No Child Left Behind: School Accountability in the U.S.A.

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No Child Left Behind (NCLB)

Centerpiece of President Bush’s educational agenda

Passed by large bipartisan majority of both houses of Congress in 2001

Provides 12 billion dollars a year in financial assistance to states, districts, and schools with high percentages of poor children
Praiseworthy Aspects of NCLB

- Emphasis on improving achievement of all students, but especially students with the greatest need
- Emphasis on closing the achievement gap
- Encouragement to states to adopt rigorous content standards
- Emphasis on qualified teachers
School Accountability

Central feature of NCLB

Emphasis is on student achievement as measured by state assessments

Focus is on achievement of poor and minority students and closing the achievement gap
NCLB Accountability System

Intended to contribute to improved student achievement

Unfortunately, the accountability system has some serious problems that may undermine the achievement of NCLB goals

Need to modify accountability requirements so that NCLB’s praiseworthy goals can be achieved
NCLB and State Accountability Systems

Most states already had in place accountability systems that use student test results to judge schools prior to NCLB.

NCLB added new requirements that frequently conflict with state requirements and/or results.
Major Problems of NCLB Accountability System

- Unrealistic expectations
- Lack of definition of proficient achievement
- Disaggregation rules and effects
- Safe harbor
- Status with no credit for gains
- Results that conflict with state accountability results
Adequate Yearly Progress (AYP)

Central to the Accountability System of the No Child Left Behind (NCLB) Act of 2001

States required to define AYP for the state, school districts, and schools in a way that enables all children to meet the state’s student achievement standards by 2014
Unrealistic Expectations

AYP targets set so high that most schools will fail to meet them within a few years

With proficient performance set at high level, no school that is not highly selective will meet the 100% proficient goal in 2014
Unrealistic Expectations

Using NAEP as benchmark

Mathematics 100% proficient by 2014

Rate of annual gain would have to be 3.9 times as great at grade 4 and 7.5 at grade 8 between 2003 and 2014 as it was between 1996 and 2003
NAEP Percent Proficient or Above Trends and Projections
(Reading, Grades 4 and 8)
Unrealistic Expectations

Using NAEP as benchmark

Reading 100% proficient by 2014

The essentially flat trends would have to suddenly accelerate and maintain that previously unseen rate for the next decade
Other Projections

Some states (e.g., California, Connecticut, Minnesota) have made projections assuming recent rates of improvement continue or increase somewhat that show that nearly all schools would fall short of AYP targets prior to 2014)
California No Child Left Behind (NCLB) Projections
Single-Year Percent of Schools Below Target

<table>
<thead>
<tr>
<th>Year</th>
<th>Percent of Schools</th>
</tr>
</thead>
<tbody>
<tr>
<td>Start</td>
<td>50%</td>
</tr>
<tr>
<td>Yr 1</td>
<td>48%</td>
</tr>
<tr>
<td>Yr 2</td>
<td>45%</td>
</tr>
<tr>
<td>Yr 3</td>
<td>67%</td>
</tr>
<tr>
<td>Yr 4</td>
<td>65%</td>
</tr>
<tr>
<td>Yr 5</td>
<td>62%</td>
</tr>
<tr>
<td>Yr 6</td>
<td>76%</td>
</tr>
<tr>
<td>Yr 7</td>
<td>83%</td>
</tr>
<tr>
<td>Yr 8</td>
<td>87%</td>
</tr>
<tr>
<td>Yr 9</td>
<td>93%</td>
</tr>
<tr>
<td>Yr 10</td>
<td>97%</td>
</tr>
<tr>
<td>Yr 11</td>
<td>98%</td>
</tr>
<tr>
<td>Yr 12</td>
<td>99%</td>
</tr>
</tbody>
</table>
Expectations

Ambitious but obtainable with sufficient effort

Unattainable expectations do more to demoralize than to motivate
Realistic Expectations

Existence proof

Look at past gains of top 10% of schools

For example, if top schools raised percent proficient by an average of 3% per year for last 5 years, then set that as target
Definition of Proficient Achievement

NCLB: States must “describe two levels of high achievement (proficient and advanced) [and] a third level of achievement (basic)”

Setting levels left to the states, but must have all students at “proficient” level by 2014
AYP Starting Point

Starting point defined in 2001-2002

The larger of either:

The percentage of students in the lowest scoring subgroup who achieve the proficient level or higher, or

The percentage proficient or higher in the school at the 20th percentile, based on enrollment, among all schools ranked by the percentage of students at the proficient level or higher
### AYP Reading Starting Points for 42 States

<table>
<thead>
<tr>
<th>Grade 4</th>
<th>Grade 8</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Most stringent:</strong> CA</td>
<td>13.6%</td>
</tr>
<tr>
<td><strong>Most lenient:</strong> CO</td>
<td>77.5%</td>
</tr>
<tr>
<td><strong>75th percentile:</strong></td>
<td>65.0%</td>
</tr>
<tr>
<td><strong>Median:</strong></td>
<td>51.7%</td>
</tr>
<tr>
<td><strong>25th percentile</strong></td>
<td>37.2%</td>
</tr>
</tbody>
</table>
## AYP Mathematics Starting Points for 42 States

<table>
<thead>
<tr>
<th>Grade 4</th>
<th>Grade 8</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Most stringent:</strong> MO 8.3%</td>
<td><strong>Most stringent:</strong> AZ 7.0%</td>
</tr>
<tr>
<td><strong>Most lenient:</strong> CO 79.5%</td>
<td><strong>Most lenient:</strong> NC 74.6%</td>
</tr>
<tr>
<td>75(^{th}) percentile: 56.5%</td>
<td>75(^{th}) percentile: 56.5%</td>
</tr>
<tr>
<td>Median: 46.3%</td>
<td>Median: 39.4%</td>
</tr>
<tr>
<td>25(^{th}) percentile: 29.8%</td>
<td>25(^{th}) percentile: 23.6%</td>
</tr>
</tbody>
</table>
Grade 4 Mathematics Percent Proficient or Above AYP Goals by Year for Colorado and Missouri
Grade 8 Mathematics Percent Proficient or Above AYP Goals for Arizona and North Carolina

- **North Carolina**
- **Arizona**

Year:
- 2002
- 2004
- 2006
- 2008
- 2010
- 2012
- 2014

Percent Proficient or Above:
- 0
- 10
- 20
- 30
- 40
- 50
- 60
- 70
- 80
- 90
- 100

Graph shows the percentage of students proficient or above proficiency levels for Grade 8 Mathematics in North Carolina and Arizona from 2002 to 2014.
State Variation in Percentage of Schools Meeting AYP vs. Variation in Performance on NAEP

Variation in percentage of schools meeting AYP is extremely large and makes little sense in comparison to variation of performance on NAEP
Percentage of Schools Meeting AYP in 2003 for 47 States
<table>
<thead>
<tr>
<th>Range</th>
<th>States listed in ascending order within range</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>5 to 10</td>
<td>AL WI MN VT</td>
<td>4</td>
</tr>
<tr>
<td>11 to 20</td>
<td>KS TX WY CT DC AK ME MT ND OK AZ WA</td>
<td>12</td>
</tr>
<tr>
<td>21 to 30</td>
<td>NE NM NY NJ OH IN MS NV OR NH RI</td>
<td>11</td>
</tr>
<tr>
<td>31 to 40</td>
<td>UT SD KY PA CA MD WV GA IL VA</td>
<td>10</td>
</tr>
<tr>
<td>41 to 50</td>
<td>LA DE TN CO</td>
<td>4</td>
</tr>
<tr>
<td>51 to 60</td>
<td>NC AK</td>
<td>2</td>
</tr>
<tr>
<td>61 to 70</td>
<td>SC MO</td>
<td>2</td>
</tr>
<tr>
<td>71 to 76</td>
<td>HI ID FL</td>
<td>3</td>
</tr>
</tbody>
</table>

* Based on the January 2004 Center on Education Policy Report, *From the Capitol to the Classroom: Year 2 of the No Child Left Behind Act*, pp. 56-57. Data for three states, IA, MA and MI, were not available.
Percentage Proficient or Above on NAEP Grade 4 Reading by States
(Sorted in Ascending Order)
Percent of Schools Meeting AYP in 2003 vs. Percent Proficient or Above on 2003 NAEP Grade 4 Reading for 47 States

(Correlation = .16)
2003-2004 Results

Not yet available for all states

Available results show some states had increases in percentage of schools that met AYP but a few states had decreases
Percentage of Schools in 29 States that Met AYP in 2003-04
2003-04 vs. 2002-03 Results

Most states reporting so far had more schools meeting AYP in 2003-04 than a year earlier.

Good news suggesting some gains due to focused attention on achievement.

But, targets in 2003-04 generally the same as the year before and increases in targets will occur next year or the year after.

States with biggest gains in schools meeting AYP had changes approved such as the use of confidence intervals for first time in 2003-04.
Implications of State Variation

“Proficient” performance has no common meaning across states.

More uniform rules are needed to reduce state-to-state variability in percentage of schools meeting AYP.

Use of NAEP as a check on state performance needs clarification.
Alternatives to Proficient Standard

Define cut as median achievement in baseline year (2002)

Set progress targets based on performance of top schools during past 5 years, e.g., 3% per year

Would yield target that would have 86% in 2014 above 2002 median
Alternatives to Proficient Standard

Use effect size statistics

Set based on experience in prior years for top performing schools

Might yield a target of an annual effect size increase of .05 -- or an effect size of .6 when 2014 is compared to 2002
Many Reasons for State-to-State Variability in Percentage of Schools Missing AYP Targets

Definition of proficient level of achievement

State demographics—Influence on number of subgroups in schools with sufficient $n$ for reporting

Number of grades tested—More grades, more use of disaggregated results

Minimum $n$ used for reporting

Whether or not the state uses confidence intervals
Subgroups of Students Identified for AYP

- Economically disadvantaged students
- Major racial and ethnic groups
- Students with disabilities
- Students with limited English proficiency
Reporting on Subgroup Performance

Critical for monitoring the closing of gaps in achievement

No real relevance for small schools with homogeneous student bodies

However, it leads to many hurdles that large, diverse schools must meet
Percentage of California Schools that Made AYP as a Function of SES and Number of Subgroups of Students
(Based of Novak and Fuller, 2003)
Implications of Number of Subgroup Results

Schools with multiple subgroups at relative disadvantage to schools with homogeneous student population

May want to consider combining across more than one year as is already allowed for students with disabilities

Make “safe harbor” provision more attainable
“Safe Harbor” Exception

If a subgroup falls short of AYP target school can still avoid being placed in needs improvement category if:

The percentage of students who score below the proficient level is decreased by at least 10% from the year before, and

There is improvement for that subgroup on other indicators
Safe Harbor

Gains needed for safe harbor are quite large compared to typical gains.

In practice, few schools that fail to meet annual measurable objectives for AYP are helped by the safe harbor provision.

For example, only 18 of the 1,352 schools that met AYP requirements in 2003 did so because of the safe harbor provision.
Safe Harbor Implications

If a provision is desired to allow schools to meet AYP by showing gains in percent proficient or above, then consideration should be given to alternative definitions such as above average gain in percent proficient or above.
AYP Results Depend on Status and Not on Growth Illustrated by Pennsylvania Results

<table>
<thead>
<tr>
<th></th>
<th>Number of Schools</th>
<th>Percent of Schools</th>
<th>Math Prof or Above</th>
<th>Read Prof or Above</th>
<th>Math Change</th>
<th>Read Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>State AYP Target</td>
<td></td>
<td></td>
<td>35.0%</td>
<td>45.0%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Met AYP Targets</td>
<td>1,353</td>
<td>48.8%</td>
<td>65.9%</td>
<td>70.2%</td>
<td>3.6%</td>
<td>3.1%</td>
</tr>
<tr>
<td>Failed AYP Targets</td>
<td>1,421</td>
<td>51.2%</td>
<td>44.4%</td>
<td>51.0%</td>
<td>2.6%</td>
<td>3.0%</td>
</tr>
<tr>
<td>Total</td>
<td>2,774</td>
<td>100%</td>
<td>54.9%</td>
<td>60.4%</td>
<td>3.1%</td>
<td>3.1%</td>
</tr>
</tbody>
</table>
Pennsylvania Results

In both reading and math, the percentage of students at the proficient level or above in schools that met AYP targets was about 20 points greater than the percentage in schools that failed to meet AYP targets.

The average percentage at the proficient level or above for schools that failed to meet all targets was 9.4 points higher than the reading target and 6 points higher than the math target.
Pennsylvania Results (Cont’d)

The changes in the percentages proficient or above from 2001-02 to 2002-03 was only slightly better for schools that met all AYP targets than for ones that didn’t.

Continued average growth rates of 3.1% percent per year would not be sufficient in either reading or math to keep up with increases in AYP targets scheduled to go into effect in 2007.
Trends for Three Schools in Comparison to State Percent Proficient or Above AYP Goals

- School A
- School B
- School C

State AYP Goals
Mixed Messages

Many different assessments

- Local, state, national, international
- Aimed at different content standards

Different performance standards

- Variability in number of levels
- Variability in stringency

Many different accountability systems

- Variable definitions of success and failure
There is a clear relationship between the Colorado Academic Performance Ratings of a school and the likelihood that the school will meet AYP Targets. However, the relationship is far enough from perfect to result in mixed messages for a substantial number of schools.

21.9% of schools rated as “Unsatisfactory” and 47.5% of schools rated “Low” made AYP targets while 13.7% of schools rated “High” did not meet AYP targets.
Florida’s Mixed Messages

1262 of 2650 schools (48%) received a grade of A in 2004

Only 233 of 2650 schools (9%) received grades of D or F in 2004

Yet, 77% of schools did not make AYP

707 of 1262 A schools (56%) did not make AYP
Conclusions

1. AYP targets will become increasingly unrealistic in future years. The required rates of improvement in percent proficient or above are much greater than improvements any state has experienced in the past.

2. There is no common meaning of proficient achievement across states.

3. State NCLB results will not allow valid comparisons among states.
Conclusions (Cont’d)

4. Although the “P” in AYP stands for progress, whether or not a school meets the AYP target does NOT depend on gains in student achievement.

5. More than AYP determinations are needed to make valid inferences about the quality of instruction provided by schools.

6. Variability in proficient standard due to context in which standards are set, the judges, and methods used is so large that the term proficient is meaningless.
Conclusions (Cont’d)

7. Reporting results in terms of meaningless proficient standard does more harm than good

8. State accountability and NCLB accountability results are sending mixed messages

9. The mixed messages undermine the credibility of results
Bottom Line

The NCLB accountability system needs some major modifications