2002-2003 ITBS Report – Bluff Elementary School

How did we do this year? That's the first question asked when ITBS scores arrive. The answer to that question is always: *It depends.* Test score performance is relative. When looking at ITBS score reports, we need to make comparisons across schools, subject areas, students, and time. As you look through this report, keep in mind that the primary purpose of the ITBS is to provide information that will be used to improve instruction.

Scores Compared to Other Schools

Comparing your building's scores to the scores other schools in the state is a good way to measure performance. The following table shows the Iowa School Percentile Ranks earned by Bluff students this year. The numbers represent the percentage of Iowa schools outscored by Bluff students.

	Percent of Iowa Schools Outscored By Bluff					
	K	**1st**	**2nd**	**3rd**	**4th**	**5th**
Core/Composite	9	**40**	13	17	37	27
Vocabulary	3	**42**	29	12	25	36
Comprehension		31	22	19	**53**	39
Word Analysis	3	33	**41**			
Listening	6	**32**	**32**			
Spelling			49	44	**54**	30
Capitalization				5	**40**	12
Punctuation				8	30	**31**
Usage/Expression	12	32	6	15	**36**	24
Math Concepts	10	27	27	33	**49**	21
Problem Solving			19	22	**69**	34
Computation			**41**	17	11	22
Social Studies			18	**23**	21	31
Science			12	30	**57**	55
Maps & Diagrams				10	**56**	32
Reference Materials				24	**68**	33

You can see that Bluff scored below the state average at all grade levels. Bluff's 1st grade class outscored 40% of 1st grade classes in the state, while the incoming kindergarten class only outscored 9% of the state. The relatively low performance of these students can be attributed to their low scores on the vocabulary, word analysis, and listening tests.

Using the information from the table, we can calculate Bluff's ranking among all public and nonpublic schools in the state. The following table shows these rankings:

	Estimated State Ranking					
	K	1st	2nd	3rd	4th	5th
Bluff's State Ranking	817	542	783	744	560	634
# of Iowa Schools	898	903	900	896	889	868
Bluff's District Ranking	6	4	4	5	4	4

Approximately 816 schools in the state had higher ITBS scores than the incoming kindergarten class at Bluff. Only 540 schools in Iowa have higher-performing 1st graders. Overall, Bluff scores lower than the majority of schools in the state.

Another way to compare Bluff's scores to other buildings in the state is to look at grade equivalent units. Since we administered the ITBS during the second month of school, we expect the average student to earn the following grade equivalent scores:

	K	1st	2nd	3rd	4th	5th
Grade Equivalent Score of Average Iowa Student	0.2	1.2	2.2	3.2	4.2	5.2

If we compare our actual grade equivalent scores with these expected values, we can see how far behind or ahead the average Bluff student is from the average Iowa student. In the following table, positive numbers show the number of academic months the average Bluff student is ahead of the average Iowa student. Negative numbers show how far behind the average Bluff student is when compared to the average Iowa student.

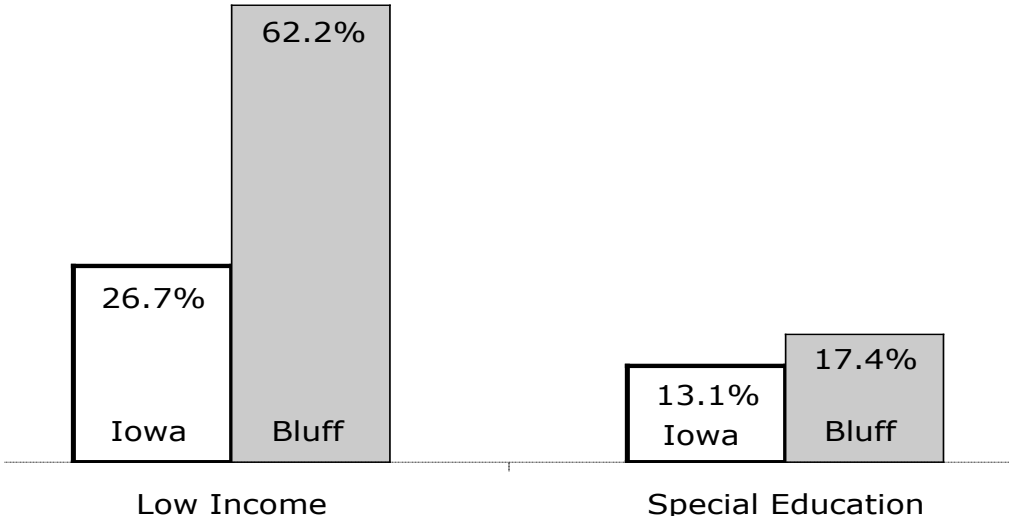
	Months Above (+) or Below (-) the Average Iowa Student					
	K	**1st**	**2nd**	**3rd**	**4th**	**5th**
Composite/Core	-1	0	-3	-4	-1	-3
Vocabulary	-3	+1	-2	-7	-3	-2
Comprehension		-2	-2	-3	+1	-1
Word Analysis	-5	-1	-1			
Listening	-3	-1	-1			
Spelling			-1	-1	-1	-4
Capitalization				-10	-2	-10
Punctuation				-7	-3	-4
Usage/Expression	-1	0	-5	-6	-2	-5
Math Concepts	-3	-1	-4	-4	-2	-7
Problem Solving			-2	-4	+2	-2
Computation			-2	-6	-8	-8
Social Studies			-3	-3	-5	-2
Science			-6	-2	+1	+3
Sources of Info			-3	-4	+2	-2

The average 3rd grade student at Bluff is 4 months (0.4 academic years) behind the average student in the state academically. Those same Bluff students are a full 10 months behind the average Iowa student in capitalization. In other words, the average Bluff 3rd grader earned a capitalization score similar to the score of an average 2nd grade student in Iowa (if they had both taken the level 9 test). With the exception of the 1st grade, all Bluff classes are below the state average. Some areas of concern include: 2nd, 3rd, and 5th grade language; 3rd grade math; and 4th and 5th grade computation. These students may need additional help with the basic skills in these subject areas before moving onto higher-level activities.

Why are we comparing ourselves to Iowa? Shouldn't we compare ourselves to the national average?

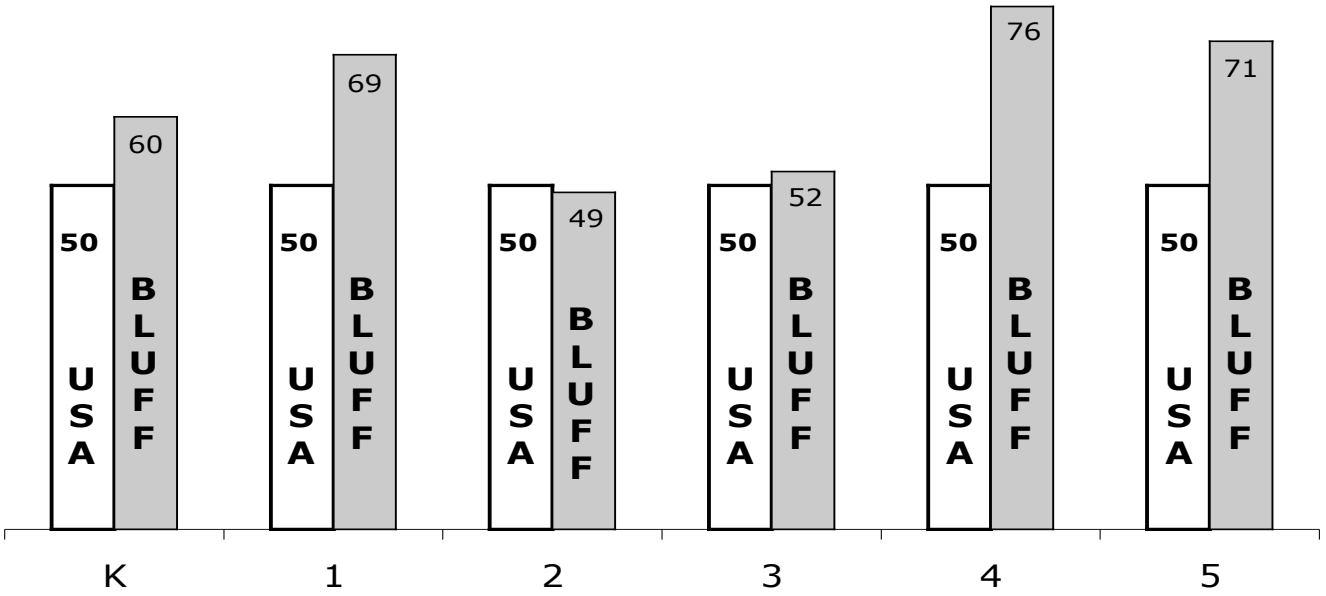
It is somewhat unfair to compare many of our schools' scores to other schools in Iowa. After all, we know that test scores are dependent upon the population tested. If a school has a higher percentage of special education, low income, or Limited English Proficient students than the state average, we would expect that school to earn scores lower than the state average. In these cases, it might be more appropriate to compare scores to the nation. Schools that have populations similar to the state should compare their scores to the state.

Looking at the percentage of students eligible for free/reduced price meals (low income) and the percentage of students in special education, let's compare Bluff to the average school in Iowa. The following graphs show how Bluff's population compares in terms of low income and special education students.



You can see that Bluff has a much higher percentage of low-income students than the state average. In fact, only 60 public schools in Iowa (4%) have a higher percentage of low-income students than Bluff. Therefore, Bluff might be expected to earn ITBS scores lower to the state average

Just for comparison, let's see how Bluff's composite scores would have stacked-up with the national average. The average school in the nation still has fewer low-income students than Bluff, but Bluff has fewer limited English proficient students.



Bluff outscores the national average at all levels except 2nd grade. Only two schools in our district outscored the national average at all grade levels.

Scores Compared Across Subject Areas

The next comparison to make with ITBS scores is across subject areas. Using national student percentile ranks, let's see the relative performance of Bluff students in each subject area.

	National Student Percentile Ranks					
	K	1st	2nd	3rd	4th	5th
Composite/Core	**57**	**64**	**52**	**54**	**66**	**62**
Vocabulary	48	61	54	47	55	60
Comprehension		63	55	49	65	62
Reading Total		65	54	48	61	61
Word Analysis	31	57	54			
Listening	53	65	60			
Spelling			60	52	62	57
Capitalization				35	73	60
Punctuation				36	61	61
Usage/Expression				52	66	60
Language Total	65	73	52	41	64	59
Math Concepts			44	47	59	51
Problem Solving			51	49	68	61
Math Total	61	53	46	47	65	58
Computation			55	44	41	39
Social Studies			49	61	52	64
Science			43	61	68	68
Sources of Info			56	58	74	65

To compare scores across subject areas, first look at the Composite/Core score within a grade level. These scores represent your students' average level of achievement across all subject areas (their "general academic achievement").

Subject areas with scores higher than the composite/core are relative strengths for your students. Subtests with scores lower than the composite/core are relative weaknesses of your students. The following table lists some areas of relative strength and weakness for your school.

	Relative Strength	Relative Weakness
Kindergarten	Language, Math	Word Analysis, Vocabulary
1st grade	Language	Word Analysis, Math
2nd grade	Listening, Spelling	Math, Science
3rd grade	Social Studies, Science	Capitalization, Punctuation
4th grade	Sources of Information	Computation
5th grade	Science, Sources	Computation

There are several reasons why students score higher in some subject areas than in others. First, the test might not be aligned perfectly with our curriculum in each subject area. This would mean that students may have not had an opportunity to learn all the content on each test. Second, students may have less ability in one subject area than in another. The important fact to remember is that your students might need extra help in their weaker areas. Some important skills may need to be retaught. You may also want to use the areas of relative strength as a springboard for teaching areas of relative weakness

How can we increase our students' test scores in these subject areas? What specific skills do they need help with?
The best way to identify specific strengths and weaknesses in student performance is to look at the test results item-by-item. For instance, we know that 4th grade students earned relatively low scores in computation. If we look at the *Item Analysis* (provided by the scoring service; not shown here), we can quickly see that students had trouble with items that dealt with multiplication and division (specifically multiplication items without regrouping). We could then use the *Item Analysis* to examine each item that measured this skill.

Or we could look at Appendix A.
Appendix A, the ITBS Urgency Sheet, shows us the following information:

1) The number of items on each test for each grade level
2) The number and percentage of items a student needs to answer correctly in order to earn a proficient score
3) The number of items covering each skill and subskill on each test
4) The percentage of the test covered by each skill/subskill
5) The percentage of these items answered correctly by the low-income students in the district

If we can identify skills with a low percentage correct (poor performance) in addition to a high number of items (important skill) on the test, we will be able to identify the skills which give us the greatest opportunity to increase our test scores

Looking at 4th grade, let's use Appendix A to identify a specific skill that will help improve test scores in mathematics. If you turn to the 4th grade math page, you will see that the math test has 60 items (36 deal with concepts/estimation and 24 deal with problem solving). You can also see that a student needs to answer 16 concept/estimation items and 11 problem solving items correctly in order to earn a proficient score in mathematics. You can also see that our low-income students answered 47.4% of the concept/estimation items and 56.5% of the problem solving items correctly. Since the concepts/estimation test has more items (and our students performed more poorly on those items) than the problem solving test, our best opportunity to increase scores would be to focus on concepts/estimation.

On the concepts/estimation test, you can see that the 36 items are divided into 6 skill areas:

Skill	*# of Items*	% Correct		*Skill*	*# of Items*	% Correct
Properties/Operations	10	49.3%		Geometry	5	51.0%
Estimation	8	37.5%		Probability & Statistics	3	36.7%
Algebra	8	57.5%		Measurement	2	45.0%

Our students performed poorly on *Probability & Statistics* (36.7% correct), but the test only has 3 of these items. That specific skill isn't very important, according to the test developers. A better opportunity for improvement lies in the *Estimation* skill, which has 8 items. Looking only at *Estimation*, we see the following subskills are measured:

Skill	*# of Items*	% Correct
Uses Standard Rounding	4	32.8%
Uses Order of Magnitude	2	38.0%
Uses Number Sense	2	46.5%

This clearly shows us that the best opportunity to increase *Estimation* scores would be to concentrate on the subskill: *Uses Standard Rounding.* We can now turn to the Level 10 test and identify specific items that measure this subskill. This will give us a good idea of what common mistakes students might be making on these test items.

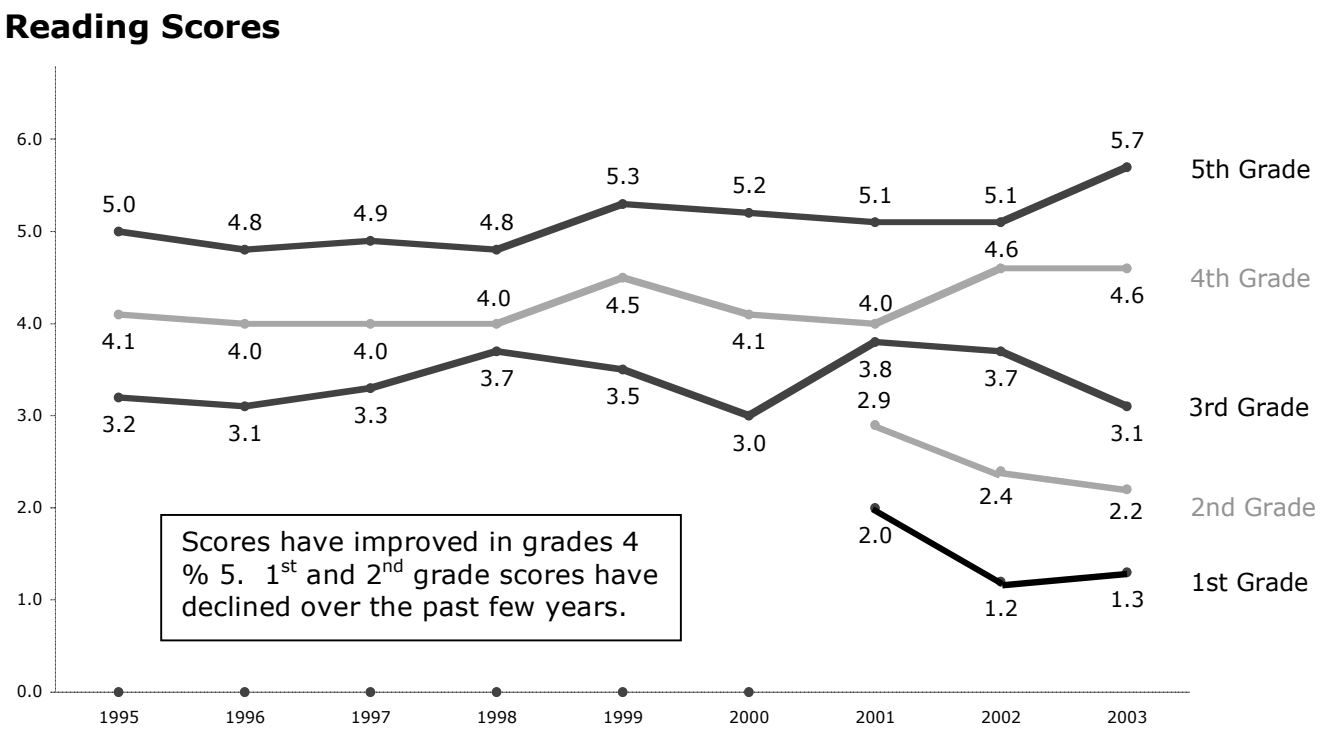
I have gone through the 4th grade information at Bluff and found the following areas with the greatest opportunity for score increases:

Test	**Skill(s)**
Reading	Understand stated information. Determine main ideas. Draw conclusions.
Vocabulary	Modifiers.
Math Concepts	Use standard rounding. Perform operations. Use order of magnitude.
Problem Solving	Multiple-step problem solving. Approaches and procedures.
Social Studies	Earth's features. Social structures.
Computation	Dividing who numbers without a remainder. Multiply without regrouping.
Reference Materials	Table of contents. Strategies to search for information.
Maps & Diagrams	Compare distances. Recognize relationships.
Science	Scientific processes. Structures of living things. Energy.
Usage & Expression	Sentences appropriate to function. Subject-verb agreement
Spelling	Vowels of root words.
Punctuation	Periods in abbreviations and at the end of sentences
Capitalization	Persons/titles of respect

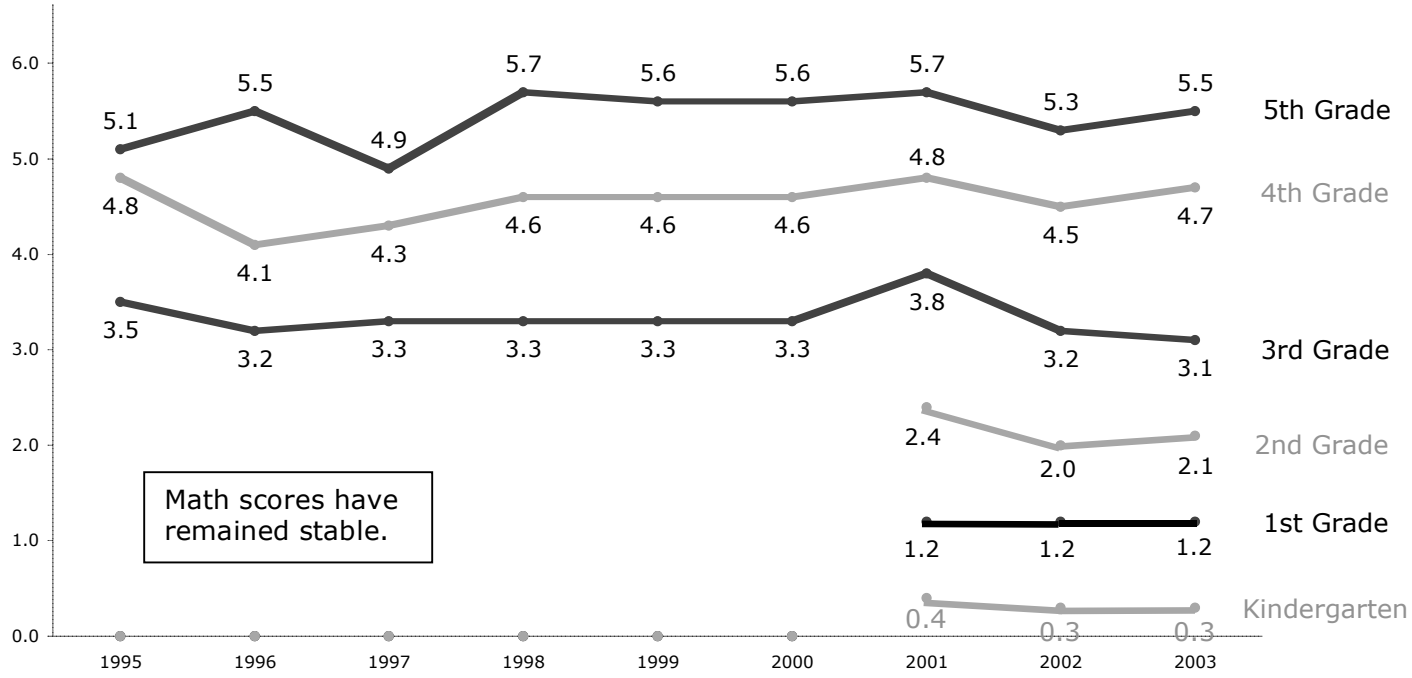
As you look through Appendix A, notice the percent of correct answers needed to earn a proficient score. In most tests, a student needs to answer fewer than half of all items correctly in order to earn a proficient score.

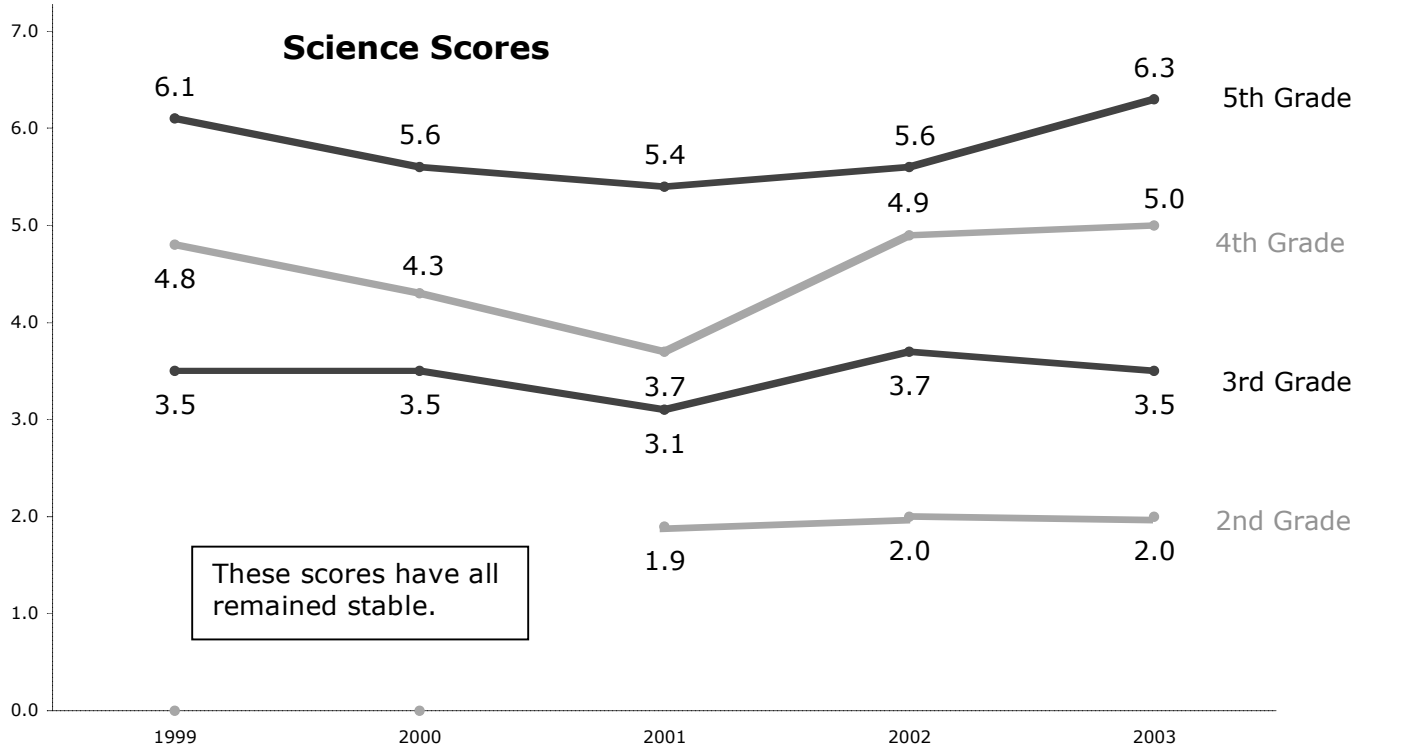
Scores Compared Across Time

We've compared ITBS scores to other buildings in the district, state, and nation to check Bluff's performance. We've also compared scores across subject areas and found building strengths and weaknesses. Now it's time to compare this year's ITBS scores with scores from previous years. The following charts show the change in reading and math scores from 1995-2003. All numbers represent national grade equivalent units.



Math Scores





As you look at the preceding charts, remember that each line represents different students each year (the 2002 3rd grade students are different from the 2001 3rd grade students). If you want to track student growth across time, you need to remember to look at a specific class. For example, the 2003 4th graders at Bluff earned a 5.0 NGE in science. When those same students were 3rd graders (in 2002), they earned a 3.7 NGE. Back in 2000, when those same students were in 2nd grade, they earned a 1.9 NGE. So in a period of time in which they were expected to grow 2.0 years (from 2nd to 4th grade), they actually grew 3.1 academic years in science (a gain of 11 months). You can make the same comparisons across subject areas with each grade level. Keep in mind that even if you use this method, you are still comparing different students (some students transfer in and out of school each year).

Going back 7 years, I tracked the average student composite score growth (in months) for all students who attended Bluff. Here are the results:

	K–>1	1–>2	2–>3	3–>4	4–>5	5–>6	**K–>6**
Bluff	9 mo.	10 mo.	11 mo.	11 mo.	9 mo.	10 mo.	**60 mo.**
Expected	10 mo.	10 mo.	10 mo.	10 mo.	10 mo.	10 mo.	**60 mo.**

You can see the average student at Bluff has grown academically 6.0 years (60 months) from the start of kindergarten to the beginning of 6th grade. So while Bluff's incoming kindergarten students are below the state average, those students grow at an average rate through 5th grade. This is encouraging, since lower-ability students tend to grow less each year than higher-ability students (one could conclude that incoming kindergarten students at Bluff are not "low-ability").

Scores Compared Across Students

The final comparison to make is across students. The *No Child Left Behind* legislation states that all students from all subgroups and across all grade levels need to become proficient in reading, math, and science by the year 2014. Let's examine the proficiency rates of student subgroups at Bluff:

		Read	Math	Science
Kindergarten	**All Students**		**73.3**	
	Males		70.2	
	Females		76.7	
	High Income		78.4	
	Low Income		69.8	
	General Ed		75.7	
	Special Ed		58.3	
	Caucasian		78.7	
	African-Amer		45.5	

		Read	Math	Science
1st Grade	**All Students**	**59.5**	**67.8**	
	Males	55.3	70.2	
	Females	64.9	64.9	
	High Income	59.5	73.8	
	Low Income	59.5	61.9	
	General Ed	61.6	71.8	
	Special Ed	33.3	16.7	
	Caucasian	58.8	70.6	
	African-Amer	58.4	66.6	

		Read	Math	Science
2nd Grade	**All Students**	**68.5**	**50.0**	**49.4**
	Males	68.8	55.4	50.0
	Females	68.3	43.9	48.7
	High Income	79.3	55.2	55.2
	Low Income	63.3	47.5	46.7
	General Ed	72.2	52.6	54.4
	Special Ed	40.0	30.0	10.0
	Caucasian	68.0	48.0	49.3
	African-Amer	62.5	57.2	25.0

		Read	Math	Science
3rd Grade	**All Students**	**57.2**	**57.1**	**80.2**
	Males	55.5	64.5	80.0
	Females	58.7	50.0	80.5
	High Income	62.6	69.7	87.5
	Low Income	54.3	50.0	76.3
	General Ed	60.7	59.6	82.2
	Special Ed	14.3	28.6	57.1
	Caucasian	56.3	57.0	80.0
	African-Amer	66.7	60.0	77.8

		Read	Math	Science
4th Grade	**All Students**	**73.9**	**73.1**	**79.4**
	Males	63.8	73.6	80.5
	Females	80.3	72.7	78.6
	High Income	77.5	82.5	85.0
	Low Income	71.2	65.3	75.0
	General Ed	81.8	76.4	79.2
	Special Ed	33.4	53.9	80.0
	Caucasian	74.4	72.8	80.5
	African-Amer	62.5	66.7	62.5

		Read	Math	Science
5th Grade	**All Students**	**72.3**	**67.0**	**80.2**
	Males	72.0	67.4	86.0
	Females	72.5	66.7	74.5
	High Income	78.9	71.0	92.1
	Low Income	68.3	64.6	73.0
	General Ed	75.3	70.6	80.0
	Special Ed	56.3	46.7	81.3
	Caucasian	71.6	67.8	79.5
	African-Amer	77.8	66.7	88.9

The above subgroups will be the subgroups reported as part of the No Child Left Behind legislation. In order to meet the *Adequate Yearly Progress (AYP)* requirements of *No Child Left Behind (NCLB),* we will need to increase proficiency for every subgroup of students in each grade level.

This year, however, we will only be required to report the progress of the 4th grade students. If Bluff shows an increase in the percentage of 4th grade students earning proficient scores (in each subgroup), it will stay off the "Schools in Need of

Improvement" watchlist. Since the state may force us to report using one of two methods, let's see if Bluff met its goal of increasing 4th grade proficiency this year (for all students – not each subgroup separately).

Reading Comprehension				**Mathematics**			
Method #1: Cohort Students		Method #2: Different Students		Method #1: Cohort Students		Method #2: Different Students	
	% Proficient		% Proficient		% Proficient		% Proficient
2000 3rd	50.0%	2000 4th	48.5%	2000 3rd	65.2%	2000 4th	66.1%
2001 4th	58.2%	2001 4th	58.2%	2001 4th	62.3%	2001 4th	62.3%
Change	**+8.2%**	**Change**	**+9.7%**	**Change**	**-2.9%**	**Change**	**-3.8%**
2001 3rd	68.0%	2001 4th	58.2%	2001 3rd	75.5%	2001 4th	62.3%
2002 4th	71.0%	2002 4th	71.0%	2002 4th	65.7%	2002 4th	65.7%
Change	**+3.0%**	**Change**	**+12.8%**	**Change**	**-9.8%**	**Change**	**+3.4%**
2002 3rd	76.8%	2002 4th	71.0%	2002 3rd	62.5%	2002 4th	65.7%
2003 4th	73.9%	2003 4th	73.9%	2003 4th	73.1%	2003 4th	73.1%
Change	**-2.9%**	**Change**	**+2.9%**	**Change**	**+10.6%**	**Change**	**+7.4%**

Using method #2, Bluff easily surpassed its goal of increasing proficiency in reading comprehension and mathematics. Under the first method, proficiency declined in reading comprehension. Will Bluff, then, remain free from the watchlist?

Probably. The state has not defined *Adequate Yearly Progress*, so we don't know exactly how much of a gain in proficiency we will need to meet our goals. A general assumption is that all schools will need to show about a 2% increase in proficiency each year until the year 2014. Special education and low-income students will need to increase at a much higher rate in order to get to 100% in 11 years.

If a school does not meet its goals one year, it is placed on a watchlist. If the school fails to increase scores the following year, it is placed on the "Schools In Need of Improvement" (SINI) list. Parents must be notified that the school has been placed on the SINI list and students are free to transfer from the SINI school to a non-SINI school in the district. If the school fails once again to meet its goals the following year, the school must pay for a supplemental service provider to provide additional help to low-income students. If the school fails in following years, teachers may be fired and the school may be reorganized as a state charter school.

The best way to stay off the SINI list is to increase student proficiency every year (while testing at least 95% of students). If that does not happen, there is an additional way Bluff can avoid sanctions. If low-income students, minority students, or special education students increase their proficiency by 10% and Bluff shows progress on another measure of student performance, we will avoid all sanctions. Once a school gets on the SINI list, it must show two consecutive years of proficiency gains to be taken off the list.