

# **GROWTH MODEL PILOT PROJECT PROPOSAL**



**SUBMITTED TO  
DR. HENRY JOHNSON  
ASSISTANT SECRETARY OF EDUCATION  
UNITED STATES DEPARTMENT OF EDUCATION  
CONREPORT@ED.GOV**

**SEPTEMBER 15, 2006**

**SUSAN CASTILLO  
STATE SUPERINTENDENT OF PUBLIC INSTRUCTION**

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SUSAN CASTILLO  
State Superintendent of Public Instruction



OREGON DEPARTMENT OF EDUCATION  
Public Service Building, 255 Capitol Street NE, Salem, Oregon 97310  
Phone (503) 378-3569 • Fax (503) 378-5156 • [www.ode.state.or.us](http://www.ode.state.or.us)

February 17, 2006

SENT VIA EMAIL TO: [conreport.ed.gov](mailto:conreport.ed.gov)

Dr. Henry Johnson  
Assistant Secretary of Elementary and Secondary Education  
U.S. Department of Education  
400 Maryland Avenue SW  
Washington, DC 20202-0001

Dear Assistant Secretary Johnson:

It is my pleasure to submit to you Oregon's application for the Growth Model Pilot Project. As a part of Secretary Spelling's equation, *Raising Achievement: A New Path for No Child Left Behind*, Oregon has shown results, Oregon has followed the tenets of NCLB, and Oregon is committed to implementing this long-sought flexibility with the greatest level of integrity and enthusiasm.

This proposal was developed by the Oregon Department of Education with close collaboration of education stakeholders, professional associations, higher education faculty, community members, and with nationally respected technical consultants. With resounding support from these colleagues, I am confident that you will find Oregon is ready and eager to adopt this "common sense" approach to enhancing school and district accountability under the *No Child Left Behind Act*.

As you are aware, I have personally demonstrated my commitment to implementing NCLB as a powerful policy tool to close our nation's achievement gap. At this historic moment, know that Oregon, our educational community, and our citizens stand united towards an accountability system that is both fair and valid. Oregon will assist our nation's educational leaders in crafting a sound, valid, and reliable accountability system that rigorously measures student learning. We are ready.

Oregon has developed the nation's flagship web-based assessment system, the Technology Enhanced Assessment System (TESA). Oregon has a long history of having a vertically-scaled standard and assessment system. Oregon has a secure student identification system. Oregon has a school and district accountability system in grades 3-8, and high school, and can report disaggregated data by subgroups for two years. We are now prepared to pilot the use of a growth model in our accountability system.

Please contact me if I can provide you with any further information to expedite the review process. We are eager to work closely with you and your colleagues on this historic initiative.

Sincerely,

Susan Castillo  
Superintendent of Public Instruction

## I. Oregon's Response to the Peer Review of Growth Model Proposal

Oregon appreciates the comments from the peer review and is resubmitting its proposal by addressing the areas of concern identified by the reviewers. The following table identifies the location of the text in the revised proposal that specifically addresses these concerns:

Areas of Concern Identified	How Concern has been Addressed	Location of change in the Revised Proposal
School level growth calculations: pooling high and low achievement of students	Oregon will not use average growth. Rather, the model will count the growth achievement for each student and calculate a percentage of students meeting growth for each school and district as well as disaggregated by subgroup.	pp. 5, 18-22, 24-25
Use of the confidence interval	Oregon will not use a confidence interval for growth calculations	pp. 5, 6
Standards setting process	Since will not use school mean slope methodology. A growth standard setting process is not needed. Therefore, Oregon will use state board adopted performance standards as the basis for the growth targets and will not conduct a standard setting for growth targets.	pp. 7, 29
Ensuring 100% proficiency by 2013-14	Oregon will hold schools accountable for the proficiency of each student within 3 years and is consistent with the expectations of the Secretary for participation in the growth model.	pp. 6, 8, 16, 18, 20-22 & 24
Match rate	Oregon will use an advanced statistical procedure to include every student with at least 1 valid scale score. Further, Oregon has re-estimated its match rate by removing students who have moved out of state and now estimates that approximately 99% of students have matched data.	pp. 7, 19-20, 29-30 & 32
Revising Performance Standards	Oregon is working closely with the USED to address the standards and assessments review requirements. As such, we will review the performance standards in December, 2006. However, given the new model methodology it will be clear and transparent to stakeholders regarding the subsequent growth targets that will be required if the performance standards change. In addition, Oregon has planned an extensive communication strategy to ensure that these changes are communicated effectively statewide.	pp. 7, 29

## **II. Introduction and Executive Summary**

This document describes a revised proposal for an Oregon growth model pilot project. In order to facilitate the work of the peer reviewers and U. S. Department of Education review, we briefly explain here the essential features of the revised model as well as the primary changes and clarifications made to the original proposal in response to peer review comments. The new growth model will augment the existing Oregon accountability system and will allow greater focus on the progress of individual students. By examining the trajectory of student progress over time, the growth model will result in greater attention to how students below proficiency are improving as well as how students near proficiency are maintaining their performance levels over time. Students who do not have a trend in academic achievement leading to proficiency will be identified in the proposed growth model. This emphasis on the individual growth of students will encourage teachers and schools to focus on each student's trajectory toward proficiency even if they are not currently near the standard.

Briefly, the revised proposal uses a three level, hierarchical linear growth model to calculate a linear trajectory for every student tested in grades 3-8 and 10. The model will use from every student each available year's highest valid state test score. AYP determinations will be based on the results of the model aggregated among students who are enrolled for a full academic year. For most students that will be three years of test scores beginning in 2006-07. Each student's individual growth trajectory will be projected three years into the future. If the projected score meets or exceeds the state proficiency standard for that grade, the student will be identified as "on track" and will have met standard. If the projected score is below the state proficiency standard for that grade, the student will be identified as not meeting expected growth. For each school and their disaggregated subgroups, the percentage of students who show sufficient growth to meet future standard in three years will be calculated. For AYP determinations based on growth, school calculations include students who have at least one valid test score and must be enrolled for a full academic year in the current year. If a student has not been enrolled for a full year, the student's performance will count in the district calculations when the student was enrolled elsewhere in the district for a full academic year in the current year.

The growth targets will be aligned with the status targets as defined in Oregon's Accountability Workbook. For example, in 2006-07, schools and districts will be designated as having made adequate yearly progress in growth if they have 50% of their students meeting

growth expectations in English/Language Arts or 49% of students meeting growth expectations in Mathematics. In 2007-08, the required percentages will be 60% in English/Language Arts and 59% of students in Mathematics. These are the same annual objectives now in place for the Oregon status-based accountability system. The percentage of students in each school who must meet growth expectations increases over time and will continue to increase, such that 100% of students meet growth expectations in 2013-14. The percentage of students meeting standard will also be calculated for each disaggregated subgroup required under NCLB.

Growth trajectories will be estimated for each individual student using maximum likelihood and empirical Bayes estimation methods. One advantage of these methods is that a growth trajectory can be estimated for any student with one or more valid test scores. Thus, there will be no missing data for growth trajectories in the proposed growth model, all students with at least one test score will have a growth trajectory estimated and will be included in calculations of the percentage of students on track to meet standards.

The proposed model does not replace the existing status based model in Oregon. Rather, the proposed growth model is used in conjunction with the status model. As described further below, when a school has failed to meet adequate yearly progress in the status model and has failed to make safe harbor, school identification can be suspended (i.e., the school maintains current improvement status) if the school has met standards for growth. Two consecutive years of growth that meet standards can result in a school exiting improvement status.

Briefly described below are several key issues raised in the peer review that have been addressed in the revised proposal.

1. The revised proposal does not use averages to describe performance. Rather the percentage of students overall and in each disaggregated subgroup in each school that meet growth targets determine whether a school meets annual objectives.
2. No confidence interval is used in the revised growth model.
3. The status model standards for proficiency in each content area and grade are now used as the standards for meeting growth expectations. This makes the growth model expectations congruent with the status model. No further standard setting is required for the growth model.
4. A growth expectation is calculated for every student using maximum likelihood and empirical Bayes estimation methods. This method results in an estimated growth trajectory for all students. All students who have one or more valid assessment scores

are included in the growth model. Therefore missing data do not prevent inclusion of any student in the growth model.

5. The original proposal reported a “raw” match rate without any adjustment for students who were no longer enrolled in Oregon schools or who had not participated in testing for other valid reasons. Adjusted match rates have now been calculated. Overall, the match rate is 99.2%. Additional details are provided below.

6. Because the new model estimates the percentage of students projected to meet standards rather than examining an average growth rate, high performing students cannot mask or balance low growth by other students.

## **IIA. Oregon Capacity and Readiness to Pilot a Growth Model**

Oregon is ready and able to implement a growth model as a significant feature of its accountability system, starting with the 2006-07 reporting cycle under the *No Child Left Behind Act*. The state believes that the use of a growth model is the best way to demonstrate school improvement over time and will result in a more valid and fair approach to assess individual student learning and to identify schools and districts in need of improvement.

The following curriculum and assessment features serve as a foundation for a growth model:

1. State Board adopted Common Curriculum Goals and Academic Content Standards at each grade level, Kindergarten through Grade 8 and High school in English/Language Arts and Mathematics. These standards are updated regularly and have been reviewed by the US Department of Education, and a variety of external organizations;
2. Vertically-scaled performance standards and assessments aligned to the academic content standards;
3. Secure student identification system;
4. Web-based student-level data collection system that includes both achievement and student demographic information on each student;
5. School and district accountability system in grades 3-8, and high school, and can report disaggregated data by subgroups for two years;
6. Web-based Technology Enhanced Student Assessment System (TESA).

### **B. Policy Foundation**

The Oregon Department of Education has a long history in the development and implementation of innovative assessment methods to inform instruction and measure learning outcomes. ODE first developed and implemented criterion referenced testing for Oregon schools in 1975. Performance assessment of student writing began in 1978. Using NAEP assessment strategies as a model, sampling of



student performance using criterion referenced testing continued throughout the 1980s; and the first statewide assessment of all students was conducted in 1991. The state assessment system was among the first to be approved by the United States Education Department under the *Improving America's Schools Act*. Following passage of HB2991 by the Oregon Legislature in 1995, the department revised the academic content standards and aligned the state assessments along a vertical Rasch Unit (RIT) scale and established performance indicators for grades 3, 5, 8 and 10. In 1997, Oregon moved to the forefront of educational web-based data collection, database and reporting when it implemented the Database Initiative (DBI). Following passage of the *No Child Left Behind Act*, the department developed and implemented new assessments for grades 4, 6 and 7.

In 1999, the department also developed and implemented School and District Performance Reports at the state, district and individual school level that established a public reporting expectation and an accountability system based upon student achievement of the state's academic content standards. As a result of this history, the use of a common vertical scale across elementary, middle and high school levels using criterion referenced testing tied directly to statewide academic content standards represents a method of operation that is fully integrated into Oregon classrooms and teacher preparation programs. When State Superintendent Susan Castillo took office in 2002, she identified closing the achievement gap and accountability for results as her highest priorities for the agency.

Beginning in 2001, the Department has made fully operational a unique student identifier system. Every student in the system is assigned a number that allows us to monitor student progress grades 3 through 8 and high school in any school in the state. This new technology creates the opportunity to add growth of individual students toward the state's academic content standards to the array of measures already in use in the state. The existing individual School and District Performance Report uses an index system that utilizes four years of data at the aggregated school level as one measure of quality in the accountability system. While helpful, this does not give us the richness of disaggregated data based upon each individual student that the use of the unique student identifier in conjunction with the growth model will afford. Therefore, this proposal will build upon the established framework and adds a vitally important dimension to Oregon's accountability system.

We consider our growth model a more valid measure because it examines each student's performance based upon their prior performance, while targeting all students' achievement of the state's academic content standards by 2014. The growth model improves upon the limited snapshots of school performance currently provided by school and district reports where results focus on a single year of performance. Measures of growth of student learning over time, whether it be for students who are in need of closing the achievement gap or students who are already meeting all performance indicators, will add richer detail to the school information currently available. ODE will measure the growth of the same students over time to determine if the school and district are successfully accelerating the learning of all students toward the 2014 goal. This growth information will assist in school and district improvement

planning and diagnosis of the strengths and weaknesses of instructional programs. It will also add to individual student information already reported to parents and will indicate (a) whether the student's growth over time is on a trajectory to meet or exceed state standards, and (b) if the growth is at an expected level. In our conversations with stakeholder groups, including school, district and parent organizations, and information on individual student growth has been consistently and strongly recommended. Schools and parents want and need this specific information on students.

We will add a measure of growth to the current accountability system in a manner that maintains an incentive for schools to continue to improve. We will accomplish this by maintaining the existing AYP expectations that two consecutive years of progress are required for any change of improvement status. We will require two consecutive years of meeting growth targets before a school's status is changed. As a result, we will have four major sources of information in our accountability system: 1) the current state School and District Performance Report rating system, 2) AYP status, 3) AYP Safe Harbor and 4) AYP Growth. With this array, we are confident that we will correctly identify schools and districts in need of improvement as well as schools and districts that are showing appropriate levels of student growth.

### **C. Alignment with "A New Path for No Child Left Behind"**

The Oregon Department of Education has rigorously implemented the provisions of the No Child Left Behind Act and complies with the guidelines of Secretary Spellings in the April, 2005, letter outlining the *New Path for No Child Left Behind*.

#### Ensuring Students are Learning

In 1991, Oregon's *Educational Act for the 21<sup>st</sup> Century* (HB 3565) made education more rigorous and relevant for students. In 1995, HB 2991 refined the 21<sup>st</sup> Century legislation by directing the state to test revised academic content standards and to establish specific performance standards at the elementary, middle and high school level. As a result, academic content standards were developed that identify what students are expected to know and be able to do in the content areas. Performance Standard Benchmarks, which serve as checkpoints at grades 3, 5, 8 and 10 regarding student progress toward achievement standards, were also determined. These standards have been periodically reviewed and upgraded by the Oregon Department of Education and the State Board of Education since that time.

Passage of the No Child Left Behind Act led to the development of Oregon's Grade-level Foundations (Grades K-2) and Grade-level Standards (Grades 3-8 and HS) in English/language arts and mathematics. Full scale testing of reading and mathematics at all grade levels 3<sup>rd</sup> grade through 8<sup>th</sup> grade and high school began in 2005. ODE is committed to increasing *all* students' literacy and mathematics skills, with a special emphasis on reducing achievement gaps, and developing and supporting programs to increase middle and high school students' literacy levels by providing leadership for implementing research based curriculum and instruction and through high quality professional development. The

Department has implemented specific initiatives targeted toward these goals, including *the Ready for School Initiative*, *Closing the Achievement Gap initiative*; *Leadership Training through the Superintendent's Summer Institute* and through the *State Action for Education Leadership Project*, *Family and Community Involvement Initiative* and the *Middle and High School Improvement Initiative*. The state has implemented the *Oregon Literacy Initiative, Appendix 1* that includes the establishment of the Oregon Reading First Initiative and the Oregon Reading First Center, a partnership with the University of Oregon.

The Oregon Reading First initiative supports Oregon's educators, including special educators, from grades K-12. Professional development on research-based reading strategies assists schools to achieve the goal of all children reading well by the end of third grade. ODE has engaged in literacy activities to support parents and educators in helping children with disabilities, specifically through Project Pursuit, part of the Oregon State Improvement Grant (SIG). In addition, Oregon's Response to Intervention (RTI) statewide initiative supports all students in reading and in other content areas so that they may receive: (a) research-based instruction, (b) appropriate screening and progress monitoring for prevention and responsive practices, (c) effective interventions tied to assessment results, and (d) early identification of learning disabilities. All of these initiatives serve students with and without disabilities.

As a result of this focus on increasing academic achievement and closing the achievement gap, significant improvement in student performance has been demonstrated. As the *Reading Assessment Charts, Appendix 2A*, and the *Math Assessment Charts, Appendix 2B* indicate, significant closing of the achievement gap in both reading and mathematics is evident, especially at the elementary level. Among other things, these data indicate that the rate of improvement in both reading and mathematics at the 3<sup>rd</sup>, 5<sup>th</sup> and 8<sup>th</sup> grade levels among Hispanic, African American and Native American students surpasses the average growth of white students indicating that while all students are improving, the gap is being closed for minority students. Tenth grade data has not demonstrated the same level of improvement although 10<sup>th</sup> grade mathematics scores have shown strong gains.

### Making the School System Accountable

The Oregon Performance Report on each school and district in the state contains information on the participation rates of student subgroups in assessment. The state utilizes a variety of assessment methods, including alternative assessments and native language assessments, to help ensure full participation of every student in the state assessment system. All data on all subgroups is reported to every parent in writing on an annual basis. Parents receive information on all state data and federal AYP data in a single report card. All current and historic data are readily available on the Oregon Department of Education web site and can be searched by school and district, subgroup category, subject area and year. ODE has strived to include all students in the assessment system. In 2004-2005, the overall participation rate of students with IEPs was 95.6%. The overall rate of participation for students without

IEPs was 97.7% in the same period. ODE has provided training for all teachers and administrators regarding the appropriate: (a) choice of assessment; (b) use of accommodations, if necessary; and (c) decision-making process for IEP teams. So that students with severe cognitive disabilities may participate to the largest extent possible, ODE provides two different types of alternate assessments as well as accommodations tables developed by an accommodations panel consisting of researchers and highly qualified district personnel.

#### Ensuring Information is Accessible and Parental Options are Available

Schools and districts are provided preliminary data on school improvement status no later than the first week of August in each year. Districts are required to notify parents prior to the opening of school of the availability of choice and supplemental services. Additional information on supplemental services is available on the Oregon Department of Education web site. The state's largest district, Portland Public Schools, has received national attention for its extensive utilization of parental choice options for Title I parents and has had strong parent participation in the program. Title I parents are afforded priority in transfer decisions. Oregon Department of Education aggressively recruits new supplemental service providers as well as monitoring the quality of those providers. All information is readily available on the Oregon Department of Education web site. The department has also provided continuing technical support and federal financial assistance to charter schools in the state. A recent report by the department indicates that the number of charter schools opened in the state has increased from 1 to 78 from 1999 to 2005.

#### Improving the Quality of Teachers

The Oregon School and District Performance Reports provide information to every parent on the percentage of teachers who meet the Highly Qualified Teacher definition in No Child Left Behind. Our most recent figures indicate that the percentage of Highly Qualified Teachers in the state has risen from 82% to 90% in the past three years in all schools and from 71% to 89% in high poverty schools. At the elementary level, 97% of teachers meet the definition. Oregon has been recognized nationally for rigorous licensing standards that include a degree in the content area of the primary area of licensure and the passage of a rigorous content exam as components of the state licensing system. The Oregon Department of Education has just completed a Title IIA monitoring visit by the United States Department of Education and has been found to be in compliance with the provisions of this section of NCLB. School districts have made significant progress in ensuring that Title I schools assign only teachers that meet the Highly Qualified Teacher definition. The Oregon Department of Education monitors district compliance with the provision that parents of children in Title I schools that are in classes taught by a non-highly qualified teacher are notified in writing. See *HQT Data, Appendix 2C* for data details.

#### **D. Meeting the Core Elements for a Growth Model**

As previously mentioned, Oregon's history with state-wide assessments and web-based data collection and reporting is long and comprehensive.

### Assessments

In 1996, Oregon set standards for student learning, giving teachers and students a common goal. The Oregon Statewide Assessment System was created to measure student progress toward these standards. The results allow teachers, administrators, parents, students, policy makers and the public to compare student performance within a school, within a district, across the state and over time. Together, the standards and assessments form a framework within which schools and districts continuously improve teaching and learning.

The state conducts assessments in reading, writing, mathematics, science and social sciences. Since 1997, *Education Week*, a national education newspaper, has conducted an annual, comprehensive review of public education in all 50 states and awarded Oregon high marks for its standards and assessment system each year. The content standards define what students are expected to know and be able to do. They spell out these expectations at grades 3, 4, 5, 6, 7, 8 and high school level for mathematics and language arts and grade level benchmarks at grades 3, 5, 8 and high school. However, only a maximum of 1% of the district total test count may be counted as Meets on the district's AYP/Performance rating for science and social science. These expectations are the starting point and driving force behind the state tests. Schools and districts use the content defined in the standards framework to align and analyze the rigor of their curriculum and instructional programs. The *Oregon Standards* documents are annually distributed to teachers, administrators, and the public through electronic and hard copy formats. Please reference *Appendix 3, Overview of Oregon Assessment System* for additional information on the assessment system.

### Data Systems

Oregon has a technical infrastructure that contains four years of student-level longitudinal program, demographic and performance data. This is possible because Oregon has incrementally invested in the technical infrastructure of a web-based data collection, storage and reporting system through the Database Initiative and student-level data collections as described in the remainder of this section.

The DBI was designed as a database which would systematize data reporting among districts and ease the burden of data collection on schools. Once in place, users found that the new structure could facilitate analysis of successful schools. At its inception, DBI was at the vanguard of educational data technology. A limitation, however, was that DBI was designed to utilize only school-level data. Oregon's data needs have changed dramatically. Enhanced student-level data needed to be added to the system.

ODE introduced one of its most successful data system changes: the installation of the Secure Student Identification number (SSID) during the 2001-02 school year. SSID started as a way to house

performance data connected with student demographic information such as race/ethnicity and income level. It has been expanded to include program data, such as, Limited English Proficient, special education, high school completers and early leavers, and professional-technical education. The quality of data received from schools has improved with the implementation of SSID. As a result of the new system, schools are reporting more accurate data. All of this allows ODE to generate subgroup data (ethnic, LEP, migrant, gender, poverty and students with disabilities) in compliance with NCLB requirements.

Another development in ODE's efforts to make available student-level data was the creation of the Consolidated Collections database. Consolidated Collections stores student test activities, demographic information, and information about which school the student attends and how long he or she has been there. SSID was the first step towards making Consolidated Collections a reality, just as Consolidated Collections is only the first step towards improved data availability and use in Oregon.

ODE continues to evaluate the system. Currently ESP Solutions of Austin, Texas, is under contract to review the internal and external processes to generate AYP results. This contract is scheduled to be completed by June, 2006, and the recommendations presented will be a high priority for the Department to complete.

Looking to the future, the Oregon Legislature has supported a recommendation of the Oregon Department of Education to create a student-level "data warehouse" to support the necessary expanded capacity. The Legislature allocated \$1.5 million to ODE during the 05-07 session to build pilot capacity for a district and state, student-level warehouse. Please reference the *Appendix 4, KIDS Phase II Charter Project* for additional information on this forward thinking project.

## **E. Assurances for Success**

### Development process

After publicly announcing the ODE's intention to pursue the Growth Model Pilot Project, State Superintendent Castillo did the following: 1) convened a multidisciplinary taskforce to develop the approach and proposal, 2) hired nationally recognized consultants to advise the project, 3) assembled national experts to advise and consult, and 4) organized and convened a number of public meetings to gather input (see *Appendix 5, December 16, 2005 Press Release*).

### Stakeholder Participation

The Oregon Department of Education (ODE) used a number of stakeholder and public meetings in order to 1) gather input for the developing the proposal, and 2) inform stakeholders and citizens of the proposal development. The following table above illustrates this process of engagement.

December 16, 2005	Press Conference to publicly announce proposal to USDOE by Superintendent Castillo and key school district superintendents Establishment of internal multi-disciplinary team
January 5, 2006	Contracted consultants retained and assisting in proposal development
January 17	Stakeholder and public meeting to gather proposal input Participation (40) and strong support expressed by: <ul style="list-style-type: none"> <li>o Oregon Congressional Delegation</li> <li>o Oregon School Boards Association</li> <li>o Confederation of Oregon School Administrators</li> <li>o Oregon Education Association</li> <li>o Higher education faculty</li> <li>o School superintendents and principals</li> </ul>
January 19	Presentation and briefing to State Board of Education
January 25	ODE proposal development staff participate in the Growth Model Seminar, sponsored by the Council of Chief State School Officers
January 26	Presentation at the Oregon Association for Compensatory Education, Seaside, Oregon. (550 participants).
Ongoing	Contact and advising with key stakeholders mentioned above
Ongoing	Communication and input from the Oregon Title I Committee of Practitioners
February 14	Follow up stakeholder and public meeting to gather final proposal input Participation (40) and strong support expressed by above groups.
February 15	House Education Committee Briefing
February 16	State Board first reading
May 10	Stakeholder Meeting to review submitted proposal
June 3	Notification to Stakeholders regarding Peer Review decision
September 11	Request of review and revision by stakeholders of the revised proposal

### National consultants

The Oregon Department of Education has secured the active participation, advice, and review of the following nationally respected technical consultants in the development and implementation of this scope of work.

Primary Consultants	Joseph J. Stevens, Ph.D., MESA Associates 4524 Fox Hollow Road, Eugene, OR 97405 (541) 870-9431 (cell) <a href="mailto:jstevens.mesa@comcast.net">jstevens.mesa@comcast.net</a>  Brian Gong, Ph.D., Center for Assessment PO Box 351, Dover, NH 03821-0351 (603) 516-7900 <a href="mailto:bgong@nciaa.org">bgong@nciaa.org</a>
Technical Advisory Committee	Thomas Haladyna, Arizona State University William Schafer, University of Maryland Yeow Meng Thum, Michigan State University Carina Wong, formerly Pennsylvania State Department of Education

### Reporting data

The Oregon Department of Education will incorporate results of growth model analysis into the school, district and state Performance Reports and Adequate Yearly Progress Reports. The school and district Performance Reports are mailed home to parents on an annual basis. Summary information will be incorporated into the State Report Card. All reports will be posted on the Oregon Department of Education web site. Media files will be made available to the press.

### Assurances

If approved, the state of Oregon will participate in a USED evaluation of the growth model, including providing data comparing the growth model AYP results to AYP results under the NCLB statutory models.

## **III. The Proposed Growth Model**

### **A. The Growth Model in Relation to Status and Safe Harbor**

The proposed growth model will be used in conjunction with the existing, status-based AYP model now used in Oregon. The purpose of the new growth model will be to provide more direct information on student progress by tracking individual student's learning over time and examining whether students are on a trajectory to meet standards if they are below proficiency or on a trajectory to maintain achievement above standard if they are above proficiency. For the purpose of identifying schools in need of improvement, the new growth model will supplement status-based AYP and existing safe harbor provisions to hold "safe" schools whose students are demonstrating substantial and continued growth in achievement and are projected to meet standards. The proposed growth model uses hierarchical linear modeling to estimate a growth trajectory for each student tested in the Oregon system. The student's



growth trajectory is used to determine whether each student is on track to meet state proficiency standards within three years. Each year, the percentage of students on track in each school is then determined for the school as a whole and for all disaggregated subgroups. The growth model uses all available student test scores. For many students test scores are available for three years. The growth model includes all students through the application of empirical Bayesian statistical estimation methods for creating a growth trajectory even when data are missing.

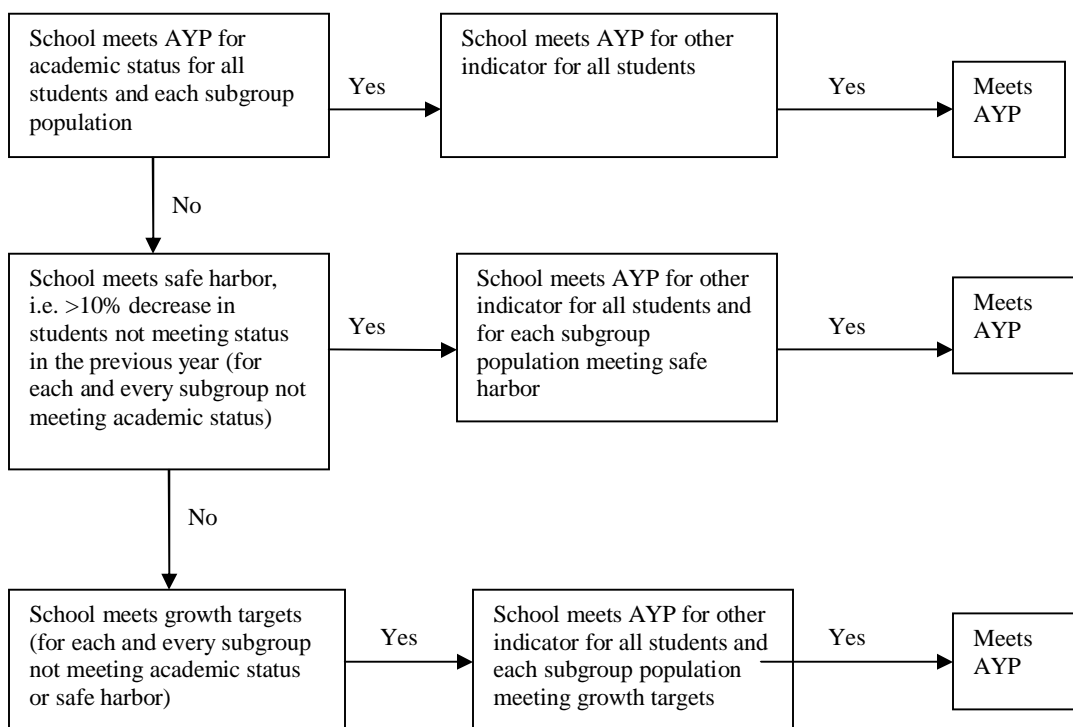
The No Child Left Behind Act requires the annual determination of whether schools, districts, and states have made adequate yearly progress (AYP) toward the goal of having all students meet rigorous state academic standards by the 2013-2014 school year. Each year, the performance of all students in the school and district, as well as subgroups of students, is measured against annual performance targets. The growth model will be used in conjunction with the existing, status-based AYP determinations and the existing safe harbor provision to ensure that schools are not incorrectly identified as being in improvement status when there is substantial growth in achievement occurring in the school. Our intent is to use measures of school growth as an additional mechanism beyond status-based models to demonstrate when clear progress is being made in the school. The growth model will help to identify students who are not now at or near proficiency but who show a trajectory that will lead to future proficiency. The model will also help to identify students who are now above proficiency but who are not certain to remain above proficiency standards in future years. In essence, the design of the growth model places an emphasis on a positive trend in achievement rather than on performance in a single year. Incorporation of the new model will add to the information available for evaluating school performance and provide more accurate identification of schools that are in need of improvement.

Under the current system, if all groups in a school meet the statewide academic achievement targets in English/Language Arts and Mathematics, and the school meets the targets for either attendance in elementary and middle schools or graduation rates for schools with grade 12, the school is designated as *meeting AYP*. Schools and districts that do not meet the academic status targets may qualify as meeting AYP under the safe harbor provision of NCLB. Using safe harbor, a school or district or any subgroup that reduces its percentage of students not meeting the standards by 10% or more, from the prior year to the current year, will be designated as *meeting AYP*, as long as the school, district, or subgroup also meets the target for the other academic indicator of graduation or attendance.

By instituting the new growth model, another avenue will exist for schools to meet targets. *Schools and districts that do not meet the academic status targets and do not meet the requirements for safe harbor may qualify as meeting AYP if they have achieved academic growth targets.* Using growth trajectories, a school or district or any subgroup that meets the objective for the percentage of students projected to meet proficiency will be designated as *meeting AYP*, as long as the school, district, or subgroup also meets the target for the other academic indicator of graduation or attendance. When this occurs, a school's current status will be maintained (see examples in table below). When growth targets

are met for two years in a row, a school will be designated as meeting AYP and will be removed from school improvement status. This “two-year rule” for the application of growth model results is consistent with current Oregon status-based methods for schools to meet their targets. The growth model will be applied in conjunction with how a school has or has not met AYP. For example, if a school has failed to meet AYP status for economically disadvantaged students and failed to meet safe harbor for the same group, the school must demonstrate AYP for the growth of economically disadvantaged students in the school to avoid school improvement status.

### How AYP Determinations Are Made



See *Appendix 6, 05-06 AYP and Policy Technical Manual* for details on AYP calculations.

### **B. Grades Covered by the Growth Model**

All grades (3-8 and 10) that are assessed in the Oregon accountability system will be included in growth model calculations. All students are included in the model if they have one or more years of data. For AYP calculations, students with one or more years of data and who are enrolled for a full academic year will have a growth trajectory computed. Use of more than two testing occasions as well as inclusion of multiple cohorts will increase the reliability and validity of the Oregon growth model and protect against potential factors like regression to the mean. In the first year of implementation, data are available in the listed grades for the following cohorts of students:

**Data Availability by Year and Grade**

2002-03	2003-04	2004-05	2005-06	2006-07
				3
			3	4
		3	4	5
	3	4	5	6
3	(4)	5	6	7
	5	6	7	8
5	(6)	7	8	HS – 10
	8	(HS - 9)	HS - 10	
8	(HS - 9)	HS - 10		

( ) – Not all students at these grades will have scores

**C. Expected Trajectories of Growth**

The model we propose will set performance expectations for each individual student. Expectations will be determined based on the application of the growth model for each student. A growth trajectory will be estimated for each individual student using maximum likelihood and empirical Bayes estimation (see Appendix 15). The trajectory will be projected into the future and compared to the state standard for proficiency in each content area for the relevant grade. If the projected score meets or exceeds the state proficiency standard for that grade, the student will be identified as “on track” and will have met standard. If the projected score is below the state proficiency standard for that grade, the student will be identified as not meeting expected growth. For each school, the percentage of students who show sufficient growth to meet standard will be calculated. For example, the projected growth for a 5<sup>th</sup> grade student must equal or exceed the 8th grade performance standard to be counted as having met the growth target. In 2006-07, schools will be designated as having made adequate yearly progress in growth if 50% of their students meet growth expectations in English/Language Arts and 49% of students meet growth expectations in Mathematics. In 2007-08, the required percentages will be 60% in English/Language Arts and 59% of students in Mathematics. These are the same annual objectives now in place for the Oregon status-based accountability system. The percentage of students in each school who must meet growth expectations increases annually, culminating in a requirement for 100% of students to meet growth expectations in 2013-14 (see table below).

School Year	English/ Language Arts	Mathematics
2006-07	50%	49%
2007-08	60%	59%
2008-09	60%	59%
2009-10	60%	59%
2010-11	70%	70%
2011-12	80%	80%
2012-13	90%	90%
2013-14	100%	100%

#### D. Credit for Growth

All students are included in the growth model and impact results for each school. At the student level all students have individual growth expectations and each year the percentage of students whose growth trajectory results in the student meeting standard will be calculated for each school. In order to meet standards, each school must show an increasing percentage of students that meet growth projections each year. The school will receive “credit” for every student that is on track to meet or exceed the state standard. In addition, students who are at or above proficiency must have a growth trajectory that is projected to remain above the proficiency standard for the school to receive credit for that student. These procedures credit all those who are making progress that is anticipated to result in future proficiency thereby taking into account student performance that is not now close to the cut point. These procedures also allow the evaluation of students who are now at or above standard but whose performance may be at risk for falling below standard in the future. If a student has a growth trajectory that will maintain performance above grade level standards, the school receives credit for the student meeting growth standards.

#### E. Counting Third Grade

AYP determinations for schools that have only assessment results from the first year of assessments (grade 3) will continue to be made using the calculation of academic status and safe harbor described in statute and in Oregon’s approved accountability workbook. In addition, all students with a valid third grade assessment score will be included in the growth model. As described elsewhere, the statistical methods used will provide an estimated trajectory for each student even when only one test score is available and, therefore, each student can be evaluated as to whether they are on track to meet standard even if only one score is available.

#### F. Match Rates

Group	Students with Matched Student Identification Numbers in Grades 4-8 in 2005-06	Students with Non-Matched Student Identification Numbers	Students Who Have Moved Out of State	Percent of Matched Students Who Have Not Moved Out of State
All Students	199,628	15,917	14,339	99.2%
Economically Disadvantaged	88,482	7,404	6,437	98.9%
Limited English Proficient	9,285	627	422	97.8%
Students with Disabilities	29,901	2,075	1,383	97.7%
Asian/Pacific Islander	8,843	896	828	99.2%
Black (not of Hispanic origin)	5,913	623	525	98.4%
Hispanic origin	30,402	3,270	2,931	98.9%
American Indian/Alaskan Native	4,425	333	286	99.0%
White (not of Hispanic origin)	143,777	9,918	8,944	99.3%

## IV. Compliance with Core Principles

<b>Core Principle 1</b>	<b>Proficiency by 2014 and Incorporating Decisions About Student Growth into School Accountability</b>
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### **1.1 Accountability for Universal Proficiency by 2013-14**

The proposed growth model will augment and not supplant the status-based AYP model currently in place. The growth model will reinforce goals and expectations for students to meet proficiency and will provide much greater attention to the achievement of all students at the individual level. In the growth model, each student with a valid scale score will have a growth trajectory that allows estimation of whether the student is on track to meet standard in the future. For students already at or above proficiency, as described in Section 1.2.1, the new growth model will also set trajectories requiring students to meet standards in future years. The proposed model emphasizes not only universal proficiency but a goal of universal learning for all students.

Three methods will be used to ensure universal proficiency by 2013-14. First, the AYP provisions for status-based evaluation of the progress of students towards universal proficiency are maintained. Second, growth trajectories are used to ensure that students are on track to achieve proficiency in the future. The percentage of students meeting growth targets will be reported for each school and district. Third, growth trajectories for each student within each school and for each disaggregated subgroup within each school will be calculated. When a school fails to meet status-based AYP and Safe Harbor, the school will need to meet AYP for growth to meet standards. The percentage of students meeting growth targets will increase each year with a requirement that 100% of students meet growth targets in 2013-14.

#### **1.1.1 Does the State use growth alone to hold schools accountable for 100% proficiency by 2013-14? What combination of status, safe harbor, and growth is proposed?**

The growth model will be used in conjunction with the existing status and safe harbor methods now in place. When a school fails to meet status-based AYP and does not meet safe harbor, the growth model will be used to determine whether students in the school are on track to meet proficiency. The proposed model is designed to establish an expected rate of growth for each student to achieve future proficiency. Objectives for the percentage of students overall and in each disaggregated subgroup that meet standards are set the same as the objectives for status-based AYP and increase over time to hold schools and districts accountable for 100% proficiency by 2013-14 in mathematics and English/Language Arts. Student growth will be monitored and reported for individuals, disaggregated subgroups, schools,

and districts. Schools will be held accountable using status, safe harbor, and growth for 100% proficiency by 2013-14.

## **1.2 Criteria for “Growth Targets” for Schools and Subgroups**

### **1.2.1 Growth Targets**

The revised proposal uses the existing state proficiency standards as growth targets in the growth model. This creates a consistent, universal accountability system for both status and growth. Individual growth trajectories are calculated for each student and projected three years in advance. If these trajectories meet or exceed the state proficiency standard for relevant grade, the student will have met the growth target. Thus, no new standards are used in the revised growth model and there is no need for any type of standard setting.

The model will use from every student each available year’s highest valid state test score. Student growth trajectories are calculated for the student in each content area (mathematics or English/Language Arts). Maximum likelihood and empirical Bayes estimation is used to compute a growth trajectory for each student. For many students starting in 2006-07 there will be three years of test scores. This method allows the estimation of a student trajectory as long as there is one or more valid student test scores. The method allows calculation of a trajectory even when students have different numbers of test scores or test scores administered at different times (see Appendix 15 for further detail). Therefore, no students will be excluded from the growth model as a result of “missing data”. Each year, student growth trajectories will be recalculated for all students in the system. This is advantageous because trajectories will benefit from the inclusion of additional test scores and trajectories can be updated based on the most recent student performances.

The revised Oregon model utilizes current performance standards for students to establish growth targets. It should be noted that the state is reviewing existing state proficiency standards in response to Peer Review of our Standards and Assessment system. The growth model is used to generate statistical estimates of whether the student’s trajectory of academic performance is likely to result in future proficiency. In addition the state will set performance standards in grades 9 and 11 for the purpose of establishing three-year growth targets for students in grades 6 and 8 respectively. As described elsewhere, the expectations for schools to meet standard are to have increasing percentages of students meet the growth targets each year with the goal of universal proficiency in 2013-14.

## **1.3 Annual Judgments About School Performance Using Growth**

### **1.3.1 How Accountability Determinations Will Incorporate Student Growth**

As described in the next sections, accountability determinations will use student growth as an additional “safe harbor”-like provision. Status-based AYP and safe harbor will continue unchanged. When schools do not meet status-based AYP, if the school does meet AYP for growth, the school will

enter a holding status that maintains the school’s current improvement status. If this condition occurs for two years in a row with the school meeting AYP for growth, the school can exit improvement status even if status-based AYP has not been met. See the table below in Section 1.4.

### **1.3.2 Creation of a Unified AYP Judgment**

In the proposed Oregon model, AYP judgment is made as a sequence of steps. The design of this process is intended to hold students and schools to a rigorous standard for performance, while simultaneously minimizing the likelihood that a school will be incorrectly identified as needing improvement.

### **1.4 Consequences and Rate of Student Growth Consistent with Section 1116 of ESEA**

The No Child Left Behind Act requires the annual determination of AYP for schools, districts, and states toward the goal of having all students meet rigorous state academic standards by the 2013-2014 school year. The performance of all students in the school and district, as well as subgroups of students, is measured against annual performance targets.

- If all groups in a school meet the statewide academic achievement targets in English/Language Arts and Mathematics and the school meets the targets for either attendance in elementary and middle schools or graduation rates for schools with grade 12, the school is designated as meeting AYP.
- Schools and districts that do not meet the academic status targets may qualify as meeting AYP under safe harbor. Using safe harbor, a school or district or any subgroup that reduces its percentage of students not meeting the standards by 10% or more from the prior year to the current year will be designated as meeting AYP, as long as the school, district, or subgroup also meets the target for the other academic indicator of graduation or attendance.
- Schools and districts that do not meet the academic status targets and do not meet the requirements for safe harbor may qualify as meeting AYP if they have achieved objectives for academic growth. Using growth, a school or district or any subgroup that meets the established objective for the percentage of students whose trajectories meet future proficiency will be designated as meeting AYP, as long as the school, district, or subgroup also meets the target for the other academic indicator of graduation or attendance.
- Schools and districts that meet AYP through status or safe harbor but do not meet AYP for growth will be designated as “Meets AYP,” but will be expected to address this in their Continuous Improvement Plan submitted to the state agency and will be held accountable in several public and administrative ways when AYP in growth is not met. This provides an overall increase in statewide accountability and public oversight in the new proposed system.

In addition to meeting the accountability requirements of NCLB, school districts are required by Oregon law to engage in a continuous improvement process. As part of this process they must submit a biennial report to ODE showing their progress on each of ten State Performance Indicators. The growth model will enable districts to accurately report on the performance indicator “All students will show continuous individual growth in all core academic subjects”. Progress on this indicator is part of the on-going monitoring to determine how districts are progressing with their improvement efforts.

AYP determinations in the proposed accountability system are illustrated in the tables below that show several possible scenarios for how AYP for growth might affect a school’s improvement status.

**Table 1** Question: Does growth keep a school from going into improvement status? Answer: Yes, it can.

	04-05	05-06		06-07		07-08		08-09
		Improvement status		Improvement status		Improvement status		Improvement status
AYP status	No	None	No	First year	No	Second year	No	Corrective action
AYP safe harbor	No		No		No			
AYP growth		None	Yes	None holding	Yes	None holding	Yes	None holding

**Table 2** Question: Does growth move a school out of improvement status? Answer: Yes, it can.

	04-05	05-06	06-07		07-08		08-09		09-10
			Improvement status		Improvement status		Improvement status		Improvement status
AYP status	No	No		No		No	Corrective action	No	Plan for restructuring
AYP safe harbor	No	No		No		No			
AYP growth		No	First year	Yes	Second Year	First year holding	Yes	Out	Yes

**Table 3** Question: Is there a limit for how long growth can keep mitigating sanctions? Answer: No

	04-05	05-06	06-07		07-08		08-09		09-10
	Year 2		Improvement status	Year 3	Improvement status	Year 4	Improvement status	Year 5	Improvement status
AYP status	No	No		No		No	Corrective action	No	Plan for restructuring
AYP safe harbor	No	No		No		No			
AYP growth		No	First year	Yes	Second year	First year holding	No	Second year	Yes

<b>Core Principle 2      Establishing Appropriate Growth Targets at the Student and School Level</b>
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**2.1 Depicting Annual School and Student Growth in Relation to Growth Targets**

Student demographics and characteristics will not enter into the calculation of student growth trajectories. Growth trajectories will not be affected by the individual’s background. As described earlier, student growth trajectories will be set based on the student’s level of performance and current rate of growth based on their prior test scores. Trajectories are used to ensure a continued rigorous expectation for learning and when necessary to determine that the student will meet future proficiency.



Every student will have calculated an expected rate of growth to reach proficiency in four years. Schools will have annual growth objectives set such that all students will be on track to proficiency by 2013-14. The percentage of children who met their growth target in each school annually will be reported for the school as a whole and for each disaggregated group. Determinations of whether the school and disaggregated groups met growth expectations will be reported for groups that meet the minimum n of 21 students.

<b>Core Principle 3</b>	<b>Accountability for Reading/Language Arts and Mathematics Separately</b>
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### **3.1 Holding Schools Accountable for Student Growth Separately in Reading/Language Arts and Mathematics**

As described in Core Principal 1, Oregon’s proposal will combine status, safe harbor, and growth to make AYP determinations for schools and LEAs. As such, separate decisions about student achievement in reading/language arts and mathematics will continue to be made for all schools and districts. The model will not include assessments from other content areas.

<b>Core Principle 4</b>	<b>Inclusion of All Students</b>
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### **4.1 Addressing the Inclusion of All Students, Subgroups and School Separately**

The proposed growth model augments the existing status-based model; all students remain a part of the new model. Through the addition of the growth model, however, more information on student performance will be available over time and the proposed methods for reporting outcomes under the new model will allow increased attention on performance at all levels. Oregon reports to parents, educators, and the entire public on the performance of students with disabilities on the statewide assessments. In 2004-2005, the overall participation rate of students with IEPs on the statewide assessment was 95.6%.

#### **4.1.1 Inclusion of All Students**

One of the assumptions in the Oregon growth model is that it is important to track the progress of each individual student. Individual students are the philosophical and fundamental focus of our efforts at educational improvement. Individual students are included in the proposed model in several ways. First, Oregon includes scores of all students enrolled on the first school day in May for a full academic year in the status and safe harbor AYP calculations. Second, all students with one or more assessments are included in the calculation of growth trajectories and the percentage of students in each school and in

each disaggregated subgroup that are on track to meet standards. Third, each individual will have his/her growth reported along with individualized growth expectations based on the student's prior performance.

Assessments with valid scales scores will be included in the growth model. Additional assessments with valid performance levels but without scale scores are still included in the determination of academic status and safe harbor as appropriate.

In section 2.2 of the *Oregon's Approved Consolidated Workbook, Appendix 7*, Oregon defines "full academic year" to be more than half the number of instructional days in the school's calendar prior to May 1 (the date of enrollment used for determining the participation denominator). This definition maximizes the number of students that are appropriately included in the calculation of academic performance and growth for a school. To attribute student performance or gains in the scores of individual students to a school where the student had received less than half of his or her instruction during the current school year would be educationally unsound.

A student with a disability who participates in any assessment options yielding a valid test score is counted for participation on both AYP and the Oregon School and District Report Card. A student with a disability who is assessed with an extended assessment and who meets the alternate achievement standards may be included as "meets" in the AYP status and safe harbor determinations up to a maximum of 1% of the district total test count.

#### **4.1.2 Inclusion of All Subgroups**

As described in the State's approved Accountability Workbook, the minimum group size for making a participation determination for any subgroup is 40 test scores over two years in a given content area. The minimum group size for making a determination of academic status for any subgroup is 42 test scores over two years in a given content area. The minimum group size will not change for these determinations under the proposed model.

For the growth model, the minimum group size will be 21 students with matched scale scores from assessments taken without modifications over two years. Students must be enrolled for a full academic year in the current school year to ensure that student performance can be attributed to the educational effects of the current school. Students will be included in the subgroup reporting of growth data based on the demographic data on the student's current year test record.

#### **4.1.3 Inclusion of All Schools**

Under the current model, Oregon holds schools and LEAs accountable for the achievement of all student groups for which there are 42 tests over two years combined in a given content area from students enrolled on the first school day in May for a full academic year. This provision will continue under the proposed AYP model incorporating individual student growth.

For the growth model, the minimum group size will be 21 students with matched scale scores from assessments taken without modifications over two years. Schools without assessed grades (i.e. K-2 or 11-12 schools) will continue to have AYP determinations made under the current AYP accountability system.

As described in section 9.3 of the *Oregon's Approved Consolidated Workbook, Appendix 7* "new schools will be held accountable as soon as sufficient data points are available". Two years of data are used to determine if a school has met academic status targets. Students enrolled in newly reconstituted schools (due to grade reconfigurations, boundary changes, mergers, etc.) will be included in LEA accountability. State policy is that if enrollment of a school changes by more than 40% due to boundary changes, it is considered a new school. Assessment data will be reported on new schools the first year". Similar procedures will apply to the reporting of growth data and the use of this data in school AYP determinations.

The state uses four years of assessment data for AYP determinations for schools that do not meet the minimum cell size of 42 over two years. In 2005-06, 9% of schools did not have sufficient data for making an AYP determination using two years of data. As the number of years of growth model data increases, the state will examine how to report growth data for these schools consistent with the number of years of assessment data included in AYP reports.

As described in Core Principle 1, Oregon's proposal will combine status, safe harbor, and growth to make AYP determinations for schools and LEAs. If a school or LEA does not have sufficient data to include growth in the AYP determination, the determination will continue to be made using academic status and safe harbor described in the statute. This ensures that all schools and districts in Oregon receive an AYP determination each year utilizing the state's data collection and reporting system.

<b>Core Principle 5</b>	<b>State Assessment System and Methodology</b>
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## **5.1 State Assessment System in Accordance with NCLB, and Have Annual Assessment Been in Place Since the 2004-05 School Year**

### **5.1.1 Summary Description of Statewide Assessment System**

The following NCLB Peer Review provides an overview of Oregon's assessment system.

- (a) CRT = criterion-referenced assessments
- (b) ANRT = augmented norm-referenced assessments
- (c) NLA = native language assessment or various alternate assessments
- (d) AA-SWD = alternate assessment for students with disabilities
- (e) AA-LEP = alternate assessment for students with limited English proficiency
- (f) AA-AAS = for an alternate assessment for students with the most significant cognitive disabilities based on alternate achievement standards.

**Chart of State Assessment System Aligned to Content Standards for school year  
2004-2005 and 2005-06 by Subject, Grade, and Type of Assessment**

Grades	3	4	5	6	7	8	9	10	11	12
<b>Math</b>	CRT	CRT	CRT	CRT	CRT	CRT		CRT		
Alternate	AA-AAS	AA-AAS	AA-AAS	AA-AAS	AA-AAS	AA-AAS		AA-AAS		
Native Lang.	NLA	NLA	NLA	NLA	NLA	NLA		NLA		
<b>Reading</b>	CRT	CRT	CRT	CRT	CRT	CRT		CRT		
Alternate	AA-AAS	AA-AAS	AA-AAS	AA-AAS	AA-AAS	AA-AAS		AA-AAS		
Native Lang.										
<b>Language arts</b>		CRT			CRT			CRT		
Alternate		AA-AAS			AA-AAS			AA-AAS		
Native Lang.		NLA			NLA			NLA		
<b>Grade Spans</b>	3 – 5			6 – 9			10 - 12			
<b>Science</b>	CRT			CRT				CRT		
Alternate										
Native Lang.										

For the 2004-2005 school year assessments were required for students in all grades for the assessments shown in the chart and scores were reported for individual students. The State Board of Education did not adopt performance standards for the reading and math tests at grades 4, 6, and 7 until September 16, 2006. As a result, students taking these assessments did not receive reports reflecting whether or not the student met the performance standards. Likewise, reports of the percentage of students meeting standards by school and district for assessments at these grades were not produced. Reports of individual, school and district test results were produced for all other grades assessed in 2004-05 and were produced for all grades and assessments in 2005-06.

### 5.1.2 NCLB Peer Review

Oregon’s status under Peer Review is “Approval Pending.” The ODE is currently working with the USED to address the full scope of issues identified in the Peer Review process.

See *Oregon Peer Review Assessment Letter, Appendix 8*, for Peer Review requirements

### 5.2 Reporting Individual Growth to Parents

Reports of individual academic status may be generated by districts in two ways, either as an individual report for each subject (ISR) or a single report combining results of all assessment subjects into a single report (Combined ISR). Example of these reports that show the student’s status compared to Oregon’s academic achievement standards can be found in *Appendix 9, Oregon Assessment System – Parent Report*, and *Appendix 10, State Assessment Report – Student*.

### **5.3 How Oregon Produces Comparable Information on Each Student as He/She Moves From One Grade Level to the Next**

#### **5.3.1 Evidence that Achievement Scale Scores Have Been Equated Appropriately**

Oregon has contracted with American Institutes for Research (AIR) to analyze the technical adequacy of its scales. A technical report has been completed and is available upon request. AIR has conducted an extensive review of the classification reliabilities associated with the current performance standards as well as the quality of the vertical articulation and linkages of the scale.

<b>Activities and Deliverables</b>	<b>Date</b>
<b>Preliminary cohort based analysis (excluding subgroup and interaction analysis if necessary)</b> <ul style="list-style-type: none"><li>• Classification consistency analyses</li><li>• Strand reliability study</li></ul>	Completed
<b>Preliminary analysis of repeated measures (excluding subgroup and interaction analysis if necessary)</b> <ul style="list-style-type: none"><li>• Reliability/Stability study of change scores</li></ul>	October 1, 2006

The full statement of work is found in the *American Institutes of Research Contract, Appendix 11*.

#### **5.3.2 High School Level NCLB Test**

Oregon does not use end of course tests as the high school level NCLB test.

#### **5.3.3 Determining Cut Scores**

The State Board of Education adopted academic performance standards in reading/language arts and mathematics at grades 3, 5, 8 and 10-12 in September 1996. Writing performance standards were modified in November 1998, based on the recommendations of the National Technical Advisory Panel (instead of applying trait level standards conjunctively, standards were set for composite scores summed across writing traits). Performance standards for grades 4, 6, 7 in mathematics and reading/language arts were adopted by the board on September 15, 2005.

#### **5.3.4 Use of Smoothing Techniques**

For performance standards set in 1996, smoothing was not used. However, as part of the performance standard setting adopted by the board in 2005, standards for grades 4,6,7 were established by interpolating the cut scores based on the previously established cut-scores. As described in section 5.1.2 Oregon will engage in a full standard setting process for mathematics, reading/language arts and science in December 2006 for grades 3-8 and high school.

### **5.4 Is the Statewide Assessment System Stable in its Design?**

#### **5.4.1 Stability**

As shown in the chart in 5.1.1, Oregon has administered equivalent forms and types of assessments at each grade level in 2004-05 and 2005-06. The assessments have been scored using the same procedures in both years. The content standards that form the basis of the assessments were the same for all assessments with the exception of reading/literature assessments at grades 3, 5, 8, and 10. In the 2005-06, the reading/literature assessments at grades 3, 5, 8, and 10 were based on content standards that had been reviewed and revised and adopted by the State Board of Education in 2003. In 2004-05, the reading/literature assessments at the grades were based on content standards adopted prior to 2003.

#### **5.4.2 Anticipated Changes in the Statewide Assessment System**

We do not anticipate changes other than those specified in sections 5.1.2 and any additional suggestions elicited by AIR as noted in section 5.3.1 or via the RFP as part of the *Oregon NGA Gates Foundation Project for High School Reform (see Appendix 12)*. Any additional changes that do occur will be reflected in subsequent amendments to Oregon’s AYP accountability workbook. Oregon will utilize the forthcoming guidance from USED as how to incorporate new assessments and performance standards into the accountability system

The standard setting process will impact the growth model by defining the level of mastery required for a student to be considered proficient and will therefore impact determinations of whether a school has successfully moved students on a trajectory toward proficiency. As suggested by contractors the standards and subsequently the assessments may change to increase rigor. In addition, Oregon will improve its item development and banking and test development processes as needed to increase the reliability and vertical articulation of the assessment system. Based on peer review, stakeholder input and IDEA regulations, we are in the process of reviewing our procedures for assessing students with disabilities. Experts at the University of Oregon are already under contract to provide assistance with this work. We are also receiving technical assistance from USED to ensure completion of the Peer Review requirements and full compliance with NCLB.

<b>Core Principle 6      Tracking Student Progress</b>
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#### **6.1 Design and Implementation of a System for Accurately Matching Student Data from One Year to the Next**

As stated in section I D, Oregon has made significant investments in the state data system and continues to invest in reviews to improve efficiencies in the existing system as well as investments in further maturing this system. Based on current operational needs, the system is very reliable and supports sound decision making and accountability. Of the 185,289 Oregon students in 2005-06 who were eligible to take tests in grades 4 through 8, 183,711 were identified with the same student identifier as being

eligible to test in grades 3 through 7 in 2004-05. This results in an overall match rate of 99.2% (Please see Section IIG Match rates). We recognize that this new project will create an additional demand on both the technical infrastructure and the support to districts and schools. The department is in the process of writing two statements of work to comply with the need for added capacity to our existing infrastructure and based on the requirements agreed mutually agreed upon by the USDE and ODE as follows:

Support to Schools – this work will include the training, documentation, help desk assistance, quality assurance and development of issue identification and resolution processes and procedures. This support will likely be contracted through a regional delivery system with our Educational Service Districts (ESDs) partners. Oregon successfully uses this process for the administration of our assessments and scoring of writing exams.

New Growth Reports – this work will include the analysis of the existing system, identification of requirements, development of business rules and creation of reports. Included in the scope of this work will be the creation of processes to extract from existing student databases and current AYP processes and the creation of a process to generate a new AYP Growth Report.

### **6.1.1 Utilization of a Student Identification Number System**

The State utilizes a student identification number system (SSID) that has been in place for five years and required for all students since the 2001- 02 school year.

### **6.1.2 State Capability of Keeping Track of Students**

Schools and District are able to update the SSID record of a student that transfers between schools or districts as soon as the student enrolls. All students are required to have SSID numbers in order to participate in statewide assessment as well as to be claimed for state school funding by an LEA.

Of the 185,289 Oregon students in 2005-06 who were eligible to take tests in grades 4 through 8, 183,711 were identified with the same student identifier as being eligible to test in grades 3 through 7 in 2004-05.

### **6.1.3 Quality Assurance**

The SSID system has built in edit checks and processes checks in addition to district discovery. First, as SSIDs are updated a multilevel check is performed to see if there are students who have similar or the same demographic attributes. A list is then presented back to the district users for selection of the right student. Second, a weekly report compares all students in the system to see if there are possible matches, which are then provided to districts for resolution. The majority of districts download their SSID records weekly from the SSID system to run against local Student Information Systems. Errors in this process are recorded if demographics do not match. Resolution of these incidents takes place through the ODE helpdesk. Finally, districts occasionally use a manual process to identify students who have

more than one SSID number and the ODE helpdesk resolves those records. An overview of the data validation procedure can be found in *Appendix 13, SSID Validation Procedure*.

#### **6.1.4 State Student Data System and Demographic Characteristics**

Districts submit the required demographic information in each collection and the data is matched by SSID number to assessment records and other student-level data collections. Demographic information comes from the following student-level data sources:

- Ethnicity/race and gender - SSID Collection
- English Language Proficiency - English Language Proficiency Collection
- Economically Disadvantaged - Spring Student Membership Collection
- Disability Status - SSID Collection and the Spring Student Membership Collection. (The Department is likely to determine membership in the Special Education subgroup in 06-07 from a June Special Education Child Count).

#### **6.1.5 Adjusting for Missing Data**

The new model significantly decreases the amount of missing data by including all students who have at least one valid scale score (Please see Appendix 15 for more information). In addition, because the Oregon system allows for multiple testing occasions within a school year, there is a much smaller chance that a student will not be tested in a given year than in other state systems. Therefore it is much more likely in Oregon that we will have the multiple assessment occasions needed for the determination of growth. Furthermore, because the Oregon model uses true growth modeling techniques, students do not need to have the same number of test scores and test scores can occur at different times for one student as compared to another. This allows all students with valid test scores to be included in the growth model and will reduce the amount of missing data in comparison to other systems and statistical methods.

The issue of importance in the Oregon growth model is how to include students who have only one test score. These students will be included in the growth model through the use of empirical Bayes methods that allow the estimation of a student growth trajectory for any individual with only one test score. Using this method we will estimate a growth trajectory for each and every individual student and determine whether that trajectory results in future proficiency. Thus, no student will be excluded from the growth model because of the amount of data available. As long as a student has one or more valid test scores in the current academic year, the student is included in the model and if there is only one test score, Bayesian estimation is used to impute the student's growth trajectory. While there may be a good deal of estimation error for students with only one score, empirical Bayes methods have been found to be very efficient in this situation (see Braun, et al., 1980 in appendix 15) and we believe the benefits on including students in the accountability system outweigh uncertainties in the estimate.



## **6.2 State Data System Capacity for Implementing the Proposed Growth Model**

### **6.2.1 State Data Warehouse Capacity**

The Department of Education is beginning to develop state data warehouse capacity through a legislative appropriation of \$1.5 million. The Department has hired a veteran business intelligence expert with 18 years of private sector experience to lead this project. Over the next 18 months, this additional capacity will provide the following key deliverables:

- Granular, integrated, accurate, standardized, and timely data regarding student performance and achievement both for individual and specific student subgroups.
- Data and tool standardization between districts and ODE in tracking students as they move through the educational system, including a two-day turnaround in transcript exchange between districts for transferring students.
- On-line access to students' information for all stakeholders through enterprise portal, with relevant access rights and security profiles.

### **State Experience in Analyzing Longitudinal Data on Student Performance**

The primary consultant on this project has approximately 14 years of experience in analyzing longitudinal data on student achievement. The current advisory committee that has provided input to the Oregon proposal includes nationally known experts on the use of longitudinal growth models. In addition, a larger Technical Advisory Committee has been appointed for the longer term that includes other national experts on the use and application of growth modeling techniques. The Oregon Department of Education has been conducting, analyzing and reporting criterion referenced testing since the mid-1970's and has implemented assessments of academic content standards and performance standards for the past 10 years.

### **6.2.2 Adjusting for Decreasing Student Match Rates**

The primary reason for decreasing match rates over years is the mobility and drop-out of students from the system. Students who transfer out of the state should legitimately be excluded from considerations of school effectiveness on student progress. It is our goal to account for all other students. Students enrolled in any Oregon schools who have one or more assessment scores will appear in the growth model reporting system. Approximately 6% of students leave the Oregon system in a given year. As described elsewhere, all other students with at least one test score will be included in the growth model.

<b>Core Principle 7</b>	<b>Participation Rates and Additional Academic Indicator</b>
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## **7.1 Has the State Designed and Implemented a Statewide Accountability System that Incorporates the Rate of Participation as one of the Criteria?**

### **7.1.1 Participation Rates Affect on Proposed Growth Model**

Oregon's proposed AYP model keeps the approved calculation of status and safe harbor while adding student growth. Schools and Districts will continue to be accountable for meeting the state's participation target of 95% as under the current model. The combined state participation rate for the 2004-05 and 2005-06 school years (Oregon uses two years of data in AYP determinations as previously described) was 98.0% in English/Language Arts and 98.7% in Mathematics.

### **7.1.2 Change of Participation Rate as a Result of Proposed Growth Model**

The calculation of the State's participation rate does not change under the proposed model. The calculation of participation will continue to be based on all students enrolled on the first school day in May as described on page 14 of the AYP Policy and Technical Manual:

Participation rate is defined as the total number of tests administered to all students enrolled in the school on the first school day in May divided by the total number of students enrolled in core content classes on May 1.

## **7.2 Does the Proposed State Growth Accountability Model Incorporate the Additional Academic Indicator?**

### **7.2.1 Additional Academic Indicator**

Oregon's additional academic indicators are as follows:

Attendance for elementary and middle schools: The state's attendance target is 92.0%, equivalent to a student behavior rating of *satisfactory* on the current School and District Performance Report. The attendance rate = *Total student days present* divided by (*Total student days present* + *total student days absent*). The attendance rate is calculated from the Annual ADM Collection submitted by districts.

Graduation for schools with grade 12: The graduation target is 68.1% represents the historically Oregon statewide average of the percentage of 9<sup>th</sup> grade students receiving regular diplomas within four years. The graduation rate = *Number of students graduating with a regular diploma* divided by (*number of students graduating with a regular diploma* + *number of dropouts in grades 9 – 12*). Dropouts are determined from the Early Leavers Collection and graduates are obtained from the High School Completers Collection submitted by districts.

### **7.2.2 Additional Academic Indicators Incorporation Into Accountability Determinations**

As in the current model, schools and LEAs must meet the state target for the other academic indicator in order to meet AYP under the proposed model. Additionally, for a subgroup to meet AYP through either safe harbor or student growth, the subgroup must meet the state target for the other academic indicator.

## IV. Questions to be Answered by the State

### 1. Uniform averaging

As described in the State's approved Accountability Workbook, Oregon uses uniform averaging, i.e., two years of assessment results, to calculate the academic status of a school or district and compares the percentage of students meeting standard in the current year with the percentage meeting standard in the prior year to determine safe harbor. However, the proposed growth model does not use uniform averaging. Rather, it incorporates each available year of assessment to calculate student growth trajectories.

### 2. AYP formula issues

As described in the *Oregon's Approved Consolidated Workbook, Appendix 7*, the minimum group size for making a participation determination for a group is 40 test scores over two years in a given content area. The minimum group size for making a determination of academic status for a group is 42 test scores over two years in a given content area. The minimum group size will not change for these determinations under the proposed model. For the growth model, a minimum group size of 21 test scores will be used. No confidence interval is used in the growth model calculations.

### 3. Assessments

For any assessments that result in scores that are located on the same score scale we will include the student in the growth model. No growth trajectory will be estimated for students whose assessments are not on an appropriate, continuous score scale.

### 4. Higher-achieving students

All students contribute to the accountability system in several ways. First, individual students' progress will be tracked and reported to emphasize the learning progress of each and every individual. Every individual will have a growth trajectory estimated each year. Students who are above proficiency will have to maintain a growth trend that results in continued performance at or above proficiency for the student to meet growth expectations and count toward AYP growth determinations for the school. In addition, information on student growth will be reported for all students individually and in the state report card.

### 5. Reporting

When the growth model is approved, ODE will continue its series of workshops with stakeholders that will begin an ongoing process of professional development and communication in support of the new system. In addition we will begin the design of new reports and the revision of existing reporting systems to incorporate growth model results.

We will calculate growth trajectories for each individual student in the system. Our eventual goal is to make sure that this information is available to students, parents, and teachers in support of student growth and development. Implementation of these plans will depend on system and budgetary changes that cannot yet be determined.

We will also provide school and district summary reports on growth. Again, the exact format and implementation timeline are undetermined and will depend on new budgets and other resources. The reports we envision for each school will include the percentage of students meeting growth standards for each school as well as the percentage of students for each disaggregated subgroup who have met growth standards. This kind of report would also be aggregated to the district level. For a display of the growth model incorporation into *AYP reporting*, see *AYP Sample Report for 05-06, Appendix 14*.