



1999-2000 End-of-Course Multiple-Choice and English II

Testing Results

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End-of-Course (EOC) test scores in the Wake County Public School System (WCPSS) in 1999-2000 showed mixed results when compared to 1998-99 data. WCPSS students showed gains in six subject areas and slight decreases in four subject areas on the multiple choice tests. On the English II writing test, 58.1% of WCPSS students showed proficiency in writing in 2000, down 11 percentage points from 69.1% proficient in 1999.

Background

North Carolina began implementing End-of-Course (EOC) tests in the 1985-86 school year with the first administration of the Algebra I test. Other high school subject tests were added over time until the program included 10 multiple-choice tests (Algebra I, Algebra II, Geometry, English, US History, Economic/Legal/Political Systems [ELP], Biology, Chemistry, Physical Science, and Physics) and one writing test (English II). The 11 EOC tests are aligned with the Standard Course of Study in each of the areas tested.

The multiple-choice tests are scored using a standardized scale. Scale scores are grouped into four levels of proficiency with Levels 3 and 4 indicating sufficient mastery for success in a higher level course. The English II writing test is scored by two independent trained readers who use a 6-point focused holistic scoring method. Students who score 3 or above are considered to be proficient.

In 1995-96, under the ABCs plan, EOC testing was required statewide for all students enrolled in Algebra I, English I, Biology, ELP, US History, and English II, with testing in the remaining courses optional for local school districts. These six courses are graduation requirements, and tests in these courses were revised to place a stronger emphasis on higher-order thinking skills. Beginning in 1998-99, all students statewide enrolled in five elective courses (Geometry, Algebra II, Chemistry, Physics, and Physical Science) were also required to take EOC tests.

The multiple-choice tests must be given during the last two weeks of the course. The writing test is administered during the second semester of English II.

WCPSS Multiple-Choice Test Results

When compared to the prior year, the average scores for WCPSS students on Algebra I, English I, Geometry, Biology, ELP, and Physical Science increased, with increases ranging from .5 to 2.0 scale score points. Algebra I showed the largest increase. At all high schools, Algebra I mean scale scores showed an improvement ranging from .3 points at Enloe to 3.1 points at Fuquay. It should be noted that approximately 25% of WCPSS students take Algebra I in middle school. English I and ELP mean scores increased by more than one point while Geometry, Physical Science, and Biology gains were less than one point. Algebra I, English I, ELP, Geometry, and Physical Science scores for 1999-2000 are the highest in three years.

WCPSS students' scores decreased slightly in Algebra II, Chemistry, Physics, and U.S. History, with the largest decline in U.S. History (-1.2). See Figure 1 for graphical representation of WCPSS scores for the past three years. Figure 2 shows mean scale scores for the district, state, and individual high schools for the past two years.

Figure 1: A Three-Year Comparison of EOC Multiple-Choice Mean Scale Scores for WCPSS

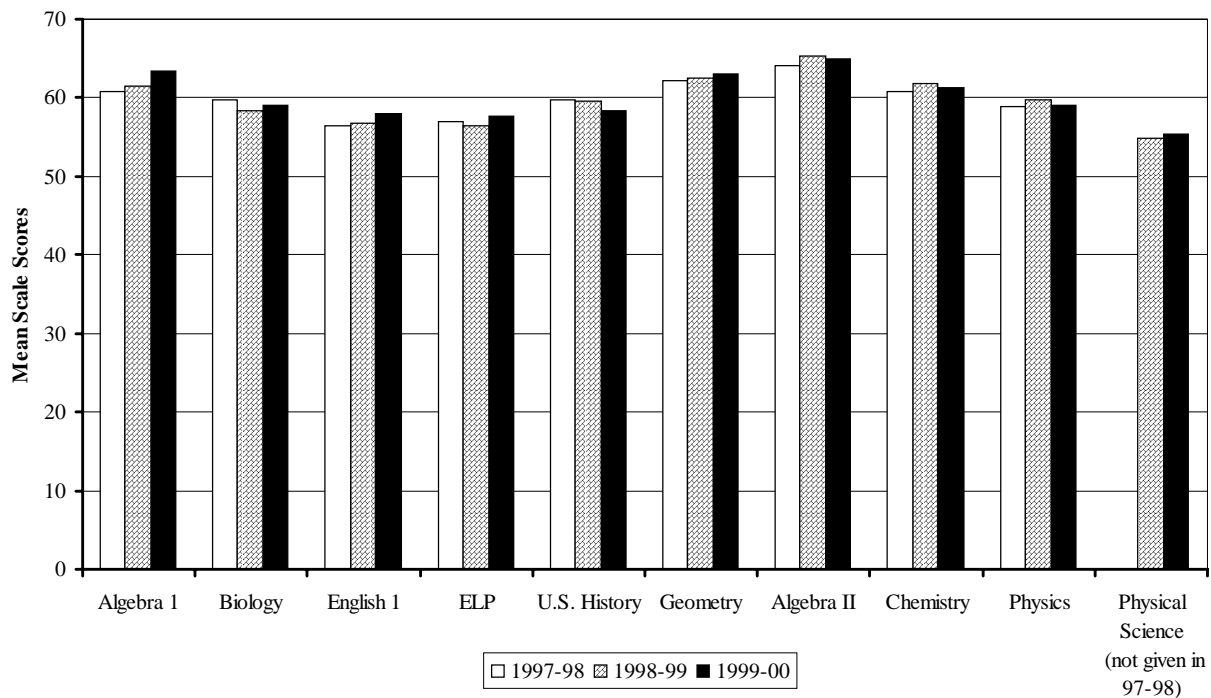


Figure 2: Mean Scale Scores for Multiple-Choice EOC Tests

	Algebra I		Biology		English I		ELP		US History		Geometry		Algebra II		Chemistry		Physics		Physical Science	
	99-00	98-99	99-00	98-99	99-00	98-99	99-00	98-99	99-00	98-99	99-00	98-99	99-00	98-99	99-00	98-99	99-00	98-99	99-00	98-99
NC	59.5	58.0	56.1	56.0	55.4	54.5	55.1	55.0	55.7	56.6	59.1	58.4	61.1	60.0	58.1	57.8	57.1	56.8	54.9	54.5
WCPSS	63.4	61.4	59.0	58.3	58.0	56.7	57.6	56.5	58.3	59.5	63.0	62.5	65.0	65.3	61.3	61.8	59.1	59.7	55.4	54.9
Comprehensive High Schools:																				
Apex	62.3	61.4	58.8	58.4	58.8	58.5	58.5	57.6	59.3	60.4	65.9	66.3	67.7	69.5	60.9	62.3	60.7	63.1	57.4	58.2
Athens	63.0	62.3	59.8	58.1	58.0	56.9	57.2	56.8	57.8	59.6	63.6	63.8	68.5	67.0	64.1	64.2	58.3	62.1	53.8	53.9
Broughton	56.1	55.0	57.0	56.8	58.4	57.4	56.8	56.5	57.5	59.3	65.1	62.4	63.5	62.3	59.7	60.6	60.0	61.1	54.7	55.4
Cary	63.4	62.0	57.6	57.7	57.5	58.0	59.0	58.0	59.5	60.5	64.1	63.6	66.7	66.8	60.0	60.7	57.3	56.1	56.9	58.3
East Wake	60.7	58.6	55.5	53.9	55.7	53.0	52.9	51.9	55.1	55.8	62.3	62.3	61.7	62.0	58.4	55.9	54.8	53.9	49.2	51.2
Enloe	55.3	55.0	61.0	60.5	60.0	59.2	58.5	58.7	61.1	62.3	61.8	61.7	63.3	65.2	61.9	63.2	58.3	61.0	50.7	50.7
*Fuquay	61.0	57.9	55.1	56.4	55.6	54.2	56.4	54.1	58.4	58.2	59.6	58.3	61.4	59.5	60.4	59.0	58.5	57.3	54.5	54.1
Garner	58.5	57.7	59.1	58.0	56.0	54.3	54.5	53.7	55.6	58.7	57.7	58.2	62.6	62.8	59.0	61.9	56.5	59.8	54.5	53.6
Green Hope	63.0	NA	62.0	NA	61.8	NA	58.8	NA	NA	NA	69.1	NA	74.0	NA	66.5	NA	NA	NA	59.1	NA
Leesville	63.4	61.2	62.4	60.9	59.3	58.4	58.9	57.9	60.6	61.2	63.2	63.9	67.3	67.2	63.2	65.2	62.1	62.3	58.8	58.5
Millbrook	57.2	56.0	59.9	58.6	57.6	55.8	57.5	54.7	58.0	59.7	61.5	60.1	64.2	63.5	63.3	61.8	59.2	58.9	57.4	56.5
Sanderson	60.5	57.6	60.2	57.5	58.5	56.8	57.4	57.0	58.2	59.3	64.3	63.4	66.1	66.2	62.3	64.1	57.6	54.6	55.7	55.3
*SE Raleigh	58.3	57.8	58.0	62.4	56.8	57.6	60.0	59.0	57.8	57.0	59.4	61.3	65.9	68.2	62.3	62.2	59.9	59.5	54.9	49.0
Wake Forest	59.5	57.5	58.2	57.7	57.5	56.0	57.0	56.4	59.1	59.8	60.2	62.3	60.8	62.9	57.2	56.1	57.5	58.1	52.3	53.7
Alternative High School:																				
*Phillips	47.4	50.9	50.0	49.9	52.4	48.6	55.3	51.1	49.8	48.5	53.2	49.6	51.7	50.1	NA	NA	NA	NA	54.2	49.4

*All courses at Fuquay-Varina, Phillips, and Southeast Raleigh High reflect the combined fall and spring test administration for block scheduled courses.

Results By Race and Gender

Disaggregated data by race and gender for all ten multiple-choice tests for the past two years are shown in Figures 3 and 4. Figures 5-9 show disaggregated data by race for the five End-of-Course tests required by the state for the last five years.

As shown in Figures 3 and 4, females tend to score higher than males on the EOC test in English I, while males tend to score higher on EOC tests in ELP, U.S. History, Geometry, Algebra II, Chemistry, Physics, and Physical Science. Algebra I and Biology scores show little difference by gender. Average scores for white students are substantially higher than average scores for black students on all ten tests.

Figures 5-9 show the percentage of students by race who scored at Level III or IV on the five EOC courses required for graduation. The following patterns can be seen:

- Gaps between white and black students remain relatively constant over time, with a slight decrease in the size of the gap in Algebra I, English I, and ELP in recent years.
- Algebra I and English I percentages show a steady pattern of improvement over five years.
- ELP percentages improved significantly in 1996-97, but have remained stable in the last three years.
- Biology percentages rose for all groups from 1996 to 1998 and then fell and remained lower in 1999-2000.
- U.S. History percentages rose for all groups in 1996-97, then were stable for two years, and then fell for white and black students in 1999-2000.

WCPSS English II Test Results

The percentage of English II scores of 3.0 or higher (at grade level) for WCPSS students dropped to 58.1% in 1999-2000. This is lower than the 69.1% in 1998-1999, but is almost equal to the statewide proficient level of 58.0%. The state percentage rose from 56.9% in 1998-1999 to 58.0% in 1999-2000.

The percentage of WCPSS high school students showing proficiency in 1999-2000 ranged from 73.1% at Southeast to 27.3% at Phillips. Broughton, Southeast Raleigh, and Phillips Alternative showed an increase with Broughton's percentage increasing 1.1 percentage points, Southeast increasing 5.3 points, and Phillips increasing 17.5. For the remaining 12 high schools, the percent at grade level dropped with the decreases ranging from -1.1 points at Apex High to -29.2 percentage points at Garner High. Refer to Figure 10 for percentages by school for the past three years.

Figure 3
High School End-of-Course Mean Scale Scores 1999-2000

	Algebra 1	Biology	English 1	ELP	US History	Geometry	Algebra 2	Chemistry	Physics	Physical Science
All Students	60.1	59.0	58.0	57.7	58.3	62.6	65.0	61.3	59.1	55.4
Male	59.9	59.1	57.1	58.3	59.0	63.3	65.6	62.1	60.3	56.3
Female	60.3	58.8	59.0	57.0	57.7	62.0	64.5	60.6	57.5	54.3
White	61.9	61.2	60.4	59.8	60.1	64.2	66.4	62.1	59.8	58.3
Black	55.4	52.1	51.7	51.3	52.7	55.3	57.7	55.8	51.8	50.6
Other	60.6	58.6	57.9	57.5	59.2	64.0	67.8	63.6	59.7	53.3

Figure 4
High School End-of-Course Mean Scale Scores 1998-1999

	Algebra 1	Biology	English 1	ELP	US History	Geometry	Algebra 2	Chemistry	Physics	Physical Science
All Students	58.4	58.3	56.7	56.5	59.5	62.2	65.3	61.8	59.7	54.9
Male	58.5	58.6	55.8	56.9	60.3	63.1	66.1	62.7	61.1	55.6
Female	58.4	58.0	57.6	56.0	58.8	61.4	64.6	61.0	58.0	54.1
White	60.1	60.7	59.1	58.8	61.1	63.8	66.2	62.4	60.4	57.6
Black	54.6	51.4	50.4	50.0	53.9	55.0	58.6	57.1	51.7	49.6
Other	59.3	57.6	55.8	56.4	59.3	62.9	68.1	63.4	61.3	54.2

Note: Figures 3 and 4 show disaggregated mean scores for high school students. Middle School Algebra I and Geometry scores have been removed from Figures 3, 4, and 5.

Figure 5
Algebra I - 1995-2000
Percent At/Above Grade Level by Race

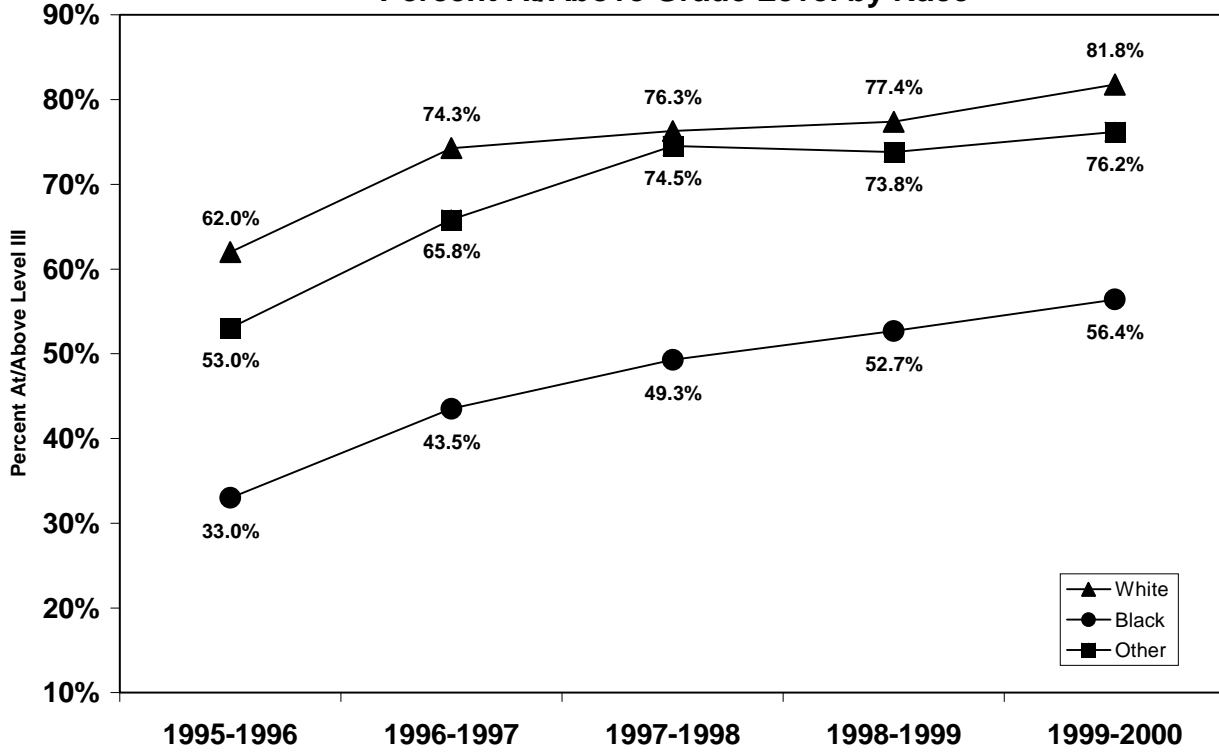


Figure 6
Biology - 1995-2000
Percent At/Above Grade Level By Race

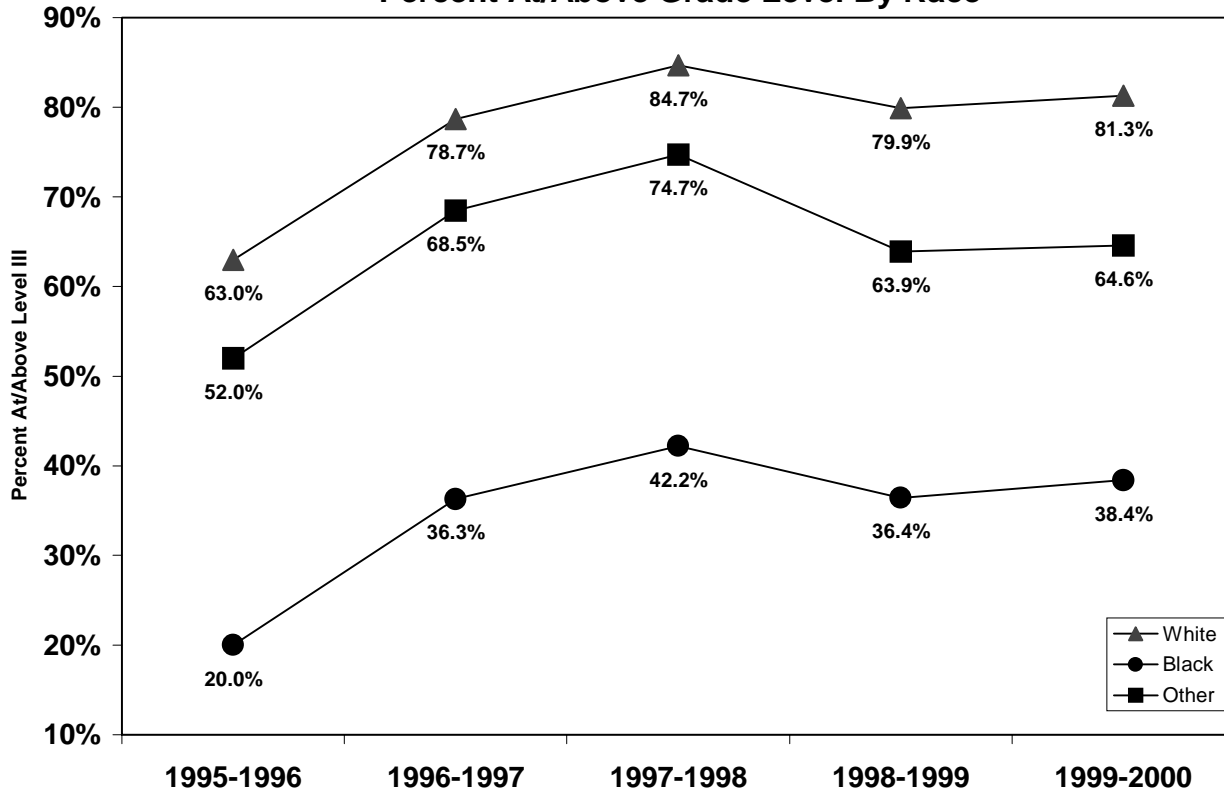


Figure 7
Economic/Legal/Political Systems - 1995-2000
Percent At/Above Grade Level By Race

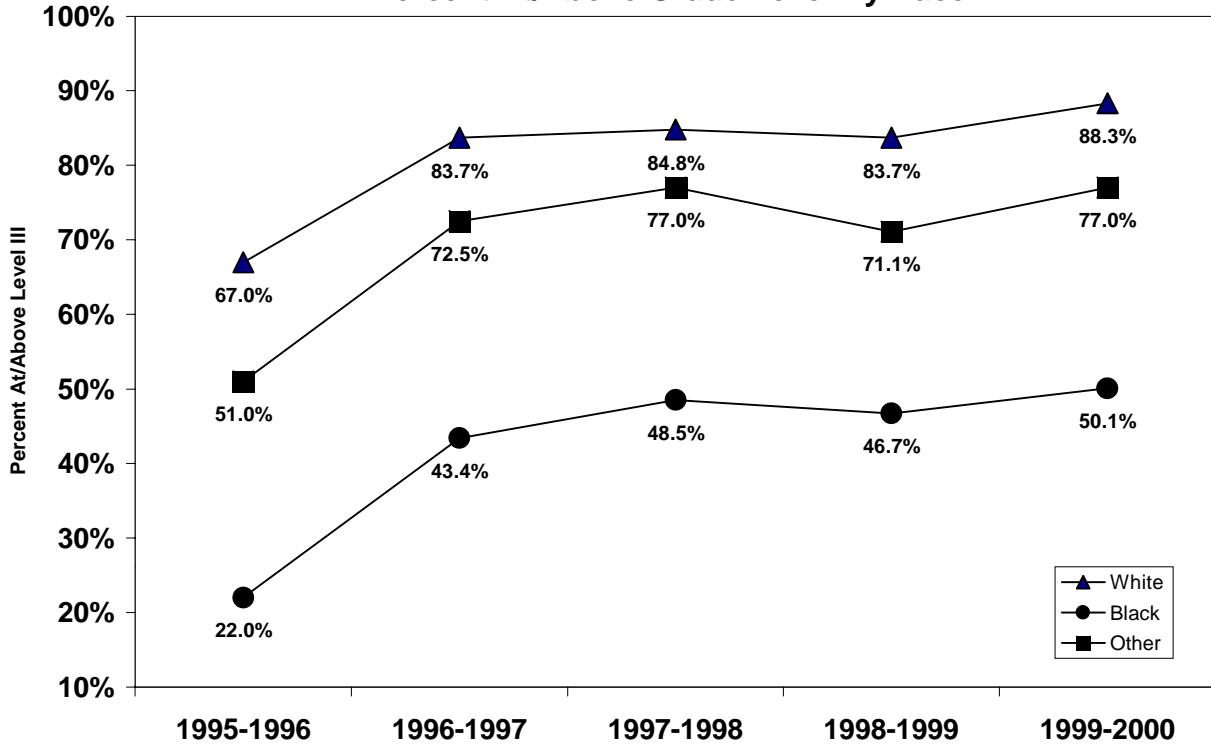


Figure 8
English I - 1995-2000
At/Above Grade Level by Race

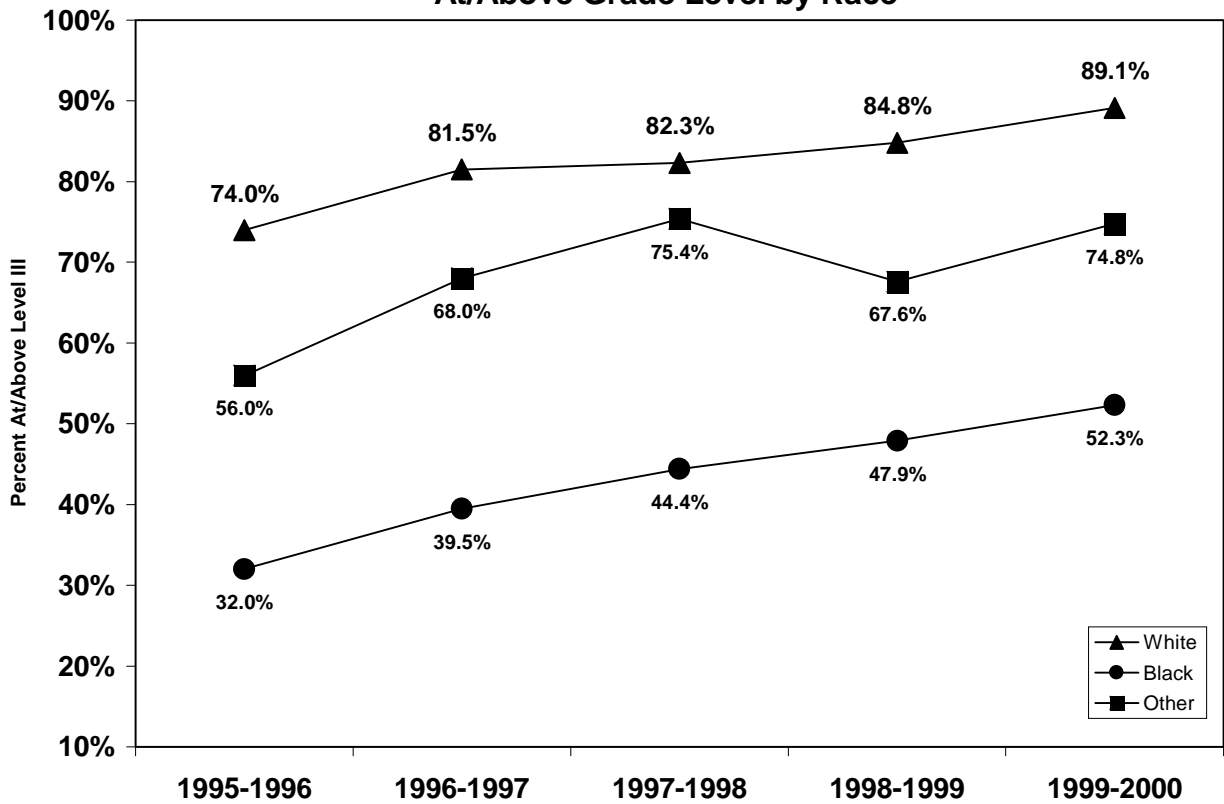


Figure 9
U.S. History - 1995-2000
At/Above Grade Level By Race

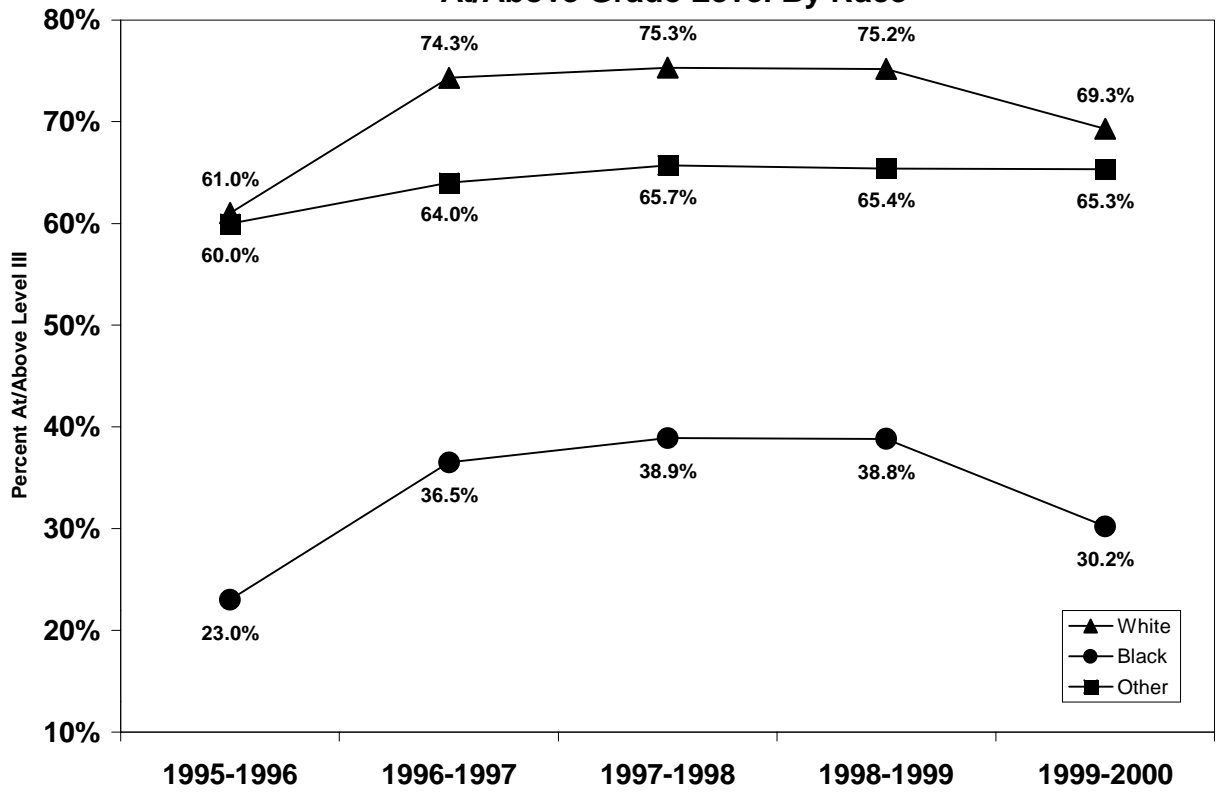


Figure 10: A Three-Year Comparison of English II Writing Results 1998-2000

Year	Level 4		Level 3		Level 2		Level 1		Proficient		
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	
State	2000	12115	14.7%	35687	43.3%	27111	32.9%	7430	9.0%	47802	58.0%
	1999	13649	16.8%	32639	40.1%	27114	33.3%	7939	9.8%	46288	56.8%
	1998	8376	10.3%	28979	35.8%	31834	39.3%	11788	14.6%	37355	46.0%
WCPSS	2000	796	13.4%	2667	44.8%	1959	32.9%	536	9.0%	3463	58.1%
	1999	1393	24.2%	2585	44.9%	1419	24.6%	363	6.3%	3978	69.1%
	1998	757	13.8%	2155	39.3%	2109	38.5%	459	8.4%	2912	53.1%
High Schools:											
Apex	2000	80	17.7%	201	44.6%	136	30.2%	34	7.5%	281	62.3%
	1999	99	18.8%	235	44.6%	147	27.9%	46	8.7%	334	63.4%
	1998	67	12.5%	225	42.1%	214	40.1%	28	5.2%	292	54.7%
Athens	2000	86	20.3%	179	42.2%	110	25.9%	49	11.6%	265	62.5%
	1999	116	31.7%	172	47.0%	61	16.7%	17	4.6%	288	78.7%
	1998	55	13.4%	172	42.1%	150	36.7%	32	7.8%	227	55.5%
Broughton	2000	43	11.4%	188	50.0%	114	30.3%	31	8.2%	231	61.4%
	1999	65	17.6%	158	42.7%	110	29.7%	37	10.0%	223	60.3%
	1998	64	17.1%	163	43.5%	115	30.7%	33	8.8%	227	60.5%
Cary	2000	34	9.8%	143	41.2%	127	36.6%	43	12.4%	177	51.0%
	1999	110	23.6%	228	48.9%	102	21.9%	26	5.6%	338	72.5%
	1998	70	14.9%	190	40.4%	180	38.3%	30	6.4%	260	55.3%
East Wake	2000	27	6.7%	132	32.6%	177	43.7%	69	17.0%	159	39.3%
	1999	37	9.6%	200	51.9%	122	31.7%	26	6.8%	237	61.6%
	1998	23	6.5%	123	34.7%	186	52.5%	22	6.2%	146	41.2%
Enloe	2000	127	23.4%	248	45.8%	124	22.9%	43	7.9%	375	69.2%
	1999	247	43.9%	187	33.2%	94	16.7%	35	6.2%	434	77.1%
	1998	167	31.3%	234	43.8%	111	20.8%	22	4.1%	401	75.1%
Fuquay	2000	9	2.5%	165	46.3%	154	43.3%	28	7.9%	174	48.9%
	1999	65	16.9%	174	45.3%	125	32.6%	20	5.2%	239	62.2%
	1998	37	10.9%	164	48.4%	107	31.6%	31	9.1%	201	59.3%

	Year	Level 4		Level 3		Level 2		Level 1		Proficient	
		Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Garner	2000	16	3.6%	170	38.7%	227	51.7%	26	5.9%	186	42.4%
	1999	79	18.1%	234	53.5%	107	24.5%	17	3.9%	313	71.6%
	1998	36	9.6%	133	35.4%	180	47.9%	27	7.2%	169	44.9%
Green Hope	2000	35	11.0%	151	47.3%	112	35.1%	21	6.6%	186	58.3%
	1999	na	na	na	na	na	na	na	na	na	na
	1998	na	na	na	na	na	na	na	na	na	na
Leesville	2000	70	14.7%	230	48.2%	142	29.8%	35	7.3%	300	62.9%
	1999	179	34.6%	208	40.2%	113	21.8%	18	3.5%	387	74.7%
	1998	107	21.0%	189	37.1%	173	34.0%	40	7.9%	296	58.2%
Millbrook	2000	31	7.1%	186	42.5%	156	35.6%	65	14.8%	217	49.5%
	1999	61	16.8%	198	54.4%	83	22.8%	22	6.0%	259	71.2%
	1998	54	12.2%	150	33.8%	197	44.4%	43	9.7%	204	45.9%
Sanderson	2000	67	17.9%	172	46.0%	104	27.8%	31	8.3%	239	63.9%
	1999	91	25.1%	179	49.3%	75	20.7%	18	5.0%	270	74.4%
	1998	51	12.0%	201	47.4%	142	33.5%	30	7.1%	252	59.4%
SE Raleigh	2000	103	20.4%	267	52.8%	111	21.9%	25	4.9%	370	73.1%
	1999	148	25.1%	252	42.7%	147	24.9%	43	7.3%	400	67.8%
	1998	11	4.2%	103	38.9%	105	39.6%	46	17.4%	114	43.0%
Wake Forest	2000	39	13.0%	135	44.9%	105	34.9%	22	7.3%	174	57.8%
	1999	96	25.7%	155	41.4%	108	28.9%	15	4.0%	251	67.1%
	1998	13	3.5%	98	26.6%	205	55.7%	52	14.1%	111	30.2%
Wakefield High	2000	29	20.0%	85	58.6%	24	16.6%	7	4.8%	114	78.6%
	1999	na	na	na	na	na	na	na	na	na	na
	1998	na	na	na	na	na	na	na	na	na	na

Alternative High School:

Phillips	2000	0	0.0%	15	27.3%	36	65.5%	4	7.3%	15	27.3%
	1999	0	0.0%	5	9.8%	24	47.1%	22	43.1%	5	9.8%
	1998	2	2.5%	10	12.7%	44	55.7%	23	29.1%	12	15.2%