An Assessment Of
Oregon's K – 12 Education Reform

OREGON BUSINESS COUNCIL

K – 12 Education Task Force
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About The Oregon Business Council

The Oregon Business Council, established in 1985, is a nonprofit, nonpartisan and independent organization of more than 40 top Oregon business leaders; OBC's mission is to contribute to Oregon's long-term social and economic well-being. Its directors are chief executive officers of Oregon-based companies, senior executives of Oregon-based divisions of national companies, and individuals in the business community who play a significant role in developing public policy in Oregon. Because of the linkage between education, workforce quality, economic competitiveness, and social cohesion, OBC has identified public K - 12 and higher education as policy priorities.

Executive Summary

This report examines Oregon's progress in public education reform, and examines the steps that still need to be taken to help Oregon achieve its vision for excellence in education. Our fundamental conclusion is this: While Oregon's ambitions for education are on target, obsolete governance structures and, at least to some degree, lack of financial resources have impeded results. Despite the great amount of work still ahead, we believe Oregon must maintain its drive toward the goal. Given the will, we can find the resources and the creative solutions that will make the transformation happen. Working together, Oregon's schools, its business community, and its citizens can ensure that the comprehensive approach to school reform outlined in this report will succeed, making Oregon's public education system the model for the nation, and the envy of the world.

Oregon's vision

In 1991, Oregon embarked on a journey toward a fundamentally different kind of K – 12 education. Our ambitious goal was to create a public education system that results in "measurably the best educated and prepared students in the nation by 2000 and equal to any in the world by 2010." Nearly a decade of intense effort has achieved significant results. We have a three-part assessment system that measures what students know and can do against defined, rigorous benchmarks for learning. Compared with the traditional high school diploma, new certificates of mastery provide evidence of student achievement measured against a yardstick that is much more connected to the world graduates will face as young adults.

> Recognizing the magnitude of change required to be truly world class, the Oregon Business Council reconfirms its commitment to the vision and its role as a partner in working to achieve Oregon's ambitious education goals.

The foundation of Oregon's vision for excellence is a system where students demonstrate competence against clear standards, replacing one where expectations are constantly shifting, and where showing up is one of the primary measures of student success. Our reforms also call for contextual learning and real-world experiences that connect classroom activities with community- and work-based learning. Students will gain more of the skills they need to navigate the complex demands of modern life, including problem solving, critical thinking, teamwork and effective communication.

Examining results

Achieving Oregon's vision for education transformation is a huge task, literally affecting every school, every classroom, and every child. While we cannot yet say that Oregon is the best in the world, by some measures, student performance is encouraging (see table, page vi).

Over the course of the decade, more Oregon students met or exceeded reading and math benchmarks at every grade level tested, and improvement in the early grades has been considerable. In addition, Oregon students continue to lead the nation in Scholastic Aptitude Test (SAT) scores. Furthermore, in the Third International Mathematics and Science Study

(TIMMS) of 1997, Oregon's eighth-graders outperformed both the US and international averages for science and math.

However, in the older grades, the improvement has been disappointing. In 1999, only one-fourth of tenth-graders met the reading, writing and math standards necessary to achieve the Certificate of Initial Mastery (CIM). The change between 1991 and 1999 in the number of tenth grade students meeting Oregon math benchmarks was only two percentage points. This is particularly troubling because international comparisons indicate that US gains in math and science knowledge stall during the high school years; student performance is well behind other nations by twelfth grade.

Overall, Oregon does well in comparison to other states, but the current performance of other states does not reflect our aspirations. Other nations are passing us by and other states are working hard to improve their educational systems. Too many young people leave high school without the fundamental skills necessary to succeed in our knowledge-based society. We must continue to improve our schools so that ever more students reach a higher level of achievement at all grades, and a much larger percentage of youth finish school with the capability to continue their education or enter the workforce successfully.

In fairness, we have attempted to reform under difficult conditions. During this past decade, Ballot Measure Five's property tax reform moved the burden of funding public education in Oregon from the local to the state level. While not all elements of reform require increased funding, it is important to note that Oregon passed a mandate for a massive transformation and restructuring of education during a period when inflation-adjusted dollars for education declined. This change, plus district spending equalization, means that the education transformation effort has been taken on during a period of volatile shifts in funding. Some districts enjoyed slightly increased resources, while others faced very significant cuts.

Recommendations

The five most important themes woven throughout the recommendations include:

- Reconfirm and communicate the vision for education among all stakeholders, particularly focusing on teachers as key drivers of reform
- Continue to implement Oregon's evolving standards and assessment system, and finish and align the Certificate of Advanced Mastery with these standards and assessments
- Create a new budget development and adoption process that ties funding to performance expectations for schools and funds specific programs needed to adopt the new system
- Focus on the underlying governance system for public K – 12 education, including re-evaluating the roles of individual schools, districts, education services districts, the Department of Education, the governor, and the legislature
- As part of the review on governance, examine the range of education models available to promote rapid improvement, including charter schools, contract schools, and prototype secondary schools

The full report offers more detailed recommendations as it addresses five critical questions that OBC has asked about implementation of the Education Act. Below are the questions and a summary of findings and recommendations.

1. **Do we have a shared vision of reform and a widely understood and accepted implementation plan?**

Key Findings	Key Recommendations
• Part of the vision—high academic standards with rigorous assessments—is well understood by education leaders, but not necessarily by legislators, students and parents • No part of the vision is universally understood throughout the school community and public understanding of school reform is very low • High school students do not understand the value of achieving the certificates • The vision for applied and career-based learning remains murky for all	• Reconfirm the vision among all stakeholders • Actively communicate and promote the vision, especially among teachers; develop a communications plan that reaches and hears from all audiences • Develop an employer-based campaign highlighting the value of Oregon's Certificate of Initial Mastery (CIM) and Certificate of Advanced Mastery (CAM) • Connect certificates to higher education admissions and scholarships

2. **Have we developed world-class standards and assessments that describe and measure what we expect all students to learn?**

Key Findings	Key Recommendations
• Standards and assessments for reading, writing and mathematics are in place and appear to be well designed • The assessments rely on an appropriate combination of multiple-choice tests, performance assessments, and written work samples • Frequent changes in scoring rules for passing benchmarks have confused and overburdened the front lines • Science and social science are not fully implemented • CAM standards have been developed, but the assessment requirements remain ambiguous • The Oregon Department of Education has the opportunity to coordinate its standards and assessments with university entrance requirements and community college program proficiencies	▪ Restate and clarify the purposes of Oregon's assessments • Refine standards and assessments through regular, formal review (and review the time required for each assessment to ensure it is manageable for schools) • Dramatically improve administration of assessments, including mechanisms for more timely reporting to schools • Finish the science and social science requirements • Complete the CAM • Align and integrate the CIM/CAM assessment system with Oregon's higher education assessments

3. Have curriculum and instruction been revamped to enable more students to meet standards each year?

Key Findings

- Schools report that substantial work is in progress to help students achieve standards; but there is no systematic way to evaluate what is happening in the field or identify best practices
- Teacher training needs to be widespread and effective; many educators support reform goals but nearly all believe that they do not have the resources they need to achieve them
- Some schools are emerging as being capable of meeting standards at a higher level than comparable schools
- High schools appear to be more difficult to change than elementary schools

Key Recommendations

- Encourage Oregon schools to adopt continuous improvement practices
- As part of the process of continuous improvement, study curriculum and other practices from the top performing schools nationally and internationally
- Dramatically increase professional development, and make more time available for teachers to work on school improvement
- Coordinate and expand state-level efforts to facilitate school-based improvements
- Develop new and more effective models for secondary schools

4. Does our governance system create incentives to provide necessary flexibility to implement the vision?

Key Findings

- The governance system is in turmoil; the roles of individual schools, districts, education service districts, the Oregon Department of Education, the governor, and the legislature are changing
- Many important responsibilities have shifted from the local level to the state level, but sentiment for local control remains strong
- Under the current governance model, school districts have what is, in effect, a franchise monopoly on their service territory
- We are at a critical point—openness to experimentation is needed and bold new concepts must be entertained

Key Recommendations

- Re-evaluate the underlying governance system for K – 12 education; redefine governance to align the education system with the vision of all schools meeting ambitious educational standards
- Determine the appropriate role of local control within a state system of schools
- Consider school choice and education options as tools to stimulate improvement in public schools and to increase student achievement
- Reinvent the Oregon Department of Education to serve the roles demanded by the newly emerging governance system and the new expectations for high performance

5. Are the state education budget and school budgets aligned with our vision for change?

Key Findings

- Voter-approved initiatives have created and still create uncertainty about funding available for schools
- During a time of massive restructuring, inflation-adjusted funding for public education has declined
- The amount of money budgeted for K – 12 education in the past has not been based on any systematic determination of need or linkage to expected performance
- During the 1999 legislative session, the Quality Education Model showed how such a linkage could be accomplished
- This model opens the door to an education budget that could be reasonably expected to produce specified results in student learning
- The Oregon Department of Education has been reduced in size at precisely the same time that its responsibilities have been increased dramatically

Key Recommendations

- Implement a Quality Education Budget Model to enable the legislature and the governor to assess what different funding levels buy in terms of education programs and expected improvements in student outcomes (and to identify cost savings and efficiencies within the education system)
- Enhance the capabilities of the Database Initiative to capture the wide range of information necessary to determine performance in relationship to cost
- Identify a state funding process that will stabilize education funding, and align the budget with expectations for change and performance
- Fund the Oregon Department of Education at a level commensurate with its responsibilities, if it is able to reinvent itself to provide the key coordination, support, and services necessary to implement reform successfully

Results of Education Reform in Oregon			
Indicator	**Beginning of Decade**		**End of Decade**
Oregon Reading Benchmarks			
3rd Grade	52% (201)		81% (209)
5th Grade	51% (214)		69% (218)
8th Grade	40% (227)		56% (230)
10th Grade	31% (231)		52% (235)
Oregon Math Benchmarks			
3rd Grade	35% (197)		70% (205)
5th Grade	47% (214)		66% (218)
8th Grade	40% (228)		52% (231)
10th Grade	34% (233)		36% (233)
$/Student adjusted for poverty, special education, etc. (2000$)	$5,585		$5,070
Difference between highest and lowest spending districts (5th & 95th percentile)	$3,552		$294
Pupil Teacher Ratio	18.6		20.1
Average Teacher Salary (1998$)	$42,150		$39,284
Public School Enrollment	93.2%		91.2%
Private School Enrollment	5.7%		6.8%
Home School Enrollment	1.1%		2.0%
National and International Comparison			
Indicator	**Oregon**	**United States**	**Rank**
NAEP Reading 4th Grade	28%	31%	9 higher / 19 same
NAEP Reading 8th Grade	33%	33%	2 higher / 19 same
NAEP Math 4th Grade	21%	21%	4 higher / 23 same
NAEP Math 8th Grade	26%	24%	2 higher / 18 same
TIMSS 8th Grade Science	564	534 (World: 516)	World: 1 higher/10 same
TIMSS 8th Grade Math	525	500 (World: 513)	World: 8 higher/16 same
SAT Verbal	528	505	First
SAT Math	528	512	First

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IV. Do We Have A Shared Vision Of Reform And A Widely Understood And Accepted Implementation Plan?

V. Have We Developed World-Class Standards And Assessments That Describe And Measure What We Expect All Students To Learn?

VI. Have Curriculum And Instruction Been Revamped To Enable More Students To Meet The Standards Each Year?

VII. Does Our Governance System Create Incentives And Provide Necessary Flexibility To Implement The Vision?

VIII. Are School Budgets Aligned With Our Vision For Change?

PART 1:

THE REFORM PLAN AND RESULTS

Chapter One

Introduction

Oregon has achieved change of a magnitude barely conceivable in 1991, when Legislators passed reforms mandating a very new approach to public K – 12 education. There are many examples of new policies and practices that are leading to better prepared students in Oregon. There are also serious problems with the governance structure and foundation supporting Oregon's huge efforts for change. After nearly a decade of progress, the Oregon Business Council is examining education reform in Oregon, in order to help the many dedicated practitioners of education reform celebrate their victories, and point out issues that require immediate attention if transformation is to stay on course.

Education is *changing*

On the evening of January 18, 2000, the superintendent of the McMinnville School District announced the names of 88 high school juniors as they stepped up to the stage to receive a Certificate of Initial Mastery (CIM). In the same ceremony, she recognized 155 others with Certificates of Progress, indicating to those juniors that with additional work, the district predicted the students could receive the CIM by year's end. As the last student crossed the stage, parents and teachers gave the whole group a prolonged standing ovation.

For the students, the CIM award ceremony celebrated achievement of standards in reading, writing, oral communications and mathematics that exceeds what many adults in Oregon can demonstrate today. For Oregon education, this and similar events occurring across the state are a celebration of nearly a decade of work to establish high, statewide academic standards and to award certificates to those who meet the standards. What was barely a vision ten years ago is established practice today in many elementary, middle and high schools throughout Oregon.

It is time to recognize this achievement and to reflect on the challenges still ahead.

Why is OBC producing this report?

The Oregon Educational Act for the 21st Century (The Education Act) was passed and signed into law in 1991. During the 1990s, the reforms it mandated have been debated, modified and, as the McMinnville story above points out, gradually implemented by Oregon schools. Throughout the decade, the Oregon Business Council (OBC) has remained committed to education reform as outlined in the Oregon Education Act and in subsequent legislation and State Board of Education administrative rules.

The Oregon Business Council's commitment to education reform and improvement is based on a number of fundamental beliefs about the role of public education in Oregon. First, that the reforms will fundamentally improve education. This goal is critical because we believe that a high quality education system:

- Is the basic foundation for a society that values citizenship and participation in the democratic process

- Helps young people develop the skills necessary to succeed in whatever endeavor they choose subsequent to school
- Facilitates successful and rewarding transitions from school life to the world of adulthood and work
- Is critical for success in a knowledge society
- Is a key quality-of-life factor that retains and attracts knowledge workers
- Results in a much larger pool of individuals who possess the skills employers desire in entry-level workers

Why is this report being prepared now?

Nearly nine years have passed since the Education Act became law. Reviewing Oregon's progress in implementing school reform will help us assess the improvements made so far, identify the challenges still facing the education system, and make recommendations regarding the best ways to continue improving. Now is the time to prepare such a report because:

- A new state school superintendent has taken office and is taking a thoughtful look at reforms, examining where Oregon should be headed in the next decade and beyond.
- Full testing in math, reading and writing at benchmark levels 3, 5, and 8 took place this past school year, and testing at level 10 was used as the basis for awarding the first CIMs. Science multiple-choice assessments are beginning during the current (1999-2000) school year, and the science performance task is being developed.
- We have longitudinal assessment data that can be used to compare the system's performance over a period of several years. The math and English tests have now been given in their current forms and at their current grade levels for at least four years. Although schools did not necessarily place the same importance on these tests four years ago as they do now, the tests provide the basis for making some qualified comparisons and outlining trends in student performance.
- Several important policy reviews are in process including those organized by the state superintendent of public instruction, the legislature, and the governor.

Given this climate of examination and the existence of some tools to begin to assess progress, it is reasonable and desirable to reflect on the state of education reform at this point in history. The goals of this report are:

- To assess how well we have implemented education reform to date
- To highlight critical issues for the future

To whom is this report addressed?

This report is addressed to the governor, the state superintendent, legislators and all those who are taking stock and planning for the future of Oregon schools. School administrators and teachers may also find this report enlightening as an external, objective assessment of the state of school reform in Oregon after nearly a decade.

What are some of the current policy initiatives being undertaken?

A number of initiatives examining governance relationships and educational goals are underway. Of these, the following are most relevant to this report:

- The Education Leadership Team was created by the 1999 legislature. Chaired by Stan Bunn, its members include the governor, senate president and house speaker. It will be considering key opportunities to improve K-12 education.

- The governor, by executive order, created the Quality Education Commission to refine the Quality Education Model as the basis for developing his education budget for the next legislative session. The commission will review and refine the Quality Education Model, and make recommendations on how to develop better estimates of the funding needed by schools to provide a quality education to Oregon students whereby students meet high academic standards.

- The School Transformation Advisory Council, a broad-based group that advises the Oregon Department of Education (ODE) on education reform issues, is being reconstituted, with a focus on the remaining unresolved issues in education reform implementation.

- The Board of Education has initiated a study of student work samples and continues to examine other aspects of education reform policy, including the standards and assessments that provide the foundation for the reforms.

- The Department of Education is in the midst of a management review and will likely redefine its mission, duties, structure, and methods.

- A task force, created by legislative action and chaired by a member of the State Board of Education, is examining the role and purpose of education service districts.

How was this report prepared?

This report is the product of OBC's Education Task Force. Its conclusions are drawn, in part, from a wide range of data sources along with the direct experience of task force members. Throughout the past decade, OBC members have been actively engaged in education improvement through work at the state and district levels. In addition, OBC has produced several reports on school improvement initiatives, including a *Report on Oregon's Progress in Implementing CIM and Cam Achievement Standards and Related Measures to Transform Oregon's School System* for Governor Kitzhaber in October 1996. (Please see OBC's web

site at www.orbusinesscouncil.org for OBC reports on K - 12 education.) The task force brings a great deal of experience to this effort.

In preparation for this report, OBC staff and its education policy consultant, Dr. David Conley, reviewed data on Oregon school performance and finances, studied results from a series of surveys and interviews of Oregon educator attitudes about education reform, and examined national research and reports to place Oregon in a larger context. In addition, we systematically interviewed participants in education reform, including state and local school officials, teachers, and legislators. Recommendations presented at the conclusion of chapters four through eight represent the consensus of the task force members and derive from the sources listed in the endnotes at the conclusion of the report.

How is the report organized?

Part 1 outlines the reform plan and outlines its results. Specifically, Chapter Two provides a brief history of Oregon's education reform, and the forces that shaped it. Chapter Three then assesses the overall results of this work in three ways. First, it examines student performance on standardized tests, to compare progress over the decade and to compare Oregon students with those in other states and nations. Next, we examine changes in finances in Oregon schools, to understand the impact state funding decisions have had in terms of school programs. Finally, we look at public education market share, to help identify how the public views all these changes.[1]

Part 2 is a diagnostic review of the critical implementation steps. Chapters Four through Eight ask and answer five questions that focus on whether Oregon is taking the steps necessary for dramatically improving K – 12 education. Drawn from earlier work by OBC, the five questions are:

Voices of Oregon

We have a much better focus in the classroom than we had in the past. It is more likely that kids in Bandon are learning the same things as kids in Bend. We are seeing more connections between schools and the community, and we have seen increasing test scores. [However,] there are legitimate concerns about teacher workload and teacher training to implement reforms.

State-level Official

Note: *Quotations in the* Voices of Oregon *boxes throughout this document are from a 1999 OBC stakeholder survey of legislators, state-level officials, school board members, school district superintendents, principals and teachers. Quotations from students are from OBC focus groups and the OPB "Putting Education to the Test" video.*

- Do we have a shared vision of reform and a widely understood and accepted implementation plan?
- Have we developed world-class standards and assessments that describe and measure what we expect all students to learn?
- Have curriculum and instruction been revamped to enable more students to meet standards each year?

- Does our governance system create incentives and provide necessary flexibility to encourage schools to continuously improve?
- Are school budgets aligned with our vision for change?

Acknowledgments

In Oregon, we are blessed with a community of individuals who care passionately about improving education and providing the very best education for young people. The Oregon Business Council, as an active participant in improving education for nearly a decade, wishes to thank the hundreds of educators and students with whom it has worked at every level to improve the quality of education.

Transforming K - 12 education is an enormous challenge, and we have made huge strides over the past decade. As we pause to reflect on what remains to be done, we want to express our thanks to all of those who have worked so hard to bring us to this juncture.

Voices of Oregon

I do think over the long-haul the CIM and CAM will work, but we have not put the resources in place to allow them to work. CIM/CAM is the source of frustration at the classroom level. The pressures this has brought on teachers, students, and parents is unbelievable. In some cases it does not motivate students to do better, and in some cases it serves as a tool to say you do not measure up. If it is not used in the rest of the country as a badge of honor, what are we ultimately going to use it for?

Legislator

The average citizen doesn't understand the reforms. We're beginning to get a strong grasp of what it is that we're supposed to be implementing, but it's hard to communicate what's happening to parents and students, not to mention the community as a whole.

Teacher

The reform process has been topsy-turvy, with constant changes in standards, content, and deadlines. We need the pressure to improve, and it has been partially positive, but it's also partially negative, because we haven't always done it right.

School Superintendent

Send money.

State-level Official

Chapter Two

How Did We Get To This Point In Education Reform?

The roots of education reform in Oregon run deep, extending back into the 1980s when the notion of common curriculum goals was first introduced, along with site-based participation in decision making. However, the Oregon Educational Act for the 21st Century undertook educational change on a scale heretofore unseen in Oregon.

Drivers of reform

This program of reform was driven by economic changes that were occurring throughout American society. These changes included unprecedented international competition, a radical transformation from an industrial to an information economy, a flattening of organizational structures, and a sense that change was a constant. These forces created uncertainty about the future of the economy and the preparedness of society. Many people—including members of the Oregon Business Council—believed that all institutions, economic and social, would have to change in order to adapt to this new reality.

Key individuals within state government took on the challenge of responding to these unfolding changes in the economy. In the 1991 legislative session, leaders of state government including Speaker of the House Vera Katz, State Representative Larry Campbell, Senate President John Kitzhaber, and Superintendent of Public Education Norma Paulus formed a bi-partisan group committed to education improvement that spearheaded the Education Act.

Oregon's goals for education reform were particularly bold. As enunciated in its economic development strategy, Oregon's goal was to create "measurably the best educated and prepared workforce in America by 2000 and one equal to any in the world by 2010." Recognizing that Oregon's schools were already good by many national standards, the strategy suggested that exceptionally strong K - 12 education would position Oregon well to attract knowledge-based businesses that would build a strong economy in our state. It was also intended to prepare Oregon's citizens to fully participate in the changing economy. This goal statement was embodied in statute in several separate pieces of legislation, including the Educational Act for the 21st Century.

Early implementation efforts

The Oregon legislature enacted House Bill 3565 with few dissenting votes, and it was signed into law in June of 1991. During the next two years, the Oregon Department of Education and Oregon educators worked to refine the broad vision of education laid out in the law. Many of the notions contained in the legislation were new to education and to Oregon. The ideas that all students should meet challenging standards and that they should be assessed in

ways that required them to demonstrate higher-order thinking skills posed a particular challenge to the education system.

At roughly the same time, Oregon voters approved a property tax limitation initiative that effectively moved control of funding from the local to the state level. Schools struggled initially with the fiscal aspects of this initiative, but the governance implications played out more gradually, as the state took increasingly greater responsibility for funding public education. In the face of this new responsibility, and to avoid lawsuits, the legislature also passed funding equalization legislation that gradually decreased the differences in per-pupil expenditures from district to district. This legislation was phased in over the course of the decade, as the property tax limitation was also phased in.

By 1993, a proposed set of standards and assessments had been produced. These generated spirited debate and extensive discussion over the next year. Pilot schools attempted to answer the challenge posed by the reform legislation and to redesign education in response to the new challenges faced by the nation. Schools prepared themselves for the requirements of the Certificate of Initial Mastery (CIM). Work on the Certificate of Advanced Mastery (CAM) identified six broad occupational categories that were to form the basis of secondary school study. Elementary schools developed "non-graded" primaries, where students of more than one age cohort studied together to master the benchmarks at grades three and five in English and mathematics, in particular.

The Certificate of Initial Mastery (CIM)

The CIM represents rigorous academic standards in English, mathematics, science, social sciences, the arts, and a second language. Students pursuing a CIM must meet knowledge and skill benchmarks measured through state and school-based assessments. Benchmarks of progress for the achievement of CIM competencies are assessed at grades 3, 5, 8 and 10.

The Certificate of Advanced Mastery (CAM)

The CAM represents the next level of achievement for high school students. Typically, students who have attained the CIM at or close to grade 10 will move on to the CAM. Building on the foundation provided by the content standards leading to the CIM, students pursuing a CAM must achieve grade 12 benchmarks measured through state and local assessments. Student must also attain what are called "career-related learning standards." These include such career and life skills as problem solving, working in teams, and communication, and an understanding of the workplace and career development. Students in the CAM program will also begin to develop useful knowledge and skills in at least one career field of interest, known as an endorsement area of study (such as Health and Human Services). All students must participate in a career endorsement area to receive a CAM.

Re-examination and refinement

When the 1995 legislature convened, it took stock of the work done on reform to that point and decided to focus the standards and assessments more tightly on nine academic areas. Furthermore, it defined the assessment system as having three components: multiple-choice tests, performance tasks, and work samples. The Certificate of Advanced Mastery was to undergo additional development work, which was to be reported to the legislature in 1997.

Slight changes were made in the composition of site councils, and their duties were clarified. All other aspects of the reform act were left essentially intact. This act of clarification helped speed development of standards that linked clearly with the Common Curriculum Goals (CCGs), which were also rewritten, and that then formed the basis for a focused assessment system. School systems set about developing curriculum that aligned with the CCGs and the standards and benchmarks. The state devoted considerable effort to the development of appropriate tests and tasks.

Linkages to higher education

The Oregon University System had developed its own standards and assessments in 1994 called the Proficiency-based Admission Standards System, or PASS. It set about aligning PASS with the state standards and assessments. Community colleges also developed their own set of standards, Proficiencies for Entry into Programs (PREP), which provide voluntary guidance to each campus on how to place students into programs based on their proficiency levels. The effect was to create a system of standards that linked from kindergarten through college admission—the first of its kind in the nation. The assessment system was one of the only ones in the nation to use multiple methods of assessment to capture a more complex picture of student performance.

Systems approaches to reform

The 1999 legislative session saw the first linkage of education reform standards and school funding. The Oregon Quality Education Model (OQEM) developed a means to link the resources provided to schools and the level of performance that could be expected of students. The Database Initiative created the means to generate standardized fiscal data from school districts, allowing comparisons between individual school buildings throughout the state. Equalization of per-pupil funding was fully phased in, meaning each school had roughly the same resources available to educate its students. For the first time, Oregon schools could compare the performance of their students on the same measures and against the same standards, could compare their expenditures to see how expenditure decisions related to learning results, and had about the same amount of resources available to them per-pupil.

This ability to compare performance between schools and in relation to resource allocation decisions opened the door for a new era in school improvement and accountability. The Oregon Department of Education continued work on a new school accountability system, and the 1999 legislature mandated the School Report Card, requiring that each school in the state be "graded" and that the results be published and sent to parents and community members.

A new era in education

In the course of one decade, education governance in Oregon has turned on its head, from being one of the strongest local control states in the nation to becoming one where the state legislature plays a central role in determining education policy. Oregon has undergone dramatic shifts in education funding, both as a result of property tax reform and because of district funding equalization measures. The state is now implementing a three-part assessment system that is fundamentally changing how students are evaluated, and Oregon has

implemented a new system of school-based measures of student performance. Ten years ago, the state knew almost nothing about individual school performance—today, anyone can pull up detailed information about Oregon schools on the Worldwide Web. These changes clearly represent an enormously different system of education in our state; however, most Oregonians are just beginning to be aware of the revolution that is taking place. Similarly, while many important steps have been taken to help Oregon achieve its education goals, this new era of education requires many additional bold steps to bring our governance system and structural foundation in sync with our vision for transformation.

Figure 1: Key Concepts Behind Oregon's K – 12 Education Transformation

	Where We've Been	Where We're Going
Assumptions about work	A few lead, everyone else takes direction	Front line workers are skilled; they make decisions and take responsibility; they often work in teams
Mission of school	Prepare the brightest for college; the rest to be good workers, citizens	Prepare everyone for more demanding skill requirements of post-secondary education, work, and living
Role of standardized testing	Sorting the best from the rest	Assuring that everyone meets high standards
Structure of schools	Hierarchy (modeled after mass production business)	Site-based autonomy (modeled after high performance business)
Curriculum	Disciplines independent of one another	Disciplines integrated through applied learning
Certification method	Graded units of instruction ("seat time") leading to diploma, regardless of grades or skills	Assessments to measure high standards of knowledge and skills leading to certificates of mastery in conjunction with diploma
Role of teachers	Dispensers of knowledge about subject matter	Content experts, coaches, resources, partners in school management, partners with community resource providers
Role of students	Stay put, listen, recite correct answer, achieve on tests	Learn by observation and application, develop both individual and group skills
Role of parents	Send child to school, help with homework, provide discipline	Choose school, help define school's education philosophy, encourage learning and provide discipline
Role of business	Support school levies and bond measures, sponsor athletic teams	Insist on competent graduates and set standards for such competence, help teachers learn workplace practices, provide educational work experiences for children
Place of learning	School building	Throughout community as well as at school

Chapter Three

What Have Been The Results Of Education Reform In Oregon?

Oregon students meeting or exceeding reading and math benchmarks increased at every grade level during the 1990s, and improvement in the early grades has been considerable. However, in the older grades, the improvement has been somewhat disappointing. Overall, Oregon does well in comparison to other states on several measures, but the current performance of other states does not reflect our aspirations. By the end of twelfth grade, Oregon, like the rest of the United States, is behind other nations in math and science. Too many young people leave high school without the fundamental skills necessary to succeed in our knowledge-based society.

Oregon's efforts to improve student performance come during a period when schools have struggled with budgets. State funding per student declined overall as equalization was fully phased in. This policy created enormous fiscal challenges, especially for the districts that faced steep budgets cuts to support equalization.

The public places a high value on public education. A majority of Oregon citizens give their public school system a positive performance rating; however, private school enrollment is up somewhat, and a very small but rapidly increasing segment of parents is choosing to home school.

Examining results

This chapter evaluates the results of education reform in several ways. First, we examine Oregon students today relative to 1991 on the state standards put in place by the Education Act, and compare their performance with other states and nations using the National Assessment of Educational Progress, the Scholastic Aptitude Test, and the Third International Math and Science Study. Second, we examine the funding decisions the legislature adopted during the same period but independently from the Education Act. Finally, we examine customer satisfaction based on a variety of indicators.

Student performance on state standards

Over the course of the decade, more Oregon students met or exceeded reading and math benchmarks at every grade level tested, and improvement in the early grades has been significant. However, in the older grades, the improvement has been somewhat disappointing. While tenth grade reading scores improved, the change between 1991 and 1999 in the number of tenth grade students meeting Oregon math benchmarks was only two percentage points.

Only 26 percent of tenth-graders in 1999 met all the standards on state reading, writing and mathematics multiple choice and problem solving tests. The class of 2001 must meet the standards on these tests and on writing, speaking and mathematics work samples to achieve the Certificate of Initial Mastery (CIM).

- **3rd Grade:** The share of Oregon third-graders reaching the state reading standards rose from 52 percent in 1991 to 81 percent in 1999, and the share reaching the state math standards rose from 35 percent in 1991 to 70 percent in 1999.

- **5th Grade:** The share of Oregon fifth-graders meeting the state reading standards rose from 51 percent in 1991 to 69 percent in 1999, and the share reaching state math standards rose from 47 percent in 1991 to 66 percent in 1999.

- **8th Grade:** The share of Oregon eighth-graders reaching the state reading standards rose from 40 percent in 1991 to 56 percent in 1999, and the share reaching state math standards rose from 40 percent in 1991 to 52 percent in 1999.

- **10th Grade** The share of Oregon tenth/eleventh grade students reaching the state reading standards rose from 31 percent in 1991 to 52 percent in 1999.[2] The share of Oregon tenth/eleventh grade students reaching the state math standards rose from 34 percent in 1991 to 36 percent in 1999.

It is important to note that these statewide averages mask the wide differences between the scores of some minority students and the student population at large. For example, 56 percent of white eighth-graders and 59 percent of Asian eighth-graders met the math standard, compared to just 22 percent of African-Americans, 23 percent of Hispanics and 38 percent of Native Americans. There is a similar disparity in eighth-grade reading scores, where 60 percent of white students and 54 percent of Asian students met the reading standard, compared to just 29 percent of African Americans, 27 percent of Hispanics and 41 percent of Native Americans. A similar pattern exists in other grade levels. Some of this difference is due to socio-economic status. However, regardless of why the difference exists, the system must work hard to narrow and eliminate this achievement gap.

***Fi*gure 2: 1991-1998 Reading Scores**

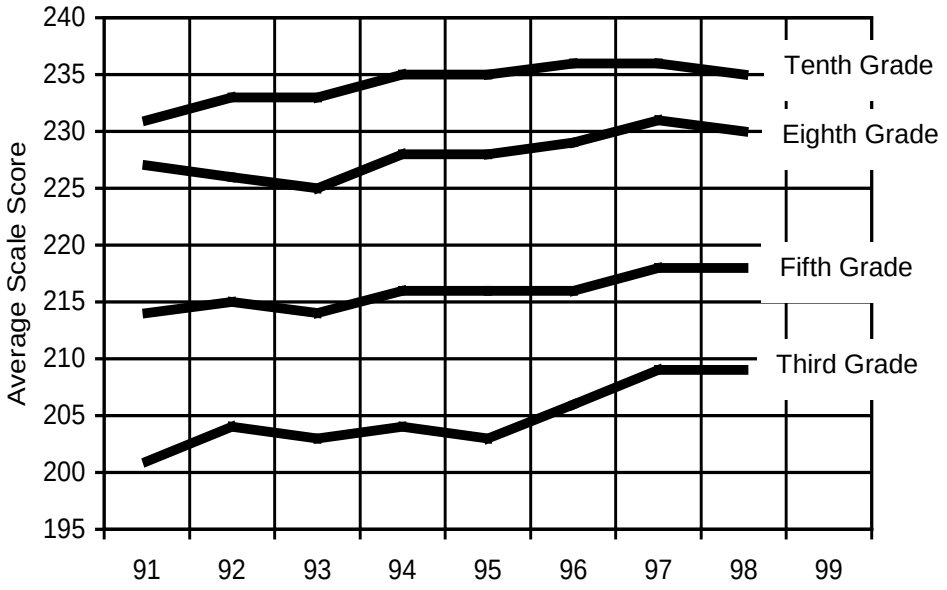


Figure 3: 1991 – 1998 Math Scores

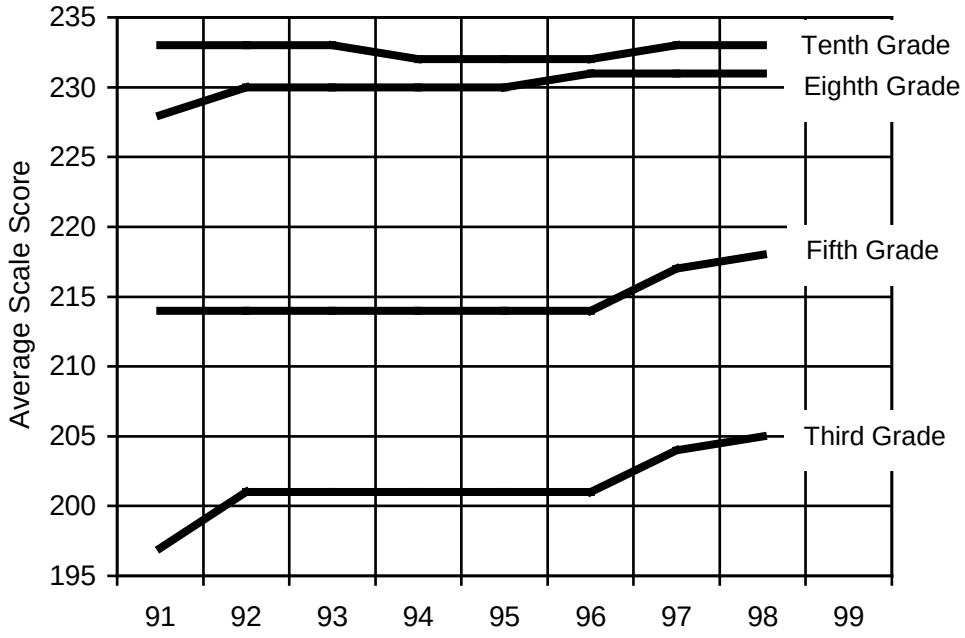


Figure 4: Percent Meeting Reading Benchmarks

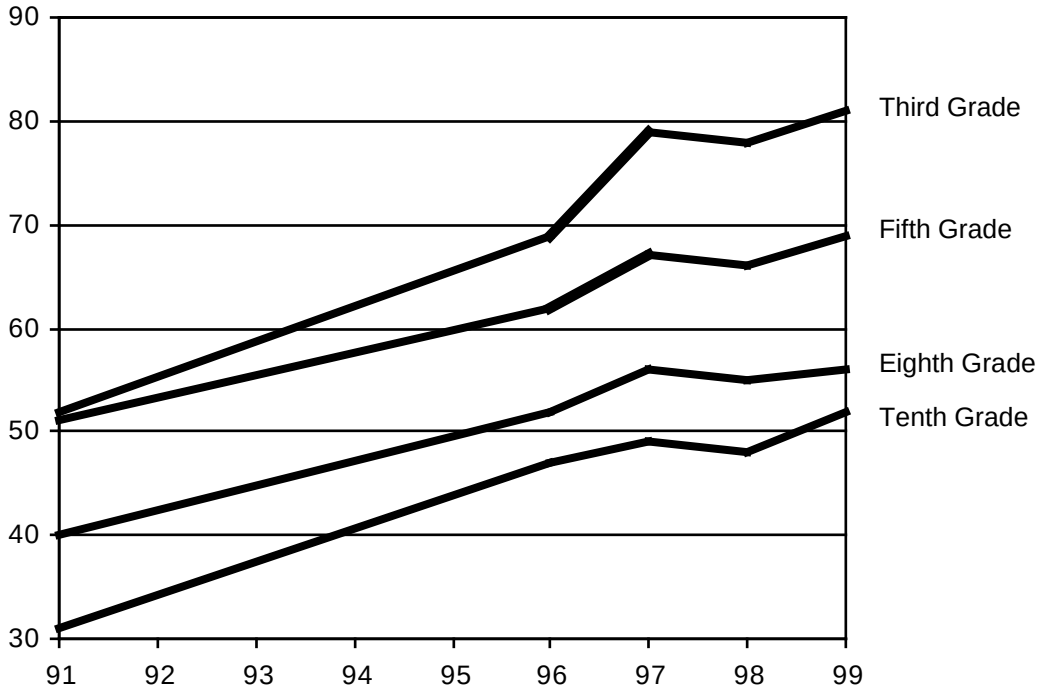
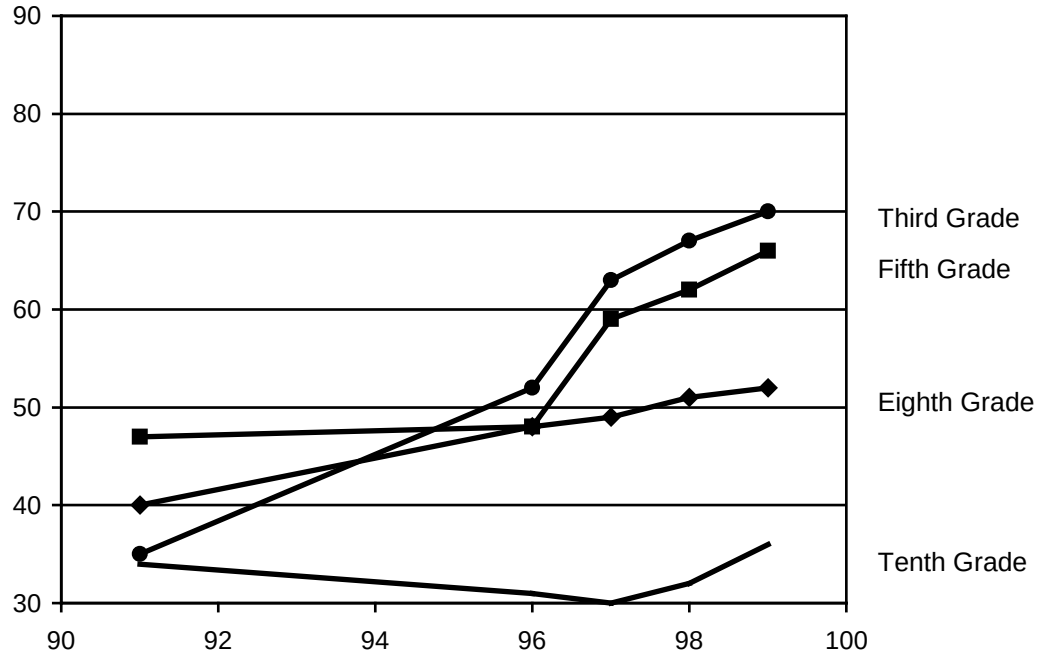


Figure 5: Percent Meeting Math Benchmarks



Oregon compared to the US

The National Assessment for Educational Progress tests students at the fourth and eighth grades. Oregon's performance on these tests varies by grade. Oregon fourth grade students are at or below average compared to other states in reading and math. Oregon eighth grade students are at or above average compared to other states in reading and math.[3]

- **4th Grade:** Among Oregon fourth-graders, 21 percent met the math standards (the US average is 21 percent) and 28 percent met the reading standards (the US average is 31 percent). In math, 23 states performed about the same as Oregon and only 4 states performed better. In reading, 19 states performed about the same as Oregon and 9 states performed better.

- **8th Grade:** Among Oregon eighth-graders, 26 percent met the math standards (the US average is 24 percent) and 33 percent met the reading standards (the US average is 33 percent). In both subject areas, almost 20 other states performed the same as Oregon and only 2 states performed better.

According to the Oregon Report Card, our students continue to lead the nation in Scholastic Aptitude Test (SAT) scores. Members of Oregon's class of 1998 taking the SAT received an average score of 528 on the verbal test, up three points from the previous year, and 528 on the mathematics test, up four points. These scores are the highest since 1972, the first year for which state results are available. This is the eighth straight year in which Oregon students

scored the highest among 23 states where at least 40 percent of students take the test.[4] Over the past 16 years, the percentage of Oregon high school graduates taking the SAT has climbed steadily. In 1982, only 42 percent of Oregon's high school students took the SAT.[5] In 1998, 53 percent took the test.[6] Generally, expanding the pool of test takers tends to depress scores slightly, but this has not been the case in Oregon.

Voices of Oregon

I think it is good that they raised the expectations, it is getting harder and harder to get a decent job because there is so much more technology in the world.

Student

All that Site Councils talk about is meeting the standards. Freshmen are only allowed to take one elective and sophomores are only allowed to take two. Many times it's the electives that keep kids in school.

Student

Oregon compared to the world

Oregon fourth- and eighth-graders compare favorably to international averages on math and science tests; however, several individual countries and states are statistically equal to or outperforming Oregon. In addition, international comparisons indicate that US gains in math and science knowledge stall during the high school years. Student performance is well behind other nations by twelfth grade.

Oregon participated in the Third International Mathematics and Science Study (TIMSS) twice—first in 1994-95, with a sample of fourth and eighth grade students equivalent to the samples from other states, and second in 1997 (along with Missouri) in an administration of TIMSS assessments to a much larger sample of eighth grade students.

TIMSS 1994-95: The 1994-95 TIMSS tested the mathematics and science knowledge of nearly half a million fourth and eighth grade students in more than 40 countries around the world. Oregon's science scores at both fourth and eighth grade were exceeded only by Singapore; although this was also true for Connecticut, Colorado, Iowa, Maine, Massachusetts, Minnesota, North Dakota, Utah, Vermont, Wisconsin and Wyoming. The math scores of Oregon students were not statistically significantly different from those of the United States as a whole and of 21 other countries.

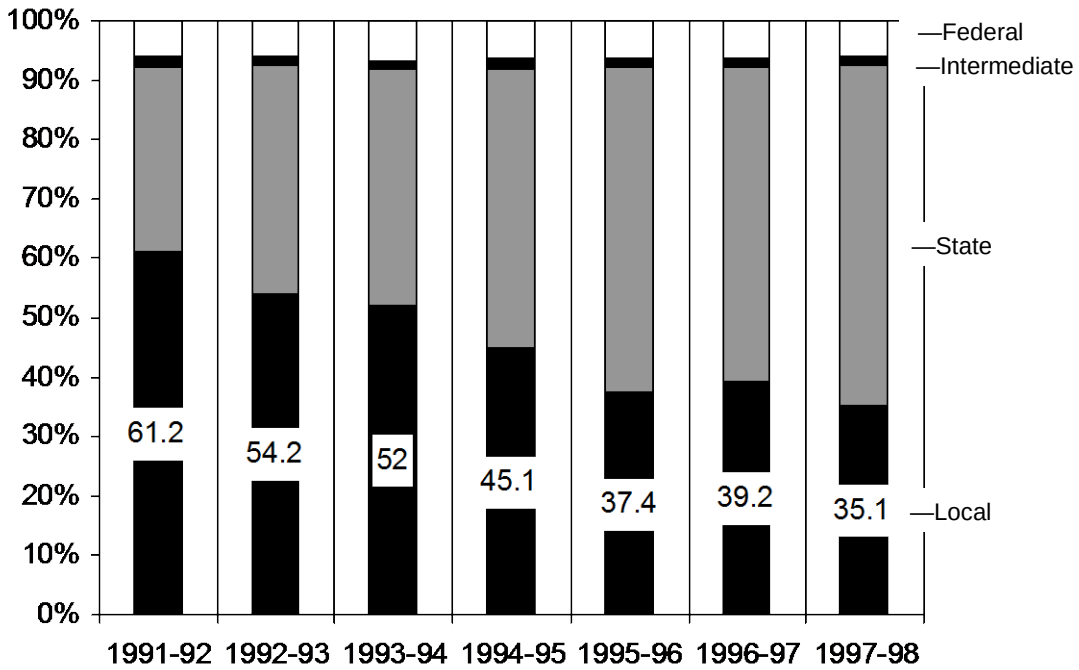
TIMSS 1997[7]: The average math score for Oregon eighth-graders (525) was significantly higher than the US average (500), but statistically equal to the international average (513). Eight countries outperformed Oregon eighth-graders in math. The average science score for Oregon eighth-graders (564) was significantly higher than the US average (534) and the international average (516). Only Singapore eighth-graders outperformed Oregon in science.[8]

Resources: dollars, class size, and access to programs

Since fiscal year 1990-91, state school support has not kept pace with inflation. Between 1990-91 and FY 2000-01, state support per Average Daily Membership weighted (ADMw) increased 22.9 percent. Meanwhile, the Portland Urban Consumer Price Index (CPI-U) increased by 35.4 percent.[9]

The statewide average funding numbers mask the effect of equalization among the districts. Some districts received funding increases during this time period, while others endured significant budget cuts. For example, Baker School District had an inflation adjusted increase of 31 percent between 1991-92 and 1998-99, while Portland, Albany and Ashland all suffered declines (12 percent, 11 percent and 8 percent respectively).[10] As a result, the state system has become more equalized. Comparing the relative spread of resources among the 299 districts in 1990-91 to the 198 districts for 1999-2000 shows that spending differences among the majority of districts have narrowed considerably. For 1990-91, the district at the fifth percentile spent $3,230 per student, while the district at the ninety-fifth percentile spent $3,552 more per student at $6,782. Audited expenditure data for 1999-00 is not yet available, but a close proxy is the amount of State School Fund revenue (excluding funding for transportation) distribution. For 1999-00, the district at the fifth percentile received $4,528 per ADMw, while the district at the ninety-fifth percentile received only $294 more per ADMw at $4,822. This $294 difference between the fifth and ninety-fifth percentile districts is substantially less than the $3,552 difference in 1990-91.[11] Responsibility for funding continues to shift from local districts to the state, as the state's proportion of the K - 12 budget increased from 31 percent in 1991 to 58 percent in 1998.

Figure 6: Summary of State Education Spending Over the Decade



Pupil-teacher ratio

Pupil-teacher ratio has risen during the 1990s at all levels, but only very gradually from 1993 through 1998. Pupil-teacher ratio is different from average class size. It reflects the number

of persons reported as teachers divided by the number of students. Often, counselors, librarians, reading specialists and other staff holding teaching certificates are included in the computation of pupil-teacher average, but do not have classroom responsibilities. The Oregon pupil-teacher ratio as reported by the US Department of Education in its 1996-97 report was 20.1:1. The national average was 17.1:1.[12]

However, changes in pupil-teacher ratios are quite different across districts, as each district developed its own strategy to cope with changes in funding. As noted, some districts experienced substantial increases in funding; most saw either small increases or decreases. Districts that received funding increases may have chosen to hold class size steady or even selectively reduce class size, while those that were level-funded or reduced in funding generally had to increase class size as the decade progressed. Many districts employed strategies to keep elementary class size constant by allowing secondary school class sizes to increase slightly, or by cutting non-classroom elementary staff first—including librarians, child development specialists, and school music, reading, physical education and art teachers. This trend can be seen throughout the decade. Elementary class size did show an increase in 1998, indicating that many districts had reached the limits of their abilities to hold down elementary class size.

Average teacher salary

Oregon inflation adjusted teacher salaries have declined over the decade, but improved their standing relative to other teachers in the nation. The average teacher salary in the 1997-98 school year was $42,150 compared to $39,284 (inflation adjusted) in the 1989-90 school year. This average salary placed Oregon teachers thirteenth in the nation, up from twentieth in 1989-90. By contrast, Alaska was first with an average of $51,738, South Dakota was last at $27,341, and the US average was $39,385.[13] Average years of service for Oregon teachers was comparable to other states.

Once again, it should be noted that the effects have been quite different from district to district. Some districts that were leaders in salary at the beginning of the decade have fallen sharply during the decade. Others have risen significantly.

These changes in relative salary rankings in the state lead to tensions within those districts that are losing ground relative to their neighbors (or where teachers perceive this to be the case). Such tensions affect the predisposition of teachers to take on new tasks and accept new responsibilities.

Public education market share

Oregon's public schools are slowly losing market share. Between 1990 and 1998, the percentage of students enrolled in public schools dropped as the share of students attending private schools and home schools rose. This enrollment shift puts Oregon slightly below the national average for public school enrollment.

One indicator of how parents view Oregon schools is the share of students that attend them. In the 1990-91 school year, 93.2 percent of Oregon students attended public schools. By 1997-98, that share had dropped to 91.2 percent. Meanwhile, the share of students attending private schools and home schools rose. Over the same time period, private school enrollment

rose from 5.7 percent to 6.8 percent, and home school enrollment rose from 1 percent to 2 percent.[14] This puts Oregon public school enrollment a little below the US average of 92 percent. More than half of the other US states enroll a higher share of school-age children in public schools.[15]

While Oregon schools overall do not capture a significantly larger share of public school enrollment than other states, Portland schools do. The most recent comparable data for cities around the nation is 1990. At that time in Portland, 85 percent of those enrolled in school were enrolled in public schools. This is significantly higher than Seattle, Washington, where only 72 percent of those enrolled were enrolled in public schools. It is comparable to suburban school districts in the Portland Metro Area: Beaverton (84 percent), Lake Oswego (87 percent), and David Douglas (90 percent). However, Portland is slightly below Vancouver, Washington, which captured 92 percent of enrolled students.[16]

In a statewide survey, Oregon citizens give their public school system a positive performance rating by a 55 percent to 38 percent margin. This figure has been relatively constant over the past three years, and is up, slightly, from 51 percent in 1997. Poll respondents rated their local school district positively, with 59 percent indicating "excellent" to "pretty good" and 34 percent indicating "only fair" or "poor."[17]

Results of other surveys show that in the early 1990s, Oregonians listed crime and economic development as the top issues of concern, although education was also considered important. At the end of this decade, Oregonians' top issues were education and growth management.

One national study of parent dissatisfaction with urban school districts found that 4.7 percent of Portland parents were dissatisfied enough with their child's elementary school that they wanted to move to a new area. This figure places Portland forty-seventh out of the fifty-five districts surveyed. By contrast, the national average was 6.7 percent, the same as the figure in Seattle, which ranked fortieth on the dissatisfaction scale. The city with the most dissatisfied parents was Cleveland, with 23.4 percent of parents wanting to change areas. The proportion of suburban parents wanting to move due to their elementary school was generally lower than the proportion of urban parents. In Portland, the percentages were essentially the same for both groups.[18]

Voices of Oregon

We have learned that we are not making enough of an investment in teacher preparation and training. We have also learned that we need to do more to inform parents and students of exactly why we are undertaking the reform effort and what it encompasses in terms of content.

Legislator

It is an inherently good idea. Right now anyone can graduate from high school. Everyone gets the same piece of paper even if some try harder than others.

Student

Education reform was presented well originally, a focus on projects, personal motivation, etc. But now teachers just focus on testing.

Student

General perceptions of Oregon schools appear to have shifted little over the past five years, and confidence in the state's largest and most urban district remains solid. At the same time, a

significant proportion of the Oregon electorate remains skeptical of the performance of the education system, and a small but growing group of parents is seeking alternatives outside the public system.

To summarize, Oregon's schools have held their own during a decade of essentially flat to decreasing funding overall. Some districts were fiscal winners; others fiscal losers. When data are aggregated to the state level, test scores that allow comparisons with other states or nations indicate Oregon did well over the course of a decade during which large-scale changes were occurring within schools.

The challenge facing Oregon schools for the coming decade is that school systems across the nation, and even throughout the world, are focusing on improvement efforts. While Oregon has been a leader in the 90s, many states are catching up. If Oregon does not proceed aggressively, it will certainly be surpassed by other systems that are intent on continuous improvement. Ominous signs, such as stagnant improvement rates at the high school and middle school level, and slowing improvement rates at the elementary level are cause for concern, or at least close observation.

Figure 7: Results of Education Reform in Oregon			
Indicator	**Beginning of Decade**		**End of Decade**
Oregon Reading Benchmarks			
3rd Grade	52% (201)		81% (209)
5th Grade	51% (214)		69% (218)
8th Grade	40% (227)		56% (230)
10th Grade	31% (231)		52% (235)
Oregon Math Benchmarks			
3rd Grade	35% (197)		70% (205)
5th Grade	47% (214)		66% (218)
8th Grade	40% (228)		52% (231)
10th Grade	34% (233)		36% (233)
$/Student adjusted for poverty, special education, etc. (2000$)	$5,585		$5,070
Difference between highest and lowest spending districts (5th & 95th percentile)	$3,552		$294
Pupil Teacher Ratio	18.6		20.1
Average Teacher Salary (1998$)	$42,150		$39,284
Public School Enrollment	93.2%		91.2%
Private School Enrollment	5.7%		6.8%
Home School Enrollment	1.1%		2.0%
National and International Comparison			
Indicator	**Oregon**	**United States**	**Rank**
NAEP Reading 4th Grade	28%	31%	9 higher / 19 same
NAEP Reading 8th Grade	33%	33%	2 higher / 19 same
NAEP Math 4th Grade	21%	21%	4 higher / 23 same
NAEP Math 8th Grade	26%	24%	2 higher / 18 same
TIMSS 8th Grade Science	564	534 (World: 516)	World: -1 higher/10 same
TIMSS 8th Grade Math	525	500 (World: 513)	World: 8 higher/16 same
SAT Verbal	528	505	First
SAT Math	528	512	First

PART 2:

A DIAGNOSTIC REVIEW OF THE CRITICAL IMPLEMENTATION STEPS

Chapter Four

Do We Have A Shared Vision Of Reform And A Widely Understood And Accepted Implementation Plan?

Part of the vision (high academic standards, with rigorous assessments) is well articulated and understood by education leaders and close observers. However, the vision for applied and career-based learning remains murky among all the participants. No part of the vision is universally understood throughout the school community, much less the general public. While we have seen major progress, much work remains.

Why is this important?
What are we trying to accomplish?

Oregon's K - 12 education transformation is an enormous undertaking, involving nearly 200 districts, 27,000 teachers in over 1,200 buildings, 550,000 students and an array of critical stakeholders that includes 90 legislators, 1,500 school board members, and thousands of site council members. If the basic vision is unclear—or if the implementation schedule is confusing—different actors within the system will work at cross-purposes, and students and teachers on the front lines will become frustrated. Many in Oregon believe this scenario of confusion and frustration is unfolding.

To align the system, all stakeholders need to be familiar with the major features of reform and the implementation framework. As articulated by the School Transformation Advisory Council,[19] the vision for reform encompasses the following goals:

- Increasing numbers of students will come out of their K - 12 years competent in rigorous academic and career-related studies that apply directly to further schooling, employment and fulfilling lives.
- Students will meet high performance standards in academic subjects and develop competence in reasoning, solving problems, communicating with other people, working in teams, using technology and planning their own futures.
- The classroom experiences through which they acquire these capabilities will be rich and varied. Subjects will be taught in the context of applications outside school. Learning will occur through interdisciplinary approaches and project-based assignments. Students will spend significant time in the community learning about adult work and responsibilities, and gaining insight into the way that academic knowledge is applied in work and life. Such learning and achievement will build methodically from kindergarten through twelfth grade.
- Post-secondary schools and employers will find that graduates of Oregon schools come to them with solid academic skills, a strong work ethic, and the readiness to grow intellectually, occupationally, and personally.

Implementation requires definition and development of standards, assessments and aligned school curriculum in order to give all students the opportunity to achieve the Certificates of Initial and Advanced Mastery (see CIM and CAM definitions on page 8).

At the heart of the transformation is a shift of philosophy from a system in which education is measured in terms of time spent studying specified subjects to a system that focuses on measurable performance derived from defined standards. Without an understanding of the aims of reform (the vision), detailed knowledge of the certificates, and a commitment by schools to undertake the structural and functional changes consistent with a standards-based education philosophy, the proportion of students reaching benchmarks, and subsequently receiving certificates, is unlikely to increase.

What have we recommended in the past?

In a 1996 task force report to Governor Kitzhaber, the Oregon Business Council highlighted the importance of defining and communicating a common vision. It recommended "the creation of a single cross-functional organization to help implement the vision of school transformation and to monitor and assist in implementation." Leadership, the report said, "should be entrusted to one person who 'owns' the process."[20] The team should be assigned responsibility to:

- Develop a single document that captures the vision of school transformation, by emphasizing standards, assessments, applied learning, and local flexibility in implementation and accountability for results.
- Create a process to review the standards and assessments in a systematic, predictable fashion and in a way that compares them to national and international standards.
- Design and execute a strategy to develop networks, communication forums, and media campaigns to explain and win acceptance of Oregon school transformation.
- Oversee a greatly expanded program evaluation effort to ascertain the effectiveness of the processes being used to implement reform and to ascertain more precisely the results being achieved in terms of student knowledge and skill.

How are we doing?

After the 1996 report, Governor Kitzhaber and School Superintendent Paulus created a cross-functional team led by the governor's education policy advisor. The team's first task was to create an implementation plan, which for the first time set out a schedule for implementation of standards and assessments. This schedule became the road map for the assessments that are in place today. At the same time, the School Transformation Advisory Committee was created with a good cross section of interested parties to provide feedback on implementation. All this is laudable.

At the same time, the communications networks envisioned back in 1996 have not fully materialized. There have been many successful efforts to communicate. For example, an annual superintendent's forum provides an excellent opportunity to review progress and learn.

Yet, we still have very limited tools to communicate two-way across the nearly 200 school districts throughout Oregon. As a result, it is very difficult to assess how progress is occurring on the ground, and what students and teachers need to make standards-based reform a success. Improved communication about Oregon's vision must be a high priority for the period immediately ahead.

As we prepared this report, we interviewed participants in the reform and reviewed available surveys to assess how well Oregon has created a unified vision that is understood and accepted. Stakeholder perceptions regarding the vision for Oregon's education reform and its implementation vary widely.

Citizen reaction to reforms

A survey conducted in March of 1999 by The Nelson Report for the Oregon School Boards Association[21] found that 36 percent of respondents were familiar with the Oregon Education Act and 58 percent were not. These figures are relatively unchanged over a three year period, even though more than one million dollars have been spent to publicize reforms. Of those familiar with the act, the major feature of reform identified most frequently was "upgrade standards of learning," by 24 percent. The Certificate of Initial Mastery was favored by 72 percent of respondents, with a similar percentage favoring the Certificate of Advanced Mastery. A very high proportion of respondents, 68 percent, favored the Oregon Educational Act for the 21st Century, while 17 percent opposed it. This represents a 7 percent increase in support over 1997, and a 13 percent increase over 1995.

Administrator and teacher reaction to reforms

Two surveys, one of principals and the other a broad sample of teachers and principals, provide insight into the ways Oregon educators are thinking about reform. The first survey, conducted by OBC during 1999,[22] solicited responses from a broad range of principals. A substantial proportion of respondents (48 percent) believe in the potential of the act to provide a well-designed plan for reform, while 68 percent believe the CIM requirements test the skills and knowledge all students should have before they leave high school, and 53 percent believe the CIM will help students become more prepared for their futures. Fifty-eight percent believe that CIM assessment tools are valuable measures of student progress and that CIM multiple choice tests assess student knowledge of material specified in the content standards. Over three-quarters (78 percent) believe work samples are worthwhile assessment tools.

Three-quarters of respondents did not believe the incentives for students to complete the CIM were adequate. Fifty-four percent of principals believe support from the business community is less than what is needed. Few (15 percent), felt they had adequate financial resources to successfully implement the CIM.

A separate longitudinal survey[23] of administrator and teacher perceptions of reforms from 1993 to 1997 showed an interesting dichotomy: while educators agree with the ultimate goals of education reform, they are reluctant to embrace state-level education reform initiatives. Teachers agreed most strongly with the ideas that:

- An increase in funding for training and program development would make a big difference in implementing reform

- There has been too much change too fast in education
- The current system isn't working for many kids
- The intent of reform is to use student performance to judge schools
- The intent of reform is to meet the needs of business
- It is time for fundamental change in education

These attitudes reflect the sometimes contradictory views teachers express toward reform, recognizing the need for change, but harboring concerns about its effects on them and on students. Two additional generalizations came from this survey research:

- The most important element shaping teacher attitudes toward education reform is each teacher's personal value system, followed closely by their understanding of what they are to do. Also important is their belief that they can be successful once reforms are implemented. This implies the need to engage teachers personally in an understanding of the goals of reform and the methods through which they can succeed with students.

- The actions of the principal are the most important influence on teacher attitudes, followed by the Department of Education and the legislature. Least influential were the superintendent and school board. Clear signals are needed from the legislature and the Oregon Department of Education to allow the principal to communicate effectively. Central offices must help, not hinder, this process of interpretation at the site level.

Legislative understanding of reforms

The vision for education transformation is well understood by education leaders, and political support has been sustained despite changes in political leadership. However, legislative understanding and ownership is shallow. Term limits have resulted in a legislature consisting of people who were not present when either the initial reform law or its major revisions were enacted.

Voices of Oregon: Legislator's Views

Question	Score
Do we have a shared vision for school improvement? *(1 = no shared vision / 5 = shared vision)*	2.4
Do we have an implementation plan that is widely understood and supported? *(1 = no one knows the plan / 5 = everyone knows the plan)*	2.0
Do you believe there is support for the vision and plan? *(1 = no support / 5 = unanimous support)*	2.4

Statewide communications about reforms

Oregon's communications efforts about education transformation have demonstrated both strengths and weaknesses. Strong points include creation of a broad-based coalition that advocated and secured funding for a communications initiative. A statewide communications plan was implemented, and written materials were developed and disseminated extensively. Press coverage has been fair and generally supportive, particularly in the Portland metro area. In addition, some individual school districts have done an excellent job communicating the vision to all stakeholders.

Unfortunately, communications efforts have not been universally successful. The basic vision of reform and the details behind the certificates are not well understood by many in schools and, especially, by students and parents. Work-based and community-based learning (and the Certificate of Advanced Mastery) are not well understood by many key stakeholders, including district superintendents. Connections between the certificates, higher education and employment have not been articulated in terms of policies and pilot programs that motivate students to strive for the certificates. Therefore, many conclude that the communications campaign was largely ineffective at communicating the major elements of reform to teachers and the public at large. There still is no systemic strategy for communicating about school transformation through every school building in the state. Communication from the Department of Education is perceived as sporadic, and does not necessarily reach intended audiences.

Voices of Oregon

Across the state we have a broad shared vision, and that is to make sure that our kids are meeting standards that reflect the tools kids need for their futures. However, beyond this broad vision, there are not many things on which we can all agree.

School Board Member

The implementation plan is poorly understood by parents, and students feel under a great deal of stress to perform at the benchmarks, and it's because they are poorly informed about the tests. Teachers are all over the board, some are just good soldiers, but we don't have the resources to implement all of this.

School District Superintendent

Parents and students don't have a clue about the reforms. They haven't been educated as to what all of this means or how it will benefit them.

Teacher

People in high school have two goals: either graduate or go on to college. The CIM/CAM does not help with either goal.

Student

Evidence of progress in understanding and implementing plans for reform

In 1997, Governor Kitzhaber and Superintendent Paulus jointly appointed a single person to lead a cross-functional implementation team that includes representatives of the governor's office, the Department of Education, the university system, community colleges, Teacher Standards and Practices Board, and the Oregon Business Council. The School Transformation Advisory Committee (STAC) oversees this work and includes wide

representation of stakeholders. In 1997, a framework for implementation was produced which included clearer schedules of how standards are to be implemented. While the dates for some assessments have slipped, ODE has focused on completing the assessments as its top priority. Higher education has become a full partner, and is willing to align admission requirements with state assessments and standards.

Recommendations

1. *Reconfirm the vision among all stakeholders*

- The governor, legislature, State Board of Education, and superintendent of public instruction, in conjunction with all other major education stakeholders, should reconfirm the central vision for education reform: that Oregon students will be the best educated and prepared in the in the world by 2010.

- The governor, legislature, State Board of Education, and superintendent of public instruction should emphasize the expectation that all students will meet or exceed rigorous academic and career-related learning standards and that Oregon schools will provide an exceptional array of learning opportunities, including learning in community and business settings, for every child.

2. *Actively communicate and promote the vision, especially among teachers; develop a communications plan that reaches and hears from all audiences*

- The governor should reconstitute a Communications Council, to be jointly chaired by the state school superintendent and the governor's education policy advisor. The council should have representatives from key stakeholders and be responsible for overseeing the development and implementation of a communications plan. It should regularly review and respond to feedback from key constituencies—most notably teachers—about what information is needed to enable reform goals to be met. The communications plan should be highly interactive, with a strong emphasis on listening to the voices of those directly involved in and affected by education reform.

- The Department of Education should clarify the message that will be presented to the general public, then develop a plan to repeat these themes in numerous venues until a saturation level is reached.

- The Department of Education should contract regularly with research organizations to evaluate educator perceptions of the implementation process, with the goal of improving implementation efforts systematically based on the results of evaluations.

- The Department of Education should redesign the assessment results reports sent by the state to parents to make them user-friendly, clear, and visually appealing. It should develop standardized materials that help parents interpret state reports in terms of their own child's performance.

- The Department of Education should create a state "virtual newsletter" on standards and reform that contains many anecdotal articles and descriptions of how students are succeeding and how schools are meeting the challenges of reform. These articles can be

distributed to districts that have their own newsletters, and ODE can distribute a newsletter template with the articles to districts that do not. Districts would decide if and how to print the material provided.

- The Department of Education should make highly public the development schedules and key activities of all ODE departments engaged in reform (including using a dedicated page on the ODE web site). Most important are Curriculum and Instruction, Assessment, and Professional Technical Education. All meetings, planning sessions, development sessions, materials review meetings, eligible content panel meetings, advisory councils, and any and all other activities related to reform development and implementation should be posted well in advance (up to six months) on a common web site in a series of calendars accessible from one home page. The departments charged with implementing reform should anticipate these activities and plan them enough in advance to allow participation by interested parties. Just as important, posting of these schedules would allow educators to see and feel confident that issues are being addressed and resolved systematically.

3. *Create systems that document CIM successes and strengthen school-business partnerships that support the CIM and CAM; develop an employer-based campaign highlighting the value of the certificates*

- The Department of Education should begin tracking the first groups of CIM recipients and note their accomplishments, including internships with companies, early admission to higher education, etc. Once this first cohort has reached graduation age, ODE should begin providing examples of CIM recipients' success in employment and work settings.

- As the Certificate of Advanced Mastery is clarified, ODE should organize regional forums for employers and schools to begin working on or strengthening their understanding of the CAM and its activities, and to establish mechanisms that link schools and employers more systematically.

- Education leaders should work with industry associations and other business groups to develop mutual support for creating effective career-related learning experiences for students.

- These groups should also work together to develop methods for valuing the CIM and CAM in the work place.

Chapter Five

Have We Developed World-Class Standards And Assessments That Describe And Measure What We Expect All Students To Learn?

Standards and assessments for reading, writing and mathematics are in place and appear to be well designed. The assessments appropriately rely on a combination of multiple choice tests, performance assessments and written work samples. Science assessments are beginning to be implemented (i.e., a multiple-choice test) while performance task assessments are being developed and piloted. Social science standards and assessments have been delayed and issues surrounding their development need to be resolved soon if they are to be implemented in a timely fashion. More needs to be done to ensure timely feedback on assessments, to help schools in awarding the Certificate of Initial Mastery. The Certificate of Advanced Mastery (CAM) is still highly conceptual and needs work, particularly in terms of what exactly will be required for a CAM to be awarded and how this will be assessed.

Why is this important?
What are we trying to accomplish?

At the heart of Oregon's education transformation is a vision to spell out clear, challenging academic and work-related standards and to develop psychometrically reliable and valid assessments that measure accurately whether students are meeting the standards. Because the assessments are pivotal for evaluating school and student progress, it is critical that they derive from important learning goals, and that they reliably and efficiently measure student achievement of those goals. If they do not, educators may attack the assessments as detrimental to students.

What have we recommended in the past?

In its 1996 report to Governor Kitzhaber, the Oregon Business Council recommended that Oregon:

> "…develop a process to periodically improve the standards. Benchmark Oregon standards to internationally validated standards. Integrate 1) the content of various standards (CIM, CAM, PREP, PASS, school-to-work), 2) the processes for creating and applying various standards, and 3) standards and assessments. See that the standards are clear and comprehensible to non-educators, and see that they make sense to employers as well as recognized subject matter experts and practitioners beyond academic and education circles."

The concern raised in the report was that the standards and assessments were not well connected with each other, that there was no clear timeline for development and implementation, and that changes in legislation had confused schools about the aims of the standards.

How are we doing?

Over the past three years, Oregon has made very good progress in the development of an integrated system of standards and assessments. Higher education, community colleges and employers participate with the Department of Education in the design of assessments, which are among the best in the nation. These standards and assessments are having a real effect on teaching practices and student learning. Yet major design and implementation issues remain. While there is much left to do, the development of standards and assessments in Oregon has been a success story, as evidenced by these milestones:

Voices of Oregon

Our assessments are some of the best because we don't just use multiple-choice tests. By going into work samples we have a more rich and accurate picture of what students can do, but it is more complex.

State-level Official

We have inequity at the starting line, and that has not been adequately addressed. How do we put in place the supports that are necessary to bring all students up to the benchmark standards? Race and socio-economic status play a part in this, and these issues have not been fully explored. We need to bring a different set of experts to the table.

Legislator

We talk about standards like they are going to be etched in stone by God. It is unrealistic to expect that we are going to have unanimity about the standards. We set some benchmarks—they are not perfect; they need to be tweaked over time as we learn how students and teachers react to them.

School District Superintendent

- The Board of Education has adopted performance levels for benchmarks at each grade level, and schools are reporting results at grades 3, 5, 8, and 10.

- The Board of Education adopted a three-part assessment system for reading, writing and mathematics for grades 3, 5, 8 and 10 (the three parts include a multiple choice assessment, a state performance assessment and individual student classroom work evaluated with a common scoring guide). These assessments have been implemented statewide.

- The assessment system employs an advisory board composed of some of the leading national experts on large-scale assessment. Oregon's assessment system is one of the most comprehensive in the nation, and Oregon is one of the leaders in emphasizing higher level thinking skills, such as problem solving and inference, in addition to basic skills. Many other states have limited their assessment of standards to multiple-choice tests alone.

- The legislature approved the creation of "assessment centers" to be housed in schools, and provided funds to develop and staff these centers. The centers would provide a range of services to students and schools, including re-testing, staff training, and possibly even computer-adapted testing opportunities.

- Last years' students were the first group to have completed the assessments that enabled them to earn a Certificate of Initial Mastery.

- The Oregon Department of Education and the Oregon University System have linked all standards and assessments in English and math with university admission, and are working on a final design to link science standards and assessments to admission requirements. The Community College System has completed initial work on its PREP standards.

In addition, Oregon's standards were analyzed along with those of every other state in the nation by the American Federation of Teachers.[24] Their assessment of Oregon standards generated the following conclusions:

- The English standards at the middle and high school levels are clear and specific, especially in reading comprehension.
- The math standards are generally clear and specific across all levels.
- The science standards are generally clear and specific at the middle and high school levels.
- United States and world history in the social studies standards are clear and specific at the middle school and high school levels. The elementary level is also clear and specific, but the standards no longer address world history, as the draft standards did.

While there is a great deal to applaud, work remains:

- Frequent changes in scoring rules for passing benchmarks have confused the front lines. Stabilization in scoring procedures is necessary, at least for a period of time long enough to allow schools to institutionalize scoring practices. Some final adjustments in scoring rules may need to be made. After this point, however, rules should remain constant for several years.
- The science multiple-choice test is being instituted this year, but the science performance task and work sample requirements are in the developmental stages. These aspects of the assessment system need to be completed and need to complement the existing assessment requirements.
- The schedule for social sciences standards and assessments has been moved back three years, in part due to basic philosophical differences about the nature of what should be assessed in social sciences. This area is problematic due to the number of disciplines it encompasses (geography, history, civics, economics), in addition to controversies surrounding what should be assessed.
- The CAM standards have been developed, but the assessment requirements remain ambiguous. School reform legislation does not appear to authorize a state-level assessment system for the CAM. The emphasis on locally designed assessments for the CAM presents profound challenges and is not consistent with the principles of the CIM assessment system. As a result, the design of the CAM remains murky.
- As testing becomes more critical for assessments of schools and students, security and reliability will need to be enhanced and results will need to be reported in a more timely fashion. The state will need to find practical and efficient means for students who do not

pass the first time to retake tests. The reporting system must be streamlined so that teachers and students receive assessment results quickly enough to make changes in instruction or curriculum, so students can learn necessary material and retake assessments.

- The state must accurately determine the assessment burden it is placing on teachers and schools, in terms of the amount of time it takes to conduct assessments. The Board of Education has commissioned a study of the work sample component of the assessment system. A larger study of the logistical demands and requirements of all aspects of assessment, including the logical linkages between assessment and instruction, should be undertaken.

- The ODE has the opportunity to coordinate its standards and assessments with university entrance requirements and community college program proficiencies. This opportunity should be exploited quickly and efficiently, to ensure students have a real reason to meet state standards and earn a CIM.

A 1999 OBC stakeholder survey—a survey of legislators, state-level officials, teachers, school superintendents, school board members, and others—showed that perceptions about the standards and assessments are generally positive. However, legislators were lukewarm, as shown through the survey data (right) reflecting their views on standards and assessments.

Voices of Oregon: Legislator's Views

Question	Score
Have we developed standards and assessments that accurately describe and measure what we expect all students to learn? *(1 = standards do not describe what we want students to learn / 5 = standards perfectly describe what we want students to learn)*	3.0
Have the standards and assessments been implemented in schools? *(1 = not implemented / 5 = fully implemented)*	2.8

Recommendations

1. Restate and clarify the purposes of state assessments

- The Board of Education should clearly restate and publicize the purposes of the state assessment system; namely,
  - To provide data to teachers to enable them to adjust instruction over time in ways that improve student achievement
  - To provide means for students and their parents to understand how students are performing relative to specified academic standards
  - To serve as the basis for awarding the Certificate of Initial Mastery, and to ensure students who receive the CIM have, in fact, demonstrated a high level of skill in specified areas as measured by designated assessments
  - To provide information to the legislature and the citizens of the state on how well its public schools are educating students

- To provide information to schools and districts to use when determining improvement goals or the effectiveness of improvement efforts
- To provide information to prospective employers and post-secondary institutions that help determine student readiness for experiences beyond high school
- To provide a means of identifying schools that perform below expected levels so that they may be given assistance and held accountable for improvement

2. *Refine standards and assessments through regular, formal review (and review the time required for each assessment to ensure it is manageable for schools)*

- A formal body should be convened with the responsibility of periodically reviewing the Oregon standards and benchmarks. This body would be composed of a range of respected Oregon citizens, including both educators and non-educators, and leading national experts. It would meet every 18 months to consider comments from educators and citizens, reports on the standards from the Department of Education, and the results from any external analyses of Oregon standards that have been conducted. This body would use this information to ensure the Oregon standards are and continue to be world class. It would also consider implementation issues and listen to educators and other interested citizens who have suggestions on how implementation could best be achieved. This body would forward its recommendations for modifications in the standards directly to the State Board of Education every two years. The review cycle and the means to offer input should be known well in advance and become very familiar to Oregon educators and citizens.
- The two most important issues in the near term are 1) the definition of the Certificate of Advanced Mastery, and 2) alignment of the state assessments with the state system of higher education's Proficiency-based Admissions Standards System (PASS). The CAM assessment system must be defined as soon as is practicably possible in order to allow districts to begin planning for it and to allow time for the technical work necessary to ensure its adequacy. Equally urgent, the alignment of the content standards and assessments with PASS should be completed. PASS has indicated contextually-based assessments can contribute to meeting university admission requirements, providing they address PASS proficiencies. Schools should not be asked to administer two different assessment systems. The systems should be integrated immediately.
- A blue-ribbon commission should be established to determine the time required for assessments and the impact of assessments on instructional practices. The commission should recommend the parameters for the overall assessment program, and these recommendations should be taken into account by the State Board of Education and ODE as assessments are designed for additional subject areas and the Certificate of Advanced Mastery.

3. Dramatically improve administration of state assessments, including mechanisms for more timely reporting to schools

- The administration of the state assessment system needs to be markedly improved. Data should be available in a timely fashion so that assessment results can be used to modify instruction for students and to inform program improvement efforts. The only way that the time and resources devoted to assessment can be justified is if assessments serve multiple

purposes for schools and policy makers, including developing school profiles that guide program improvements, allowing comparisons among schools, and serving as an overall measure of the effectiveness of education in Oregon.

- The time between the administration of assessments and the provision of results to schools and teachers should be reduced dramatically so that data can be used to make classroom-level decisions about individual students, communicate student progress to parents, and make school-level decisions about educational programs.

- The school-based assessment center concept should be pursued immediately. Pilot districts and schools should be identified and work begun on demonstrating the feasibility and utility of computer-adapted levels testing, with immediate reporting of scores on-line. Agreements for at least two pilot projects should be formalized before the end of the year 2000. These initial pilots may have to be established in partnership with supportive school districts willing to devote some local resources to the centers in their initial year, in order to get them up and running quickly.

Chapter Six

Have Curriculum And Instruction Been Revamped To Enable More Students To Meet The Standards Each Year?

Schools report that substantial work is in progress to help students achieve standards; however, there is no systematic way to evaluate what is happening in the field or to identify best practices. Surveys show that educators will be more supportive of reform if they have the tools to implement it successfully. Principals support reform goals but do not believe they have the resources necessary to achieve them. Teachers say they need more training, and professional development must be widespread and effective. Secondary schools appear to be more difficult to change than elementary schools. The continuing question is: How much change will ultimately be required of schools and schooling for all students to meet the challenging standards?

Why is this important? What are we trying to accomplish?

Standards define what we want students to learn and be able to do, and assessments measure whether they have learned the material and mastered the desired skills. But to transform schools, standards and assessments are not enough. Existing curriculum and instructional practices need to be changed from models that result in predictable rates of failure each year, to methods that lead to more students reaching standards each year. To improve schools successfully, principals and teachers need to be trained and classroom practices need to be organized around the new system. Addressing the needs of students who do not reach the standards after initial instruction is a particularly important issue.

What have we recommended in the past?

Earlier reports have highlighted the scope of change necessary for individual schools to increase the proportion of students achieving standards. With 200 school districts cumulatively serving over 550,000 students, the challenges of implementing changes of this magnitude are daunting. It is primarily for this reason that we have recommended a cross-functional team at the state level to oversee this entire initiative.

In terms of responsibility, we have recommended that districts and individual schools be given a great deal of authority to craft changes in curriculum practice, professional development, class schedules, and other areas necessary to support achievement of standards. The overriding state role is to develop standards and assessments that, by nature, require statewide consistency. With standards in place, the state should relax prescriptive regulations on classroom practices and should measure school performance in a fair and sophisticated manner based on assessment results.

With this framework, school districts and schools would have clearer ground rules for how they will be judged and greater opportunity to adapt their programs to meet the new state standards.

How are we doing?

Because of the scale of the undertaking, and because there is limited information management capacity to report from the field, it is very difficult to summarize the extent to which schools have changed practice to enable more students to achieve standards. Anecdotally, we know that a great deal of change is occurring. Most schools have spent significant time aligning curriculum with the standards and conducting professional development activities to help teachers adapt their class curricula. Some school districts have developed comprehensive plans to change curriculum and have backed the plans with organized professional development. Others have approached the task less systematically. We do, however, know something about principal and teacher perceptions of reform.

Voices of Oregon

The jury is still out. The process has just barely been implemented (even though we are 10 years into it). Teachers are still confused, tests are not fully implemented, and schools are still learning how to cope with work samples. We are discovering how difficult it is and we are going to have to push forward with the experiment, but it will be a number of years before we can decide whether it is successful.

Legislator

Teacher and administrator reaction to curriculum and instruction changes

A survey conducted by the Oregon Education Association[25] in 1999 indicated over 59 percent of teachers had reorganized the content of what they teach to align with state exams. However, more than half the responding teachers felt they needed professional development to help them perform critical tasks including aligning their curriculum with state tests, teaching essential skills for student success on open-ended performance tasks, developing learning options for those who do not meet state standards, and developing appropriate work samples. Over 80 percent indicated they did not have adequate time to prepare curriculum, and over 75 percent felt they did not have adequate time during the school year to teach the knowledge and skills essential for success on state tests. More than 87 percent of teachers responded that they did not have adequate time for scoring work samples or for providing remediation to students who do not pass work sample evaluation. Only slightly more than 16 percent of teachers felt that at least 70 percent of their students could ever attain the state standards set for their students.

In survey of 80 high school principals conducted by the Oregon Business Council,[26] 85 percent reported that their schools have made significant changes in curriculum practice and teaching to adapt to the new standards. Responding principals felt the constant changes in expectations and requirements for education reform impair their ability to implement reform requirements successfully, and adapt school practices to the new standards. These principals have put a lot of effort into strengthening communication within the school community, but feel there is still confusion among parents, students, and teachers about what the expectations are and why they are important.

A separate longitudinal survey[27] of administrator and teacher perceptions of reforms from 1993 to 1997 yielded the following generalizations:

- The most frequent activities in which teachers are engaged in response to reform were: (1) develop new curriculum, (2) modify curriculum, (3) participate in in-services, and (4) develop school improvement plans. Activities engaged in least frequently in response to reform were: (1) work against reform being implemented, and (2) visit other schools to learn about reform programs. Most teachers are starting from where they are and evolving their curriculum; they are not engaged in fundamental redesign efforts. Most are still relatively isolated from new ideas and programs occurring throughout the state.

- The three elements having the most effect on teaching practices were benchmarks for student performance, Certificate of Initial Mastery (CIM) tests, and CIM work samples. Support was high for benchmarks, but support for grants to schools was the highest of any item.

The Oregon reforms do have a direct effect on teaching practice, which is one of the reasons that these reforms are difficult to implement. The survey concludes that educators are willing to attempt reforms, if they are given adequate clarity on what it is that they are to do, adequate time to do the things required, adequate training, and adequate resources to support reform goals. Absent this type of support, it appears that educators adapt their behavior based only on the requirements of the law—doing only what they feel they have to do—without necessarily understanding or embracing the broader goals of the reforms.

Some preliminary examples of schools out-performing expectations

One of the benefits of the development of a statewide database, which is occurring via the Database Initiative, is that exemplary schools can be identified in terms of improvements in test scores. A number of schools are emerging that out-perform other schools with students from comparable socioeconomic backgrounds. For example, during the 1998/99 school year:

- At Patterson Elementary in Eugene, 95 percent of its third-graders met the benchmark in reading and 100 percent met the benchmark in math. The school has the second-lowest index of student Socio-Economic Status (SES) of all elementary schools in Eugene, and is 721st out of 777 elementary schools in the state.

- Foster Elementary in Sweet Home ranks 698th in SES, yet over 90 percent of its third-graders met or exceeded reading and literature standards.
- Over 90 percent of Madras' Westside Elementary students met both reading and math standards. The school ranks 593rd in SES.

Professional development

Teacher professional development is pivotally important for successful implementation of standards. While ODE has done much to stimulate professional development via workshops and requirements that districts develop plans, Oregon still lags behind other states in its approach to professional development, particularly when it comes to new teachers. In a special report analyzing teacher training and support nationwide, Oregon received a grade of

"D," in part due to its lack of support for beginning teachers and due to the lack of state funds for professional development.[28]

Most programs for building the skills necessary to achieve reform goals are designed at the district level, and there is a growing gap between the districts that have taken the initiative to train their teachers on the new standards and assessments and those that haven't. Part of the gap is between rural and urban areas. Some Educational Service Districts (ESDs—regional educational agencies offering services to a group of districts) offer training, but many do not. Much of the variance is simply a reflection of different districts' attitudes toward reform or of varying capacities to design and conduct district-wide training. As more teachers are trained to implement standards, the gap between the trained and the untrained teacher is beginning to grow larger. Surveys of teachers suggest those with training tend to gain more experience in their classrooms teaching to the standards, further separating themselves from teachers without training. These teachers tend to be more supportive of reform or, at the least, tend to offer constructive criticism on how to improve the reforms. Teachers without training often question reform with greater frequency.[29]

Voices of Oregon

We're making some pretty good progress aligning curriculum and developing standards. The mechanics to get things done have improved a lot. But we need more teacher training and staff development time to let our staff get oriented on what they're supposed to be doing. That takes time and money, and we have neither.

School District Superintendent

The recent 73 percent failure on the CIM illustrates that the curriculum does not match the standards.

Legislator

The progress that has been made up to this point is miraculous, if you take into account the circumstances under which the changes have occurred—especially the lack of support from the legislature.

School Board Member

Curriculum is becoming more streamlined and universal, and that means kids are getting a more even quality of education across the state. The problem is that the standards keep changing, so implementation has to be flexible.

Teacher

Career-based learning

Career-based learning is an important part of the Education Reform Act. Some districts and individual high schools are developing more school-to-work programs and work-based curriculum. On the other hand, many districts have been moving this past decade to eliminate traditional vocational education curricula. Sometimes they replace these subject areas with updated curriculum that has a professional-technical focus; other times they do not. All of this is taking place in an environment where there is little clarity or certainty about the CAM. The Office of Professional Technical Education has launched its New Century High Schools, a pilot program to develop the specifics of the CAM.

Where is progress occurring?

Differences exist in the ways each level of the education system—elementary, middle, and high school—are responding to reform. Each has its unique characteristics that affect the ways in which reform is being implemented, or not being implemented.

The elementary school level

The organizational structure of elementary schools has been most able to adapt to meet the demands of standards-based reforms. Since the assessments have focused on literacy and numeracy initially, elementary schools have developed numerous strategies to allocate more time and more teaching personnel to these areas. Often, special education teachers have begun to work more closely with classroom teachers, and all have agreed to focus upon the "eligible content" from which the assessment items are drawn. By virtue of their smaller size alone, elementary staffs have been able to communicate more among themselves regarding reform. Elementary school teachers are more familiar with the notion of curriculum articulation, as well. These factors all make it more possible for elementary schools that choose to focus on reforms to improve student performance in relatively short periods of time.

The middle school level

Middle schools face a somewhat greater challenge than elementary schools in adapting their instruction to the new standards and assessments. Since middle schools mimic high schools in their use of multi-period days, subject specialization, and (often) some form of ability grouping, they are less able to increase the amount of time devoted to teaching to the standards, nor is it as easy for staff to decide they will all focus on certain goals. However, many middle schools employ strategies such as block schedules that do allow some flexibility, and the middle school concept itself is to focus more on the needs of the student. As a result, a number of middle schools have begun adapting their programs to achieve reform goals. The improvements in middle school test scores have not been as large nor have as many schools reported improvements when compared with elementary schools' scores.

The high school level

High schools show the least improvement in student assessment results. They are also the least amenable to the types of changes demanded by a standards-based system—namely, that the amount of time available for instruction be adapted based on student need. Few high schools have reading teachers who can help below-standard readers improve, and most high school teachers do not believe it is their responsibility to teach reading (nor are they trained to do so). Time for English and mathematics instruction is generally limited to one period each per day per semester, and these are the two subject areas where "ability" grouping is most common.

Given limited access to more time to master course content, and curriculum that is often less challenging than required to meet standards, many students do not close the gap between their performance and the standards once they enter high school. Furthermore, high schools are larger and more fragmented than elementary or middle schools, and faculty members communicate much less frequently with one another. They see themselves as having less in common, and may work with vastly differing types of students. It is unclear who "owns" the

problem of improving student performance and who "owns" the students in need of improvement. These characteristics make it much more difficult for a high school to focus on reform goals and systematically improve student performance. State assessment trends over the past few years bear out this generalization.

Recommendations

1. *Encourage Oregon schools to adopt continuous improvement practices*

- As part of the process of continuous improvement, study curriculum and other practices from the top performing schools nationally and internationally.

- Two categories of high performing schools should be identified: those that have consistently out-performed their SES cohort, and those that have shown consistent and significant gains in student achievement over the past three years of state assessment data.

- Schools at all grade levels must learn to be more focused on state standards and simultaneously more flexible in allocating time and resources to meet standards. In most cases, schools will need assistance from an external team to enable them to see how to accomplish this. Therefore, the state should organize assistance teams to be available to work with all schools, not just those in crisis. These teams would have something in common with accreditation teams in that they would analyze the functioning of the school and make a series of recommendations designed to help the school improve performance. Each school would be free to determine the best use of these recommendations. The real costs associated with establishing and facilitating these teams should be determined and appropriate resources provided. Such costs should be very modest.

- School districts should be encouraged to solicit partners for charter schools designed to pilot new methods of teaching and learning. These charters could serve as "living laboratories" where district staff could see how new methods and structures could help improve student learning. Some charters might even serve as environments where veteran staff could spend "mini-sabbaticals" to gain new insights into teaching in a standards-based system.

- Networks of schools that face similar challenges should be established, as should networks of schools that are instituting highly innovative approaches to education reform. These schools need mutual support and encouragement, which they may not get as readily within their own districts. These schools should have periodic meetings and opportunities to trade ideas and explore strategies together.

2. *Dramatically increase professional development, and make more time available for teachers to work on school improvement*

- The State Board of Education should provide waivers to allow schools with high quality professional development plans (as judged by external review) to pursue a range of creative approaches to provide time for professional development while not materially affecting instruction. Many individual schools have developed such strategies. These

should be shared, and additional strategies should be explored. Not all teachers necessarily need to participate in all activities.

- Targeted state professional development grants should be provided to qualifying schools. Such grants should serve to demonstrate for all Oregon schools how to achieve maximum results from professional development for minimum dollars. The targeted grant approach has the potential to achieve better results than funding a specified number of release days for all teachers.

- The ODE should gather data on district professional development plans and publicize an analysis that compares the effectiveness of plans, including labeling the most effective as exemplary. For a plan to be labeled exemplary there should be some demonstrative link between the plan's implementation and improvements in student achievement.

- A statewide effort should be made to identify teachers who could serve as coaches to other teachers, particularly to teachers in schools that have fallen far off the pace of education reform implementation. The Oregon Education Association might take a lead role in this process. Districts would bear the costs of utilizing such coaches, and much of the coaching might occur in the summer in the form of collaborative planning activities between the coaching teachers and teachers at the school requiring assistance. The collaborative planning would help teachers develop concrete strategies to implement reform, part of which would be to identify any subsequent training they might need.

3. Coordinate and expand state-level efforts to facilitate school-based improvements

- The Teacher Standards and Practices Commission should adopt a statement of intent that informs all teacher preparation programs that each program will be judged by the performance of its graduates in enabling Oregon students to meet standards. A first step would be to require prospective teachers to demonstrate that they understand the benchmarks and assessments applicable to their level of licensure, so that they can enable students to make progress toward standards.

- The results from international and national comparisons such as NAEP and the TIMSS 1997 Benchmarking Study provide a wealth of information on teaching and learning practices that can be utilized to improve instruction and learning. Much work has been done already on how to utilize the results of such studies to improve schools. The Department of Education, in partnership with state universities and other agencies with expertise in translating research results into practice, should help schools improve mathematics and science programs by applying findings from these and related studies.

- The Department of Education should move rapidly to identify effective schools that can serve as models for integrating assessment into curriculum and instruction in complementary ways.

4. Develop new and more effective models for secondary schools

- Oregon high schools do not seem to be making sustained progress toward increasing the number of students who reach standards. But more fundamentally, the design of the current high school may be seriously outdated in a number of important ways, and may be

incapable of ever enabling most students to reach the standards. The Board of Education should develop policies that encourage experimentation with new models for secondary education, whether such models derive from charter schools or school district experiments. The Department of Education should help facilitate the success of these new models.

Chapter Seven

Does Our Governance System Create Incentives And Provide Necessary Flexibility To Implement The Vision?

The governance system is basically in turmoil. Responsibility for funding, standards, assessment, and accountability has shifted from the local to the state level, but the perception remains that local control is the model for governance. The legislature acts ambiguously toward schools—micromanaging and developing powerful accountability systems while extolling the virtues of local control. The role and scope of school districts, which has traditionally included a strong focus on raising money locally and setting budget levels, has not been reconsidered relative to the shift in budget responsibility from the local to the state level. The entire governance system is in need of serious examination and revamping. This is a time when openness to experimentation is needed and bold new concepts must be entertained.

Why is this important?
What are we trying to accomplish?

The basic governance relationships have changed in Oregon. The state has assumed a much more dominant role in education policy. However, local districts and regional education agencies have not adapted their practices in response to this change, and the state has been unable to articulate the relationship it desires with subordinate governance levels.

In this vacuum, local districts and schools continue to function as if they were in the governance structure present in the 1980s, while the state continues developing standards, assessments, databases, accountability and budgeting systems that are at odds with local conceptions of their relationship with the state.

This mismatch in perceptions is a recipe for disaster. State edicts are likely to be ignored or redirected by schools, while the state is unlikely to achieve its policy goals or learn how to make better policy in partnership with school districts. Although the state espouses a philosophy of providing a general framework of education policy within which local districts and schools are to select the best methods to achieve state standards, in practice, schools exhibit little discretionary authority, and Oregon school districts cling stubbornly to the vestiges of local control but do little to use that authority to develop truly transformed educational programs capable of meeting reform goals.

Resolving these differing views and perspectives of the governance system must be a top priority if reforms are to be implemented successfully. More important than perspectives are the actual governance structures, which will also have to be revamped. Who has responsibility for what? What types of discretion do schools really have? In what ways are districts responsible for the fiscal decisions they make as they build their local budgets (decisions that have implications for the state budget)? These are governance questions that are currently in a state of ambiguity and must be resolved soon.

What have we recommended in the past?

The Oregon Business Council has consistently argued for a model of governance in which the state sets the standards and expectations for effective performance (and the consequences for ineffective performance), and schools, in concert with local boards of education, take the initiative to design programs and make decisions necessary to achieve the primary goal of education reform—all students reaching high standards. This philosophy reflects many of the elements of modern business practices, where decisions are made "close to the customer," but in an environment of accountability for performance.

Schools may not currently be taking advantage of the flexibility that local control potentially offers. The State Board of Education has shown its willingness to waive state regulations that limit schools' abilities to adapt. The federal government has also adopted programs like "Ed-Flex" that can help provide schools more room to create programs that work for all students. Schools that have been burdened by at least three levels of regulation—federal, state, and local—may have the opportunity to escape regulation and design truly effective programs for all students.

At the same time, OBC has acknowledged the need to build a system that provides incentives for all schools to continuously improve their practices. Under the current model where school districts have what is, in effect, a franchise monopoly on their service territory, the incentives employed tend to come from centralized authorities. These incentives, by necessity, are bureaucratic in nature. We have suggested that some form of competition might be a viable alternative.

We have pointed out that the Database Initiative vividly highlights differences among schools and districts. It will soon be possible to review any school in the state in terms of budget allocations, school processes and student performance, in the context of the socio-economic environment. With school funding essentially equalized and with this data available, we anticipate more comparison and competition in the future.

How are we doing?

Oregon is currently groping toward a new understanding of governance relationships in the area of education policy. Little evidence of systematic thinking has been found, nor have the principal players acknowledged explicitly the profound shift in authority, fiscal responsibility, and policy generation that has occurred. The net effect is a state that operates under a set of assumptions about its governance systems that no longer hold true. As a result, it is difficult to engage actors in the system in conversations or problem solving that derives from common assumptions or goals. Long-term planning in such an environment is nearly impossible, and is replaced with ad hoc policies, often generated with little forethought or analysis of their implications for the system as a whole. These phenomena lead toward a system that lurches from one policy focus to another, often whipsawing the school system, which is slow to respond to policy changes.

Several efforts currently underway that have been mentioned previously in this report, such as the Education Leadership Team, may begin to address these issues and help a new vision of governance and responsibility emerge. At the same time, limited experiments such as the charter schools legislation passed last session offer some preliminary glimpses at a more market-driven educational system. But the direction educational governance and policy will take in the immediate future is very unclear at the present. Problems such as poor performing schools are not likely to be addressed until the system becomes more responsive to external demands and preferences.

Voices of Oregon: Legislator's Views

Question	Score
Does our governance system create incentives to implement the vision? *(1 = no incentives / 5 = a lot of incentives)*	2.1
Does our governance system provide necessary flexibility to implement the vision? *(1 = no flexibility / 5 = a lot of flexibility)*	3.0

Recommendations

1. *Re-evaluate the underlying governance system for K-12 education; redefine governance to align the education system with the vision of all schools meeting ambitious educational standards*

- A systematic analysis of policy responsibilities and authority should be conducted; this will form the basis for an immediate discussion focused on the future of educational governance structures in Oregon. The Education Leadership Team should at the least acknowledge the current fractured governance environment and offer concrete support for the establishment of a process to begin to redefine and clarify a new set of governance relationships.

- In this general context, the role of the local school district should be re-examined and restated in ways that make clear the value-added elements that can be gained from local governance. Models that demonstrate how local governance can energize and support school-based change and improvement should be developed to contrast with control-oriented, centralized district models that drain initiative and discretion from school buildings.

- Strategies for coping with truly poor performing schools should be developed in ways that ensure that no more children are deprived of an effective education while the adults debate how to reorganize or reshuffle the elements of the existing education system. These strategies should then be piloted in a controlled, responsible fashion to ascertain how students most in need of immediate assistance can be offered an education experience designed to ensure they succeed.

- The capacity to conduct neutral policy analysis capable of presenting a range of options for policy changes in areas of current interest should be developed. The goal would be to increase the quality of policy that is generated during a typical legislative session by

anticipating major policy issues and conducting impartial analyses that identify potential models and unintended effects. This policy analysis capacity should be separate from state government and undertaken on a contractual basis. Several other states have centers charged with this responsibility that can serve as potential models.

2. *Consider school choice and education options as tools to stimulate improvement in public schools and to increase student achievement*

- The governor, the legislature, and the state superintendent need to focus on the underlying governance system for K - 12, including the roles of individual schools, districts, ESDs, the Department of Education, the governor and the legislature. As part of the review, the role of expanded educational options as a means to generate new models and more rapid improvement should be very seriously considered. A key question Oregon needs to ask is: What range of educational options is likely to result in the most students reaching and exceeding standards in the shortest amount of time and in the most cost-effective manner possible?

- The role of charter schools, contract schools, and other governance and delivery systems should be systematically examined to determine both their possibilities and potential impact.

Voices of Oregon

There are no performance incentives, period. There is a certain amount of flexibility, but we are so constrained by resource issues that it is negligible.

School District Superintendent

I think the state tries to be very careful to leave flexibility in place for local districts. We set the vision, we underscore the standards and then we let local districts shape that.

State-level Official

The ODE has been pretty open to having districts do what they want within the confines of the law because they don't have a clue on how to do it either.

Teacher

3. *Reinvent the Oregon Department of Education to serve the roles demanded by the newly emerging governance system and the new expectations for high performance by all public schools*

- As the next budget is constructed and debated, the new and emerging responsibilities of the Oregon Department of Education should be recognized. However, ODE must demonstrate that it has reinvented itself consistent with its new and redefined mission, so that resources allocated to ODE will likely result in improvements in student learning statewide. The Department needs funding to provide excellent resources in standards and assessment administration, information on education results by school (the Database Initiative provides an excellent tool), and communications.

- The resources devoted to reform implementation should be compared with other states with similarly comprehensive reform programs to see where Oregon ranks among states, and to determine if more efficient, cost-effective strategies exist.

Chapter Eight

Are School Budgets Aligned With Our Vision For Change?

Traditionally, the amount of money budgeted for K - 12 education has not been based on any systematic determination of need or linkage to expected performance. During the 1999 legislative session, the Oregon Quality Education Model showed how such a linkage could be accomplished. This opens the door for an education budget that could be reasonably expected to produce certain specified results in terms of student learning.

Why is this important?
What are we trying to accomplish?

The changes mandated in the Educational Act for the 21st Century require resources. Developing and implementing new assessments takes money. So does professional development for administrators and faculty, to help them learn about the new assessments. Updated curriculum and changes in classroom practices necessary to meet the standards are significant, and involve additional time and disruption, at least during implementation. In order to provide a program that enables virtually all students to meet standards, additional dollars may be required in the long term to lower class sizes, extend school days and provide for other increases in programs. In the short term, funds may be needed to train teachers and develop model programs.

What have we recommended in the past?

Past OBC recommendations on budget have focused on two broad categories of issues. First, we have recommended that the state Department of Education be given resources to develop assessments, management information systems (the Database Initiative project), and communications materials necessary for the department to fulfill its role in implementing education reform. In comparison to the total state expenditures on K - 12 education in Oregon, the ODE budgets in these areas are very small, yet these functions are critical if changes are to be realized in local school systems.

Second, OBC has focused on the total school fund budget. It advocated for a very sizable increase in the 1997 legislative session, a recommendation that was nearly achieved. During the 1999 session, rather than supporting a specific budget level, OBC advocated that whatever the budget level, the legislature should create a link between the amount of funding and the performance expected of schools—in other words, that there be a much closer connection between the budget provided and achievement of the goals of the Education Act. The framework in the Quality Education Model was recommended as the starting point for creating such a funding philosophy.

How are we doing?

Oregon has attempted to implement major education reform under unusually challenging financial conditions. During the first four years of implementation, funding was flat or declining

overall, and some districts faced significant reduction in resources to make way for statewide funding equalization. In recent years, funding has expanded somewhat.

Also because of tight budgets, ODE has had relatively few resources dedicated specifically to the research, development and training needed to implement reform (especially when compared with other states that have embarked on statewide reform agendas). Washington State, for example, has provided significantly more funds to support their standards-based Certificate of Mastery. For Oregon, some of the most important sources of funds for education reform have been the federal Goals 2000 program and other federal and private grants.

The legislature has provided baseline funding for the statewide assessment system, and has provided dollars for development of the state database system, which provides detailed information on individual school expenditures and budgets. It also has provided resources for communications.

Concerns over funding have repercussions at every level, including teachers who have resisted implementing reforms because of their belief that, without more funding, the current reforms will soon "go away." In an OBC survey of 80 high school principals, only 15 percent felt they had adequate financial resources for successful CIM implementation.[30`] Most (70 percent) thought the provisions to aid students who don't achieve CIM benchmarks on time at their schools were not adequate.

Total funding

Until very recently, there has been no statewide analysis of the funding requirements necessary to implement and achieve the standards in the Education Act. The Oregon Quality Education Model (OQEM) generated the first systematic estimates of the amount of money needed to achieve reform goals with schools as they are structured and as they function currently. The OQEM suggested an increase on the order of 20 percent would be necessary to achieve reform goals fully under the current model and structure of schooling.

Voices of Oregon: Legislator's Views

Question	Score
Are school budgets aligned with our vision for change? *(1 = not aligned / 5 = aligned)*	2.1

Recommendations

1. *Implement a Quality Education Budget Model to enable the legislature and the governor to assess what different funding levels buy in terms of education programs and expected improvements in student outcomes (and to identify cost savings and efficiencies within the education system)*

- School funding is now the state's responsibility, yet the legislature and the governor lack the tools to make reasoned education budget decisions. Drawing on the Quality Education Model already completed, the governor and the legislature should agree on a funding process that ties funding to performance expectations for schools. The goal of this process is to enable the legislature and the governor to assess what different funding levels buy in terms of educational programs and expected improvements in student outcomes, and to enable identification of cost-savings and other efficiencies within the education system.

Voices of Oregon

Last session, the OQEM was in play for about two weeks then it went back to a funding level that fell in the middle of Republican and Democrat proposals.

State-level Official

The dichotomy is that we have the greater percentage of the dollar coming from the State where the vision emanates, but we cannot dictate how the dollars are spent because we still embrace local control. Unless we have the local communities buy into the vision, it does not occur. Everyone throughout the process has to embrace the vision.

Legislator

- The model that results from the Governor's Commission on a Quality Education should serve as the framework for consideration of the 2001-03 state education budget.

- To improve the chances that the Quality Education Model, as revised by the commission, will be adopted by the legislature, the State Board of Education should work to ensure that as many school districts as possible sign a pledge agreeing to compare improvements in student performance to targets derived from the model. In addition, signatories should be willing to state how long they believe it will take for their schools to reach the target performance levels.

- The financial data schools generate using the comparable categories established by the Database Initiative should be analyzed to determine the relationships between spending patterns and student performance. These analyses should be done with particular attention to schools that out-perform other schools with comparable SES profiles. A report should be issued to the legislature with conclusions about the efficacy of the funds that are spent on K - 12 schools and on the ways in which individual schools maximize the efficacy of fiscal resources.

- The cost-effectiveness of charter schools should be examined to determine if they achieve any efficiencies or produce better cost/learning ratios than public schools.

2. Enhance the capabilities of the Database Initiative to capture a wide range of information necessary to determine performance in relationship to cost

- The Database Initiative should be expanded over time to gather information on the most significant factors affecting student learning within a school. These factors should be comprehensive enough to serve as the basis for determining the organizational "health" of the school as a place designed to maximize student learning. This information should allow schools to compare their current functioning and programs to highly effective

schools to determine areas in need of improvement. The Department of Education should compare educational practices in addition to expenditure patterns between high and low performing schools to ascertain the relationship between funding, school practices, and student performance.

Other OBC Education Reports

Over the years, the Oregon Business Council has produced a number of policy studies, reports and information documents to advance public understanding of education issues in Oregon. OBC has sponsored or supported similar documents by other organizations. The following list outlines some of these readings, available in PDF format, on our web site: www.orbusinesscouncil.org

K-12 Education

Brochure: *Oregon Schools Are Better Today*
OBC, May 1998

A School Assignment for All Oregonians
Oregon Department of Education, August 1997

Framework for Implementing K-12 School Transformation in Oregon
School Transformation Advisory Council, August 1997

People, Productivity, and Prosperity: Rewriting the Book on Job Preparation in Oregon
OBC, December 1996

CAM Cookbook: A Guide to Development of the Certificate of Advanced Mastery
OBC/David Douglas Model District Partnership, November 1996

Report on Oregon's Progress in Implementing CIM and CAM Achievement Standards and Related Measures to Transform the K-12 School System
Governor's Task Force on School Improvement, October 1996

CAM SPECS: Student Portfolio Specifications and Standards
OBC/David Douglas Model District Partnership, 1995

A Business View: Education Reform in Oregon
OBC, January 1993

Higher Education

Higher Education and the Oregon Economy
Report of the Governor's Task Force on Higher Education and the Economy, December 1997

Gaining Competitive Advantage: The Need for Customer-Driven Higher Education
Oregon Business Council, Associated Oregon Industries, Portland Metro Chamber of Commerce, Oregon Council of the American Electronics Association, June 1996

Endnotes

[1] Based on data from the Oregon Department of Education.

[2] Grade eleven tested in 1991. Grade ten tested 1996 through 1998.

[3] Math Achievement State by State 1998, Reading Achievement State by State 1999, The National Education Goals Panel.

[4] Comparisons are normally limited to states where over 40 percent of students take the test. States with smaller percentages of students taking the test often have a disproportionate number of high-achieving students taking the SAT, since these are students applying to multiple universities or out-of-state universities. The American College Test (ACT) is used extensively by universities and colleges in the Midwest.

[5] 1997-98, Oregon Report Card, An Annual Report to the Legislature on Oregon Public Schools.

[6] 1997-98, Oregon Report Card, An Annual Report to the Legislature on Oregon Public Schools.

[7] Source: Table 1.1 Distributions of Science Achievement: Eighth Grade. Martin, Michael O., Ina V. S. Mullis, Albert E. Beaton, Eugenio J. Gonzalez, Teresa A. Smith, & Dana L. Kelly (1998, June). Science Achievement in Missouri and Oregon is an International Context: 1997 TIMSS Benchmarking. TIMSS International Study Center, Boston College, Chestnut Hill, MA, USA.

[8] Within countries, TIMSS used a two-stage sample design at Population 2, where the first stage involved selecting 150 public and private schools within each country. Within each school, the basic approach required countries to use random procedures to select one mathematics class at the eighth grade and one at the seventh grade (or the corresponding upper and lower grades in that country). All of the students in those two classes were to participate in the TIMSS testing. This approach was designed to yield a representative sample of 7,500 students per country, with approximately 3,750 students at each grade. Typically, between 450 and 3,750 students responded to each item at each grade level, depending on the booklets in which the items were located. In the 1997 State TIMSS Benchmarking Study, the sample design specified a probability sample of between 50 and 60 schools, with one eighth grade classroom randomly selected within each school. This design was expected to yield a representative sample of 2,000 to 2,500 students in each state. Westat staff worked with the Missouri and Oregon state departments of education to obtain lists of the public schools and to draw the school samples. The states were responsible for obtaining the cooperation of the sampled schools.

Countries were required to obtain a participation rate of at least 85 percent for both schools and students, or a combined rate (the product of school and student participation) of 75 percent. Tables A.3 and A.4 show the school and student sample sizes, respectively. Table A.5 shows the school, student, and overall participation rates for the TIMSS countries, as well as for Missouri and Oregon.

[9] Source: Chastain Economic Consulting data, "State school support lags inflation, student growth."

[10] Percent change in audited expenditures per student between 1991-92 and 1998-99 adjusted for inflation. Calculation by Ron Chastain.

[11] The state system has become more equalized. Comparing the relative spread of resources among the 299 districts in 1990-91 to the 198 districts for 1999-2000 shows that spending differences among the majority of districts have narrowed considerably. For 1990-91, net operating expenditures per student ranged from $2,409 for the lowest spending district to $15,134 for the highest spending district. However, the two districts at the top and bottom of the scale are not typical, and therefore it is more informative to compare the districts at the 5th and 95th percentiles, which are the two districts with 5 percent of the districts spending less and 5 percent spending more. For 1990-91, the district at the 5th percentile spent $3,230 per student, while the district at the 95th percentile spent $3,552 more per student at $6,782. The average expenditure was $4,398 for 1990-91.

Audited expenditure data for 1999-00 is not yet available, but a close proxy is the amount of State School Fund (SSF) revenue (excluding funding for transportation) distribution. While the SSF distribution accounts for most of the state and local revenue available to districts, it does not equal the total expenditure measure used for 1990-91. Other available revenues for 1999-00 are not yet audited and tallied. In addition, the 1990-91 data are based on students counted as "ADMr" (Average Daily Membership, regular), while the 1999-00 SSF distribution is apportioned by ADMw (Average Daily Membership, weighted). Therefore, a dollar per student comparison is not strictly valid, since the new SSF distribution formula distributes dollars based on weighted students, and allows extra counting for students in special categories, such as those in the ESL (English as a Second Language) or IEP (Special Education) programs, or in districts with a higher poverty count. However, based on dollars per ADMw, the system in 1999-00 is more equalized, having less variation among the districts.

For 1999-00, SSF revenue per ADMw ranged from $4,404 (excluding transportation funding) for the lowest district to $5,565 for the highest district. Moving away from the two extremes, the district at the 5th percentile received $4,528 per ADMw, while the district at the 95th percentile received only $294 more per ADMw at $4,822. This $294 difference between the 5th and 95th percentile districts is substantially less than the $3,552 difference in 1990-91. The average was $4,658 for 1999-00.

It should be noted that differences in SSF revenue among districts is as intended by the legislature, because there are extra weightings given to "Selected Small Schools" and allowance made for differences in "average teacher experience", since those districts with more experienced teachers are expected to have higher salary costs. These formula exceptions absolutely mandate differences among districts. Transportation costs reimbursements, excluded from these statistics, also are expected to differ among districts.

The conversion from using ADMr in 1990-91 to ADMw since 1993-4 causes some confusion. While it is not possible today to calculate an ADMw for a district in 1990-91, the current SSF system starts with ADMr to determine ADMw. If one calculates SSF dollars per ADMr for

1999-00, there again are large differences among districts, mainly because of the weighting factors used, and particularly the small school weighting adjustments. A small school such as Diamond 7 in Harney County, with 6.3 ADMr, receives weightings for a total of 30.4 ADMw. The district will receive $140,357 (excluding transportation revenue of $6,600) for 1999-00, which equates to $4,617 per ADMw (excluding transportation) versus $22,279 per ADMr. Therefore, if a comparison is made strictly on the dollars per ADMr, there remains substantial variation. However, the system now funds on the basis of ADMw, and on that basis there are minimal (and explainable) differences. Future equity discussions undoubtedly will focus on what weightings and cost differences are appropriate for consideration in the distribution formula.

[12] Pupil teacher ratio. US Department of Education, National Center for Education Statistics, Common Core of Data.

[13] Average Teacher Salaries in 1997-98. Digest of Education Statistics, 1999. http://www.nces.ed.gov/pubs2000/digest99/d99t079.html.

[14] Public/Private: Oregon Department of Education, School Finance and Data Information Services, Enrollment in grade K - 12 in public and private schools as of October 1: 1986-1998. Home: Oregon Department of Education, Home School Students Registered by County, Office of Student Services.

[15] Measure based on the ratio of public school enrollment and population aged 5-17. Public School Enrollment: National Center for Education Statistics, http://nces.ed.gov/pubs98/pj2008/p98t45.html. Population Estimates: Population Estimates Program, Population Division, US Census Bureau, http://www.census.gov/population/estimates/state/sage9890.txt.

[16] School District Data Book Profiles: 1989-90.

[17] Oregon School Boards Association. 1999. Survey Research Report, Executive Summary. The Nelson Report. March 17.

[18] School Satisfaction: A Metropolitan Breakdown. Education Week. 19(9), 21. (1999, October 27). SOURCE: Anthony P. Carnevale and Donna M. Desrochers (1999) analysis of the American Housing Survey, 1990-1996.

[19] Framework for Implementing K - 12 School Transformation in Oregon, August, 1997, School Transformation Advisory Council, page ii.

[20] Governor's Task Force on School Improvement, October 16, 1996, Page 13.

[21] Oregon School Boards Association. 1999. Survey Research Report, Executive Summary. The Nelson Report. March 17.

[22] In the summer of 1999, the OBC interviewed 25 high school principals from across Oregon regarding their opinions on the Educational Act of the 21st Century in general, and CIM implementation in their schools in particular. Those interviewed included principals from urban and rural schools of varying sizes and from a variety of socio-economic levels statewide. In addition, a survey containing 28 standardized questions and 3 open-ended

inquiries was administered to 82 randomly selected high school principals from around the state.

[23] Conley, David T. & Paul Goldman (1998, April 13-17). How Educators Process and Respond to State-Level Education Reform Policies: The Case of Oregon. Paper presented at the annual conference of the American Educational Research Association, San Diego, CA.

[24] Making Standards Matter, 1999: An Annual Fifty-State Report on Efforts To Raise Academic Standards. American Federation of Teachers, Washington, DC.

[25] Oregon Education Association. 1999. Survey of Teacher Attitudes toward Education Reform.

[26] A survey containing 28 standardized questions and 3 open-ended inquiries was administered to 82 randomly selected high school principals from around the state.

[27] Conley, David T. & Paul Goldman (1998, April 13-17). How Educators Process and Respond to State-Level Education Reform Policies: The Case of Oregon. Paper presented at the annual conference of the American Educational Research Association, San Diego, CA.

[28] Education Week (2000, January). Quality Counts 2000: Who Should Teach? Education Week, Washington, DC.

[29] Conley, David T. & Paul Goldman (1998, April 13-17). How Educators Process and Respond to State-Level Education Reform Policies: The Case of Oregon. Paper presented at the annual conference of the American Educational Research Association, San Diego, CA.; University of Oregon, Bureau of Research and Teaching (February, 2000). Work Sample Study presented to the Oregon State Board of Education, Salem, Oregon.

[30] In the summer of 1999, the OBC interviewed 25 high school principals from across Oregon regarding their opinions on the Educational Act of the 21st Century in general, and CIM implementation in their schools in particular. Those interviewed included principals from urban and rural schools of varying sizes and from a variety of socio-economic levels statewide. In addition, a survey containing 28 standardized questions and 3 open-ended inquiries was administered to 82 randomly selected high school principals from around the state.