Educational Opportunities in Washington's High Schools Under State Education Reform:

High School Responses to Expectations for Change

VOLUME 2
APPENDICES FOR THE FINAL REPORT

Barbara McLain
and
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WASHINGTON STATE INSTITUTE FOR PUBLIC POLICY

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The Washington Legislature created the Washington State Institute for Public Policy in 1983. A Board of Directors—representing the legislature, the governor, and public universities—governs the Institute, hires the director, and guides the development of all activities.

The Institute's mission is to carry out practical research, at legislative direction, on issues of importance to Washington State. The Institute conducts research activities using its own policy analysts, academic specialists from universities, and consultants. New activities grow out of requests from the Washington legislature and executive branch agencies, often directed through legislation. Institute staff work closely with legislators, as well as legislative, executive, and state agency staff to define and conduct research on appropriate state public policy topics.

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APPENDICES

The 2000 Legislature enacted Engrossed House Bill 2487. Section 607(4) of the bill directed the Washington State Institute for Public Policy to conduct a study of public high school programs in Washington and report its findings in an interim and final report. The interim report (Volume 1), completed in January 2001, provided information on high school student outcomes and identified national trends in high school reform. This report (Volume 2) describes educational programs and opportunities available for high school students, with a special emphasis on how these programs and opportunities are changing as a result of the state's education reform. Volume 3 contains detailed summaries from eight case study high schools, including the perspectives and opinions of educators, students, and parents.

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APPENDIX A: RESPONSES TO HIGH SCHOOL SURVEYS

In February 2001, the Institute surveyed 328 high schools, representing nearly all comprehensive public high schools in Washington State and enrolling 96 percent of all public high school students.[1] High schools of various sizes, geographic locations, and student demographics are well represented among survey respondents, with the exception of very small high schools and alternative schools.

Overall Response Rates

Two surveys were sent to each school:

1) The *2001 Principal Survey* had questions on opportunities available to students in high schools in Washington. This survey had a response rate of 65 percent with 212 surveys returned.

2) The *2001 High School Survey* had questions on student demographics and enrollment in college credit and distance learning classes. This survey had a response rate of 62 percent with 203 surveys returned.

At least one survey was returned from 214 schools. The responding schools enroll 65 percent of all high school students in the state (189,947 students in October 1999).

Response Rate by School Size

The breakdown of responses by size of school is illustrated in Table A-1. Schools that responded to the surveys are representative of public high schools of different sizes across the state with the exception that schools enrolling fewer than 250 students are under-represented.[2] Student enrollment in these small schools represents only 3.6 percent of the total enrollment in all schools surveyed. However, the analysis and statistics presented in this report should be interpreted with caution, as they may not represent activities of very small high schools.

[1] From an original list of 413 high schools obtained from the Office of the Superintendent of Public Instruction, 85 schools were removed because they were institutional schools, skills centers, alternative schools serving only one or two grade levels, or had fewer than 20 students enrolled in 10th grade. October 1999 headcount enrollment in all high schools was 293,148; surveyed schools enrolled 280,634 students.

[2] When schools are divided into five size ranges, there is a statistically significant difference between the proportion of responding schools and the total survey population. The difference is $p=.00135$, using a chi-square test ($p<0.05$). However, if schools with fewer than 250 students are excluded, the difference between respondents and the total survey population based on school size is $p=.2732$, which is not statistically significant ($p<0.05$).

Table A-1
Response Rate by School Size

School Size: October 1999 Enrollment	Schools Surveyed		Schools Responding		Percent of Schools Responding in Each Size Range
	Number	Percent of Total Surveyed	Number	Percent of Total Responding	
More Than 1,500	64	20%	42	20%	66%
501–1,500	133	40%	94	44%	71%
500 or Less	131	40%	78	36%	59%
Total	**328**	**100%**	**214**	**100%**	

Response Rate of Alternative Schools

Many alternative schools were not surveyed because of small enrollment (fewer than 20 students in 10th grade or students only at a few grade levels). However, 36 alternative schools were included in the survey (11 percent of total surveyed schools). Only 14 schools responded (39 percent), so the analysis in this report cannot be said to represent the activities of alternative high schools.

Response Rate by Geographic Area

The Institute created five categories of geographic area and assigned schools to each category based on the county in which they are located. As Table A-2 shows, schools responded to the survey in proportion to the number of schools surveyed in each geographic area. There is no statistically significant difference between schools responding to the survey and the proportion of schools surveyed in each area.[3] Therefore, analysis of survey results in this report can be considered representative of schools across the state, based on geographic area.

[3] Using a chi-squared test, the difference between the distribution of respondents to the total survey population based on geographic area is p=0.1612. This is not a statistically significant difference ($p<0.05$).

Table A-2
Response Rate by Geographic Area

Geographic Area (Counties)	Schools Surveyed		Schools Responding		Percent of Schools Responding in Each Area
	Number	Percent of Total Surveyed	Number	Percent of Total Responding	
Central Puget Sound (King, Pierce)	87	27%	48	23%	56%
Northwest (Clallam, Grays Harbor, Island, Jefferson, Kitsap, Mason, San Juan, Skagit, Snohomish, Whatcom)	73	22%	51	24%	68%
East (Adams, Asotin, Columbia, Ferry, Franklin, Garfield, Lincoln, Spokane, Pend Oreille, Stevens, Walla Walla, Whitman)	53	16%	39	18%	74%
Central (Benton, Chelan, Douglas, Grant, Kittitas, Klickitat, Okanogan, Yakima)	60	18%	37	17%	62%
Southwest (Clark, Cowlitz, Lewis, Pacific, Skamania, Thurston, Wahkiakum)	55	17%	39	18%	69%
Total	**328**	**100%**	**214**	**100%**	

Response Rate by Student Demographics

Statewide, 23 percent of students in grades 9–12 are minority students. However, some schools and school districts enroll a larger proportion of minority students than others. As Table A-3 shows, the high schools responding to the Institute's survey are representative of high schools across the state in terms of the proportion of minority students enrolled based on four categories. The differences are not statistically significant.[4]

[4] Using a chi-square test, the difference between the distribution of respondents to the total survey population based on percentage of minority enrollment is $p=0.1399$. This is not a statistically significant difference ($p<0.05$).

Table A-3
Response Rate by Minority Student Enrollment

Percent Minority Students in High School	Schools Surveyed		Schools Responding		Percent of Schools Responding in Each Category
	Number	Percent of Total Surveyed	Number	Percent of Total Responding	
10 % or less	98	30%	68	32%	69%
11–25 %	127	39%	88	41%	69%
26–50 %	64	19%	35	16%	55%
More than 50 %	39	12%	23	11%	59%
Total	**328**	**100%**	**214**	**100%**	

APPENDIX B: CASE STUDIES OF EIGHT HIGH SCHOOLS

To supplement information from the high school surveys, the Institute selected eight high schools to participate as case studies. Participants were asked questions pertaining to the following topics:

- Strategies to Improve Student Learning: Curriculum, Instruction, and Assessment
- Impact of EALRs and WASL
- Educational Programs, Pathways, and Learning Opportunities
- Challenges and Opportunities for the Future

Selection of Schools

Schools were selected based on the following criteria (See Table B-1):

- **Size of School:** Two small schools (250 to 900 students), four medium schools (900 to 1,500 students), and two large schools (over 1,500 students);

- **Geography:** A balance of the west, central, and east sides of the state, as well as rural, suburban, and urban locations;

- **Demographics:** Schools with at least 15 percent of the student population eligible for free and reduced lunch and at least 9 percent minority enrollment;

- **Grade Levels:** Schools with a 9th through 12th grade configuration, to maintain consistency in the types of issues discussed; and

- **Other Considerations:** Several schools identified as pursuing standards-based reform efforts.

Table B-1
Case Study High Schools

High School (District)	Number of Students	School Size	Location	Percent Free and Reduced Lunch	Percent Minority
Pasco	2,285	Large	Central	43%	62%
Moses Lake	1,742	Large	East	26%	26%
Sunnyside	1,368	Med/Large	Central	39%	69%
Mark Morris (Longview)	1,147	Medium	Southwest	16%	9%
Nathan Hale (Seattle)	1,089	Medium	West	27%	39%
Sequim	935	Med/Small	West	18%	12%
Nooksack Valley	519	Small	Northwest	29%	17%
Lake Roosevelt (Grand Coulee Dam)	299	Small	East	25%	53%

Description of Schools

Institute staff conducted two-day visits to each high school, reviewed school documents, such as school improvement plans and staff development plans, and observed classes. Over the course of the visits, the Institute was able to interview 18 administrators, 185 teachers and staff, 210 students, and 60 parents and community members. Detailed summaries from each case study can be found in volume 3 this report (*Educational Opportunities in Washington's High Schools Under State Education Reform: Case Studies of Eight Washington High Schools*).

Pasco High School

Pasco is the second largest high school in the state and serves a significant at-risk population. Pasco has focused its work over the last five years on two state learning goals. For Goal 1 (reading, writing, communication, and math), Pasco has created an integrated curriculum for 9th grade covering science, computer literacy, and health in a two-hour block. Planning and curriculum for the block is a collaborative effort among the teachers of the three courses. There are also three performance assessments over the course of the year.

For Goal 4 (linking education to the world of work), Pasco has developed a career pathways model to help students explore and prepare for their options after high school. Ninth grade students are offered two-week modules that orient them to the five pathways, and, in the spring, they choose one of the pathways. There are special projects in 10th grade (service learning), 11th grade (Enterprise Business Week), and 12th grade (senior project) that

students are encouraged to focus around their pathway. The graduating class of 2001 will be the first to have completed each activity. Staff and students report that adding a new activity each year has required a large investment of time and energy.

Moses Lake High School

Moses Lake is a large high school in Eastern Washington. A self-study for accreditation completed in 1999 suggested that Moses Lake needed to increase student motivation and attendance, create opportunities for students to connect learning to their everyday lives, and create a comprehensive learning improvement plan. Staff are beginning to talk about strategies for accomplishing these objectives, including senior projects, portfolios, or career pathways.

One opportunity to add a culminating project is through the advisory period, which was implemented in Moses Lake more than five years ago. Each student is assigned to a teacher who advises 15 to 20 students for the duration of their high school education. The advisory meets every other week, and a committee of teachers provides a common lesson plan. Staff are interested in exploring new projects and activities but are concerned about the amount of planning and oversight that would be required.

Sunnyside High School

Sunnyside is located in the second largest community in the Yakima valley and serves a diverse student population with high turnover, many of whom are considered at risk of dropping out of school. In 1999, Sunnyside established a portfolio for each student where teachers place examples of students' best work throughout high school. At about the same time, Sunnyside developed a booklet that categorizes various occupations into five broad career clusters or pathways and illustrates how students might choose high school courses based on the pathways. Counselors explain the booklet to students, but most career and guidance counseling occurs through student-initiated visits to the counseling office.

In November 2000, Sunnyside had its first meeting to discuss requiring a senior project. Staff would like to see integration among the portfolio, career pathways, educational plan, and senior project in order to make them more meaningful for students.

Mark Morris High School

Mark Morris is one of two similarly-sized high schools in the Longview School District. Mark Morris initiated the "Pathway to Tomorrow" project in 1999 and is phasing it in over five years. The project includes four portfolios (Student Work, Citizenship, Career, and Academic) and a Celebration Presentation occurring at the end of the senior year where students explain their portfolios.

Each aspect of the project has been explicitly aligned with the state learning goals and the district's exit outcomes. At least four of the samples students place in their portfolio must be

"quality work" that meets an objective standard set by the teacher. Starting in 2001, the high school course catalog will describe the opportunities students have to produce quality work in each class. Staff are optimistic that the difficulties of starting a large schoolwide project will be worked out and realize they need to find ways to convince students the project is worthwhile.

Nathan Hale High School

Nathan Hale is considered a small high school within the Seattle School District. It has been a member of the Coalition of Essential Schools (CES) network since 1997. In 1998, Nathan Hale divided all 9th graders into two academies, each staffed by six teachers with a student-teacher ratio of approximately 20:1. The academies are a two-period, three-hour block in humanities and health/science. Students of all levels of ability, including special education and ESL students, are taught in the same classes and expected to meet the same standards.

In 1999, Nathan Hale extended the academy model by introducing "Integrated Studies" in 10th grade. Academy teachers receive an extra planning period to create integrated units of study across subjects. Juniors and seniors complete projects involving research, writing, and a culminating presentation. Nathan Hale has not yet decided whether or how to extend the academy model into the upper grades. Concerns include finding time for teachers to collaborate and older students' desire for more independence and options.

Sequim High School

Sequim is a medium-sized high school on the Olympic Peninsula. A large number of students attend Running Start at Peninsula Community College in nearby Port Angeles, which is a source of concern to the staff, students, and parents at the high school. Staff describe the school curriculum as traditional, with an academic and college-preparatory focus.

Starting in 2000, Sequim began implementing the PACK: Portfolio of Achievement, Career, and Knowledge. The PACK will include entries to illustrate a student's competencies as Planner, Learner, Employee, and Citizen. Students will present their portfolios each year, culminating for seniors with presentations to the community. A PACK period every two weeks allows students to meet with a teacher who will follow them for four years as their advisor. PACK is still under development, and staff have not yet reached consensus that it is the best utilization of instructional time and energy.

Nooksack Valley High School

Nooksack Valley is a small school serving students from several towns in rural Whatcom County. Nooksack Valley is in the early stages of implementing a series of activities. In 1999, all 9th grade students enrolled in a Focus 9 class where they explored career pathways, learned about job applications and workplace skills, and participated in an

informational interview. Students also put together a collection of student work and record of activities in a personal portfolio.

A senior project became a graduation requirement in 2000. The district develops students' capacity to complete the project by having them do research and make a presentation every two years (at increasing levels of sophistication) starting in 6th grade. Nooksack Valley received a Gates grant to propose changes to the traditional structure of high school over the next several years. At this point, staff are most interested in exploring new ways to use time and experimenting with individualized learning in 11th and 12th grades to create more options for students.

Lake Roosevelt High School

Lake Roosevelt is located in the small rural community of Coulee Dam in Eastern Washington. Since the early 1990s, the school has focused its reform efforts on School-to-Work transition. Over time, career pathways and career exploration have been integrated into all classes and the school culture. This has occurred primarily through a student portfolio (PREP) and a culminating senior project. Students are strongly encouraged to do several job shadows, and the school makes a special effort to have students visit workplaces throughout the region.

As a small school, Lake Roosevelt has a limited number of electives tailored to different career pathways, but students are still encouraged to select courses based on their chosen pathway. For the future, Lake Roosevelt will be challenged to find new ways to assist low-achieving students and address community concerns, such as an aging facility, limited local tax base, and low parent involvement in the high school.

APPENDIX C: STATE SUPPORT OF REMEDIATION DUE TO STATE STANDARDS OR GRADUATION TESTS

Of the 27 states that anticipate requiring students to pass a statewide, standards-based test for high school graduation, 15 have passed laws requiring school districts to provide remediation for students who are at risk of failing the tests. Fourteen states support graduation test remediation with funding for specific state programs or through the state's funding allocation formula for schools. States that require remediation do not necessarily provide special funding to support it. Programs usually entail extra learning opportunities in the summer, during the school day, before or after school or on weekends.[5]

Table C-1
State Support for Remediation Due to State Standards or Graduation Tests

Graduation Test Based on State Standards		Law Requiring Remediation	State Funding for Graduation Test Remediation
State	**Date**		
Washington	2008		
Alabama	Current	X	X
Alaska	2002		X
California	2004	X	
Delaware	2004		X
Florida	2003	X	X
Georgia	Current		X
Louisiana	2001	X	X
Maryland	2007	X	
Massachusetts	2003	X	**X**
Minnesota	2004	X	
Nevada	Current	X	X
New Jersey	2003	X	
New York	Current	X	X
North Carolina	2004	X	
Ohio	2005	X	X
South Carolina	2005	X	X
Tennessee	2005		X
Texas	2005	X	X
Utah	2005	Proposed	Proposed
Virginia	2004	X	X

[5] This analysis only examines programs specifically targeted at increasing student performance on high school graduation tests or tests based on state standards. Some other states without graduation tests also provide funding for remediation to meet state standards. Examples include Connecticut's Summer School ($3.7 million) and Kentucky's Priority Schools Extended School Services ($36.9 million).

APPENDIX D: STATE ADJUSTMENTS TO STANDARDS-BASED GRADUATION TESTS

More than half the states (27) have introduced or are planning to require students to pass tests based on state standards in order to graduate from high school. However, this depiction is far from static as states continually adjust and change implementation dates and other policies pertaining to graduation tests.[6]

Delays in Implementation

At least six states have delayed implementing standards-based tests, reflecting concerns that teachers have not received enough training or time to implement new curriculum and assessments and schools have not provided enough remediation (see Table D-1).[7]

Table D-1
Delays in Implementation of Standards-Based Tests Required for Graduation[8]

State	Change in Date
Alaska	2002 → 2004
Arizona	2002 → 2004*
Maryland	2003 → 2007
Minnesota	2002 → 2004
North Carolina	2003 → 2004
Wyoming	2003 → 2005

** Delay in math portion of test*

Modifications

At least six states have altered the test content or adjusted minimum passing scores based on early analysis of student scores and/or concerns about the rigor of the requirements (see Table D-2).

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[6] Sources: Education Commission of the States, *ECS State Notes: Assessment and Secondary Education*, August 2000; "Getting Serious About High School," *Education Week*, April 11, 2001; "Quality Counts 2001: A Better Balance, Standards, Tests and the Tools to Succeed," *Education Week*, January 11, 2001; "States Adjust High-Stakes Testing Plans," *Education Week,* January 24, 2001; Jacques Steinberg, "Academic Standards Eased As a Fear of Failure Spreads," *New York Times*, December 3, 1999; National Conference of State Legislatures, *Standards and Accountability*; Theresa Clarke, National Governors Association, *Graduation Exit Exams Matrix*, October 15, 2000; Dane Linn, National Governors Association, *High School Exit Exams: Setting High Expectations*, September 1, 1998.

[7] Jacques Steinberg, *Academic Standards Eased As a Fear of Failure Spreads.*

[8] Some states may have delayed implementation more than once or already implemented a test after earlier delays. These actions are not reflected.

Table D-2
Modifications to Standards-Based Tests Required for Graduation

State	Modification
California	Shortened exam Deleted advanced math questions
Georgia	Replacing end-of-high school test with end-of-course tests in core subjects, grades 9–12
Massachusetts	Reduced minimum passing scores
Minnesota	Reduced number of content standards tested
New York	Reduced minimum passing scores
Ohio	Replacing end-of-high school test with end-of-course tests in core subjects

Alternatives to Standards-Based Tests

Seven states offer or are considering an alternative diploma or alternative options for students (other than special education students) that do not require passing the standards-based test (See Table D-3).

Table D-3
Alternatives for Students Other Than Passing the Standards-Based Test

State	Alternative to Test
California	SBE must create an alternative way for students to earn a diploma
Delaware	Created three levels of diploma: • Standard: Met course requirements; did not pass test • Academic: Passed test • Distinguished: Passed test with high scores
Georgia	Allows students to request a waiver
Indiana	Allows students to request a waiver based on grades
Louisiana	Allows students who fail 8th grade test three times to enter alternative program and receive Skills Certificate
Virginia	Allows students to substitute other rigorous tests (such as AP or IB) for graduation test
Wyoming	Factors in students' grades in core courses along with test scores

Differentiated Diplomas

Five states offer differentiated diplomas for students. All students are still required to pass a standards-based test for high school graduation, but students with exemplary grades, test scores, or other activities can earn a special diploma. Massachusetts offers a Certificate of Mastery, and Arizona, New York, Ohio, and Virginia offer honors diplomas or endorsements (see Table D-4).

Table D-4
Differentiated Diplomas

State	Criteria for Differentiated Diploma
Arizona	Students may earn an honors endorsement by demonstrating an "extraordinary level of knowledge, skill and competency" in math, English, science, and social studies.
Massachusetts	Students may earn a Certificate of Mastery by meeting criteria that vary depending on a student's performance on skills assessments. Criteria may include high-level performance on advanced placement tests or various academic awards.
New York	Students may earn an Honors Regents Diploma by achieving an average of 90 percent on all Regents examinations required for the diploma.
Ohio	To receive an Honors Diploma, students must meet requirements for the regular diploma, take additional course requirements, and receive a GPA of 3.5 and high scores on state tests. There is an Honors Diploma for the college preparatory curriculum and for the career-technical education curriculum.
Virginia*	Students may earn an Advanced Studies Diploma by taking additional courses and receiving a score of 9 rather than 6 on end-of-course tests.

**Students may also request alternatives to the state test.*

APPENDIX E: OREGON STATE'S CERTIFICATES OF MASTERY

Overview

In 1991, the Oregon State Legislature enacted a state education reform initiative through the Education Act for the 21st Century, two years earlier than Washington's Education Reform Act of 1993. The goals of Oregon's reform were to increase academic rigor and promote relevance of learning for students. For high school students who meet state standards, Oregon created a Certificate of Initial Mastery and is developing a Certificate of Advanced Mastery. In addition, Oregon is implementing a proficiency-based system for college admissions.

- The Certificate of Initial Mastery (CIM) is awarded to students who achieve 10th grade state performance standards in seven core subjects. Full implementation is planned for 2004.

- The Certificate of Advanced Mastery (CAM) is awarded to students who demonstrate how their knowledge and skills can be applied in a relevant context. The purpose of the CAM is to prepare students for successful transitions to post-secondary schooling, employment, and adult responsibilities. Full implementation is scheduled for 2005.

- The Proficiency-Based Assessment Standards System (PASS) is a set of standards students must meet for admission into four-year post-secondary institutions. A counterpart called the Proficiencies for Entry in Programs (PREP) guides placement into two-year colleges.

Oregon Certificate of Initial Mastery

To qualify for the CIM, students will be expected to pass statewide assessments and complete work samples that demonstrate they meet state standards in seven core subjects: English (reading, writing, speaking, and literature), math, science, and the social sciences (civics, economics, geography, history); student competency in the arts, a second language, and physical education will be locally assessed. However, attainment of the CIM is not required for graduation. Students who do not qualify for a CIM may still receive a diploma that acknowledges attendance and credit completion. In the fall of 2001, the Oregon State Board of Education will consider making the CIM a graduation requirement.

Work samples are papers or other products that are assessed locally by teachers using state scoring guides. For example, work samples in English include three papers: expository, narrative or imaginative, and persuasive. For speaking, students prepare an informative speech, a persuasive speech, and are required to give an unrehearsed presentation. For math, students must submit two work samples representing statistics and probability, algebraic relationships, or geometry.

In 1998–1999, 10th grade assessments were offered in reading, literature, writing, and math. The following year (1999–2000), 10th grade students also had to submit work samples in writing, speaking, and math and pass a multiple choice test in science. Performance-based assessments and work samples are scheduled to be added for science and the social sciences. Information on the number of Oregon students who qualified for a CIM in 1999 or 2000 was not available.[9] Full implementation of the CIM is scheduled for 2004.

In comparison, Washington's WASL currently covers four subjects (reading, writing, communication, and math). Starting with the class of 2008, students will have to pass the WASL in these four subjects to receive a Certificate of Mastery (COM). It is currently anticipated that the science WASL will be added to the COM by 2010, and successful completion of state assessments in other subjects (social studies, arts, health/fitness) will lead to an endorsement on a student's transcript. The COM will be a requirement for high school graduation in 2008. There is no equivalent in Washington to Oregon's work samples (see Table B-1).

Table E-1
Certificates of Mastery: Washington and Oregon

Washington: Certificate of Mastery*	**Oregon: Certificate of Initial Mastery (CIM)****

• Full implementation scheduled for 2008
• Required for graduation by 2008
• Students demonstrate 10th grade state standards by:
  ➢ Passing state assessments in English (reading, writing, listening) and math.
  ➢ Passing state assessments in science (2010)
• Demonstration of state standards in social studies (civics, geography, history), arts, and health/fitness will lead to endorsement on high school transcript.
	• Full implementation scheduled for 2004
	• Not required for graduation (being considered by State Board of Education)
	• Students demonstrate 10th grade state standards by:
	  ➢ Passing state assessments in English (reading, writing, speaking, and literature), math, science, and the social sciences (civics, economics, geography, history)
	  ➢ Submitting work samples that are locally assessed using state scoring guides
	  ➢ Achieving state content standards and district performance standards in arts, a second language, and PE (locally assessed).

* RCW 28A.655.060 and WAC 180-51-063.
** Oregon Department of Education, <http://www.ode.state.or.us/asmt/faqs/faqdevel.htm>, June 8, 2001.

[9] The results of the 1999 CIM were not released because they were considered unreliable. Results for 2000 are still being tabulated. Personal communication with Linda Burgin, Policy and Research Analyst, Oregon Department of Education, July 30, 2001.

Oregon Certificate of Advanced Mastery

The Certificate of Advanced Mastery (CAM) aims to prepare students for successful transitions to post-secondary schooling, employment, and adult responsibilities, and engage students in planning for their future. To qualify for the CAM, high school students will have to complete five main requirements, including demonstrating that they can apply the subject-area knowledge from the CIM in a relevant context. CAM is scheduled to be implemented by 2005 (see Table B-2).

Table E-2
Oregon Certificate of Advanced Mastery

Requirements for CAM by 2005*
• Students meet Certificate of Initial Mastery academic requirements. • Students develop an education plan and build an education profile. • Students demonstrate extended application of the CIM or higher academic standards through a collection of evidence. • Students demonstrate career-related knowledge and skills in personal management, problem solving, communication, teamwork, organization and systems, employment foundations, and career development. • Students participate in career-related learning experiences as outlined in their education plan connecting classroom learning with real life experiences in the workplace, community, or school.

*Oregon Department of Education, *Certificate of Advanced Mastery Design, Draft 3,* March 1, 2001.

The specific products, collections of evidence, and other expectations for students to receive a CAM are currently under development by a task force of the Oregon Department of Education. Six high schools piloted the CAM in 1999–2000 and 2000–2001, but the results have not yet been compiled. A key issue for the task force is how detailed or prescriptive state guidelines will be for the CAM. At present, the guidelines are general, and high schools have considerable flexibility in the activities, standards, and assessments used to meet CAM requirements.

While Washington does not have a second certificate like the CAM, high schools are required to offer educational pathways for students who have achieved a Certificate of Mastery. The goals of Oregon's CAM and Washington's educational pathways appear similar: encourage students to pursue career and educational objectives and integrate academic and vocational education. A list of possible pathways (e.g., Running Start, honors classes, Tech Prep, etc.) is provided in Washington State statute, but decisions about what constitutes a pathway, how they work, and how students pursue them are left to individual high schools.

In addition, under new statewide graduation requirements from the Washington State Board of Education, students will have to complete an education plan and a culminating project that demonstrates subject-area competencies, critical thinking (state learning Goal 3), and an understanding of the world of work (state learning Goal 4).

Proficiency-Based College Admission: Oregon's PASS/PREP

The Proficiency-Based Assessment Standards System (PASS) is a set of standards for admission to four-year institutions of higher education that were developed by the Oregon University System. The Proficiencies for Entry into Programs (PREP) for two-year colleges is similar to PASS except the standards are utilized as a guidance tool for placing students and assisting with planning.[10] PASS and PREP are intended to describe the skills and knowledge students need to succeed in college rather than relying on numbers of credits and courses in certain subject areas and minimum grade point averages (GPAs). State designers believe the system will provide better measures of student learning and increase the likelihood that students admitted to college complete degrees and graduate on time.[11]

Students could apply to Oregon's public colleges and universities using the PASS system for English and math for the first time in 2001.[12] Proficiency in other subject areas will be phased in over the next four years, and eventually students who choose the PASS system will not be required to submit GPAs for college admission. During the phase-in period between 2001 and 2004, students will have the option to use the PASS to gain entry into a four-year college.[13] When PASS is fully implemented in 2005, students will be required to use it to gain entry to four-year colleges.

PASS and PREP were developed in 1994–1995 before development of CIM requirements was complete. This resulted in some lack of alignment in state standards between K–12 and higher education systems; for this reason, the Oregon University System and the Oregon Department of Education are adjusting the requirements of PASS and PREP according to changes in implementation dates and content of the CIM.[14] Some educators are concerned that aligning the CIM and CAM with PASS and PREP causes K–12

[10] PREP standards were developed to help colleges better inform students of the knowledge and skills they are expected to have upon entry into individual college programs if they are to complete the program on time. Oregon Community College PREP web site*:* <http://www.odccwd.state.or.us/comcol/prep/PREP.html>.
[11] Karen Paulson, *Proficiency-Based Admission Standards System (Oregon) Case Study*, Competency-based Initiatives Work Group National Postsecondary Education Cooperative, (National Center for Higher Education Management Systems, Revised, October 1999), 2.
[12] Students who chose to use the PASS system in 2001 were required to demonstrate proficiency in English and math as measured by the CIM. They were still required to meet minimum course credits in science, social science, and second languages, achieve a certain GPA in those areas, and take the SAT 1 or ACT college entrance exam.
[13]PASS will be available in science in 2002, the arts in 2003, second languages in 2004, and social science in 2005. Lyn Olsen, "K-12 and College Expectations Often Fail to Mesh," *Education Week*, May 9, 2001; Karen Paulson, *Proficiency-Based Admission Standards System (Oregon) Case Study*.
[14] PASS was established by Oregon's Board of Higher Education in 1993. It was developed by the Oregon University System (OUS) in 1994 and adopted by Oregon's State Board of Education.

standards and expectations to become too focused on post-secondary education while ignoring other training and career options for students.

In Washington, the Higher Education Coordinating Board (HECB) has adopted proficiency standards (or competencies) in English, math, world languages, and science for college admission. By adopting these competencies, the HECB has also made it a requirement that Washington students attain a Certificate of Mastery in order to be admitted as a freshman to a four-year public institution. This will take effect for the high school graduating class of 2008. A pilot project with four high schools has been working to identify what types of student work (assignments, papers, tests) would demonstrate successful mastery of each subject area, but there is no current plan to implement competency-based college admissions on a statewide basis.

Challenges in Oregon

In 2000, the Oregon Department of Education conducted a survey and focus groups to elicit perspectives on the CIM and CAM from educators and students.[15] Most responses dealt with concerns about the interaction between the CIM, the CAM, and the high school diploma (see Table B-3).

Table E-3
Summary of Educator and Student Perspectives on Oregon's CIM and CAM

Educator and Student Perspectives
• The value of the CIM and the CAM is not evident to students, although the high school diploma is seen as valuable.
• The diploma and the CAM might create a dual system.
• The implementation of the CAM will be staff and resource intensive.
• CIM and CAM requirements could benefit from greater clarity and individualization to meet specific students' needs.
• Students who do not qualify for the CIM do not have a chance to qualify for the CAM either.

Oregon Department of Education, *Voices from the Field,* May 2001.

[15] Oregon Department of Education, *Voices from the Field, Final Report: Educator and Student Feedback, Certificate of Advanced Mastery, (CAM), Draft 3*, May 14, 2001.

Another study found Oregon's high school teachers have a less favorable attitude to statewide standards and assessments than elementary and middle school teachers, with a marked difference for 11th and 12th grade teachers.[16]

As a result of these concerns, Oregon has made some adjustments to the CIM and CAM:

- **CIM Implementation.** The date for implementation of the CIM was moved forward one year (from 2003 to 2004) to give high schools time to integrate changes.
- **Flexible Qualification for the CIM.** In 2001, Oregon's State Board of Education ruled that students could meet the requirements for the CIM at any time during four years at high school, removing the expectation that students achieve the CIM in 10th grade. This policy change addressed educator and community member concerns that large numbers of students would have to take remediation classes in 11th and 12th grades to meet the standards.
- **Incentives to Meet Standards.** Similar to Washington's WASL and Certificate of Mastery, students reported they did not see the value of qualifying for the CIM and CAM since they can still graduate from high school without them.[17] Oregon's State Board of Education directed the Department of Education to examine the connection of the CIM to graduation and plans to consider the findings in fall 2001.
- **Online Testing System.** In 2000–2001, the Oregon Department of Education partnered with 28 schools, including 15 high schools, to pilot the Technology Enhanced Student Assessment (TESA).[18] The intent of the TESA is to allow students the flexibility to take tests when they are ready, provide fast individual results to increase motivation, and allow teachers to understand students' individual needs.

CIM, CAM, and PASS/PREP represent a significant shift in Oregon's approach to education. It is likely the state will continue to make adjustments to address concerns as they emerge. Staff from the Oregon Department of Education cited communication with schools, teachers, parents, and students as the major challenge in implementing high school education reforms and also as the major tool to promote understanding and acceptance of state education reform in high schools.[19]

[16] Dr. Michael Dalton, *Issues and Problems in the Implementation of the Oregon Certificate of Initial Mastery (CIM) Assessment System*, (Southern Oregon University, April 2000), 7.
[17] Oregon Department of Education report, *Voices from the Field*, May 2001.
[18] Oregon Department of Education, *Oregon Standards*, Spring 2001, 3.
[19] Meeting with the CAM design team, Oregon Department of Education, July 24, 2001.

APPENDIX F: CAREER ACADEMIES

What Are Career Academies?

Nationally, many high schools are experimenting with organizing courses, instruction, and activities around a career theme or career pathway, such as Health and Human Services, Business, or Science and Engineering. Career academies are the most intensive examples of career pathways because they are either separate schools or schools-within-schools based on one career theme, such as finance, health, media, natural resources, public service, technology, and travel and tourism. Programs can last between one and four years. Although the design of the academies varies widely, in 1999 several national organizations agreed that career academies have three key features:[20]

- Small learning communities that create supportive environments;
- Integration of academic and career-related curricula organized around a specific career theme; and
- Partnerships with employers to provide students with work-based learning opportunities.[21]

Career academies were originally established over 30 years ago to prevent high-risk students from dropping out and to prepare them for work. Recently, their focus has shifted to prepare all types of students for both college and careers by integrating vocational and academic studies. There are an estimated 1,500 academies in the United States that organize learning around a career theme.[22]

National Career Academy Networks

National organizations have formed to create career academy partnerships and support networks. Networks are typically organized by location or around certain career themes or target populations. Three of the major organizations are the California Partnership Academies, the Philadelphia Academies, and the National Academy of Finance (NAF).

The California Partnership Academies aim to improve the prospects of unmotivated students who are educationally and economically disadvantaged. The Philadelphia Academies emphasize dropout prevention. The NAF supports academies that enroll all types of students based on their interest in certain career fields. NAF academies are

[20] In 1999, national organizations working with career academies agreed on this common definition. Career Academy Support Network (CASN), *Seattle's High School Career Academies*, June 2001 Progress Report.
[21] James J. Kemple, and Jason C. Snipes, *Career Academies: Impacts on Students' Engagement and Performance in High School*, (Manpower Demonstration Research Corporation, February 2000).
[22] The number of career academies in the United States is difficult to estimate because there is no single definition, and programs operating within high schools vary widely. Career Academy Support Network at UC Berkeley, California, <http://casn.berkeley.edu/Definition.html>.

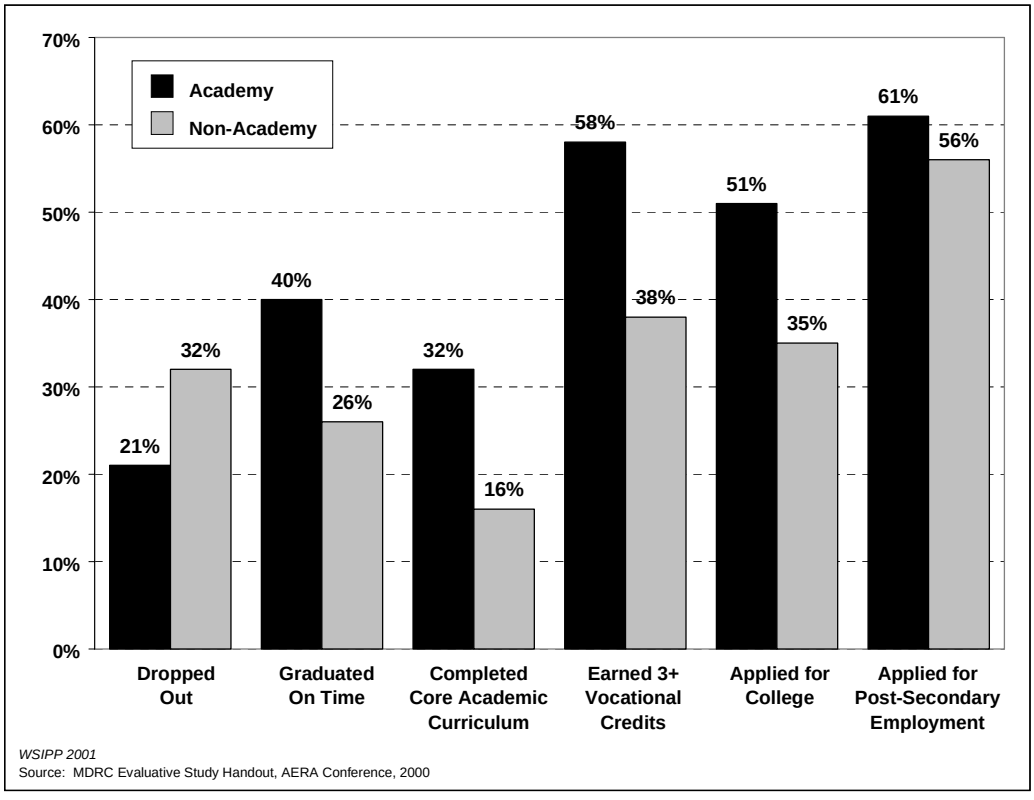
organized under one of four career strands: finance, travel and tourism, public service, and manufacturing services.

What Does Research Say About Career Academies?

In addition to being a distinct approach to career-themed education, career academies are also one of the most studied models. The Manpower Demonstration Research Corporation (MDRC) has evaluated ten academies annually since 1996. The MDRC study is considered a model program evaluation because students were randomly assigned to either an academy or a regular high school, allowing for control groups of similar students. This provides highly reliable comparisons of student outcomes.[23]

High-Risk Students. The 2000 MDRC evaluation found high-risk students attending career academies were less likely to drop out and more likely to graduate on-time compared with their non-academy counterparts. There were a variety of other outcomes where high-risk academy students outperformed non-academy students (see Figure F-1).

Figure F-1
Outcomes for High Risk Students:
Academy Compared With Non-Academy Students



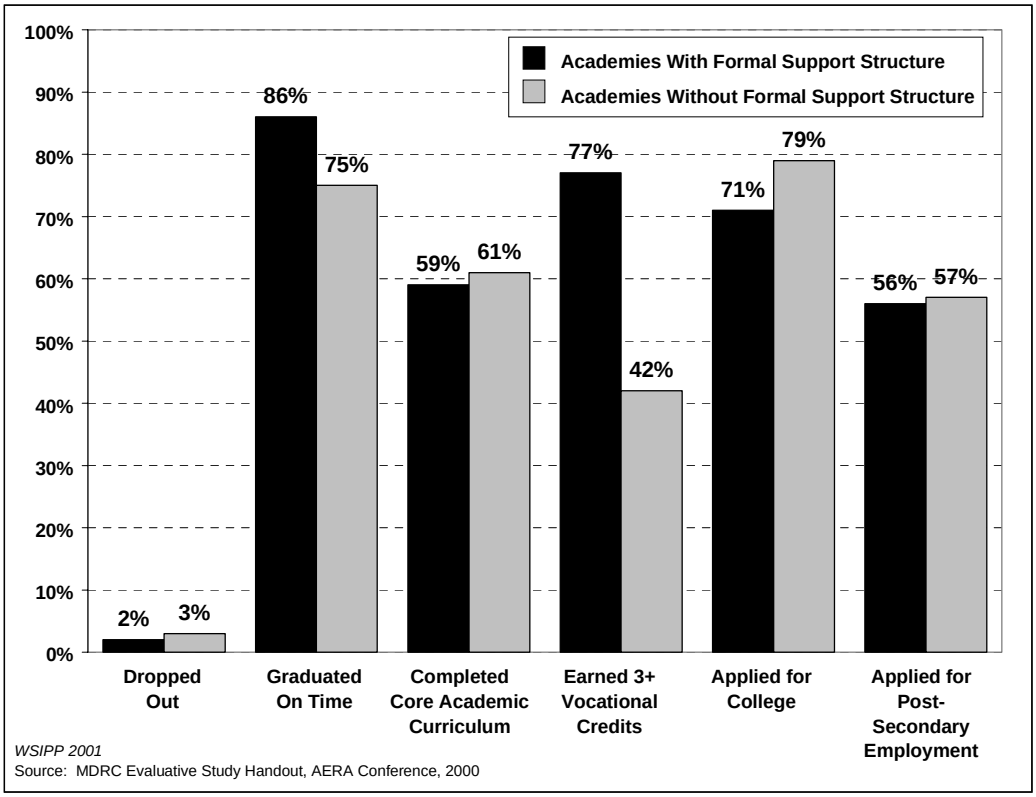
WSIPP 2001
Source: MDRC Evaluative Study Handout, AERA Conference, 2000

[23] The MDRC evaluation compared students who applied for and were selected to the academies with others who applied but were not selected. Applicants were assigned to the two groups at random, and there were no academic pre-requisites to qualify for entry.

Furthermore, the reduced dropout rate has been shown to improve earnings once students leave high school. For example, additional earnings associated with completing one more year of high school are estimated to be four to ten times greater than the additional earnings associated with one grade-equivalent year of test score gain.[24]

Program Organization. MDRC's overall analysis of all types of students (high-, medium-, and low-risk) found that performance outcomes for academy students were either similar or minimally higher than outcomes of non-academy students. However, student outcomes were better in academies that provided a higher level of individual support and a more formalized school-within-a-school structure. In more formally organized academies, an increased percentage of medium-risk students earned enough credits to graduate and demonstrated an increased level of career-related, course-taking, and work-based learning activities. This was achieved without reducing academic course-taking (see Figure F-2).

Figure F-2
Academies With Formal Support Structures
Compared With Academies Without Formal Support Structures[25]
(Outcomes for Medium-Risk Students)



WSIPP 2001
Source: MDRC Evaluative Study Handout, AERA Conference, 2000

[24] David Stern, Charles Dayton, and Marilyn Raby, *Career Academies: Building Blocks for Reconstructing American High Schools,* (Berkeley: University of California, October 2000), 18; <http://casn.berkeley.edu/buildingblocks.html>.

[25] Academies with *formal support structures* are defined in the MDRC study as *high-contrast* academies: they have high levels of interpersonal supports and a formalized school within a school structure. Academies *without formalized support structures* are defined as *low contrast* academies: they have lower levels of interpersonal support and a less formal school within a school structure.

Test Scores. Although the MDRC study showed that some students achieved more positive outcomes at career academies, scores on standardized math and reading tests did not improve for all students. In addition, the MDRC study and other studies have not been able to ascertain whether the level of instruction in career academies is more rigorous than in non-academy classes or whether students actually learn more.

Career Academies in Washington

While no statewide data on career academies in Washington are available, there are indications of increased interest in using this model of career-themed pathways in public high schools. One of six options for high schools to receive a portion of the federal School to Work grant in 2001 included the development of smaller learning communities through schools-within-schools or career academies.[26] In 2001, two Washington high schools received Gates grants to establish career academies: Clover Park High School (Clover Park School District) and Cleveland High School (Seattle School District).

The Seattle School District has a Partnership Academy program and collects information on career academies in the district. In 2001, the district had 11 career academies in five high schools: architecture, construction and engineering (1), biotechnology (1), finance (3), information technology (2), maritime/ transportation (1), public service (1), and travel and tourism (3). Seattle is planning to implement an additional 40 academies in career fields such as education, graphics, horticulture, manufacturing/engineering, radio/TV broadcasting, and technical theater. Features of Seattle's Partnership Academies are illustrated in Figure F-3.

Figure F-3
Features of Seattle Partnership Academies

Smaller Learning Communities	Partnerships With Employers, Community, and Higher Education	College Prep and Career-Related Curriculum
• Academy-only classes for 2 to 4 years • Teams of academic and career/technical teachers • Limited, voluntary enrollment • Administrator and counselor support • Close relationships among teachers and students	• Steering committee to guide and support • Parent involvement and support • Business and community speakers, role models, mentors • Field trips, job shadowing, internships, community service	• College entrance academic classes • Applied, integrated curriculum • Common teacher planning time • Relevant career/technical classes

Source: Jill te Velde, School-to-Work Coordinator, Office of the Superintendent of Public Instruction

Vancouver and Spokane school districts are reportedly planning to establish career academy programs based on Seattle's model.[27]

[26] E-mail communication with Jill te Velde, OSPI, July 11, 2001.
[27] Ibid.

APPENDIX G: GATES FOUNDATION GRANTS FOR REDESIGNING HIGH SCHOOLS

Overview

During 2000 and 2001, the Bill and Melinda Gates Foundation began three grant programs directing approximately $80.2 million in Washington State toward high school redesign efforts:

- **State District Grants.** Ten Washington school districts received more than $70 million.[28]
- **Washington State Achievers Program.** Sixteen high schools received $8.9 million for redesign as part of the $100 million redesign and scholarship grant.[29]
- **State School Grants.** Mountlake Terrace High School received $833,000 to create smaller learning communities within the school.[30]

State District Grants

Beginning in 2000, ten Washington school districts received a total of $70.9 million to accelerate reforms and create high achievement model districts. The grant amounts were based on districts' student population and whether they were high-need districts (see Table G -1).

Table G-1
Gates Foundation Grants to Washington School Districts

School District	Grant Amount (in millions)
Seattle	$25.9
Spokane	$16.5
Evergreen	$9.3
Kennewick	$7.3
Bellingham	$4.5
Port Angeles	$2.7
Enumclaw	$2.3
Nooksack Valley	$1.0
Hockinson	$.9
Mabton	$.5

[28] Tom Vander Ark, Executive Director of Education Division of the Bill and Melinda Gates Foundation. The Bill and Melinda Gates Foundation, "Port Angeles School District Recognized as High-Achievement Model by the Bill and Melinda Gates Foundation," <http://www.gatesfoundation.org/pressroom/default.asp>, August 28, 2000.
[29] Linda Shaw, "$100 million to high school: Cleveland among recipients of Gates scholarship," *Seattle Post-Intelligencer*, March 13, 2001.
[30] Bill and Melinda Gates Foundation: <http://www.gatesfoundation.org/learning/ed>.

The Gates Foundation suggests giving priority to high schools that are considering restructuring into multiplex schools where one school might be divided into two or more smaller schools, each with its own principal and classrooms but sharing other facilities. According to the foundation, high achievement schools promote strong teacher-student relationships, and they are small, intimate units of no more than 600 students and preferably fewer than 400.[31]

Washington State Achievers Grants

In 2001, the Gates Foundation granted $109 million as part of the Washington State Achievers Program. This grant is aimed at helping students through combining college scholarships with funds for high school redesign. One hundred million dollars is dedicated to college scholarships, and $9 million is dedicated to school redesign. Each school was awarded $500 per student for school redesign and $100 per student for the development of college awareness programs. The 16 high schools receiving grants were required to have a high proportion of low-income students (see Table G-2).

Table G-2
Schools Receiving Washington State Achievers Grants

District	School	Enrollment 2001
Clover Park	Clover Park	1,485
Federal Way	Harry S. Truman	191
Kittitas	Kittitas	266
Mabton	Mabton	329
Mukilteo	Mariner	1,725
Seattle	Cleveland	737
Stevenson-Carson	Stevenson	394
Tacoma	Henry Foss	1,905
Tacoma	Lincoln	1,676
Tacoma	Mount Tahoma	1,332
Tonasket	Tonasket	411
Tukwila	Foster	740
West Valley	West Valley	801
Yakima	Davis	1,619
Yelm	Yelm	1,289

Washington State Achievers grants were awarded where large high schools demonstrated a willingness to restructure into small, autonomous learning environments of no more than 100 students. If schools were already small, the foundation supported reforms such as improving teacher-student relationships.[32]

[31] Ibid, 3.
[32] Bill and Melinda Gates Foundation, <http://www.gatesfoundation.org/learning/ed/schools/wsap/factsheet.htm>.

State School Grants

Mountlake Terrace High School in the Edmonds School District was the only Washington high school out of 24 nationwide selected for a State School Grant. The grant of $833,000 was awarded for the purpose of redesigning the 1,800 student school into smaller learning communities. The school is considering developing academies, each with approximately 300 students. Each academy may have a different focus, such as performing arts, math, science and technology, fine arts, and humanities.

APPENDIX H: COLLEGE-LEVEL LEARNING ENROLLMENT—TECHNICAL APPENDIX

Information on student enrollment in college-level learning programs (Running Start, Advanced Placement, International Baccalaureate, College in the High School, and Tech Prep) was drawn from multiple sources. Certain assumptions were made to make the data as comparable as possible. The purpose of this appendix is to explain the sources and assumptions (see Table H-1).

High Schools Offering College-Level Learning, 2000–2001

Table H-1
High Schools Offering College-Level Learning, 2000–2001

	Running Start	Advanced Placement	International Baccalaureate	College in the High School	Tech Prep
High Schools Offering College-Level Learning, 2000–2001	**97%**	**62%**	**4%**	**28%**	**82%**

- **Running Start:** Although students from any public high school may participate in Running Start, data provided by the State Board for Community and Technical Colleges (SBCTC) showed enrollments from 363 high schools for fall 2000. This represents approximately 97 percent of all non-institutional high schools in the state. Information about Running Start enrollment at Central Washington University (CWU), Eastern Washington University (EWU), and Washington State University (WSU) was not available by high school.

- **Advanced Placement:** In the Institute's High School Survey, 126 of 203 (62 percent) responding schools reported offering Advanced Placement courses. This is consistent with reports from The College Board showing that, in 1999, students from 61 percent of Washington's high schools took Advanced Placement exams.

- **International Baccalaureate:** The International Baccalaureate Organization reports that 12 high schools in Washington offer an IB program (<http://www.ibo.org>).

- **College in the High School:** In the Institute's High School Survey, 57 of 203 (28 percent) responding schools offered College in the High School courses.

- **Tech Prep:** In the Institute's Principal Survey, 82 of 212 high schools reported Tech Prep was readily available or available with minor difficulty.

Table H-2
11th and 12th Graders Enrolled, 2000–2001

	Running Start	Advanced Placement	International Baccalaureate	College in the High School	Tech Prep
11th and 12th Graders Enrolled, 2000–2001	**10%**	**~13%**	**Not available**	**< 2%**	**~15%**

11th and 12th Graders Enrolled in College-Level Learning 2000–01

- **Running Start:** The SBCTC Running Start Headcount Enrollment for 1999–2000 was 13,442 students. Information from the HECB showed the following enrollments at four-year universities for fall 2000: CWU=62; EWU=135; WSU=38. The total enrollment in grades 11 and 12 was 139,344 students (OSPI P105 Fall 2000 Headcount).

- **Advanced Placement:** In the Institute's High School Survey, 112 schools reported 12,336 students enrolled in Advanced Placement classes as of February 2001. However, it is not known if students enrolled in more than one course are counted twice, so this figure might overstate the proportion of 11th and 12th grade students enrolled in Advanced Placement. Not all students in an Advanced Placement class take the College Board exam, so there is no way to verify the figures with national data.

- **International Baccalaureate:** In some International Baccalaureate programs, nearly all juniors and seniors participate. In others, International Baccalaureate is an option for some students. Too few high schools offering an International Baccalaureate program responded to the Institute's High School Survey to allow an estimate on student enrollment. (See Appendix I for more information.)

- **College in the High School:** In the Institute's High School Survey, 41 schools reported 1,300 students enrolled in College in the High School classes for Spring 2001. This, along with other available information from the SBCTC (989 College in the High School students in community colleges in 1999–2000) and the University of Washington (800 College in the High School students in UW programs in 1997) suggests that College in the High School enrollment is between 1.5 and 2.0 percent of 11th and 12th grade students.

- **Tech Prep:** Information for 2000–2001 was not available. However, in 1999–2000, 15 percent of 11th and 12th grade students took a Tech-Prep course that would have qualified for college credit if the student successfully passed the course. Data was not available for this report on the number of students who requested the college credit.

APPENDIX I: STUDENT DEMOGRAPHICS IN COLLEGE-LEVEL LEARNING

Background

There is growing interest across the country in expanding opportunities for students to earn both high school and college credit while in high school. However, there is also concern about ensuring all students, including minority and low-income students, can take advantage of these learning opportunities. In 1999, the American Civil Liberties Union (ACLU) filed a lawsuit in California alleging that African-American and Hispanic students in high schools offering few Advanced Placement courses could not fairly compete for admission to college with students from high schools offering many Advanced Placement courses. Although no national data are available, information from other states suggests minority students (other than Asian students) are less likely to enroll in Advanced Placement.[33]

Data Sources

Of the 328 Washington high schools surveyed by the Institute, 203 (62 percent) responded to the Institute's High School survey regarding student enrollment in Advanced Placement, College in the High School, and International Baccalaureate programs. Schools were asked to report the number of students, by ethnicity, enrolled in each of these three programs as of February 2001 (winter trimester/spring semester). As explained in Appendix A, the responding schools are representative of high schools across the state in terms of size, geographic location, and student demographics. For purposes of this analysis, high schools responding to the Institute's High School survey are called "survey schools."

Information on student enrollment in Running Start for the fall of 2000, by high school, was obtained from the State Board for Community and Technical Colleges (SBCTC) and combined with enrollment data from the Office of the Superintendent of Public Instruction (OSPI).

Advanced Placement

Enrollment in All Survey Schools. According to the survey responses, 13 percent of 11th and 12th grade students were enrolled in Advanced Placement in the spring of 2001. However, if high schools double-counted students, this percentage may be over-stated.[34] A

[33] Pamela Burdman, "The New Advanced Placement Push" *National CrossTalk* 8, no. 3 (Summer 2000).
[34] Although schools were asked to report headcount enrollment, analysis of the information revealed there may be duplication for students who enroll in more than one course (i.e., students could be counted twice). Therefore, the analysis should be interpreted with caution as it may over-state the proportion of total students who are in college-level learning courses. The relative proportion of students across ethnic groups who are in college-level learning may be less affected by duplication.

majority of high schools (126 or 62 percent) reported offering Advanced Placement courses.[35]

Enrollment in Schools With Advanced Placement Students. One way to examine student enrollment is to compare the demographics of students in Advanced Placement to the demographics of the overall student population. In other words, is the proportion of Advanced Placement students who are Asian American the same or different from the proportion of all 11th and 12th graders who are Asian American? Table I-1 examines the 112 schools reporting students enrolled in Advanced Placement. Caucasian and Asian American students are more likely to enroll in Advanced Placement than Hispanic, African American, or Native American students.[36]

Table I-1
Student Demographics: Advanced Placement Compared With All 11th and 12th Grades in Schools With Advanced Placement

	All 11th and 12th Grades	Advanced Placement
Caucasian	80%	84%
Asian American	8%	11%
Hispanic	7%	3%
African American	3%	1%
Native American	2%	<1%
Minority	20%	16%
Non-Asian Minority	12%	5%

WSIPP High School Survey 2001, 112 schools reporting AP enrollment

Enrollment in Schools With Large Proportions of Minority Students. As the proportion of minority students in high school increases, the proportion of those students who participate in Advanced Placement decreases.[37] For example, schools with fewer than 10 percent minority students in 11th and 12th grades enrolled 15 percent of those students in AP courses, on average. Schools with more than 50 percent minority students enrolled only 4 percent of those students in AP, on average (see Table I-2).

[35] In 1999, The College Board recorded that students from 61 percent of Washington's high schools took an Advanced Placement exam. Student enrollment data for the Institute survey was provided by 112 schools (55 percent).

[36] The differences among student groups enrolled in Advanced Placement were found to be statistically significant using a chi-square test at the $p<.05$ confidence level. There are significant differences between the demographics of Advanced Placement and the demographics of all students in 11th and 12th grades. There are also significant differences between each group of students (i.e., Caucasians are significantly more likely than average to enroll in Advanced Placement, and Hispanic students are significantly less likely than average to enroll).

[37] The differences among groups of schools were found to be statistically significant using a chi-square test at the $p<.05$ confidence level.

Table I-2
Minority Enrollment in Advanced Placement Versus Overall Minority Enrollment in High Schools

Percent Minority in 11th & 12th Grade	Average Percent Minorities in Advanced Placement
<10 percent	15%
11–25 percent	10%
26–50 percent	6%
>50 percent	4%

WSIPP High School Survey 2001, 203 schools

College in the High School

Enrollment in All Survey Schools. According to the survey schools, approximately 1.4 percent of 11th and 12th grade students are enrolled in College in the High School courses. Fewer than one-third of high schools (57 or 28 percent) reported offering College in the High School.[38]

Enrollment in Schools With College in the High School Students. Table I-3 compares the demographics of College in the High School students with the overall population of 11th and 12th graders in schools that reported College in the High School enrollment. The patterns of minority student enrollment in College in the High School are similar to those of Advanced Placement.[39]

Table I-3
Student Demographics: College in the High School Compared With All 11th and 12th Grades in Schools With College in the High School

	All 11th and 12th Grades	College in the High School
Caucasian	80%	76%
Asian American	8%	10%
Hispanic	8%	6%
African American	2%	1%
Native American	1%	<1%
Minority	19%	18%
Non-Asian Minority	11%	7%

WSIPP High School Survey 2001, 41 schools reporting CIHS enrollment

[38] Only 41 schools (20 percent) provided information on student enrollment in College in the High School.
[39] The differences among student groups enrolled in College in the High School were found to be statistically significant using a chi-square test at the p<.05 confidence level. However, the proportion of Caucasian and Native American students in College in the High School compared with overall 11th and 12th grades is not significantly different. Differences for other student groups are statistically significant.

Schools Reporting Neither Advanced Placement Nor College in the High School Enrollment. Just over one-third (74 or 36 percent) of the high schools reported no students enrolled in either Advanced Placement or College in the High School courses. The key similarity for these schools was size: over half enrolled fewer than 250 students in 11th and 12th grades (46 high schools). It made no difference whether high schools had large or small proportions of minority students in 11th and 12th grades regarding their offering Advanced Placement or College in the High School classes.[40]

Running Start

Enrollment in Community and Technical Colleges. For fall 2000, 8 percent of all 11th and 12th grade students in the state were enrolled in Running Start.[41] Ninety-eight percent of those students enrolled in community and technical colleges. Demographic data from the four-year universities was not available.

Enrollment in High Schools With Running Start Students. Unlike other college-level learning, Asian American students are not over-represented in Running Start. Asian American students make up 8 percent of Running Start enrollment and 8 percent of overall 11th and 12th grade enrollment in high schools with Running Start students (see Table I-4).[42]

Table I-4
Student Demographics: Running Start Compared With All 11th and 12th Grades in Schools with Running Start

	All 11th and 12th Grades	Running Start
Caucasian	79%	86%
Asian American	8%	8%
Hispanic	7%	3%
African American	4%	2%
Native American	2%	1%
Minority	21%	14%
Non-Asian Minority	13%	6%

SBCTC RS enrollment and OSPI P105 enrollment, Fall 2000, 304 schools[43]

[40] Differences among schools based on school size (in terms of whether they did not offer Advanced Placement or College in the High School programs) were found to be statistically significant using a chi-square test at the $p<.05$ significance level. Differences among schools based on percentage of minority enrollment in 11th and 12th grades were not statistically significant.

[41] By the end of the 2000-01 academic year, nearly 10 percent of 11th and 12th grade students had enrolled in Running Start. However, breakdowns of enrollment by ethnicity and high school were only available for this report for fall 2000.

[42] The differences among student groups enrolled in Running Start were found to be statistically significant using a chi-square test at the $p<.05$ confidence level. However, the proportion of Asian American students in Running Start compared with overall 11th and 12th grades is not significantly different. Differences for other student groups are statistically significant.

[43] The SBCTC reported Running Start enrollment from 363 high schools, but matching OSPI records could be located for only 304 high schools. The SBCTC data also contained about 500 students with unknown ethnicity. OSPI does not have an "unknown" category, so these records are not included.

International Baccalaureate

Only three schools responding to the survey offer an International Baccalaureate program. Because International Baccalaureate is a multi-course program of study, a larger proportion of students in a high school would be expected to enroll. Table I-5 shows the percentage of each school's 11th and 12th grade students enrolled in International Baccalaureate.

Table I-5
Student Enrollment in International Baccalaureate

	Percent of 11th and 12th Grade Students
School A	93%
School B	61%
School C	47%

WSIPP High School Survey 2001, 3 schools

Two of the schools have a lower-than-average percentage of minority students in 11th and 12th grades compared with other high schools in the state. In all three schools, half the minority population is Asian American. These small numbers do not permit any credible analysis of student demographics in the International Baccalaureate program.

Summary and Limitations

The high school survey responses suggest that, based on ethnicity, some groups of students are more likely to be enrolled in college-level learning than others.

- Caucasian students are over-represented in Advanced Placement and Running Start compared with their enrollment in 11th and 12th grades (in other words, a greater proportion of Caucasian students enroll in these programs than would otherwise be expected). They are not over-represented in College in the High School.

- Asian American students are over-represented in Advanced Placement and College in the High School, but not in Running Start.

- A smaller proportion of African American, Hispanic, and Native American students are enrolled in college-level learning than are enrolled in 11th and 12th grades. The only exception is Native American students are not under-represented in College in the High School (but the number of students reported in the surveys is very small).

- As the proportion of minority students in the high school increases, the proportion of those students who participate in Advanced Placement decreases. However, whether a school has a large or small proportion of minority students does not make a difference in terms of offering Advanced Placement or College in the High School as an option for students.

- Information on enrollment in International Baccalaureate is too limited to permit analysis.

This analysis is subject to limitations and should be interpreted with caution:

- Out of 328 surveyed high schools, 62 percent responded and 39 percent (129 schools) reported enrollment in college-level learning classes other than Running Start. Some schools not reporting enrollment may not offer college-level learning; others may have chosen not to complete this section of the survey. Although the responding schools are representative of high schools across the state, it is possible the data analyzed for this study does not accurately represent statewide student enrollment in college-level learning.

- It is likely that students enrolled in more than one Advanced Placement or College in the High School class were reported more than once. This overstates the proportion of students enrolled in college-level learning. It may or may not affect the analysis of student demographics by ethnicity.

- Differences in reporting between OSPI and the SBCTC may skew the proportion of minority students enrolled in Running Start. The SBCTC allows colleges to report "unknown" and "other" groups of students, making it difficult to combine records from both sources.

If policymakers wish to monitor student enrollment in college-level learning or adopt policies encouraging students to enroll in these learning opportunities, a more complete accounting of student enrollment and student demographics could be required from high schools and collected by OSPI.

APPENDIX J: STATE SUPPORT FOR COLLEGE-LEVEL LEARNING

Thirty-nine states (including Washington) have adopted policies or provide funding to support programs where students can earn both high school and college credit, called college-level learning (see Table J-1).[44] This analysis focuses on three types of college-level learning programs:

- **Advanced Placement:** Advanced Placement classes are taught by high school teachers using a national curriculum developed by the College Board (a non-profit organization that administers the Advanced Placement examinations). For a fee, students can take the examination and, depending on their score, apply to a college or university for credit.

- **Dual Enrollment:** In Washington, the Running Start program allows high school students to enroll directly in courses at community and technical colleges (and three four-year universities) to obtain high school and college credit simultaneously. Other states offer similar programs under different names.

- **Credit Validation:** High schools can make arrangements with a college or university to offer a course in the high school where students can also earn credit at the sponsoring college. In Washington, this opportunity is called College in the High School.

Advanced Placement

Weighted Grades. Four states have adopted policies to assign a higher weight in a student's overall grade point average (GPA) for Advanced Placement courses to encourage students to take more challenging courses.[45] In Washington, students in the Institute's case study schools advocated such a policy, and teachers and students have testified to the legislature that competition for college admission and scholarships based on a student's GPA creates a disincentive for students to take courses where they might earn a lower grade even though they could benefit from more challenging material.[46]

However, the Higher Education Coordinating Board (HECB) has expressed concern that weighting grades for Advanced Placement could create pressure to weight other honors courses and contribute to grade inflation. In addition, the weighting policy of the University of California may have contributed to a lawsuit being filed by the American Civil Liberties Union. The lawsuit alleged that students in schools with few opportunities to enroll in Advanced Placement courses were unfairly discriminated against in college admissions.[47]

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[44] Sources: Kimberly Crooks, *State Enhancement of College-Level Learning for High School Students,* University of New York at Buffalo, dissertation, 1998; Education Commission of the States, *Advanced Placement Courses and Examinations,* ECS Clearinghouse, January 2000; The College Board, *Federal and State Support for Advanced Placement,* <http://www.collegeboard.org/ap/stateinit>.

[45] California is included in this list even though the policy was adopted by the University of California Board of Regents, which governs the system of higher education in California, rather than the state legislature.

[46] Testimony before the Senate Education Committee, March 2001.

[47] Memo from Doug Scrima, HECB, to Senate Education Committee, March 30, 2001. For more information on the ACLU lawsuit, see Appendix I.

Mandates to Colleges or High Schools. Nine states have directed public colleges and universities to accept Advanced Placement examination scores on a uniform basis.[48] In Washington, each higher education institution, and often each academic department, determines what exam score will qualify for college credit and how many credits the student will receive. A survey of policies by the Council of President's Office in 1998 showed variation by academic department within colleges and universities, although most accepted an Advanced Placement score of 3.[49] However, regardless of variation in policies for college *admissions,* all public two- and four-year institutions will accept an Advanced Placement score of 3 or better for college *transfers* if the credit already appears on a student's college transcript.[50]

Six states mandate that all high schools in the state make Advanced Placement courses available for students. Washington does not have such a policy.

Special Funding for Programs. A number of states provide grants for professional development to expand the number of teachers qualified to teach college-level material (17 states) or purchase equipment and supplies, such as advanced laboratory equipment (14 states). In the 1999–2001 biennium, Washington provided $500,000 to support these types of activities, but only for courses offered via the Internet.[51]

Instead of (or in addition to) providing grants to high schools, eight states appropriate special state funds for Advanced Placement on a formula basis. Some states make the funds available to all schools based on overall student enrollment; others pay an incentive to schools based on the number of students enrolled in Advanced Placement or the number who score well on the exams.

Incentives for Students. Fifteen states provide state funding to offset the cost of taking Advanced Placement exams. Sometimes this support is only for low-income students; in other states, all students benefit to some degree. In Washington, only federal funds are available for this purpose.

Dual Enrollment (e.g., Running Start)

State-Created Programs. Thirty states, including Washington, have officially created dual enrollment programs where high school students can enroll directly in a college or university and receive both high school and college credit for courses. In creating Running Start, Washington has adopted the following policies to support the program:

- Any 11th or 12th grade student enrolled in a public high school is eligible to participate in Running Start. Students may enroll part-time or full-time in the college or university.

[48] The College Board uses a 5-point scale for scoring for Advanced Placement exams. A score of 3 is "qualified" for college-level work.
[49] Council of Presidents' Office "Comparison of Advanced Placement Credit Policies," April 9, 1998.
[50] This policy was jointly adopted by the Interinstitutional Committee of Academic Officers (four-year institutions) and the Instruction Commission Executive Committee (two-year institutions) on December 17, 1998. Memo from Council of Presidents' Office, February 4, 1999.
[51] In addition, Washington (along with 40 other states) has received federal grants to expand availability of college-level learning. However, the focus of this analysis is on state policies and support.

- Colleges can set admissions standards before permitting a high school student to enroll. Community colleges use a placement examination, such as the ASSET test, to determine if students are capable of college-level work. Minimum exam scores vary by college. Some colleges require students to take both the English and mathematics portion of the test; others require only one (depending on the college course to be taken).

- High schools must grant high school credit for successful completion of a course, with five quarter credit hours of college work equal to one high school credit.

Funding for Programs. In ten states (including Washington), the cost of the dual enrollment program is paid by transferring funds from the high school to the college. Fifteen states allow students to be charged tuition. In Washington, colleges receive 93 percent of the state allocation per full-time equivalent student (FTE) enrolled in Running Start, which equaled $81 per credit in 1999–2000. High schools retain 7 percent for administration and counseling. Colleges may not charge tuition to Running Start students, but students pay for supplies, books, and transportation costs.

Requiring transfer of funding from one education system to another is controversial in virtually every state with this policy.[52] Nine states have adopted policies allowing both the school district and the college to claim a dually enrolled student as an FTE in order to minimize the adverse impact of the program on either education system.

Credit Validation (e.g., College in the High School)

State-Created Programs. Only six states have formally adopted a policy supporting or creating programs where courses are taught on the high school campus for college credit. In most states, College in the High School programs are developed by colleges and universities working collaboratively with area high schools. Together the participants determine course offerings, qualifications for teachers, tuition, and credit eligibility specific to each individual program. In Washington, there is no state law pertaining to College in the High School, but guidelines were adopted by the SBCTC in 1997 to assist community and technical colleges with establishing College in the High School programs.[53]

Special Funding for Programs. Only three states, including Washington, have provided special funding to support credit validation programs. In Washington, state funding has been limited to grant funds in the 1999–2001 biennium to expand distance learning for Advanced Placement or College in the High School programs.

[52] A 50-state review of dual enrollment programs revealed most school officials objected to transferring funds because they believed it unfairly penalized the high school, made planning and budgeting difficult, and created competition for scarce resources. Kimberly Crooks, *State Enhancement of College-Level Learning for High School Students.*

[53] SBCTC, *Guidelines for College in the High School Programs,* March 3, 1997.

Table J-1

State Policies and Incentives for College-Level Learning

STATES	WA	AL	AZ	AR	CA	CT	CO	FL	GA	ID	IL	IN	IA	KN	KY	LA	ME	MD	MA	MI
Advanced Placement																				
Weight AP grades					X	X														
Mandate colleges accept AP for college credit					X			X	X	X										
Mandate availability of courses												X								
Funding for teacher training	X*			X	X	X		X				X							X	X
Other grants to support	X*			X	X							X			X		X		X	
Incentive funds (based on students enrolled or exams)				X			X	X**							X					
Offset/pay student exam fees				X	X		X	X**	X			X			X					X*
Dual Enrollment Programs (e.g., Running Start)																				
Policy on dual enrollment programs	X		X	X			X	X	X	X	X	X	X	X	X		X	X	X	X
Student pays tuition			X							X	X	X		X	X				X	
School district transfers FTE funds to college	X			X			X		X				X				X	X		
School district AND college claim FTE for dual funding			X					X						X						X
Credit Validation Programs (e.g., College in the High School)																				
Policy on credit validation programs			X							X										
Funding to support program	X*																			

** Grant funding is for distance learning only.*
***Includes support for International Baccalaureate exams*

Table J-1 (continued)

State Policies and Incentives for College-Level Learning

STATES (continued)	MN	MS	MO	NJ	NM	NC	ND	OH	OK	OR	SC	SD	TN	TX	UT	VA	WV	WI	WY	ALL
Advanced Placement																				
Weight AP grades						X					X									4
Mandate colleges accept AP for college credit									X		X				X		X	X		9
Mandate availability of courses			X								X				X	X	X			6
Funding for teacher training	X	X	X		X				X		X			X	X		X			17
Other grants to support	X		X		X				X		X			X	X					14
Incentive funds (based on students enrolled or exams)									X					X	X		X			8
Offset/pay student exam fees	X**		X		X				X		X			X				X		15
Dual Enrollment Programs (e.g., Running Start)																				
Policy on dual enrollment programs	X	X	X		X	X	X	X	X			X		X	X		X	X	X	30
Student pays tuition		X					X		X			X		X	X		X		X	15
School district transfers FTE funds to college	X							X										X		10
School district AND college claim FTE for dual funding			X		X	X	X												X	9
Credit Validation Programs (e.g., College in the High School)																				
Policy on credit validation programs	X					X				X					X					6
Funding to support program	X														X					3

** Grant funding is for distance learning only.*

***Includes support for International Baccalaureate exams*

APPENDIX K: GLOSSARY OF SCHOOL-TO-WORK TERMS

Academic-Vocational Integration. The main objective of integration is to improve student achievement by increasing the rigor and relevance of what students learn. Many believe students would be more interested in learning if they had more opportunities to apply their knowledge and skills directly. While many vocational courses use an applied learning approach, many academic courses do not. Two common strategies to integrate academic and vocational curricula are to include more hands-on, practical, and work-related activities in academic courses and to increase the rigor of reading, writing, math, and science taught through vocational courses.

Articulation Agreement. The purpose of articulation is to align the content of high school vocational courses with those offered at a community or technical college so that students can complete an orderly sequence without duplication or gaps. Faculty from the college and the high school create agreements specifying that the content of courses is aligned and meets the technical standards specific to that field. Articulation agreements were the primary output from federal Tech Prep grants during the 1990s.

Career Pathways. Career pathways are clusters of courses and activities organized around broad career themes, such as Health and Human Services, Business, or Science and Engineering. Typically, each pathway includes a range of possible careers, from those a student could enter immediately after graduation to those requiring a four-year or advanced degree. Career pathways are intended to encourage all students to explore and prepare for their post-high school plans without separating them into college-bound or work-bound tracks.

Career Academy. Career academies are the most intensive examples of career pathways where entire high schools or schools-within-schools are organized around a career theme. Career academies aim to accomplish multiple objectives: smaller learning communities to promote supportive learning environments, integration of academic and vocational learning, and partnerships with the community and employers to provide students with work-based learning opportunities.

Cooperative Education (Co-op). Cooperative education combines academic study with paid work for which students may receive high school credit. Established more than 70 years ago in the U.S., co-op is the oldest educational program aiming to help high school students transition from school to work. Students participating in cooperative education have the opportunity to develop workplace skills and to integrate theories learned in the classroom with authentic applications and experiences under the supervision of professional practitioners.

Internship. A student is hired in a paid or unpaid position with the purpose of learning about a particular career and with an opportunity to practice and learn skills through guidance from mentors at the workplace. Internships may be full-time or part-time, and their duration depends on individual arrangements between the student and the needs of the workplace.

Job Shadow. Job shadows allow students to observe a person working in a job within a career of interest so students can learn more about the job, its qualifications, and the working environment. Some schools actively encourage students to do job shadows by setting aside a school day for this purpose and assisting students with finding a willing business participant.

SCANS Skills. Responding to criticisms about the general employability of the workforce, the United States Secretary of Labor appointed the Secretary's Commission on Achieving Necessary Skills (SCANS). In 1991, SCANS identified a range of skills all workforce participants should have, including basic skills (reading, writing, arithmetic, speaking), thinking skills (decision making, problem solving, reasoning), and personal qualities (responsibility, self-esteem, self-management, integrity/honesty). Since then, many schools have made efforts to incorporate the SCANS skills into the school curriculum.

School Enterprise. In school enterprises, students produce goods or services for sale or for use to people other than the participating students. Examples of high school enterprises are school stores, house building, restaurants, child care, or car repair. Students have the opportunity to develop and apply business, decision-making, and leadership skills.

School-to-Work. The objectives of School-to-Work are very broad: improve students' academic and workforce skills, integrate academic and vocational education, increase work-based learning opportunities, and encourage employers to participate in reforming high schools. School-to-Work was not conceived as a separate educational program but a series of activities and initiatives to support students' successful transition beyond high school. In Washington, School-to-Work activities have been implemented using state and federal funds.

Skill Standards. Skill standards are definitions of what students should know and be able to do for vocational and technical courses. As part of Washington's School-to-Work initiative, community colleges, high schools, and employers developed skill standards in such fields as information technology and business and marketing. The involvement of businesses in developing skills standards helps ensure training programs provide the knowledge and skills employers expect in a particular field.

Tech Prep. Tech Prep programs were intended to combine two years of secondary education with two or four years of higher education in a sequence of courses leading to an associate's degree, professional certificate, or baccalaureate degree in a specific technical field (e.g., 2+2 and 2+2+2 programs). The overall intent of Tech Prep is to encourage students who are interested in technical fields to pursue advanced training that could lead to a well-paying career.

Work-Based Learning. Work-based learning encompasses a variety of activities that enable students to learn workplace skills, explore careers, and apply what they are learning in school by experiencing a working environment. Examples of work-based learning include internships, job shadows, or apprenticeships.

Youth Apprenticeship. Students may qualify for occupational certification by participating in youth apprenticeships. These programs link high school with a structured work experience and are purported to provide advantages that may include higher academic achievement, greater chance of employment or entry to post-secondary education, and higher than average earnings.