RHODE ISLAND DEPARTMENT OF EDUCATION

CONSOLIDATED STATE APPLICATION

ACCOUNTABILITY WORKBOOK

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Commissioner
November 2010

Summary of Implementation Status for Required Elements of
State Accountability Systems

Status	State Accountability System Element

Principle 1: All Schools

F   1.1   Accountability system includes *all schools and districts in the state.*

F   1.2   Accountability system holds *all schools to the same criteria.*

F   1.3   Accountability system incorporates the *academic achievement standards.*

F   1.4   Accountability system provides *information in a timely manner.*

F   1.5   Accountability system includes *report cards.*

F   1.6   Accountability system includes *rewards and sanctions.*

Principle 2: All Students

F   2.1   The accountability system includes *all students*

F   2.2   The accountability system has a consistent definition of *full academic year.*

F   2.3   The accountability system properly includes *mobile students.*

Principle 3: Method of AYP Determinations

F   3.1   Accountability system expects *all student subgroups, public schools, and LEAs to reach proficiency by 2013-14.*

F   3.2   Accountability system has a method for determining whether *student subgroups, public schools, and LEAs made adequate yearly progress.*

F   3.2a   Accountability system establishes a *starting point.*

F   3.2b   Accountability system establishes *statewide annual measurable objectives.*

F   3.2c   Accountability system establishes *intermediate goals.*

Principle 4: Annual Decisions

F   4.1   The accountability system *determines annually the progress* of schools and districts.

STATUS Legend:
F – Final state policy
P – Proposed policy, awaiting State approval
W – Working to formulate policy

Principle 5: Subgroup Accountability

| F | 5.1 | The accountability system *includes all the required student subgroups*. |

| F | 5.2 | The accountability system holds *schools and LEAs accountable for the progress of student subgroups*. |

| F | 5.3 | The accountability system includes *students with disabilities*. |

| F | 5.4 | The accountability system includes *limited English proficient students*. |

| F | 5.5 | The State has determined the minimum number of students sufficient to yield statistically reliable information for each purpose for which disaggregated data are used. |

| F | 5.6 | The State has strategies to protect the privacy of individual students in reporting achievement results and in determining whether schools and LEAs are making adequate yearly progress on the basis of disaggregated subgroups. |

Principle 6: Based on Academic Assessments

| F | 6.1 | Accountability system is based *primarily on academic assessments*. |

Principle 7: Additional Indicators

| F | 7.1 | Accountability system includes *graduation rate for high school*s. |

| F | 7.2 | Accountability system includes an *additional academic indicator for elementary and middle school*s. |

| F | 7.3 | Additional indicators are valid and reliable. |

Principle 8: Separate Decisions for Reading/Language Arts and Mathematics

| F | 8.1 | Accountability system holds students, schools and districts separately accountable for *reading/language arts* and *mathematics*. |

Principle 9: System Validity and Reliability

| F | 9.1 | Accountability system produces *reliable decisions*. |

| F | 9.2 | Accountability system produces *valid decisions*. |

| F | 9.3 | State has a plan for addressing *changes in assessment and student population*. |

Principle 10: Participation Rate

| F | 10.1 | Accountability system has a means for calculating the *rate of participation* in the statewide assessment. |

| F | 10.2 | Accountability system has a means for *applying the 95% assessment criteria to student subgroups and small schools.* |

STATUS Legend:
F – Final policy
P – Proposed Policy, awaiting State approval
W– Working to formulate policy

PRINCIPLE 1. A single Statewide Accountability System applied to all public schools and LEAs.

CRITICAL ELEMENT

1.1 How does the State Accountability System include every public school and LEA in the State?

Rhode Island's State Assessment Program (RISAP) is a statewide program established in state law. As of 2005-06 it assesses students with newly developed NECAP exams at grades 3-8 and as of 2007-08, a newly developed NECAP exam is being used at grade 11. In previous years, the *New Standards Reference Examination* (NSRE) was used at grade 11. Every school and district in the State is included in the State Accountability System using these assessments except those schools that are only K or K-1. These primary level schools always represent fewer than 10 schools statewide. The early elementary schools that stop at grade two (2) will be held accountable using NECAP test scores from the fall of grade 3.

We use the Developmental Reading Assessment (DRA) in grades K and 1 for accountability. These assessments were administered to these schools for the first time in the 2003-2004 school year. This English language arts assessment is reflective of our content standards.

All publicly funded students are accounted for. Regardless of their school placement, all students are tested and their student performance results are reviewed. If they are outplaced from district schools, their test scores are assigned back to the school district that has fiscal responsibility.

Examples of Evidence:
- **Test Administration Manuals for NECAP Assessments, 2007-08**
- **Statutory Citation for the State Assessment Program**
- **Transition Plan for RISAP**
- **"School Performance Classifications, Technical Assistance Bulletin"**
- **DRA Materials**
- **Definitions of Public School, District**

1.2   How are all public schools and LEAs held to the same criteria when making an AYP determination?

Rhode Island has preserved the core values of its accountability system while designing modifications to meet the requirements of the No Child Left Behind Act (NCLB). Schools in Rhode Island will continue to be held to identical criteria for achieving adequate yearly progress (AYP). Improvement is defined for all schools in a consistent manner. The provisions of the NCLB accountability guidelines on AYP were incorporated into the Rhode Island Accountability system to achieve compliance. To capture accurately all levels of student achievement, an indexing of proficiency is used. The indexing system increases reliability and validity of the school accountability system because it includes the performance levels of all students within the educational system. An "Index Proficiency" approach is used to make AYP determinations on categorizing schools. Baselines were established for every school and LEA based on assessment data combined for 2000, 2001 and 2002.

BUSINESS RULES

DEFINITION OF "PUBLIC SCHOOL" FOR ACCOUNTABILITY PURPOSES:

The definition of public school for accountability purposes is the same definition as public school for general purposes in Rhode Island, to wit: "A publicly funded school, operated by a local city or town school committee or school board, or operated by the State through a Board of Trustees, or a public charter school established pursuant to Chapter 77 of Title 16 of the General Laws, or a school program operated by the Department for Children, Youth and Families (DCYF)."

DEFINITION OF "LEA" FOR ACCOUNTABILITY PURPOSES:

For accountability, reporting and other purposes the State's definition of LEA is "any city, town, state or regional school district."

THE FOLLOWING CATEGORIES OF SCHOOLS RECEIVE PUBLIC FUNDS FROM THE STATE (AS OF 2002):

Category of Schools	Number of Schools in Category
Public schools	304
Public schools operated by local school districts	292
Public schools operated by the State through Board of Trustees	3
Public schools operated by the State through DCYF	1
Public charter schools operated by local school districts	3
Charter schools not operated by school districts	8
Schools receiving public funds from the State	307 (all public schools including 2 schools that are pre-k only plus Hasbro Children's Hospital which receives a direct grant from the legislature to educate hospitalized students)
Public schools receiving Title I funds	142
Public schools not receiving Title I funds	162
Total number of LEAs	36
Total number of LEAs receiving Title I funds	35

1.3 Does the State have, at a minimum, a definition of basic, proficient and advanced student achievement levels in reading/language arts and mathematics?

The Assessment System for Accountability is aligned to the standards which are provided to districts to adopt. These assessments are required by State law (R.I.G.L. 16-7.1). The NECAP assessments in both English language arts (ELA) and mathematics report student results in the following categories for all schools: Proficient with Distinction, Proficient, Partially Proficient, Substantially Below Proficient, No Score.

To increase the reliability and validity of our accountability system, we define an "Index Proficiency" scale. NECAP achievement levels are assigned index proficiency points as follows:

NECAP Score	*Index Proficiency*
Proficient with Distinction	100
Proficient	100
Partially Proficient	75
Substantially Below Proficient (Upper Range)	50
Substantially Below Proficient (Lower Range)	25
No Score	0

The Index Proficiency is used as the measure of proficiency for our accountability system.

Examples of Evidence:
- NSRE (New Standards Reference Exams Criteria/Score Reports, etc.)
- NAEP Chart – American Institute for Research NAEP Comparison to Statewide Assessment Results
- NECAP Student Report/School Summary Report

1.4 How does the State provide accountability and Adequate Yearly Progress decisions and information in a timely manner?

With the addition of the NECAP grade 11 assessment in October 2007, Rhode Island has now moved all NECAP assessments from March to October to improve the sequence of planning, budgeting and implementation. The preliminary assessment results are made available in January. Based on the release of this information, those schools that will be responsible to provide choice and supplemental services will be provided notice of that fact before the end of each school year. School performance categories are targeted for release in May of each year.

<u>**8 MONTH TIMELINE FOR AYP NOTIFICATION AND APPEALS**</u>

<u>**NECAP**</u>

October	**Testing Window**
Feb.-April	**Analysis of assessment data for accuracy and application of processing rules (e.g., disaggregating, October 1st enrollment checks, etc.).**
May	**Appeal process occurs for all schools and districts especially those low performing schools in jeopardy of not meeting AYP.**
June	**Final release of proficiency index to all schools and districts.**

<u>**Examples of Evidence**</u>**:**
▪ Agreements with the Testing Contractor stipulating when student results will be provided.

1.5 Does the State Accountability System produce an annual State Report Card?

InfoWorks Live! is Rhode Island's state report card (formerly *Information Works*). In the 2008-2009 school year, it will include assessment data, teacher quality information, disaggregations, and all other data elements required by NCLB of the state report card. *InfoWorks Live*! (http://infoworks.ride.ri.gov/) will also include all data elements required of district and school report cards. These report cards will be presented to the public through a press release in September. The state, district, and school report cards will be available on line and will be presented in a form suitable for printing and dissemination by each district and school. Districts and schools will be responsible for distributing their report cards by mail, e-mail, and at "school report night," which is required by the state's accountability regulations.

The *InfoWorks Live*! website will be expanded and kept up to date through the course of the school year with extensive additional information to be added on such topics as school finances, school demographics, data on discipline and grievances, and results of parent, teacher, and student surveys. The *InfoWorks*! website contains all data elements required for state, district, and school report cards, as well as all the additional information described above. This annual report on education is required by state law (16-7.1-4). Current and previous editions of *InfoWorks*! are available on the department's Web site, www.ride.ri.gov.

The State translates report cards into Spanish. Districts will be responsible for translating this information into the other languages called for by the district's demographics and for disseminating this information through parent information sessions and other means.

DISTRIBUTION PLAN

The State Report Card: *Information Works*! is posted on its own web page, http://infoworks.ride.ri.gov/ with direct links to the RI Department of Elementary and Secondary Education (RIDE) assessment web page. As in the past, the State Report Card will be announced in a press release.

The report will be made available to all media statewide, in electronic format suitable for downloading and publication, along with background explanatory information.

The report will be sent in electronic format to:

- All school districts
- All public schools

The report will be sent in published format to:

- Key public libraries
- Key state agencies and nonprofit agencies concerned with education
- Key legislators and public officials

Communications regarding the State Report Card will note that copies of the user's guide are available free of charge from RIDE and that the entire report, along with all district and school reports and reports from previous years, are posted on the RIDE website.

Examples of Evidence:
- *Information Works*! and User's Guide
- Timeline for when a) Graduation Rate and b) Attendance Rates are available (see 7.1 and 7.2)
- Teacher Quality information
- School Performance Classifications: An Explanation of the Process (December 2007)
- Supplementary information is also posted and disseminated through annual School/District/State Report Cards and through the annual NECAP Reports (see RIDE Website under "school reports cards").

1.6 How does the State Accountability System include rewards and sanctions for public schools and LEAs?

Rewards for schools that improve or reach high targets for two consecutive years exist through the Rhode Island "Regents Commended Schools" identification system. These schools' names are released to the public and they receive commended school recognition.

Schools districts which fail to perform (making Insufficient Progress) for two or more consecutive years are designated as "In need of Improvement". The Commissioner of Education also has the authority through Progressive Support and Intervention to control set-asides allocated by the General Assembly, which target resources in specific ways. In a similar effort to align school improvement goals, low performing districts must incorporate their improvement plans into their Consolidated Resource Plans/District/School Strategic Plans that are due May 1st of each year.

NCLB sanctions call for school choice, supplemental services, corrective action and restructuring. Rhode Island has implemented each of those remedies. In Rhode Island, schools identified as in need of improvement are largely clustered in a small number of districts. These districts receive support from the SEA, which advises or directs the LEA in implementing agreements for improvement of student performance in the schools. (See Progressive Support and Intervention, November 2003, process). The Commissioner also retains authority under state law to require remedial action in districts and schools and to restructure a school as a necessary element of Progressive Support and Intervention particularly if assessment data and survey data are continuously flat. Rhode Island developed a "Framework for Accountability" which specifies protocols and sanctions for Title I and non-Title I schools.

Examples of Evidence:
- Rhode Island School and District Accountability System: Technical Bulletin (July 2008)
- Consolidated Resource Application
- "Progressive Support and Intervention" (November 2003)
- Title 16, The Rhode Island Student Investment Initiative Statute
- Approved Supplemental Education Service Providers
- District Negotiated Agreements
- Corrective Action Partnership Agreement for Providence Schools
- Hope High School Decision and Order of Reconstitution

PRINCIPLE 2. All students are included in the State Accountability System.

CRITICAL ELEMENT

2.1 How does the State Accountability System include all students in the State?

All students in the State are tested according to statewide policy. Students may participate with or without accommodations and special needs students who qualify may take the Rhode Island Alternate Assessment (less than 1% of the student population). Rhode Island includes these results in its accountability system. Students who have been in the State prior to the October 1st enrollment count of the prior year will be included in the Accountability System. Students who arrive in a district/school after the October 1st enrollment count of the prior year will be included in the State Assessment reports but excluded from the Accountability System.

Examples of Evidence:
- "Testing Manuals for Rhode Island's State Assessment Program," - annual
- *InfoWorks*! (http://infoworks.ride.ri.gov/)
- NECAP Accommodation Guidelines

2.2 How does the State define "full academic year" for identifying students in AYP decisions?

The criterion for defining what constitutes "a full academic" year is applied consistently statewide. It is set at the October 1st enrollment count date (this is the date designated in state law to calculate state aid to districts). For NECAP tests taken in October, scores are assigned to the location of each student at the end of the prior school year. Full academic year is then defined as being enrolled in the same school (or district) from October 1 to the end of that prior school year. Students who have been continuously enrolled are counted. Students who have not been continuously enrolled at the school but have remained in the district (in another school) will be counted in the district AYP. A student who is not in the school or district for a continuous entire school year will not be counted for school level or district accountability but will be reported in the state results. (see also 10.1)

2.3 How does the State Accountability System determine which students have attended the same public school and/or LEA for a full academic year?

Schools/districts are required by regulation to submit October 1st enrollments to the Rhode Island Department of Education (RIDE) each year.

- The official enrollments, together with the assessment results are used to account for all students in the system.
- Students who migrate from one school to another school within the district are tested and included in the district AYP provided they were in the district prior to October 1st.
- Students who migrate from a school in a district to another school in a different district will be tested and included for accountability in the state AYP review.

Examples of Evidence:
- Student Demographic Forms (header sheets) for the State Assessment Program
- State eRIDE Electronic Information System template

PRINCIPLE 3. State definition of AYP is based on expectations for growth in student achievement that is continuous and substantial, such that all students are proficient in reading/language arts and mathematics no later than 2013-2014.

3.1 How does the State's definition of Adequate Yearly Progress require all students to be proficient in reading/language arts and mathematics by the 2013-2014 academic year?

Methods: Incorporating the NCLB Accountability System into Rhode Island's Model

Rhode Island redesigned its accountability system to integrate the requirements of NCLB beginning with the 2003 testing cycle. All schools, districts and targeted subgroups are expected to achieve 100% proficiency by the 2014 school year.

Using the federal guidelines for establishing Adequate Yearly Progress (AYP) was the first step in making determinations for school performance. Rhode Island originally used a three-year averaging system when only three grades were tested. Because more grades are now tested, a single year of test data is used to compare with AMO targets. Three-year averaging is used only to determine the safe harbor baseline. AMO calculations will be done separately for English language arts and mathematics. Results are disaggregated by the required subgroups outlined in NCLB.

A RATIONALE FOR AN INDEXING SYSTEM

Rhode Island's State Assessments have historically been among the most demanding in the nation (see AIR study). Simply tallying students meeting the standard does not acknowledge the progress many schools are making as students move from showing no or little evidence of proficiency to nearly meeting the proficiency standard. Rhode Island devised an indexing system to recognize the progress schools make in moving students from the bottom categories to nearly meeting the standards. In a sense, credit is given for demonstrated improvement towards meeting the standards.

Getting all students to meeting the standards is an arduous task because it is dependent upon a multitude of factors relating to the classroom change process. Another way of stating this is that change takes time because of internal and external influences on teaching and learning in the classroom. Knowing that the single most important factor in student achievement is the quality of the teacher, it is imperative that teachers engage in professional development that will enhance their knowledge, skills, and ability to teach students content and process skills and how to apply them to solve problems as demanded by the standards-based classroom.

Standards-based classrooms require students to know more than memorizing facts and using rules. Standards are asking students to organize data, think critically, analyze information, communicate ideas, critique ideas and materials, apply knowledge, use technology, predict results, and solve problems to name a few demands. The NECAP and previously, the New Standards Reference Examinations require students to demonstrate evidence of understanding the content standards. These demands for higher levels of thinking skills require a classroom environment filled with opportunities for students to experience situations requiring these skills and abilities.

Since teaching in a standards-based classroom is very different from how many teachers were trained to teach, teachers have engaged in professional development over time to develop their expertise and ability to create a standards-based environment. Changes in teacher beliefs and practice have to occur before change in student performance is seen. Since dramatic changes in student performance are not immediate, giving schools credit for incremental changes through an index system acknowledges the efforts made by schools in striving to get all students to perform at high standards.

Creating a cohesive school where all teachers work on a consistent curriculum aimed at having all students meet the standards takes effective leadership and a unified faculty. This task too takes time and requires ongoing commitment by all school staff. These examples of systemic change to enhance teaching and learning and student achievement are all indicators of schools making strides towards improvement. Without the state indexing system, schools showing gradual improvement would not be credited for their growth. A lack of recognition for improved teaching and learning could contribute to a loss of enthusiasm for changing and enhancing teaching practices.

ACCOUNTABILITY DESIGN

The Assessment System for Accountability is aligned to standards which are provided to districts to adopt. The assessments are required by State law (Article 31 - 1997). For all NECAP assessments, the achievement levels are: Proficient with Distinction, Proficient, Partially Proficient, Substantially Below Proficient and No Score.

To increase the reliability and validity of our accountability system, we define an "Index Proficiency" scale. NECAP achievement levels are assigned index proficiency points as described in Figure 2.

FIGURE 2

NECAP Score	Index Proficiency Scale
Proficient with Distinction	100
Proficient	100
Partially Proficient	75
Substantially Below Proficient (Upper Range)	50
Substantially Below Proficient (Lower Range)	25
No Score	0

The Index Proficiency measure is valuable because it encourages continuous improvement for students and teachers in terms of making progress toward achieving the standard. Given the high "proficiency bar" on the Rhode Island assessments, schools can be given credit for making progress toward our final goal of 100% proficiency.

EFFECT OF IMPROVEMENT OF NON-PROFICIENT STUDENTS ON INDEX PROFICIENCY

One of the purposes of using an Index Model is to recognize efforts made by schools to improve the performance of all their students. We realize that some of these schools start from low proficiency rates and that they need to get their students to improve gradually to a proficient status. While we recognize this graduated improvement and reward the schools for this, we also know that it is not sufficient. At the same time, schools must also steadily increase the percent of students who are proficient in order to meet their Annual Measurable Objective (AMO).

The chart below (from our original study) lists the 33 elementary schools which had 2002 index scores below the original baseline for 2002. Data are from 2000 to 2002 aggregate English language arts results at grade 4. To test the effect of improvements limited to non-proficient students on our Index Proficiency, we implemented an exaggerated growth rate model. In this exercise, the AMO for 2003 for this subject and grade was set at 76%. Under the column "50% Improv", we have held the number of students who are proficient fixed at their current numbers and projected a 50% growth for all the other performance levels which are not proficient. These are performance levels 1, 2, 3 and No Scores. This is a generous growth rate that does not reflect our expected gains for these schools since they were at varying stages of school reform. Corresponding results for 30% improvement in the non-proficient students are shown under the column "30% Improv". As shown on the table, most of the schools still failed to meet the Annual Measurable Objective of 76%. Out of 33 schools, 26 schools failed to meet their AMO when there was 30% improvement and 20 schools failed to meet their AMO when there was a 50% improvement within the low performing students. As the growth rate decreases and becomes more realistic, the number of schools that fail to meet their AMO increases. **This simulation clearly shows that schools must increase the number of students who are proficient in order to meet their AMO.** The Index Model gives schools credit for moving students along to proficiency, but this credit is not enough to get the schools to meet their AMO. Ultimately, the only way that a school can continue to meet its AMO is to get more students into the proficient category.

INDEX PROFICIENCY SIMULATION

DISTRICT	CODE SCHOOL	Index % Prof	30% Improv	50% Improv
WOONSOCKET	39116 Second Avenue School	47.92	53.67	57.50
PROVIDENCE	28156 Robert L. Bailey, IV	57.88	62.05	64.83
PROVIDENCE	28180 The Sergeant Cornel	58.08	61.88	64.41
PROVIDENCE	28121 Alfred Lima, Sr. El	58.74	62.51	65.03
CENTRAL FALLS	4109 Alan Shawn Feinstein	63.93	67.49	69.86
CVS HIGHLANDER	28601 CVS HIGHLANDER	64.51	67.52	69.53
PROVIDENCE	28165 Pleasant View School	64.96	68.29	70.50
PROVIDENCE	28134 Laurel Hill Avenue S	65.28	68.48	70.61
PAWTUCKET	26119 Henry J. Winters Sch	65.70	68.63	70.59
PROVIDENCE	28162 The Charlotte Woods	66.67	69.84	71.95
PROVIDENCE	28148 Windmill Street Scho	66.88	69.92	71.94

PROVIDENCE	28130 Veazie Street School	68.11	71.47	73.71
PROVIDENCE	28160 Mary E. Fogarty Scho	68.75	71.77	73.78
WOONSOCKET	39109 Social Street School	69.39	72.44	74.48
PROVIDENCE	28102 West Broadway School	69.72	72.56	74.45
PROVIDENCE	28122 Charles Fortes El. S	70.04	72.75	74.56
PROVIDENCE	28127 Webster Avenue Schoo	70.17	73.08	75.03
PROVIDENCE	28116 Alan Shawn Feinstein	70.22	73.27	75.29
CENTRAL FALLS	4105 Robertson School	70.30	73.28	75.27
CENTRAL FALLS	4101 Ella Risk School	70.75	73.69	75.66
PROVIDENCE	28161 Harry Kizirian Eleme	72.04	74.78	76.61
NEWPORT	21110 Sullivan School	72.05	74.77	76.58
NEWPORT	21105 Sheffield School	72.59	75.02	76.65
PROVIDENCE	28158 Edmund W. Flynn Scho	72.90	75.15	76.65
PROVIDENCE	28140 Carl G. Lauro School	72.98	75.57	77.30
PROVIDENCE	28135 George J. West Schoo	73.19	75.64	77.27
WOONSOCKET	39128 Kevin K. Coleman Sch	74.10	76.43	77.99
PAWTUCKET	26115 Flora S. Curtis Scho	74.68	76.71	78.06
PROVIDENCE	28153 William D'Abate Scho	74.82	77.02	78.48
PROVIDENCE	28181 Anthony Carnevale El	75.27	77.70	79.32
WOONSOCKET	39117 Citizens Memorial Sc	75.61	77.83	79.32
WOONSOCKET	39110 Pothier School	75.93	77.97	79.32
NEWPORT	21103 Carey School	76.09	78.17	79.56

ADEQUATE YEARLY PROGRESS

Rhode Island's Adequate Yearly Progress (AYP) calculation determines the performance of schools using the Index Proficiency in English language arts and mathematics and the results of the "other academic indicators."

Baseline - Rhode Island's baseline was originally calculated by averaging 2000, 2001, and 2002 statewide assessment results. Baselines were established for English language arts and mathematics at each of three levels - - elementary (grades K-5), middle (grades 6-8) and high (grades 9-12). In each instance the baseline was the index score of the school building which contained the 20th percentile of Rhode Island's total enrollment after schools were ranked ordered by their index score.

The English language arts and mathematics baselines were applied to each school and district, as well as to each subgroup at the school, district and State levels to determine AYP status. Figure 3 presents Rhode Island's baseline scores on its proficiency index.

FIGURE 3

RHODE ISLAND'S 2002 BASELINE SCORES (STARTING POINTS)

	English Language Arts	Mathematics
Elementary	76.1	61.7
Middle	68.0	46.1
High	62.6	44.8

INTERMEDIATE GOALS - The Intermediate Goals for elementary, middle and high schools were set to increase in six equal increments over the 12-year timeline (figure 4). There were separate intermediate goals for English language arts and mathematics at each of the grade levels (elementary, middle and high schools). These targets are applied to each school and district, as well as to each subgroup at the school, district and statewide levels to determine AYP status. Most Intermediate Goals are concentrated to take effect in the later years, as the grade level standards, assessments, teacher practices and schools culture align and respond to improvement initiatives tracked and assessed by the Division of Accountability and Quality Assurance . The Intermediate Goals provide time for school reform efforts to be fully implemented. The AMO targets increase in this school year, 2007-08.

FIGURE 4

RHODE ISLAND'S INTERMEDIATE GOALS FOR NCLB/AYP ASSESSMENT

	ELEMENTARY		MIDDLE		HIGH	
	ELA	**Math**	**ELA**	**Math**	**ELA**	**Math**
2014	100	100	100	100	100	100
2013	96.1	93.7	94.5	91.1	93.6	90.8
2012	92.1	87.3	89.2	82.1	87.4	81.6
2011	88.1	80.9	83.9	73.1	81.2	72.4
2008	84.1	74.5	78.6	64.1	75.0	63.2
2005	80.1	68.1	73.3	55.1	68.8	54.0
Baseline	76.1	61.7	68.0	46.1	62.6	44.8

Cohen, D.K., Raudenbush, S., & Ball, D. (November 2000).
Resources, Instruction and Research. A working paper from the Center for Teaching Policy

Elmore, Richard F. (2002). Testing Trap.
Harvard Magazine, 105 (1), 35+.

ANNUAL MEASURABLE OBJECTIVES: Likewise, using Index Proficiency, Rhode Island established a system of annual measurable objectives which is the basis for making yearly determinations of Adequate Yearly Progress (AYP) using the NCLB guidelines. The entire system of Intermediate Goals and Annual Measurable Objectives for Rhode Island is identified in Figure 5.

FIGURE 5

RHODE ISLAND'S ANNUAL MEASURABLE OBJECTIVES FOR NCLB/AYP

	ELEMENTARY		MIDDLE		HIGH	
	ELA	Math	ELA	Math	ELA	Math
2013-2014	100	100	100	100	100	100
5th Intermediate Goal						
2012-2013	96.1	93.7	94.5	91.1	93.6	90.8
4th Intermediate Goal						
2011-2012	92.1	87.3	89.2	82.1	87.4	81.6
3rd Intermediate Goal						
2010-2011	88.1	80.9	83.9	73.1	81.2	72.4
2009-2010	84.1	74.5	78.6	64.1	75.0	63.2
2008-2009	84.1	74.5	78.6	64.1	75.0	63.2
2nd Intermediate Goal						
2007-2008	84.1	74.5	78.6	64.1	75.0	63.2
2006-2007	80.1	68.1	73.3	55.1	68.8	54.0
2005-2006	80.1	68.1	73.3	55.1	68.8	54.0
1st Intermediate Goal						
2004-2005	80.1	68.1	73.3	55.1	68.8	54.0
2003-2004	76.1	61.7	68.0	46.1	62.6	44.8
2002-2003	76.1	61.7	68.0	46.1	62.6	44.8
Baseline	76.1	61.7	68.0	46.1	62.6	44.8

The annual measurable objectives in some years maintain the same proficiency index score as the most recent Intermediate Goal. For example, the annual measurable objectives in 2003 and 2004 were the same as the baseline. Rhode Island's application of intermediate goals and annual measurable objectives is consistent with our theory of change. We anticipate that the strongest academic gains will take place in the latter end of the timeline. The earlier years will recognize growth from lower levels of performance toward reaching proficiency. Low performing schools and districts need time to adjust curriculum, improve teachers' knowledge base and instructional practices, and organize their resources to support all students. Trajectories illustrating this progression are found in Graphs 1 through 6 following this section. The charts compare the progression of the Index Proficiency with the actual Proficiency Rate that is calculated by counting the number of students who are proficient. Even though the trajectories are different, they are equivalent and each reaches a value of 100 by the year 2014. These charts are simulations based on the original NSRE testing.

Rhode Island has traditionally introduced state defined terms to characterize schools as high performing, moderately performing, making insufficient progress, in a first-year caution status and, finally, as commended for strong performance. These terms are Rhode Island defined and may vary from year to year.

For the 2008-09 school year, the AYP classifications of schools and districts will have the following elements:

- Comparison of test score results against the official state annual measurable objectives for 2008-09.
- The same requirements of performance for disaggregated subgroups of the student population where the number of students reliably supports such an analysis.
- Separate analysis for English language arts performance and mathematics performance.
- A final check to determine if "annual measurable objectives" have been met for the graduation rate (high schools) or the attendance rate (elementary and middle schools).
- Proper participation rates as required by NCLB.
- Appeals review period to accept data corrections.

Under the new NECAP assessments for grades 3-8 beginning in 2005-06 and for grade 11 in 2007-08, the great majority of schools have several grades involved in the assessment and accountability system. Thus, there are many more students with assessment scores to support reliable estimates of performance and to create large enough data sets for disaggregation of results for subpopulations. Consequently, NECAP analysis will be done on a single year basis as the primary method of testing against AMO targets and to determine whether the minimum N criterion has been met for subgroups.

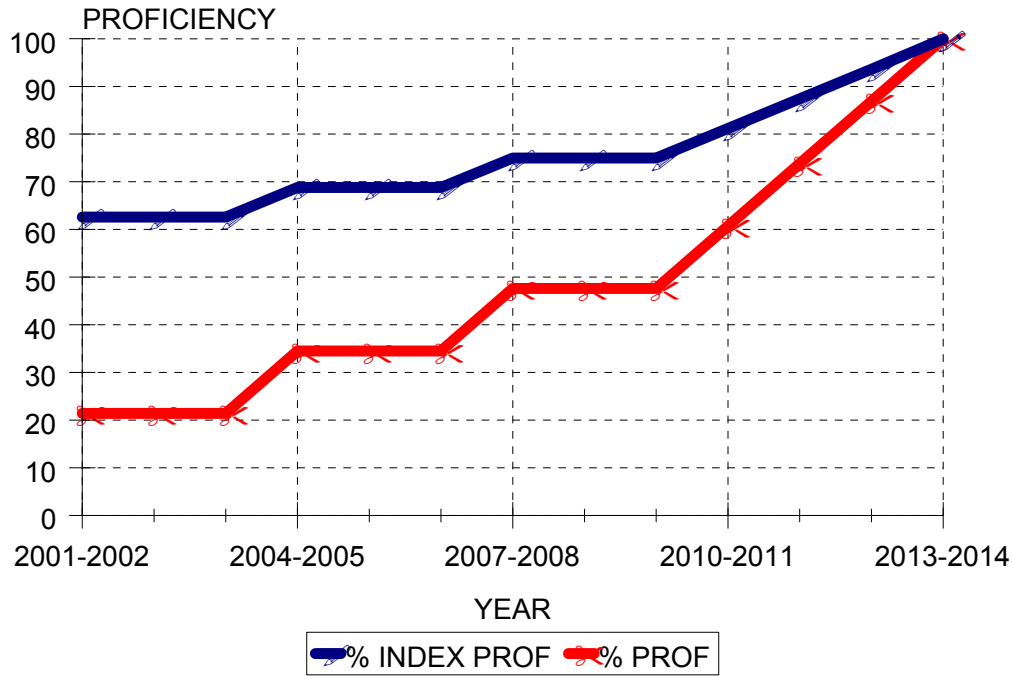## Graph 1: ELEMENTARY - ENGLISH LANGUAGE ARTS
INTERMEDIATE GOALS BY YEAR

PROFICIENCY

YEAR

━━ % INDEX PROF ━━ % PROF
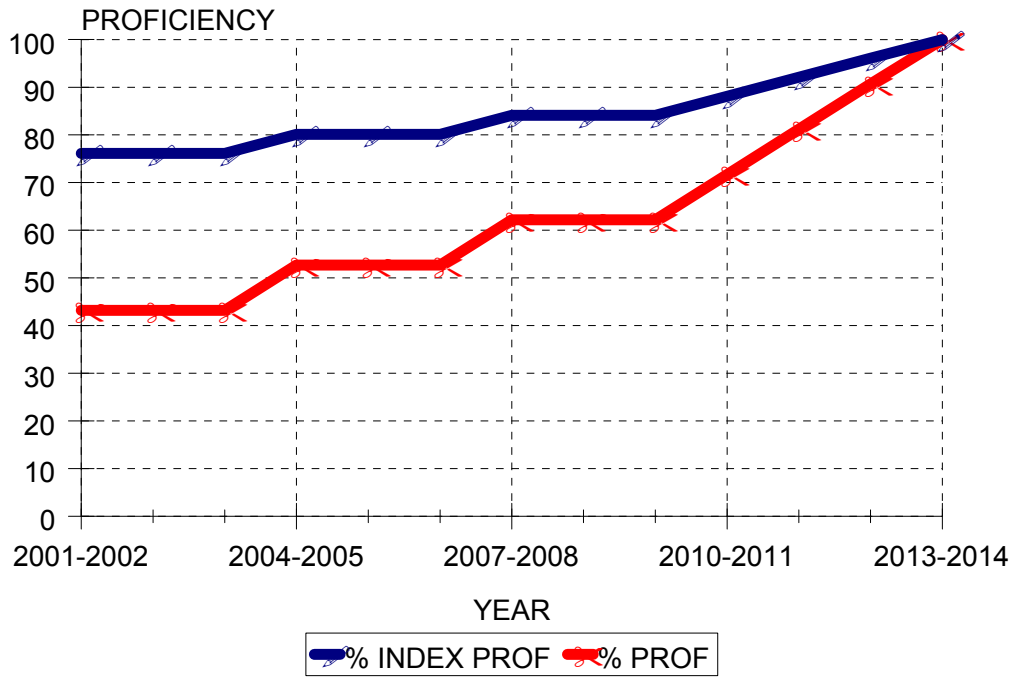
Graph 2: MIDDLE - ENGLISH LANGUAGE ARTS
INTERMEDIATE GOALS BY YEAR

PROFICIENCY

YEAR

━━ % INDEX PROF ━━ % PROF
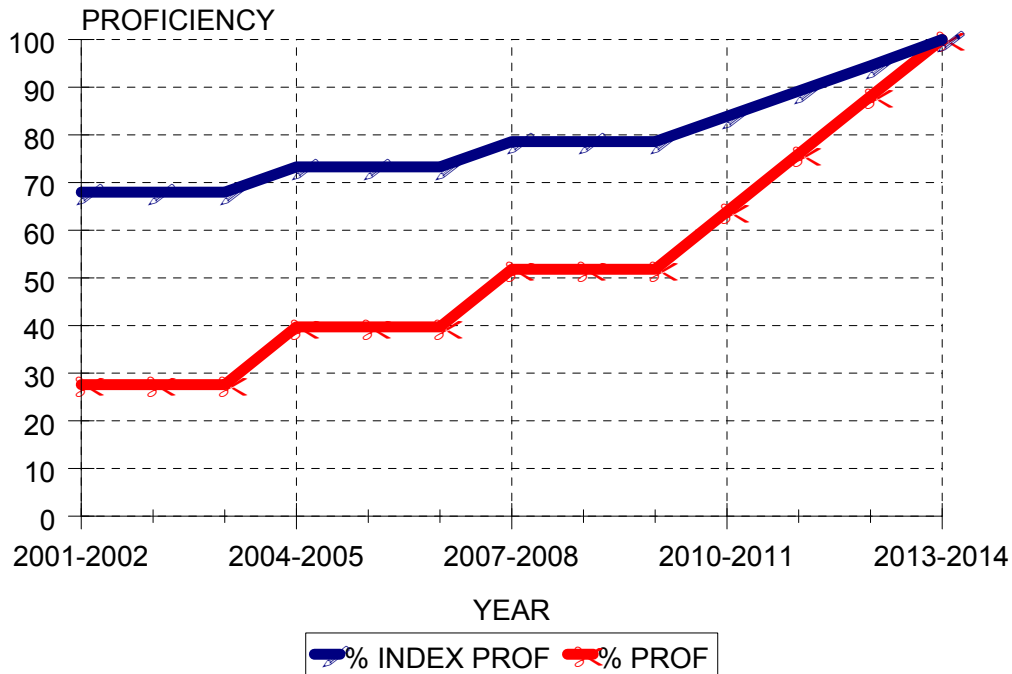
Graph 3: HIGH - ENGLISH LANGUAGE ARTS
INTERMEDIATE GOALS BY YEAR

Legend: % INDEX PROF, % PROF

Graph 4: ELEMENTARY - MATHEMATICS
INTERMEDIATE GOALS BY YEAR

Legend: % INDEX PROF, % PROF
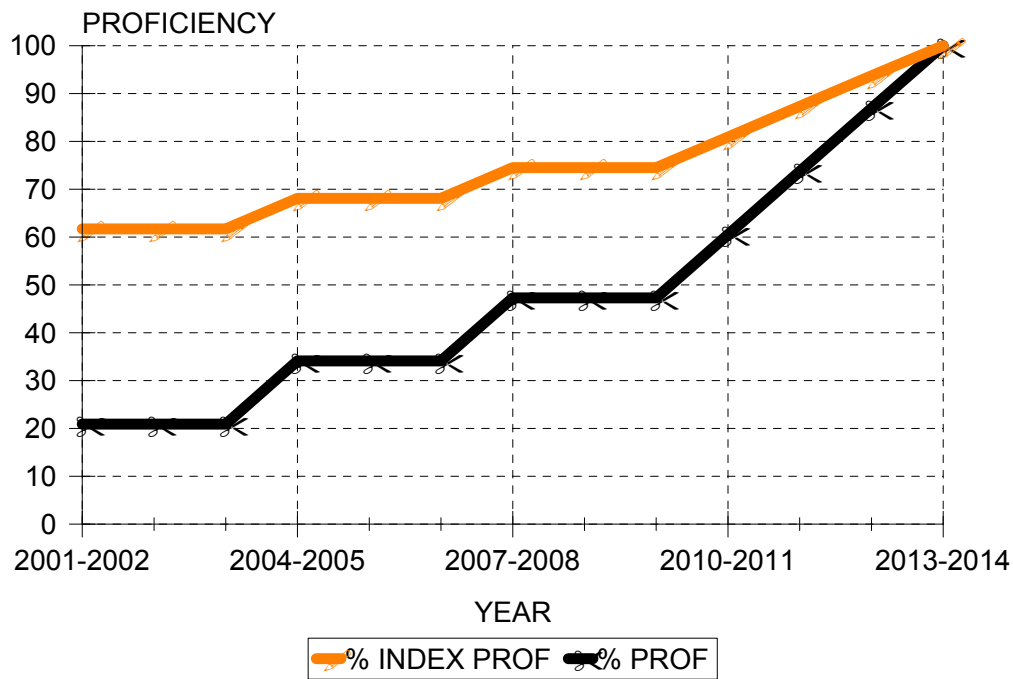
Graph 5: MIDDLE - MATHEMATICS
INTERMEDIATE GOALS BY YEAR

PROFICIENCY

YEAR

% INDEX PROF   % PROF
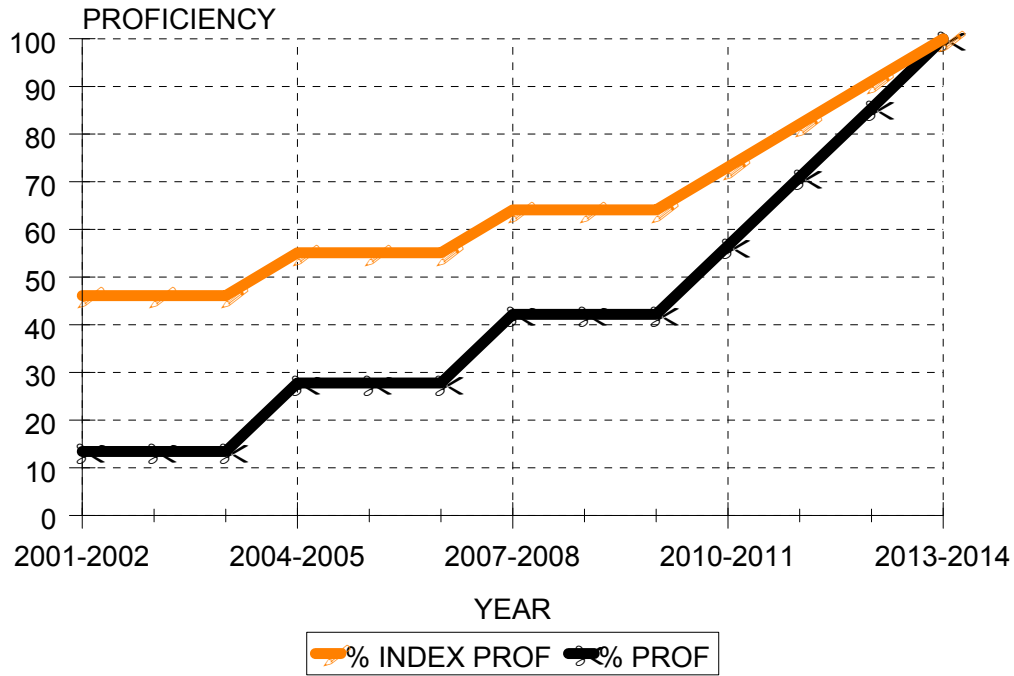
Graph 6: HIGH - MATHEMATICS
INTERMEDIATE GOALS BY YEAR

PROFICIENCY

YEAR

% INDEX PROF   % PROF

21
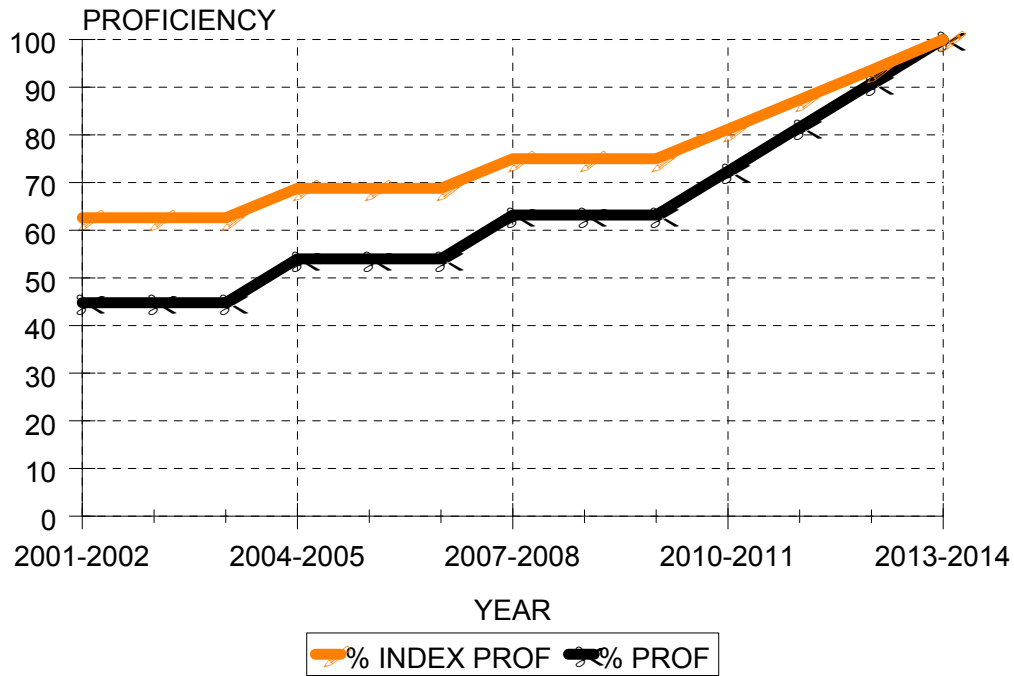
SAFE HARBOR PROVISIONS

When an entire school (or district) or any of the designated subgroups within the schools (or district) fails to meet the Annual Measurable Objective (AMO), such a school (or district) is considered to have failed "status review" and may be identified for improvement. However, the provisions of NCLB give these schools (or districts) the opportunity for further review of their performance before a final decision is made on their status. The first of these reviews is Safe Harbor. Safe Harbor review is available for schools as well as districts. To pass AYP after this review the school or district must also:

   a) Have graduation rates (high schools) or an attendance rate (elementary and middle schools) at or above the annual measurable objective or improving at an adequate rate of progress, and

   b) Have all required assessment participation rates at 95 percent or higher.

For the NECAP assessment systems, a single year of current testing will be compared to the previous three year aggregation of NECAP data for safe harbor purposes. This continues the process that was used in the prior NSRE assessment system.

For a school to pass the Safe Harbor review it must:

> Decrease the percent of students who are not proficient by 10 percent. If in the prior year a district, school or subgroup has an Index Proficiency equal to P, then the Safe Harbor target score in the current year required by the group in order to meet Safe Harbor provisions is given by: $T=P+0.1*(100-P)$. Rhode Island, like many other states, uses an Index score to measure school and subgroup proficiency rates. There is no direct translation from the number of students required in the original Safe Harbor definition in the statute to the Index Proficiency score. Simulations using different models of Safe Harbor were carried out in 2005-06 before we settled on our current method. Our aim has been to select a model that similarly identifies schools and subgroups, as would be identified by the definition of Safe Harbor in the statute and regulations. To illustrate that our method yields similar results to the definition in statute, we applied both definitions to aggregate English language arts test data from 1999 to 2001 and to 2002 in establishing our original AYP workbook procedures. Out of a total of 111 schools identified by statute for meeting Safe Harbor provisions, 97 were identified by our procedure. That was an 87% success rate.

> A final provision for review of schools and districts which have failed both status review and Safe Harbor review is the appeal process. Schools and districts have 30 days from the date of notification to challenge their proposed placement due to data errors or other statistical issues.

3.2 How does the State Accountability System determine whether each student subgroup, public school and LEA makes AYP?

The State Assessment system draws from a department-wide demographic system where each student has centrally recorded his or her racial category, IEP status, LEP status and free and reduced lunch status. This enables us to determine the proficiency levels of each student subgroup. The State now has an individual student identifier system, which makes possible a calculation of subgroup participation rates and has improved the accuracy of disaggregated data. We calculate the proficiency levels and participation rates of disaggregated subgroups within each school and district.

We have set the Annual Measurable Objective (AMO) for each subgroup, school and district to be the same (within each level of schooling and subject area). Subgroups, schools and districts that fail to meet their AMO are reviewed for Safe Harbor before a final determination is made on their status. After Safe Harbor review, if a school or one of the subgroups within the school fails to meet its target, then the school has not met AYP and is subject to the appropriate corrective action. Schools must also meet the required participation rate targets and attendance/graduation targets.

Districts are reviewed at three levels (elementary, middle, high school) and subjected to the same AMO requirements as schools. Any district that misses any target at two (or three) levels of schooling is defined as not making AYP. In addition, a district does not make AYP at a level of schooling (elementary, middle or high school) if forty percent or more of the schools at that level did not make AYP. Similar to the handling of schools, there is a content area match rule for districts to move from a "watch" to an "identified for improvement" status. To advance a district to "identified for improvement" we look for the same content area to have a missed target two years in a row at the educational level being reviewed (elementary, middle or high school).

3.2a What is the State's starting point for calculating Adequate Yearly Progress?

Baselines for mathematics and ELA were created at the school level for elementary, middle and high schools. Under NECAP, performance and improvement is evaluated first based on averaging data for multiple grades for a single year. If the AMO is not met, a three-year average is added as a second option. Originally, for the 2002 starting point, data from 2000, 2001, and 2002 were used as the basis for establishing starting points for ELA and mathematics at the elementary, middle, and high school using the NCLB guidance regarding the setting of starting points, intermediate goals, and annual measurable objectives culminating in 100% proficiency in 2014. Safe Harbor provisions are granted to any schools or districts which decrease by 10% the percent of students who are not proficient on the Index Proficiency Score.

Rhode Island identified six starting points for calculating AYP. The starting points were for each separate assessment (ELA/Math) and at three levels -- elementary, middle and high schools. In each case the baseline was the Index Proficiency of the school building which enrolled the student at the 20th percentile of Rhode Island's total enrollment. Limited English proficient students who were exempted from State testing for one year were not included in determining the baseline. The index was calculated by assigning a point value to each level of performance on the State assessment using the aggregated results of the 2000, 2001, 2002 State assessments. All schools have their school-wide results and disaggregated results compared to the annual measurable objectives for determinations of AYP.

NCLB STARTING POINT CALCULATION

Starting points were determined for the subjects English language arts and mathematics for elementary, middle and high school grades. For each grade and subject, we combined three years of New Standards Reference Exam data from 2000 to 2002. Subtests were aggregated over the three-year interval to get cumulative results for the subject.

The proficiency index in each subject was calculated by summing over three years and over all subtests the index value of all students and dividing that number by the grade level enrollments which were also summed over three-years and over the subtests.

The schools were then ranked by the proficiency index for each subject. We calculated 20 percent of the total enrollment described above. The proficiency index of the school that was within the 20th percentile of enrollment was defined as the baseline or starting point for that subject and level of schooling.

FIGURE 6

BASELINES (2002)

GRADE LEVEL	ELA	MATH
Elementary	**76.1**	**61.7**
Middle	**68.0**	**46.1**
High	**62.6**	**44.8**

Examples of Evidence:
- "Making valid and reliable decisions in achieving Adequate Yearly Progress" developed by Council of Chief State School Officers
- NCLB "Rules" for establishing baseline/starting points

3.2b What are the State's annual measurable objectives for determining adequate yearly progress?

Rhode Island established its annual measurable objective based on the proficiency index using the assessment data from the 2000, 2001, and 2002 school years. To make AYP, schools and student subgroups must meet the annual measurable objectives for the year of testing or show improvement based on the "safe harbor" provisions. Rhode Island established separate ELA and mathematics annual measurable objectives for three levels -- elementary, middle, and high schools. The ELA and mathematics annual measurable objectives are applied to each school building and district, as well as to each subgroup at the school, district and state levels to determine AYP status.

FIGURE 7

RHODE ISLAND'S ANNUAL MEASURABLE OBJECTIVES

	ELEMENTARY		MIDDLE		HIGH	
	ELA	**Math**	**ELA**	**Math**	**ELA**	**Math**
2013-2014	**100**	**100**	**100**	**100**	**100**	**100**
5th Intermediate Goal						
2012-2013	**96.1**	**93.7**	**94.5**	**91.1**	**93.6**	**90.8**
4th Intermediate Goal						
2011-2012	**92.1**	**87.3**	**89.2**	**82.1**	**87.4**	**81.6**
3rd Intermediate Goal						
2010-2011	**88.1**	**80.9**	**83.9**	**73.1**	**81.2**	**72.4**
2009-2010	**84.1**	**74.5**	**78.6**	**64.1**	**75.0**	**63.2**
2008-2009	**84.1**	**74.5**	**78.6**	**64.1**	**75.0**	**63.2**
2nd Intermediate Goal						
2007-2008	**84.1**	**74.5**	**78.6**	**64.1**	**75.0**	**63.2**
2006-2007	**80.1**	**68.1**	**73.3**	**55.1**	**68.8**	**54.0**
2005-2006	**80.1**	**68.1**	**73.3**	**55.1**	**68.8**	**54.0**
1st Intermediate Goal						
2004-2005	**80.1**	**68.1**	**73.3**	**55.1**	**68.8**	**54.0**
2003-2004	**76.1**	**61.7**	**68.0**	**46.1**	**62.6**	**44.8**
2002-2003	**76.1**	**61.7**	**68.0**	**46.1**	**62.6**	**44.8**
Baseline	**76.1**	**61.7**	**68.0**	**46.1**	**62.6**	**44.8**

Examples of Evidence:
- 3.2 Table
- Baseline Tables and example of School Profiles for all schools and districts

3.2c What are the State's intermediate goals for determining Adequate Yearly Progress?

Rhode Island established five Intermediate Goals based on the Proficiency Index using the assessment data from the 2000, 2001, and 2002 school years. The Intermediate Goals for elementary, middle and high school increase in five equal increments over the 12-year timeline. The first Intermediate Goal took effect in the 2004-2005 school year (see below). We anticipate that the strongest academic gains will be seen in later years as the grade level expectations, assessments, teacher practices and school culture align and respond to improvement initiatives tracked and assessed by the Division of Accountability and Quality Assurance. The Intermediate Goals provide time for school reform efforts to take hold. (see also 3.1)

FIGURE 8

SEQUENCE OF SIX INTERMEDIATE GOALS FROM ORIGINAL 2002 BASELINE

	ELEMENTARY		MIDDLE		HIGH	
	ELA	Math	ELA	Math	ELA	Math
2014	100	100	100	100	100	100
2013	96.1	93.7	94.5	91.1	93.6	90.8
2012	92.1	87.3	89.2	82.1	87.4	81.6
2011	88.1	80.9	83.9	73.1	81.2	72.4
2008	84.1	74.5	78.6	64.1	75.0	63.2
2005	80.1	68.1	73.3	55.1	68.8	54.0
2002 Baseline	76.1	61.7	68.0	46.1	62.6	44.8

PRINCIPLE 4. State makes annual decisions about the achievement of all public schools and LEAs.

4.1 How does the State Accountability System make an annual determination of whether each public school and LEA in the State made AYP?

State Assessments are administered annually to all students at grades 3-8 plus 11 in mathematics and English language arts. From the results of these tests, we determine the proficiency levels of all schools, districts, and disaggregated subgroups within schools and districts. Using the NECAP assessments, a school's performance and improvement is evaluated based on data for a single year.

Examples of Evidence:
- **Annual State Assessment Data**
- **RI School and District Accountability System Technical Bulletin (July 2008)**

PRINCIPAL 5. All public schools and LEAs are held accountable for the achievement of individual subgroups.

5.1 How does the definition of Adequate Yearly Progress include all the required student subgroups?

The Rhode Island Accountability System has already included all of the NCLB required student sub-groups, disaggregated the achievement data for those groups and reported their progress in the official state report cards for schools and districts and in *InfoWorks*! Annual Measurable Objectives (AMO) and intermediate goals are uniformly applied for schools, districts, the State and all disaggregated subgroups.

Under our Accountability System, every NCLB identified disaggregated group must have achieved the AMO or improved sufficiently in its proficiency index in order for the school or district to meet its AYP.

Examples of Evidence:
- October 1st Collection System
- Header Sheets (Demographic Sheets)
- eRIDE template for required demographics
- Test Administration Manuals for Each Test
- June Report Forms (pupil summary data)
- Limited English Proficient and Special Education Student Census
- *InfoWorks*! (http://infoworks.ride.ri.gov/)
- RI Department of Education Website (www.ride.ri.gov)
- Statewide Disaggregations for 2008

5.2 How are public schools and LEAs held accountable for the progress of student subgroups in the determination of Adequate Yearly Progress?

The State Assessment system draws demographic information from the statewide student information system in which each student is centrally identified by racial category, IEP status, LEP status and free-reduced lunch status. This enables us to determine the proficiency levels of each student subgroup. The State now has an individual student identifier. We are thus able to calculate the proficiency levels and participation rates of disaggregated subgroups within the school or district. The accuracy of this process became possible as we phased in the student identifier in 2005 to cover all students.

We have set the Annual Measurable Objective (AMO) for each subgroup, school and district to be the same within each level of schooling and subject area. Subgroups, schools and districts that fail to meet their AMO are reviewed for Safe Harbor before a final determination is made of their status. After Safe Harbor review, if a school or one of the subgroups within the school fails to meet its target, then the school has not met its AYP and is a subject for the appropriate corrective action. Each subgroup evaluated must also meet the minimum assessment participation rate requirement.

Examples of Evidence:
- Rhode Island School and District Accountability System: Technical Bulletin (July 2008)
- *InfoWorks*! (http://infoworks.ride.ri.gov/)
- Progressive Support and Intervention (November 2003)
- Statewide disaggregations for 2008

5.3 How are students with disabilities included in the State's definition of Adequate Yearly Progress?

All students with disabilities participate fully in the Statewide Assessments (sometimes with testing accommodations) or they are tested using the Alternate Assessment system if they meet the eligibility criteria. Less than 1% of all students are eligible to participate in the Rhode Island Alternate Assessment system. Thus, all students with special needs are included in the State accountability system.

With a statewide student identifier system in place (2005), we can assign test results of students who have recently exited special education to this subgroup for purposes of disaggregation in determining AYP for that group. Students who receive section 504 services are not included in determining IEP disaggregations. The assignment of exited students to the special needs disaggregated group is for two years. This concept is similar to the way ELL-exited students are handled in disaggregations. The introduction of the statewide student identifier system ensures greater accuracy in Rhode Island's ability to account for all students.

<u>**Examples of Evidence**</u>
- Rhode Island School and District Accountability System: Technical Bulletin (July 2008)
- Special Education Regulations
- Individualized Education Program Guidebook
- Alternate Assessment Manual
- eRIDE template for required demographic information

5.4 How are students with limited English proficiency included in the State's definition of Adequate Yearly Progress?

Rhode Island mandates the assessment of all students including students who have limited English language abilities. Rhode Island has adopted the definition of a Limited English Proficient student in Title IX of NCLB, Part A Definitions, Section 9101. A limited English proficient student is defined as a student who is enrolled or preparing to enroll in an elementary or secondary school; who was not born in the United States or whose native language is a language other than English; who is a Native American or Alaskan Native, or a native resident of the outlying areas; and who comes from an environment where a language other than English has had a significant impact on the individual's level of English language proficiency; or who is migratory, whose native language is a language other than English, and who comes from an environment where a language other than English is dominant; and whose difficulties in speaking, reading, writing, or understanding the English language may be sufficient to deny the individual the ability to meet the State's proficient level of achievement on State assessments; the ability to successfully achieve in classrooms where the language of instruction is English; or the opportunity to participate fully in society. Students who are learning English are assessed with the NECAP exams, with accommodations as needed, just like those who do not receive Limited English Proficient (LEP) services (except that students who have been in the US less than one year are not assessed in English language arts). In addition, LEP students are assessed in English language proficiency (reading, writing, speaking and listening) at all grade levels -- K through 12.

Rhode Island had used the Maculaitis II (MAC II) as its statewide measure of English language acquisition for all students in Kindergarten through grade 12 enrolled in ESL or bilingual programs. It now uses the WIDA ACCESS for ELLs exam, first administered in March 2006. The results of this assessment are used to monitor the growth of all English language learners statewide. The State has Title III AMAO targets for students on this exam. Students who receive LEP services, like all other students, take the NECAP assessments for accountability purposes. In addition to this, LEP students take the ACCESS English language proficiency test.

Rhode Island developed English language proficiency standards in partnership with WIDA. This process began in May of 2003. Rhode Island wanted to ensure that there was alignment between its newly developed English language proficiency standards and its English language proficiency assessment. To maximize this alignment Rhode Island adopted a new English language proficiency assessment (ACCESS) in Spring 2006.

With a statewide student identifier system in place, we can assign the test results of students who exited LEP services to this subgroup for purposes of disaggregation in determining AYP for that group. The assignment of exited students to the LEP disaggregated group is for two years subsequent to exit from program services in accordance with federal guidance. The introduction of a universal student identifier system ensures greater accuracy in Rhode Island's ability to account for all students. The LEP census system was the first program subsystem to be fully integrated into the new statewide student identifier system. In accordance with federal guidance, LEP students in the United States less than one year will not be included in the accountability analyses. They must, however, take the mathematics assessment, but may be exempted from the ELA assessment.

Examples of Evidence:
- Rhode Island School and District Accountability System: Technical Bulletin (July 2008)
- School and District Test Coordinator's Manual (2005)
- NECAP Accommodation Guidelines
- NECAP Coordinator's Manual (2005)

5.5 What is the State's definition of the minimum number of students in a subgroup required for reporting purposes? For accountability purposes?

The process of identifying schools meeting their annual goals, and the resulting sanctions associated with such decisions is full of pitfalls that can lead to spurious conclusions and render the entire accountability system meaningless. Accountability decisions must thus be subject to standard statistical evaluations. Variations in school proficiency rates can be attributed to actual improvement over time, as well as to measurement and sampling errors. While it is not possible to eliminate the errors completely, we can at a minimum measure the effects of the errors and take those into consideration in our decision-making process. Several studies [1,2,3] have shown that measurement and sampling errors can be accounted for by the standard error associated with the school proficiency rate. These studies and our own analyses indicate that variation of the standard error with N is small for similar-size schools if a minimum value of N is selected. The schools at elementary, middle and high school levels meet this condition and it makes sense to attach a standard error for each school or subgroup.

Hypothesis testing is the tool we chose to determine whether a school or subgroup met its Annual Measurable Objective (AMO). Type I Errors - wrongly identifying schools for expensive corrective measures when the schools have actually met their annual measurable goals, and Type II Errors - failing to identify low performing schools for corrective measures are the two errors we encounter here. Marion and others [2] have offered a method to overcome these and we were using this approach for accountability prior to the introduction of NECAP assessments. We subjected our system to the process described below to minimize errors and improve reliability and validity.

A school with N students within a population of mean, π, has an accompanying standard error, z, given:

$z = (\sigma/N)^{1/2} = (\pi(1-\pi)/N)^{1/2}$

Using a two-tail z-statistic at 95% confidence level, we determined the variation of standard errors with N for different subgroups, grades and subjects. The errors decrease as N increases, thereby increasing the reliability of our decisions. However, for large values of N, the number of schools included in our accountability system decreases, thereby decreasing the validity of the system. Students with IEPs produce the highest standard error at about 2 percentage points in proficiency level when N=45. ***However, all schools regardless of size are classified.*** For other subgroups, comparable errors are obtained at lower values of N. However, we have decided to use one value of N in all groups, subjects and grades. We found a single value of N to be simple and easier to explain to our constituents. We compromised on the competing variables by selecting N=45.

Thus, in our original accountability workbook, we decided that no accountability decision will be made on any subgroup unless its population is equal to or greater than 45. ***However, all schools regardless of size will be classified.*** The value of N=10 will continue to be used for reporting purposes.

How was the above equation applied to schools? The three-year enrollments of our schools at tested grades in 2002 varied from 5 to 764. If π in the equation above is the school mean score instead of the population mean, then school level variances do not depend upon the size of the school. Arguably, our schools are not similar in size and placing all of them in one group penalizes those with high populations (low standard errors) and rewards those with low populations (high standard errors). To minimize these effects, we divided the schools into different groups based on their sizes. As an example, the groups for elementary grade level are shown below.

**FIGURE 10**

SCHOOL SIZE GROUPS

GROUP #	POPULATION
1	45-100
2	101-150
3	151-200
4	201-250
5	251-300
6	301-350
7	351-400
8	401+

If schools are grouped based on population, the variances from one group to the other is the most important variable from one group to the other. In determining the reliability of our assessment measurements, we originally evaluated the Index Proficiency scores of all schools in English language arts and mathematics at the elementary, middle and high school levels. The schools within each of the three levels were then divided into different groups based on their sizes. A school in a specified group has a standard error associated with the Index Proficiency score, which is defined as the square root of the group variance divided by the number of students in the school. The result is multiplied by a factor of 1.96 to convert the degree of confidence to 95% using a two-tail z-statistic. Using this approach at grade 4, all schools in our accountability system had standard errors less than 0.5% points. The standard errors for each school are doubled if we placed all the schools at a grade level into one group. The population variations of subgroups are not as dramatic as the school level. As a result of this, we placed all schools at each grade level in a single group in determining the standard errors of the subgroups. Graphs 7 and 8 below show the variation of the standard error of the Proficiency Index with changes in N for students with IEPs.

Graph 7: VARIATION OF STANDARD ERROR WITH N FOR IEP STUDENTS
GRADE 4 ELA

Standard Error

Number of Students, N
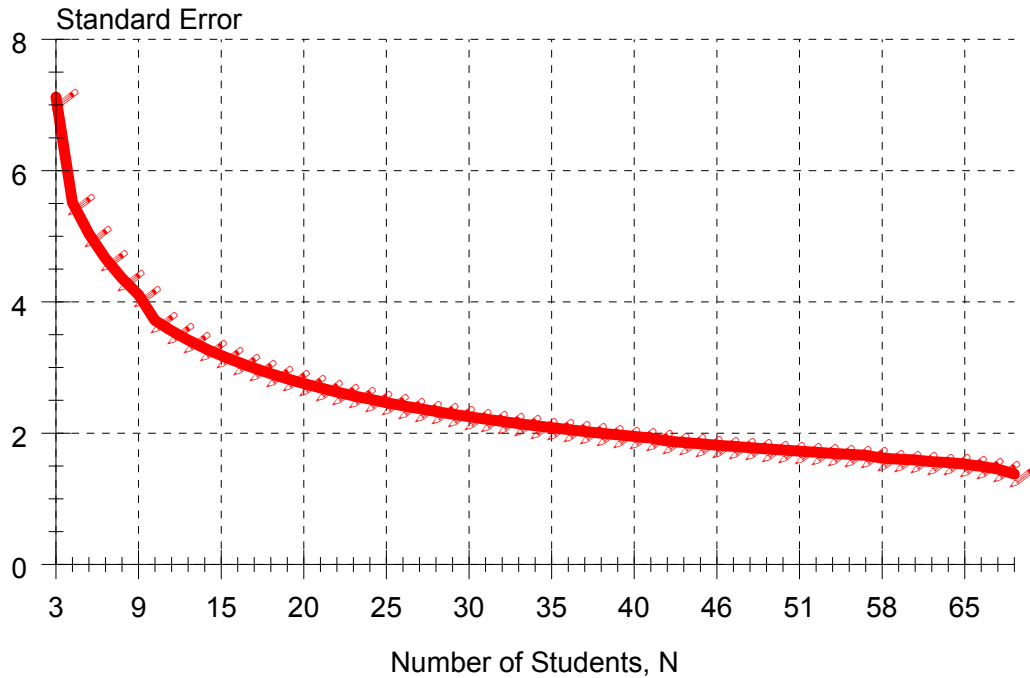
Graph 8: VARIATION OF STANDARD ERROR WITH N FOR IEP STUDENTS
GRADE 4 MATH

Standard Error

Number of Students, N
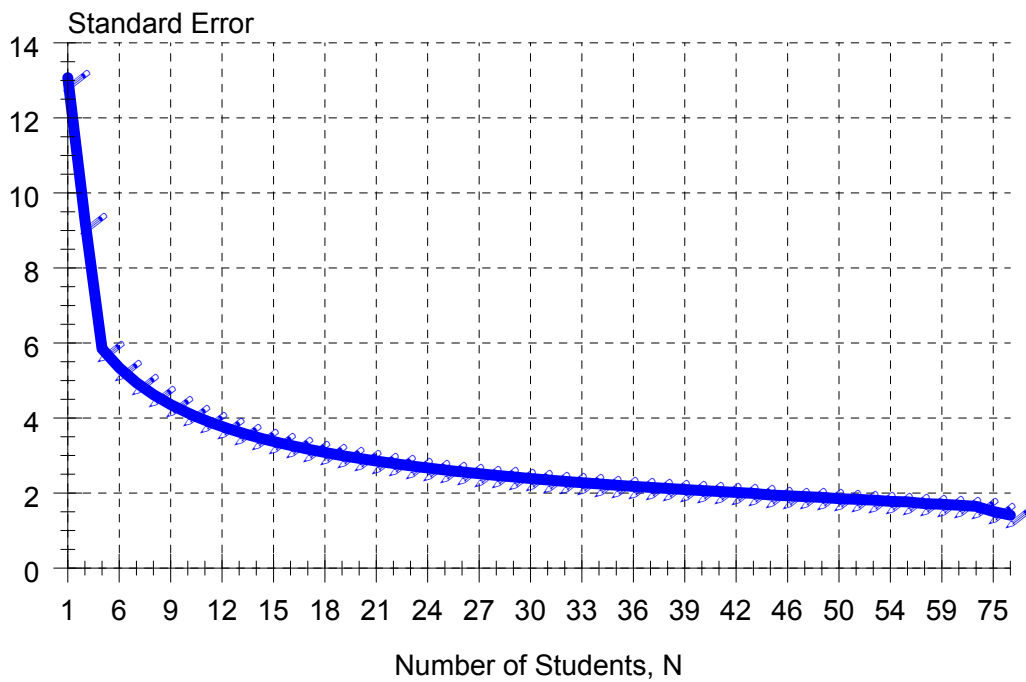
This approach to error bands was modified with the introduction of the NECAP assessment system (2005-06 for elementary and middle schools and 2007-08 for high schools).

For the NECAP assessments, we have chosen Confidence Interval (CI) as our method of error estimation. From most introductory test books on statistics, a sample of size N with standard deviation σ and a mean of P has an upper limit, U, defined by

$$U = P + Z * \sigma / \sqrt{N}$$

where Z is a measure of the level of confidence in the measurement. For 95% CI, Z=1.96 from statistical tables. What this means is that a school or subgroup with an index score of P will actually be given a score of U. The value of U is then compared to the AMO to determine whether the school or subgroup has met the AMO. Values of U are for schools or subgroups and are content area dependent.

We previously carried out an analysis on the effect of N=45 on student subgroup coverage in our accountability system. The chart below shows original runs using the New Standards Reference Exams on the percent of the disaggregated subgroups who are included in the system when N=45. At the State level, every student is accounted for and we have 100 in each cell. At the school level, there are many schools in which the population of the disaggregated subgroups falls below 45. This explains why the coverage rates at the school level are much lower. There is considerable improvement in coverage rates at the district level.

The N size in the analysis was based on a 3-year aggregation of students. Going forward as of 2005-06, the N size for elementary and middle schools refers to the current testing year but aggregates students across all tested grades within the school. Thus, under NECAP testing the majority of school reach the minimum N more easily.

FIGURE 11

ORIGINAL SCHOOL, DISTRICT AND STATE LEVEL ANALYSIS OF COVERAGE RATES

ELA ANALYSIS (Schools)

GRADE	ALL GROUPS	LUNCH	AMERICAN INDIAN	ASIAN	BLACK	HISPANIC	WHITE	IEP	LEP
4	100	85	0	10	49	79	98	34	67
8	100	96	21	49	82	85	99	95	78
10	100	90	31	48	76	85	100	92	73

MATH ANALYSIS (Schools)

GRADE	ALL GROUPS	LUNCH	AMERICAN INDIAN	ASIAN	BLACK	HISPANIC	WHITE	IEP	LEP
4	100	82	0	10	44	80	98	28	66
8	100	96	5	52	80	87	100	94	71
10	100	91	12	50	72	80	99	95	73

DISTRICT LEVEL ANALYSIS

ELA ANALYSIS (Districts)

GRADE	ALL GROUPS	LUNCH	AMERICAN INDIAN	ASIAN	BLACK	HISPANIC	WHITE	IEP	LEP
4	100	99	59	69	88	94	100	98	94
8	100	98	60	69	91	92	100	98	88
10	100	96	54	67	85	90	100	97	81

MATH ANALYSIS (Districts)

GRADE	ALL GROUPS	LUNCH	AMERICAN INDIAN	ASIAN	BLACK	HISPANIC	WHITE	IEP	LEP
4	100	99	42	68	89	95	100	98	94
8	100	98	55	66	89	91	100	98	87
10	100	97	50	68	86	88	100	98	80

STATE LEVEL ANALYSIS

ELA ANALYSIS (State)

GRADE	ALL GROUPS	LUNCH	AMERICAN INDIAN	ASIAN	BLACK	HISPANIC	WHITE	IEP	LEP
4	100	100	100	100	100	100	100	100	100
8	100	100	100	100	100	100	100	100	100
10	100	100	100	100	100	100	100	100	100

MATH ANALYSIS (State)

GRADE	ALL GROUPS	LUNCH	AMERICAN INDIAN	ASIAN	BLACK	HISPANIC	WHITE	IEP	LEP
4	100	100	100	100	100	100	100	100	100
8	100	100	100	100	100	100	100	100	100
10	100	100	100	100	100	100	100	100	100

FIGURE 12

RHODE ISLAND'S MINIMUM-N SIZE

Reporting	AYP	Participation
10	45	45

Schools With Population Less Than Minimum N=45.

Rhode Island has a few schools with populations less than 45. For these schools, the process described above will lead to large standard errors since the standard error is inversely proportional to the square root of N. These schools with small populations are not in sufficient numbers to constitute a group by themselves. To obtain comparable error bands for these schools, student-level records within each school will be used to calculate the associated standard error for that school. The standard error, then, is the square root of the variance of the individual student scores within the school divided by the number of students in the school. This does not take into consideration the scores of other schools with similar populations and the results need to be interpreted very carefully. Thus, even those schools with a population of less than 45 are included in our Accountability system.

References:

1. Richard, Hill (2000) The Reliability of California's API, The National Center for the Improvement of Educational Assessment.

2. Marion, S.F., White, C., Carlson, D., Erpenbach, W.J., Rabinowitz, S., Sheinker, J. (2002) making valid and reliable decisions in the determination of Adequate Yearly Progress: A pater in the series: Implementing The State Accountability System Requirements Under the No Child Left Behind Act of 2001. Washington, D.C.: Council of Chief State Schools Officers.

3. Robert, Lee (2003) Massachusetts Department of Education, Personal Communication.

4. Richard, Hill (2002) Determining the Reliability of School Scores, The National Center for the Improvement of Educational Assessment.

Examples of Evidence:
- ASR-CAS Joint Study Group on Adequate Yearly Progress: *Making Valid and Reliable Decisions in Determining Adequate Yearly Progress (2002)*, Prepared for the Council of Chief State School Officers with support from the U.S. Department of Education, Washington, D.C.
- Blischke, W R. and Muphy, D.N. P (2000). *Reliability: Modeling, Prediction and Optimization,* Wiley, New York.

5.6 How does the State Accountability System protect the privacy of students when reporting results and when determining AYP?

The Rhode Island Accountability System does not reveal personally identifiable information in any public reports. Our policy does not permit us to report student results in groups of less than ten so as to not create a situation in which an individual student can be identified from context. (See also Figure 12)

Examples of Evidence:
- *InfoWorks*! (http://infoworks.ride.ri.gov/) User's Guide

PRINCIPLE 6. State definition of AYP is based primarily on the State's academic assessments.

6.1 How is the State's definition of Adequate Yearly Progress based primarily on academic assessments?

Rhode Island's existing State Assessment Program is implemented statewide and legislatively mandated through Article 31. It is conducted annually, assessing students at grades 3-8 plus 11 in reading and mathematics and assessing writing at grades 5, 8 and 11 using the NECAP Examinations. These assessments cover both basic skills and higher order thinking, aligned to the NECAP Grade Level Expectations (GLEs) in mathematics and English language arts (both reading and writing).

To meet the State assessment system requirements of No Child Left Behind, a number of changes, adaptations and additions were required to our original state accountability system. With new assessments introduced in grades 3-8 in October 2005 and at grade 11 in October 2007, standard setting and other technical issues were addressed so that assessment results would continue to reflect the improved teaching and learning which is occurring in Rhode Island's schools. No change was required in our Index Proficiency approach or in the Intermediate Goals or Annual Measurable Objectives for grades 3-8. Whenever possible, determinations of Adequate Yearly Progress will continue in a manner parallel to past practice. High school scores on the new high school NECAP assessment (October 2007) were reviewed and no adjustment to the existing high school AMO trajectory was made.

Language Arts and Mathematics
Through Rhode Island's partnership in the New England Common Assessment Program (NECAP), work on grade level standards and student expectations for grades 3-8 and high school was completed for English language arts and mathematics. District Standards Teams met with stakeholders beginning in June 2003 to align curriculum and instruction. The high school grade of focus for State assessment is grade 11. Subsequent teams worked to extend the grade level standards and student expectations for language arts and mathematics into the high school grades.

In Summer and Fall 2003, an assessment blueprint in each content area was created based on the grade level student expectations for grades 3-8 and high school. Each blueprint aligns with the GLEs, establishes priority expectations across grade levels, and delineates how frequently and to what extent the expectations will be measured. The blueprints also incorporated universal design concepts, defined the balance between selected response and constructed response items, and maintained the content and cognitive complexity expectations that have been embedded in the *New Standards* Reference Examinations and the NECAP exams. Such an approach embraces the requirements of No Child Left Behind to assess higher order thinking, as well as basic skills, while also providing for a logical and a technically feasible transition from the *New Standards* exams to the NECAP assessments.

By late Fall 2003 and continuing into 2004, the first cycle of item development occurred at grades 3-8 in accordance with the stipulations of the relevant assessment blueprint. Bias reviews preceded formal field testing. Because of the volume of ongoing field testing required at all grades, items are embedded and spiraled in the existing State assessments each year. As test forms are created, they undergo alignment analyses to ensure that the component items in each form in each content area meet the requirements of the blueprint. A parallel process applied to the new grade 11 assessment introduced in Fall 2007. New items and test forms will be required annually. Thus, item development and the entire development process will be ongoing in annual cycles.

Assessment in the Early Grades

The Developmental Reading Assessment (DRA) assessments is administered at grades K and 1 in the early childhood schools. (Grade 2 at a school can be evaluated using October NECAP scores from grade 3 testing). The DRA provides screening and ongoing monitoring as well as summative evaluations of progress.

Science Assessment
In preparation for the Spring 2008 implementation of science assessments at grades 4, 8 and 11, work began in 2005 with a committee of science practitioners to revisit/ revise Rhode Island's science standards and to create grade span expectations. By Summer 2005, student assessment targets in science were written. An assessment blueprint was developed and released as part of the Science Assessment RFP in Fall 2005. The blueprint incorporates universal design concepts, defines the balance between selected response and constructed response items, defines the number and extent of "hands-on" assessment circumstances/stations/labs, and addresses content and cognitive complexity for different types of items. Test development tasks, as enumerated for language arts and mathematics above, were then carried out so that science assessments were ready for full implementation in Spring 2008. As with language arts and mathematics, item development and the entire development process will be ongoing in annual cycles.

Alternate Assessment
Rhode Island's Alternate Assessment for the less than 1% of special needs students who are not able to take the regular State assessments even with accommodations has been fully implemented since Spring 2002. The datafolio scores, reported according to the same proficiency labels as the regular State assessments, are included in the calculations of school performance levels and of improvement. A pilot of a revised RI Alternate Assessment occurred in 2005-6. A formal standard setting occurred for the revised alternate assessment which became operational in 2006-07. Due to the number of new teachers working with this population each year, orientation to and professional development about the nature of this datafolio assessment is required annually.

Assessment of English Language Learners
For English language learners, Spring 2003 was the first full implementation of the Maculaitis II English language proficiency exam in Rhode Island. This annual assessment of all English language learners receiving LEP services measures the progress of these students' acquisition of English over time in the areas of reading, writing, listening and speaking. This assessment was replaced by the WIDA ACCESS for ELLs assessment in March 2006.

Due to the number of new teachers working with the ELL population each year, orientation to and professional development about how to administer assessments is required annually. Rhode Island introduced its new English language proficiency test (ACCESS) in Spring 2006 to align more accurately with the State's English language proficiency standards.

PRINCIPLE 7. State definition of AYP includes graduation rates for public high schools and an additional indicator selected by the State for public middle and public elementary schools (such as attendance rates).

7.1 What is the State definition for the public high school graduation rate?

Rhode Island will use the graduation rate as the additional indicator of performance for high schools. If a high school fails to meet targets for the high school graduation rate, it will be classified as a school not making adequate yearly progress regardless of its test score performance.

For the first year of NCLB accountability implementation, a statewide baseline measure was established for the high school graduation rate. The procedure for defining the baseline paralleled the procedure for defining the baseline for the academic measures. Schools were ranked by graduation rate and the cumulative number of students calculated. The graduation rate of the school where the cumulative count of graduates plus dropouts reached 20 percent of students statewide became the baseline (class of 2002).

Annual measurable objectives and intermediate goals were established working forward from the baseline to achieve a 2013-14 graduate rate of 95 percent. The progression of these goals followed the same pattern and logic as that applied to the assessment measures. High schools that did not keep pace with these goals were classified as not meeting AYP.

For fifteen prior years, Rhode Island consistently had used a synthetic cohort formula to calculate the dropout rate for high schools. That formula used <u>current</u> grade-specific dropout rates at grades 9, 10, 11 and 12 to simulate the retention of an entering cohort of 9th grade students. Beginning with the graduating class of 2002, Rhode Island changed to a more direct cohort estimation formula, which reconstructs an actual class of students moving through high school. We have been phasing in race, LEP, IEP and poverty data since 2004 using the new statewide student identifier system to have subpopulation graduation rates for these groups.

Rhode Island used the following NCES cohort estimation formula to calculate the dropout rate for the graduating classes of 2001-02 through 2006-07. Students who were GED recipients were treated as non-graduates. This formula will be used through the class of 2007 to report on whether schools meet annual measurable objectives. This NCES cohort estimation formula is defined as:

<u>**FIGURE 13**</u>

$$2007 \text{ Graduation Rate} = \left[\frac{\text{Number of 2007 Graduates}}{\begin{array}{l} \text{\# of 2007 graduates +} \\ \text{\# of grade 9 dropouts in 2003-04 +} \\ \text{\# of grade 10 dropouts in 2004-05 +} \\ \text{\# of grade 11 dropouts in 2005-06 +} \\ \text{\# of grade 12 dropouts in 2006-07} \end{array}} \right] \times 100$$

Beginning with school data submissions in October 2003, Rhode Island began converting to an exact student roster tracking method for calculating graduation rates. For the first school year (2003-04), schools submitted a complete roster of 9th grade students with demographic and program information (race, IEP, LEP, poverty) for each named student identified by a unique student identifier. Dropout transactions were maintained against this data file. Starting from October 2004, schools submitted complete rosters for grades 9-12 with necessary demographic and program information. This phase-in is summarized on the accompanying chart (Figure 14). For the graduating class of 2007 a new graduation rate baseline was set using the student roster tracking method. Annual measurable objectives (AMOs) for the classes of 2008-14 will be based on the new student roster tracking method. The graduation rate trajectory in use through the graduating class of 2007 is presented in the middle column of Figure 15.

FIGURE 14

TIMELINE AND METHOD FOR GRADUATION RATE STATISTICS

Graduating Class of	NCES Cohort Estimation Formula	Student Roster Tracking Method	Graduation Rate Disaggregations
2002	Baseline	Not Available	-
2003	Report for AMO	Not Available	-
2004	Report for AMO	(Grade 9 enrollees for class of 2007)	-
2005	Report for AMO	(Grades 9, 10)	-
2006	Report for AMO	(Grades 9, 10, 11)	-
2007	Report for AMO	Grades 9, 10, 11, 12 (Publish new Baseline)	-
2008	(Discontinue)	Report for AMO	All
2009		Report for AMO	All
2010		Report for AMO	All
2011		Report for AMO	All
2012		Report for AMO	All
2013		Report for AMO	All
2014		Report for AMO	All

Beginning with the graduating class of 2008, the Rhode Island Department of Education introduced a new computation of the graduation rate based on the tracking of individual students using the relatively recent student identification numbers. More specifically, Rhode Island uses the four-year adjusted cohort graduation rate as defined in USDOE non-regulatory guidance of December 22, 2008. A new state baseline was established from which an AMO growth trajectory was defined (Table 15). Because Rhode Island changed its month of high school testing from March to October in the 2007-08 school year allowing for an earlier release of NCLB classifications, the graduation rate of the class of 2007 will be used for the AYP review of 2007-08, but using the higher AMO target (79.2) that was assigned in Figure 15 to the class of 2008.

How does the R.I. Department of Elementary and Secondary Education (RIDE) calculate the 4-year graduation rate using the new (Class of 2007) cohort formula?

To calculate the 4-year graduation rate, RIDE tracks a cohort of students from 9th grade through high school and then divides the number of students who graduate within four years by the total number in the cohort. In other words, the rate provides the percentage of the cohort that graduates in four years or fewer. For example, the formula for the 2007 cohort is:

$$\text{Graduation Rate} = \frac{\text{\# of students in cohort who graduate in 4 years or fewer}}{[\text{\# of } 1^{st} \text{ time entering } 9^{th} \text{ graders in 2003–04}] - \text{transfers out} + \text{transfers in}} \times 100$$

In 2010, Rhode Island requested permission from the US Department of Education to amend its workbook and include five year cohort graduation rates in determining AYP, starting with the school year 2010-11. The process to combine the 4-year cohort and 5-year cohort in determining AYP is described below.

1   The graduation-rate AMO trajectory, as shown in Figure 15, will remain unchanged.

2   Each year, we will calculate both the 4-year cohort rate and the 5-year cohort rates. Rhode Island will define a combined rate for AYP purposes that includes 60% of the 4-year cohort rate and 40% of the 5-year cohort rate. This combination of rates gives predominant weight to the 4-year rate, as required in the guidance, while it benefits most of our schools by also recognizing the 5-year rate.

3   If the combined rate is equal to or higher than the AMO, then the school has met the graduation-rate requirement for AYP.

4   For schools and districts that fail to meet the requirement in this manner, we will compare the AMO to the 4-year cohort graduation rate. If the 4-year rate is equal to or higher than the AMO, the school or district has made AYP.

5   Schools and districts will also have an option to make AYP using an alternate improvement measure. This alternate measure will require at least a 10% reduction of the gap between the graduation rate of the prior year and the 2013-14 target-rate of 90%.

6   In compliance with the original guidance, NCLB disaggregation groups cannot make AYP based on improvement on the English-language arts and mathematics assessments ("safe harbor") if they do not also meet the graduation-rate requirement for AYP.

The graduation-rate indicator is very important in determining the AYP status of our high schools. Using the 5-year graduation rate in addition to the 4-year rates would lead us to a more fair way to assess the progress of our high schools and would encourage our high schools to continue to serve the best interest of their students.

FIGURE 15

	HIGH SCHOOL GRADUATES	
	AMO Graduation Rate	
Year	**NCES Cohort Estimation Formula**	**Four-Year Adjusted Cohort Formula**
2002-2003	**71.4**	
2003-2004	**71.4**	
2004-2005	**75.3**	
2005-2006	**75.3**	
2006-2007*	**75.3**	
2007-2008	**79.2**	**70.1**
2008-2009	**79.2**	**73.4**
2009-2010	**79.2**	**76.7**
2010-2011	**83.1**	**80.0**
2011-2012	**87.0**	**83.3**
2012-2013	**90.9**	**86.6**
2013-2014	**95.0**	**90.0**

* A new baseline will be set using data from the graduating class of 2007. Computations will be based on four years of accumulated data and will use the federal four-year adjusted cohort formula.

The third column of Figure 15 presents the new baseline and trajectory for the four-year adjusted cohort graduation rate. The baseline value of 70.1 percent is actually the empirical mean statewide graduation rate found when the four-year adjusted cohort formula was applied to the class of 2007 in Rhode Island.

The existence of a statewide student identification number has been established for enough years now to allow Rhode Island to compute four-year adjusted cohort graduation rates for each of the NCLB required disaggregation groups starting with the graduating class of 2008. Graduation rates from this class will be combined with assessment data from October, 2008 to establish NCLB classifications for school year 2008-09. In compliance with original guidance, NCLB disaggregation sub-groups cannot be given a safe-harbor "improvement" test for academic targets (English language arts and mathematics) if they do not meet the graduation rate requirement for adequate yearly progress (AYP). For districts, schools and

disaggregation groups that do not meet the annual graduation rate target as defined in Figure 15, Rhode Island will use the safe-harbor formula for "improvement" as an alternate way of meeting the graduation rate requirement. The safe-harbor formula is the same as that used for academic targets; it requires at least a ten percent reduction of the gap between the graduation rate of the prior year and the 2013-14 target rate of 90.0 percent.

7.2 What is the State's additional academic indicator for public elementary schools for the definition of AYP? For public middle schools for the definition of AYP?

Attendance in Rhode Island is defined as the percent of actual attendance days of students in a school divided by the number of days those students are registered in the school.

$$\text{Attendance} = 100 \text{ X } \frac{\text{actual attendance days in an academic year}}{\text{membership days in an academic year}}$$

As suggested by NCLB, this was chosen as the additional academic indicator for middle schools and elementary schools. This indicator is generated from grade-level membership and attendance figures submitted by schools to RIDE as part of their pupil data summary. This data is audited annually and is the basis for state aid.

The statewide AMO for attendance is 90%.

Schools that have an attendance rate of 90% or more will be identified as meeting this AYP target. Schools that have an attendance rate of less than 90% will be identified as schools not making adequate yearly progress (AYP) *unless attendance has improved enough to close the gap between the previous year's rate and the 2014 target by at least 10%.* Schools that meet or exceed the threshold will have met this other academic indicator for purposes of calculating AYP. A school below the attendance AMO may pass AYP if it is improving its attendance rate by an adequate amount.

Despite having met its AYP assessment measures in mathematics and English language arts, if an elementary or middle school fails to meets its goals for attendance, it will become a school not making adequate yearly progress under the NCLB guidelines.

<u>**Examples of Evidence**</u>:
- 2008 Elementary Attendance Rates by School
- 2008 Middle School Attendance Rates by School
- Process for Auditing Attendance Report from School Districts
- Audited Attendance Reports

7.3 Are the State's academic indicators valid and reliable?

The Rhode Island Assessment System has been approved by the USDOE. The vendors of these tests have produced technical studies which demonstrate their validity, reliability and psychometric integrity. They were aligned to the content standards for Rhode Island. RIDE will subject any new assessments to the same technical rigor as it has with previous assessments. Rhode Island offered new evidence for assessment system approval to USDOE during 2007 as part of the standard cycle of peer review.

The data collected relative to attendance and graduation is currently part of the RI Accountability System. An audit process is also required for pupil summary data.

AUDIT REQUIRED

All school districts within Rhode Island shall be required to have audits performed in accordance with Uniform Accounting and Reporting Standards for Rhode Island Municipalities issued by the General

Assembly, Office of the Auditor General using when appropriate; the Office of Management and Budget Circular A-128, Audits of State and Local Governments; and Rules for Rhode Island School Districts Regarding the Reporting and Auditing of Special Purpose Forms Pertaining to Education.

PRINCIPLE 8. AYP is based on reading/language arts and mathematics achievement objectives.

8.1 Does the State measure achievement in reading/language arts and mathematics separately for determining AYP?

The Rhode Island AYP/Accountability model for NCLB incorporates the required elements of No Child Left Behind Act. For each cycle of school performance categories, school and district performance is assessed using an index proficiency that measures the progress students/schools and districts are making toward 100% proficiency in the year 2013/2014 in both ELA and mathematics. The index scores are constructed by content area (ELA and mathematics) to apply to every school, district and subgroup. The ELA index at grades 3-8 and at grade 11 is weighted for 80 percent reading and 20 percent writing. AYP calculations are done annually as part of RI's accountability process. See Figure 5 which illustrates both the intermediate goals and the annual measurable objectives for both subject areas by school level (elementary, middle, high). Each set of assessments has a trajectory which is the basis for schools and districts to be evaluated on AYP targets in accordance with NCLB.

The following example is given to demonstrate the calculation of an index proficiency score.

Each student is assigned an achievement level or performance score for reading, writing and mathematics.

We calculate an aggregated performance of a school or subgroup in reading as follows:

1.   Determine the number of students at each achievement performance level.
2.   Multiply the number of students in each achievement level by the index weighting assigned to that level (see Figure 2).

Number of Students by Achievement Level

	Level 1	Level 2	Level 3	Level 4	Level 5	No Scores	Total
Total	10	153	109	131	5	8	416
Index Wghtg.	25*10	50*153	75*109	100*131	100*5	0*8	29,675

Adding the index values (29,675) and dividing by the number of students (416) yields an average index score of 71.33.

NECAP index scores are calculated in the same manner for writing and mathematics. A final English language arts index score is determined for all schools by weighting the reading score at 80% and the writing score at 20% of the final index.

DATA ACROSS YEARS

Data across multiple years, when applied, is handled in a similar manner. We combine data for several years to obtain the cumulative results. We illustrate this with an example for mathematics.

Achievement Level by Year

Year	Level 1	Level 2	Level 3	Level 4	Level 5	No Score	Total
2008	40	135	100	250	282	18	825
2007	47	174	107	200	138	36	702
2006	50	147	135	178	156	39	705
3-Year (total: used to Calculate safe Harbor baseline)	137	456	342	628	576	93	2232
Index Weighting	25*137	50*456	75*342	100*628	100*576	0*93	172,275

Index Score Numerator
(25*137) + (50*456) + (75*342) + (100*628) + (100*576) + (0*93)= 172275

Student Count Denominator   (137 + 456 + 342 + 628 + 576 + 93)= 2,232

Index Prof $\dfrac{172{,}275}{2{,}232}$ = 77.18

Examples of Evidence:
- 3.1 Tables and graphs
- Rhode Island School and District Accountability System Technical Bulletin (July 2008)
- AYP Runs for Each School

PRINCIPLE 9. State Accountability System is statistically valid and reliable.

9.1 How do AYP determinations meet the State's standard for acceptable reliability?

Studies[1,2], including our own analysis, have shown that school level variances of student proficiency rates do not depend upon the size of the school. However, if schools are grouped based on population, then the school level proficiency variances from one group to the other become distinctively different. In originally determining the reliability of our assessment measurements, we evaluated the Index Proficiency scores of all schools and subgroups in English language arts and mathematics at the elementary, middle and high school levels. The schools within each of the three levels were then divided into different groups based on their sizes. A school in a specified group has a standard error associated with the Index Proficiency score, which is defined as the square root of the group variance divided by the number of students in the school. The result is multiplied by a factor of 1.96 to convert the degree of confidence to 95% using a two-tail z-statistic. If all the schools with varying populations are placed in one group, we find the standard error for each school is doubled. Thus, AYP decisions made with the grouping of schools based on size are found to be more reliable.

Using a process similar to the one described above, we defined our minimum N to be 45. Rhode Island has a few schools with population less than 45. For these schools, the process described above will lead to large standard errors since the standard error is inversely proportional to the square root of N. These schools with small populations are not in sufficient numbers to constitute a group by themselves. To obtain comparable error bands for these schools, student level records within each school were used to calculate the associated standard error for those schools. The standard error, then, was the square root of the variance of the individual student scores within the school divided by the number of students in the school. This does not take into consideration the scores of other schools with similar populations and the results need to be interpreted very carefully.

Through the 2006-07 school year at the high school level, we combine three years of data to determine a school or subgroup's Index Proficiency. The use of the Index Proficiency is a measure that takes into account the proficiency status of each student. We used a minimum N size of 45 to make AYP decisions. These are factors that increase the reliability of our system.

For elementary and middle schools beginning in 2005-06, assessment data are available for all grades in the range 3-8. With more grades having assessment data, the N count of 45 will be based on the number of students enrolled in the current year of testing aggregated across all tested grades within the school. A revised formula for the error band described in section 5.5 was initiated for elementary and middle schools and this formula will also be used to interpret the new NECAP exam for grade 11.

All schools, even those with a population of less than 45, will be included in our accountability system.

<u>References</u>:

1. Richard, Hill (2000) The Reliability of California's API, The National Center for the Improvement of Educational Assessment.

2. Richard, Hill (2002) Determining the Reliability of School Scores, The National Center for the Improvement of Educational Assessment.

Examples of Evidence:
- Assessment Data
- Standard Error vs. "n" Graphs
- Technical Report - NECAP

9.2 What is the State's process for making valid AYP determinations?

Rhode Island accounts for all students enrolled at the time of the State assessments. By phasing in a statewide student identification system, we are now able to ensure that 95% of each subgroup has been assessed, rather than relying primarily on coding of student demographics on test booklets. Thus, the results of the State assessments will more accurately reflect the achievement level of disaggregation groups.

Accountability System Validity and Reliability

The principal approaches to assuring the validity of the accountability system are:

- Quality control procedures for data including 30-day appeals review for schools to review the data elements underlying the accountability classification.
- "Reasonable" continuity with prior classifications of schools when a new series of assessments is introduced.
- Using our Technical Advisory Committee, a team of external experts, to provide informed advice.

The principal approaches to assuring the reliability of the accountability system are:

- Establish minimum N-counts for allowing disaggregation analyses that have a demonstrated statistical basis.
- Allow standard errors to be applied to assessment scores, thereby obtaining 95% confidence levels in measurement.

9.3 How has the State planned for incorporating into its definition of AYP anticipated changes in assessments?

With the NCLB expectations for grades 3-8 testing, Rhode Island expanded the number of grades tested and introduced the NECAP exams for grades 3-8 in 2005-06. A new NECAP assessment at grade 11 was introduced in 2007-08. For grades 3-8, Rhode Island reviewed starting points (baseline), intermediate goals and annual measurable objectives for the 2005-2006 school year. No changes were required in the AMO trajectory. Similarly, when NECAP was introduced in grade 11 in October 2007, no changes were made to the AMO trajectory. Rhode Island is still engaged in the work of the New England Common Assessment Program (NECAP) with New Hampshire and Vermont, including common Grade Level Expectations (GLEs) common aligned assessments and now a new Science assessments in May 2008 developed cooperatively by the three states.

Ongoing reviews of our assessment and accountability systems occur with our Rhode Island Technical Advisory Committee, with other technical experts, with our contractors and with the New England Common Assessment Program Technical Advisory Committee.

<u>Examples of Evidence</u>:
- Enhanced Assessment Grant Application
- Technical Advisory Committee Agendas
- Technical Report - NECAP

PRINCIPLE 10. In order for a public school or LEA to make AYP, the State ensures that it assessed at least 95% of the students enrolled in each subgroup.

10.1 What is the State's method for calculating participation rates in the State assessments for use in AYP determinations?

At the beginning of the testing window of State assessments, all schools through their districts provide updates electronically to RIDE listing all students enrolled by grade level. (This is part of the statewide student identification system.) School-level counts for the tested grades are generated from these rosters. The number of students who participated in the tests and who actually obtained valid test scores is also determined after the tests are completed and scored. Students who failed to take the test or did not submit a meaningful response to any of the test questions are deemed not to have participated in the test. Alternate Assessment data are merged with the regular assessment data before the number of valid test takers is calculated. The final denominator does not include students with an approved medical emergency which makes them unavailable for testing. The numerator counts all students who obtained a valid test score. The ratio of the numerator and denominator multiplied by 100 gives the participation rate for the school. The same method is used for the calculation of participation rates for subpopulations.

Examples of Evidence:
- State Assessment Manual
- Assessment Data

10.2 What is the State's policy for determining when the 95% assessed requirement should be applied?

The process described in 10.1 is used to calculate the participation rates for schools and districts as well as for subgroups. A school, district or subgroup that fails to meet the 95% participation rate will prevent that school or district from meeting AYP requirements and will activate appropriate corrective action as part of our accountability system. For all schools, we use the tested grades of enrollment and all test data (including Alternate Assessment results) to calculate participation rates on an annual basis. Schools or districts which fail the 95% participation rate are identified as schools which have failed to meet their AYP requirements.

Examples of Evidence:
- *"InfoWorks!"* (http://infoworks.ride.ri.gov/)
- RI School and District Accountability System Technical Bulletin (July 2008)