Initial Modeling of NCLB* AYP

Maryann Wortley Center for Assessment CCSSO 32nd Annual Conference on Large-Scale Assessment June 26, 2002

*No Child Left Behind Act of 2001

Overview of Presentation

NCLB model / accountability provisions
Determination of AYP target
Five factors that affect NCLB modeling
Issues, questions and conclusions

NCLB Model

	Status	Change
Performance (Achievement)	NCLB	How much did the school improve?
Growth (Effectiveness)	How much did students learn from one year to the next year?	How much did the rate of learning change?

Status / Performance:How high do students in the school score on state
assessments?What percentage of students meets the state standards or
Percent Above Cut (PAC)?

Reference: Gong, Brian. *Designing School Accountability Systems*. CCSSO Publication, January 2002. Center for Assessment - 6/26/02

NCLB Accountability Provisions

- Goal: All students proficient in reading and math within 12 years from 2001-2002 "NCLB will help close the achievement gap between disadvantaged and minority students and their peers"
- Based on four principles:
 - **1)** Stronger accountability for results (AYP)
 - 2) Increased flexibility and local control
 - **3) Expanded options for parents**
 - 4) Emphasis on teaching methods that work

NCLB Provisions continued

- AYP: Yearly targets reflect an increase in percentage of students *proficient*, from where the state starts, up to 100%
- Progressive assistance and sanctions for schools and districts that do not meet AYP targets
- Will not be addressing other provisions (Ex. Safe Harbor, 95% participation, other elementary / high school target indicators, standards, reporting)

Consequences for Schools

NCLB requires assistance and sanctions be provided to *schools* that do not meet AYP provisions.

- Year 1: No action except for Title 1 schools identified under old ESEA.
- Year 2: School identified as failing AYP.
- Year 3: School identified as failing AYP two years in a row. Consequences include:
 - a. Technical assistance from district
 - **b.** Identified as "needing improvement"
 - c. Improvement plan
 - d. Public school choice to parents with transportation provided by district

Consequences continued...

- Year 4: Consequences include:
 - **a.** State assistance to district; monitor district actions
 - **b.** State provides supplemental services
- Year 5: Consequences include:
 - a. Year 4 consequences
 - **b. District implements at least one corrective action**
 - Replace staff
 - New Curriculum
 - Outside Expert
 - Extended school year or day
- Year 6: Consequences include:
 - a. School plans for restructuring
- Year 7: Consequences include:
 - a. Implementation of restructuring

Determination of AYP Target

- Specifies target minimum percentage of students *proficient* each year
- Increases up to 100% in regular amounts within 12 years
- Applies to all subgroups: race/ethnic, special education, LEP, economic disadvantaged
- Set up AYP target line
 - Calculate Starting Point
 - Set End Point at 100%
 - Straight Line or Stair-Step Intervals

AYP Target Line Example



Center for Assessment - 6/26/02

AYP Target Example

	AYP Target (Percent of Students at Proficient level or above)											
	By Year											
Starting Point	1	2	3	4	5	6	7	8	9	10	11	12
40	45	50	55	60	65	70	75	80	85	90	95	100
40	40	50	50	50	65	65	65	80	80	80	95	100

Straight line example

Stair-step example

Meets AYP or Fails to Meet AYP? That is the question.

 Meets AYP – School whose percentage of students at or above the proficient cutpoint (PAC) is equal to or higher than the AYP target for that year

 Fails to Meet AYP – School whose PAC is lower than AYP target for that year

Factors Influencing a State's Status

- **1.** Starting Point N Tested v Enrolled
- 2. Results of Reading, Math v Reading & Math
- **3. Results of Whole School v Subgroup**
- **4. Effects of Minimum Test Size**
- **5. Proficiency Level Test**

Factors Influencing a State's Status

- **1. Starting Point N Tested v Enrolled**
- 2. Results of Reading, Math v Reading & Math
- 3. Results of Whole School v Subgroup
- 4. Effects of Minimum Test Size
- **5. Proficiency Level Test**

Calculation of the Actual Starting Point

- Use 2001-2002 state test scores or average scores from 1999-2000 and 2000-2001 with 2001-2002
- Set starting point by using the higher of two baseline bars:
 - a. Percent of students at the proficient level in the lowest achieving subgroup
 - B. Rank schools by percent of students at proficient level, then find 20th percentile point in terms of enrollment

Example – 20th Percentile of Enrollment Rank by PAC, *Reading*, 2001

<u>Obs*</u>	<u>Total Tested</u>	Total <u>Proficient</u>	Percent <u>Proficient</u>	Cumulative <u>Enrollment</u>	Cumulative <u>Percent Enrollme</u>	<u>nt</u>
5	6	0	0.00	1761	0.33	
18	3	0	0.00	6465	1.21	
124	60	16	26.67	55621	10.37	
249	212	91	42.92	106862	19.93	
250	151	65	43.05	107689	20.09	/
251	265	115	43.40	107824	20.11	

Starting Point for Reading

Center for Assessment - 6/26/02

Starting Point – N Tested v Enrolled

State 1 (S1)

	Starting Point (Pct Meet or Exceed)				
Content Area	Using N Tested	Using N Enrolled			
Reading	42.92	43.05			
Math	32.96	32.52			

State 2 (S2)

Conclusion:

N Tested v Enrolled didn't affect much.

	Starting Point (Pct Meet or Exceed)*			
Content Area	Using N Tested	Using N Enrolled		
Reading	60.90	57.14		
Math	39.80	36.36		

Factors Influencing a State's Status

- **1. Starting Point N Tested v Enrolled**
- 2. Results of Reading, Math v Reading & Math
- 3. Results of Whole School v Subgroup
- 4. Effects of Minimum Test Size
- **5. Proficiency Level Test**



Center for Assessment - 6/26/02

Examples of School AYP Profiles

0 = met AYP PAC 1 = failed to meet AYP PAC NOTE: A "1" for any digit means the <u>school fails AYP</u> 000000000 = school as a whole and each subgroup passed AYP

- 111111111 = school as a whole and each subgroup failed AYP
- 010010111 = school as a whole passed and some subgroups failed AYP
- **100000000** = school as a whole failed and all subgroup passed AYP
- **101100010** = school as a whole and some subgroups failed AYP
- **102100210** = school as a whole and some subgroups failed AYP; "2" = failed reading & math

Percent of State Z (Schools) Failing AYP

2001 data	Minimum N Tested				
Reading	1	10	20	40	
Failed to meet AYP Target	100.0	67.9	50.0	36.8	
Failed to meet AYP Target School as a whole	20.9	15.8	13.2	10.5	
Failed to meet AYP Target Subgroup only	79.1	52.1	36.8	26.3	

Percent of State Z (Schools) Failing AYP

2001 data	Minimum N Tested				
Math	1	10	20	40	
Failed to meet AYP Target	99.9	47.1	27.8	13.3	
Failed to meet AYP Target School as a whole	21.7	15.7	12.4	10.1	
Failed to meet AYP Target Subgroup only	78.2	31.4	15.4	3.2	

Percent of State Z (Schools) Failing AYP

2001 data	Minimum N Tested				
Reading & Math	1	10	20	40	
Failed to meet AYP Target	100.0	71.6	52.4	38.2	
Failed to meet AYP Target School as a whole	24.4	19.1	15.6	12.7	
Failed to meet AYP Target Subgroup only	75.5	52.5	36.8	25.5	

Some Conclusions

- **The higher the minimum number tested:**
 - More reliable results
 - More schools meet AYP in reading, math, and combined reading and math
 - More schools with small subgroups are excluded, therefore they are counted as "meeting AYP"
- Schools / subgroups less than the minimum number tested can fall through the cracks and not receive needed assistance.

And more conclusions. . .

When using minimum number tested > 1 in determining the AYP status of a school / subgroup:

- A school / subgroup not identified as "needing improvement" one year can be identified the following year with just an increased N
- Results of schools / subgroups identified as meeting AYP or not meeting AYP can be misleading



Example*: Misleading Results
State Z
State Z
School 1
School 2
School 2

Which school is doing a better job?Which school will be identified?

*Richard Hill (NCIEA)

Factors Influencing a State's Status

- **1.** Starting Point N Tested v Enrolled
- 2. Results of Reading, Math v Reading & Math
- 3. Results of Whole School v Subgroup
- 4. Effects of Minimum Test Size
- **5. Proficiency Level Test**

Proficiency Level Test

One state wondered what would happen if performance level 2 on state assessment test was counted as proficient (compared to level 3 counted as proficient)?

Results using level 2 = proficient:

- AYP starting points were higher for both reading and math.
- More schools were identified as needing improvement initially.
- It should be easier for schools to meet AYP improvement increments in subsequent years.

Performance Level Test Decision

- * The state decided not to count level 2 as proficient because:
 - * Many schools as a whole had a large group of students hovering in the "level 2" range and the subgroups did not.
 - * As a result, the gap between the results for schools as a whole and the subgroups would increase.
 - This decision was believed to be consistent with keeping the state's high standards.

Issues, questions and conclusions...

- It is possible for schools and subgroups to show steady improvement over time, yet still score below the AYP cutpoint. Needing improvement?
- Can schools meet NCLB without compromising established accountability systems (or those in the works)?
- Unless the rules change or states are given more flexibility, most schools and districts will be identified as "needing improvement" within the next 2-3 years.



- Can schools meet NCLB and still meet the intellectual (multiple intelligences / multiple learning styles), emotional, and social needs of every child?
- How can states assure parents that all students are taught by qualified teachers who are able to use a multitude of effective teaching styles?
- At what point will we ask *the students* what they need to be successful?

"Never discourage anyone who continually makes progress, no matter how slow." Plato

For more information:



Center for Assessment www.nciea.org

Maryann Wortley, Associate <u>mwortley@nciea.org</u> (603) 766-7900

Center for Assessment - 6/26/02