

**ARIZONA'S INSTRUMENT  
TO MEASURE STANDARDS  
(AIMS)**

**PRESS RELEASE  
SUMMARY REPORT  
FOR  
SPRING 2002  
TEST ADMINISTRATION**

**FOR**

**GRADES 3, 5, 8, and High School**

**READING, WRITING, AND MATHEMATICS**

**Arizona Department of Education  
Standards & Assessment Division  
08/21/02**

# Arizona's Instrument to Measure Standards (AIMS) Summary Report for Spring 2002

## Summary Results

### High School

- 88% of the Class of 2002 met or exceeded the standards in reading in 3 years.
- 73% of the Class of 2002 met or exceeded the standards in writing in 3 years.

### Elementary

- Reading: The percentage of students meeting or exceeding the standard increased or remained stable at all grade levels from 2001 to 2002 with the largest increase (3%) at fifth grade. Over 2 years (2000-2002), the percentage of students meeting or exceeding the standards in reading has declined by 7% at fifth grade.
- Writing: The percentage of students meeting or exceeding the standard increased at all grade levels from 2001 to 2002 with the largest increase (5%) at fifth grade. Over 2 years (2000-2002), the percentage of students meeting or exceeding the standards in writing has declined by 2% at third grade and 5% at eighth grade.
- Mathematics: The percentage of students meeting or exceeding the standard increased at all grade levels from 2001 to 2002 with the largest increase (6%) at third grade. Over 2 years (2000-2002), the percentage of students meeting or exceeding the standards in mathematics has increased by 10% at third grade and 11% at fifth grade.

## Background

Arizona's Instrument to Measure Standards (AIMS) includes the reading, writing and mathematics subject areas. AIMS was administered to all students in grades 3, 5, 8, and 10 in the spring of 2000. In the spring of 2001, grades 3, 5, 8, 10, and 11 were tested; students tested in grade 11 consisted of students retaking AIMS who did not pass in grade 10 plus any new students. In the spring of 2002, grades 3, 5, 8, 10, 11, and 12 were tested; students tested in grades 11 and 12 were either re-testing or were new. As a result, the number of students tested in grades 11 and 12 is smaller than the number of students tested in grade 10.

Each year student and parent reports and summary results are distributed to all Arizona districts. Student and parent reports provide the student's average score and the proficiency level of the student. The proficiency levels include: Falls Far Below the standard, Approaches the standard, Meets the standard, and Exceeds the standard. Summary reports provide school, district, county, and state aggregate scores. For the purposes of this report, the Meets the standard and Exceeds the standard performance levels have been combined for presentation.

## Report Contents

This report includes three separate analyses and an Appendix. The first analysis is a report on the Class of 2002. This analysis is the first complete examination of the AIMS high school passage rate. The second analysis compares the percentage of students meeting or exceeding the standard between 2001 and 2002. The third analysis compares the percentage of students meeting or exceeding the standard over a two-year period (2000 to 2002). In addition, the report includes a detailed Appendix with results on the performance levels, mean scale scores and number of students tested.

The following tables and charts include state summary data. All values in the tables and charts are rounded, so percents may not add up to 100. The data shown in this report for 2002 have been adjusted to accommodate for English Language Learners (ELL) to maintain consistency with the 2000 and 2001 data. In addition, the meeting or exceeding category in high school writing includes students who completed the requirement by obtaining a meets (an average trait score of 4 or more) on the extended writing portion of the assessment plus an approaches scale score overall.

## COHORT CLASS OF 2002 REPORT

The AIMS high school assessment is an exit exam that is administered for the first time to students in the 10<sup>th</sup> grade. By design, students are afforded opportunities to pass the assessment that begin in 10<sup>th</sup> grade and continue through the 12<sup>th</sup> grade. Therefore, a complete report for a group (cohort) of students taking high school AIMS must include the results of all grade levels 10-12.

The Class of 2002 report is the first complete analysis of the AIMS high school passage rate. The Class of 2002 includes the group of students who were originally tested in 2000, students who did not pass in 2000 and were retested in 2001, and students retested again in 2002.

**Over the course of three years, approximately 88% of the Class of 2002 met or exceeded the standard on the high school reading exam and 73% met or exceeded the standard on the high school writing exam.** In mathematics, only the results for 2001 and 2002 are shown because the 2000 AIMS high school mathematics assessment was not focused to concentrate on core mathematics skills and is not comparable to the content of the 2001 and 2002 assessments. The progress of the first high school cohort in mathematics will not be complete until after the 2003 assessment (see Table 1).

Table 1: Class of 2002 results, including the number and percentage of students meeting or exceeding the standard within three years.

<b>READING</b>						
<b>Number of Students</b>	<b>Grade</b>	<b>2000</b>	<b>2001</b>	<b>2002</b>	<b>Number Met or Exceeded</b>	
48078	10	68				
	11		45			
	12			32		
					<b>42241</b>	
<b>88% of Students in the Cohort Met or Exceeded the Standard in Reading in 3 Years.</b>						
<b>WRITING</b>						
<b>Number of Students</b>	<b>Grade</b>	<b>2000</b>	<b>2001</b>	<b>2002</b>	<b>Number Met or Exceeded</b>	
47878	10	33				
	11		38			
	12			35		
					<b>35021</b>	
<b>73% of Students in the Cohort Met or Exceeded the Standard in Writing in 3 Years.</b>						
<b>MATH</b>						
<b>Number of Students</b>	<b>Grade</b>	<b>2000</b>	<b>2001</b>	<b>2002</b>	<b>2003</b>	<b>Number Met or Exceeded</b>
47214	10	N/A	31			
	11			21		
	12				?	
				<b>21477</b>		<b>?</b>
<b>46% of Students in the Cohort Met or Exceeded the Standard in Mathematics in 2 years. The progress of high school students in Mathematics will not be complete until after the 2003 assessment.</b>						

Note: This analysis includes three test administrations over a three-year period. As AIMS becomes a graduation requirement for 2006, students will be offered five test administrations to demonstrate proficiency on the standards.

## Comparison of 2001 and 2002 AIMS Results

Table 2 shows the percent of students meeting or exceeding the standard on AIMS at each grade level for reading, writing, and mathematics for the 2001 and 2002 academic years and the difference between the two years. These values also are presented graphically in Figures 1-6 (pages 6-8).

- In elementary reading, the percentage of students meeting or exceeding the standard increased or remained stable at all grade levels from 2001 to 2002 with the largest increase (3%) at fifth grade.
- In elementary writing, the percentage of students meeting or exceeding the standard increased at all grade levels from 2001 to 2002 with the largest increase (5%) at fifth grade.
- In elementary mathematics, the percentage of students meeting or exceeding the standard increased at all grade levels from 2001 to 2002 with the largest increase (6%) at third grade.
- In high school, there are notable decreases in the percentage of students meeting or exceeding the standard. In comparison to the 2001 results, the 10<sup>th</sup> grade students in 2002 declined in reading and writing and increased slightly in mathematics. In 11<sup>th</sup> grade, the students retaking the assessment in 2002 improved in writing and declined in both reading and mathematics in comparison to 11<sup>th</sup> grade students retaking AIMS in 2001. The 12<sup>th</sup> grade students either improved or remained stable in all subject areas.

Table 2: Percent of students meeting or exceeding the standards and the difference between 2001 and 2002

Subject	Grade	2001 Percent Meeting- Exceeding	2002 Percent Meeting- Exceeding	Difference 2001-2002
Reading	3	72	74	2
Writing	3	75	78	3
Math	3	57	63	6
Reading	5	55	58	3
Writing	5	53	58	5
Math	5	41	46	5
Reading	8	56	56	0
Writing	8	42	43	1
Math	8	18	20	2
Reading	10	67	62	-5
Writing	10	68	60	-8
Math	10	31	32	1
Reading	11	45	42	-3
Writing	11	38	43	5
Math	11	23	21	-2
Reading	12	31	32	1
Writing	12	26	35	9
Math	12	15	15	0

## Comparison of 2000 and 2002 AIMS Results

Table 3 includes a comparison of the two-year gains for students achieving the standards on AIMS from 2000 to 2002 in reading, writing, and mathematics, including the differences over a two-year period. Over the two year period of 2000 to 2002:

- The percentage of students meeting or exceeding the standards in reading declined in fifth grade (7%) and tenth grade (6%). The largest increase occurred in eighth grade (4%).
- The percentage of students meeting or exceeding the standards in writing declined by 2% at third grade and 5% and eighth grade. While at fifth grade the state increased by 5%. In high school, writing increased (4% in 10<sup>th</sup> grade and 5% in 11<sup>th</sup> grade).
- The percentage of students meeting or exceeding the standards in mathematics also increased impressively across most elementary grade levels. The percentage of students meeting or exceeding the standard in mathematics has increased by 10% in third grade, 11% in fifth grade.

Table 3: Percent of students meeting or exceeding and not meeting the standard on AIMS comparing 2000 to 2002

<b>Subject</b>	<b>Grade</b>	<b>2000 Percent Meeting- Exceeding</b>	<b>2002 Percent Meeting- Exceeding</b>	<b>Difference 2000-2002</b>
Reading	3	71	74	<b>3</b>
Writing	3	80	78	<b>-2</b>
Math	3	53	63	<b>10</b>
Reading	5	65	58	<b>-7</b>
Writing	5	53	58	<b>5</b>
Math	5	35	46	<b>11</b>
Reading	8	52	56	<b>4</b>
Writing	8	48	43	<b>-5</b>
Math	8	18	20	<b>2</b>
Reading	10	68	62	<b>-6</b>
Writing	10	56	60	<b>4</b>
Math	10	N/A	32	
Reading	11	42	42	<b>0</b>
Writing	11	38	43	<b>5</b>
Math	11	N/A	21	
Reading	12	N/A	32	N/A
Writing	12	N/A	35	N/A
Math	12	N/A	15	N/A

Note: The 2000 AIMS high school mathematics assessment was focused to concentrate on core mathematics skills and is not comparable to the content of the 2001 and 2002 assessments.

## Graphical Representation of Results

Figures 1 through 5 present graphically the percent of students Meeting or exceeding at each grade level by content area tested for AIMS 2000, 2001, and 2002.

Figure 1: Grade 3

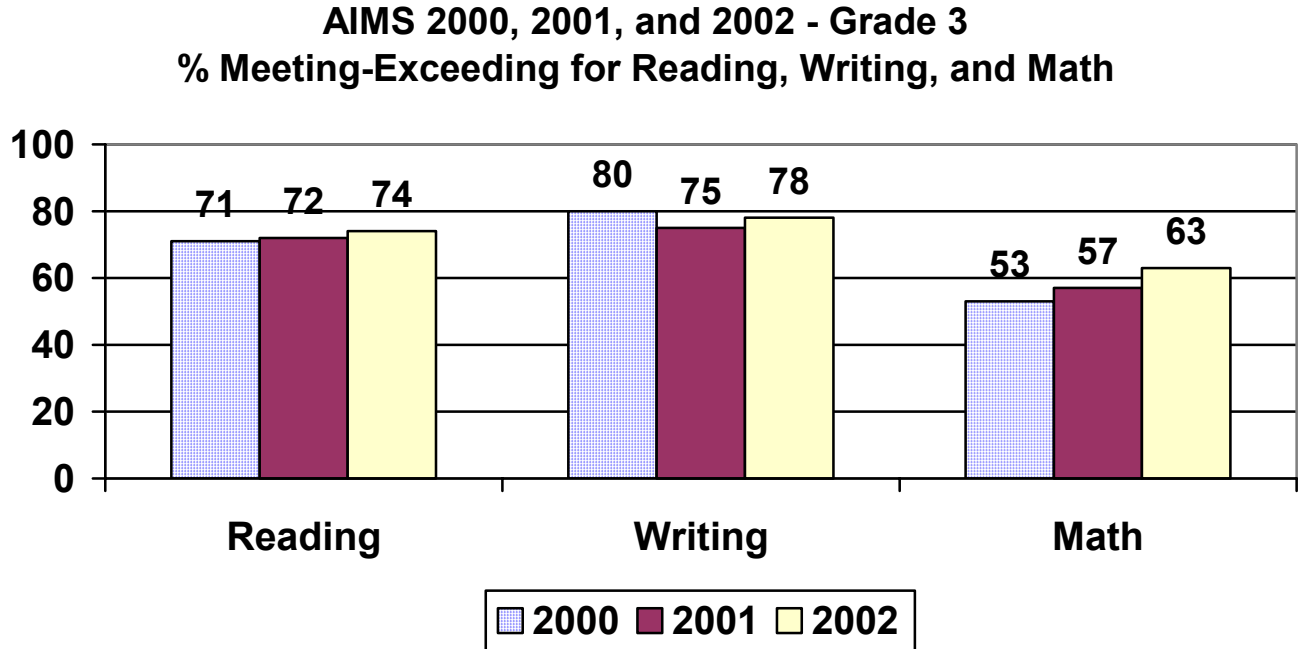


Figure 2: Grade 5

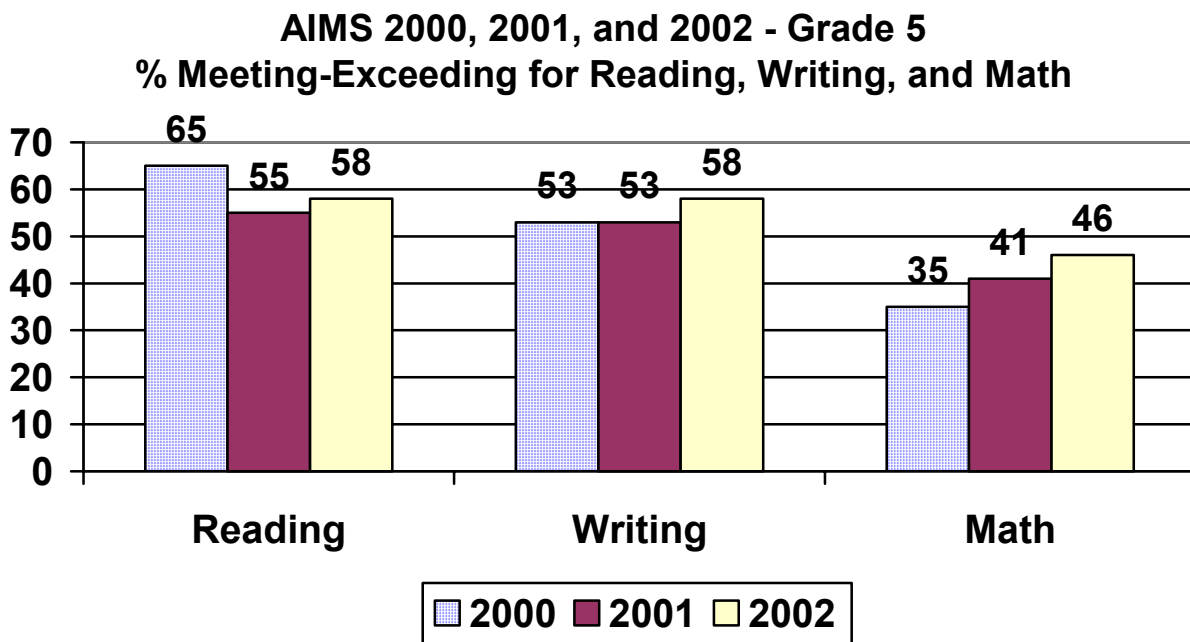


Figure 3: Grade 8

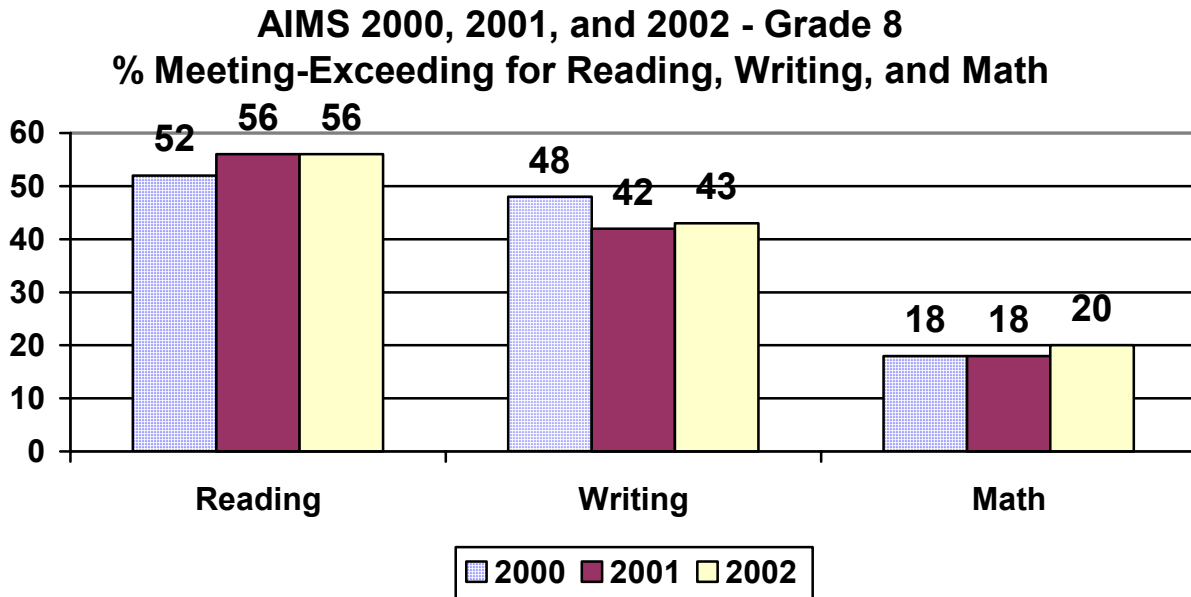


Figure 4: Grade 10

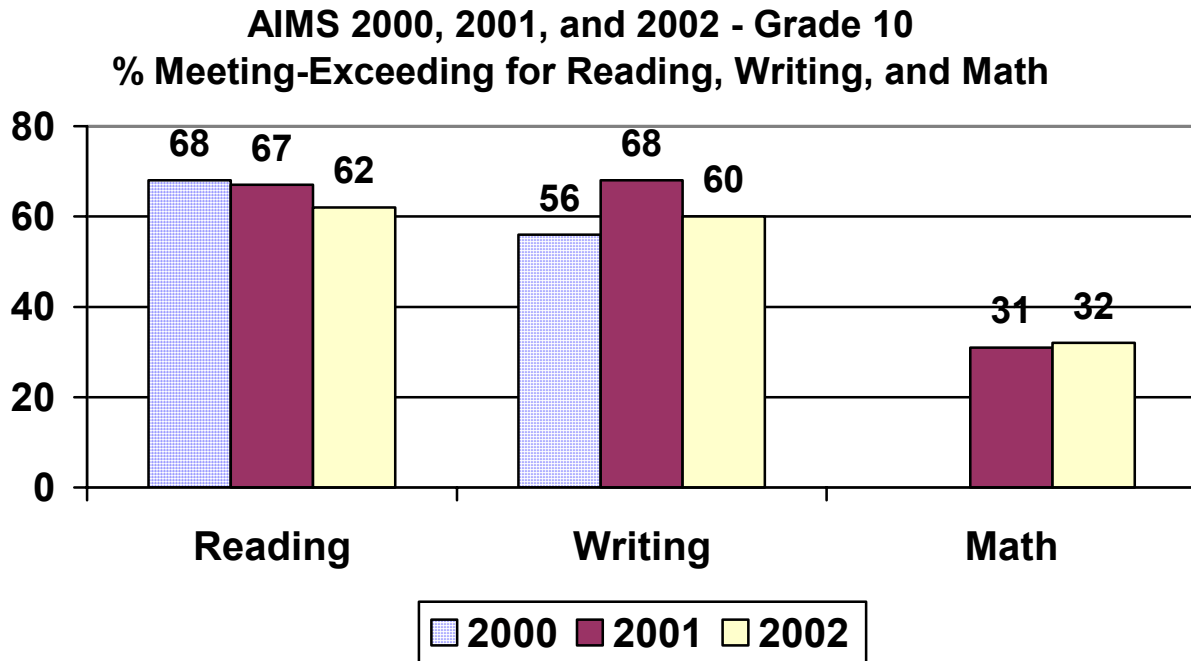


Figure 5: Grade 11

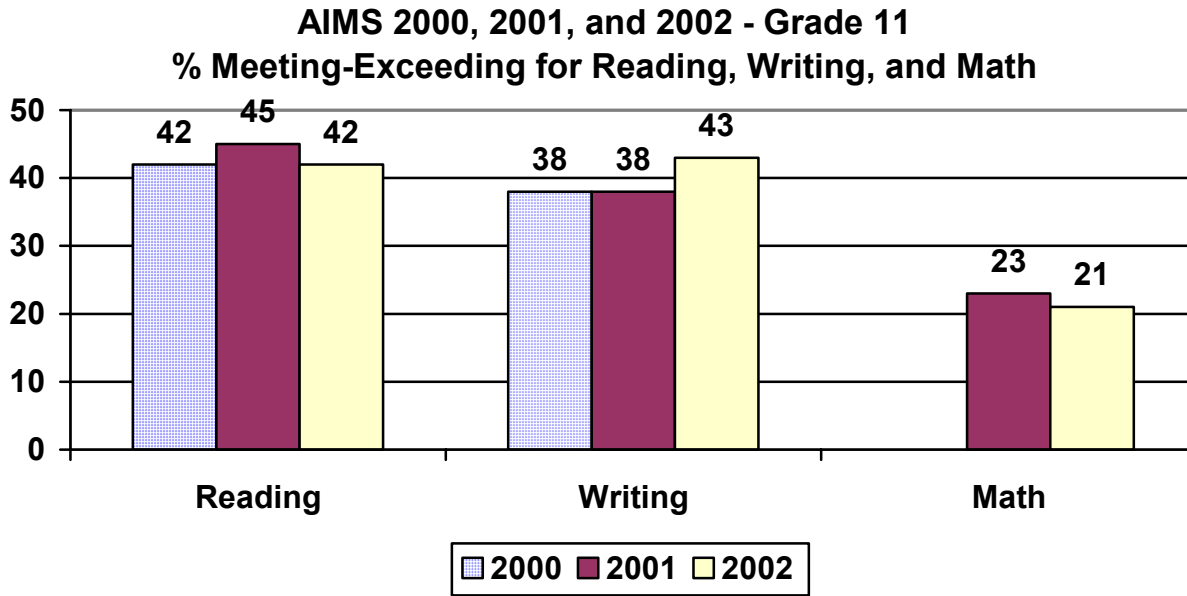
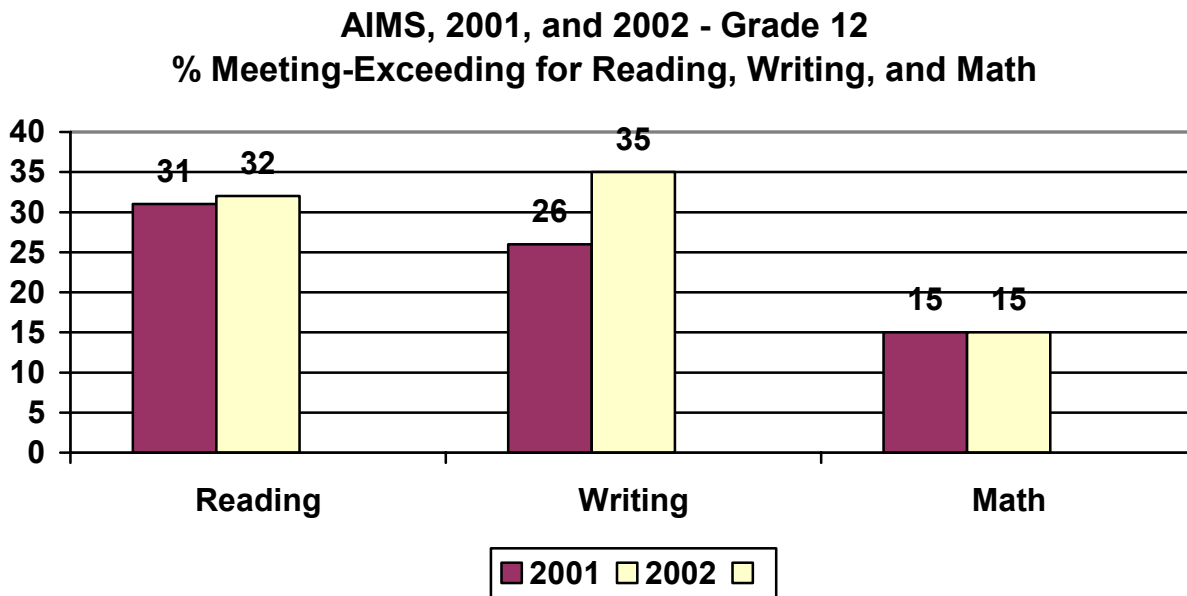


Figure 6: Grade 12

Figure 6 includes only 2001 and 2002 for grade 12 because current grade 12 students did not take the AIMS test in 2000.





## APPENDIX

### PROFICIENCY LEVEL ANALYSIS

Table 4: Percent of students by grade level in each performance level for AIMS 2000

Test	Grade	Percent in			
		Falls Far Below	Percent in Approaches	Percent in Meets	Percent in Exceeds
Reading	3	12	18	45	25
Writing	3	10	10	53	27
Math	3	19	29	38	14
Reading	5	16	20	45	19
Writing	5	17	30	48	5
Math	5	18	47	10	25
Reading	8	30	18	38	14
Writing	8	17	35	45	3
Math	8	44	38	13	5
Reading	10	12	20	47	21
Writing	10	18	26	55	0
Math	10	73	11	16	0
Reading	11	28	30	35	7
Writing	11	29	33	38	0
Math	11	74	13	13	0

Note: The Meets the Standard category in grades 10 and 11 includes students with an average trait score of 4 or more on the writing portion of the assessment plus an approaches scale score overall.

## APPENDIX

### PROFICIENCY LEVEL ANALYSIS

Table 5: Percent of student by grade level in each performance level for AIMS 2001

Test	Grade	Percent in			
		Falls Far Below	Approaches	Meets	Exceeds
Reading	3	11	18	44	27
Writing	3	12	13	62	13
Math	3	14	29	34	23
Reading	5	22	24	40	14
Writing	5	19	28	41	12
Math	5	17	42	12	29
Reading	8	23	20	40	17
Writing	8	17	41	40	2
Math	8	43	39	12	6
Reading	10	11	22	52	15
Writing	10	15	50	34	1
Math	10	50	19	21	10
Reading	11	19	37	40	5
Writing	11	34	56	10	0
Math	11	58	19	19	4
Reading	12	33	37	27	4
Writing	12	47	46	7	0
Math	12	70	15	13	2

## APPENDIX

### PROFICIENCY LEVEL ANALYSIS

Table 6: Percent of student by grade level in each performance level for AIMS 2002

Test	Grade	Percent in			
		Falls Far Below	Approaches	Meets	Exceeds
Reading	3	9	17	45	29
Writing	3	10	12	63	16
Math	3	11	27	35	27
Reading	5	21	20	43	15
Writing	5	17	26	42	16
Math	5	14	40	12	34
Reading	8	24	20	40	16
Writing	8	15	42	41	2
Math	8	39	40	14	7
Reading	10	15	23	48	14
Writing	10	17	23	59	1
Math	10	48	19	22	10
Reading	11	25	34	36	6
Writing	11	25	31	43	0
Math	11	57	21	17	4
Reading	12	33	36	27	5
Writing	12	33	31	35	0
Math	12	68	17	12	3

## MEAN SCALE SCORE ANALYSIS

Figures 7, 8, and 9 show the state mean scale-scores for reading, writing, and mathematics for grades 3, 5, 8, 10, 11, and 12 for 2000, 2001, and 2002.

As shown in Figure 7, the mean scale scores for reading across all grade levels tested show little change for grades 3, 5, and 8 over the three years of 2000, 2001, and 2002. For grade 10 there is a decrease from year to year. Grades 11 and 12 show little change from year to year.

Figure 8 shows an increase from year to year for grade 3 reading, little change for grades 5 and 8, and a decrease from year to year for grade 10. Other than the increase at grade 11 from 2001 to 2002, grades 11 and 12 means are similar from year to year.

Figure 9 shows increases in mathematics from year to year for all grade levels.

**Figure 7: 2000, 2001, and 2002 reading scores for grades 3, 5, 8, 10, 11, and 12.**

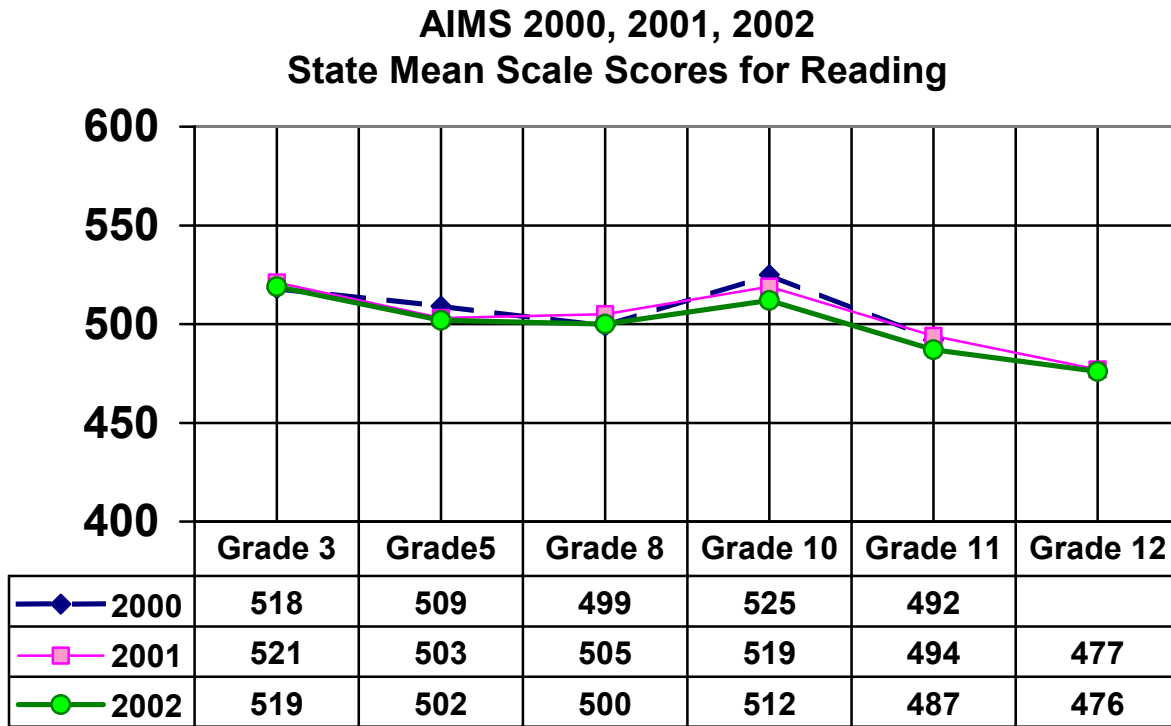


Figure 8: 2000 versus 2001 writing scores for grades 3, 5, and 8.

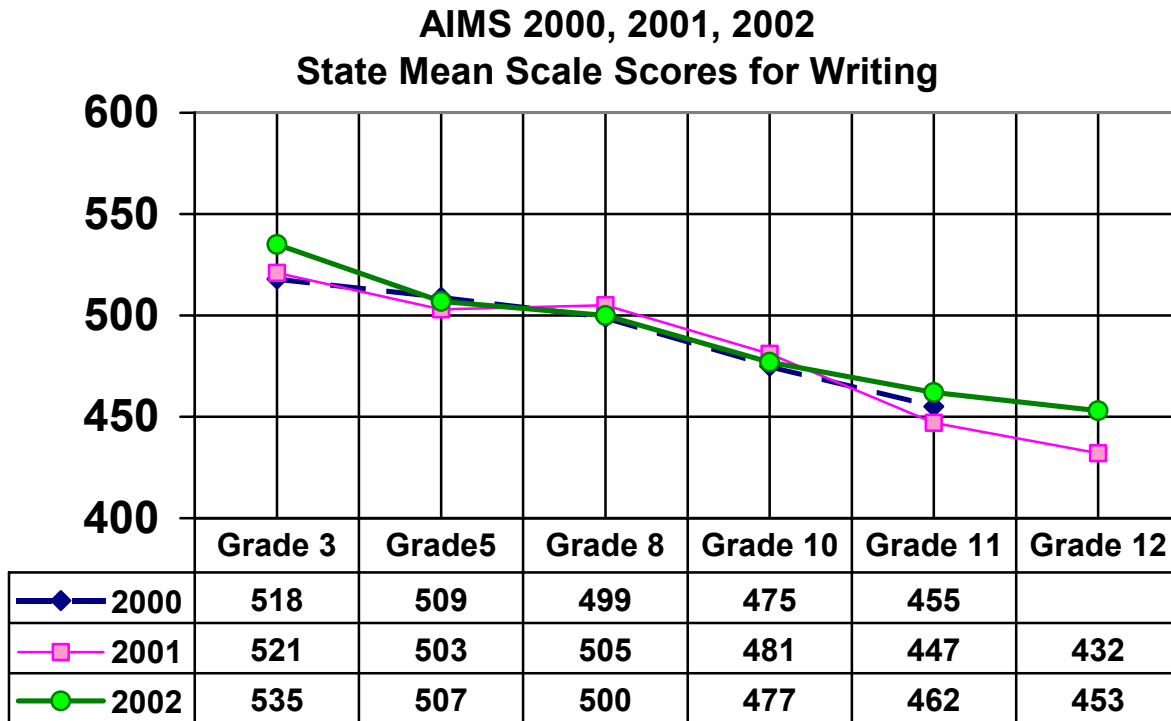
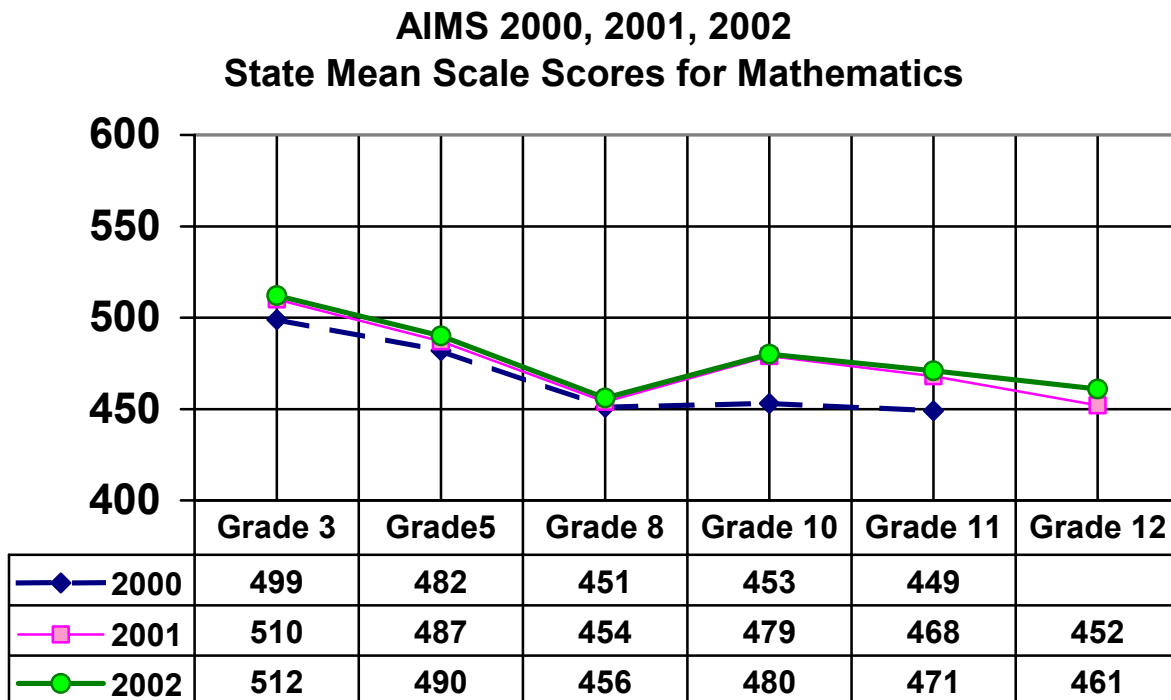


Figure 9: 2000 versus 2001 writing scores for grades 3, 5, and 8.



## NUMBER TESTED

Table 7 shows the number of students tested in 2000, 2001, and 2002, and additionally the number meeting or exceeding and not meeting. Values for grades 3, 5, and 8 are grouped separately from grades 10, 11, and 12.

Table 7: Number of students tested in 2000, 2001, and 2002 and the number meeting or exceeding the standards and the number not meeting or exceeding the standards

Test	Grade	2000			2001			2002		
		Total Tested	Meeting-Exceeding	Not Meeting	Total Tested	Meeting-Exceeding	Not Meeting	Total Tested	Meeting-Exceeding	Not Meeting
Reading	3	59663	42361	17302	60969	43898	17071	58840	43775	15065
Writing	3	58508	46806	11702	59929	44947	14982	57282	44915	12367
Math	3	59873	31733	28140	61089	34821	26268	59030	36941	22089
Reading	5	60087	39057	21030	63518	34935	28583	61305	35802	25503
Writing	5	58814	31171	27643	62270	33003	29267	59599	34276	25323
Math	5	60222	21078	39144	63873	26188	37685	61760	28284	33476
Reading	8	57169	29728	27441	56652	31725	24927	57484	32218	25266
Writing	8	55986	26873	29113	55212	23189	32023	55420	23829	31591
Math	8	57400	10332	47068	56871	10237	46634	57734	11739	45995
		527722	279139	248583	540383	282943	257440	528454	291779	236675

Reading	10	58593	39851	18742	49480	33515	15965	49803	30925	18878
Writing	10	48875	27179	21696	50151	17503	32648	50471	30203	20268
Math	10	55609	9239	46370	47214	14741	32473	50429	16208	34221
Reading	11	33534	14195	19339	13069	5832	7237	11126	4661	6465
Writing	11	17671	6636	11035	10819	1060	9759	12718	5521	7197
Math	11	30311	4007	26304	18733	4334	14399	18554	3927	14627
Reading	12	N/A	N/A	N/A	4581	1389	3192	5118	1612	3506
Writing	12	N/A	N/A	N/A	5252	374	4878	5326	1889	3437
Math	12	N/A	N/A	N/A	8323	1223	7100	9395	1395	8000
	Total	244593	101107	143486	207622	79971	127651	212940	96341	116599

Figure 10 shows that overall, across all grades and tests for grades 3, 5, and 8 there was an increase in the number tested from 2000 to 2001, and there was a decrease in the number tested form 2001 to 2002. The number of students meeting or exceeding increased each year from 2000 to 2002.

Figure 10: Number of grade 3, 5, and 8 students tested, and the number in meets-exceeds and not meets

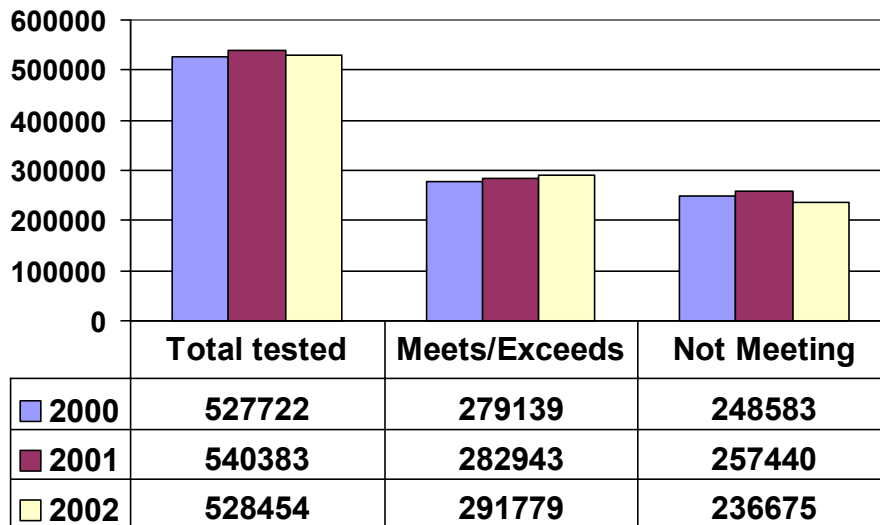
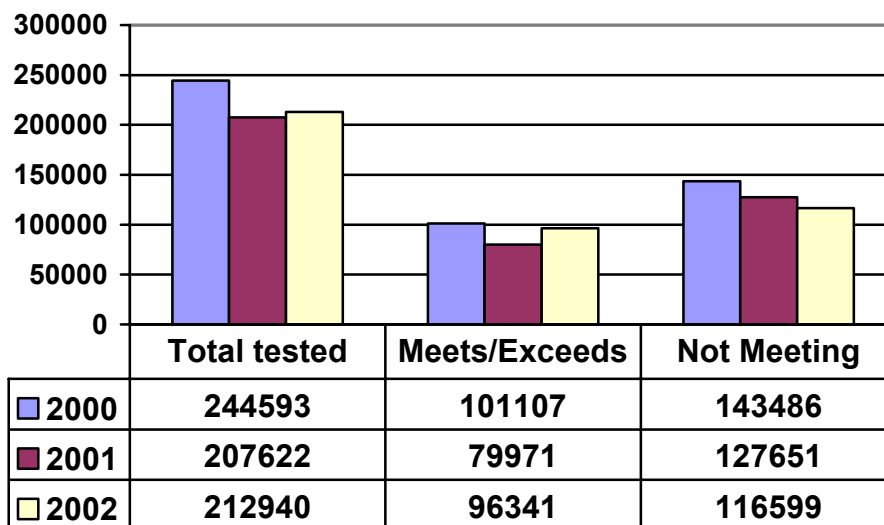


Figure 11 shows that overall, across all grades and tests for grades 10, 11, and 12 there was an increase in the number tested from 2000 to 2001, and there was a decrease in the number tested form 2001 to 2002. The number of students meeting or exceeding dropped from 2000 to 2001 and then increase from 2001 to 2002. The students in meets-exceeds in 2002 was greater than either 2000 or 2001. It should be noted that grade 12 students did not retest in 2000; therefore, the counts in 2000 do not include grade 12 students.

Figure 11: Number of grade 10, 11, and 12 students tested, and the number in meets/exceeds and not meets



## PERCENTAGE OF STUDENTS MEETING OR EXCEEDING THE STANDARDS

Table 8: Percent of students meeting or exceeding and not Meeting the standard on AIMS 2000, 2001 and 2002

Test	Grade	2000	2001	2002	2000	2001	2002
		Percent Meeting-Exceeding	Percent Meeting-Exceeding	Percent Meeting-Exceeding	Percent Not Meeting	Percent Not Meeting	Percent Not Meeting
Reading	3	71	72	74	29	28	36
Writing	3	80	75	78	20	25	32
Math	3	53	57	63	47	43	37
Reading	5	65	55	58	35	45	42
Writing	5	53	53	58	47	47	42
Math	5	35	41	46	65	59	54
Reading	8	52	56	56	48	44	44
Writing	8	48	42	43	52	58	57
Math	8	18	18	20	82	82	80
Reading	10	68	67	62	32	33	48
Writing	10	56	68	60	44	32	40
Math	10	17	31	32	83	69	68
Reading	11	42	45	42	58	55	58
Writing	11	38	38	43	62	62	57
Math	11	13	23	21	87	77	79
Reading	12	N/A	31	32	N/A	69	68
Writing	12	N/A	26	35	N/A	74	65
Math	12	N/A	15	15	N/A	85	85



Table 9 shows a comparison of the gains from year to year for 2000, 2001, and 2002 at each grade level for reading, writing, and mathematics.

- Of the fifteen test levels in the 2000 to 2001 comparison, 9 (60%) show positive gains, 2 (13%) show no difference, and 4 (26%) show negative differences.
- For 2001 to 2002 there were eighteen test levels to compare because in 2002 grade 12 students could retest. Of these comparisons, 12 (66%) show positive gains, 2 (10%) show no difference, and 4 (22%) show negative difference.
- Over the three year period, comparing 2000 to 2002, there are 10 (67%) positive gains, 2 (13%) no difference, and 3 (20%) negative differences.

Table 9: Difference in percent of students meeting or exceeding the standards for 2000, 2001, and 2002.

<b>Test</b>	<b>Grade</b>	<b>Meeting-Exceeding Difference 2000-2001</b>	<b>Meeting-Exceeding Difference 2001-2002</b>	<b>Meeting-Exceeding Difference 2000-2002</b>
Reading	3	1	2	<b>3</b>
Writing	3	-5	3	<b>-2</b>
Math	3	4	6	<b>10</b>
Reading	5	-10	3	<b>-7</b>
Writing	5	0	5	<b>5</b>
Math	5	6	5	<b>11</b>
Reading	8	4	0	<b>4</b>
Writing	8	-6	1	<b>-5</b>
Math	8	0	2	<b>2</b>
Reading	10	-1	-5	<b>-6</b>
Writing	10	12	-8	<b>4</b>
Math	10	14	1	<b>15</b>
Reading	11	3	-3	<b>0</b>
Writing	11	0	5	<b>5</b>
Math	11	10	-2	<b>8</b>
Reading	12	N/A	1	N/A
Writing	12	N/A	9	N/A
Math	12	N/A	0	N/A