

A Solution-finding Report

Title: *College and Career Preparation Models*

Date: 2/2/2010

Introduction

This report responds to a request by Frank DeRosa—the Great Lakes East Comprehensive Center state manager for the Indiana Department of Education—for “a research study on exemplary SEA college and career preparation models,” a report that identifies “key components of exemplary college and career preparation/career and technology education.”

This *Solution-finding Report* is intended to provide a quick response to the request for information; it is not intended to be a definitive literature survey or synthesis of the topic. Its contents are divided into two sections. The first section provides a selection of websites of organizations that focus on college and career preparation, as well as certain state websites as a sample of state approaches to the issue. The second section is comprised of references and brief summaries of published research, policy statements, and recommendations concerning career and college preparation models.

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I. Websites of Organizations

Association for Career and Technical Education. (n.d., website).

<http://www.actonline.org/>

The website provides profiles of each of the 50 states’ CTE “Key Facts,” “State Administration,” and “CTE Initiatives and Related Policies”; “Issue Briefs, Reports and Policy Papers”; and “Promising Programs and Practices.”

Kentucky Department of Education. (n.d., website). EXPLORE Assessment.

<http://www.education.ky.gov/kde/administrative+resources/testing+and+reporting+/district+support/act+inc+assessments/explore+assessment.htm>

This webpage contains a host of documents related to a statewide assessment aimed at improving career readiness. “The EXPLORE program is a curriculum-based assessment program [developed by ACT, Inc.] designed to help 8th grade students gain an understanding of their academic development in terms of preparation for college, make the most of their opportunities in high school and beyond, and guide them as they start thinking about future educational and career planning. EXPLORE assesses academic progress, provides an early indicator of college readiness, helps students understand and begin to explore the wide range of career options open to

them, and assist them in developing a high school coursework plan that prepares them to achieve their post-high school goals. All students enrolled in a Kentucky public school in Grade 8, except those enrolled in the Alternate Assessment program, should complete the EXPLORE assessment.”

Louisiana Department of Education. (n.d., website). High School Redesign (webpage).

<http://www.louisianaschools.net/lde/hsr/home.html>

This webpage contains information and links concerning the Louisiana’s High School Redesign Commission’s work and subsequent policy and programs, including the High Value High Schools initiative. This initiative “will transform the high school experience to better prepare our young men and women to be successful in the next step of their lives. By making this investment in Louisiana’s young people, we’re also making an investment in the future of our state, in the form of a quality workforce that will allow us to compete in the increasingly competitive global economy.” (See also below, Louisiana Department of Education, et al., (2010, January).

National Research Center for Career and Technical Education. (n.d., website).

<http://136.165.122.102/mambo/>

“The National Research Center for Career and Technical Education (NRCCTE) is the primary agent for generating scientifically based knowledge, dissemination, professional development, and technical assistance to improve career and technical education (CTE) in the United States.” Major areas of concern are “Programs of Study,” “Curriculum Integration,” “Math-in-CTE,” “Dual Enrollment,” “Dropout,” and “Accountability.”

Southern Regional Education Board (SREB). (n.d., website).

<http://www.sreb.org>

“Today’s workplace requires most Americans to have some form of education beyond high school, yet most high school students are not graduating well-prepared for college or career training. SREB is tackling this challenge head-on. Based on its experience and research, SREB has developed and refined a model college- and career-readiness agenda that defines the key steps each state can take to improve students’ readiness statewide.”

SREB’s website has a substantial number of reports and publications addressing the transition from school to postsecondary education and careers. In addition to those publications highlighted below, a series reports derived from individual state forums provide insight into the how each addresses and intends to address the issue of integrating career and technical education with rigorous academic preparation. See also the SREB’s series, *High Schools That Work*.

II. Publications

Achieve, Inc. (2009, February). *Closing the Expectations Gap, 2009*. Washington, DC: Author.

<http://www.achieve.org/files/50-state-2009.pdf>

“Since Achieve launched the American Diploma Project (ADP) Network at the National Education Summit on High Schools in 2005, state leaders across the country have been hard at work aligning their standards, graduation requirements, assessments and accountability systems

with the expectations of colleges and employers. Each year since the Summit, Achieve has surveyed all 50 states and the District of Columbia about the status of their efforts to adopt and implement this challenging ADP agenda.... Twenty-three states report that their high school standards are aligned with postsecondary expectations, four more than a year ago. Twenty-one additional states and the District of Columbia report that they are in the process of aligning their standards or plan to do so. Moving forward, states want to ensure that their college- and career-ready standards are internationally benchmarked; fully integrate cross-disciplinary proficiencies; and are focused, specific and manageable.”

Achieve, Inc., & the Education Trust. (2008, November). *Making College and Career Readiness the Mission for High Schools: A Guide for State Policymakers*. Washington, DC: Author.

<http://www.achieve.org/files/MakingCollegeandCareerReadinesstheMissionforHighSchool.pdf>

“This document is a guide to help committed state leaders think through this new set of responsibilities[of preparing students for college and careers]. Prepared with the guidance of outside experts, and informed by a rich set of discussions with 28 state and local leaders and experts who formed an advisory group to help us work through the possibilities, this document is formatted as a guide for broad-based discussions of next steps in every state.... States need a new approach to the system of standards, tests, and accountability in high school—one that makes college and career readiness the central driver and acknowledges where greater state leadership and state resources are essential to success.”

ACT. (2009). *How Much Growth toward College Readiness Is Reasonable to Expect in High School?* Issues in College Readiness. Iowa City, IA: Author

<http://www.act.org/research/policymakers/pdf/ReasonableGrowth.pdf>

“An important question in preparing all students for college and career by the time they graduate from high school is that of determining how much growth in academic achievement typically occurs during high school and whether such growth can be accelerated so that more students are ready for college and career when they graduate from high school.”

ACT. (2009). *Statewide Administration of the ACT: A Key Component in Improving Student Access to College and Work*. Iowa City, Iowa: Author.

http://www.act.org/research/policymakers/pdf/coil_benefits.pdf

“In recent years there has been an increasing focus among states on the importance of preparing all students for college and work. Statewide administration of the ACT provides all students, including those who have never considered college as an option, with the opportunity to identify academic strengths and weaknesses, explore educational and career interests, set high standards for academic achievement, and prepare to meet their educational and career goals. Five states—Colorado, Illinois, Kentucky, Michigan, and Wyoming—currently administer the ACT to all their public high school students. This case study focuses on results from Colorado and Illinois, where statewide administration has been in place the longest (since 2001). Colorado uses the ACT in the Colorado Student Assessment Program (CSAP) as an eleventh-grade achievement-based assessment that gives the state an indication of how well its public schools are performing at educating students at the K-12 level. Illinois also administers the ACT to all of its public high school juniors as part of its Prairie State Achievement Exam (PSAE). Illinois uses the ACT to measure student progress on meeting state learning standards.”

ACT. (2008). *The Forgotten Middle: Ensuring that All Students Are on Target for College and Career Readiness before High School*. Iowa City, IA: Author

<http://www.act.org/research/policymakers/pdf/ForgottenMiddle.pdf>

“This report examines the specific factors that influence college and career readiness and how these factors can have their greatest impact during a student’s educational development. This report suggests that, in the current educational environment, there is a critical defining point for students in the college and career readiness process—one so important that, if students are not on target for college and career readiness by the time they reach this point, the impact may be nearly irreversible. We must therefore also focus on getting more students on target for college and career readiness by the end of eighth grade, so that they are prepared to maximize the benefits of high school.

“Our research shows that, under current conditions, the level of academic achievement that students attain by eighth grade has a larger impact on their college and career readiness by the time they graduate from high school than anything that happens academically in high school. This report also reveals that students’ academic readiness for college and career can be improved when students develop behaviors in the upper elementary grades and in middle school that are known to contribute to successful academic performance.

“The implication is clear: if we want not merely to improve but to maximize the college and career readiness of U.S. students, we need to intervene not only during high school but also before high school, in the upper elementary grades and in middle school. This research suggests that even improving high school course rigor may not succeed unless we first increase the number of entering high school students who are prepared to benefit from such rigorous courses.”

Aldeman, C. (2010, January). *College- and Career-Ready: Using Outcomes Data to Hold High Schools Accountable for Student Success*. Washington, DC: Education Sector.

http://www.educationsector.org/usr_doc/College-Ready.pdf

“By compiling information on how well students do beyond high school, many states have taken the first step toward creating a multi-dimensional accountability system that aligns high school and postsecondary standards. And although few states have done so, these new state data systems can also track students into the work force—Missouri and Florida, for instance, are currently following high school graduates into both college and careers. The next step is to use the data to evaluate high schools and hold them accountable for preparing their students to succeed.” The report focuses especially on a comparing proposed accountability systems for Florida, taking advantage of that state’s already advance data collection.

Bottoms, G., & Young, M. (2008). *Crafting a New Vision for High School: How States Can Join Academic and Technical Studies to Promote More Powerful Learning*. Atlanta: Southern Regional Education Board (SREB).

http://publications.sreb.org/2008/08V07_Crafting_new_vision.pdf

“This report details both the potential for an integrated academic and technical curriculum and the challenges that must be addressed by state, district and school leaders as they move forward. It also describes many successful policy initiatives already under way in states, demonstrating that what some have called the “impossible” marriage of academic and career/technical studies not only has been consummated, but is thriving. Decision-makers also will find recommended actions that states can use to address each of the five challenges that state leaders have identified”: (a)

Aligning of new and existing career/technical curricula with essential college- and career-readiness standards; (b) creating a flexible system of optional career pathways in high schools to better prepare all students for college and careers; (3) creating a policy framework that keeps students' future options open by developing career/technical and academic programs that link high school to postsecondary studies and work, blend academic and technical studies, and connect students to a goal; (4) assessing the contributions career/technical education can make to improving academic and technical achievement; and (5) preparing and enable career/technical teachers to teach essential academic skills through application in authentic activities, projects and problems. Recommended actions and tools that states can use to address each of the challenge areas are included."

Bottoms, G., & Young, M. (2008). *Lost in Transition: Building a Better Path from School to College and Careers*. Atlanta: Southern Regional Education Board (SREB).

http://publications.sreb.org/2008/08V01_LostInTransition.pdf

"In 2005 and 2006, the *High Schools That Work* program of the Southern Regional Education Board and the College and Career Transitions Initiative of the League for Innovation in the Community College convened a cross section of state education and policy leaders in 15 state-level forums. Forum participants were asked to identify ways to foster collaboration between secondary and postsecondary education systems and build successful transitions from high school to college and careers....This report summarizes the conclusions of the 15 state forums; identifies key barriers and policy issues; and recommends a series of state actions to ensure a new generation of knowledgeable and skilled citizens and workers are ready to pursue high-demand, high-skill, high-wage careers that can help sustain prosperity and economic growth."

Bottoms, G., Young, M., & Han, L. (2009, November). *Ready for Tomorrow: Six Proven Ideas to Graduate and Prepare More Students for College and 21st-Century Careers*. Atlanta: Southern Regional Education Board (SREB).

http://publications.sreb.org/2009/09V20_Ready_for_Tomorrow.pdf

"This report describes six conditions that high schools can create to help more CT students meet college- and career-readiness standards. The six conditions address specific aspects of curriculum and instruction that are proven to increase student performance and equip students with the academic, career and personal attributes they need for a successful future. The conditions deal with ensuring students have high-level academic courses, high-quality CT courses with embedded academics and 21st-century skills, high standards and expectations, extra help in meeting the standards, and guidance and advisement from adult mentors." The report concludes with "Actions States, School Districts and Schools Can Take to Prepare More Students for College and Careers."

California Department of Education. (2008). *California State Plan for Career Technical Education, 2008–2012*. Sacramento, CA: Author.

http://www.schoolsmovingup.net/cte/downloads/cteplan_122808.pdf

"In crafting this plan, California presents a broad and bold vision for CTE, placing the requirements for federal Carl D. Perkins funding within this larger context. The view that education and career development are lifelong, and that CTE can begin as early as elementary school and span high school through postsecondary education and on-the-job training is infused

throughout the plan....The body of this plan is presented in five main chapters, preceded by an introduction. Supportive information and required assurances and certifications are contained in the appendices. The Introduction describes the Perkins and state CTE priorities and the process used in developing the plan. Chapter One provides background information about the state's current CTE structure and enrollment status. Chapter Two is a brief overview of the state's demographic, economic, political, and educational contexts. A solid understanding of these contexts is essential to the development of a CTE plan that affects and is affected by state trends. Chapter Three describes the vision, mission, guiding principles, and goals of an ideal statewide CTE system, as well as the characteristics of an effective, high-quality CTE system. Embedded within the discussion of each of 11 "system elements" are additional details about current structures, practices, and initiatives."

California Department of Education. (2006). *California Career Technical Education Model Curriculum Standards, Grades Seven Through Twelve*. Sacramento, CA: Author.

<http://www.cde.ca.gov/ci/ct/sf/documents/ctestandards.pdf>

Adopted in May 2005 by the state's Board of Education, "the California career technical education (CTE) model curriculum standards are organized in 15 *industry sectors*, or groupings, of interrelated occupations and broad industries....There are two levels of detail in the standards: standards and subcomponents. *Standards* are general expectations of what students should know and be able to do. Each standard has at least two *subcomponents* that elaborate on the specific knowledge and skills encompassed by the standard. There are also two different *types* of standards in each sector: *foundation* standards and *pathway* standards."

Holland, N. E., & Farmer-Hinton, R. L. (2009). Leave no schools behind: The Importance of a college culture in urban public high schools. *High School Journal*, 92(3), 24–43.

"Creating a college culture that is available to all K-12 public school students helps prepare individuals for postsecondary academic and career endeavors. Establishing and maintaining a college culture requires structural and organizational arrangements that facilitate students' access to critical human and material resources. These arrangements should create frequent opportunities for students to access school-based social support networks that help them identify necessary academic coursework and appropriately plan for higher education. This study provides a conceptual framework for college culture and uses districtwide data to empirically examine the relationship between school size and high school seniors' self-reports of their involvement with the college culture in urban public high schools."

Howard, D., & Wu, P. (2009, May). *Assessing California's Multiple Pathways Field: Preparing Youth for Success in College and Career*. San Francisco: The James Irvine Foundation.

<http://www.irvine.org/images/stories/pdf/pubs/assessingmultiplepathways.pdf>

The Youth program of the James Irvine Foundations seeks "to increase the number of low-income youth in California who complete high school on time and earn a postsecondary credential by the age of 25. To achieve this goal, the program seeks to expand and strengthen California's multiple pathways field. To that end, Irvine commissioned the Bridgespan Group to assess the state of the field and identify its key opportunities and challenges....Bridgespan consulted with a 24-member advisory committee representing the multiple pathways field and met with more than 60 additional leaders in the field through interviews and a focus group (see Appendices A and B). Research also included interviews with a few prominent skeptics of the

multiple pathways approach, a review of available secondary research (see Appendix C) and an examination of the landscape of organizations in the field (see Appendix D). The findings and recommendations from this field assessment are discussed in this paper.”

Louisiana Department of Education, et al. (2010, January). *Louisiana College and Career Readiness Policy*. Baton Rouge, LA: Authors.

<http://www.louisianaschools.net/lde/uploads/15403.pdf>

“Converging calls for action resulted in the passage of three sweeping pieces of legislation in summer 2009—the *Louisiana Student College and Career Readiness Act* and two related statutes creating the *Louisiana Career Diploma*. In general terms, the main purposes of the Acts are the collaborative establishment of “state strategic initiatives to improve high school graduation rates and ensure student readiness for postsecondary education and career opportunities. Additional legislation was passed to streamline articulation systems between secondary and postsecondary education and across the postsecondary education institutions in Louisiana.” This policy statement addresses the state’s plans for systemic revamping of “Assessment and Accountability,” “Supports and Interventions,” and “Early Warning, Multiple Pathways and Options”; it includes timelines for accomplishing specific goals.

Meeder, H. (2008, January). *The Perkins Act of 2006: Connecting Career and Technical Education with the College and Career Readiness Agenda*. Washington, DC: Achieve, Inc.

http://www.achieve.org/AchievePolicyBrief_Perkins

“This policy brief informs leaders, particularly those who are implementing the ADP [American Diploma Project] agenda in states, about the opportunities to align and coordinate strategies between ADP and the Perkins Act. It addresses the components of the new Perkins Act, discusses CTE more broadly in the context of the ADP agenda and offers a number of complementary and mutually supportive strategies state ADP leadership teams could employ to implement the ADP agenda and the Perkins Act.”

Richmond, E. (2009, June). *Preparing Students for College and Career: California Multiple Pathways*. Washington, DC: Alliance for Excellent Education.

<http://www.all4ed.org/files/IssueBriefCAMultPathways.pdf>

“California, with its rich history of reform, has been an incubator for the beginnings of the multiple pathways movement. And as a microcosm of the larger United States, the work there offers important lessons for stakeholders addressing the national high school crisis. This brief details the multiple pathways movement in California, developed in response to poor and inequitable student outcomes, as it continues to garner interest and develop a growing base of evidence. The discussion lays out the rationale for the multiple pathways approach and the ways in which it seeks to address the need for rigorous, engaging educational options toward the goal of college and career readiness for every student.”

Spence, D. (2009). State college readiness initiatives and community colleges. *New Directions for Community Colleges*, 145, 95–101.

“Greater attention to the college and career readiness problem by state leaders and policymakers could drastically boost the numbers and percentages of students who graduate from high school ready for college and career study. This chapter traces the author’s work in developing California State University’s Early Assessment Program, an initiative that aligned eleventh-grade performance standards, new English and mathematics curriculum, and teacher education and professional development opportunities to prepare students to meet the state university entrance requirements.”

Stern, D. (2009). Expanding policy options for educating teenagers. *Future of Children*, 19(1) 211–39.

<http://www.futureofchildren.org/>

“Citing two widely accepted public purposes of educating teenagers—preparation for civic participation and for economic self-sufficiency—Stern proposes four new strategies to achieve those goals. He draws on empirical evidence suggesting that these are promising directions for research and policy, but acknowledges that existing studies provide only limited guidance.

“First, he says, schools should continue the current trend toward integrating educational options to provide young people with skills and experiences that pave the way to *both* college and careers. Second, states and districts should tie education funding not simply to the number of students attending school, but also to what young people learn, whether they graduate, and whether they find jobs or enroll in postsecondary education. Such a move, he argues, would encourage teaching and learning formats that use students’ time more effectively. Third, more adults in addition to classroom teachers should be involved in educating teenagers. Other adults acting as academic advisers, learning coaches, student advocates, internship supervisors, mentors, and college counselors could help guide the education of teenagers inside and outside of school and provide some relief for the chronic shortage of teachers. Fourth, schools should expand the options for educating teenagers outside of geographically fixed schools. Combining improved Internet-based curriculum with internships and civic engagement projects, for example, may produce better results for many young people and also may promote academic achievement for teenagers who do not thrive in conventional classrooms and for those who face academic and social challenges when they move from one place to another. Stern argues that the limited success of today’s high schools makes such new initiatives well worth trying and evaluating.”

Theodore, K., & Madison-Harris, R. [2009]. Adopting Rigorous College- and Career-Ready Standards and High- Quality Assessments. *Southeast Comprehensive Center eBulletin*, 4(2), 1–6.

<http://secc.sedl.org/resources/newsletter/ebulletin/eBulletinv4n2.pdf>

This brief summarizes recent findings on college and career readiness.

Valentine, J. C., Hirschy, A. S., Bremer, C. D., Novillo, W., Castellano, M., & Banister, A. (2009, September). *Systematic Reviews of Research: Postsecondary Transitions—Identifying Effective Models and Practices*. Louisville, KY: National Research Center for Career and Technical Education, University of Louisville.

http://136.165.122.102/UserFiles/File/pubs/Valentine_Postsecondary_Transitions.pdf

“This paper focuses on transition programs for youth to postsecondary education, broadly considered. We address the following questions: (a) What models or programs of transition exist? (b) On what basis can we say one transition program is more effective than another? In other words, how is successful transition defined? (c) How are transition models and programs evaluated? and (d) What is the impact of transition programs, specifically those that aim to facilitate transition from one educational system to another, to program completion, or to specific career-related employment for disadvantaged youth?”