on campus, at the unified school districts, and regional occupational programs. Additionally, the network of Tech Prep peers at community colleges in the county and region frequently co-sponsor events to increase awareness of CTE, CTE programs of study, and improve career development. For example:

- Tech Prep has a productive relationship with the Citrus College articulation officer to ensure development of articulated programs of study and course articulation agreements that maintain the integrity of transfer and four-year articulation agreements.
- Tech Prep exchanges information routinely with counselors advising students at the HS/ROP. Tech Prep works actively with the CTE Counselor in support of programs in the division.
- To expand expertise in career development, HS/ROP and college student support personnel have received five or more invitations to professional development events in Los Angeles County over the last 2 years. All events were free to participants.
- Fall 2009, Mt. San Antonio College and Citrus College Tech Preps co-sponsored an event hosted for the middle, high school and college counselors in the San Gabriel Valley. Collaboration on large-scale events is a common attribute of a longstanding peer-to-peer partnership between Tech Prep Coordinators at this college, as well as Rio Hondo College.
- Commencing 2009-10, Tech Prep invited the college's School Relations Coordinator to co-lead the Tech Prep Student Transitions Committee; membership includes over twenty HS/ROP Career Center liaisons from schools throughout San Gabriel Valley.
- Historically Tech Prep supported outreach events for students. More recently these efforts became focused on hands on *instructional* exploration (mini-lessons) in a variety of disciplines, i.e., to increase preparation in the sciences, as related to success in health careers, the early science exchanges with high schools began as Tech Prep "on campus" learning experiences before transitioning to STEM.

Relationship with Research and TeC Services

Tech Prep has not had regular interaction with the Institutional Researcher. The Institutional Researcher participates on the Tech Prep Advisory Committee. Tech Prep had

ancillary contact when the Dean of Natural and Physical Sciences conducted the A-G study for four of five USDs.

Tech Prep has only routine contact with TeC Services.

Integration with Student Equity and Strategic Planning

Tech Prep is intended to serve all students enrolled in 2+2 programs; often professional development events are used to help professionals improve services to nontraditional and underrepresented students. These services, and results related to core indicators, are documented in CTE program reviews and with Perkins reports, as filed by the partner USD.

Tech Prep has participated in Strategic Planning as a general member of the campus community. Additionally, Tech Prep provides input for the college's action plan as part of the Division of Career, Technical, and Continuing Education and serves on various shared governance committees.

III. Program Self-Evaluation

Self-evaluation is based on the WASC Accreditation Standard II:

IIA Instructional Programs

"The institution offers high-quality instructional programs in recognized and emerging fields of study that culminate in identified student outcomes leading to degrees, certificates, employment, or transfer to other higher education institutions or programs consistent with its mission. Instructional programs are systematically assessed in order to assure currency, improve teaching and learning strategies, and achieve stated student learning outcomes. The provisions of this standard are broadly applicable to all instructional activities offered in the name of the institution."

IIB Student Support Services

"The institution recruits and admits diverse students who are able to benefit from its programs, consistent with its mission. Student support services address the identified needs of students and enhance a supportive learning environment. The entire student pathway through the institutional experience is characterized by a concern for student access, progress, learning and success. The institution systematically assesses student support services using student learning outcomes, faculty and staff input and other appropriate measures in order to improve the effectiveness of the services."

IIC Library and Learning Support Services

" Library and other learning support services for students are sufficient to support the institution's instructional programs and intellectual, aesthetic,

and cultural activities in whatever format and wherever they are offered. Such services include library services and collections, tutoring, learning centers, computer laboratories, and learning technology development and training. The institution provides access and training to students so that library and other learning support services may be used effectively and efficiently. The institution systematically assess these services using student learning outcomes, faculty input, and other appropriate measures in order to improve the effectiveness of the services."

Data Accuracy

Historically, the Systems Office of the California Community Colleges Chancellors Office (CCCCO) did not define a 'Tech Prep student' or the data elements necessary to evaluate success. Every college struggled with 'measuring' the success of Tech Prep until 2007 when the reauthorization of Perkins IV was interpreted and defined by the Chancellor's Office as a student enrolled in an articulated course. That definition is narrow and problematic. Further, the CalPASS statewide initiative was endorsed as *the* education data collection system for K-16. After this announcement, the California Department of Education detoured and mandated K-12 use California Longitudinal Pupil Achievement Data System (CALPADS). Education agencies have struggled to support both and as a result it has compromised the ability of either system to provide data considered to be accurate. The disagreement over the use of CalPASS vs. CALPADS as the primary data collection system ended mid October 2010 when the governor vetoed future funding for CALPADS. It is assumed that CalPASS will soon have the necessary single system endorsement. The delay has implications as to the completeness of CalPASS data; further, there are efforts underway to disaggregate data to improve interpretation. It is rumored that the core indicator system used for postsecondary Perkins will include Tech Prep data when released January 2011. Generically, the grant administration office counts participation in Tech Prep as: number of students served, male or female, secondary or postsecondary professionals.

The Citrus College/local measure to determine Tech Prep "success" is needed (also mentioned in Section V. Recommendations). It takes an extraordinary effort to track a HS/ROP student entering the college via an articulated program of study (APOS); this "pre-enrolled" student is not on radar. Manual comparison of HS/ROP class rosters to enrollment data was time consuming. The recent passage of AP 4235 Credit by Exam will have implementing procedures that help with manual tracking (previously a student had to wait until they earned 12 units in good standing before credit could appear on a transcript).

Review of Data

Event attendance forms collect information regarding participation; Tech Prep captures the information by manually counting and submitting it to the statewide grant administration office. Procedures are under development implementing the revised credit by exam policy as students will be on track to attend Citrus College, receive advanced placement in their program, and earn college credit if they passed the articulated course with a B- or better.

Accessibility

Tech Prep advocates access to educational opportunities that develop the academic, career technical, and workforce readiness skills for all populations who elect to enroll in CTE programs. The hypothesis underlying Tech Prep and 2+2 is that it decreases the dropout rate and increases retention and completion rates of diverse student populations because the program of study (POS) is a sequenced nonduplicative progression of courses that prepare individuals of varying skill levels to enter the workforce in high-demand and emerging industries. Tech Prep is intended to support the building of the curricular framework and provide supportive student services that increase course to course retention and certificate completion. There is no data available to support the hypothesis.

Project Success

Citrus College Tech Prep builds and maintains authentic partnerships with personnel in the five USDs located in the college district. Tech Prep receives an annual award of approximately $60-70,000 so it is common for the CTE Supervisor to broker pre-enrollment project ideas and find funding with administrators of similar awards as well as apply for complimentary funds from other sources. Additionally, Citrus College Tech Prep works collaboratively with Rio Hondo and Mt. San Antonio Colleges; we share resources, research, and partners. Recent activities include Counselor Workshops and Middle School Career Awareness.

A major Tech Prep accomplishment was the mapping and the sequencing of courses by semester for each entry-level certificate offered by Citrus College. These maps have helped instructional personnel contextualize the relationships between courses, communicate scheduling considerations, and formalize discussions about 2+2 programs with secondary peers. The adoption of these working documents by the Tech Prep Advisory Committee in Fall 2009 was an important first step.

Institutional Articulation Agreements are maintained with Azusa, Claremont, Duarte, Glendora, and Monrovia Unified School Districts. Course level articulation agreements for 2+2 program are reviewed and renewed annually; requests for course level articulation in developing disciplines are received and reviewed with faculty. Approved by the Citrus College Board of Trustees in August 2010, BP 4235 Credit by Exam and supporting AP4235, newly recognizes an opportunity for HS/ROP students in articulated CTE courses to earn college credit by exam. The Statewide Academic Senate and Chancellor's Office advocated for the change in local policy but to date only a few colleges in the region have responded by removing the local residency requirement, i.e., that the HS student be enrolled for twelve units and be in good standing before credit by exam earned in HS/ROP be put on the students transcript. The update of the Credit by Exam policy at Citrus College was supported by CTE faculty, agreed to through shared governance committees, and earned the active support of the Vice Presidents of Academic Affairs and Student Services. The Dean of Career, Technical, and Continuing Education provided invaluable leadership in this endeavor.

Tech Prep is complicated and difficult to administer and accomplish. As such, grants were offered regionally to conduct professional development, build partnership and relevancy, and provide technical assistance in ten California regions. The CTE Supervisor, in tandem with the Los Angeles Orange County Regional Consortium, administered the Tech Prep Regional Coordination Project – Los Angeles County ($300,000 annually) until June 30, 2010, when the California Department of Education decided to fund using a different strategy. Activities delivered regionally were advertised and available locally. The greatest success of the regional Tech Prep effort has been the frequency and variety of professional development activities that help decision-makers to think about necessary changes and reforms. A brief chronological overview follows:

- Publication - Articulation Handbook and multiple articulation presentations
- Publication - Work Experience (Faculty/Student) Handbook
- Five presentations - The Future is Here : the Evolving Role of Education in Workforce Development
- Event - Program of Study (regional forum and workshops)
- Event - The World is Changing and so is the Workplace – one of four counselor events
- Training - Career Pathways Leadership Certification Training (national model) by Center for Occupational Research and Development (CORD)
- Training - Strengths Based Leadership – six cohorts of secondary/postsecondary teams facilitated by Gallup Organization
- Partnership for Film/Video - included funding for Claremont, Duarte and Monrovia and subsequently qualified as a funded project through Los Angeles County Regional Occupational Program
- Framework - Congruent with the national 21st Century Skills initiative, the Los Angeles Framework for 21st Century Learning was introduced by the Los Angeles Area Chamber of Commerce and the County Office of Education (Appendix D). Broadly distributed through the Tech Prep network of secondary – postsecondary agencies, it represents a multidisciplinary approach to learning that includes the integration of CTE and non CTE curriculum. Congruent with Perkins Title I and II requirements it provides a shared vision for all public education partnerships as we collaborate to improve completion rates and preparation of students for success in a rapidly evolving workplace. Further, the partnership disseminated over 200 copies of 21st Century Skills Learning for Life in our Times by Bernie Trilling & Charles Fadel. As a result, the Citrus College Tech Prep Advisory recommended pursuit of activities that develop Life and Career skills in middle and high school students in some or all of the following areas:
    - Flexibility and adaptability;
    - Initiative, persistence and self-direction;
    - Awareness of both aspirations and potential careers;
    - Social and cross-cultural skills;
    - Productivity and accountability;
    - Leadership and responsibility;
    - Personal and work ethics; and
    - Interpersonal skills and teamwork

- Publication – A Case for Change: How Redefining Career Technical Education will Transform California (Appendix E)
- Network – Twelve of eighteen community colleges in Los Angeles County maintain an agreement to facilitate the ability of local Tech Prep Consortium members to partner 'regionally' when necessary to match CTE disciplines (the HS/ROP has a 2+ program in a CTE discipline not available at 'their' community college). In fact, three of five course level agreements in Automotive Technology are with HS/ROPs outside the college district; this is necessary for the HS/ROPs to connect with the best program for their students.

Student Success

The vitality and viability of CTE instructional program at the secondary and postsecondary level are the basis of student success. Perkins IV, State Plan defines program of study (Appendix F). Title IC Section 135 goes on to declare specific standards all CTE programs must achieve (if funded with Perkins) and the standards that all programs should "aspire" to independent of funding. The program reviews completed for the CTE programs include important student success measures.

As the first program review for programs that meet the Title IC standard and qualify as a 2+2 program with credit granting mechanism, student success remains a hypothesis. Theoretically, the Tech Prep funded "treatments" should enhance student success (Perkins IV, Title II, Section 203). Student success activities implemented in 2010-11 will be provided to students enrolled in the 2+2 program of study. Tech Prep will initiate a relationship with students enrolled in articulated courses. Services that begin as pre-enrollment will evolve into transition, enrollment, advance placement, and formalization of college credit. Actions related to enrollment will be integrated into the campus-based student success initiative and include all available freshman activities implemented by student services.

As funds, other than Perkins, are made available the CTE supervisor collaborates with partners on career awareness, exploration, and development initiatives. The development of "You Are a Success Story" by Jason Dorsey represents a middle school, early high school online resource for students. Developed in tandem with 21st Century Life and Career Skills, the launch of this first in the nation program was positively received by the Tech Prep Advisory Committee (October 2010). Impacted by the state budget, it is increasingly difficult for partners to fund career development (grades 7th – 12th). As grant funding becomes available, partners are prepared to collaborate on multisite projects in this area.

As CTE faculty maintain and strengthen their CTE 2+2 programs and course-level articulation agreements increase, data will be available to study. Once a student enrolls in a program of study at the secondary level, they will have access to Citrus College information specific to their instructional program interests. As the student participates and earns college credit in a comparable course, Tech Prep will hold the credit in escrow (the time between passing the exam and enrollment at Citrus College for up to two years), and work with the college CTE counselor and the HS advisor to provide pre-enrollment services that put the student on track to register and place in the next course in the college sequence (advanced

placement). Ultimately, the student should not have to take duplicate coursework that increases cost and time in college; reducing the time it takes for students to prepare for the workforce and complete their educational goal(s) is the desired outcome. Additionally, the college could conceivably decrease the number of sections scheduled for entry level CTE courses and anticipate the number of seats needed in advanced sections for students entering from partner high schools. Participation in a Tech Prep program should:

a) Increase HS completion;
b) Improve preparation for (on-level entry in) college;
c) Improve transition to, and retention in, college;
d) Increase number of degrees and certificates awarded (in less time);
e) Increase number of transfer prepared students (in less time); and
f) Increase number of transfers (in less time).

Finally, the history of Tech Prep relates to a concept that proposes community colleges are the best institutions to evolve 'good' students into 'great.' In 1985 Dale Parnell asserted that the top 20% of students will routinely pursue and complete baccalaureate degrees and the remaining 80% make up a population he calls "the neglected majority." It is his hypothesis, carried out in Perkins, which asserts HS juniors enrolled in a nonduplicative progression of courses that align secondary – postsecondary to prepare students to succeed in postsecondary are most likely to complete a certificate and associate degree. As author of the program review, it is a shared belief but complicated to prove. The following excerpts are selected to support the intended "promise" of 2+2 related to student success. Quotes are sourced from the Community College Journal, April/May 2005, *The Neglected Majority: 20th Anniversary!* (Beebe and Walleri) and included in this document (Appendix G).

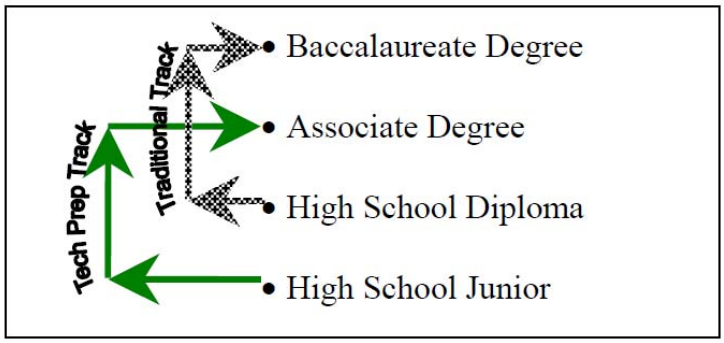
Page 9

"The community college leaders have not really taken hold of the program the way I had hoped. …I've always thought of it as a four-year program like a four-year baccalaureate program, but a four-year college Tech Prep program, using the last two years of high school with two-years at a community college. … I don't think that idea has ever really caught on…. (see Figure 4)

Figure 4

Tech Prep vs Baccalaureate Four-Year Programs

(Tech Prep Program focuses on finding excellence for The Neglected Majority)



Another problem cited by Parnell is the missed opportunity of community colleges to emphasize and tell the story of the associate degree. The associate degree is the American community college's signature product and a viable option for the neglected majority, but we are not stressing it. Parnell says about this topic that,

> "I think some progress has been made, but community colleges generally have not been giving high schools and the employer community clear enough signals about the value of completing the associate degree. And I underline completing the degree requirement. This was one of the biggest disappointments for me when I was President of the American Association of Community Colleges. I started a program called Associate Degree Preferred because I wanted to get the employer community acquainted with the Associate degree and start requiring it. … You think I could get my colleagues and community colleges excited about that? I just bombed!"

Student Learning Outcomes

The Tech Prep program is funded to provide services that strengthen curricular and instructional connections between secondary and postsecondary institutions and the systemic approach that increases the preparation and completion of students completing the 2+2 CTE program, i.e., successful transition to college, completion of certificate(s) and degree(s), and transfer as appropriate. Through the course of developing this document, the following Tech Prep Program Student Learning Outcomes were developed with the intent of assessing them in 2011-12 for the first time:

- Increase HS/ROP student participation in 2+2 programs with a credit-granting mechanism (including completion of A-G, CTE course requirements, and workplace (relevant) learning experiences that improve college preparation;
- Increase HS/ROP student transition to Citrus College (transition, transition on level, and transition with advanced placement);
- Increase college certificate completion;
- Increase college degree completion;
- Maintain the time necessary to complete the 2+2 CTE program (four years) when the student completes all courses as prescribed (and stays on level and on course); and
- Decrease number of duplicate or unnecessary courses.

Compliance

In summary, the Carl D. Perkins Career and Technical Education Act of 2006 (Perkins IV) outlines federal provisions for the act. Provisions are interpreted by states and result in grant awards to (secondary and postsecondary) local education agencies and administered by the California Department of Education (CDE) and the California Community Colleges Chancellors Office (CCCCO) respectfully. Starting from the premise and promise of Title I, Tech Prep is detailed in Title II of the Act, awarded to postsecondary agencies only and provisions can be summarized into eight requirements (federal Title II language included in Appendix F).

California Education Code, Title 5 is adhered to as applied to local education agencies (secondary and postsecondary). Additionally, Tech Prep complies with (Federal) Education Department General Administrative Regulations (EDGAR), Code of Federal Requirements (CFR), California state grant award/fiscal management, and local policy, procedures and fiscal practice.

Student Eligibility

High school and regional occupational program students enrolled in a CTE course authorized under an Institutional Articulation Agreement and a Course Level Agreement approved by faculty in the appropriate discipline are eligible for participation.

Program Services – How Does it Compare to Similar Programs at Other Community Colleges

Tech Prep projects are not identical college to college and program success is influenced by the background of personnel, where they're assigned, and CTE faculty involvement, as well as institutional involvement (secondary and postsecondary). Active networking and communication takes place among all Tech Prep Leads at community colleges in the county, region, and state. The Los Angeles Orange County Regional Consortium sponsors meetings that facilitate peer-to-peer sharing of successful practices.

The strength of the Mt. San Antonio College Tech Prep program includes a long history of CTE faculty involvement and approval of course level articulation agreements for comparable secondary courses; additionally, when the HS/ROP student passes credit by exam or the faculty approved assessment, a transcript is immediately mailed to them prior to college registration and attendance. Rio Hondo College also has a strong program however they, too, are revamping implementing procedures in support of course level articulation agreements. All of the Tech Prep initiatives report a significant decrease in CTE course offerings at the secondary level (USD and ROP) and access issues (securing advance placement seats for students who earned college credit in articulated HS/ROP courses) at the postsecondary level.

Funding, Expenditure & Accountability

The CTE Supervisor interfaces with fiscal office personnel in accordance with local procedures and that partnership with Fiscal Services is instrumental to audit-exception free grant administration. The leadership and support provided by key individuals overseeing categorical funds is exemplary and expenditures are reviewed and approved by program authorities prior to submission to fiscal (Dean, Vice President, then Fiscal and HR, when pertinent).

Ms. Sandy Evans is the primary point of contact for fiscal actions related to Tech Prep. Under the supervision and guidance of the Director of Fiscal Services, she maintains necessary contact with CCCCO, routinely generates budget and expenditure information, and when expenditure information is confirmed by CTE Supervisor, analysis is performed

and reports are generated and submitted on time or in advance of due dates. Funding applications are submitted annually; fiscal and program reports are filed quarterly with a final report submitted 60 days after the award period. Project implementation is congruent with the state and college fiscal year of July 1 to June 30. Citrus College maintains appropriate checks and balances on program related expenditures and Tech Prep is audit exception free.

Environmental Impact

Students completing a 2+2 program and passing comparable college courses while in HS will save money and time. Fewer classes are taken by students resulting in a significantly decreased campus footprint.

Technology Needs

The Tech Prep program has been able to maintain current office technology as necessary to perform grant duties.

IV. Effective Practices

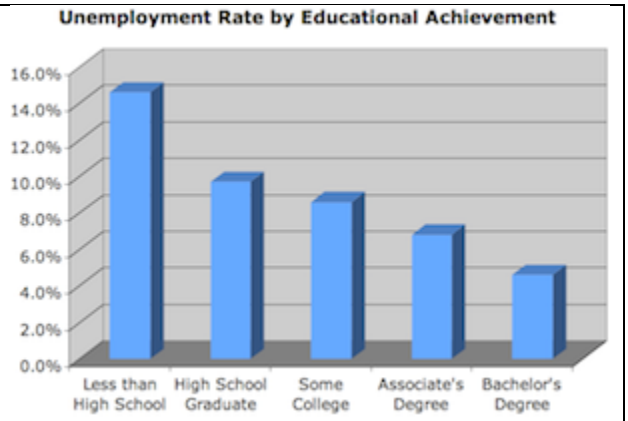
Citrus College served as lead college partner for the Tech Prep Regional Coordination Project – Los Angeles County. The regional funding supported a countywide approach that educated and informed the business and education community about program of study development, articulation, and course to course articulation and the resulting benefits to workforce development and student engagement. The work facilitated the adoption of new credit by exam policies in area community colleges as well as our own. Tech Prep will benefit from the change in college policy that recognizes the efforts, and awards credit for work completed in a high school articulated course.

The regional partnership included eighteen community colleges, their secondary Tech Prep partners, economic development leaders, Los Angeles Area Chamber of Commerce, and key industry representatives. Because of this partnership, Citrus College has built a portfolio of productive relationships throughout the region and this larger network of agencies is available to partner with the USDs in the Citrus College district. Clearly, additional funding and project integration was an effective approach. Effective practices were shared throughout the region and with the campus community. Every instructional exchange that brought students to campus for a college experience provided a learning opportunity that underscored the Tech Prep principal that college is for everyone and the better prepared a student is at entry, the faster a student earns a credential and degree. This lesson is very important early in the HS experience so students make a personal commitment to complete HS on level, or earn advanced placement, and exit with the information and knowledge that facilitates their transition into lower division courses vs. preparatory courses.

V. Opportunities for Improvement, Recommendations and Needs Identification

Opportunities for Improvement

There is a greater-than-ever-need, and an opportunity, to increase the number of certificate and degree prepared individuals in the workforce. It is an ideal time to integrate some Tech Prep activities within the Citrus College response to the national and California call for action to increase college completion rates by 5 million and 1 million (respectively) by 2020. A competitively prepared workforce brings economic wellbeing to individuals and the communities they live in. Collectively the level of educational achievement increases the competitive advantage of the workforce. California's status was captured by Scott Lay on October 5th in a Community College League of California newsletter:



Meanwhile, there is a statistical correlation between unemployment and educational achievement. While this economy is certainly abysmal, only 1 in 20 Americans with a bachelor's degree is unemployed. However, that number doubles for people that only have "some college." With black Californians 17.5% and Latino Californians 34.5% less likely than their white peers to have a college degree, this leads significant disparities in the earnings of both individuals and the communities in which they live.

. . . Now, it would be an oversimplification to say that, once somebody with 59 units crosses the 60 unit threshold and gets an associate's degree, they have markedly more skills that makes them more employable. However, there is an impact on both the individual and community of college completion. Employers do select job candidates with a college degree over those who attended college but did not complete, and employers locate jobs in communities (and states and countries) that have more adults who have earned degrees.

. . . By focusing on degree and certificate completion, we are not just giving individuals tools they need to compete in the workforce, we are developing economic communities that create thriving regions. Do we want to build communities that attract employers that bring with them low-wage jobs that simply need bodies, or do we want to foster economically strong communities driven by minds?

As the college takes actions that result in the proposed 5.5% (approximate) increase in the completion rate, a revitalized Tech Prep partnership could become instrumental. Building articulated programs of study, leveraging existing and acquiring new funding sources, and piloting innovative teaching and learning strategies that meet the needs of new learners – could directly influence success. We need to formulate and prove as many hypotheses as can be generated to meet current challenges. In this case, can Tech Prep/2+2 be a flywheel that, when implemented in tandem with other college success efforts, increases student success as measure by their completion of a certificate, associate degree, and transfer.

In closing, it would be easy to commiserate about the lack of state and federal funding during a time of unprecedented demand for services uniquely provided by community college. But the opportunities offered through the rapid advancement of technology could champion solutions. More students have a hand held computer than ever; these devices might be the most powerful tool in our toolbox.

Recommendations

1. Program Name Change

   It is recommended the Tech Prep Advisory Committee authorize a change in the name of the program in January 2011.
   Tech Prep, as a program name, is indistinct. Adopting a new program name that helps identify the program aim to its users is recommended. Use of 'CTE Early Advantage' as a program name serves to identify the benefit of 2+2 sequenced coursework as well as a credit granting mechanism. A visual that will help brand the program name was developed (below). The brand is appropriate to professional development activities provided to the broad spectrum of personnel involved in the effort, as well as students who enroll and benefit from credit by exam, transition and instructional supports.

2. Accountability and Research

Incoming Citrus College students, the 'average' tech prep junior in HS, should be able to complete a course sequence based on 2+2 and finish a certificate and an Associate Degree within the four years (2+2=4). Is the CTE approach accurately designed to be a four year accomplishment? Most likely the target is the completion of a certificate in four years; can we leverage that accomplishment to include an associate degree in five years? Can we measure it through traditional enrollment management techniques, or will it take a different effort? Finally, what are the effects of the current budget crisis on 2+2 students? These questions require study within the context of integrating Tech Prep into larger sustainable, and funded, initiatives designed to strengthen program/curriculum development, improvement, integration, and completion across education segments.

Adding a pre-enrollment software component with an interface to Banner, or investing in the available add on to Banner, is needed to track and serve students enrolled in the 2+2 because they are on their way into the Citrus College CTE programs. A feedback (telemetry) system is important to the student seeking feedback and reinforcement as they progress through the courses and complete their educational goal. Described as a GPS (global positioning system) it would be used to expedite their progress through their educational plan. Particularly, as a student exits the K-12 system (somewhat involuntary) into the college system (a 'choice' or voluntary system) we need a way to make the path visible as well as viable. At a minimum, 2+2 incoming students should receive routine and customized information, advisement, and invitations to campus events so they can anticipate a content-rich learning and student life.

3. Integrate with Congruent Projects - Perkins

The benefits and philosophy of Tech Prep (Title II) should be incorporated into Perkins (Title I) funded initiatives at USD/school sites as well as on campus. The national dialogue resulted in half of the states deciding to fold Tech Prep (Perkins - Title II) into Title I in 2006; the question will be inevitably revisited in California when Perkins is reauthorized. Regardless, every the students in our institutions will benefit from:

- the practice of incorporating world-of-work relevancy early in the K-12 curriculum;
- creating middle school career awareness and opportunities for exploration;
- integrating CTE and non CTE curricula (the National Governor's Association has just recommended standards for career and college readiness in English, Language Arts and Math);
- promoting involvement in CTE for every HS student (because research confirms just one CTE course in HS increases HS retention and completion rates);
- aligning secondary to postsecondary curriculum in every CTE program and routinely offering advance placement exams in the postsecondary program (this will also accommodate the older re-entry student);
- research and document the currency of every occupation supported by a certificate of achievement to ensure the program is relevant in the current and future

workforce and that employment/hiring will support the students exiting from the program (this work will also identify high wage, skill or demand areas that should be developed as a 2+2 program);

- display course requirements for certificates using a semester by semester layout that includes prerequisites to disclose time-to-complete and factor in additional courses needed to earn an associate degree – the resulting matrix would help to assess individual student completion of the two major education goals; and
- increase work experience opportunities that support the building of a resume concurrently with the earning of the Associate Degree.

As a subset of Perkins, Tech Prep could benefit from parallel Perkins initiatives in areas of curriculum development, improvement, alignment, and CTE/non CTE integration (these actions are encouraged and professional development is needed). Campus wide efforts to improve core indicators would strengthen all CTE programs. Perkins Title IC funds could be used to support additional topics that CTE faculty request, i.e., introduction of new technologies, work experience for students (as well as professionals conducting work externships), and student success strategies. Note: Tech Prep efforts could be easily integrated with, or leveraged to expand, projects that are currently funded as well as those anticipated under new national and state initiatives, i.e., American Graduation, Industry Sector, Transfer (formalize the 2+2+2), and Advanced Degree (2+2+2+2).

4. <u>Technological Advancement</u>

Improve how we use technology to improve the success of our projects and programs which depend on student success and completion:

Mobile technologies can help us with many of the tangibles and intangible aspects of the decision to complete a college education. Perhaps if their institution mirrored their second by second use of the modality, it would signal our interest in their individual success, meaning our ability to 'push' information to the students asking for it promotes customization and signals our interest in their success. Increasingly mobile applications relating to student learning are being studied across the nation. In addition to curriculum and instruction, aspects of student success should be explored. As pre-enrollment software is being reviewed, consideration could be given to using this modality to provide information regarding a student's progress in the 2+2 program long before they register at the college. Providing feedback and displaying 'visual' progress on their attainment of their educational goal(s) is ideal.

Expand our ability to add/modify CTE programs to address emerging occupations:

Technology is the nexus of workforce preparation for current and future students because it's how we live, work, and what we (informally) learn. Essential in all professions, it has become a necessary ingredient in workforce preparation programs and it is increasingly used as a formal learning modality. Incorporating the technologist's tools into learning isn't enough. A new phase in the knowledge age recognizes an increasing need for specialization in multiple disciplines (transdiscipline). It is necessary to adopt a transdicipline approach to occupations to

maintain pace (match the needs) of business in our community. The trend toward in-depth cross training (crossing industry sectors) will grow (Appendix E – A Case for Change) so our ability to construct programs that meet the needs of emerging technological occupations will be challenging, i.e., nano tech, info tech. Time sensitive approaches will be needed, i.e., how do we evolve foundational knowledge in multiple disciplines in less time? An example of a CTE transdicipline area is Information and Communications Technologies (ICT) and the knowledge needed hasn't been fully declared yet (described below):

Information and Communications Technologies (ICT) is an umbrella term, widely used outside the U.S. and by the U.N., to encompass all rapidly converging computer, software, networking, telecommunications, Internet, programming and information systems technologies.

The National Center for ICT is the driving force behind a national ICT Community of Practice including educational institutions and idustry representatives to create and distribute current and emerging ICT content and curriculum through conferences and new media technologies.

The Mid-Pacific ICT (MPICT) Center mission is to coordinate, improve and promote the quality of ICT education, with an emphasis on 2-year colleges, in northern California, northern Nevada, southern Oregon, Hawaii and the Pacific Territories.

VI. Technical Assistance/Training needs

The benefit of being the lead college host for the Tech Prep Regional Coordination Project - Los Angeles County was the involvement of secondary and postsecondary personnel representing Tech Prep Consortiums from seventeen community colleges. Funding supported progressive professional development and increased availability of resources to support curriculum integration, alignment, articulation, and collaboration. Content generated for the region will continue to be reintroduced into the local partnership and remain available for recycling into congruent campus initiatives.

Curriculum integration, alignment, articulation and collaboration with secondary partners is not unique to Tech Prep or CTE. Holistically the campus could use a multitude of research newly available to collaborate and form mutual outcomes. Ultimately the identification of the needs of students will influence a paradigm shift that will increase completion rates. Consultation with college and high school students could improve learning and facilitate strategies that help them help younger peers successfully pursue, and complete, their goals.

VII. Supplemental Information

Six Year Plan

To advance career technical education, and exploit Tech Prep as a premier CTE Early Advantage Program, the two year recommendations are included in Section V (completed

by 2012-13. Section VII has been DRAFTED to support the six year span of the program review. Assuming adequate resources were available, the CTE Supervisor could complete the following recommendation by 2014-15:

1. Integrate Tech Prep into bigger (funded) campus initiatives to create an 'economy of scale.' Also, to give Tech Prep focus and achievable outcomes, decide as an institution which CTE programs are viable as 2+2 because they are vital to economic well being (and comply with student "placement in high skill or high wage employment").

    a. Perkins IV: support faculty leads as they connect their postsecondary CTE program with secondary partners (generically required by Perkins), then for programs slated for 2+2 development, assist faculty to host discipline dialogues with secondary colleagues, support curricular improvement, and serve instructors implementing 2+2 program: automate tracking and oversight of the 'pre-enrolled' Citrus College students in the articulated HS course (influence enrollment, support exam administration, hold college credit in escrow for successful students, and facilitate transition and registration).

    b. Incorporate marketing and advertisement principles targeting next generation learners and produce content rich resources using modern methods that engage and excite students choosing and pursuing programs and occupations. For school age learners demonstrate how the integration of CTE with non CTE (academic subjects) is key to success, use virtualization to increase enrollment in 2+2 programs, and promote the benefits of the industry sector as well as the 'early advantage' that enrollment in 2+2 includes. Tech Prep can fund efforts from 7th grade to college. Encourage other funding sources to develop similar resources for the population over 18 years old population and address multiple audiences: the reentry, continuing education, academic, and workforce dependent (prospective) students.

    c. Staff/Professional Development is common to multiple grant funded initiatives. Collaborate on content and cost share when congruent needs match mutual outcomes. Consider interagency events when feasible. Collectively explore alternate delivery options to facilitate access to information synchronous to professional interest and need (methods that will transcend limitations encountered with fixed dates, time, and location). Support Communities of Practice initiatives and Professional Learning Councils (associated with CalPASS the pre K-14 longitudinal data system). Foster professional learning communities to support innovation, systems-thinking, organizational leadership and related initiatives that evolve the current condition.

Overall, every discipline is interested in curricular alignment and sequencing from high school to college; if the institution decided to expand the effort beyond CTE, the CTE supervisor would contribute to the campus wide initiative that could be implemented within six years if adequately resourced:

2. Decide, as an institution, the level of commitment necessary and available to develop authentic curricular alignment and connections with secondary ('sending') institutions. Confirm if secondary partners echo the college's commitment to influence and align curriculum beyond their institutional boundary. Consider:

    a. Needs identification, collective goals (mutual to multiple partners), action plan, commit resources (leverage and share resources to increase capacity of partners to connect and

align curriculum) and assign staff. At minimum, outcomes must include 2+2 CTE program(s) that include non CTE disciplines – to qualify for Tech Prep funds.

b. Connect appropriate strands of the Perkins IV plan(s) that direct the allocation of entitlement funds to the new areas of focus. [Currently each USD and the college complete their plan independently. It will be a challenge to stretch limited Perkins IV resources to extend beyond institutional boundaries.] Seek alternative resources conducive to intra and interagency (systems thinking approaches), connect instructional programs and expand delivery options (to support USD and college access).

c. Integrate all funded initiatives with K-14 outcomes (and see additional), i.e., STEM, etc.

d. Study benefits of 2+2 alignment on student success. Specifically college prep, academic achievement, retention, completion rates (HS graduation and certificate completion rates), and duration.

e. Expand 'bridging' activities between middle and high school and college in all disciplines. Example of activities uses CTE – but student engagement at the earliest level is the idea. Begin with early career awareness, progress to exploration and evolve into participation in some work experience in high school. Ideally the high school experiences generate interest in existing and emerging industries to help them opt out of others (because this eliminates costs in time/money delays often realized as adults). Foster development of many 2+2 programs (with credit granting opportunity), assist students to achieve in all disciplines, select a viable program of interest, and fast track to Citrus College.

f. Build opportunity applying knowledge, i.e., 'doing something' with the information. CTE example is work relevance and experience along the middle school to college continuum. Offer supplemental services that help to relate the world-of-work to learning (lifelong), expand relationships between disciplines, use problem based learning to engage students in real world problem solving, promote applied learning (power of doing), and help college students to build a resume (practical/applied experience) concurrent to their education credential(s).

The CTE supervisor will participate in the campus wide effort to increase the certificate completion rate:

3. Participate and contribute to Citrus College's efforts to adopt outcomes stated within the *2020 Vision student success* initiative. Specifically, "California's community college will increase completions by 1 million by 2020 because it is economically necessary, morally incumbent and achievable." A key recommendation under Teaching and Learning would positively influence the success of Tech Prep, i.e., contextualize and accelerate curriculum. It also recommends, "expand credit for demonstrated knowledge" – this would facilitate advancement of reentry students in CTE programs of study. There are multiple theories that warrant examination, application, and study as we all seek successful strategies that retain and facilitate the completion of the greatest number of students. The rewards are great. They earn credentials essential to self sufficiency and we collectively improve the economic wellbeing of communities.

Appendix A

Citrus College

Building Articulated Programs of Study (POS)
TECH PREP – Spring 2010

Institutional Articulation Agreements 2009 – 2010:

Azusa Unified School District (USD) | Claremont USD | Glendora USD
Duarte USD | Monrovia USD

Program of Study	**Secondary Level – Emphasis is on "General" Areas of Interest** **Postsecondary – Emphasis is on "Specific" Areas/Certificates***
Agriculture and Natural Resources	
CDE Pathway: **Forestry & Natural Resources**	Forestry
Arts, Media, and Entertainment	
CDE Pathway: **Media & Design Arts - Multimedia**	Digital and Web Design
	Leads to Advanced Digital and Web Design
	Ceramics 1-year
	Leads to Ceramics 2-year
	Photography
CDE Pathway: **Performing Arts**	Commercial Dance
CDE Pathway: **Production & Managerial Arts - Recording Arts**	Audio Recording Technology
	Emerging Theatre Technologies
Education, Child Development, Family Services	
CDE Pathway: **Child Development**	Child Development Teacher
	Leads to Child Development Master Teacher
	Leads to Child Dev. Master Teacher–Early Intervention
CDE Pathway: **Consumer Services**	Cosmetology
	Esthetician
CDE Pathway: **Education**	Library Technology
Energy and Utilities	
CDE Pathway: **Energy & Environmental Technology**	Building Systems Design Technology
	Building Systems Maintenance & Operation
CDE Pathway: **Public Utilities**	Public Works Level I & Level II [no POS/workforce focus]
	Leads to Public Works Level II
	Water Technology
CDE Pathway: **Residential & Commercial Energy & Utilities**	Heating & Air Conditioning**
	Landscape Management** –

**Certificates are state approved by college & CA Community College Chancellor's Office; ** college-level approval*

Tech Prep Advisory (USD/ROP Partners) reviewed and approves programs of study October 30, 2009
Contact Marti DeYoung mdeyoung@citruscollege.edu, 626.914.8702

Engineering and Design	
CDE Pathway: **Architectural & Structural Engineering**	Architectural Drafting – CAD
	Architectural Design
	Drafting Technology – CAD
	Leads to Advanced Drafting Technology – CAD
CDE Pathway: **Engineering Design**	Computer Generated Imagery
CDE Pathway: **Engineering Technology**	Electronics Technician
Finance and Business	
CDE Pathway: **Accounting Services**	Accounting
CDE Pathway: **Business Financial Management**	Administrative Office Manager
	Management
	Office Occupations
	Secretarial
	Word Processing
Health Science and Medical Technology	
CDE Pathway: **Therapeutic Services**	Dental Assisting
	Vocational Nursing
	Note: Registered Nursing/Associate Degree
Information Technology	
CDE Pathway: **Information Support and Services**	Information Technology
Marketing, Sales and Service Industry	
CDE Pathway: **Professional Sales and Marketing**	Marketing
Public Services	
CDE Pathway: **Protective Services**	Administration of Justice
	Emergency Medical Technician**
	Emergency Management & Homeland Security –On Hold
Transportation Services	
CDE Pathway: **Vehicle Maintenance, Service, & Repair**	Automotive Technology - Master Technician
	Automotive Technology -Toyota/Lexus/Scion Technician
	Automotive Technology - Undercar/Drivetrain Specialist
	Automotive Technology - Underhood Specialist
	Leads to Research and Development Technician
	Medium & Heavy Diesel Truck Technology
	Motorcycle

**Certificates are state approved by college & CA Community College Chancellor's Office; ** college-level approval*

Tech Prep Advisory (USD/ROP Partners) reviewed and approves programs of study October 30, 2009

Contact Marti DeYoung mdeyoung@citruscollege.edu, 626.914.8702

Appendix B

Citrus College Tech Prep Committees (2010-2011) – Marti DeYoung (626-914-8702)

Tech Prep Advisory Committee

DATES	Time	Location 1000 W. Foothill Blvd., Glendora	Student Transition Committee (see next pg)
October 22, 2010	RSVP Lunch @ 12:15 – Meeting starts 1:00 pm – 2:15 pm	LIBRARY Fishbowl (2nd floor conf. room)	*Student Transition Committee oversees support services that transition students in pathways*
January 21, 2011	RSVP Lunch @ 12:15 – Meeting starts 1:00 pm – 2:15 pm	LIBRARY Fishbowl (2nd floor conf. room)	
April 22, 2011	RSVP Lunch @ 12:15 – Meeting starts 1:00 pm – 2:15 pm	LIBRARY Fishbowl (2nd floor conf. room)	

Tech Prep Advisory Committee Members:

Partner Agency	Name	Title	Address	City/State/Zip	Phone	E-Mail
Azusa USD	Alexis Ruiz-Alessi	Assistant Superintendent, Ed. Srvs.	546 S. Citrus Avenue	Azusa, CA 91702	626-857-6182	alexisr@azusausd.k12.ca.us
	Vincent Jantz	Director, Secondary Achievement	546 S. Citrus Avenue	Azusa, CA 91702	626-858-6192	vincentj@azusausd.k12.ca.us
Baldy View ROP	Jose Castro	Superintendent	8265 Aspen Ave. #100	Rancho Cucamonga	909-980-6490x230	jose_castro@bvrop.k12.ca.us
	Clarke Stephens	Director of Instructional Srvs.	8265 Aspen Ave. #100	Rancho Cucamonga	909-980-6490x223	clarke_stephens@bvrop.k12.ca.us
Claremont USD	Bonnie Bell	Assistant Superintendent, Ed. Srvs.	170 W. San Jose Ave.	Claremont, CA 91711	909-398-0609x70201	bbling@cusd.claremont.edu
	TBD		125 W. San Jose Ave.	Claremont, CA 91711		
Duarte USD	Wendy Wright	Assistant Superintendent, Ed. Srvs.	1620 Huntington Dr	Duarte, CA 91010	626-599-5011	wwright@duarte.k12.ca.us
	Luis Haro	Assistant Principal, Duarte HS	1565 E. Central	Duarte, CA 91010	626-599-5712	lharo@duarte.k12.ca.us
Glendora USD	TBD	Assistant Superintendent, Ed. Srvs.	500 N. Loraine Ave.	Glendora, CA 91741	626-963-1611	
	TBD		1600 E. Foothill BLVD	Glendora, CA 91741		
Monrovia USD	Carol Packard	Sr. Director of Educational Services	325 E. Huntington Dr.	Monrovia, CA 91016	626-471-2030 626-471-2031 Jill	CPackard@monrovia.k12.ca.us
	Cheri Warren	Director of Educational Services	325 E. Huntington Dr.	Monrovia, CA 91016	626-471-2044 626-471-2047 Emma	cwarren@monrovia.k12.ca.us
E. San Gabriel Valley ROP	Colleen Crawford	Deputy Superintendent	1501 Del Norte St	West Covina, CA 91790	626-472-5158	ccrawford@esgvrop.org
Aday Architects	Carlos E. Hernandez	Project Manager	819 E. Route 66	Glendora, CA 91740	626-589-4457	Carlosh97arch@yahoo.com
	Eric Rodriguez	Project Manager	819 E. Route 66	Glendora, CA 91740	626-963-4044	eric@adayarchitects.com
Certified Automotive	Gene Morrill	Owner	476 S. Vermont Ave	Glendora, CA 91741	626-963-0814	certautospec@msn.com

Citrus College	**Jim Lancaster**	Dean of Career Technical and Continuing Education - Lead	Glendora, CA 91741	626-852-6403	jlancaster@citruscollege.edu
	Jim McClain	Dean of Math	Glendora, CA 91741	626-914-8794	jmcclain@citruscollege.edu
	Eric Rabitoy	Dean of Science, Engineering, and Health Sciences	Glendora, CA 91741	626-914-8788	erabitoy@citruscollege.edu
	Lan Hao	Institutional Researcher, Cal-PASS primary contact	Glendora, CA 91741	626-914-8521	lhao@citruscollege.edu
	Jeremy Clark	Automotive Technology Faculty, Academic Senate	Glendora, CA 91741	626-914-8737	jclark@citruscollege.edu
	Michelle Plug	Faculty, Articulation Officer	Glendora, CA 91741	626-914-8637	mplug@citruscollege.edu
	Naomi Avila	CTE Career Counselor	Glendora, CA 91784	626-852-6407	navila@citruscollege.edu
TECH PREP	**Marti DeYoung**	CTE Supervisor	Glendora, CA 91741	626-914-8702	mdeyoung@citruscollege.edu
	Terry Adams	Program Specialist	Glendora, CA 91741	626-857-4179	tadams@citruscollege.edu

Citrus College Tech Prep Committees (2009 - 2010) – Marti DeYoung (626-914-8702)

Tech Prep Student Transition Committee

DATES	Time	Location 1000 W. Foothill Blvd., Glendora	Advisory Committee (see previous page)
February 2, 2011	Networking @ 2:30 pm - Meeting at 2:45 pm ending @ 4:00	LIBRARY Fishbowl (2nd floor conf. room)	*Advisory Committee oversees career pathway implementation*
May 4, 2011	Networking @ 2:30 pm - Meeting at 2:45 pm ending @ 4:00	LIBRARY Fishbowl (2nd floor conf. room)	

Tech Prep Student Transition Committee Members:

Last	First	Affiliation	Address	City/State/Zip	Phone	Fax	E-Mail
Arizmendiz	Sandy	Oak Knoll School	1503 S. Sunflower	Glendora, CA 91740	626-852-7972		SArizmendiz@cousd.k12.ca.us
Baumann	Lanette	Azusa HS	240 N. Cerritos	Azusa, CA 91702	626- 815-3465	626- 815-3466	lanetteb@azusausd.k12.ca.us
Benson	Mary-Ann	CVUSD-Sierra Vista M	Vocational Ed Specialist	WorkAbility Director	626-974-7323		mabenson@cvusd.k12.ca.us
Bryden	Laurie	Temple City High School	9501 E Lemon Ave	Temple City, CA 91780	548-5000X1544	626-548-5163	lbryden@tcusd.net
Burch	Vickie	Baldwin Park USD	3699 N. Holly Ave.	Baldwin Park, CA 91706	626- 856-4597	626- 856-4915	Vjburch886@bpusd.net
Castillon	Peter	Duarte HS	1565 East Central Av	Duarte, CA 91010	626-599-5700	626-599-5784	pcastillon@duarte.k12.ca.us
Compton	Debi	Chaparral HS	121 W Allen Ave	San Dimas, CA 91773	909-971-8240		Compton@bonita.k12.ca.us
Contreras	Sue	Gladstone HS	1340 N. Enid	Covina, CA 91722	626- 815-5165	626- 334-2589	suec@azusausd.k12.ca.us
DiOssi	Dianna	ESGV ROP	1501 W. Del Norte	West Covina, CA 91790	(626) 915-5841	x 332	ddiossi@esgvrop.org
Kardashian	Karen	Sierra HS (Alt)	1134 South Barranca	Glendora, CA 91740	626-852-8406	626- 914-3797	Karen1313@msn.com
Kavoossi	Karen	West Covina HS	1609 E Cameron Ave	West Covina, CA 91790	859-2900/3937	626- 859-3950	KKavoossi@wcusd.org
Ledezma	Loretta	Monrovia HS/ROP	920 S. Mountain Ave.	Monrovia, CA 91016	(626) 471-2862		Ledezma_Loretta@lacoe.edu
Rhoads	Tamara	Claremont USD	1601 N. Indian Hill Bl	Claremont, CA 91711	909-624-9053	X30443	trhoads@chsmail.claremont.edu
TBD		LA County ROP	9300 Imperial Hwy	Downey, CA 90242			
Stear	Eileen	Baldy View ROP	8265 Aspen Ave. #100	Rancho Cucamonga, 91730	909-980-6490x237	909-980-8931	eileen_stear@bvrop.k12.ca.us
TBD		Glendora HS.	1600 E. Foothill Blvd	Glendora, CA 91741	963-5731 X266		dskinner@glendora.k12.ca.us
Trail	Michelle	Duarte HS	1565 E Central Ave	Duarte, CA 91010	626-599-5737	626-599-1742	MTrail@duarte.k12.ca.us
Vogt	Tom	Azusa USD	546 S. Citrus Ave.	Azusa, CA 91702	626-858-6195	626-858-6193	tomv@azusausd.k12.ca.us
Walker	Lil	ESGV ROP	1501 W. Del Norte	West Covina, CA 91790	626-472-5106	626- 472-5148	cwalker@esgvrop.org
		Monrovia Adult School	920 S. Mountain Ave.	Monrovia, CA 91016	626- 471-3072	626- 471-2809	

CITRUS COLLEGE [1000 W. Foothill Blvd., Glendora, CA 91741]

Co-HOST	DeYoung	Marti	TECH PREP: CTE Supervisor	626- 914-8702	626-857-4185	mdeyoung@citruscollege.edu
Co-HOST	McCraven	Ivon	School Relations/Student Services	626-857-4162	626-857-4162	imccraven@citruscollege.edu
Dean	Lancaster	Jim	Dean, Career, Technical, and Continuing Ed.	626-857-6403		jlancaster@citruscollege.edu
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Appendix C

Citrus College

Institutional Articulation Agreements

Certificate of Achievement	Administration of Justice	Audio Recording Technology	Automotive Technology	Medium/Heavy Diesel Truck Technology	Child Development	Dental Assisting	Drafting (CAD)	Wildland Resources & Forestry
Course #	AJ 101		AUTO 101	AUTO 101	CHLD 109		DRAF 101 & 109	
Azusa			*AHS	*AHS			*AHS	
Claremont			*CHS	*CHS				
Duarte								
Glendora								
Monrovia			C	C	*MHS			
Alhambra			C	C				
Antelope Valley Union			C	C				
Bonita			C	C				
Chaffey Joint Union			C	C				

A = Course-level Articulation Agreement

* = Renewal Pending

Appendix D

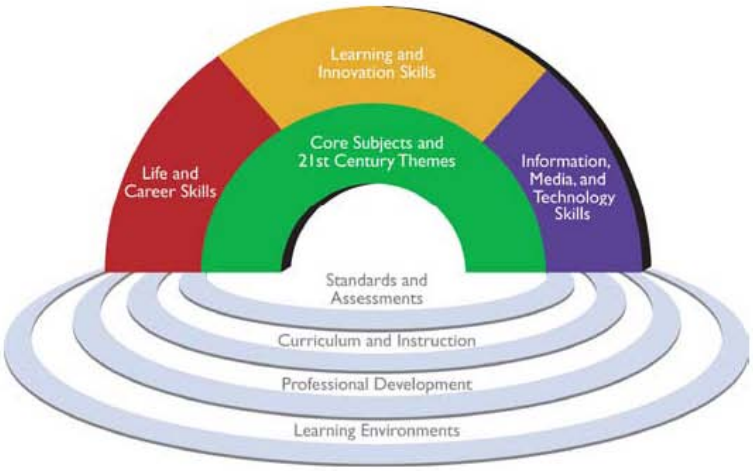
Los Angeles Framework for 21st Century Learning

Los Angeles Area Chamber of Commerce

Los Angeles County Office of Education

Our collective future rests on the success of today's students. The Los Angeles Area Chamber of Commerce and the Los Angeles County Office of Education (LACOE) have endorsed this roadmap for educating the 21st century workforce in the region. This framework is based on a national framework outlined by the Partnership for 21st Century Skills, a leading advocacy organization focused on infusing 21st century skills into education.

21st Century Student Outcomes and Support Systems



21ST CENTURY STUDENT OUTCOMES

The elements described in this section as "21st century student outcomes" (represented by the rainbow) are the skills, knowledge and expertise students should master to succeed in work and life.

Core Subjects and 21st Century Themes

Mastery of core subjects and 21st century themes is essential for students in the 21st century. Core subjects include English, reading or language arts, world languages, arts, world religions and cultures, mathematics, economics, science, geography, history, government and civics.

For more information about the Los Angeles Area Chamber of Commerce and Los Angeles County Office of Education working group, contact Alma Salazar, 213.580.7566 or asalazar@lachamber.com.

For more information on the Partnership for 21st Century Skills, or to view the original framework, go to **www.21stcenturyskills.org**.

21st Century Framework Local Partners

Acetopia USA, Inc.
Aftergood Law Group
Arup
AT&T
Bank of the West
The Boeing Company
Los Angeles County Community Development Foundation
Employment Development Department
Houghton Capital Management, LLC
Los Angeles Economic Development Corporation
Los Angeles Opportunities Industrialization Centers
SunCal Companies
Maria's Italian Kitchen
Merrill Lynch
Mockingbird Communications
The Campaign for College Opportunity

21st Century Framework National Partners

Adobe Systems, Inc.
American Association of School Librarians
Apple
ASCD
Blackboard, Inc.
Cable in the Classroom
Cisco Systems, Inc.
Corporation for Public Broadcasting
Dell, Inc.
EF Education
Education Networks of America
Educational Testing Service
Ford Motor Company Fund
Gale, Cengage Learning
Hewlett Packard
Intel Corporation
JA Worldwide
K12
KnowledgeWorks Foundation
LEGO Group
Lenovo
Learning Point Associates
McGraw-Hill
Measured Progress
Microsoft Corporation
National Education Association
Nellie Mae Education Foundaiton
netTrekker
Oracle Education Foundation
Pearson
PolyVision
Quarasan!
Scholastic Education
Sesame Workshop
Sun Microsystems, Inc.
The Walt Disney Company
Verizon

We believe schools must move beyond a focus on basic competency in core subjects to promoting understanding of academic content at much higher levels by weaving 21st century interdisciplinary themes into core subjects:

- Global and cultural awareness
- Financial, economic, business and entrepreneurial literacy
- Civic literacy
- Health literacy

Learning and Innovation Skills

Learning and innovation skills are what distinguish students who are prepared for an increasingly complex life and work. Graduates must not achieve learning skills, but develop a "love of learning." Our educational system and connections to internships and the world of work can cultivate this natural joy of learning through incorporating hands-on and applied learning opportunities. These skills include:

- Creativity and innovation
- Critical thinking and problem solving
- Effective application of knowledge and skills
- Communication and collaboration

Information, Media and Technology Skills

The 21st century is a technology, digital and media-driven environment, marked by access to an abundance of information, rapid changes in technology tools and the ability to collaborate and make individual contributions on an unprecedented scale. To be effective in the 21st century, citizens and workers must be able to exhibit a range of functional and critical thinking skills, such as:

- Information literacy
- Media literacy
- ICT (Information, Communications and Technology) literacy

Life and Career Skills

The ability to navigate in the globally competitive information age requires students to pay rigorous attention to developing adequate life and career skills, such as:

- Flexibility and adaptability
- Initiative, persistence and self-direction
- Awareness of both aspirations and potential careers
- Social and cross-cultural skills
- Productivity and accountability
- Leadership and responsibility
- Personal and work ethics
- Interpersonal skills and teamwork

21ST CENTURY SUPPORT SYSTEMS

Developing a comprehensive framework for 21st century learning requires more than identifying specific skills, content knowledge, expertise and literacy. An innovative support system must be created to help students to master multidimensional abilities. 21st Century standards and accountability systems should emphasize depth, rather than breadth of knowledge of core concepts. The Partnership has identified live critical support systems that ensure student mastery of 21st century skills:

- 21st Century Standards
- Assessment of 21st Century Skills
- 21st Century Curriculum and Instruction
- 21st Century Professional Development
- 21st Century Learning Environments

For more information about the Los Angeles Area Chamber of Commerce and Los Angeles County Office of Education working group, contact Alma Salazar, 213.580.7566 or asalazar@lachamber.com.

For more information on the Partnership for 21st Century Skills, or to view the original framework, go to **www.21stcenturyskills.org**.

Appendix E

The complete document is available upon request from the Citrus College Tech Prep office.

A Case for Change:

How Redefining
Career Technical Education
Will Transform California

Tech Prep Regional Coordination Project - Los Angeles County,
Funded through the California Department of Education.

Written by:
Jim Brazell, President
Venture Ramp, Inc.

Edited & Designed by:
Stacy Armstrong
Citrus College

ublishing Information

production of *A Case for Change: How Redefining Career Technical Education Will Transform California* was supported by the Prep Regional Coordination Project - Los Angeles County (TPRCP-LA), which is funded through the California Department of ation.

RP-LA is a collaboration project implemented by partners representing education and workforce agencies in the region; Citrus ge is the lead partner. The Los Angeles Orange County Regional Consortium (LAOCRC) provides leadership to the Tech Prep tive and information regarding many regional initiatives is available on the LAOCRC website (www.laocrc.com). Citrus ge serves as the lead fiscal agent for the LAOCRC.

document was written by Jim Brazell, president of Venture Ramp, Inc. Brazell is a consultant, researcher and orator who focus- 21st century issues including community competitiveness, educational innovation, emerging technology and jobs. His rch, writing, and speaking have resulted in the formation of Technology, Engineering, ARTS, Mathematics, and Science MS) talent network initiatives in Texas and California. Brazell holds a bachelor of science degree in sociology, Summa Cum de, from Bradley University in Peoria, Illinois.

se for Change: How Redefining Career Technical Education Will Transform California was published by Citrus College ographics in December 2008. Editing and graphic design was provided by Stacy Armstrong of the Citrus College Office of rnal Relations.

Tech Prep Regional Coordination Project - Los Angeles County is led by Dr. Lyla Eddington, consortium chair. Marti DeYoung itrus College's Tech Prep Program serves as the project coordinator. The remaining members of the consortium are as follows:

nced Trans Tech & Economic Development Initiative, Rio Hondo College:	Mike Slavich
mbra Unified School District:	Priscilla Boyle
r for International Trade Development & California-Mexico Trade Assistance Center:	Gene Bobatch
a College:	Jim Lancaster
Los Angeles College:	Gayle Brossart, Gina Chelstrom, Laura Ramirez
San Gabriel Valley Regional Occupational Program:	Laurel Adler
mino College:	Cathy Brinkman, Karen Hess, Connie Zardate
dale College:	Jan Swinton
ity College:	Vania Jara
ission College:	Geri Shapiro
sante Valley ROP:	Esperanza Fernandez
rade Tech College:	Marcia Wilson
alley College:	Don Gauthier, Lauri Nalepa
Center for Advanced Competitive Technology, Los Angeles Community College District:	Grace Ishikawa
Long Beach City College:	TBD
Los Angeles Center for Excellence, Los Angeles Community College District:	Lisa Lowenberg
Los Angeles Center for Excellence, Mt. San Antonio College:	Audrey Reille
Los Angeles Area Chamber of Commerce:	David Rattray
Los Angeles City Workforce Investment Board:	Alma Salazar
Los Angeles County Office of Education:	Bob Tyra
Los Angeles county Regional Occupational Program:	Jimmy Benavides
Los Angeles County Workforce Investment Board:	Gary Kay
Los Angeles Economic Development, Los Angeles Community College District:	Dianne McBride
Los Angeles Unified School District:	Vernida Owens
Los Angeles Unified School District: Regional Occupational Program:	Judy De La Torre, Robert LeBlanc
Monrovia Unified School District:	Pam Woodbury
Montebello Unified School District:	
Pasadena Unified School District:	
Rio Hondo College:	
Santa Monica College:	
State of California EDD/LMID, Los Angeles County ASG:	
Temple City Unified School District:	
USDA Forest Service, Angeles National Forest	

Conclusion

In the fall of 1957, the Soviet Union sent an intercontinental ballistic missile named Sputnik into space. This surprise lift-off served as a call to action for Americans, who had assumed that it had superiority in all fields of technology. In response, the country launched a huge effort to regain technological supremacy, including revamping school curriculum.

Today, the United States finds itself faced with a similar dilemma. Significant changes in the areas of demographics, economics, and education have created a convergence of needs commonly referred to as "a perfect storm." These changes have created a new imperative for the nation to increase its production and intellectual capital, as well as its competitiveness and innovation. Failure to do so would be detrimental to our global standing, economic well-being, and overall security. Because of this, organizations and leaders in the industry, government, education, military, and public sectors are all in agreement that the time has come to revitalize education - specifically Career Technical Education.

The mission of Career Technical Education is to provide industry-linked programs and services designed to help individuals reach their career goals, obtain self-sufficiency, compete globally, and contribute to overall economic prosperity. CTE courses engage, motivate, and prepare students for the future. In addition, the academic, technical, and workplace skills offered through these courses are essential to success during school and in the workplace. They are essential in addressing the challenges posed not only by a changing economy, but also by a changing world.

The need for a statewide comprehensive career technical education system continues to grow in response to California's changing workforce needs and the globalization of the world's economy. In response, the California Department of Education and the California Community College Chancellor's Office created a plan that presents a bold vision for CTE.

The California State CTE Plan ascertains that all students should be ensured access to CTE courses. It also calls for the advancement of CTE as a means of engaging students and realizing the concept of lifelong learning. However, the most significant goal of the plan is to weave Career Technical Education into the fabric of the state's educational delivery system.

Many proponents of K-12 liberal arts education argue for a zero-sum game - either liberal arts or STEM, but not both. However, as this paper asserts, doctrine supports the fact that CTE can no longer exist as a separate educational alternative. Not only should it be interspersed throughout all disciplines, but it must also assure access for all students through a system that aligns programs, curricula, and services across educational segments, programs and disciplines. In essence, there needs to be a shift from vocational education geared to those who will not attend college to programs of study that link CTE to college and workforce entry-level standards.

The new face of Career Technical Education is one that unifies college and workface preparation, planning, and course sequencing. Ultimately, this movement is about expanding the culture and definition of excellence in U.S. schools. There are several ways in which this can be done. These include the usage of cluster-based economic development, the infusion of STEM (science, technology, engineering, and mathematics) content into education and workforce, and the establishment of E3 (Economic Development, Employment, and Education) partnerships.

Educators, industry representatives, community members, and policymakers are called upon to complete the work begun by the statewide planning process. The inability to do so will have grave consequences for our students, our state, and our nation as a whole. We must bring these ideas to life to ensure the success of all students, a robust economy, and the well-being of California's communities.

TPCRP-LA is a collaboration project implemented by partners representing education and workforce agencies in the region; Citrus College is the lead partner. The Los Angeles Orange County Regional Consortium (LAOCRC) provides leadership to the Tech Prep regional initiative.

VISIT WWW.LAOCRC.COM

For information regarding regional initiatives, Tech Prep resources, and other relevant web site links.

Appendix F

PERKINS ACT of 2006: Exact language unless noted in [*italics]*

SEC. 122. STATE PLAN. [*State level provides 'default' for local uses of funds*]

(c) Plan contents—The State plan shall include information that—

(1) describes the career and technical education activities to be assisted that are designed to meet or exceed the State adjusted levels of performance, including a description of—

(A) the career and technical programs of study, which may be adopted by local educational agencies and postsecondary institutions to be offered as an option to students (and their parents as appropriate) when planning for and completing future coursework, for career and technical content areas that--

(i) Incorporate secondary education and postsecondary education elements;

(ii) Include coherent and rigorous content aligned with challenging academic standards and relevant career 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) May include the opportunity for secondary education students to participate in dual or concurrent enrollment programs or other ways to acquire postsecondary education credits; and

(iv) Lead to an industry-recognized credential or certificate at the postsecondary level, or an associate or baccalaureate degree.

SEC. 135. LOCAL USES OF FUNDS.

(a) **General Authority.—**Each eligible recipient that receives funds under this part shall use such funds to improve career and technical education programs.

(b) **Requirements for Uses of Funds.—**Funds made available to eligible recipients under this part shall be used to support career and technical education programs that—

(1) strengthen the academic and career and technical skills of students participating in career and technical education programs, by strengthening the academic and career and technical education components of such programs through the integration of academics with career and technical education programs through a coherent sequence of courses, such as career and technical programs of study described in section 122(c)(1)(A), to ensure learning in—

(A) the core academic subjects (as defined in section 9101 of the Elementary and Secondary Education Act of 1965); and

(B) career and technical education subjects;

(2) Link career and technical education at the secondary level and career and technical education at the postsecondary level, including by offering the relevant elements of not less than 1 career and technical program of study described in section 122(c)(1)(A);

(3) provide students with strong experience in and understanding of all aspects of an industry, which may include work-based learning experiences;

(4) develop, improve, or expand the use of technology in career and technical education, which may include

(A) training of career and technical education teachers, faculty and administrators to use technology, which may include distance learning;

(B) providing career and technical education students with academic and career and technical skills (including the mathematics and science knowledge that provides a strong basis for such skills) that lead to entry into the technology fields; or

(C) encouraging schools to collaborate with technology industries to offer voluntary internships and mentoring programs, including programs that improve the mathematics and science knowledge of students;

(5) provide professional development programs that are consistent with section 122 to secondary and postsecondary teachers, faculty, administrators, and career guidance and academic counselors who are involved in integrated career and technical education programs, including—

(A) in-service and pre-service training on—

(i) effective integration and use of challenging academic and career and technical education provided jointly with academic teachers to the extent practicable;

(ii) effective teaching skills based on research that includes promising practices;

(iii) effective practices to improve parental and community involvement; and

(iv) effective use of scientifically based research and data to improve instruction;

(B) support of education programs for teachers of career and technical education in public schools and other public school personnel who are involved in the direct delivery of educational services to career and technical education students, to ensure that such teachers and personnel stay current with all aspects of an industry;

(C) internship programs that provide relevant business experience; and

(D) programs designed to train teachers specifically in the effective use and application of technology to improve instruction;

(6) develop and implement evaluations of the career and technical education programs carried out with funds under this title, including an assessment of how the needs of special populations are being met;

(7) initiate, improve, expand, and modernize quality career and technical education programs, including relevant technology;

(8) provide services and activities that are of sufficient size, scope, and quality to be effective; and

(9) provide activities to prepare special populations, including single parents and displaced homemakers who are enrolled in career and technical education programs, for high skill, high wage, or high demand occupations that will lead to self-sufficiency.

SEC. 203 TECH PREP PROGRAM.

(c) **Contents of Tech Prep Program.**—Each tech prep program shall—

(1) be carried out under an articulation agreement between the participants in the consortium;

(2) consist of a program of study that—

(A) combines--

(i) a minimum of 2 years of secondary education (as determined under State law); with

(ii) (I) a minimum of 2 years of postsecondary education in a nonduplicative, sequential course of study; or

(II) an apprenticeship program of not less than 2 years following secondary education instruction; and

(B) integrates academic and career and technical education instruction, and utilizes work-based and worksite learning experiences where appropriate and available;

(C) provides technical preparation in a career field, including high skill, high wage, or high demand occupations;

(D) builds student competence in technical skills and in core academic subjects (as defined in section 9101 of the Elementary and Secondary Education Act of 1965), as appropriate, through applied, contextual, and integrated instruction, in a coherent sequence of courses;

(E) leads to technical skill proficiency, an industry-recognized credential, a certificate, or a degree, in a specific career field;

(F) leads to placement in high skill or high wage employment, or to further education; and

(G) utilizes career and technical education programs of study, to the extent practicable;

(3) include the development of tech prep programs for secondary education and postsecondary education that—

(A) meet academic standards developed by the State;

(B) link secondary schools and 2-year postsecondary institutions, and if possible and practicable, 4-year institutions of higher education, through--

(i) nonduplicative sequences of courses in career fields;

(ii) the use of articulation agreements; and

(iii) the investigation of opportunities for tech prep secondary education students to enroll concurrently in secondary education and postsecondary education coursework;

(C) use, if appropriate and available work-based or worksite learning experiences in conjunction with business and all aspects of an industry; and

(D) use educational technology and distance learning, as appropriate, to involve all the participants in the consortium more fully in the development and operation of programs;

[*continues: (4) in-service, (5) professional development, (6) access, (7) preparation services, & (8) coordinate w/Title I*]

Appendix G

Community College Journal, April/May 2005
(Vol. 75, Issue 5), pp. 38-43

The Neglected Majority: 20th Anniversary!

By Anthony E. Beebe and R. Dan Walleri

"With so many educational reform reports coming so fast, it would be easy to grow cynical—to say "These too will pass." But such an attitude will result in the loss of a tremendous opportunity. … These reform reports provide motivation for taking some positive additional and public steps toward educational excellence at all levels, steps discussed for years and residing in the hopes and dreams of those who live their lives in the educational trenches of our schools and colleges. Now is the time to move toward educational quality — opportunity with excellence."

-- Dale Parnell, 1985
An Open Letter to the Leaders of American
High Schools and Community Colleges

It is the 20th anniversary of Dr. Dale Parnell's landmark book *The Neglected Majority*. In this book, Parnell pointed out that for too long our educational system has focused on the highest and lowest achievers. He made the case that most of those students in the middle two high school quartiles neither prepare nor aspire to baccalaureate study. He further pointed out that in 1985, roughly 80 percent of the adult population in this country did not hold a bachelor's degree

Yet, as deep-rooted tradition has it, the baccalaureate degree represents the solitary image of success. It is the "gold standard" against which all other measures of success are compared. The result of this is that many students go through life feeling like dropouts and failures because they were not able or did not aspire to obtain a four-year degree. Even for many community college administrators and faculty in this country, the ultimate mission and goal is to feed four year institutions with transfer students. The allure of baccalaureate degrees is so great that some community colleges have felt it necessary to offer them in selected disciplines. Although there are certainly valid reasons for this recent trend – labor market needs and failure of four-year college and university systems to respond – the obsession of community colleges with baccalaureate degrees is the classic case of the tail wagging the dog. The question that Dale Parnell posed to all of us was in essence: What is educational success for the average student, those in the middle, those for whom the baccalaureate degree is not the right option, that 80 percent who comprise the "neglected majority"?

The entire article is available at:
http://www.ncccrp.org/images/CCJBeebeWalleriArticleFinal.pdf