

*FUSD Commission on Workforce Readiness and Career Technical Education
Infrastructure and Policies Workgroup*

Infrastructure and Policies Workgroup Focus Areas

1. Articulation with higher education
2. Counseling systems
3. Enrollment and recruitment
4. Graduation requirements
5. Monitoring and tracking
6. Operations, facilities, and funding
7. Professional development
8. Program design
9. Program leadership
10. Scheduling
11. Teacher/workforce recruitment

Best Practices

1. Articulation

- a. Capstone courses that take advantage of ROP and/or community college course offerings
- b. Teach Community College classes at high schools

2. Counseling Systems

- a. 350-1 student to counselor ratio
- b. Post-secondary specialists and coaches who work with high school students to prepare for, apply to, and succeed in college; organize field trips and campus visits; and track student data

3. Enrollment and Recruitment

- a. Clearly describe the different thematic options available to students in FUSD (magnets, academies, schools, etc.)
- b. No grade point average or achievement requirements for enrollment in Career Pathway Programs
- c. Students enroll in advanced academic coursework along with CTE pathway courses
- d. Use assessment information (career cruising and standardized tests) to target student recruitment and to schedule courses at the school (master schedule)

4. Facilities

- a. Build or modernize existing facilities with flexibility for career pathway courses (computers options, smart boards, internet connectivity, gas and water for wet labs, mobile furniture, etc.)

5. Funding

- a. Provide financial incentives to schools through grants, business donations, etc. for participation in district-approved career preparation programs as a means to incentivize early participation with new programs

6. Leadership

- a. Add CTE or ROP teachers onto the Instructional Leadership team for each school
- b. Encourage young CTE and ROP teachers to enter the leadership pipeline

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- c. Infuse Career Preparation as component of FUSD Leadership Development program
- d. Student participation in program decisions

7. Monitoring and Tracking

- a. Assess FAFSA completion rates along with college application, application, acceptance, enrollment and completion rates
- b. Create internal accountability measures for CTE and ROP courses to ensure academic rigor
- c. Dedicated research team focused on career readiness and postsecondary going
- d. Individual Career Planning Database - personal data, career and educational goals, achievement data, course completion, employment history, career development activities
- e. Public dashboard that tracks pathway program outcomes
- f. Regular independent evaluations of programs that includes measures of student achievement, pathway performance, and skill acquisition
- g. Student follow-up for at least 4 years after graduation, to continuously improve programs (include postsecondary education and completion; income, occupation, and other indicators of success)
- h. Web-based data dashboard that can be used by central office staff, site administrators, and teachers to drill down into student level and program data

8. Operations

- a. Central administration of career preparation programs to support career pathways, analyze student and program data, administer daily operations, facilitate the creation of new curriculum and lesson design, build industry partnerships, etc.

9. Policies

- a. All teachers must be teach reading, writing, and math no matter the course subject
- b. Develop district policies to regulate adding, eliminating, consolidating, and revising pathways
- c. District policies on new programs/pathways, enrollment, transportation, completion requirements, mastery of skill and competency standards, and evaluation procedures
- d. Include career preparation requirement in graduation requirements
- e. Open enrollment for all students to any pathway program in district
- f. Require all new programs/courses to be approved by a central team
- g. Require all students to complete ___ hours of work-based learning during high school
- h. Require all students to create and regularly update an Individual Career Plan
- i. Require all students to enroll in a theme-based career pathway that prepares students for the full range of post-secondary options
- j. Set graduation requirements around demonstratable competencies rather than specific courses

10. Professional Development

- a. Career pathway curriculum development and lesson planning including project based learning, applied learning, contextual learning, and integrated courses
- b. Create Career Preparation website for staff that provides information and resources
- c. Intensive 5-day summer training on problem based learning
- d. Staff, department, and school meetings are focused on instruction, not operational issues
- e. Summer externships for teachers to work in local industries

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- f. Technology training for teachers to integrate tools into teaching and learning for their students
- g. Use CART as an incubator for Career Preparation teachers, cycle teachers through annually to learn project based learning teaching methods
- h. Web-based reference tools for teachers on careers, curriculum, project based learning options, etc.

11. Program Design

- a. "You're not going to be able to change the lives of at-risk students unless you change the way that adults work."
- b. All CTE electives are also college prep classes, and when possible a-g approved
- c. Career pathways focused on Fresno Economic Indicators
- d. Clearly define roles, career pathway programs, and expected outcomes for each high school, especially Duncan and CART, in light of changing Career Preparation programs
- e. Cluster courses (academic and CTE) around real-world themes
- f. College readiness is seen as same thing as workforce readiness
- g. Establish 3-5 small learning communities with theme-based learning opportunities at each high school
- h. Identify High Skill High Wage career opportunities available in local economy for future Pathway Programs
- i. Integrate CTE into core classes 7-10th grade and integrate core into CTE in 11th and 12th grade
- j. Neighborhood high schools with unique pathway offerings that make us of all available resources (facility, equipment, and human resources) to offer high quality rigorous pathway programs. (Don't dilute programs by having similar themed programs at every high school.)
- k. Zero period, after school, Saturday school, summer school

12. Schedules

- a. Common Pathway electives and projects for students by grade level
- b. Common Prep periods for teachers
- c. Create course schedules for the school that maximize teacher collaboration
- d. Create course schedules for the school that meet student needs
- e. Regularly scheduled and structured time for teachers to meet a a pathway team to plan lessons, integrate curriculum, develop activities, discuss student progress, review student achievement results, and develop strategies to support struggling students

13. Teacher/Workforce Development (HR)

- a. Develop succession plan for CTE teachers
- b. Grow our own teachers through student clubs and internships
- c. Independent contracts, 1 year, separate pay scale for CTE teachers
- d. Require teachers to give a project based lesson and includes students in the hiring decision making process
- e. Work with local teacher training programs to prepare teachers to integrate CTE and core

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Bibliography

1. Counseling Systems

- a. Counseling Matters: High school guidance counselors play a critical role in preparing students for their futures but there is not a systematic approach to using counselors to prepare students for college and careers.
- b. The Effects of Students' Middle-School and High-School Experiences on Completion of the Bachelor's Degree: How Can School Counselors Make a Difference? Best practices and suggestions for professional school counselors in helping students in their long-term educational development.

2. Monitoring and Tracking

- a. California Educational Opportunity Report: The 2007 Educational Opportunity Report examines California's poor and unequal educational achievement in light of the conditions in California's public schools. As the latest in a series of reports on educational opportunities in California.
- b. Multiple Pathways Self Assessment: This rubric was created to help design teams as they work together to develop and improve a comprehensive pathway program of study. As with any program implementation effort, it is difficult to focus on all elements simultaneously. As a result, certain elements will emerge as stronger than others. However, with constant monitoring and continued planning, it is possible to build a pathway that reaches the "operational" or "fully developed" level. This Multiple Pathways Program Assessment Rubric is designed to help schools focus their attention on the various elements of a quality pathway program and to foster discussions at each stage of the pathway's development.

3. Policies

- a. Ca Improving HS Report: High school represents a critical phase in the educational development of K-12 students. High school also is a kind of "launching pad" into adult life. Students mature a great deal during these later teenage years, developing important work habits and attitudes as they become more independent. This report examines high schools through the lens of three groups of high school students: Dropouts, general track students, and University track students
- b. Labor and Workforce Development Agency Workforce Innovation in Regional Economic Development Concept Paper: Governor Schwarzenegger created the California Partnership for the San Joaquin Valley and directed this public-private partnership to develop and implement a 10-year action plan to ensure economic prosperity. President Bush created the Federal Interagency Task Force for the Economic Development of the SJV and directed all federal agencies in the region to work together to improve the region.
- c. Retooling voc ed, Career Technical Education Prepares Students for Life Beyond High School: Conventional thinking about vocational education has been undergoing a sea change, starting in Sacramento and encompassing schools statewide. For decades, categorizing a high school student as being on an academic (read: university-bound) track versus a vocational education (read: graduation-to-work) track has been the norm. But since the norm is crumbling and being replaced by fresh thinking and entirely new programs, nothing short of a name change will do, just for starters. Thus, few educators now use the phrase "vocational education." The more descriptive—and politically correct—term is career technical education, or CTE.

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- d. Supporting High Quality Career and Technical Education through Federal and State Policy: Despite the widespread presence of CTE in most high schools, many policymakers have limited knowledge about CTE and the changes it has undergone or are unsure how CTE can play a role in redesigned high schools and expanded learning options for youth. This paper will provide ideas on how federal and state policies can support a greater role for CTE in high school reform by providing meaningful, relevant, and rigorous learning opportunities for all youth.
- e. Touch Choices, Tougher Times: Despite the widespread presence of CTE in most high schools, many policymakers have limited knowledge about CTE and the changes it has undergone or are unsure how CTE can play a role in redesigned high schools and expanded learning options for youth. This paper will provide ideas on how federal and state policies can support a greater role for CTE in high school reform by providing meaningful, relevant, and rigorous learning opportunities for all youth.

4. Program Design

- a. America Diploma Project: The High School diploma falls short of preparing students for intellectual demands of adult life; Parent and student confidence in diploma is contrasted by employer skepticism; Most high school students need remedial help in college; Most college students never attain a degree; Most employers say HS grads lack basic skills; Most workers say HS didn't prepare them for work
- b. Ca Association of Leaders for Career Prep, White Paper: Career preparation is necessary for anyone and career technical education supports all different kinds of students, despite of their background and abilities, be they economic, language, mental or physical. The public school system must provide rigorous academic content standards, relevant industry-specific knowledge and skills while preparing all students for the workplace and or higher education. Students enrolled in career technical education should have access to a rigorous, individualized curriculum with the opportunity for industry certification programs with high industry standards.
- c. California CTE Plan: This plan provides background information about the state's current CTE structure and enrollment status; a brief overview of the state's demographic, economic, educational, and political contexts, a solid understanding of which is essential to the development of a CTE plan that affects and is affected by state trends; the vision, mission, guiding principles, goals, and 11 identified elements of an ideal, high-quality statewide CTE system. Embedded within the discussion of the 11 system elements are additional details about current structures, practices, and initiatives, as well as "needed actions" in each area.
- d. Career Academies School-wide Application: Over the past three decades, much has been learned about implementation of individual career academies. Some of that wisdom has been summarized in checklists and rubrics that specify in detail what goes into making a successful career academy. Three of these instruments are described here, and copies are attached. The Oakland Unified School District has developed a "Career Academy Self-Assessment Tool." The School District of Philadelphia created an "assessment tool" focused on the alignment of its Small Learning Communities (SLCs) and the district's SLC components, curriculum, and cross cutting competencies. The Career Academy Support Network (CASN) at U.C. Berkeley has developed a "Career Academy Implementation Checklist."
- e. Career Academies Self Assessment: This Guide begins with a combined Self-Assessment Checklist and Scoring Guide. The three sections of this—Small Learning

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- Communities, Curriculum and Instruction, and Partnerships with Employers, Community, and Higher Education—derive from the definition of Career Academies agreed to by the organizations working to support them nationally, supplemented by more recent guidelines for evaluating SLCs.
- f. Career Clusters: 15 Critical Components: To prepare today's students for tomorrow, schools are working to help students achieve in challenging subjects. One key approach to this goal is to provide students with relevant contexts for learning. Career clusters link what students learn in school with the knowledge and skills they need for success in college and careers. Career clusters identify pathways from secondary school to two- and four-year colleges, graduate school, and the workplace, so students can learn in school and what they can do in the future. This connection to future goals motivates students to work harder and enroll in more rigorous courses.
 - g. Career Pathways How to Guide: The necessary elements for regional economic success in the 21st century are no mystery: communities will thrive or decline based on how well they cultivate and retain “knowledge workers.” These individuals possess post-secondary educational credentials, technical skills, the ability to learn rapidly and an entrepreneurial approach to work and career management. The goal of this paper is to share with the field our knowledge of the “why and how” of career pathways projects currently up and running.
 - h. Comprehensive Strategic Plan for the Capital Area, Michigan CTE Plan: This operational plan represents the final step in a strategic planning process that Capital Area Michigan Works! and the region’s Educational Advisory Group (Career Connections) undertook in February, 2000 with guidance from the Michigan Department of Career Development’s Workforce Advisory Board.
 - i. Essentials of High School Reform: New Forms of Assessment and Contextual Teaching and Learning: Policy recommendations as well as practical advice on how to structure contextual teaching and learning and alternative assessments activities at the high school level; including descriptions of effective policies, practices, and programs for improving student learning.
 - j. Expanding Pathways: Transforming High School Education in California: ConnectEd California developed the "Multiple Pathways" model. Pathways are programs of high school study that connect learning in the classroom with real-world applications outside of school. They integrate rigorous academic instruction with a demanding technical curriculum and field-based learning—all set in the context of one of California’s 15 major industry sectors.
 - k. How to Bring our Schools out of the 20th Century: American schools aren't exactly frozen in time, but considering the pace of change in other areas of life, our public schools tend to feel like throwbacks. Kids spend much of the day as their great-grandparents once did: sitting in rows, listening to teachers lecture, scribbling notes by hand, reading from textbooks that are out of date by the time they are printed. A yawning chasm (with an emphasis on yawning) separates the world inside the schoolhouse from the world outside.
 - l. Multiple Perspectives on Multiple Pathways: This paper introduces Multiple Pathways, an approach to high school education that has captured the imaginations of major philanthropy, school reformers, and a growing number of policymakers. Today’s high schools do not offer all students the programs and classes necessary to

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- prepare them for college, career, and responsible participation in public life. The purpose of Multiple Pathways reform is to correct this failure.
- m. Quiet Dilemma: About half of all teens in CA either drop out or go to work after high school graduation. CTE is the “prep” program for these teens. There are Other Ways to Win. College technical education is a better way for many from the academic middle. And high school CTE is the primary feeder.
 - n. Reinventing the American High School for the 21st Century: The Association for Career and Technical Education (ACTE), on behalf of career and technical education (CTE) professionals in the United States, advocates for clearly focusing American high schools on the goal of preparing EVERY student for full participation in a spectrum of college opportunities, meaningful work, career advancement, and active citizenship.
 - o. San Diego Unified School District, CTE Plan: This Plan describes key features of the career preparation coursework and industry certifications offered, reviews assessment of student learning in career programs, universal student access, the district’s career counseling and guidance programs, and the professional development needs of CTE teachers and counselors. The Plan reviews the need for up-to-date facilities and equipment, and the sources of funding for those resources.
 - p. Suncoast, Florida Consortium CTE Plan: This document reflects the intent of Manatee and Sarasota Counties to meet and exceed expectations for the planning, creation, and sustainment of CAPE Academies within the state of Florida and reflects a joint five-year overarching strategic plan for secondary and postsecondary career and professional education within those counties.
 - q. Transforming Today’s Education for Tomorrow’s Economy New Directions for Career and Technical Education in California: How do we craft a new vision that captures the power of CTE to engage students and motivate them to achieve higher levels of both academic and technical competency? We can begin by using public policy to promote development of comprehensive, multiple pathways that simultaneously prepare students for career and the full range of postsecondary options—two- and four-year college, apprenticeship, the military, and formal employment training.