



Education Commission
of the States

State Strategies for Redesigning High Schools and Promoting High School to College Transitions

By Jane Armstrong
January 2005



Experts are now calling for all students to have a minimum of a solid high school education and two years of postsecondary education, if they are to be successful in a workforce requiring more advanced skills.

Introduction

This issue brief focuses on what increasingly are seen as the major stumbling blocks that students face in high school and in enrolling in postsecondary education. It summarizes recommendations from several national reports and conference proceedings on how high schools should be redesigned and how the transition to postsecondary education can be made more seamless for students. This brief also provides several examples of what state leaders are doing to deal with these issues and some sources for additional information.

Workforce Readiness

Business leaders, educators – now policymakers – are insisting that students leave school with the skills needed to be successful in today's knowledge-based economy. The stakes are high. America's competitive edge in the global economy, the strength and versatility of its labor force, its capacity to nourish research and innovation increasingly depend on an education system capable of producing a steady supply of well-prepared young people.

According to a new RAND report, *The 21st Century at Work*, rapid technological change and increased international competition place the spotlight on the skills and preparation of the workforce, particularly the ability to adapt to changing technologies and shifting product demand. The growing importance of knowledge-based work favors workers with the skills of abstract reasoning, problem solving, communication and collaboration. Knowledge workers will need high-level skills for managing, interpreting, validating, transforming,

communicating and acting on information.¹

The fastest-growing jobs will require some education beyond high school. Jobs requiring a bachelor's degree will grow by 32%, and jobs requiring a master's degree will grow by 23%.² Jobs that require more education also pay better. For 2000, the average annual salary for workers ages 25 and older without a high school degree was \$21,400, for high school graduates it was \$28,800, jumping to \$46,300 a year for workers with a bachelor's degree.³

Experts are now calling for all students to have a minimum of a solid high school education and two years of postsecondary education, if they are to be successful in a workforce requiring more advanced skills.

But this is easier said than done. A number of studies and recent reports indicate too many high school students graduate without the skills or coursework needed to succeed in college. Without a strong college-prep curriculum, students have difficulty navigating the transition to postsecondary education.

Some statistics tell the story. Nearly all high school students aspire to attend college (97%), yet just 60% have the minimum credits required for admission. Yet of the 63% of high school students who do make it to college, more than a quarter of these students must take remedial coursework.⁴ Although more students today begin college than 20 years ago, greater proportions are not graduating. Obviously, the pipeline has troubling gaps, disconnects and weaknesses.

How Well Are High Schools Educating Students?

The first stumbling block is many high schools are not doing a good job in educating – and graduating – all their students.

According to the National Assessment of Educational Progress (NAEP), student achievement gains in high school are uneven or have leveled off:⁵

- Since 1992, the average science scores of 17-year-olds have remained essentially unchanged.
- Reading scores for 17-year-olds were slightly lower between 1986 and 1999.
- Achievement gaps were largely unchanged in the past 10 years.

A new ACT report, *Crisis at the Core*, reports that average composite ACT scores — a measure of high school preparation — have remained the same or declined during the past five years.⁶ Just 22% of ACT-tested high school graduates meet all three of ACT's College Readiness Benchmarks. These benchmarks represent the level of achievement required for students to have a high probability of success in college biology, algebra and English composition.

According to a recent report from the American Diploma Project, for too many graduates, a high school diploma does not represent adequate preparation for the intellectual demands of college or work; it is merely a certificate of attendance. The project identified these problems with high schools and/or their graduates:

- Most high school graduates need remedial help in college.
- Most college students never attain a degree.
- Most employers say high school graduates lack basic skills.

- Too few high school students take challenging courses.
- Most high school exit exams do not measure what matters to colleges and employers.⁷

Problems also exist in the pipeline from high school to college. For every 100 students who enter 9th grade, only 67 graduate from high school, 38 enroll in college, 26 are still enrolled in college after their sophomore year, and only 18 graduate with either an associate's or baccalaureate degree within six years of graduating from high school.⁸ The numbers are even worse for low-income students and for African American and Hispanic Americans, the fastest-growing proportion of the youth cohort. Only 18% of African Americans and 9% of Hispanics have earned a bachelor's degree.⁹ The only way to increase the number of students who complete post-secondary education is to improve the pipeline linking high school, postsecondary and "second-chance" education systems.



For every 100 students who enter 9th grade, only 67 graduate from high school, 38 enroll in college, 26 are still enrolled in college after their sophomore year, and only 18 graduate with either an associate's or baccalaureate degree within six years of graduating from high school.

What State Education Leaders Can Do

These issues clearly are getting attention. The U.S. Department of Education is sponsoring an initiative called Preparing America's Future High School. The next governors' education summit in February 2005 will focus on high school reform. These actions are coupled with a number of reports¹⁰ that make recommendations for reforming high schools and aligning the education system to make the transition to college more seamless for students. A synthesis of key recommendations for policymaker attention includes the following:

Supporting High School Innovation

- Provide a venture capital fund for districts to develop new types of high schools and new high school courses. Districts could apply for start-up funds to design and organize new high school models.
- Create small high schools in grades 9-12.
- Use school choice or charter schools to create more effective high schools.

Strengthening the High School Curriculum

- Align high school academic standards – and exit standards – with the knowledge and skills required for college and workplace success.
- Require all students to take a college-prep curriculum (four years of English, three years of math, three years of natural science, three years of social studies and two years of a second language). Ensure there are quality teachers to teach these courses.
- Provide flexibility to districts to link students' educational progression to their academic performance rather than just to the courses they've taken.

students' transition from high school to postsecondary education. For example:

Increasing Accountability for Student Performance

- Administer end-of-course exams and require a passing score to receive credit toward graduation.
- Use high school graduation exams to ensure students meet standards to receive a high school diploma.
- Develop and fund statewide remedial programs to help students pass high school exit exams.
- Test every student at least once in grades 10-12 in reading/language arts, mathematics and science as required by the No Child Left Behind Act. Include graduation rates as a second indicator and report annual results on adequate yearly progress for schools and districts.
- Use performance measures to assess students' work and postsecondary-related skills.
- Award advanced high school diplomas to students who complete additional coursework, achieve high test scores or graduate with a specified grade point average.
- Provide incentives to reduce the number of dropouts.
- Ask colleges to collect and report evidence of school and district performance based on success of their students.
- Hold postsecondary institutions accountable for students receiving a degree.

Bridging the Gap Between High School and Postsecondary Education

- Use high school assessments for college admissions, placement and/or the awarding of scholarships. This means higher education leaders need to agree on a common definition of the skills

students need to begin credit-bearing courses.

- Enact dual-enrollment programs so high school students can earn college credit, either by enrolling in college-endorsed classes taught by their high school teachers or by taking those classes on college campuses or through a distance-learning provider.
- Expand Advanced Placement or other high-quality college-level programs in high schools.
- Create middle-college programs where students who complete a core high school curriculum by age 16 can attend two years of high school on a college campus.
- Develop financial and other incentives that will reward high schools and postsecondary institutions for students' successful progression to and through college.
- Create data systems that hold both high schools and postsecondary institutions accountable for how well they help students achieve a postsecondary credential by age 26.
- Create a P-16 council to analyze data, align policies and put programs in place to ensure academic success at every grade.

Building the Capacity of High Schools To Teach All Students to Higher Standards

- Create incentives for successful teachers to share their knowledge and skills at increasing student achievement with at-risk students.
- Develop programs for higher education faculty to deliver content-rich renewal courses or institutes for teachers.
- Ensure opportunities for high school leaders to learn from the successes of others who have developed successful high school programs.

State education leaders then can look at policies and programs that help bridge

What States Are Doing

State leaders already are taking action. Many states are out in front of this issue and have implemented many of the above policy recommendations. To provide ideas and policy options to state education leaders, short examples follow.

Supporting High School Innovation

- Under Governor Mark Warner’s Senior Year Plus initiative, a Virtual Advanced Placement (AP) School will provide **Virginia** high school students with access to a broader range of AP courses via existing distance-learning networks, regardless of where the students live. An Electronic Bulletin Board will show how any student can earn college credits while in high school, through Advanced Placement, International Baccalaureate, dual enrollment and other options. A statewide coordinator, “virtual” counselors, and school-based career guidance and academic advising software will support the Senior Year Plus initiative.
- **Florida** has passed legislation that limits the total number of students in elementary, middle and high schools “to reduce anonymity of students in large schools.” Schools that exceed these numbers are required to subdivide schools into “schools-within-a-school.” These schools are encouraged to use flexible scheduling, team planning, and curricular and instructional innovation to organize groups of students with groups of teachers to make smaller units.
- **California** has reduced the local matching fund requirement to 40% of project costs on a pilot-program basis for the construction of high schools meeting certain criteria. This legislation also provides additional modernization funds for larger high schools to reconfigure into two or more smaller schools.

Strengthening the High School Curriculum

- Through its Advanced Placement Incentive Program, **Oklahoma** awards grants to school districts that support AP and/or International Baccalaureate courses through “vertical teams.” Vertical teams are composed of high school and college faculty and are expected to improve the articulation between high school and postsecondary education.
- **California** has developed a model curriculum framework for implementation of career and technical education courses that meet state-adopted standards, as well as satisfying high school graduation and college admissions requirements.
- **Indiana** has created a Web-based career planning tool for high school students. Students start by identifying a specific career, career focus area or career cluster. When a career is selected, the high school course sequence for grades 9-12 is identified for each student. The state is revising the content of its graduation exam and its Core 40 end-of-course assessments to reflect the knowledge and skills needed for success in postsecondary education or employment after high school.

Increasing Accountability for Student Performance

- **Oklahoma** has passed a bill that adds “attainment of competencies” as a method of satisfying high school-core course requirements. Proficiency is demonstrated through testing (or some other means) as an alternative to seat time.
- **Arkansas** requires postsecondary education institutions to report on high school students’ readiness for higher education. The state requires schools and districts to develop strategies to improve stu-

dent readiness for postsecondary education and reduce the remediation high school graduates need.

Bridging the Gap Between High School and Postsecondary Education

- **New Mexico** requires next-step plans for high school students in which the students set personal post-graduation goals. The law requires a final next-step plan as a prerequisite for graduation.
- **Texas** has established the Middle College Education Program to serve students who are at risk of dropping out of high school or who wish to complete high school at an accelerated pace.
- **North Carolina** has established Innovative Education Initiatives to develop cooperative efforts between secondary schools and institutions of higher education. The goals are to reduce dropout rates, increase high school and college graduation rates, and decrease the need for remedial programs in higher education. In addition, North Carolina encourages early entry of motivated students into four-year college programs.
- **California** recently has established a program to assist community college students who want to earn baccalaureate degrees at a California State University campus. The chancellor of the system is to establish lower-division transfer requirements for each high-demand baccalaureate program.
- **Washington** now requires the Higher Education Coordinating Board, the superintendent of public instruction and the State Board for Community and Technical Colleges to convene a work group to discuss standards and expectations for the knowledge and skills high school graduates need for college-level work and strategies

for communicating those standards to all Washington high schools.

Building the Capacity of High Schools To Teach All Students to Higher Standards

- **North Carolina** has established a Teacher Academy that employs teachers to assist in developing and delivering high-quality professional development to other teachers during the summer. Additional follow-up with teachers during the school year helps assure implementation of knowledge and skills gained in the summer programs.
- For many years, **Connecticut** has extended professional development training to teachers using university faculty to deliver specialized content, especially in the sciences and mathematics.
- **Virginia** Governor Mark R. Warner has initiated the Virginia Turnaround Specialist Program that will prepare school principals, through an executive education program at the University of Virginia, to turn around consistently low-performing and hard-to-staff schools.

Resources and Additional Information

For a recent report card on state higher education systems, see the National Center for Public Policy and Higher Education's *Measuring Up 2004: The State-by-State Report Card for Higher Education* at <http://measuringup.highereducation.org>.

The American Diploma Project has developed English and mathematics benchmarks that high school graduates should have, along with an action agenda. These are described in *Ready or Not: Creating a High School Diploma That Counts*, available at <http://www.achieve.org/achieve.nsf/AmericanDiplomaProject?openform>.

ACT has released a new report, *Crisis at the Core: Preparing All Students for College and Work* that describes how well high school students are prepared to succeed in college. The report is available at http://www.act.org/path/policy/pdf/crisis_report.pdf

To learn more about how to make the senior year more meaningful, see the National Commission on the High School Senior Year report, *The Lost Opportunity of Senior Year: Finding a Better Way* at http://www.woodrow.org/CommissionOnTheSeniorYear/Senior_Year_Report_Final.pdf.

To learn more how states and regions develop more aligned and equitable policies that help students prepare for and succeed in some form of postsecondary education, see the Bridge Project's report, *Betraying the College Dream*, at <http://www.stanford.edu/group/bridge-project/>.

To learn more about the Jobs for the Future project on *Redesigning High Schools: The Unfinished Agenda in State Education Reform*, go to http://www.jff.org/jff/approaches/ia_youth_trans.html.

The Education Trust has a number of reports documenting student achievement gains and the need for a stronger high school curriculum. *A New Core Curriculum for All: Aiming High for Other People's Children* is available at <http://www2.edtrust.org/edtrust/Product+Catalog/Reports+and+Publications.htm>.

To learn more about the U.S. Department of Education's *Preparing America's Future High School Initiative*, visit <http://www.ed.gov/highschool>.

To learn more about state policies and programs related to high school reform, go to <http://www.ecs.org/highschool>.

Jane Armstrong is an ECS senior policy advisor.

Endnotes

¹ Lynn Karoly and Constantijn Panis. *The 21st Century at Work*. RAND, 2004.

² Bureau of the Census. *Occupational Outlook Quarterly*, Winter 2001-02.

³ Bureau of Labor Statistics. *Occupational Outlook Quarterly*, Spring 2002.

⁴ National Center for Education Statistics. *The Condition of Education, 2000*. Also, see the National Center for Education Statistics, *Remedial*

Education at Degree Granting Post-Secondary Institutions in Fall 2000, 2001.

⁵ National Center for Education Statistics. *NAEP 1999 Trends in Academic Progress: Three Decades of Student Performance*, 2002.

⁶ ACT. *Crisis at the Core: Preparing All Students for College and Work*, 2004.

⁷ American Diploma Project. *Ready or Not: Creating a High School Diploma That Counts*, 2004.

⁸ Peter T. Ewell, Dennis M. Jones and Patrick J. Kelly. *Conceptualizing and Researching the Education Pipeline*. National Center for Higher Education Management Systems, 2003.

⁹ National Center for Higher Education Management Systems. *Racial and Ethnic Representation from High School to College Completion, by State*, 2000.

¹⁰ See the reports included in the resources section of this issue brief.

© 2005 by the Education Commission of the States (ECS). All rights reserved. The Education Commission of the States is a nonprofit, nationwide organization that helps state leaders shape education policy. Copies of this policy brief are available for \$5 plus postage and handling from the Education Commission of the States Distribution Center, 700 Broadway, Suite 1200, Denver, CO 80203-3460; 303.299.3692. Ask for No. SI-05-02.

ECS encourages its readers to share our information with others. To request permission to reprint or excerpt some of our material, please contact the ECS Communications Department at 303.299.3628 or e-mail ecs@ecs.org.

Helping State Leaders Shape Education Policy



Education Commission of the States
700 Broadway, Suite 1200
Denver, CO 80203-3460

Education Commission
of the States

Nonprofit Org.
U.S. POSTAGE
PAID
Denver, Colorado
Permit No. 153