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

High School Responses to Expectations for Change

VOLUME 2
FINAL REPORT

Barbara McLain
and
Madeleine Thompson

September 2001

Washington State Institute for Public Policy

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

High School Responses to Expectations for Change

VOLUME 2
FINAL REPORT

Barbara McLain
and
Madeleine Thompson

September 2001

Washington State Institute for Public Policy
110 East Fifth Avenue, Suite 214
Post Office Box 40999
Olympia, WA 98504-0999
Telephone: (360) 586-2677
FAX: (360) 586-2793
URL: http://www.wsipp.wa.gov
Document Number: 01-09-2201

WASHINGTON STATE INSTITUTE FOR PUBLIC POLICY

Mission

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.

Current assignments include projects in welfare reform, criminal justice, education, youth violence, and social services.

Board of Directors

Staff

Roxanne Lieb, Director
Steve Aos, Associate Director

CONTENTS

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.

Policy Advisory Committee

Brian Benzel
Chief Operating Officer
Seattle School District

Pat Eirish
Manager of Research and Assistance
State Board of Education

Sue Goodrich
Teacher
Central Valley High School
Central Valley School District

Bruce Hawkins
Superintendent
Columbia School District

Nancy Hough
Teacher
Ferris High School
Spokane School District

Thelma Jackson
Parent/Educational Consultant

Dennis Kampe
Director, Clark County Skills Center

Kyra Kester
Director for Secondary Education
and Career Preparation
Office of the Superintendent of Public Instruction

Bruce McBurney
Director of Professional-Technical Education
Central Kitsap School District

Bob McMullen
Principal, Kamiakin High School
Kennewick School District

Terry Parker
Principal, Enumclaw High School
Enumclaw School District

Doug Scrima
Senior Policy Associate
Higher Education Coordinating Board

Michaele Sein-Ryan
Counselor, Puyallup High School
Puyallup School District

Dave Trapp
Sequim High School Science Teacher
Sequim School District

Tim Washburn
Executive Director of Admissions and Records
University of Washington

Jan Yoshiwara
Director Educational Services
State Board for Community and Technical Colleges

Technical Advisory Committee

Jerry Gilmore
Director
Office of Educational Assessment
University of Washington

Dave Pavelchek
Research Associate
Social and Economic Sciences Research Center
Washington State University

Loretta Seppanen
Senior Research Manager
State Board for Community and Technical Colleges

Deb Merle
Senior Research Analyst
Office of the Superintendent of Public Instruction

Edie Harding
Governmental Affairs Director
The Evergreen State College

EXECUTIVE SUMMARY

Background

The 2000 Washington State Legislature directed the Washington State Institute for Public Policy (Institute) to study public high school programs in Washington:

> *The study shall examine what high school educational opportunities are currently available for students. Information shall be gathered on program attributes, student demographics, and outcomes for high school programs including, but not limited to, college credit (e.g., advanced placement and running start), tech prep, distance learning, and career pathways*.[1]

The Institute published an interim report in January 2001, and this is the final report. To complete the reports, the Institute conducted a statewide survey of public high schools; interviewed educators, students, and parents at eight case study schools; reviewed national research literature; and analyzed state and national data.

Overview: What Is Expected of Washington's Public High Schools?

Expectations From the State. Washington's education reform represents a shift in expectations: high schools will be required to ensure that *all* students, not just college-bound students, master high-level standards. The Essential Academic Learning Requirements (EALRs) define what all students are expected to know and do, and the Washington Assessment of Student Learning (WASL) measures student performance on some of those standards. By 2008, high school students will be expected to pass the WASL to earn a Certificate of Mastery, but this is not the only requirement for graduation. High schools are also expected to provide educational pathways for students to explore and prepare for educational and career opportunities after high school.

Expectations Based on National Criticisms of High Schools. Nationally, high schools have been criticized for insufficient academic rigor in the curriculum or graduation requirements. Employers say high schools are not adequately preparing students to enter the workforce or be employed in a changing economy. Surveys of students indicate they are not motivated toward academic achievement and believe what they learn in school is not relevant to their current interests or future plans.

The following questions are addressed in this final report:

- **Are High Schools Increasing the Rigor of What Students Learn?**
- **Are High Schools Making Learning More Relevant for Students?**
- **Are High Schools Providing Learning Options for 11th and 12th Grades?**

[1] Chapter 1, Laws of 2000 (EHB 2487 §607(4)).

Are High Schools Increasing the Rigor of What Students Learn?

Most high schools that responded to the Institute's survey are increasing rigor by focusing on state standards and changing graduation requirements.

- Study participants report a positive impact from having the EALRs serve as a common framework for curriculum and instruction.
- More than 80 percent of high schools reported some or a lot of change to the 9th and 10th grade curriculum to incorporate the EALRs into courses.
- More than 60 percent of high schools reported extensive curriculum changes in English and math. Less activity is occurring in subjects that are not yet tested on the WASL.
- To align with state standards, nearly two-thirds of high schools are actively or very actively making multiple changes in curriculum and assessment.
- Just over 60 percent of high schools report recent or planned changes in local graduation requirements, including adding credits in English and math and requiring culminating projects.

However, the effect of this increased rigor is unknown, particularly for students who will have difficulty meeting state standards.

- Half the high schools reported creating new courses to assist 9th and 10th grade students in preparing for the WASL. Because the WASL is not yet a graduation requirement, less than 30 percent of high schools are creating remedial courses for students who do not pass the WASL in 10th grade.
- To assist struggling students, more than 70 percent of high schools reported some or a lot of use of alternative programs, extended learning, early identification of at-risk students, and in-class assistance. None of these strategies is used extensively by more than one-third of high schools.
- High schools are concerned about remediation and its possible impact on the curriculum and learning options for students. It is not known what effect increased expectations will have on high school dropout rates.
- Parents, educators, and students express concerns about relying on the WASL as a graduation requirement. Students in the case study schools admitted they do not take the WASL seriously.
- Of the 27 other states planning a standards-based assessment for high school graduation, some have delayed their timelines and others are creating alternative ways for students to earn a diploma.

Are High Schools Making Learning More Relevant for Students?

Most high schools responding to the survey are developing portfolios, culminating projects, educational pathways, and educational plans to help students plan for the transition after high school.

- Two-thirds of high schools currently use portfolios and just over half currently use culminating projects. Under new graduation requirements adopted by the State Board of Education (SBE), all students will complete a culminating project in 2008.
- Two-thirds of high schools report they provide educational pathways where students can choose courses and explore future options around a career theme.
- Nearly 60 percent of high schools have students prepare a plan for their high school education, and more than 70 percent have students develop a post-high school plan. In 2008, all students will prepare these plans under SBE graduation requirements.
- Nearly 60 percent of high schools are actively or very actively implementing portfolios, projects, pathways, and plans simultaneously.
- About half of high schools are trying to create smaller learning communities by organizing small cohorts of students and teachers.

However, more work is needed if these activities are to reach all students. The degree of implementation varies.

- In one-third of high schools responding to the survey, all seniors prepare culminating projects.
- Less than one-fourth of high schools reporting the use of portfolios, projects, or educational pathways currently involve all students in these activities.
- Forty percent of schools are actively or very actively implementing educational pathways through such strategies as staff training, course modification, and creating special projects and activities for students.
- The case studies suggest that, to be effective, activities to make learning more relevant must be integrated throughout the high school curriculum. High schools report it takes a great deal of time, effort, and commitment to achieve integration and make activities meaningful for students.

National research is not conclusive about whether portfolios, culminating projects, or educational pathways are effective.

- The success of strategies to make learning more relevant and assist students with transitions may have to be measured by examining students' educational and career pathways after graduation. However, there is currently no complete and accurate way to identify what happens to high school graduates in Washington.

Are High Schools Providing Learning Options for 11th and 12th Grades?

Most learning options identified in statute for 11th and 12th grades are readily available in high schools across the state.

- The statute pertaining to the Certificate of Mastery lists a number of learning options for 11th and 12th grade students, such as Advanced Placement, Running Start, Tech Prep, and vocational-technical education. More than two-thirds of high schools report that at least five out of eight 11th and 12th grade learning options are readily available or available with minor difficulty.
- Running Start and Tech Prep are the most accessible options, with more than 60 percent of high schools reporting ready availability. College in the High School and distance learning are the least available options (readily available in less than 30 percent of high schools).

However, less is known about the extent of student participation in these options. National and state research do not provide a clear indication that one option is more effective than others.

- Enrollment of Washington high school students in college-level learning (Advanced Placement, Running Start, and College in the High School) is growing and could total one-quarter of the state's 11th and 12th grade students. Some groups of students (Caucasian, Asian-American) are more likely to enroll in college-level learning than others.
- Baseline data suggest that 15 percent of graduates complete a sequence of vocational courses or take college-level training through Tech Prep.
- Data about student participation in work-based learning, distance learning, and alternative education is not comprehensive.
- Studies have found some positive results (using a variety of measures) for students who participate in Running Start, take integrated academic-vocational courses, complete a sequence of vocational courses, or participate in School-to-Work activities. Each option attracts different students based on their interests and plans.

It is not clear how the Certificate of Mastery will influence learning options for 11th and 12th grades.

- High schools are concerned that providing additional assistance for students who do not pass the WASL in 10th grade could limit their ability to offer activities and options for students.
- Although the Certificate of Mastery is not the only requirement for high school graduation, it is the most clearly defined and highly publicized expectation for high schools and students.
- Additional measures of state accountability for high schools have not been developed.

What Additional Steps Could Policymakers Take to Influence Education Reform in High Schools?

Based on the research literature and study findings, the Institute cannot recommend any single program or activity over others for state funding and support. However, policymakers have the following opportunities to influence further implementation of education reform in high schools:

- **Monitor trends or decisions regarding:**
    - What happens to high school dropout rates.
    - What happens to students after they graduate.
    - How the SBE assures that all students have an opportunity to learn state standards before the WASL becomes a graduation requirement.

- **Obtain additional information regarding:**
    - What models of assistance to struggling students are successful in high schools.
    - Enrollment and effectiveness of alternative education programs and strategies.
    - How successful are grant-funded initiatives to create smaller learning communities in high schools.

- **Debate or discuss further:**
    - Whether adjustments or alternatives to the WASL should be explored.
    - Level of state direction, guidance, or assistance for culminating projects, educational plans, and educational pathways.
    - Whether high schools should be held accountable by the state for other student outcomes in addition to the Certificate of Mastery.

INTRODUCTION

The 1993 Washington Education Reform Act set high standards for improving student learning. This study explores educational opportunities provided by Washington State public high schools and how these opportunities are changing as a result of the state's education reform and other expectations placed on high schools.

Background

The 2000 Washington State Legislature directed the Washington State Institute for Public Policy (Institute) to study public high school programs in Washington:

> *The study shall examine what high school educational opportunities are currently available for students. Information shall be gathered on program attributes, student demographics, and outcomes for high school programs including, but not limited to, college credit (e.g., advanced placement and running start), tech prep, distance learning, and career pathways*.[2]

This represents the Institute's final report, which is due to the Legislature by September 15, 2001.

Interim Report

In January 2001, the Institute presented an interim report that addressed the following three research questions:

- **National Trends: *Why Reform High School?***
- **Public High Schools in Washington: *What Are Their Characteristics, and What Are the State's Policies?***
- **High School Student Performance: *What Do We Know?***

The interim report provided baseline information on high school student performance using a number of indicators of educational attainment and educational proficiency. The report also described the expectations placed on high schools, with the goal of improving student performance.

[2] Chapter 1, Laws of 2000 (EHB 2487 §607(4)).

Final Report

Here we address a fourth research question:

- **High School Reform in Washington: *What Educational Opportunities and Programs Are Available for Students?***

This report describes the strategies high schools are using to respond to education reform. It is not possible to describe every activity or reform underway at the hundreds of high schools across the state. However, this report portrays a baseline during a time of significant change. High schools are responding to state education reform, but the Certificate of Mastery and other new requirements have not yet taken effect.

Methodology

In the spring of 2001, the Institute ***surveyed principals of public high schools*** in Washington regarding state education reform and the educational opportunities available for students. A second survey completed by the schools documented student enrollment in college credit classes. The schools that responded to the surveys enroll the majority of high school-aged students in the state. 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 high schools.[3]

In addition, the Institute ***selected eight high schools as case studies:*** Pasco, Moses Lake, Sunnyside, Nathan Hale (Seattle), Sequim, Nooksack Valley, Mark Morris (Longview), and Lake Roosevelt (Grand Coulee Dam). Schools varied by size, geography, student demographics, and experience with implementing education reform.[4] During two-day visits to each school, the Institute interviewed principals, teachers, students, parents, and community members to solicit perspectives and opinions.[5] A summary of each case study is included in Volume 3, *Case Studies of Eight Washington High Schools*.

Data from the Office of the Superintendent of Public Instruction (OSPI) and the State Board for Community and Technical Colleges (SBCTC) was reviewed along with ***national and state research*** on educational programs.

A ***policy advisory committee*** and a ***technical advisory committee*** guided the Institute's work for both the interim and final reports.

[3] Of the 328 high schools surveyed, 212 (65 percent) responded to the Principal survey. Two hundred three (62 percent) responded to a second survey with information about student enrollment. Responding high schools enroll 65 percent of high school students in the state. Schools with fewer than 250 students and alternative programs are under-represented among the survey responses. Therefore, the analysis and statistics presented in this report should be interpreted with caution regarding very small or alternative high schools. For additional information on survey response rates, see Appendix A.

[4] See Appendix B for the selection criteria and a brief description of each school.

[5] Over the course of the visits, the Institute interviewed 18 administrators, 185 teachers and staff, 210 students, and 60 parents and community members. Volume 3 presents detailed summaries of each case study.

I. OVERVIEW: WHAT IS EXPECTED OF WASHINGTON'S PUBLIC HIGH SCHOOLS?

Washington's education reform represents a shift in expectations: high schools will be required to ensure that *all* students, not just college-bound students, master high-level standards. High schools are also expected to provide educational pathways and learning options for students.

Nationally, high schools have been criticized for failing to provide sufficient academic rigor in the curriculum and for not adequately preparing students to enter the workforce in a changing economy. Students report they are not motivated and that what they learn in school is not relevant to their current interests or future plans.

This final report examines how Washington's public high schools are responding to multiple expectations from state education reform and the criticisms identified in national research.

Expectations From the State

Washington's education reform is part of a nationwide movement toward standards-based education. Under standards-based education, specific content standards for subject areas are defined that all students are expected to master. Mastery of the standards is demonstrated through formal assessments. This represents a shift in expectations: high schools will be required to ensure that *all* students, not just college-bound students, master high-level standards. High schools are also expected to provide learning options for students, especially those who have received a Certificate of Mastery, that are intended to encourage them to explore and pursue future educational and career opportunities (see Table 1).

Table 1
Washington's Public High Schools and State Education Reform

State Expectations for High Schools	
State Standards	High schools must teach students the knowledge and skills identified in the state's education standards: the four Basic Education goals[6] and the Essential Academic Learning Requirements (EALRs).[7]
Assessment	High school students' performance in meeting the state's standards will be measured using the Washington Assessment for Student Learning (WASL), as well as locally-determined assessments for subjects and content not covered on the WASL. Students will be expected to pass the WASL as part of their graduation requirements.[8]
Learning Options for Students	High schools are expected to develop educational pathways that integrate academic and vocational education and encourage students to explore and prepare for their educational and career opportunities after high school. Educational pathways may include such learning options as work-based learning, School-to-Work transition, Tech Prep, vocational-technical education, Running Start, and college preparation.[9]
Other State Graduation Requirements	The State Board of Education (SBE) recently changed high school graduation requirements to include student completion of an individual education plan and a culminating project.[10]

Expectations Based on Criticisms of High Schools

Parents, educators, prospective employers, colleges, and the general public all have expectations about the purposes of secondary school education. High schools are expected to offer a wide range of courses tailored to the different abilities and interests of

[6] RCW 28A.150.210. Abbreviated version of goals: Goal 1: Read with comprehension, write with skill, and communicate effectively. Goal 2: Know and apply the core concepts and principles of math; social, physical, and life sciences; civics and history; geography; arts; and health and fitness. Goal 3: Think analytically, logically, and creatively, and integrate experience and knowledge to form reasoned judgments. Goal 4: Understand the importance of work and how performance directly affects future career and educational opportunities.

[7] RCW 28A.655.060(3)(a). The State Board of Education revised statewide graduation requirements to reflect the content of the EALRs so that high schools must ensure students have learned and demonstrated the EALRs at Benchmark III (about 10th grade level) before graduation.

[8] Currently, high school students are tested on the WASL for EALRs in reading, writing, communication, and math. After the State Board of Education determines that the WASL is valid and reliable as a graduation requirement, high school students, beginning with the class of 2008, must pass the WASL as part of their requirements to receive a diploma. RCW 28A.655.060(3)(c).

[9] RCW 28A.655.060(3)(c). Students must be allowed to choose any pathway and change it during high school without delaying their graduation.

[10] The new requirements read "Each student shall complete a culminating project for graduation. The project consists of the student demonstrating both their learning competencies and preparations related to learning goals three and four. Each district shall define the process to implement this graduation requirement, including assessment criteria, in written district policy. Each student shall have an education plan for their high school experience, including what they expect to do the year following graduation" WAC 180-51-061. The SBE also encouraged high schools to examine student competencies rather than just the accumulation of seat time and credits.

students.[11] Over time, students have tended to be separated by choice or counseling into college preparatory, vocational, or general educational "tracks" based on the type and level of difficulty of courses selected.

Due to the economies of scale necessary to offer a diverse curriculum and extra-curricular activities, many high schools have grown quite large. While many people continue to believe high schools should offer a comprehensive curriculum with different levels of difficulty for different students, others have criticized the current organization of the American high school. Table 2 highlights two of the major criticisms of high schools based on national research.

Table 2
High Schools and National Research[12]

Criticisms of High Schools	
Inadequate Rigor	High schools have been criticized for failing to provide sufficient academic rigor in the curriculum or graduation requirements. Too many students take a general course of study with no coherence to their course selection. Large numbers of college-bound students are not prepared for college-level study. Employers believe high schools are not adequately preparing students to enter the workforce or be employed in a changing economy.
Limited Relevance	Students report low motivation toward academic achievement and a sense of limited relevance between school and the world outside the classroom. Studies suggest that to be motivated, students need to connect what they learn in school to their own personal goals. The large size and organization of many high schools has been criticized as a contributing factor for low student interest in learning.

High School Responses

Numerous strategies have been recommended for high schools to change their curriculum, assessment, and graduation requirements as a means of increasing the rigor of a high school education. High schools across the country are experimenting with various ways to make better linkages between what students learn in school and their future plans and goals. High schools are also trying to create smaller, more personal learning communities where students receive more individual attention and are encouraged to explore their individual interests.

[11] David Angus and Jeffrey Mirel, *The Failed Promise of the American High School* (New York: Teacher's College Press, 1999), 2.
[12] A summary of the national research on high schools and high school students is contained in the Institute's interim Report, Volume 1, Appendix A. Edie Harding with Mason Burley, Barbara McLain, and Madeleine Thompson, *Educational Opportunities in Washington's High Schools Under State Education Reform: Background and Student Outcomes, Volume 1* (Olympia, WA: Washington State Institute for Public Policy, 2001).

This report examines how Washington's public high schools are responding to multiple expectations from state education reform and the criticisms identified in national research. The following questions are addressed:

- **Are High Schools Increasing the Rigor of What Students Learn?**
- **Are High Schools Making Learning More Relevant for Students?**
- **Are High Schools Providing Learning Options for 11th and 12th Grades?**

II. ARE HIGH SCHOOLS INCREASING THE RIGOR OF WHAT STUDENTS LEARN?

Most high schools surveyed by the Institute are responding to demands for increased rigor by making multiple changes to align curriculum, instruction, and assessment with the EALRs and WASL. Much activity is focused on English and math, less on subjects that are not yet tested on the WASL. High schools are also working to increase the academic and technical rigor of vocational courses. Study participants report a positive impact from having the EALRs serve as a framework for curriculum and instruction.

Because the WASL is not yet a graduation requirement, high schools are currently more focused on preparing 9th and 10th grade students for the WASL and less focused on remediation for 11th and 12th grade students. High schools are concerned about the possible impact remediation could have on the high school curriculum.

Students face increased expectations from the state and local levels for high school graduation. However, there is uncertainty associated with these efforts to increase rigor. It is not known what effect increased expectations will have on high school dropout rates. Parents, educators, and students express concerns about relying on the WASL as a graduation requirement.

Background

Since the 1990s, states have been setting high standards for what students should know and be able to do. Many have increased high school graduation requirements, and some states (including Washington) will be requiring students to demonstrate they have met the state standards in order to graduate. A key assumption behind Washington's education reform is that the four Basic Education goals, the Essential Academic Learning Requirements (EALRs), and the Washington Assessment of Student Learning (WASL) will drive changes throughout the K–12 school system in order to increase the rigor of what students learn. This section provides information on what high schools are doing to achieve this goal.

I. **Changing Curriculum, Instruction, and Assessment.** State standards are intended to shape the content of a school's curriculum, but they may also influence the instructional strategies teachers use to convey the material to students, as well as how student performance is measured. To ensure that increased rigor is expected for all students, high schools need to address both academic and vocational courses.

II. **Providing Assistance to Struggling Students.** The need to provide extra assistance and remediation to students who may have difficulty meeting the state's standards becomes very important if students are expected to pass the WASL and earn a Certificate of Mastery before they can graduate.

III. Increasing High School Graduation Requirements. State statute requires that students must earn a Certificate of Mastery for high school graduation but stipulates that the Certificate of Mastery is not the only requirement to earn a diploma.[13] In the fall of 2000, the State Board of Education (SBE) adopted new graduation requirements that will apply to the class of 2008, including that students will earn a Certificate of Mastery by passing the WASL in the four subject areas currently tested: reading, writing, communications, and mathematics.[14] Local school districts have the option to require additional credits or activities for graduation.

I. Changing Curriculum, Instruction, and Assessment

Curriculum

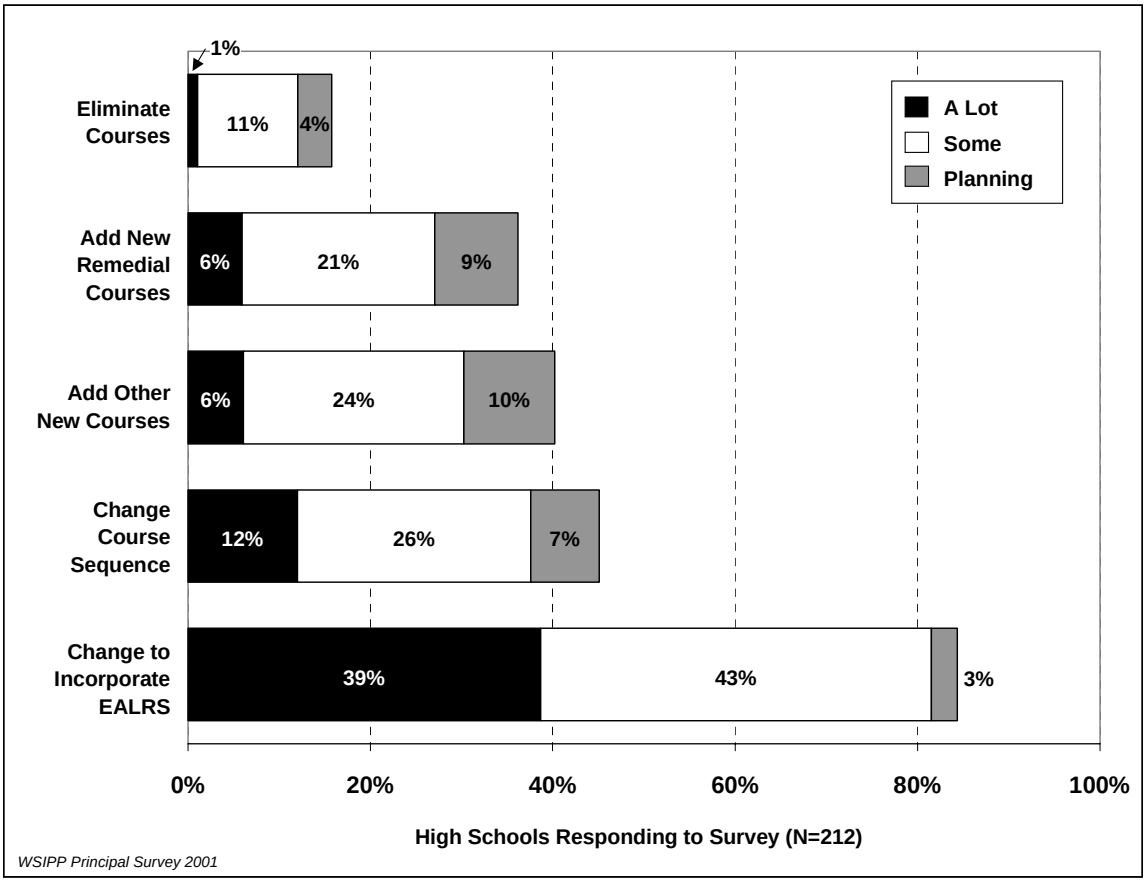
Reading, writing, and aligning the curriculum with the EALRs are the main areas of focus for most high schools. Nearly one-third (31 percent) of high schools responding to the Institute's survey reported reading was a top priority to improve student learning.[15] Almost one-fourth of schools reported a top priority was improving students' writing skills (23 percent). Another significant focus was aligning the high school curriculum with the EALRs: 21 percent of responding high schools said curriculum alignment was a top priority.

Surveyed high schools were also asked to describe the type and degree of change in curriculum for 9th and 10th grades resulting from education reform. Possible responses included "a lot," "some," "a little," "not at all," or "planning."[16] As Figure 1 shows, 82 percent of high schools reported some or a lot of change to the overall curriculum for 9th and 10th grades to incorporate the EALRs into courses. High schools report less activity in adding remedial or other courses or changing the sequence of courses. Few report having to eliminate courses as a result of the state's standards.

[13] RCW 28A.655.060. Before the Certificate of Mastery is required for graduation, the SBE must determine that the WASL is valid and reliable for use as a graduation requirement.
[14] WAC 180-51-063. Additional statewide graduation requirements are described in Section I: Overview.
[15] Washington State Institute for Public Policy (WSIPP) Principal Survey 2001. Analysis based on 197 responses to an open-ended question. Schools were asked to note their top priority to improve student learning, and many responded with more than one answer.
[16] Nearly all questions on the Principal Survey used this five-point scale for responses. Some questions did not include "planning" as a possible response.

Figure 1

What Types of Changes Are Occurring in 9th and 10th Grade Curricula?



WSIPP Principal Survey 2001

Case Study Perspectives[17]

Reading and writing are really "it" right now. It's working well to focus in these two areas, no matter which subject is being taught.

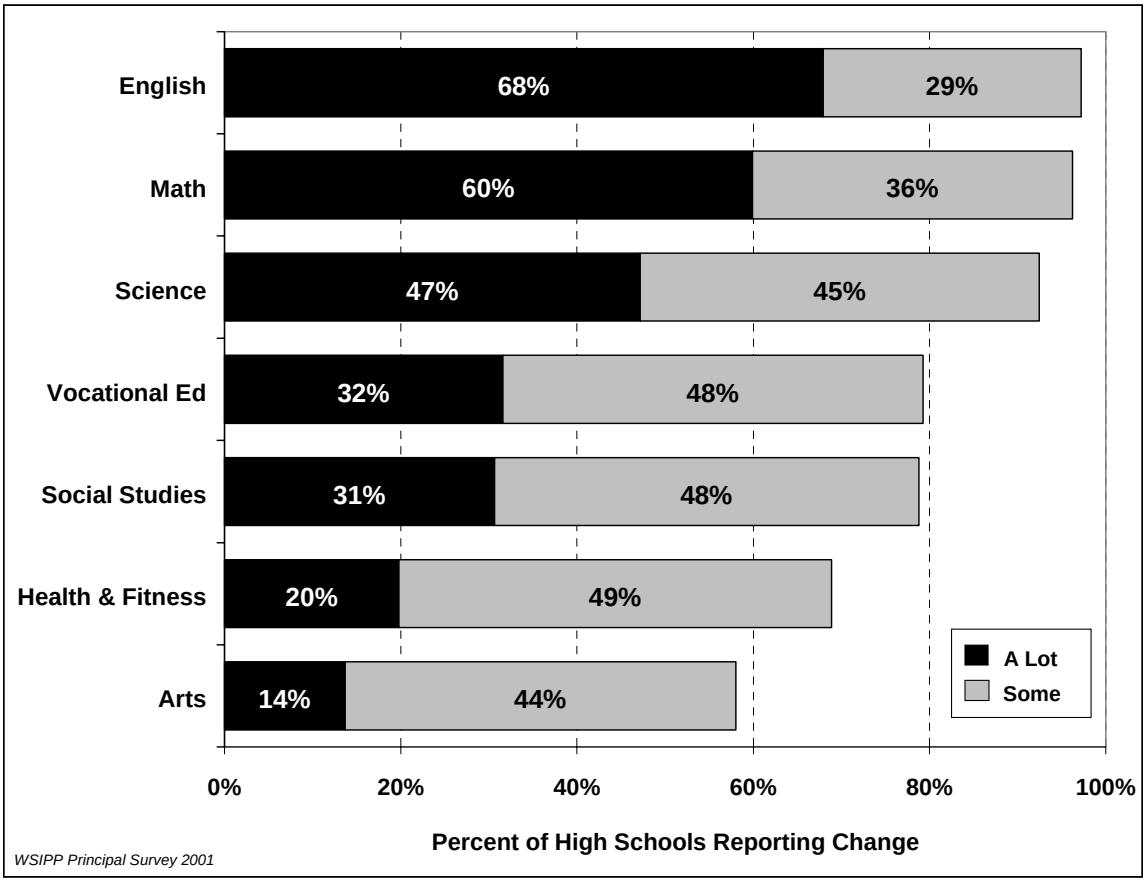
The EALRs help us focus by providing the big picture of what learning is and should be. We know exactly what content we're supposed to be focused on, and we work on that all year long. Even though teachers have different teaching styles, now we are focusing on teaching the same skills. Every inservice seems to focus on the EALRs and WASL.

In standards-based education, we can no longer simply give students a grade. We're expected to define a standard and evaluate students' work based on that standard. This form of assessment is a huge shift from grading. It adds another layer of complexity to teaching and learning.

[17] The case study perspectives presented in this report are excerpts of comments made by educators, students, or parents from the eight case study schools. The perspectives are a composite of different people from different schools. Complete summaries and comments are in Volume 3: *Case Studies of Eight Washington High Schools*.

High schools are concentrating the most on English and math, followed by science, as they make changes to curriculum in 9th and 10th grades. Currently, the WASL covers reading, writing, communication, and mathematics. More than half the high schools responding to the survey reported making a lot of changes in their English and math curricula to incorporate the content and material required by state standards. Subjects not yet tested on the WASL, such as social studies, health and fitness, and the arts, have received less attention (see Figure 2).

Figure 2
Which Subjects Now Incorporate the EALRs?



High schools are working to increase the academic and technical rigor of vocational courses. Nationally, vocational programs have been criticized for failing to incorporate sufficient academic content in reading and math.[18] In Washington, high schools have been examining vocational education curricula for ways to incorporate state standards in reading, writing, math, and other subjects into vocational courses. Nearly one-third (32 percent) of high schools reported doing a lot to incorporate the EALRs into vocational curricula, and 48 percent reported some activity.

[18] Mathematica Policy Research, Inc., *Focus for the Future: The Final Report of the National Tech-Prep Evaluation* (Washington D.C.: U.S. Department of Education, 1998), 5.

There are no EALRs specifically designed for vocational education. Instead, OSPI has been working with high schools to develop vocational program standards based on skills and attributes demanded by employers. In introductory or exploratory courses, students will be expected to demonstrate the EALRs in an applied setting, general employability skills, and knowledge of career options. In more advanced preparatory programs, students will be expected to demonstrate industry-approved skills, participate in work-based learning, and have the opportunity to advance directly into a post-secondary technical program to obtain industry certification.[19] The 2001 Legislature authorized OSPI to begin applying these program standards when approving school districts' vocational education plans.[20]

Instruction and Assessment

In the case study schools, teachers reported that instructional and assessment practices are changing to align with WASL requirements.[21] Teachers participating in the case studies reported a high emphasis on reading and writing in their schools over the past several years. Expanding opportunities for students to write in all subjects (writing across the curriculum), scoring writing samples according to a grading rubric (six-trait writing), and ensuring students practice different types of writing (persuasive, technical, objective) were prevalent in all case study schools.

Math teachers also report having their students spend more time reading and writing. Students are expected to explain their reasoning, investigate hypotheses and draw conclusions, and respond to questions with multiple ways to reach a right answer. These types of instructional and assessment practices have already been documented in Washington's elementary and middle school classrooms;[22] they also appear to be occurring in high schools.[23]

Most principals responding to the survey reported their high schools were using new ways to assess students. Nearly one-fourth (24 percent) of responding high schools reported extensive use of new ways to assess students, and an additional 64 percent reported some use of new assessment strategies. The Institute's survey did not document the many strategies high schools might use to measure whether students are meeting the state's standards. However, how high schools assess students is an important topic for state policymakers because the SBE's new graduation requirements mandate that students demonstrate knowledge and skills at Benchmark III for each EALR, plus any additional content required by the school district.[24] The state must rely on assessments developed at

---

[19] Preparatory programs offer a sequence of classes for students to focus on a specific occupation or occupational cluster. Personal communication with Rob Fieldman, OSPI, Secondary Education and Career Preparation, February 23, 2001.

[20] Substitute Senate Bill 5940: Career and Technical Education, 2001 Legislative Session.

[21] The Institute's survey of high schools did not document instructional practices, in part because it would be difficult for principals to give an accurate response covering all teachers and all subjects.

[22] Brian Stecher, et al., *The Effects of the Washington State Education Reform on Schools and Classrooms* (Santa Monica, CA: RAND Corporation, 2000), 60.

[23] In addition to reports from the case study schools, principals in 20 high schools described changes in instruction and assessment in response to an open-ended question about curriculum change. WSIPP Principal Survey 2001.

[24] WAC 180-51-061. Benchmark III refers to the knowledge and skills students are expected to demonstrate at approximately grade 10. An example of a Benchmark III expectation for reading would be "Student reads a full range of texts purposefully and automatically (instructions, news articles, poetry, novels, short stories, professional materials that match career or academic interests)."

the district, school, and classroom levels to determine whether students have met the state's standards in subjects and content that are not tested on the WASL.[25]

Case Study Example[26]

At Pasco High School, all 9th grade students participate in three performance assessments throughout the year. In the fall, students and more than 100 community volunteers participate in "Search and Rescue," a simulated bus accident held in the sports stadium. Students exhibit their knowledge of first aid/CPR, orienteering, graph-reading, note-taking, and report-writing. In the winter, every student participates in a Job Shadow and writes a report about his or her experience. In the spring, "Rocket to the Moon" combines learning about aerodynamics and rocketry, as well as nutrition and life in space, with a launching of student-built rockets in the stadium.

Multiple Changes Underway

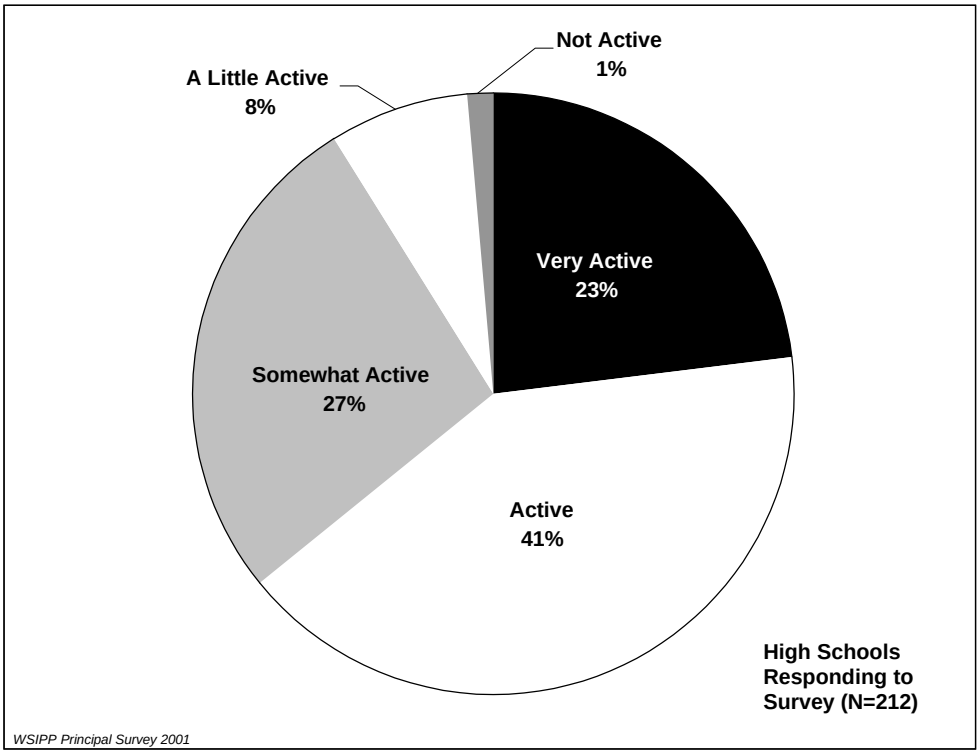
Nearly two-thirds of high schools are actively or very actively making multiple changes in curriculum and assessment. The Institute combined high schools' responses to several questions to analyze the cumulative level of activity regarding changes to curriculum and assessment. As Figure 3 shows, 23 percent of high schools reported making a lot of changes in several areas and are described in this cumulative analysis as "very active."[27] Another 41 percent could be considered "active."

[25] In 2001, the Legislature passed 2ESB 5686 which delays implementation dates for adding subjects to the WASL. High school assessments in science were delayed from 2001 to 2004, social studies from 2006 to 2008, arts from 2007 to 2009, and health and fitness from 2007 to 2009. Even where a subject is tested using the WASL, not all EALRs are covered.

[26] The case study examples presented in this report are excerpts of summaries written by Institute researchers based on two-day site visits to eight high schools. Complete summaries and comments are in Volume 3: *Case Studies of Eight Washington High Schools*.

[27] Survey responses for six curriculum and assessment strategies were combined to get a composite score for each high school. The range of possible composite scores (between 5 and 20) was divided into five score groups, and high schools in each score group were assigned a description from "very active" to "not active." The strategies measured included the following: developing new curricula, adopting new ways to assess students, using a common core curriculum, aligning high school curriculum with middle schools, and developing ways to assess student performance on Goal 3 and Goal 4 of the Basic Education Act.

Figure 3
How Actively Are High Schools Changing Curriculum and Assessment?



It has not been determined what degree of assurance is expected from high schools that curriculum, instruction, and assessment align with state learning standards. Research in both Washington and other states suggests that changes in instruction and assessment in response to state standards may not be as extensive as reformers anticipated.[28] However, most studies have only examined elementary and middle schools, indicating more research is needed regarding education reform in high schools. As Washington moves to implement the Certificate of Mastery, a key aspect of the assessment system that must withstand legal scrutiny is consistency between what is tested and what is taught in the schools (curricular validity).[29] The SBE has convened a committee to address reliability and validity issues, but it is not yet known what steps will be taken to verify curricular validity.

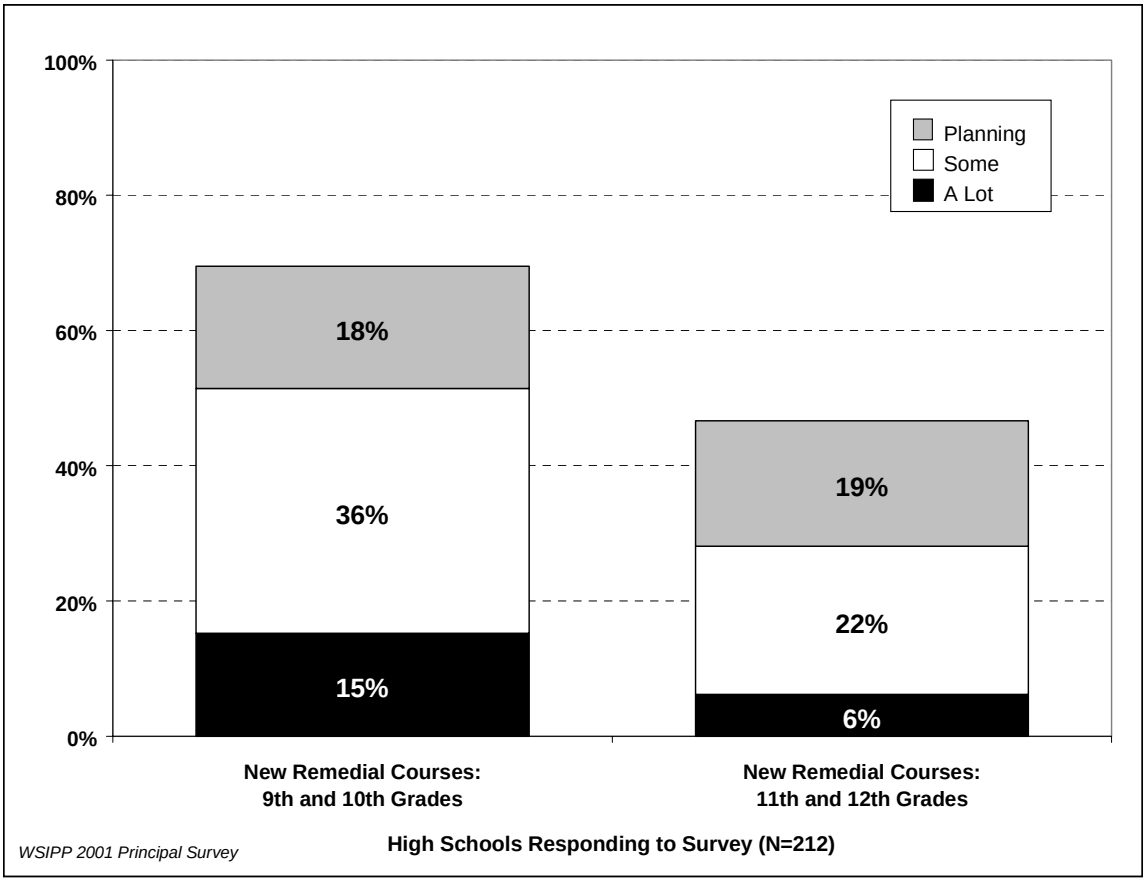
[28] Council for Basic Education, *Closing the Gap: Implementation, Assessment, and Accountability—The Keys to Improving Student Achievement* (Washington D.C.: Council for Basic Education, 2000), 68-69; Brian Stecher et al., *The Effects of the Washington State Education Reform on Schools and Classrooms* (Santa Monica, CA: RAND Corporation, 2000), 60; and Lynn Olson, "Researchers Identify the Impact of New Jersey Testing on Teaching" *Education Week*, April 18, 2001.

[29] Dane Linn, *High School Exit Exams: Setting High Expectations* (Washington, D.C.: National Governors Association, September 1, 1998), 3. The notion that students must have an opportunity to learn the content of any test required for graduation was litigated in a federal district court case involving the state of Florida: *Debra P. v. Turlington* 730 F. 2d 1405 (11th Cir 1984).

II. Providing Assistance to Struggling Students

High schools are focusing on 9th and 10th grade students before 11th and 12th grade students. About half the responding high schools (51 percent) reported creating some or a lot of new courses for 9th and 10th grade students to provide additional assistance in preparing them for the WASL, while 28 percent reported adding classes for 11th and 12th grade students who did not pass the WASL. A similar proportion of high schools are in the planning stages to add preparatory or remedial courses for all grade levels (18 and 19 percent, see Figure 4). High schools anticipate a significant increase in the need for additional assistance and remediation once passing the WASL becomes required for students as part of the Certificate of Mastery.

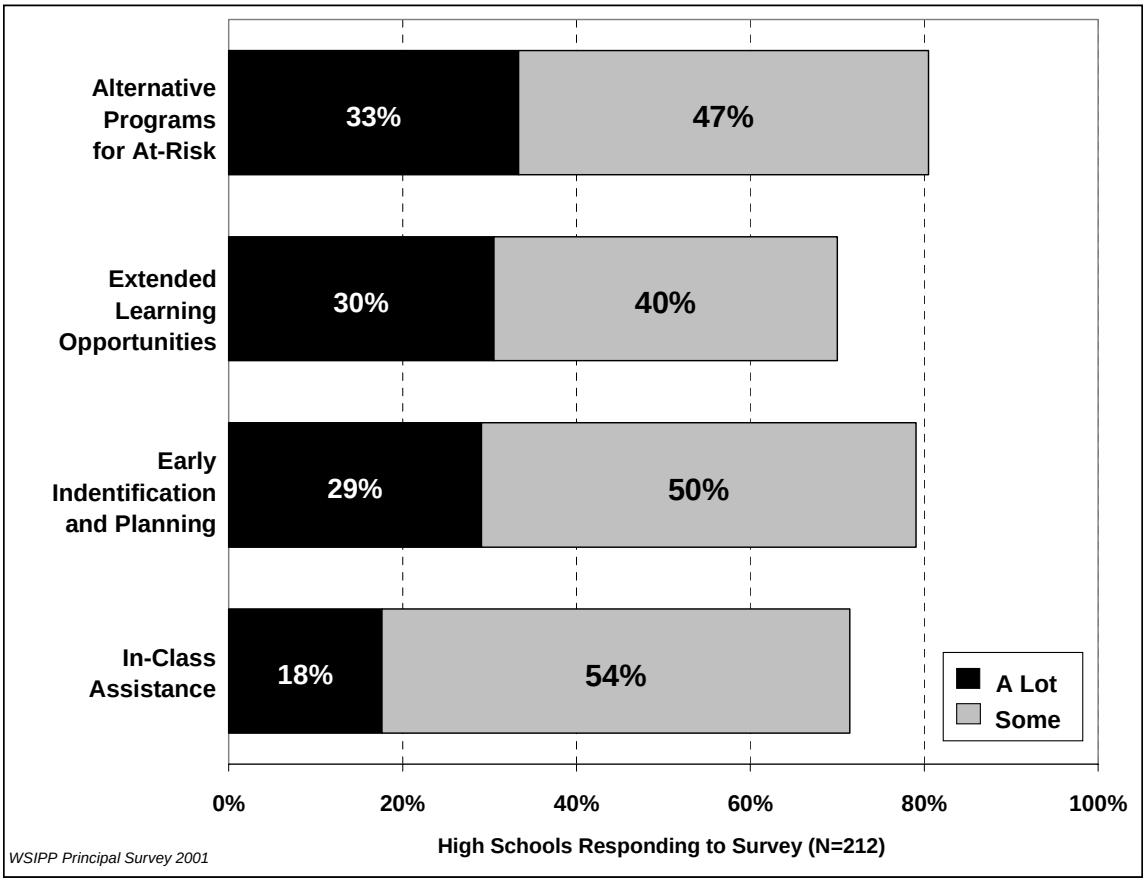
Figure 4
What Proportion of High Schools Have Created New Courses for Students Struggling to Meet State Standards?



Consistent with other curriculum changes, high schools are focusing on English and math for new courses to assist struggling students. Nearly 60 percent of high schools reported adding some or a lot of new courses to assist 9th and 10th grade students in English and math compared with less than 25 percent adding these courses in science or social studies. About 12 percent of high schools reported they were planning preparatory or remedial courses in all four subject areas.

High schools are using strategies other than new courses to assist struggling students, but fewer than one-third report using these strategies extensively. More than 70 percent of responding high schools reported using strategies such as alternative programs, extended learning, early identification of at-risk students, and in-class assistance (see Figure 5). Many high schools may have initiated these strategies before the state's education reform. However, none of these strategies is currently used extensively by more than one-third of responding high schools.

Figure 5
What Other Strategies Are High Schools Using to Assist Students Struggling to Pass the WASL?



Educators and parents are concerned about the future impact of remediation. It was never expected that all students would be able to meet the state's standards by 10th grade.[30] The movement toward a standards- and performance-based education system requires that schools recognize when students have demonstrated necessary knowledge and skills regardless of how long that takes. Students do not all learn at the same pace. Nevertheless, nearly all case study participants expressed fear that, in the future, electives, honors classes, and other learning options in high schools will be significantly reduced in

[30] RCW 28A.655.060 states that "The certificate of mastery shall be obtained by most students at about the age of sixteen. . ."

order to create staff time for remedial classes and other assistance for students who do not pass the WASL in 10th grade.

Case Study Perspectives

What kind of schedule are we going to end up with if we have to remediate for the WASL? How do you reconfigure staffing dramatically when the funding level doesn't change? We'll turn into nothing but a big remedial school.

We in education don't have a good track record with remediation. We haven't had to deal with it. We just report on how kids compare to each other. Standards-based reform switches to a student-focused system: What do we have to do to ensure that this child achieves to the standard? This thinking will have to become pervasive, but it hasn't yet.

You can't return kids to the same class for remediation. There needs to be another way, and this has big implications for the future. I foresee having to put our best staff into remediation. That's a real paradigm shift for the top teachers to have to take the toughest students. It hasn't happened yet, but it will.

Some states are attempting to influence the remediation that results from state demands to increase rigor. At least 15 states have passed laws requiring school districts to provide additional assistance and remediation for students who are at risk of failing state graduation tests. Fourteen states support additional assistance for those students with funding for specific programs or through a factor in the state funding allocation formula. For additional information on remediation related to high school graduation tests in other states, see Appendix C.

Washington does not provide funding to school districts specifically related to student performance on the 10th grade WASL. Other funds and programs aimed at assisting struggling students, such as the Learning Assistance Program, Readiness to Learn, and Math Helping Corps, tend to be focused on elementary and middle schools but can also help high school students.[31] Starting in 2001–2002, new funds from Initiative 728 may be used for "extended learning opportunities to improve student academic achievement," and low-performing schools may be eligible for focused assistance.[32]

[31] The Learning Assistance Program (LAP) is intended to provide extra assistance to students who are learning below grade level. Funds are allocated to school districts based on the proportion of students scoring in the lowest quartile on nationally standardized tests. In 1999, the Legislature expanded the LAP program to include funding based on low-scoring high school students ($11 million for 2001–2002). Readiness to Learn ($3.6 million) is a grant program that coordinates school and community services, and Math Helping Corps ($1.8 million) deploys mathematics specialists to schools to assist with improving math performance.

[32] Initiative 728 was approved by the voters in 2001 and sets aside funding to support education ($184 million for 2001–2002 and $209 million for 2002–2003); Text of Initiative 728, Section 3 and ESSB 6153, Section 519. Extended learning opportunities include extended school year or school day, before and after school programs, special tutoring, and weekend and summer school programs. The $1 million for focused assistance in 2001–2002 will be used to conduct educational audits and create and implement performance agreements in low-performing schools. ESSB 6153, Section 514(17).

High schools are emphasizing the EALRs in curriculum and individual education plans (IEPs) for special education and limited-English proficient (LEP) students. School districts can make some adjustments to the administration of the WASL to accommodate special education or LEP students, but the overall expectation is that all students should be included in the state's education reform, including the assessment system.[33] Table 3 shows the most common strategies high schools reported using to help special education and LEP students meet the state's learning standards.[34]

Table 3
How Are High Schools Addressing Special Education and LEP Students?

	Top Strategies
Focus on EALRs	• Include EALRs in special education IEPs[35] • Ensure instruction follows IEP • Adapt curriculum and learning expectations to EALRs
Special Instruction	• Provide individualized instruction and assistance • Adapt assignments to students' needs • Offer inclusion or small classes
Change in Courses	• Add special classes • Focus on reading and writing • Increase academic expectations; reduce time spent on generic study skills
Test Accommodations	• Follow IEP to provide assistance in taking the WASL • Use approved alternative assessments
Staff Development	• Encourage collaboration among teachers • Provide additional in-service training

WSIPP Principal Survey 2001 (N=212 high schools responding to survey)

Parents and teachers in the case study schools are also concerned about the impact of the WASL on special education and LEP students. Parents and teachers supported the goal that all students be included in education reform, but they were concerned about whether the WASL would negatively affect the morale of special education and LEP students and possibly their commitment to staying in school. They pointed out that large numbers of these students affect a school's test scores and could lead to an inaccurate portrayal of a school's commitment and progress in improving student learning. The

[33] A very limited number of students (1.4 percent of 10th graders in 2000) are exempted from the WASL by their schools. Beginning in 2001, all special education students will take either the WASL or some form of alternative assessment and have their scores reported. Washington allows a limited number of exemptions for LEP students who have spent less than one school year in a school where instruction is in English and who score at the lowest level on an English proficiency test. Office of the Superintendent of Public Instruction, G*uidelines for Participation and Testing Accommodations for Special Populations on the Washington Assessment of Student Learning* (Olympia, WA, June 2000), 5-7.

[34] WSIPP Principal Survey 2001. Based on 180 responses to an open-ended question about specific strategies high schools are using to assist special education and LEP students.

[35] The IEP template required by OSPI asks teachers to record which EALRs are being covered in lesson plans for special education students.

Washington A+ Commission recommended that the percentage of special population students in a school be taken into account when considering needs assessment, focused assistance, recognition, and intensive intervention under a proposed state accountability system.[36]

III. Increasing High School Graduation Requirements

Standards-Based Tests

Educators, parents, and students support clear statewide standards but are less certain about requiring the WASL for graduation. Nearly all case study participants reported a positive impact from having the EALRs serve as a common framework for curriculum and instruction. However, concerns about the WASL were common among participants, such as over-emphasis on a single assessment method and level of difficulty of the test. Educators in the case studies also discussed their inability to use results in a timely and effective manner as a tool to improve learning and the amount of time it takes to administer the test. Nearly one-third of principals responding to an open-ended survey question cited similar concerns with the WASL.[37]

Case Study Perspectives

I think it's reasonable to expect students to pass these tests. I think the WASL pushes staff in the right direction. But the message a single test sends is inconsistent with other messages we receive about creating alternatives for students and adapting to different learning styles. So which message are we supposed to follow? Is the WASL the "end-all" indicator of success and knowledge?

It would be a shame and a disappointment to lower the stakes at this stage. We hope it doesn't slip away. We have focused a lot of energy on the reforms. There have to be other indicators of success besides the WASL and Certificate of Mastery, but don't let the challenges destroy the work that has already been done. Concern about the WASL shouldn't be misinterpreted as opposition to change or opposition to accountability.

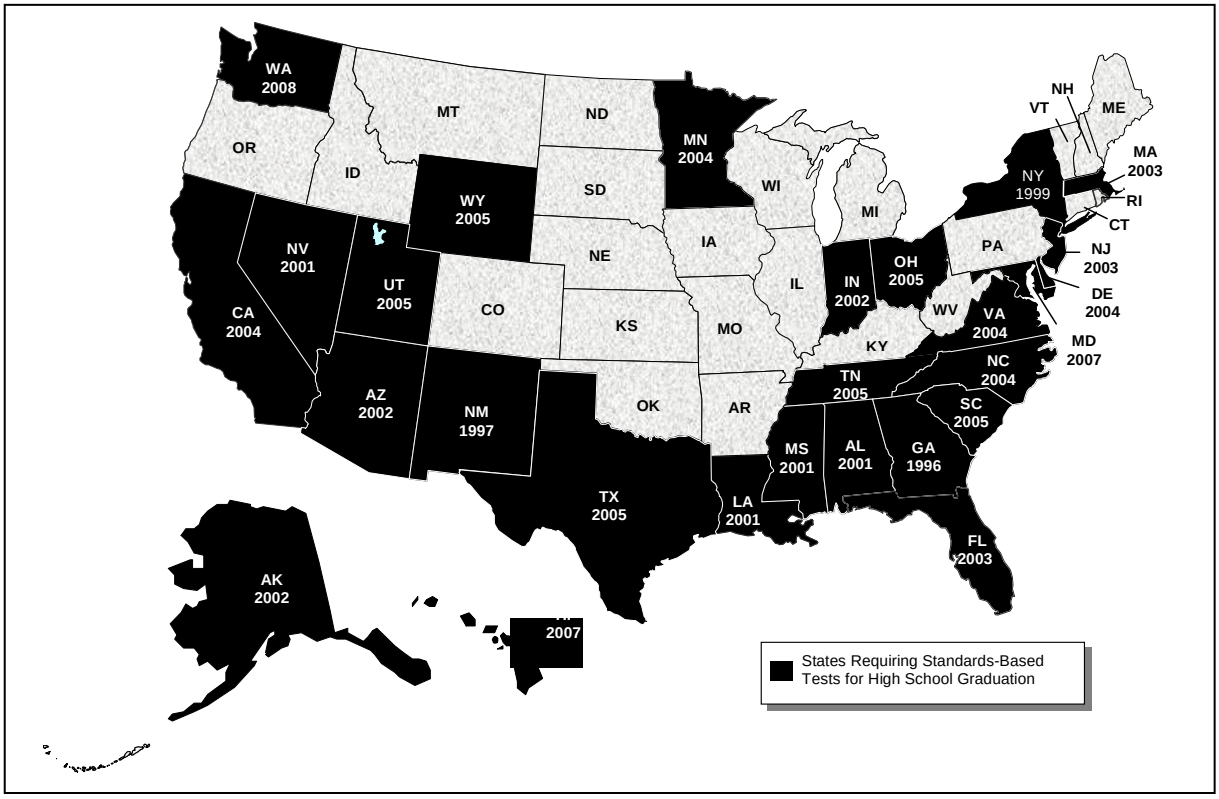
Many students do not yet have an incentive to take the WASL seriously. Students in the case study schools were the first to admit that, with no impact on their grades or diplomas, they do not take the WASL seriously. Case study schools maintain that because students are not giving their best effort, low test scores misrepresent high schools to the public and the state. Teachers, students, and parents held widely diverging opinions on

[36] The A+ Commission, whose eight members are appointed by the Governor, is charged with developing performance goals for schools and identifying criteria for schools and districts that need additional assistance in meeting the state's expectations under education reform. Washington State Academic Achievement and Accountability Commission, *Accountability System Recommendations* (Olympia, WA, November 2000), 17 and 24.
[37] WSIPP Principal Survey 2001. Forty-eight out of 170 respondents expressed concern with various aspects of administering the WASL or relying on it as a primary state-level assessment method.

whether making the WASL a graduation requirement is an appropriate or effective incentive for students to meet high learning standards.

Requiring students to pass a test based on statewide standards is relatively new, so the effect on student performance is still largely unknown. More than half the states (27) have introduced or are planning to require tests based on state standards that students must pass to graduate from high school (see Figure 6).[38]

Figure 6
What States Will Require Standards-Based Tests for Graduation?



Some states are changing their testing requirements or creating alternative ways for students to earn a diploma.[39] Of the 27 states with plans to require students to pass a standards-based test, at least six have recently postponed the implementation date, and six have altered the test content or adjusted minimum passing scores.[40] However,

[38] Some states have always required students to take an exit exam or a college admissions exam as a graduation requirement. The Institute included only states that have developed tests based on statewide standards for student learning within the last ten years. It is beyond the scope of this report to assess the degree of difficulty of the tests. Other states may have established state standards and developed ways to measure student performance against the standards but are not planning to require a test for graduation.

[39] For additional information on activities in other states, see Appendix D.

[40] Postponements and other alterations occur continually, so this is a conservative estimate and may not be fully up to date. A case study of Oregon is presented in Appendix E. Oregon students must pass a statewide assessment to earn Certificates of Initial and Advanced Mastery but can still receive a high school diploma without passing the assessment.

Washington's target date of 2008 is the most distant and was set by the SBE to allow sufficient time to determine reliability and validity of the WASL, as well as recommend modifications. Principals surveyed by the Institute expressed a desire for the state to maintain a consistent message about its commitment and timeline for continuing to implement education reform.[41]

At least seven states have created or are considering allowing students an alternative way to earn a diploma that does not require passing the state graduation test, either through a waiver process or allowing an alternative demonstration of knowledge and skills.[42] Five states offer a special diploma for high-performing students.

Credits, Courses, and Activities

Local graduation requirements are changing in most high schools that responded to the survey. Forty-three percent of responding high schools reported their districts have changed graduation requirements since 1997, and 18 percent are planning to do so in the near future. While the Institute's survey provides a baseline of current activity, it is not known how this compares to the frequency or type of previous changes in local graduation requirements.

Of the high schools reporting changes, 61 percent have added credits or courses required for graduation. Most additions were in English and math. Twenty-seven percent of high schools reporting recent changes had eliminated courses from their graduation requirements. However, many of these actions reflect increased expectations for students. For example, a number of schools no longer allow students to fulfill graduation requirements by taking less stringent courses such as general math and general science.

Just over half the high schools that reported changes in graduation requirements were adding required activities for students (51 percent). The most typical activity is requiring a culminating project (39 percent of high schools reported changes).[43] Culminating projects are often combined with requirements for students to prepare portfolios or participate in service learning. Some high schools are requiring students to take credits or courses that align with a chosen career pathway.

Nationally, students are taking more academic courses, but little is known about the rigor of the course content. The changes Washington high schools are making to add requirements in English and math are consistent with trends across the country to increase academic course requirements for high school graduation. High school graduates nationwide are taking more academic courses.[44] However, increased numbers of courses do not necessarily indicate increased rigor in course content. Research indicates that the

[41] WSIPP Principal Survey 2001. Twenty-two out of 170 respondents to an open-ended question about challenges faced by high schools expressed concern about a consistent state message on education reform.
[42] This summary does not include state policies allowing special education or LEP students to take alternative forms of state tests.
[43] Under the SBE's new graduation requirements, all students will be required to complete a culminating project beginning with the class of 2008.
[44] On average, high school graduates nationwide in 1998 accumulated three more academic credits than graduates in 1992. National Center for Education Statistics, *Condition of Education 2000* (Washington D.C.: U.S. Department of Education, 2000), 44.

rigor of academic courses affects academic achievement and is the most significant predictor of readiness for college.[45] Little information is available about course rigor in Washington or other states because school transcripts and course titles give little indication of course content.

It is not known to what degree increased rigor will cause struggling students to drop out of school. Nationally, dropout rates declined during the 1980s when many states increased graduation requirements, but a recent study found that increasing the number of course credits required for graduation may lead to higher dropout rates.[46] As expectations for what students must accomplish to graduate from high school increase at the state, district, and high school levels, state policymakers will want to monitor dropout rates closely and analyze any trends and changes. However, as discussed in the Institute's interim report, more work is needed to improve the accuracy of dropout rates reported by OSPI.[47]

Student Competencies

Most high schools believe that students in the future may demonstrate competencies instead of earning credits for graduation. The SBE's statewide graduation requirements still require students to accumulate a certain number of credits in various subjects, although the changes adopted in 2000 also define for the first time the minimum content for each subject (Benchmark III of the EALRs). In addition, the SBE gave local school districts the option to award credits toward graduation based on demonstrated competencies rather than accumulated hours spent in classes.

As Figure 7 illustrates, only a handful of high schools (15 percent) are confident they will use student competencies instead of credits for graduation at some time in the future. Most high schools were uncertain but believed it likely they would adopt this type of policy (55 percent). The SBE has not provided any definitions or guidance to high schools for how to translate credits into competencies. One school district that has adopted competency-based graduation requirements created additional standards beyond the state EALRs and described the content of each standard, as well as the expected performance and evidence to be submitted by students.[48]

---

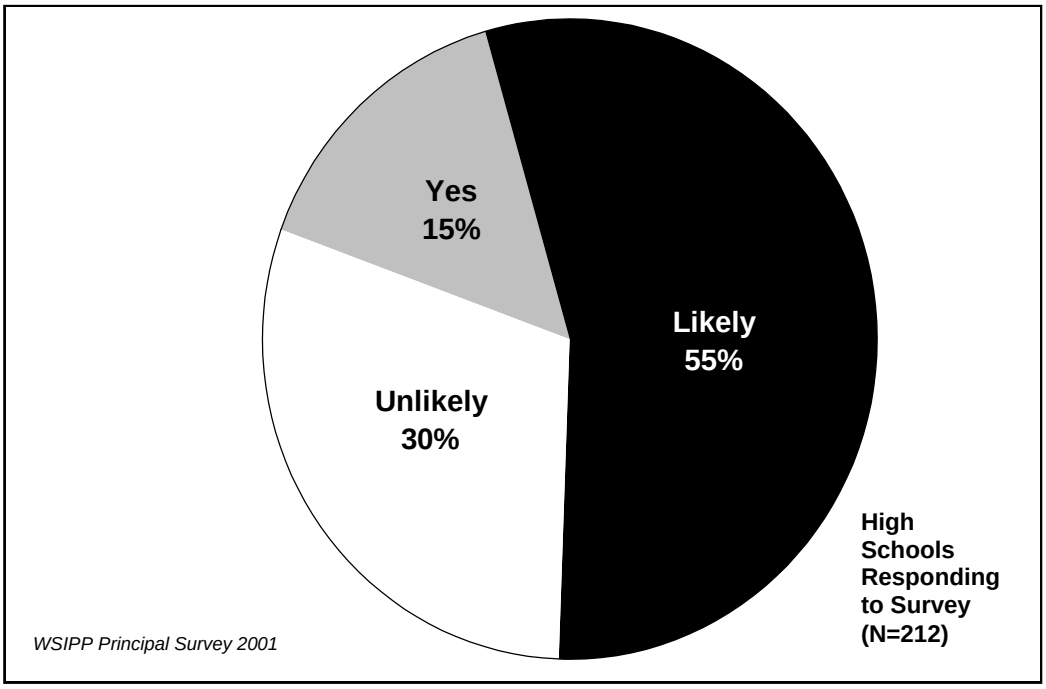
[45] Educational Testing Service, "Opportunity Offered—Opportunity Taken: Course-Taking in American High Schools," *ETS Policy Notes* 9, no. 1 (Spring 1999), and Office of Educational Research and Improvement, *Answers in the Toolbox: Academic Intensity, Attendance Patterns, and Bachelor's Degree Attainment,* <http://www.ed.gov/pubs/Toolbox>, June 1999.

[46] Dean R. Lillard and Philip P. DeCicca, "Higher Standards, More Dropouts? Evidence Within and Across Time," *Economics of Education Review* 20: 459-473, <www.elsevier.com/locate/econedurev: Pergamon>, 2001.

[47] Edie Harding et al., *Educational Opportunities in Washington's High Schools Under State Education Reform: Background and Student Outcomes, Volume 1* (Olympia, WA: Washington State Institute for Public Policy, January 2001), 44.

[48] Starting in 2008, Lake Washington students will be expected to demonstrate proficiency in five Advanced Literacies: Communication, Quantitative and Scientific Reasoning, Citizenship, Culture, and School to Career and Life Skills. Lake Washington School District, *Student Profile Curriculum Framework* (Redmond, WA, August 2000).

Figure 7
Will Individual High Schools Use Student Competencies Instead of Credits for Graduation?



The future of competency-based college admissions is unknown. Since 1995, the Higher Education Coordinating Board (HECB) has been working with an advisory committee to develop a competency-based approach for admission to four-year public institutions of higher education. To date, the HECB has adopted competencies in English, math, world languages, and science. In each subject area, content knowledge beyond Benchmark III of the EALRs was defined in order to be equivalent to current state minimum admission standards for four-year colleges. At four pilot schools, teams of high school teachers and college faculty have been identifying what types of student work demonstrate successful mastery of content in each subject and are working to reach a common understanding of how competencies can be practically applied.

There is no state mandate for competency-based admission, although the Legislature has expressed interest in improving alignment between college entrance, the EALRs, and the Certificate of Mastery.[49] An evaluation of the HECB pilot projects suggested that additional legislative direction and funding would be necessary to implement competency-based college admissions on a statewide basis.[50] The HECB work was funded through a grant that has expired; no additional state funds have been appropriated to continue the project.[51]

[49] RCW 28A.655.060 directed the Commission on Student Learning to study how college entrance requirements could be made consistent with the EALRs and Certificate of Mastery. Under these auspices, the HECB convened its advisory committee on competency-based college admission.
[50] National Center for Higher Education Management Systems, *Washington HECB Competency-Based Admissions Evaluation Report* (Boulder, CO: May 15, 2000), 12.
[51] The HECB requested expanding the project to include 12 pilot schools, but funding was not provided in the 2001–2003 biennial budget.

Summary: Increasing the Rigor of What Students Learn

- Most high schools are making ***multiple changes to align curriculum, instruction, and assessment*** with the EALRs and WASL, particularly in 9th and 10th grades. Much activity is occurring with English and math, less with subjects that are not yet tested on the WASL. High schools are also working to increase the academic and technical rigor of vocational courses. Nearly all case study participants reported a positive impact from having the EALRs serve as a common framework for curriculum and instruction.

- Because the WASL is not yet a graduation requirement, high schools are currently more ***focused on preparing 9th and 10th grade students to take the WASL*** and less focused on remediation for 11th and 12th grade students. Although it was never expected that all students would be able to meet the state's standards by 10th grade, high schools are very concerned about remediation and its possible impact on the high school curriculum and learning options for students.

- Students face ***increased expectations for high school graduation***. The state will require students to pass a standards-based assessment to earn a Certificate of Mastery. Locally, high schools are changing course requirements, adding activities such as culminating projects, and creating descriptions of expected student competencies.

- However, there is ***uncertainty associated with efforts to increase the rigor of what students learn***. The academic rigor of additional courses for graduation is unknown. It is not known what effect increased expectations will have on high school dropout rates. Little guidance or assistance has been provided to translate credits required for graduation or college admission into student competencies. While parents, educators, and students largely support state standards, they express concerns about relying on the WASL as a graduation requirement. If the WASL is a graduation requirement, the state will need to ensure the standards are adequately reflected in curriculum and instruction in all schools so all students have the opportunity to learn them.

III. ARE HIGH SCHOOLS MAKING LEARNING MORE RELEVANT FOR STUDENTS?

High schools that responded to the Institute's survey are developing activities to make learning more relevant and assist students with the transition after high school. Most high schools have students prepare portfolios, culminating projects, and educational plans or are planning to implement these activities. Most encourage students to explore future educational and career options through career-themed educational pathways.

High schools have more work to do if these activities are to reach all students. Less than one-fourth of high schools reporting the use of portfolios, projects, or pathways now involve all students in these activities. In approximately one-third of high schools, all seniors prepare portfolios or culminating projects.

The Institute's case studies suggest that, in order to be effective, activities to make learning more relevant must be integrated throughout the high school curriculum. Schools report it takes a great deal of time, effort, and commitment to achieve integration and make the activities meaningful for students.

National research is not conclusive on whether portfolios, culminating projects, or educational pathways are effective. The success of initiatives to assist students with transitions may have to be measured by examining students' educational and career pathways after graduation. However, there is currently no complete picture of what happens to Washington high school graduates.

Approximately half the high schools are trying to create smaller learning communities by organizing small cohorts of students or providing new mentoring programs. The interest in small schools is still relatively new, and policymakers may want to monitor the results of grant-supported initiatives.

Background

Some national studies suggest that to be motivated high school students need to believe that what they learn in school is relevant to the world outside the classroom and see a connection between learning and their own personal goals.[52] There are a number of strategies high schools might try to increase the relevance of learning. Instruction, assignments, and activities can be structured to encourage students to plan for the transition after high school, explore their options, and tailor what they learn in high school to support their future educational and career goals. As high schools increase the rigor of what is expected from students, it will become even more important that students are motivated by the material and skills they are learning, particularly those students who might

[52] Laurence Steinberg, *Beyond the Classroom: Why School Reform Has Failed and What Parents Need to Do* (New York: Simon & Schuster, 1996), 72.

otherwise believe they cannot succeed in school. This section provides information on efforts by high schools to make learning more relevant for students.

I. **The "Four P's": Portfolios, Projects, Pathways, and Plans.** In the fall of 2000, the State Board of Education adopted a requirement that all students must complete a culminating project for graduation, which is intended to assure that students see the connection between their high school education and future educational or career opportunities. Students must also create an education plan for high school, plus one additional year after high school.[53] State statute requires Washington's public high schools to provide students with the opportunity to pursue career and educational objectives through educational pathways.[54] The Office of the Superintendent of Public Instruction (OSPI) has been encouraging high schools to use the "Four P's" (portfolios, culminating projects, educational pathways, and educational plans) with all students.[55]

II. **Making Curriculum Relevant.** High schools are traditionally organized into academic departments for different subjects. Some national researchers suggest that students would be more interested in learning if ideas and information were presented thematically or across multiple subjects and if students learned through activities, projects, experiments, and observations that simulated real-life situations.[56]

III. **Smaller Learning Communities.** Some national researchers maintain that the large size of traditional high schools creates an impersonal learning environment where students have little connection to the people or the purpose of school.[57] This research has increased interest in creating smaller learning communities within the school and encouraging stronger relationships among students and between teachers and students. Strategies include creating small schools, dividing large schools into multiple schools-within-schools, or keeping smaller groups of students and teachers together.

I. The "Four P's": Portfolios, Projects, Pathways, and Plans

Portfolios and Projects

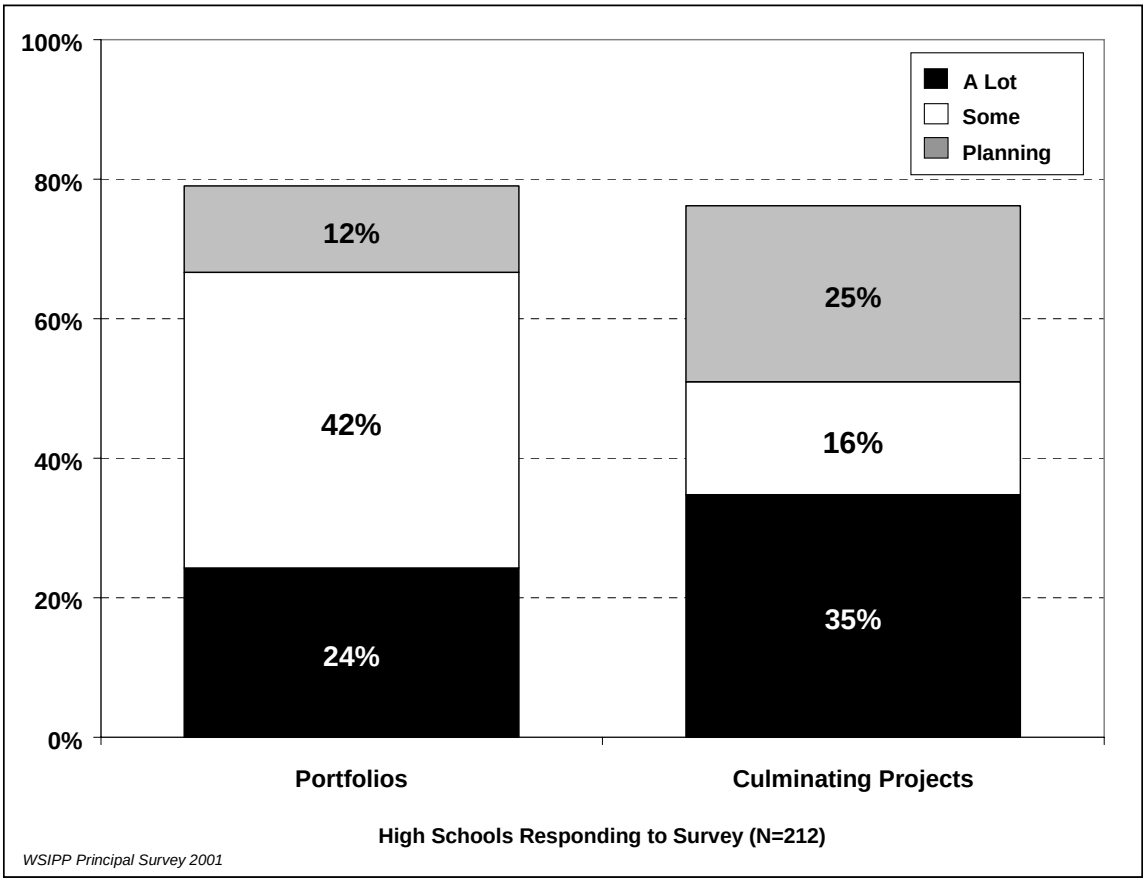
Most high schools responding to the Institute's survey currently use portfolios and culminating projects, and more schools are planning to do so. High schools might use portfolios and projects for a number of purposes: to encourage all students to take an interest in what they are learning, to assess students' critical thinking and problem-solving skills, to demonstrate students' accumulated knowledge and skills to parents and the community, and to assist students with making educational and career decisions.[58] High

[53] WAC 180-51-003 and 061.
[54] RCW 28A.655.060.
[55] Personal communication with Kyra Kester, Director of Secondary Education, OSPI.
[56] Kathy Lake, "Integrated Curriculum," *Close-up #16* (Portland: Northwest Regional Educational Laboratory, May 1994), 6.
[57] Joseph Murphy et al., *The Productive High School: Empirical Evidence* (New York: SUNY Press, Forthcoming), 298 of draft manuscript.
[58] Judith Arter, et al., "Portfolios for Assessment and Instruction," *ERIC Digest*, ED388890 (1995), 1.

schools may also use culminating projects as a way to keep seniors involved and motivated during their last year of school.[59]

Two-thirds (66 percent) of responding high schools reported they currently use portfolios some or a lot, with an additional 12 percent planning to use them in the future (see Figure 8). Just over half (51 percent) the schools reported currently using a culminating project some or a lot, and one-quarter are planning to use them.

Figure 8
What Proportion of High Schools Currently Use Portfolios and Culminating Projects?



Many high schools also report they are restructuring their use of portfolios or culminating projects.[60] Typical changes include combining the two activities, making one or the other a graduation requirement, or expanding their use from only some students in some classes to all students across multiple grade levels. It is not known to what extent the level of activity in high schools predates or is in response to the SBE's high school graduation requirement.

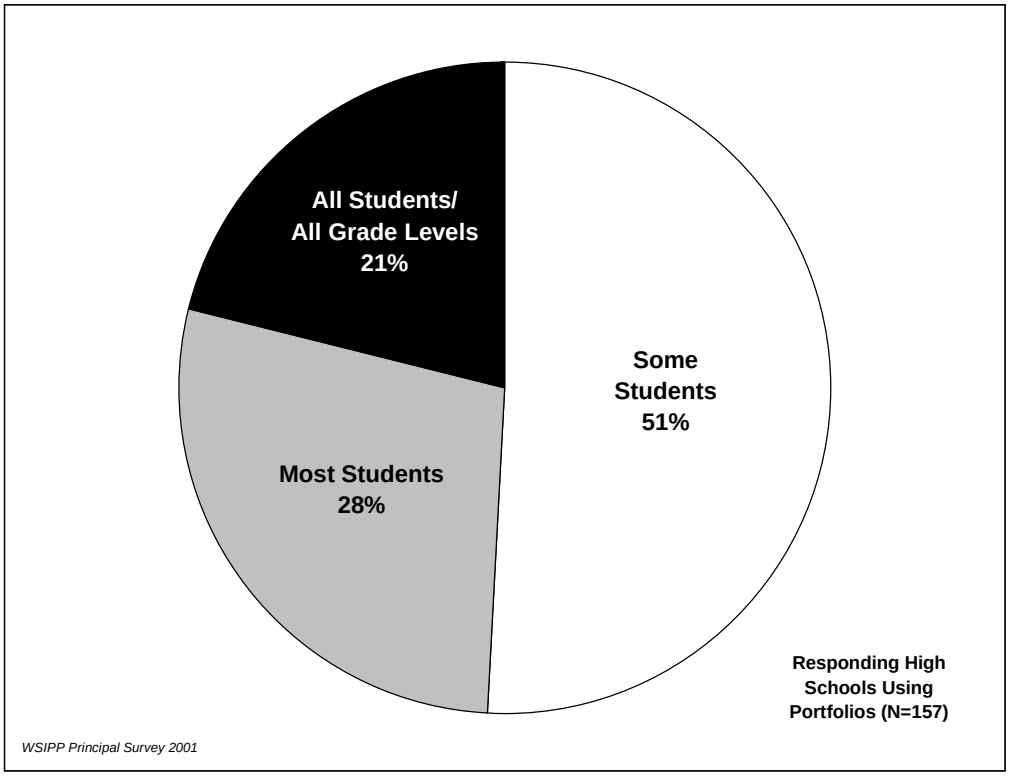
[59] Mayo Tsuzuki, "Senior Projects," *Education Through Occupations in American High Schools*: *Volume I,* ed. W. Norton Grubb (New York: Teachers College Press, 1995), 134-147.
[60] WSIPP Principal Survey 2001. Open-ended question about the use of portfolios and projects. Nearly 50 schools described changes being planned or underway.

Case Study Example

At Sequim High School, college-bound seniors previously completed a scholarship notebook containing samples of their best work and accomplishments. 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 (educational plan, career interest surveys), Learner (learning styles, academic history, and test scores), Employee (attendance log, resumes, letters of recommendation), and Citizen (volunteer history, clubs, and activities). All students will present their portfolios each year, culminating for seniors with presentations to the community.

Twenty-one percent of high schools that use portfolios have all students at all grade levels complete them. A portfolio is "a purposeful collection of student work that exhibits the student's efforts, progress, and achievements."[61] Students often participate in selecting the contents and are required to analyze and reflect on their accomplishments over time. Of the schools using portfolios, half (51 percent) require only some students to prepare them (see Figure 9). These schools may only use portfolios in certain classes, such as art or English, or with students in certain grades. For example, 31 percent of schools using portfolios reported that all seniors participate.

Figure 9
In High Schools Using Portfolios, Which Students Participate?



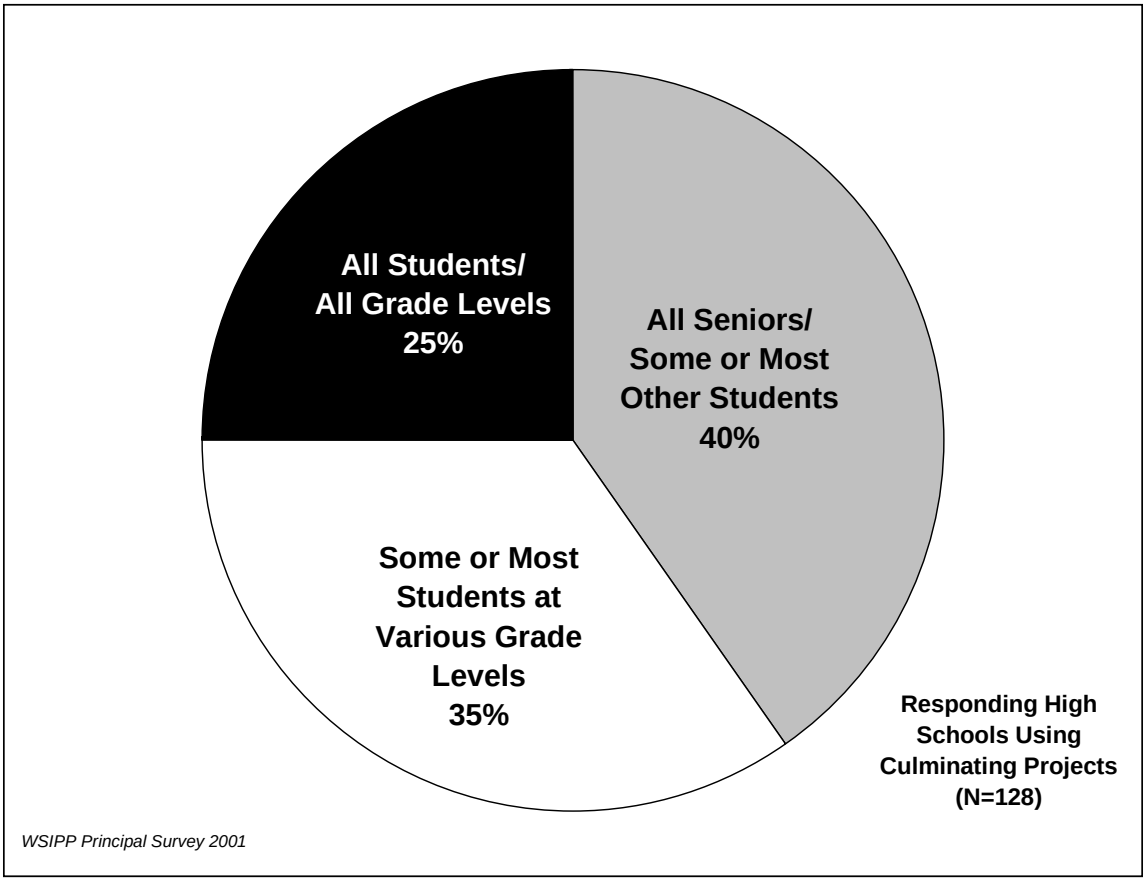
[61] L.F. Paulson et al. "What Makes a Portfolio a Portfolio?" *Educational Leadership* 48(5), 60-63.

Most portfolios combine samples of students' best work and accomplishments; some add a presentation element. In 35 percent of responding high schools that use portfolios, the portfolios contain samples of students' best work and accomplishments (e.g., grades, awards, club memberships, and activities). In 19 percent of the high schools, a third element is added: a presentation to members of the community. In the remaining high schools, there is more flexibility in what students put into their portfolios.

In slightly more than half the high schools that reported using culminating projects, students in multiple grades participate. All seniors complete a culminating project in 33 percent of high schools that responded to the Institute's survey. Although culminating projects are often considered "senior projects," in 56 percent of the schools that reported using culminating projects, students in grades 9 through 12 may participate. For example, high schools may expect students to place materials in a portfolio beginning in 9th grade and then use the portfolio to illustrate their skills and interests as part of their culminating project. One fourth of the high schools using culminating projects reported that all students in the school participate in the projects at all grade levels (see Figure 10).

Figure 10

In High Schools Using Culminating Projects, Which Students Participate?



Three-quarters of high schools using projects require students to complete a comprehensive research paper, art work, or other product for their culminating project. In some high schools, a research paper completed in Senior English is an example of a culminating project. In others, a culminating project could have multiple elements completed by students at different grade levels and serve as a catalyst for schools to revamp their curriculum to support the projects.[62] About half the schools incorporate portfolios as an element of a culminating project. Just over half require students to present their project to the community. In 28 percent of high schools that use them, the culminating project involves three elements: a comprehensive work, a student portfolio, and a presentation to the community. Some schools are taking advantage of culminating projects to introduce similar activities at other grade levels.[63]

Pathways and Plans

Two-thirds of high schools report they provide educational pathways organized around a career theme. 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.[64] The most intensive way to implement career-themed pathways is through a career academy, where entire schools or schools-within-schools are geared to careers within a broad industry group, such as Finance or Natural Resources.[65]

In Washington, the statute requiring high schools to offer educational pathways is quite broad and leaves high schools a great deal of latitude in defining how to interpret and implement what the legislature intended.[66] Sixty-seven percent of high schools responding to the Institute's survey report organizing educational pathways around career themes.

Many high schools have booklets that categorize different occupations into pathways. 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. A pathways booklet might explain, for example, that home health aide, dental hygienist, and doctor are in the Engineering, Science, and Medical Services pathway. Information is usually available about which high school courses should be completed depending on the student's choice of pathway. The booklets may be used by the counseling office to advise students about course registration or post-high school plans.

---

[62] Mayo Tsuzuki, "Senior Projects," 134-147.

[63] WSIPP Principal Survey 2001. Ten schools reported integrating the culminating project with other project work in multiple grades; five more were integrating the project into the overall curriculum. In Nooksack Valley, for example, students conduct research and make presentations at increasing levels of sophistication every two years starting in 6th grade.

[64] National Center for Education Statistics, *Vocational Education in the U.S.: Toward the Year 2000* (NCES 2000-029, February 2000), 5.

[65] For more information on career academies, see Appendix F.

[66] RCW 28A.655.060(3)(c) reads: "Upon achieving the certificate of mastery, schools shall provide students with the opportunity to pursue career and educational objectives through educational pathways that emphasize integration of academic and vocational education. Educational pathways may include, but are not limited to, programs such as work-based learning, school-to-work transition, tech prep, vocational-technical education, running start, and preparation for technical college, community college, or university education."

Forty percent of surveyed high schools have intensively implemented career-themed educational pathways for students. The Institute survey asked high schools how much they relied on a number of activities to support and implement educational pathways based on career themes (see Table 4).

Table 4
How High Schools Might Implement Educational Pathways

- All or most students choose a pathway.
- Courses have been modified to reflect career themes.
- Work-based learning, projects, and other activities are based on career themes.
- Students are encouraged to choose electives based on their pathway.
- Staff have received training to implement career-themed pathways.
- Materials and topics for portfolios and culminating projects reflect a student's pathway.

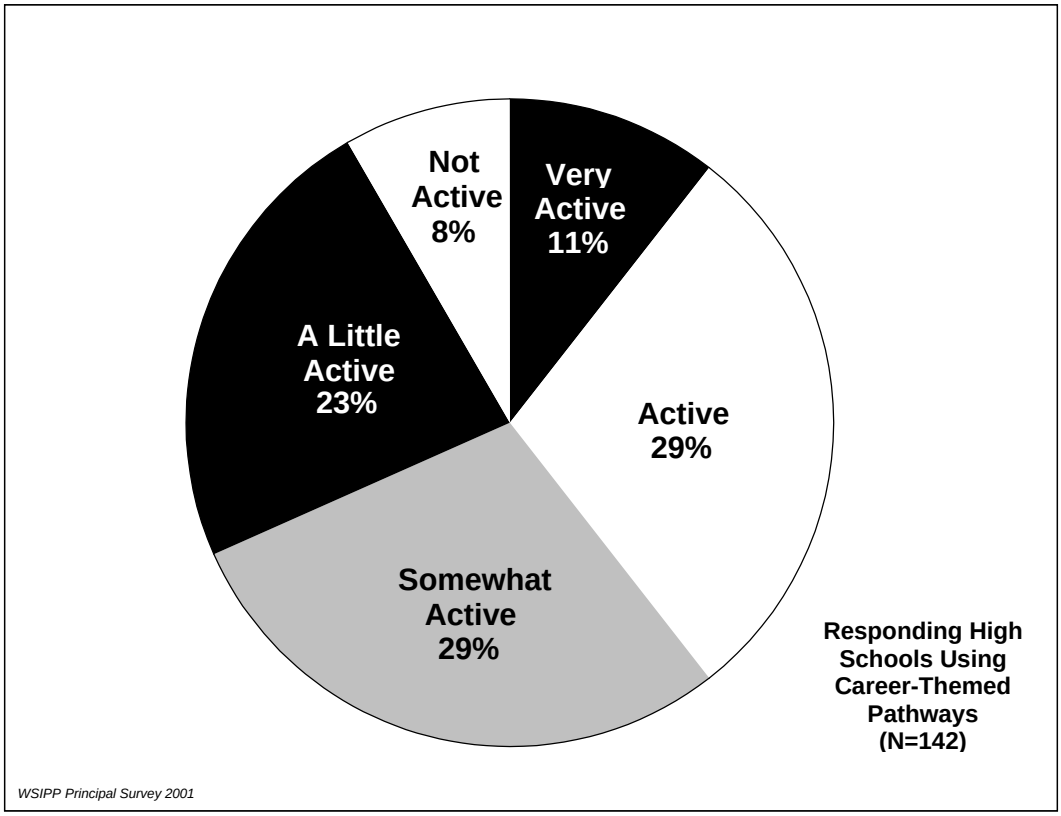
About half the high schools with career-themed pathways reported using each of these activities to some degree. No more than one-third of high schools reported using any of these activities a lot. For example, in only 30 percent of high schools using career-themed pathways do all students choose a pathway.

Figure 11 depicts the extent high schools that reported using career-themed pathways are using multiple activities simultaneously to support implementation of their pathways.[67] Eleven percent of high schools with pathways very actively use multiple activities to support their pathways. Twenty-nine percent could be considered "active." In the case study schools, students were more likely to find pathways useful when they were reinforced through activities, portfolios, and assignments.

[67] Survey responses for six activities in support of career-themed pathways were combined to get a composite score for each high school. The range of possible composite scores (6 through 24) was divided into five score groups, and high schools in each score group were assigned a description from "Very Active" to "Not Active."

Figure 11

How Actively Are High Schools Implementing Career-Themed Pathways?



Case Study Example

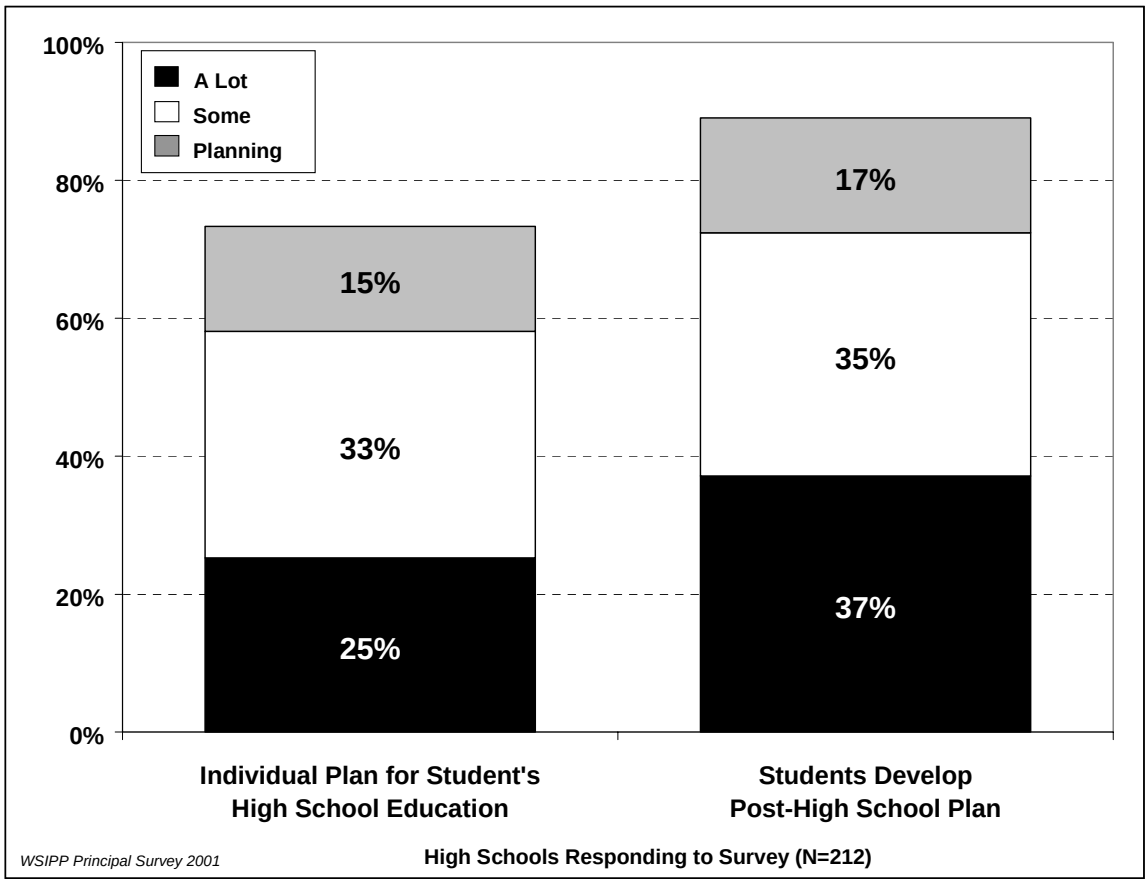
Pasco High School has created five career-themed educational pathways: Business and Marketing Management (BAMM); Environmental, Agricultural Resources, Technology Horizons (EARTH); Health and Services (HANDS); Arts, Communication and Entertainment (ACE); and Engineering, Manufacturing, Industrial Technologies (EMIT).

All 9th grade students are offered five two-week course modules that orient them to the pathways. The modules include guest speakers, information about possible careers, field trips, and instruction geared around that pathway. For example, the EARTH module (taught in the science class) included speakers from Hanford and other local industries, a trip to a water treatment plant, and laboratory work on water purification. In the spring, students choose one of the pathways. There are special projects for each subsequent grade level (service learning, Business Enterprise Week, and senior project), which students are encouraged to focus around their pathway.

Educators and parents in the case study schools pointed out that the primary objective of educational pathways is to encourage students to become interested in their future, explore options, set goals, and actively take steps to accomplish their goals while in high school. However, some parents, teachers, and students had concerns that students may feel forced to choose a single career too early and limit their options. Some also maintain high schools should not be actively involved in vocational issues outside the counseling office or traditional vocational training courses.

Most, but not all, high schools use individual educational plans with students. As Figure 12 shows, 58 percent of high schools responding to the survey reported that students prepare individual plans to guide their high school education, and an additional 15 percent of high schools are planning to have students prepare high school plans. Seventy-two percent reported students develop plans for what they want to do immediately after high school, with 17 percent planning to have students complete them. Both types of plans would be required for all students under the SBE's high school graduation requirements.

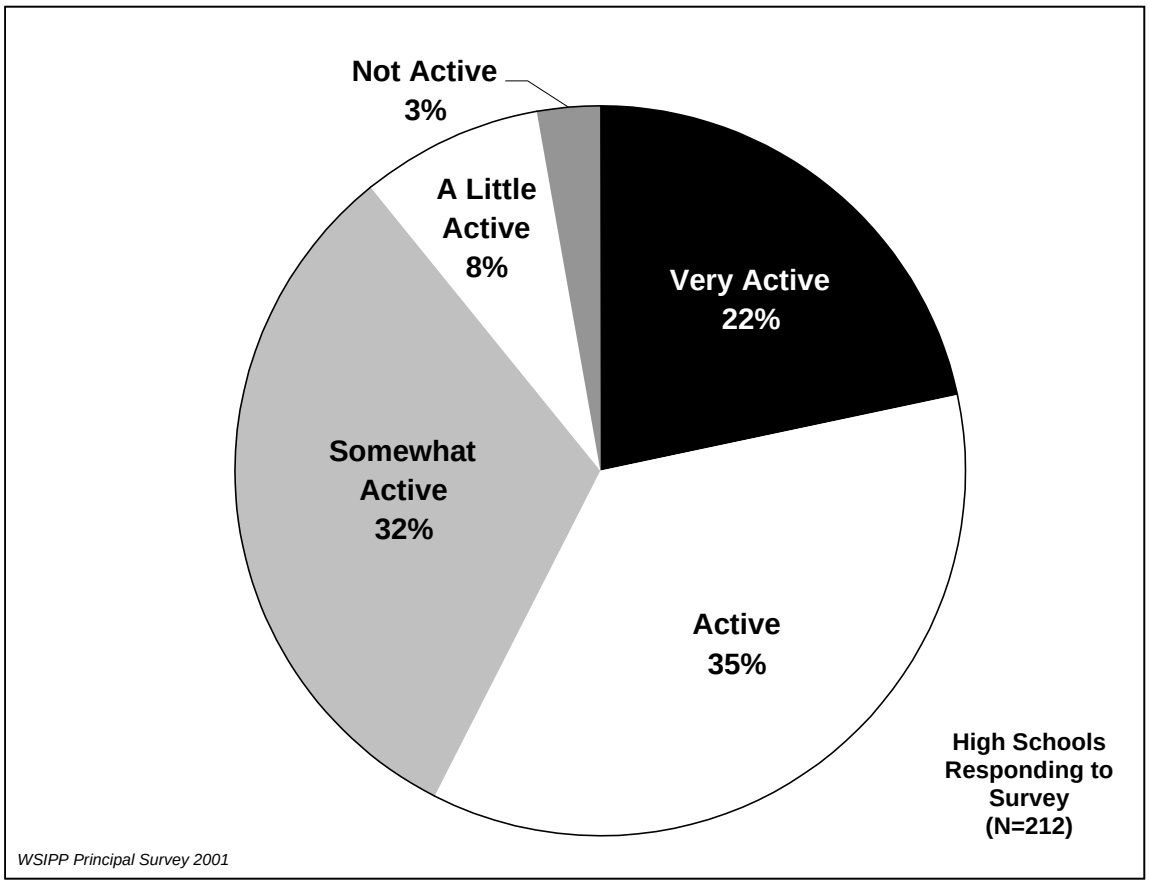
Figure 12
How Much Do High Schools Use Educational Plans for Students?



The Four P's

Nearly 60 percent of high schools are actively or very actively implementing portfolios, projects, pathways, and plans simultaneously. OSPI has been encouraging high schools to use all four activities to make learning more relevant for students by helping students relate what they are learning to their interests and futures and assisting them in making more thoughtful educational and career decisions. As Figure 13 shows, slightly less than one-fourth of high schools responding to the survey (22 percent) are already very actively implementing each of these activities. About a third (35 percent) are active.

Figure 13
How Actively Are High Schools Implementing Portfolios, Projects, Pathways, and Plans?



Case study participants believed portfolios and projects need to be integrated into students' overall education in order to be effective. There is only anecdotal research evidence to support claims that portfolios and senior projects make learning more relevant for students by encouraging them to tailor the activities around their interests and goals.[68] Nevertheless, case study schools with more experience and those that had made portfolios and projects an integral part of the high school curriculum were confident of their benefits for students. In these schools, students, teachers, and parents had become convinced the

[68] Judith Arter et al., "Portfolios for Assessment and Instruction," *ERIC Digest*, ED388890 (1995), 1.

activities were both important and valuable. However, they also pointed out that integration takes time, effort, and commitment within the school. Concerns about time and resources have also been voiced in testimony to the SBE and the legislature regarding culminating projects as a statewide high school graduation requirement.

High schools vary in how intensively they implement educational pathways and plans, making it difficult to determine if these efforts have any effect. Some high schools rely primarily on guidance counseling and booklets explaining different educational and career options to implement a career-themed pathway. Students may complete a form to be placed in their student file indicating which courses they wish to take during high school and their general plans for the first year after high school (e.g., college, military, or work). It is unclear whether this degree of implementation makes learning more relevant for students. Most national research on pathways and career planning has been conducted on highly structured programs, such as career academies. Even among career academies, the degree of implementation varies. Researchers have found better outcomes (lower dropout rates, higher credit earnings, and increased graduation rates) for career academies with more supporting activities and a more formal organization around career themes.[69]

The success of initiatives intended to assist students with transitions may have to be measured by examining students' educational and career pathways after graduation. The Institute's interim report identified several possible measures of student outcomes, such as educational attainment after high school, remediation in college, or post-high school employment. However, current efforts by OSPI and the Workforce Training and Education Coordinating Board to collect data on high school graduates in Washington is limited by an inability to match school, college, and employment records for more than half of students who graduate from public high schools.[70]

II. Making Curriculum Relevant

Most high schools responding to the survey are trying different approaches, but few report extensive use of strategies to make curriculum relevant to students. Figure 14 illustrates the extent high schools report using the following strategies to make curriculum relevant to students:

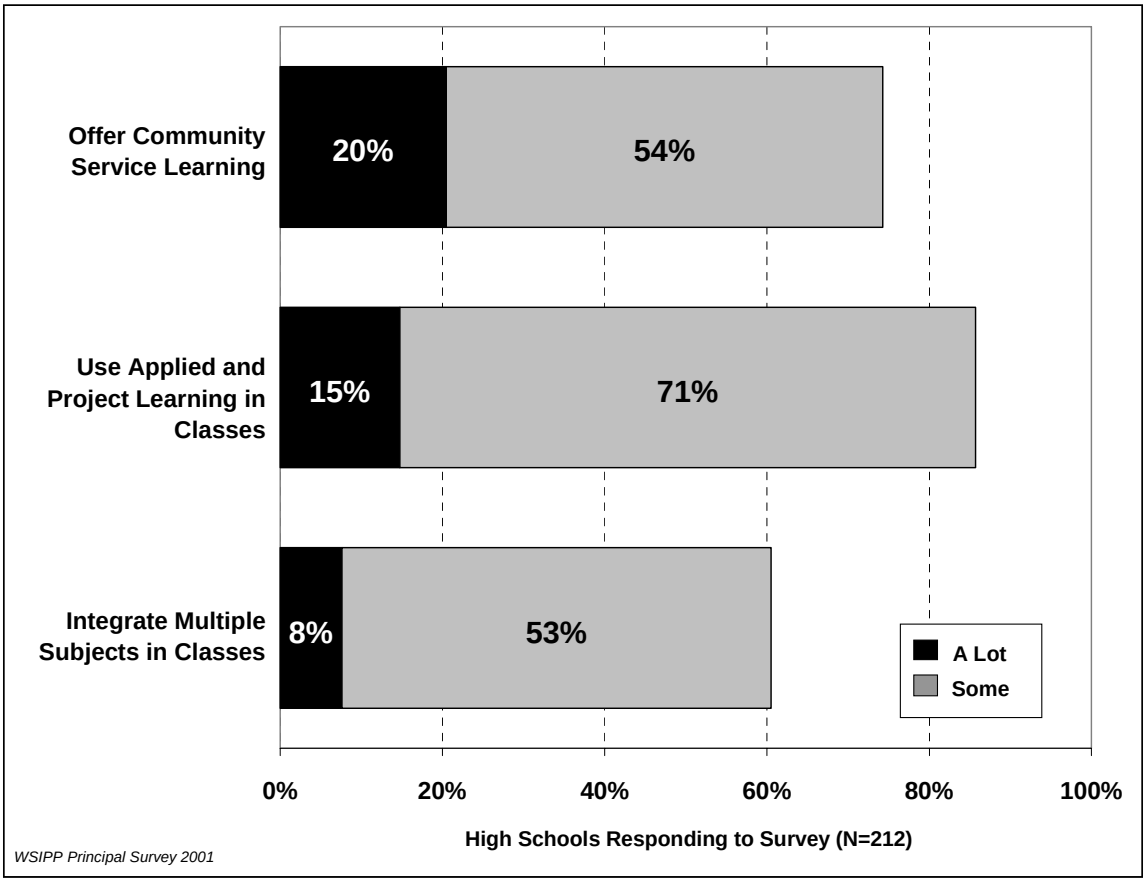
- **Community Service Learning**, where volunteer or community service is part of the school's curriculum and instruction. Students are often expected to draw lessons from their experience through classroom discussion, reflection papers, and other research.[71]

[69] Manpower Research Demonstration Corporation, *MDRC Career Academies Evaluation Study Handout*, materials presented at the American Educational Research Association annual meeting in New Orleans, LA, April 2000. See Appendix F for a more complete summary of the MDRC research on career academies.
[70] Edie Harding et al. *Educational Opportunities in Washington's High Schools Under Education Reform: Background and Student Outcomes, Volume 1* (Olympia, WA: Washington State Institute for Public Policy, January 2001), 42 and 44.
[71] National Center for Education Statistics, *Service-Learning and Community Service in K-12 Public Schools (*NCES 1999-043, September 1999), 3. Nationally, an estimated 46 percent of high schools offer community service learning.

- **Applied and Project Learning**, where classroom assignments require students to solve realistic problems, work in groups, produce products, and do other hands-on activities to display their knowledge and skills.[72]
- **Integration of Multiple Subjects**, where, for example, literature and history of the same time period are taught within one course or units of multiple courses are organized around a common theme or question.

While most surveyed schools have used these strategies, 20 percent or fewer reported using them a lot throughout the high school curriculum.

Figure 14
What Strategies Do High Schools Use to Make Curriculum Relevant?



[72] Leslie Hendrikson, "Active Learning," *ERIC Digest,* No 17 <http://www.ericae.net/edo/ED253468.htm)>, 1.

Case Study Example

Nathan Hale High School in Seattle has created integrated studies blocks of language arts, social studies, and science for all 10th grade students. Units and material in the three courses are organized around a common theme, such as "What is a System?" or "How do We Measure Progress?" Teachers in the blocks plan group projects and activities that incorporate all three subjects during a common planning period. For example, for a unit dealing with endangered species, students might learn about zoology and ecology in science, study state and federal laws in social studies, and write an investigative magazine article in language arts. Students who want an honors option can do additional reading and papers.

Little hard evidence exists about whether students learn better through integrated curriculum or applied learning. Existing studies on integrating curriculum generally find that students do not lose ground, are expected to learn more, and may have a better attitude about school.[73] One recent evaluation of a national program of community service learning found positive effects on students' attitudes and volunteerism while they were doing service learning but not as much effect on their school performance.[74] However, making curriculum relevant to students may be a key part of overall high school reform. Some research suggests that integration of curriculum (both across subjects and between academic and vocational areas) is one characteristic of high schools that has successfully restructured and shown improvements in student learning.[75]

III. Smaller Learning Communities

Approximately half the high schools are trying to create smaller learning communities through small groups of students and teachers. National research has drawn attention to increased benefits for students in small schools or schools-within-schools compared with large schools.[76] Small schools or smaller learning communities have been shown to reduce dropout rates, increase attendance rates, and improve students' attitudes about school. Some studies have found that students believe having teachers who care about them is very important to their education and helps to create a more effective learning environment.[77]

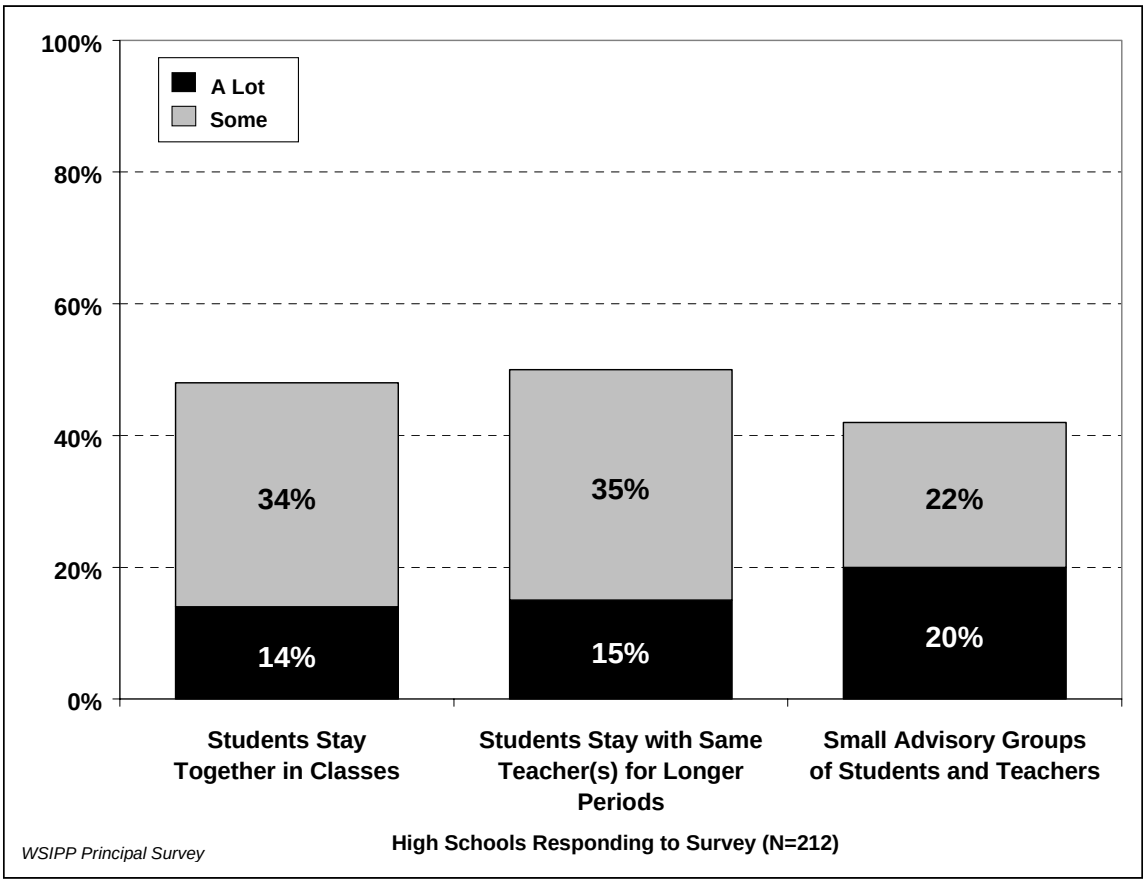
---

[73] Kathy Lake, "Integrated Curriculum," *Close-Up #16* (Portland: Northwest Regional Educational Laboratory, May 1994), 8-10; Mathematica Policy Research Inc., *Key High School Reform Strategies: An Overview of Research Findings* (Washington D.C.: Office of Vocational and Adult Education, March 2000), 9-11; Arthur Ellis and Jeffrey Fouts, "Interdisciplinary Curriculum: The Research Base," *Music Educators Journal* 87, no. 5, (March 2001), 22-28.
[74] Center for Human Resources, *National Evaluation of Learn and Serve America* (Waltham MA: Brandeis University, July 1999), 9-13.
[75] Valerie Lee and Julia Smith, "High School Restructuring and Student Achievement," *Issues in Restructuring Schools: Issue Report No. 7* (Madison, WI: Center on Organization and Restructuring of Schools, 1994).
[76] Kathleen Cotton, "School Size, School Climate, and Student Performance," *Close-Up #20* (Portland, OR: Northwest Regional Educational Laboratory, 1996), 3.
[77] Joseph Murphy et al., *The Productive High School: Empirical Evidence* (New York: SUNY Press, Forthcoming), 271 of draft manuscript.

In Washington, approximately one-third of high schools responding to the Institute's survey reported some activity in creating small cohorts of students and teachers, while 14 to 15 percent reported a lot of activity (see Figure 15). About 22 percent of high schools had done some work to create small teacher-student advisory groups where teachers take on the responsibility of advising students. Twenty percent reported a lot of activity with small advisory groups. Small schools are naturally able to have small groups of students and teachers and were therefore more likely to report activity, but some large schools were also intentionally trying to create smaller learning communities. Medium-sized schools are least likely to report use of these strategies.[78]

Figure 15

To What Extent Are High Schools Creating Small Groups of Students and/or Teachers?



[78] A school's combined use of small groups of students and keeping teachers and students together was compared to the size of the school (Small: <500 students; Medium: 500–1500; Large: >1500). The differences were statistically significant at a 95 percent confidence interval.

Case Study Example

As a member of the Coalition of Essential Schools, Nathan Hale High School in Seattle has made a school-wide commitment to build stronger teacher/student relationships. Starting in 1998, Nathan Hale divided all 9th graders into two academies. The academies are a two-period, three-hour block in humanities (language arts and social studies) and health/science, each staffed by six teachers with a student-teacher ratio of approximately 20:1. The academies are designed to encourage group work and provide more time with one teacher and the same students than a traditional schedule would allow. The academies are inclusive so students of all levels of ability, including special education and ESL students, are taught in the same classes. Several teachers who worked in the 9th grade academy moved with students into the 10th grade integrated studies blocks.

Interest in creating smaller learning communities in high schools is still relatively new. There has been a high level of recent interest both nationally and statewide in creating small schools and smaller learning communities. In 2000 and 2001, ten school districts and 17 high schools received grants totaling approximately $150 million from the Bill and Melinda Gates Foundation to accelerate reforms that include restructuring high schools.[79] State policymakers may want to monitor the effectiveness of grant-supported efforts to create smaller learning communities and consider whether the state should also support models that prove to be successful.

Summary: Making Learning More Relevant For Students

- High schools are ***developing activities to make learning more relevant and to assist students with planning for the transition after high school***. Most have students prepare portfolios, culminating projects, and educational plans or are planning to implement these activities. Most encourage students to explore future educational and career options through career-themed educational pathways. Most high schools are also trying various ways to make the curriculum more relevant, such as community service learning, applied learning, or integrating multiple subjects.

- However, high schools have ***more work to do if these activities are to reach all students***. All students participate in portfolios, projects, or pathways in less than one-fourth of high schools. In about one-third of high schools, all seniors prepare portfolios or culminating projects. Twenty percent or less of high schools reported extensive use of strategies to make curriculum relevant.

- The experience of the case study schools suggests that in order ***to be effective***, activities to make learning more relevant ***must be integrated throughout the high***

[79] For additional information about Gates Foundation grants to restructure high schools, see Appendix G. Linda Shaw, *$100 Million to 16 Schools: Cleveland Among Recipients of Gates Scholarships,"* Seattle Post-Intelligencer, March 13, 2001, and Bill and Melinda Gates Foundation: <http://www.gatesfoundation.org/learning/ed/schools/default.htm>.

school curriculum. While most high schools are trying one or more activities, fewer use multiple strategies to make the activities meaningful for students. Schools report it takes a great deal of time, effort, and commitment to achieve integration and make activities meaningful for students.

- ***National research is not conclusive*** on whether activities such as portfolios, culminating projects, or educational pathways have an effect on student performance. The success of initiatives to assist students with transitions may have to be measured by examining students' educational and career pathways after graduation. However, there is currently no complete and accurate way to identify what happens to high school graduates in Washington.

- About half the high schools are ***trying to create smaller learning communities*** by organizing small cohorts of students and teachers. The interest in small schools is still relatively new. Policymakers may want to monitor the effectiveness of grant-supported efforts to create smaller learning communities.

IV. ARE HIGH SCHOOLS PROVIDING LEARNING OPTIONS FOR 11TH AND 12TH GRADES?

The state statute pertaining to students who have completed a Certificate of Mastery lists a number of learning options for students, such as Advanced Placement, Running Start, Tech Prep, and vocational-technical education. According to the Institute's survey, most of these options are readily available in high schools across the state.

The quality of information about how many 11th and 12th grade students participate in these options is mixed. Student enrollment in college-level learning is growing, although some groups of students are more likely to enroll in these options than others. Baseline data are available about students who specialize in career and technical preparation. For other options, data about student participation are not comprehensive. National and state research provide no clear indication that any single learning option has more effect than others on student performance or outcomes.

High schools identify some barriers to continued expansion of learning opportunities, such as funding for staff training and materials, accommodating small specialized classes into the school schedule, and lack of student interest.

It is not clear how the Certificate of Mastery will influence learning options for 11th and 12th grades. High schools are concerned that providing additional assistance for students who do not pass the WASL in 10th grade will limit their ability to offer a range of options for students.

Background

While high schools are responding to expectations to increase rigor and make learning more relevant, they are also trying to maintain and expand options for students, particularly for students in 11th and 12th grades. Some national researchers have articulated a vision of education reform in high school that includes a rigorous core curriculum for all students (to be accomplished at about 10th grade), followed by multiple and varied opportunities for students to specialize and prepare for the transition after high school, based on their individual interests and post-high school plans.[80] The only state statute pertaining to students who have completed a Certificate of Mastery lists some options for students, such as Advanced Placement, Running Start, and Tech Prep.[81]

This section provides a baseline description of a number of learning options offered in Washington's public high schools and summarizes available information on the effectiveness of these programs.

[80] David Marsh and Judy Codding, *The New American High School* (Thousand Oaks, CA: Corwin Press, 1999), xii.
[81] RCW 28A.655.060.

I. **Overview: Learning Options for 11th and 12th Grades.** State statute places an expectation on high schools to offer options such as Advanced Placement, Running Start, Tech Prep, and vocational-technical education. In the last three years, state funds have been provided to support other options for high school students, such as distance learning, technology certification, and alternative education. The Institute survey documents how readily these options are available in high schools across the state.

II. **College-Level Learning.** Nationally, interest and enrollment in courses offering both high school and college credit are growing.[82] Some high schools may expand college-level learning courses and encourage more students to enroll in them as a way of making the overall curriculum more academically rigorous.[83]

III. **School-to-Work Transitions.** 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 such as internships, job shadows, and apprenticeships; and encourage employers to participate in reforming high schools. School-to-Work was not conceived as a separate educational program but a series of initiatives to support students' successful transition beyond high school.[84]

IV. **Vocational Education.** Vocational education has long been an option for students to receive practical training for general occupational skills (such as keyboarding or business procedures) or workforce preparation (such as welding or computer networking). In response to criticisms from employers that students are not adequately prepared to work in a changing economy, high schools are trying to strengthen vocational programs using industry standards.

V. **Tech Prep.** The federal Tech Prep Education Act (1990) was enacted in response to concerns that students need to increase their academic and technical skills and consider advanced training from community and technical colleges, even if they do not intend to complete a four-year college degree.[85] Tech Prep involves creating programs in technical fields across three educational levels: high schools, community and technical colleges, and four-year institutions.

VI. **Distance Learning and Technology Certification.** High schools are being encouraged to use technology to increase learning opportunities for students. Through distance learning, students can take courses that may be unavailable at the high school. The expansion of jobs requiring expertise in technology has led private industry to support training and certification programs in high schools.

VII. **Alternative Education.** Alternative education typically targets students with different learning needs: those at risk of failing or dropping out, those who need a non-traditional

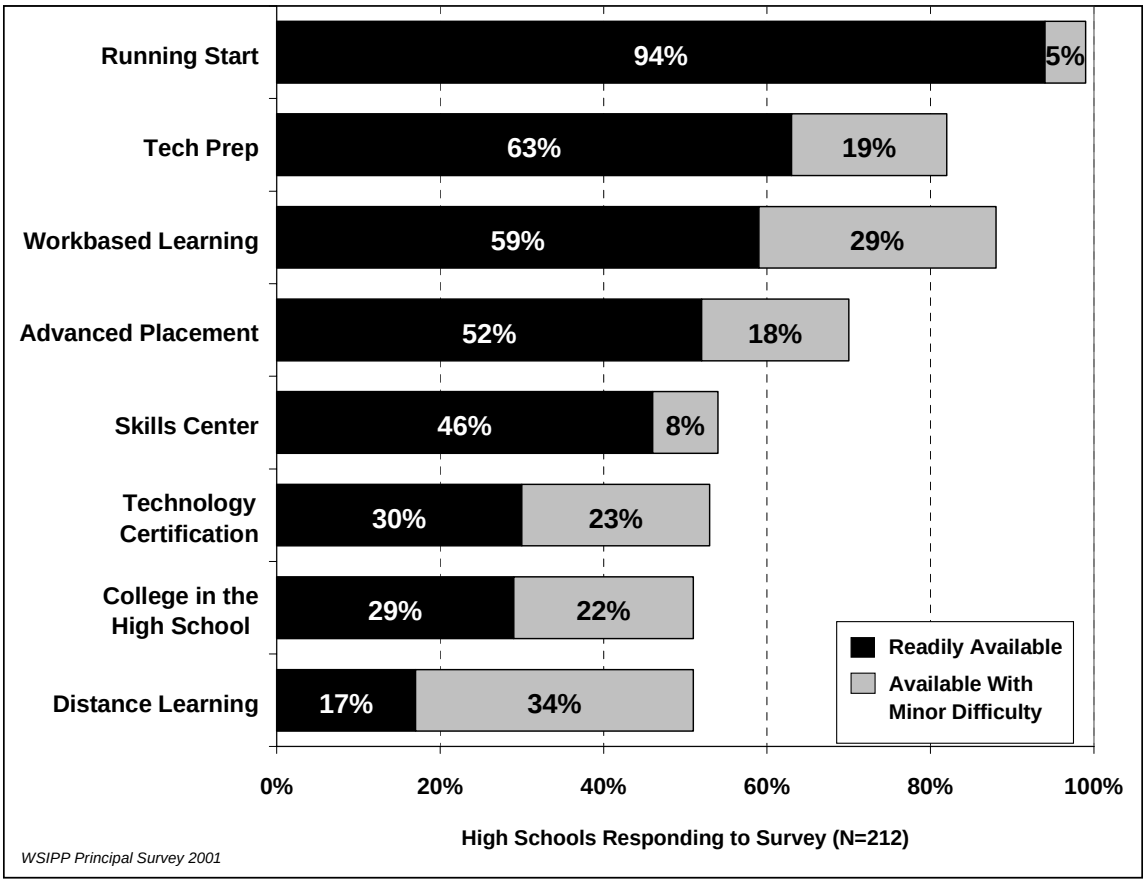
[82] John Gehring, "Dual Enrollment Programs Spreading," *Education Week*, April 25, 2001.
[83] Kimberly Crooks, *State Enhancement of College Level Learning for High School Students: A Comprehensive National Policy Study & Case Studies of Progressive States*, dissertation (Buffalo: University of New York, 1998).
[84] Katherine Hughes et al., *School-to-Work: Making a Difference in Education* (New York: Teachers College Columbia University, 2001), 10.
[85] Mathematica Policy Research Inc., *The Final Report of the National Tech-Prep Evaluation* (Washington D.C.: U.S. Department of Education, 1998), 7.

learning environment, or those who wish to combine other activities (work, parenting, home study) with their education.

I. Overview: Learning Options for 11th and 12th Grades

Running Start and Tech Prep are the most readily available 11th and 12th grade learning options. As Figure 16 shows, high schools responding to the Institute survey report Running Start is the most readily available learning option, followed by Tech Prep. The least available options are College in the High School and distance learning.[86] The Institute's survey did not document whether the availability of these options has changed in recent years, although Running Start, Tech Prep, and Advanced Placement have been in existence for many years and options such as technology certification and distance learning are relatively new.

Figure 16
How Available Are Learning Options for 11th and 12th Grade Students?



[86] Information describing each option appears later in this section of the report.

More than two-thirds of high schools report five or more of the 11th and 12th grade learning options are available. Eight percent of responding high schools report that each of the eight learning options shown in Figure 16 are either readily available or available with minor difficulty. Most options (between five and seven) are available in 62 percent of high schools.

II. College-Level Learning

In Washington, the five college-level learning programs are Running Start, Advanced Placement, International Baccalaureate, College in the High School, and Tech Prep. College-level learning programs are offered in a number of ways:

- *Running Start* students enroll directly in a community or technical college or one of three participating four-year universities. If students successfully complete a course, they receive both high school and college credit. Funds are transferred from the high school to the community college in lieu of tuition.

- *Advanced Placement (AP)* classes are taught by high school teachers using a national curriculum developed by the College Board.[87] For a fee, students can take an examination and, depending on their score, apply to a college or university for credit.

- *International Baccalaureate (IB)* programs offer students an opportunity to take rigorous coursework in six program areas. Students who successfully complete the program and series of examinations earn an IB diploma, which is recognized internationally and typically considered equivalent to one year of college-level work. Students may also opt to take only some courses. Fees are charged for the exams.

- *College in the High School* courses are taught by high school teachers and offered in collaboration with a college or university that agrees to provide credit for students who successfully complete the course. To earn the credit, students pay a fee to the college.

- *Tech Prep* refers to vocational and technical courses that have been articulated with courses at a community or technical college so students can complete an orderly sequence of skills training. For some courses, the college will provide credit to students who earn at least a B grade and pay a small fee.

Table 5 compares program characteristics, high school participation, and student enrollment in college-level learning.

[87] The College Board is a non-profit organization that administers the SAT, ACT, and Advanced Placement tests.

Table 5
Comparison of College-Level Learning Programs

	Running Start	Advanced Placement	International Baccalaureate	College in the High School	Tech Prep
Location	College campus[88]	High school	High school	High school	High school
Instructor	College faculty	High school faculty	High school faculty	High school faculty (often acting as adjunct college faculty)	High school faculty
Curriculum	Courses offered at the college (Must be 100 level or above for college credit)	32 subjects available Course content and exam set by the College Board	Courses in 6 program areas Content and exams set by IB organization	Individual courses agreed to by college and high school	Articulated vocational-technical courses
Basis for College Credit	Student passes course	Determined by college based on exam score	Determined by college based on exam score	Student passes course	Student passes course, usually with B or better
Student Eligibility	Junior (Must pass placement test[89])	Usually junior; teacher decides	Usually junior; some take pre-IB	Usually junior; teacher decides	No limit, but courses usually upper level
Cost to Student	Books and transportation	$77 per examination	$180–$525[90]	Ranges between $0–>$300[91]	$10–$15 processing fee
High Schools Offering in 2000–2001*	**97%**	**62%**	**4%**	**28%**	**82%**
11th and 12th Graders Enrolled in 2000–2001*	**10%**	**~13%**	**Not available**	**< 2%**	**~15%**

**See Appendix H for an explanation of the sources and assumptions behind these figures.*

[88] Some Running Start classes are offered through distance learning or on the high school campus.

[89] Prospective Running Start students must score at college level on a standardized placement test to enroll at a community or technical college. Some colleges require two parts (English and math); others just one. The passing score is set by each college and can vary, although staff from the State Board of Community and Technical Colleges (SBCTC) report variation among colleges is less than 3 percent. Personal communication with Sally Zeiger-Hanson, Tech Prep Coordinator, SBCTC, February 2001.

[90] If a student takes one IB test, the cost is $180. The full complement of eight IB exams costs $525, but schools often pay a portion of the fee. High schools pay $8,000 to offer an approved IB program. Personal communication with Paul Campbell, International Baccalaureate Organization, June 2001.

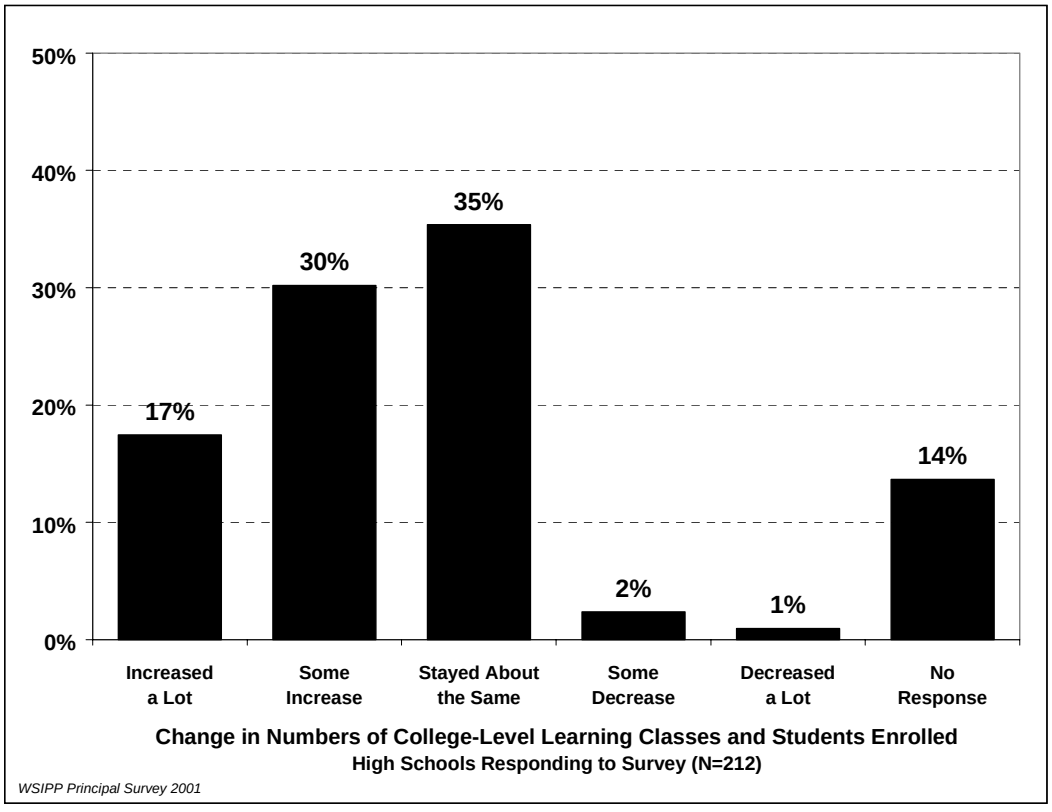
[91] A 1999 survey by Everett Community College of 18 College in the High School programs showed a range of charges. Students may pay nothing if the high school subsidizes the course.

Student participation in Running Start continues to grow, although the pace has slowed. Running Start has been an option for students across the state since 1992–1993 when approximately 3,350 students attended community and technical colleges through the program.[92] In 1994, the Legislature expanded Running Start to include Eastern, Central, and Washington State Universities to increase access for students with no nearby community college.[93] After several years of rapid expansion, the rate of increased participation in Running Start has slowed to under 10 percent. However, this rate still outstrips overall enrollment growth in grades 9 through 12 (2 percent).[94] For the 2000–2001 school year, 13,677 students attended Running Start.[95]

About half of high schools report recent increases in college-level learning options other than Running Start; very few report declines in courses or student enrollment. Forty-seven percent of high schools responding to the survey reported that Advanced Placement, College in the High School, or International Baccalaureate courses and student enrollment in those courses have increased in the last three years (see Figure 17).

Figure 17

Have Courses or Student Enrollment in Advanced Placement, International Baccalaureate, or College in the High School Changed in the Last Three Years?



[92] State Board of Community and Technical Colleges, *Running Start Annual Progress Report 1999–2000* (Olympia, WA, 2000), 2.
[93] RCW 28A.600.300.
[94] In 1995–96, the growth in full-time equivalent students in Running Start was 20 percent. In 1999–2000, the growth rate was 7 percent. LEAP Enrollment Data, February 2001.
[95] SBCTC, Running Start Headcount Enrollment 2000–2001 and e-mail from Doug Scrima, HECB, on Fall 2000 enrollment in four-year universities.

According to surveyed high schools, barriers to expanding college-level learning include funding for staff training and materials and accommodating small specialized classes into the school schedule. Others questioned the willingness of colleges to collaborate on College in the High School courses and cited reluctance by some students to volunteer for more challenging work. High schools are also concerned that in the future, demand for remediation and assistance for struggling students could limit their ability to offer college-level learning opportunities. As high schools increase graduation requirements by requiring more credits and activities such as culminating projects, students may have less time to enroll in college-level learning.

High schools provide mixed reports about the impact of Running Start on other college-level learning options. As shown in Figure 17, few high schools responding to the survey reported declines in college-level learning options such as Advanced Placement, College in the High School, or International Baccalaureate. Approximately one-fourth of the high schools reporting stable or declining college-level learning cited Running Start as a reason. Others mentioned lack of student interest or preparation and a current focus on struggling students rather than advanced students.[96]

In contrast, a few high schools cited Running Start as a contributing factor for the *increase* in college-level learning options such as Advanced Placement and College in the High School.[97] High schools are trying to encourage students to stay on the high school campus by creating options to compete with Running Start. Some suggest that, in order to ensure they have met the state's learning standards, students should earn a Certificate of Mastery before being eligible to participate in Running Start.

According to the SBCTC, high schools that lose more students to Running Start report that Advanced Placement programs are being diminished by the lower numbers of students left to participate in college-level learning on the high school campus.[98] However, based on the Institute's survey, no clear relationship was found between the percentage of students enrolled in Running Start and the percentage enrolled in college-level learning classes.[99]

[96] Nine of 39 high schools reporting either no change or declines in other college-level learning options cited Running Start as a reason.

[97] Twelve of 87 high schools cited competition with Running Start as a reason for increases in other college-level learning options.

[98] SBCTC, *Running Start Annual Progress Report October 2000* (Olympia: WA, 2000), 5.

[99] SBCTC and OSPI enrollment records could be combined for 304 high schools. In about 28 percent of these high schools, the proportion of juniors and seniors enrolled in Running Start exceeds 10 percent. Results of the WSIPP Principal Survey could be added to this analysis for 178 high schools. High schools with more than 10 percent of their junior and senior classes enrolled in Running Start were slightly more likely to report declines in other college-level learning options, but the numbers were very small and not statistically significant.

Case Study Perspectives

Most educators, students, and parents in the case study schools believed Running Start offered an excellent opportunity for "certain types" of students, primarily those who no longer wanted to participate in the social life and activities of a high school. Most did not believe courses at the community college were more challenging academically but did believe students needed to be more independent and responsible to succeed in a college environment. Educators and parents were concerned about the high school being able to maintain other options if students and funds were siphoned off to Running Start. Students said the primary reason they did not attend Running Start was to stay actively involved in their high schools.

Many educators said their ability to expand on-campus college-level learning was limited not only by the draw of free tuition from Running Start but also an unwillingness on the part of students to undertake challenging classwork that could risk their GPA. Students also wanted to be rewarded (for example, by weighted grades) for taking honors or Advanced Placement courses.

The Impact of Running Start on student performance is not clear. Researchers at several colleges and universities have surveyed groups of Running Start students.[100] Most students report being highly satisfied with their choice to participate in Running Start and believe the program provides good preparation for college and allows them to make better use of the last years of high school. Most data show that Running Start students have slightly higher GPA and SAT scores than other similarly-aged college students, both while they are in the program and once they enter college.[101]

However, researchers at Western Washington University (WWU) point out that Running Start students are not comparable to other incoming college freshmen, in part because they have already been exposed to the environment and expectations of learning at a college.[102] For indicators such as year-to-year retention and time-to-graduation, the performance of Running Start students at WWU falls somewhere between freshmen and community-college transfer students.[103]

[100] Dan Fortier, *A Study of the Outcomes of Students Participating in the Running Start Program Between Fall 1992 and Spring 1994 at Big Bend Community College* (Moses Lake, WA: Big Bend Community College, 1995); Western Washington University, "The Transition of Running Start Program Participants into Western Washington University," *Dialogue 4* (Bellingham, WA, January 2000); Benaya Allison, *The Effects of Early Entry to College on Social Development* (Cheney, WA: Eastern Washington University, 1996).

[101] SBCTC, *Running Start Annual Progress Report 1999–2000*, 2 and 11-17; Tim Washburn, "Running Start Academic Profile and Performance Report for Freshman Students Entering the University of Washington Autumn 1993–Autumn 1998" (Seattle, WA: University of Washington, 1999). See also the Institute's interim report Appendix F: College Data on Student Performance.

[102] Western Washington University, "The Transition of Running Start Program Participants into Western Washington University," *Dialogue 4* (Bellingham, WA, January 2000), 3.

[103] Western Washington University, Office of Institutional Assessment and Testing, *Focus* 4, no. 2 (February 1999).

Data comparing graduation efficiency of Running Start students with other students did not yield a clear picture of whether Running Start students take advantage of their credits by finishing college early.[104]

Some categories of students are more likely to enroll in college-level learning than others. Nationally, the growth in college-level learning has been accompanied by concerns about ensuring *all* students, including minority and low-income students, can take advantage of these options. In 1999, a lawsuit was filed in California alleging that minority students attending high schools that offered few Advanced Placement courses could not fairly compete for admission to college.[105]

Table 6 illustrates that African American, Hispanic, and Native American students are less likely to enroll in Running Start and Advanced Placement courses. Additional analysis of student demographics in college-level learning is provided in Appendix I.

Table 6
Student Demographics: Enrollment in Advanced Placement and Running Start Compared With Total 11th and 12th Grades[106]

	Advanced Placement	Running Start	Total 11th and 12th Grades
Caucasian	84%	86%	78%
Asian American	11%	8%	8%
Hispanic	3%	3%	7%
African American	1%	2%	4%
Native American	<1%	1%	2%

WSIPP High School Survey 2001, SBCTC (Running Start Fall 2000), OSPI (P-105 Fall 2000)

In 2000, OSPI obtained a three-year federal grant to increase Advanced Placement options for low-income students. In the first year, $400,000 was provided to 40 high schools to train teachers, develop curriculum, and plan outreach to encourage students to enroll in Advanced Placement. Additional funds are expected for the next two years of the grant.[107]

[104] The Graduation Efficiency Index (GEI) is a method of evaluating the efficiency with which a student earns a degree in terms of credits taken versus credits required. The analysis is made without regard to the time it takes a student to earn the credits and can be applied equally to full and part-time students. GEI data collected for the Institute's interim report was only available from the University of Washington, Washington State University, and SBCTC. In the community and technical colleges, former Running Start students take on average 2.2 more credits than other recent high school graduates, perhaps because they do not necessarily take courses through Running Start that can meet both high school graduation requirements as well as college degree requirements. Analysis of GEI data from four-year institutions shows similar small variations.

[105] Theadora Lurie, "The AP Gap," *Ford Foundation Report* (Spring 2000), 8-9. Further action on the lawsuit has been postponed because the state of California made significant investments in 2000 to expand availability of Advanced Placement courses. Telephone conversation with public relations officer, ACLU of Southern California, June 2001.

[106] As Appendix H outlines, this information should be interpreted with caution for a number of reasons, including over-statement of the proportion of students in AP and possible skew in the proportion of minority students in Running Start due to lack of alignment in SBCTC and OSPI data.

[107] Personal conversation with Larry Norwood, Advanced Placement Program Specialist, OSPI, February 2001; fact sheets from Larry Norwood.

It is too soon to determine if targeted efforts such as this will have an impact on minority participation in college-level learning.

Some other states support college-level learning programs through state-level policies or incentives. Washington created the Running Start program in state statute and provides a funding mechanism that transfers state funds for student FTEs from the school district to the college. Special appropriations to support college-level learning options have been focused only on distance learning. Policies adopted by other states to support college-level learning include the following:

- State funds to offset exam fees (13 states), enhance teacher training (13 states), or provide incentives to schools based on the number of students enrolled in college-level learning courses (8 states);
- State policies that require colleges to accept Advanced Placement exams on a uniform basis (8 states) or weight student grades to favor college-level learning (3 states); and
- State laws to support College in the High School programs (6 states) or provide special funding to offset costs (3 states).

In addition, nine states with Running Start-type programs allow both the school district and the college to claim a student as a state-funded FTE so that neither system is financially penalized for students participating in the program. Additional information on policies to support college-level learning in other states is in Appendix J.

III. School-to-Work Transitions

Nearly every school district participated in the federal School-to-Work grant for at least one year. The federal School-to-Work Opportunities Act (1994) provided five-year grants to states to support local partnerships of school districts, businesses, and post-secondary institutions. Washington received a $27 million grant beginning in 1995, and more than $12 million was allocated to consortia of school districts in partnership with higher education institutions and employer groups.[108] More than 260 school districts were members of a consortium for at least one year; 140 received funding for three or more years.[109]

[108] OSPI School-to-Work Summary Sheet Years 1–3 and 1999–2000 School-to-Work Grants, March 3, 2000. Remaining grant funds supported development of industry standards for vocational-technical curriculum in high schools and community colleges (skill standards), outreach to encourage employer participation, models of integrated vocational and academic curriculum, and projects to expand work-based learning.

[109] OSPI School-to-Work Consortia Information 1995–1996 through 1999–2000. During the final two years of the grant, five high schools received an additional $750,000 to serve as demonstration schools in implementing School-to-Work activities: Nooksack Valley, Pasco, West Seattle, Sumner, and Wapato.

Case Study Perspectives

Lake Roosevelt High School 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 exploration has been integrated into all classes and the school culture. Starting in middle school, the guidance counselor and pathways coordinator talk to students and parents to prepare them for high school registration when students are asked to choose a career pathway. As a small school, Lake Roosevelt has a limited number of electives tailored to different pathways, but students are still encouraged to choose their courses based on a career theme. Career themes are also emphasized through the variety of vocational classes available, the integration of workplace skills into regular classes, a student portfolio, 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.

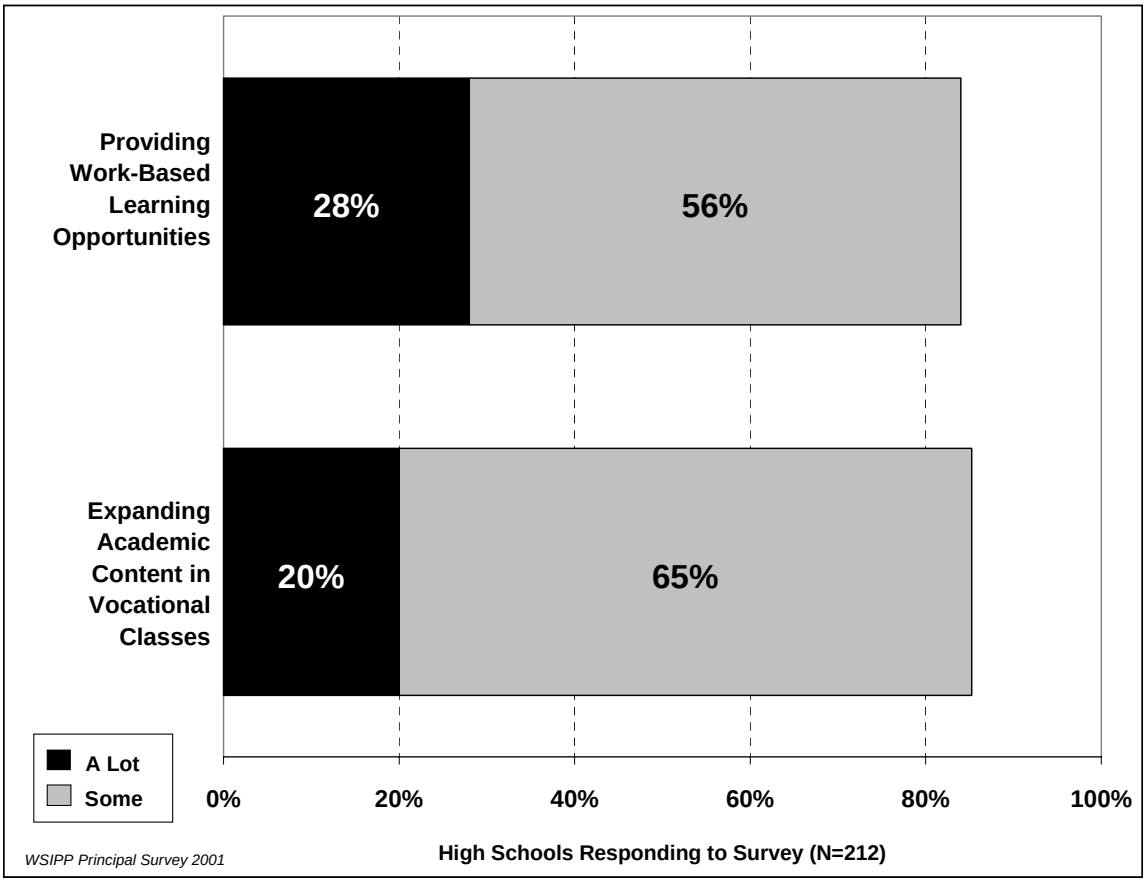
Most high schools are making some use of strategies to support School-to-Work transitions. The federal School-to-Work grant encouraged high schools to integrate vocational and academic curricula and provide work-based learning opportunities (such as internships, job shadowing, and cooperative education).[110] As shown in Figure 18, more than 80 percent of high schools have implemented these strategies to some degree. National research on a group of high schools that have focused on integrating vocational and academic curricula shows that career-bound students in those schools improved their test scores in math and English and enrolled in more rigorous courses.[111]

[110] The 1990 amendments to the Carl Perkins Act also required any school district receiving federal vocational funding to integrate academic and vocational education. This could involve a number of different strategies, including increasing applied learning in academic classes and increasing the academic expectations in vocational classes. For additional information on terms, see Appendix K.

[111] High Schools That Work is a national consortia of nearly 1,000 schools attempting to improve the educational preparation of career-bound students (students who might not complete a four-year college degree). Southern Regional Education Board, *The High Schools That Work Assessment,* <http://www.sreb.org/Programs/hstw/96 assessment>, 1996. (Printed January 26, 2000).

Figure 18

To What Extent Are High Schools Implementing School-to-Work Strategies?



A study of 65 Washington high schools showed that most increased the number of School-to-Work activities over time, but few reached high levels of implementation or student participation.[112] The Workforce Training and Education Coordinating Board (Workforce Board) studied a sample of high schools receiving federal grant funds to examine their progress in implementing various School-to-Work activities. Study findings included the following:

- In nearly all schools (92 percent), all or most seniors had taken a career interest survey. In most schools (67 percent) all or most seniors had received individual counseling on college and career planning.[113]
- In slightly less than half the schools (43 percent), most seniors participated in at least one of the following school-based learning activities: career pathway, career academy, Tech Prep course, or youth apprenticeship.[114]

[112] The Workforce Board conducted a net impact evaluation of the federal School-to-Work grant, which was completed in 2001. The evaluation included baseline and follow-up surveys of a sample of 65 high schools in 1995–96 and 1998–99, surveys of two cohorts of 1,000 students who graduated from those schools, and a survey of employers. Information about students' post-high school employment and education was also analyzed.

[113] Social Policy Research Associates (SPR), *Impact Findings for an Outcomes Evaluation of School-to-Work Transition Initiatives in Washington State: Draft Final Impact Report*, (Oakland, CA: January 2001), III–2.

- Nearly all schools (96 percent) provided work-based learning activities such as internships, cooperative education, and school enterprises (e.g., student stores). In most schools (59 percent), only one-fourth of seniors participated in at least one activity.[115]
- Students from the study schools were most likely to participate in low-intensity School-to-Work activities, such as completing a career questionnaire or attending a career talk. However, they found these activities the least helpful in preparing them for the future.[116]

The study found that schools had progressed during the five years of the federal grant in terms of increasing School-to-Work activities, student participation, and overall intensity of their programs. However, progress was slower than anticipated. Schools identified lack of staff, time, and money as a serious barrier to implementation.[117] There is currently no state funding to support School-to-Work implementation.

Student feedback about School-to-Work activities is positive, but few clear impacts have been identified regarding student performance. Washington students who participated in School-to-Work activities were more likely than non-participating students to report being satisfied with the way high school had prepared them for the future.[118] Various national studies show that students who participate in School-to-Work activities take challenging classes, have better attendance, are less likely to drop out of school, and are prepared for college.[119] But even for the most intensive programs, researchers have not found an impact on student test scores.[120]

The Workforce Board study analyzed whether students from high schools with highly developed School-to-Work programs were more likely to attend college but could find no effect. For Washington students who did not attend college, no discernable effect of School-to-Work activities was found on employment rates or wages, but students had been in the post-high school workforce for less than one year.[121]

---

[114] SPR Associates, III–3. For additional definitions of terms, see Appendix K.

[115] Ibid, III-6. This finding is consistent with the WSIPP Principal Survey: high availability of work-based learning opportunities but low use.

[116] Ibid, III-2.

[117] Ibid, III-25. Sixty-three percent of high schools said lack of staff, time, and money were serious barriers to implementation. Fifty percent said resistance of school staff was somewhat of a barrier, and 12 percent said it was a serious barrier.

[118] Ibid, III-10. Students also were more likely to say their high school was helpful in developing skills such as cooperating and communicating with co-workers and supervisors, setting goals for the future, and understanding what is required for success.

[119] Katherine Hughes et al., *School-to-Work: Making a Difference in Education* (Teachers College: Columbia University, 2001), 11. However, most studies have examined intensive programs such as career academies or youth apprenticeships.

[120] Ibid, 20.

[121] Social Policy Research Associates (SPR), *Impact Findings for an Outcomes Evaluation of School-to-Work Transition Initiatives in Washington State: Draft Final Impact Report* (Oakland, CA, January 2001), V-5.

IV. Vocational Education

Statewide enrollment in vocational education continues to grow, but the pace has slowed in the last five years. Vocational programs are offered both by high schools and skills centers. The ten skills centers throughout the state serve multiple school districts to create economies of scale for advanced programs requiring specialized equipment and instruction.[122]

For 1999–2000, the proportion of full-time equivalent students (FTEs) in vocational education was 18 percent of overall FTE enrollment in grades 9 through 12, compared with 15 percent in 1989–1990. The proportion of FTEs enrolled in skills centers has remained unchanged (1.3 percent of enrollment in grades 9 through 12).[123]

However, the rate of growth in FTE enrollment in vocational education has slowed considerably in the last five years. Between 1990 and 1995, the cumulative growth in vocational FTEs was double the cumulative growth in overall high school enrollment (34 percent compared with 17 percent). Between 1996 and 2000, the cumulative growth in vocational FTEs was 19 percent compared with 15 percent growth in overall enrollment.

All students are required to take at least one vocational course, but few students complete a sequence of vocational courses. Under the SBE's graduation requirements, all students must have one credit in occupational education to graduate.[124] However, in 1999–2000, 14 percent of 12th grade students had completed a sequence of vocational courses (9,294 students). To complete a sequence, students must take at least 360 hours of courses in the same program area, such as Introductory Woodworking followed by Carpentry.[125] One Washington study found that among students who immediately enter the workforce after high school, those who had completed a vocational sequence worked more and had a higher hourly wage in the first year after graduation.[126] Efforts by OSPI and high schools to increase the academic and technical rigor of vocational courses were discussed in Section II of this report.

Although educators express concerns about the future of vocational education, few high schools report eliminating vocational courses as a result of the EALRs and WASL. Case study participants expressed concern that vocational education options could be reduced in the future because staff resources would be diverted to remediation and/or

---

[122] Skills Centers are located in Vancouver, Bremerton, Tumwater, Wenatchee, Sea-Tac, Everett, Spokane, Kennewick, Yakima, and Port Angeles.

[123] For the 1999–2000 school year, high schools reported about 54,500 FTEs in vocational education and 3,400 FTEs in skills centers (plus an additional 480 FTES enrolled in summer school at skills centers). LEAP enrollment data, February 2001.

[124] In 1999–2000, 66 percent of students in grades 9 through 12 enrolled in a vocational course. OSPI P210-Voc Enrollment data, 1999–2000.

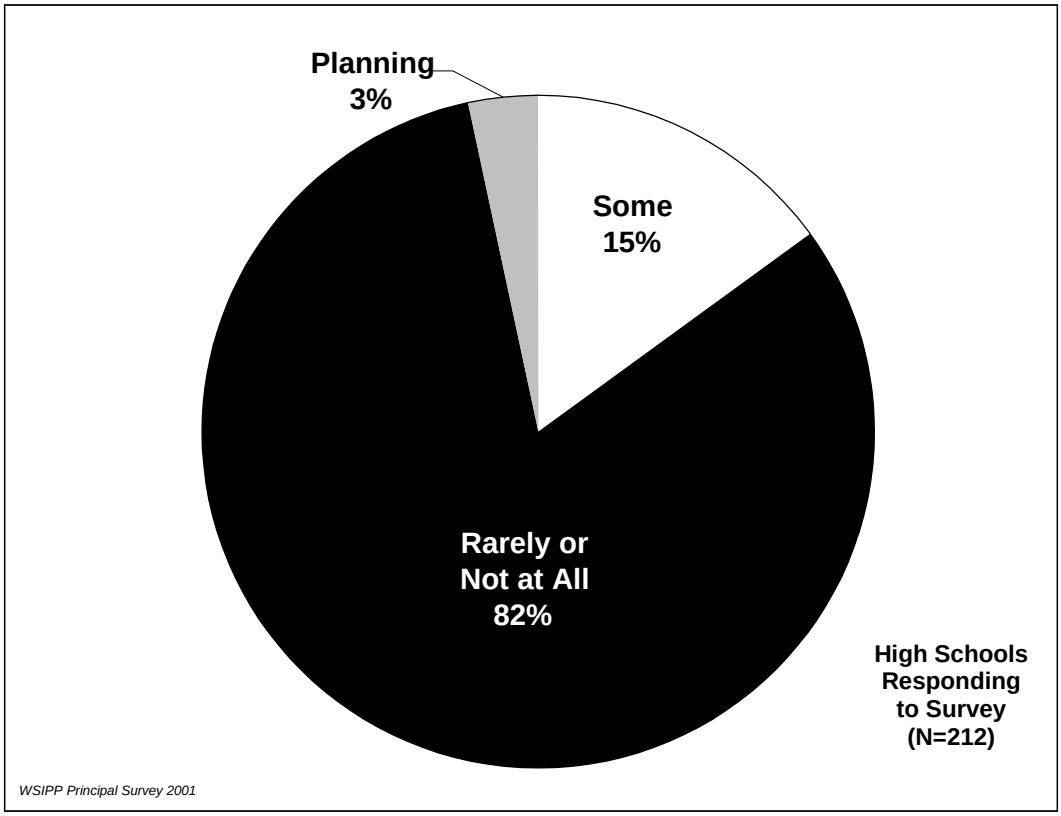
[125] OSPI P210-Voc and P105 October Headcount Enrollment Data, 1999–2000. A 360-hour course sequence could represent two years of one-hour classes or one year of a two-hour class (or another combination).

[126] David Pavelchek*, The Graduate Follow-up Study—Class of 1998* (Olympia, WA: Office of the Superintendent of Public Instruction, February 2000 Draft). The Graduate Follow-up Study is a joint effort of the Workforce Board, OSPI, and the State Board for Community and Technical Colleges. The information does not necessarily represent the experience of all students across the state because both school districts and individual students volunteer to participate. For 1998, the Graduate Follow-up Study covers about 25 percent of students who complete a vocational sequence in the state.

students needing remediation would have fewer opportunities for elective classes. For skills centers, there is concern that if students focus solely on academic classes in 9th and 10th grades, they will not take introductory vocational courses at the high school and will not be prepared for the advanced training offered by skills centers.

As Figure 19 shows, 82 percent of high schools reported little or no elimination of vocational courses as a result of state education reform, but 18 percent reported some impact has already occurred or is in the planning stages.

Figure 19
To What Extent Are High Schools Eliminating Vocational Courses as a Result of State Education Reform?



V. Tech Prep

Articulation agreements were the primary activity of early Tech Prep. Federal Tech Prep grants were provided to states to develop training programs to prepare students for technical careers that would entail two years of high school coursework followed in sequence by two years of post-secondary education (2+2 programs). Some four-year institutions have also created 2+2+2 programs leading to baccalaureate degrees in technical fields such as information systems or computer programming. Washington has received approximately $2 million each year since 1991 for consortia of community and technical colleges, high schools, and business and labor partners to create these programs.

Over the years, colleges and high schools in Washington have organized into 22 Tech Prep consortia and created hundreds of different articulation agreements.

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 high school create agreements specifying, for example, that if a student completes Auto Shop 3 and 4 at the high school, he or she is ready to enter Auto Shop 201 at the community college without having to take Auto Shop 101. Ideally, the student could also receive credit at the community college for having completed an equivalent course.

The current focus is on ensuring college credit for Tech Prep courses. Despite the number of articulation agreements, no consistency existed in the state regarding administration of the agreements or whether they were honored by colleges. Until now, no data was available on whether students receive college credit for high school courses as a result of Tech Prep.[127] In May 2000, the State Board for Community and Technical Colleges (SBCTC) adopted a new statewide policy for Tech Prep called "Direct Transcription."

As soon as students successfully complete a Tech Prep course with a grade of B or better, they can apply to a community or technical college and receive a transcript with college credit for the course. Colleges only charge a small processing fee ($10 to $15) for the credit.[128] This statewide policy should also improve students' ability to transfer credits among colleges. Thirty-one of the state's 34 community and technical colleges are using direct transcription as the basis of their Tech Prep articulation agreements.[129]

In 1999–2000, fewer than 10 percent of 12th grade students successfully completed a Tech Prep course sequence. In 1999–2000, 15 percent of 11th and 12th grade students (21,684 students) enrolled in a Tech Prep course where they could have received college credit for successful completion.[130] A more rigorous indicator of student participation is "Tech Prep completion," where a student completes the high school portion of an articulated sequence of courses with a grade B or better and is ready to enroll in the community or technical college portion of the sequence. The number of courses in a sequence varies by subject and is part of the articulation agreement. In 1999–2000, 6 percent of 12th grade students (4,052 students) had completed a Tech Prep course sequence.[131]

The SBCTC anticipates rapid growth in Tech Prep direct transcription, but the first data collection under the policy is for 2000–2001 and was not available for this report. Therefore

[127] SBCTC, *Tech Prep in Washington State: Statewide Articulation Through Direct Transcription, A Background Report* (Olympia, WA, January 31, 2000). Lack of information about the impact of articulation agreements has been identified as a problem in most states, not just Washington. Mathematica Policy Research Inc., *The Final Report of the National Tech-Prep Evaluation* (Washington D.C.: U.S. Department of Education, 1998), 57.

[128] SBCTC, *Tech Prep Education: Guidelines for Statewide Articulation Using the Direct Transcription Method* (Olympia, WA, May 24, 2000).

[129] Personal communication with Sally Zeiger-Hanson, Tech Prep Coordinator, SBCTC, February 2001. Also starting in 2000, federal grant funds are distributed to consortia based in part on the number of high schools served and the number of students receiving college credit for Tech Prep classes.

[130] OSPI P210-Voc Enrollment data, 1999-2000. Unduplicated count of students listed as Direct Transcript.

[131] OSPI P210-Voc Enrollment data, 1999-2000. Unduplicated count of students listed as Tech Prep Completers.

it is not yet known how many of the students who enrolled in a direct transcript course took advantage of their eligibility to receive college credit.

VI. Distance Learning and Technology Certification

School size and location make a difference in whether distance learning and technology certification are available in high schools. According to responses to the Institute's survey, smaller high schools are more likely than larger schools to offer distance learning in order to provide students with options not otherwise available on the high school campus.[132]

In contrast, large high schools and those in the Central Puget Sound and Northwest areas of the state are more likely than other high schools to report offering technology certification programs where students can receive training to work in technology-related fields.[133] The more significant predictor is location. Even small schools in these areas are more likely to have technology certification than small schools elsewhere in the state.

There is widespread interest in using distance learning to provide opportunities for college-level learning. A number of high schools that responded to the Institute's survey cited new availability of distance learning as one of the reasons for their expansion of college-level learning courses.[134] During the 1999–2001 biennium, the legislature allocated $500,000 to support internet-based curriculum specifically for courses where students can earn both high school and college credits, such as Advanced Placement. Funds were allocated to 107 high schools in 80 different school districts. According to OSPI, more than 1,440 students benefited from the courses in 1999–2001.

In addition, OSPI has received an $850,000 federal grant in partnership with APEX Learning to expand Advanced Placement distance learning courses, teacher training, and exam review.[135] In the spring of 2001, Washington students could access the APEX exam review at no cost.[136]

Information on use of distance learning for college-level learning in Washington is not comprehensive. The state and school districts have made substantial investments in educational technology through the K–20 telecommunications network and other grant

[132] For schools under 500 students, 56 percent had distance learning compared with 31 percent of schools with more than 1,500 students. Differences in response based on school size were statistically significant. The data did not reveal any significant relationships between the availability of distance learning and the school's geographic location.
[133] A school's geographic location did not make any difference in the response, but this could be because schools were divided into five groups by county, not by urban versus rural locale (See Appendix A).
[134] WSIPP Principal Survey 2001. In response to an open-ended question, more than ten schools reported distance learning allowed additional Advanced Placement and College in the High School classes to be offered.
[135] APEX Learning Inc. is a Washington State-based online learning company that began operation in 1998, offering four Advanced Placement courses in calculus, statistics, government, and microeconomics. Andrew Trotter, "New Company Hopes to Score Big With Online Advanced Placement Courses," *Education Week*, February 16, 2000.
[136] Personal communication with Larry Norwood, Advanced Placement Program Specialist, OSPI, February 2001; fact sheet materials from Larry Norwood.

programs.[137] However, only 8 percent of the high schools responding to the Institute's survey reported offering Advanced Placement courses using distance learning (mostly via the Internet), and only 6 percent reported offering College in the High School courses.[138] More schools (25 percent) offered regular high school courses (such as foreign language or advanced math) using distance learning.[139] Information about the number of students enrolled in distance learning courses was not readily available from surveyed high schools.[140] Little research exists of how extensively Washington schools are using technology both within classrooms and for distance learning.

The legislature has encouraged high schools to offer technology certification through grants provided during the 1999–2001 biennium.[141] Technology certification programs allow high school students to receive training and then attempt to have their level of knowledge and skills certified by a private company using standards set by the technology industry. Students learn how to create and maintain computer networks, use common software applications (such as Microsoft Word, Excel, and Access), and design and build web pages. Students pay approximately $100 to take a certification exam. Some schools or companies offer discounts for students in need or those who score well on the exam.[142]

In 1999–2000, 30 school districts and consortia received $810,000 in state grants to expand technical certification programs in schools where they were already offered.[143] An additional $1.7 million for 2000–2001 went to 82 districts and consortia both to start new programs and expand existing ones. Funds were used to improve access to the Internet, purchase and install networks or computer equipment, train teachers, and acquire curriculum materials.

VII. Alternative Education

Alternative education is not clearly defined, so it is not possible to determine how many programs exist. An alternative high school could be a separate school or a program within a school. OSPI lists 177 schools serving high school students that define themselves as alternative. In 1999, these schools enrolled more than 22,500 students.[144] However, if

[137] Currently, 294 out of 296 school districts are connected to the K–20 network for internet, data, and video telecommunications, and an estimated 95 percent of classrooms have network connections. However, 45 percent of schools report having outdated computers. Dennis Small, Educational Telecommunications Program Supervisor, OSPI, February 2001.
[138] College in the High School courses are offered by a college or university on the high school campus. For the purpose of this analysis, Running Start is not included.
[139] Approximately half the regular high school courses offered through distance learning are correspondence courses, and more than a third rely on the Internet.
[140] Data on distance learning courses comes from 203 high schools responding to the Institute's High School survey. Analysis of responses on student enrollment in distance learning revealed too many reporting errors and missing information to be considered reliable.
[141] OSPI, *1999-2000 Information Technology Project Summary* (Olympia, WA, June 2000); OSPI, *2000-2001 Information Technology Project Summary* (Olympia WA, April 2001).
[142] Keiko Morris, *Tech Savvy: Companies Partner With Schools to Give Hands-on Training,* The Seattle Times, November 15, 2000.
[143] OSPI, *1999-2000 Information Technology Project Summary* (Olympia, WA, June 2000); OSPI, *2000-2001 Information Technology Project Summary* (Olympia WA, April 2001).
[144] OSPI building data, October 1999.

an alternative program operates within a school, the district may choose to report enrollment separately or include these students as part of the main school, making it difficult to determine how many programs exist or how many students are served.[145]

Since 1996, the state has provided start-up grants to establish alternative education programs for at-risk youth. The target population for alternative program grants is students who have left school, are disruptive, are involved in the court system, or have been suspended or expelled.[146] Since 1996, 77 programs have received grant funding. Demand for grants has consistently exceeded available funds. Districts use most of the money to hire teachers and spend the remainder on training, counseling, curriculum, and facility modifications.[147] Not all programs serve high school students, and recently, interest has been growing in middle school programs.

Alternative learning experience programs have grown dramatically since 1995. Alternative learning experiences are a specific option where students combine on- and off-campus learning through a contract that stipulates number of hours of classes, learning activities, consultation, and review of student progress.[148] The supervising school district can claim state FTE funding for students enrolled in alternative learning experiences.

Prior to 1995, only high school students could be claimed by a district under an alternative learning experience contract. As a result of increased demand for distance learning and programs to support primarily home-schooled students, OSPI amended the rules to allow K–8 students to be claimed as state-funded FTEs. A 1999 study of 97 school districts found the following:[149]

- The number of alternative learning experience programs increased 162 percent between 1995 and 1999.
- Nearly half the growth was in parent-partnered programs relying primarily on home-based instruction under teacher supervision. However, parent-partnered programs enroll few high school students.
- Over 70 percent of estimated enrollment in alternative learning experiences is students in grades 9–12.
- Over half of current enrollment in alternative learning experiences is at-risk students. Half are students who are missing credits needed to make progress toward graduation.[150]

Providing state funding for alternative learning experiences has not been without controversy. New rules proposed by OSPI would allow districts additional flexibility in hours

[145] Personal communication with Martin Mueller, OSPI, February 2001. For example, the Washington Association for Learning Alternatives (WALA) claims more than 500 alternative programs among its membership, with about 80 percent serving high school students; personal communication with Bob Wiley, WALA, January 2001.
[146] OSPI bulletin to Educational Service District superintendents, *Addendum to Bulletin No. 34-99 Education Support* (Olympia, WA, April 19, 2000).
[147] OSPI, *Report to the Legislature on Alternative Schools and Programs* (Olympia, WA, January 1999), 6.
[148] WAC 392-121-182. Students can enroll in five or more hours of class a week or fewer than five hours and receive a one-hour consultation with a teacher. Documented learning activities in a contract must total 25 hours a week.
[149] OSPI, *Alternative Learning Experiences* (Olympia, WA, 1999), 15, 20.
[150] Ibid, 17. Students may be in more than one category.

of direct contact and permit students to be considered enrolled part-time.[151] However, the rules have been delayed, in part due to concerns about possible fiscal impact. Some also believe additional accountability is needed to ensure schools provide sufficient oversight of the learning contracts.[152]

State education reform may increase demand for alternative education programs and strategies. The most common feature of alternative education programs is curriculum and instruction that are highly individualized for each student, offering a mix of academic and hands-on learning. Other features are strong teacher-student relationships, high expectations for student academic achievement and behavior, and a clear mission and focus on delivering education to students needing to learn in a different way than most comprehensive high schools offer.[153] As high schools search for ways to help all students meet the state's learning standards and provide remediation for those who do not pass the WASL in 10th grade, there may be additional demand for programs using individualized learning.

Summary: Providing Learning Options for 11th and 12th Grades

- The state statute pertaining to students who have completed a Certificate of Mastery lists a number of ***learning options for students, such as Advanced Placement, Running Start, Tech Prep, and vocational-technical education***. According to the Institute's survey, most of these options ***are readily available*** in high schools across the state.

- ***The quality of information about how many 11th and 12th grade students participate in these options is mixed.*** Student enrollment in Advanced Placement, Running Start, and other college-level learning is growing, although some categories of students are more likely to enroll in these options than others. Baseline data is available for students who specialize in career and technical preparation. For options such as work-based learning, distance learning, technology certification, or alternative education, data about student participation is not comprehensive.

- ***National and state research do not provide a clear indication that one option has more effect than others*** on indicators such as student satisfaction, commitment to learning, performance, or post-high school outcomes. The options available in high schools attract a range of students based on their different interests and plans.

- High schools identify ***some barriers to continued expansion of options*** for 11th and 12th grades, such as funding for staff training and materials, accommodating small specialized classes into the school schedule, and lack of student interest. Some opportunities may compete with others (e.g., Running Start and other college-level learning), but the net effect of this competition is not clear.

---

[151] Personal communication with Martin Mueller, OSPI, February 2001.

[152] Memo from Marcia Riggers, OSPI to WAC Development Team Members, <http://www.k12.wa.us/LearnTeachSupp/Alternative/WACupdate.asp> and Craig Coley "Home-Schoolers Critical of Public Alternatives," *The Olympian*, February 11, 2001.

[153] OSPI, *Alternative Learning Experiences* (Olympia, WA, 1999), 4-5.

- It is ***not clear how the Certificate of Mastery will influence learning options for 11th and 12th grades***. High schools are concerned about the future need to provide additional assistance for students who do not pass the WASL in 10th grade. Competition for resources to educate 11th and 12th grade students could limit high schools' ability to continue to offer a range of options for students. Another possible impact may be an increase in demand for alternative education programs and strategies.

CONCLUSION

This report summarizes how Washington's public high schools are responding to expectations to improve student performance and outcomes through increased rigor, relevance, and options for student learning.

High schools are increasing rigor by focusing on state standards, but the impact on students who will have difficulty meeting increased expectations is unknown. High schools are also developing activities to make learning more relevant and to assist students with post-high school planning, but more work is needed for these activities to reach all students. Learning options for 11th and 12th grades are readily available in high schools across the state. Less is known about student participation in these options.

It takes time, effort, and commitment by high schools to increase rigor, relevance, and provide a range of learning options for high school students. National and state research provide little guidance for policymakers on which activities or programs are most likely to have a positive effect on student performance or student outcomes.

It is not clear how the Certificate of Mastery will influence 11th and 12th grades, especially if it is the primary state accountability measure for high schools.

The Institute's study identifies a number of steps policymakers could take to influence further implementation of education reform in high schools:

- Monitor trends or decisions regarding high school dropout rates, high school graduate follow-up, and the State Board of Education's assurance that all students have an opportunity to learn state standards.
- Obtain additional information about the success of models to help struggling high school students, alternative education, and smaller learning communities.
- Debate or discuss adjustments or alternatives to the WASL, the level of state guidance for culminating projects, plans, and pathways, and whether high schools should be held accountable by the state for other student outcomes in addition to the Certificate of Mastery.

Overall Findings

A fundamental premise of Washington's education reform is to raise achievement for all students. The EALRs define a common set of standards for what all students are expected to know and do, and the WASL measures student performance on some of those standards. Students who pass the 10th grade WASL will receive a Certificate of Mastery, but the Certificate of Mastery is not the only requirement for graduation. Similarly, the knowledge and skills defined in the EALRs are not the only skills students will need to be admitted to college or be successfully employed after high school. While there is a

statewide, common definition for the EALRs and Certificate of Mastery, what students need beyond the Certificate of Mastery is defined not only by state policies but also by local school districts, institutions of higher education, and employers.

The Legislature directed the Institute to examine high school educational opportunities and programs at a time when state education reform is still at a relatively early stage of moving into high schools. The Institute's interim report provided baseline information on Washington high school student performance using a number of indicators of educational attainment and educational proficiency. This final report summarizes how Washington's public high schools are responding to multiple expectations to improve student performance and student outcomes through increased rigor, relevance, and options for student learning.

- **Most high schools are increasing rigor by focusing on state standards, but the impact on students who will have difficulty meeting increased expectations is unknown.** Much current activity in high schools is being driven by the EALRs and WASL, especially in 9th and 10th grades. Study participants report a positive impact from having the EALRs serve as a common framework for curriculum and instruction. English and math are the main targets of increased graduation requirements, restructuring of curriculum, and changes in instructional practices. However, high schools are concerned about remediation for the WASL and high school dropout rates. Educators, parents, and students hold diverging opinions about relying on the WASL as a graduation requirement.

- **Most high schools are developing activities to make learning more relevant and assist students with planning for the transition after high school, but more work is needed for these activities to reach all students.** More than half the high schools currently use portfolios, culminating projects, and educational plans with students. Two-thirds of high schools use career-themed educational pathways to help students explore their future options. These strategies share common objectives: encourage all students to take an interest in what they are learning, assess critical thinking and problem-solving skills, and assist students with making career and educational decisions. However, all students participate in portfolios, projects, or pathways in less than one-fourth of high schools. In about one-third of high schools, all seniors prepare portfolios or culminating projects.

- **Learning options for 11th and 12th grades are readily available in high schools across the state. Less is known about the extent of student participation in these options.** Enrollment in college-level learning is growing and could total one-fourth of 11th and 12th grade students. Baseline data indicates approximately 15 percent of graduates specialize in career and technical preparation. Investments in School-to-Work have led schools to create opportunities for work-based learning, and there is increased interest in using technology to create options such as distance learning and technology certification. Demand could increase for alternative education programs and strategies. However, for these other options, data about current student participation is not comprehensive.

- **It takes time, effort, and commitment to increase rigor, relevance, and provide a range of learning options for high school students.** Time topped the list of challenges high schools reported facing in implementing state education reform, followed closely by concerns about funding and staff.[154] Staff need time to discuss, plan, and develop changes to curriculum or other projects. The experience of the case study schools suggests that, in order to be effective, activities such as portfolios, culminating projects, and educational pathways need to be reinforced through classroom assignments, counseling, discussions with teachers, and activities such as job shadows, internships, and service learning. This level of integration takes a great deal of time to implement. Teachers are concerned about covering an increased amount of material in classes while also providing students opportunities to work on other activities. Furthermore, it may take several years for changes to become ingrained in the school culture and for staff and students to adjust to new expectations.

- **National and state research provide little guidance for policymakers on which activities or programs are most likely to have a positive effect on student performance or outcomes.** Research findings are not conclusive on whether portfolios, culminating projects, or educational pathways make learning more relevant for students or affect student performance. Various studies have found some positive results (using a variety of measures) for students who participate in Running Start, take an integrated academic-vocational curricula, specialize in career and technical preparation, or participate in School-to-Work activities. Each option attracts different students based on their interests and plans. The success of high schools in making learning more relevant and providing options for students beyond the Certificate of Mastery may have to be measured by examining indicators such as high school dropout rates, graduation rates, and students' educational and career pathways after high school. However, current state data for these indicators is not complete or accurate.

- **It is not clear how the Certificate of Mastery will influence 11th and 12th grades, especially if the Certificate of Mastery is the primary state accountability measure for high schools.** State statute specifies that the Certificate of Mastery is not the only requirement for high school graduation. However, it is the most clearly defined and highly publicized expectation for both high schools and students. Multiple parties, including the State Board of Education, local school districts, institutions of higher education, and employers each have a role in defining additional expectations beyond the Certificate of Mastery, but not all of these standards apply to all students. High schools are concerned about the need to provide additional assistance for students who do not pass the WASL in the 10th grade. Competition for resources could limit high schools' ability to offer activities and options that make learning more relevant for students and allow students to specialize based on their individual interests and post-high school plans.

[154] WSIPP Principal Survey 2001. Out of 170 responses to an open-ended question about the challenges faced by high schools, 35 percent of principals cited inadequate time to implement changes, 22 percent said funding was the biggest challenge, and 19 percent cited concerns about staffing.

What Additional Steps Could Policymakers Take to Influence Education Reform in High Schools?

Based on the research literature reviewed for this study and the study findings, the Institute cannot recommend any single program or activity over others for state funding and support. However, the Institute's study raises a number of issues for policymakers to consider as high schools implement state education reform and make changes to educational opportunities and programs for students. Policymakers have opportunities to influence further implementation of education reform in high schools. Options for action include monitoring trends or decisions being made by OSPI or the SBE, obtaining additional information from data or other research to guide future policy decisions, and debating or discussing issues further (see Table 7).

Table 7
Additional Steps for Policymakers to Influence Education Reform in High Schools

Options	Issues
Monitor Trends or Decisions	• What happens to ***high school dropout rates***. • What happens to ***students after they graduate***. • How the SBE assures that all students have an ***opportunity to learn state standards***.
Obtain Additional Information	• What ***models of assistance to struggling students*** are successful in high schools. • Enrollment and effectiveness of ***alternative education*** programs and strategies. • How successful are initiatives to create ***smaller learning communities.***
Debate or Discuss Further	• Whether ***adjustments or alternatives*** to the WASL should be considered. • Level of ***state direction, guidance, or assistance*** for culminating projects, educational plans, and educational pathways. • Whether high schools should be held ***accountable for other student outcomes in addition to the Certificate of Mastery.***

Monitor Trends or Decisions

- ***High School Dropout Rates.*** There is concern that increased rigor may cause students who believe they cannot succeed to drop out of school. Policymakers may want to monitor high school dropout rates closely. Current dropout rates lack accuracy because there has been no uniform student identifier from year to year to match

students who may have transferred to another school or dropped out and re-entered school. OSPI expects to have a voluntary statewide uniform student identifier to test during the 2001–2002 school year in up to ten school districts.

- ***High School Graduate Follow-up.*** Since 1992, *The Graduate Follow-Up Study* has provided information on students' employment or enrollment in college during the first year after graduation. Although the number of schools participating has steadily increased, there are still major limitations to the study. Records for almost half the study's students could not be matched to college and employment data bases. Although there is currently no complete or accurate picture of what happens to Washington's high school graduates, these indicators offer one way to determine if efforts to increase the rigor and relevance of learning in high school have an effect on student outcomes.

- ***SBE Assurance of Students' "Opportunity to Learn."*** Before the Certificate of Mastery is put into place, a key aspect of the state's assessment system that must withstand legal scrutiny is consistency between what is tested and what is taught in the schools. In other words, students must have the opportunity to learn the material of any high-stakes assessment. The SBE is charged with determining that the WASL is valid and reliable as a graduation requirement. Other state policymakers may wish to monitor this important decision closely.

Obtain Additional Information

- ***Successful Models to Help Struggling High School Students.*** Most educators in the case study schools expressed concern about how best to assist students who do not pass the WASL in 10th grade. Many national evaluations of extended learning opportunities have been done with elementary and middle school programs rather than high schools. State policymakers could support evaluation of pilot projects aimed at high school students or direct OSPI to identify and disseminate information on successful models of remediation in high schools.

- ***Alternative Education.*** Increased expectations for students may drive additional demand for alternative education programs and strategies. There is currently little information about how many students are served in alternative programs or what type of alternative instructional strategies are effective. The number of students learning under contracts that combine on- and off-campus learning has grown dramatically in recent years, but there are questions about the level of accountability of these contracts. Policymakers could direct OSPI to collect additional data on program availability and student enrollment or conduct more extensive program evaluations of alternative education.

- ***Smaller Learning Communities.*** There is a high level of interest both nationally and statewide in creating small schools and smaller learning communities. State policymakers may want to learn more about the effectiveness of local efforts, including those supported by Gates Foundation grants, before considering whether to provide state support for models of high school redesign.

Debate or Discuss Further

- ***Fine-Tuning the WASL.*** A strong message from high schools is a desire to continue implementation of education reform. However, educators, parents, and students also express concerns about the WASL. Some other states have made adjustments to timelines for implementation or are considering alternative ways for students to demonstrate they meet state standards. The SBE's Certificate of Mastery Committee plans to discuss alternatives to the WASL. State policymakers could monitor the SBE's discussion, find out more about what is happening in other states, or convene further discussions about whether adjustments to the WASL should be considered.

- ***State Guidance for Culminating Projects, Plans, Educational Pathways.*** Current statute provides little guidance for high schools regarding implementation of educational pathways. Concerns have been expressed to the SBE and the legislature about whether culminating projects and educational plans should be a statewide mandate. Policymakers could continue to discuss what level of state mandate, guidance, or assistance is desired to encourage high schools to make learning more relevant for students. OSPI could be assigned a more active role in identifying and disseminating information about best practices or creating guidelines to assist high schools.

- ***High School Accountability Beyond the Certificate of Mastery.*** The A+ Commission has not yet determined additional accountability measures for high schools. Further discussion and debate about what the state expects from both students and high schools in addition to the Certificate of Mastery should be a topic of interest to other state policymakers.