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Block Scheduled High School Achievement: Part III

Comparison of End-of-Course Test Scores for Blocked and Non-Blocked High Schools (1994 through 1998)

Growth in the Block Scheduling

Since the last *Evaluation Brief* (May, 1997), **Block Scheduled High School Achievement: Part II – Comparison of End-of-Course Test Scores for Blocked and Non-Blocked High Schools (1993 through 1996)**, the number of block scheduled high schools has continued to increase. Forty seven (47) and thirty six (36) more high schools started using block scheduling in 1996-97 and 1997-98 respectively, resulting in a total of 290 block scheduled high schools for 1997-98 school year (see Table 1).

Table 1. Number and Percent of Block Scheduled Schools in North Carolina, 1992-93—1997-98 School Year

School Year	Number of Schools Blocked	Percent of Schools Blocked
1992-93	6	1.6%
1993-94	37	10.0%
1994-95	130	35.0%
1995-96	207	55.8%
1996-97	254	64.8%
1997-98	290	73.6%

As with previous studies, this one is based on schools with some combination of grades 9, 10, 11, and/or 12 (e.g., 9-12, K-12, 7-9). Alternative and special schools were eliminated. Schools with missing data during 1993 through 1998 school years were eliminated. Any school with 15 or fewer students taking a given EOC Test was eliminated from the analysis for that subject. Also, for blocked schools only 4x4 blocked schools were intentionally included. Schools were then grouped by "blocked" and "nonblocked" status. A total of 316 schools, 95 nonblock scheduled schools and 221 block scheduled schools in 1997-98 school year, were included in this study.

Review of the Previous

Highlights of the May 1997 *Evaluation Brief* :

(1) Given all the results, there were few significant differences on EOC Test scores between students in block and nonblock scheduled schools.
(2) After statistical adjustment, block scheduled schools showed significantly higher 1994 and 1995 scores

Studies

than nonblocked schools in most of five core subjects, but no difference in 1996.
(3) Length of time in a block schedule was not related to student performance on EOC Tests.

Analysis Procedures

The 1994 to 1998 EOC Test scores of nonblock scheduled schools were compared to those of block scheduled schools that started block scheduling each year from 1994 through 1998, as well as for the combined total of all block scheduled schools each year. Analysis procedures are similar to those previously conducted.

Subjects Included: The five core subjects - English I (EI), Algebra I (AI), Economics, Legal, Political Systems (ELP), Biology (BI), and US History (USH) - included in previous two studies, plus English II (EII), are the focus of this study.

Comparison of Mean T-Scores for Block and Nonblock Scheduled School Groups: As in previous studies, both analysis of variance (ANOVA) and analysis of covariance (ANCOVA) were conducted to compare unadjusted and adjusted scores for blocked and nonblocked school groups. Parent Education Level (PEL) - a six-point scale (from 1-Did not finish high school to 6-Graduate school degree), and the "Starting Point (SP)" were used as covariates for adjusting the mean T-scores for all schools. "Starting Point" is the average school score on EOC Tests in the years prior to implementing block scheduling. In order to compare English II scores for blocked and nonblocked schools, the scores of the Fall and Spring prompts for blocked schools were combined into a total mean score for the year.

Comparison of Mean T-Scores for Groups of Block Scheduled Schools with Different Years in Block Scheduling: Both ANOVA and ANCOVA were also used to compare the unadjusted and adjusted scores respectively to examine the relationship between the number of years a group of schools had been block scheduled and the corresponding EOC Test scores. In order to determine if student performance improves the longer a school uses a block schedule, we compared groups of schools with different lengths of time (number of years) in block scheduling. Twenty pairs of different blocked length groups and 100 comparisons of EOC Tests scores are possible, with from 2 years vs. 1 year to 5 years vs. 1 year in block scheduling.

There are a number of factors that affect student academic performance such as learning motivation, ability, teacher's attitude toward students, teaching method, use of time, family socioeconomic status, and parent education level. School scheduling is only one factor that might influence student academic performance. If EOC test scores for schools are compared based only on the type of schedule used, any difference found might actually be due to other factors. Thus, the "unadjusted" score comparisons of blocked and nonblocked schools, which showed that blocked groups scored significantly lower than nonblocked groups in most subjects, are not discussed here. The unadjusted results, however, are presented in Table 6 for information.

This is an ex post facto study. In this study, it is possible to partially control extraneous variables such as Starting Point and Parent Education Level by using ANCOVA. This partial control strategy can help us avoid gross errors, but it cannot solve the inherent problem in an ex post facto study. We must therefore exercise caution in interpreting this study's results. While the ANCOVA approach is not the most ideal, it is an
appropriate comparison method given that schools could not been randomly assigned to the blocked and nonblocked conditions. A matched-schools study is planned for the future and will control more extraneous variables.

Results: Blocked vs. Nonblocked Schools

Comparison of EOC Mean T-Scores with Adjustment for Starting Point and Parent Education Level: Comparison results are shown in Table 2 for five core subjects (EI, AI, ELP, BI, USH), and Table 3 for English II (EII). In these two tables there are comparisons for five years (1994 to 1998) of EOC Test results. There is a column for each year of EOC Test results comparing blocked and nonblocked schools. There is a large row for each pair of school groups comparing a group of schools started block scheduling in a certain year to the corresponding group of nonblocked schools to examine if there was any effect on EOC Test results across years. The bottom large row allows comparison of all blocked and nonblocked schools each year. In Table 2, within each large row, results are shown by each of the five core EOC subjects.

After the adjustment of Starting Point and Parent Education Level, the ANCOVA results comparing blocked schools to nonblocked schools for five core subjects (Table 2) indicate that:

(1) The group of 28 schools that started block scheduling in 1994 has four significantly higher scores in 1995 (EI, ELP, BI and USH) and in 1998 (EI, AI, ELP and BI), three significantly higher scores in 1994 (EI, BI and USH) and in 1997 (AI, BI and USH), but only one (USH) significantly higher score in 1996.

(2) The group of 74 schools that started block scheduling in 1995 has significantly higher scores on all five 1995 EOC Tests, three significantly higher scores (AI, ELP and BI) and one significantly lower score (USH) in 1998, two (AI, BI) significantly higher score in 1997, and nonsignificant differences from nonblocked schools in 1996.

(3) The group of 70 schools that started block scheduling in 1996 has two significantly higher scores (AI and BI) and one significantly lower score (USH) in 1998, and nonsignificant differences from nonblocked schools in both 1996 and 1997.

(4) The group of 34 schools that started block scheduling in 1997 has only one significantly higher score on 1998 EOC Tests (ELP).

(5) The group of 15 schools that started block scheduling in 1998 has nonsignificant differences from nonblocked schools.

(6) The results for the cumulative *total* of blocked schools each year compared to nonblocked schools tend to track the results for the schools starting block scheduling the same year. Overall, although blocked groups have higher scores for almost all of the five core subjects in 1994, 1995 and 1998 (except USH), the differences are not significant for 1996 and 1997. During these two years, the performance of blocked groups was relatively lower than in 1994, 1995 and 1998.

The ANCOVA results for English II (Table 3) indicate that:

(7) The results vary across years. Adjusted scores for blocked schools are significantly higher in 1996 and 1998, significantly lower in 1995 and 1997, and nonsignificant differences in 1994.

Results: Different Amounts of Time in Block Scheduling

Comparison of EOC Mean T-Scores with Adjustment for Starting Point and Parent Education Level: Comparison results are shown in Table 4 for English II and Table 5 for the five core subjects. After adjusting for Starting Point and Parent Education Level, the ANCOVA results indicate that:

(1) For the five EOC core subjects, most differences are nonsignificant. However, four out of the 20 comparisons for US History, three out of 20 for English I, two out of 20 for Algebra I, and one out of 20 for ELP were significantly higher for schools with longer time in block scheduling.

(2) For English II, eight out of the 20 comparisons show significantly higher scores for the schools with longer time in block scheduling.

Summary and Discussion

After including 1997 and 1998 EOC data, the overall results do not differ significantly from previous findings. For 1997, with the exception of Biology, there are no significant differences between blocked and nonblocked schools in the five core subjects. However for 1998, there are three significantly higher scores and one significantly lower score for blocked groups. English II results are mixed, significantly lower for blocked groups in 1997 and significantly higher in 1998. Also, for most subjects, there are few significant differences among blocked school groups with different lengths of time in block scheduling. However, some findings,

such as in English II, suggest potential trends to watch.

- After adjustment, block scheduled schools show significantly higher 1994, 1995 and 1998 scores, and nonsignificantly higher 1996 and 1997 scores than nonblocked schools in most of the six subjects.

  After adjusting for Starting Point and Parent Education Level for all schools, the students in blocked schools have significantly higher Biology Test scores than the students in nonblocked schools in 1994, 1995, 1997 and 1998. The trends in the most recent three years (including at least 172 blocked schools) show that students in blocked schools perform better than nonblocked schools for Algebra I and ELP, no difference for English I, and worse for US History. For English II, there are significant fluctuations across years. Five years of results show that students in blocked schools perform somewhat better - though not always significantly so - in Biology, also Algebra I and ELP. Results for English I show no differences, and US History and English II are mixed.

- Comparison of EOC Test Results to Block Scheduling Survey Results shows some consistencies and some discrepancies.

  A survey of principals, teachers and students was conducted in 25 randomly sampled blocked high schools in the Spring of 1997. In this survey, both teachers and students were asked whether block scheduling worked better than traditional (teachers) or worked well (students) for all course subjects.

  The direction of survey ratings for the six subjects are compared with the direction of the differences of EOC Test scores for these subjects between blocked and nonblocked schools. Table 7 shows which EOC Tests were significantly different between blocked and nonblocked schools, as well as which subjects were subjectively rated significantly higher or lower for blocked schools by teachers and students. This comparison is a rough attempt to see if perceptions of how well courses work in block compared to traditional scheduling are consistent with actual score differences.

  A positive (+) sign for test results indicates that blocked schools scored higher than nonblocked schools; a negative sign means they scored lower. A positive sign for survey results means that teachers and/or students rated the course as working better in block scheduling than nonblock scheduling (teachers) or working well in block scheduling to a greater degree than other courses (students), and vice versa for a negative sign. The statistical significance level (SL) of any differences are shown at the .05 (*) or .01 (**) level.

Table 7. Signs and Significance Levels of the Differences Blocked Groups versus Nonblocked Groups

Subject	EOC Tests Results										Survey Results			
	1994		1995		1996		1997		1998		Teacher		Student	
	Sign	SL	Sign	SL	Sign	SL	Sign	SL	Sign	SL	Sign	SL	Sign	SL
EI	+	**	+	**							+	*	+	**
EII			-	*	+	**	-	**	+	**	+	**	+	**
AI			+	**					+	**	-	**	-	**
ELP			+	**					+	**	-	*	-	*
BI	+	**	+	**			+	*	+	**	+	*	+	**
USH	+	**	+	**					-	**	-	**	-	*

In comparing the EOC Tests and survey results, actual score differences and opinions are matched for Biology: they are *perceived to work better* in block scheduling and *scores are higher* in blocked schools. For US History, the test results for 1998 are matched with survey opinions, with EOC Test differences and opinion both negative (i.e. they think it works less well in block scheduling). The EOC Test results for English II are not as positive as survey perceptions. That is, although both teachers and students think English II works better/well in block scheduling, test scores show significant fluctuation. For Algebra I and ELP, the EOC results are not as negative as survey results. Both teachers and students think they are worse in block scheduling, while Algebra I and ELP Test results are significantly higher for blocked schools for two years and not different for three years. For English I, the EOC results are not as positive as survey results. Thus, opinion about performance is not consistent with test results.

- More data points over time and a more sophisticated study are needed to determine if the lower scores for blocked schools in 1996 and 1997 compared to 1994, 1995 and 1998 are a fluctuation or a trend.

  As noted above, most EOC Test scores for blocked schools were significantly higher than nonblocked schools in 1994, 1995 and 1998, but not for 1996 and 1997. It is noteworthy that even the schools that started block scheduling in 1994 and 1995, and whose performance significantly exceeded nonblocked schools in 1995 and 1998, were not significantly higher than nonblocked schools in 1996 and 1997. Thus, these results are difficult to interpret at this time. Continued study with methods to control more extraneous variables (e.g. a matched-schools study) is necessary.

- At present, except for English II, the length of time in a block schedule shows little relationship to students EOC Test scores.

  For English II, eight out of 20 comparisons show significantly higher scores for several blocked groups with longer block scheduling time. Adapting this subject area to block scheduling may be especially sensitive to time and experience. It should be noted that the blocked groups which consistently show higher scores than other blocked groups in 1997 and 1998 tests are the higher scoring groups that started in 1994 and 1995. So it is unclear at this point whether the higher scores are truly due to longer time in block scheduling, a function of those cohort groups, or the effect of better and/or longer instruction. More data analyses and studies in future years are necessary to answer the question if length of time in block scheduling has an impact on scores.

Table 2. Comparison of EOC Test Mean T Scores for Five Core Subjects (1994 – 1998) for Block Scheduling and Nonblock Scheduling Schools

(Adjusted by Starting Point and Parent Education Level)

	EOC Test 1994				EOC Test 1995				EOC Test 1996				EOC Test 1997				EOC Test 1998			
	Block	Non Block	Difference (B -NB)	SL	Block	Non Block	Difference (B -NB)	SL	Block	Non Block	Difference (B -NB)	SL	Block	Non Block	Difference (B -NB)	SL	Block	Non Block	Difference (B -NB)	SL
	Block Started in 94																			
EI	51.68	50.17	1.51	**	50.92	49.32	1.61	**	50.00	49.53	0.48	-	50.02	49.65	0.37	-	50.49	49.52	0.96	*
AI	48.23	48.08	0.15	-	48.85	47.83	1.01	-	48.39	47.77	0.62	-	48.83	47.41	1.42	*	48.99	47.02	1.97	**
ELP	51.04	50.37	0.67	-	51.12	49.89	1.24	*	50.18	50.07	0.11	-	50.11	49.78	0.33	-	51.07	49.16	1.91	**
BI	51.76	50.41	1.34	**	50.60	49.58	1.03	**	50.36	49.75	0.61	-	50.31	49.43	0.89	*	50.39	49.17	1.21	**
USH	51.69	50.44	1.25	**	51.16	49.66	1.50	**	50.54	49.73	0.81	*	50.86	49.59	1.27	**	49.71	50.35	-0.64	-
	Before Block				Block Started in 95															
EI					50.51	49.32	1.19	**	49.80	49.53	0.28	-	49.67	49.65	0.02	-	49.72	49.52	0.20	-
AI					49.24	47.83	1.41	**	48.14	47.77	0.37	-	48.42	47.41	1.01	*	48.96	47.02	1.95	**
ELP					50.84	49.89	0.95	*	50.07	50.07	0	-	50.13	49.78	0.35	-	50.26	49.16	1.10	*
BI					50.83	49.58	1.25	**	50.00	49.75	0.24	-	50.32	49.43	0.89	**	50.25	49.17	1.08	**
USH					50.78	49.66	1.12	**	49.87	49.73	0.14	-	49.78	49.59	0.19	-	49.44	50.35	-0.91	**
	Before Block								Block Started in 96											
EI									49.43	49.53	-0.09	-	49.39	49.65	-0.25	-	49.24	49.52	-0.28	-
AI									47.46	47.77	-0.31	-	47.91	47.41	0.49	-	48.75	47.02	1.73	**
ELP									49.78	50.07	-0.29	-	49.87	49.78	0.09	-	49.97	49.16	0.82	-
BI									49.92	49.75	0.17	-	49.98	49.43	0.55	-	49.97	49.17	0.80	*
USH									49.62	49.73	-0.11	-	49.40	49.59	-0.19	-	49.16	50.35	-1.19	**
	Before Block												Block Started in 97							
EI													49.87	49.65	0.22	-	50.02	49.52	0.50	-
AI													47.25	47.41	-0.17	-	47.94	47.02	0.92	-
ELP													50.74	49.78	0.96	-	50.71	49.16	1.56	**
BI													49.58	49.43	0.15	-	49.56	49.17	0.39	-
USH													49.42	49.59	-0.18	-	49.56	50.35	-0.79	-
	Before Block																Block Started in 98			
EI																	50.29	49.52	0.77	-
AI																	47.88	47.02	0.86	-
ELP																	49.08	49.16	-0.08	-
BI																	50.12	49.17	0.95	-
USH																	49.20	50.35	-1.15	-

	Total Block in 94				Total Block in 95				Total Block in 96				Total Block in 97				Total Block in 98			
EI	51.68	50.17	1.51	**	50.63	49.32	1.32	**	49.69	49.53	0.17	-	49.66	49.65	0.02	-	49.76	49.52	0.25	-
AI	48.23	48.08	0.15	-	49.13	47.83	1.29	**	47.90	47.77	0.13	-	48.11	47.41	0.71	-	48.65	47.02	1.62	**
ELP	51.04	50.37	0.67	-	50.92	49.89	1.04	**	49.97	50.07	-0.10	-	50.15	49.78	0.38	-	50.25	49.16	1.08	**
BI	51.76	50.41	1.34	**	50.76	49.58	1.19	**	50.03	49.75	0.29	-	50.08	49.43	0.66	*	50.07	49.17	0.91	**

USH	51.69	50.44	1.25	**	50.90	49.66	1.24	**	49.88	49.73	0.16	-	49.74	49.59	0.16	-	49.39	50.35	-0.95	**

Table 3. Comparison of EOC Test Mean Scores for English II (1994 – 1998) for Block Scheduling and Nonblock Scheduling Schools
(Adjusted by Starting Point and Parent Education Level)

	EOC Test 1994				EOC Test 1995				EOC Test 1996				EOC Test 1997				EOC Test 1998			
	Block	Non Block	Difference (B -NB)	SL	Block	Non Block	Difference (B -NB)	SL	Block	Non Block	Difference (B -NB)	SL	Block	Non Block	Difference (B -NB)	SL	Block	Non Block	Difference (B -NB)	SL
	Block Started in 94																			
EII	2.23	2.25	-0.02	-	2.33	2.39	-0.06	-	2.69	2.45	0.24	**	2.60	2.68	-0.08	-	2.72	2.53	0.19	**
	Before Block				Block Started in 95															
EII					2.30	2.39	-0.09	*	2.68	2.45	0.23	**	2.53	2.68	-0.15	**	2.73	2.53	0.20	**
	Before Block								Block Started in 96											
EII									2.62	2.45	0.17	**	2.44	2.68	-0.24	**	2.67	2.53	0.14	**
	Before Block												Block Started in 97							
EII													2.40	2.68	-0.28	**	2.62	2.53	0.09	*
	Before Block																Block Started in 98			
EII																	2.61	2.53	0.08	-

	Total Block in 94				Total Block in 95				Total Block in 96				Total Block in 97				Total Block in 98			
EII	2.23	2.25	-0.02	-	2.31	2.39	-0.08	*	2.65	2.45	0.21	**	2.49	2.68	-0.19	**	2.68	2.53	0.15	**

Table 4. Comparison of EOC Test Mean Scores for English II (1995 – 1998) for Blocked Schools with Different Lengths of Time in Block Scheduling
(Adjusted by Starting Point and Parent Education Level)

	Block Longer	Block Shorter	Difference (BL - BS)	SL	Block Longer	Block Shorter	Difference (BL - BS)	SL	Block Longer	Block Shorter	Difference (BL - BS)	SL	Block Longer	Block Shorter	Difference (BL - BS)	SL
	2y vs. 1y – 94B vs. 95B (EOC95)				3y vs. 2y – 94B vs. 95B (EOC96)				3y vs. 1y – 94B vs. 96B (EOC96)				4y vs. 1y – 94B vs. 97B (EOC97)			
EII	2.33	2.30	0.03	-	2.69	2.68	0.01	-	2.69	2.62	0.07	-	2.60	2.40	0.20	**
	2y vs. 1y – 95B vs. 96B (EOC96)				3y vs. 2y – 95B vs. 96B (EOC97)				3y vs. 1y – 95B vs. 97B (EOC97)				4y vs. 1y – 95B vs. 98B (EOC98)			
EII	2.68	2.62	0.06	-	2.53	2.44	0.09	*	2.53	2.40	0.13	*	2.73	2.61	0.12	*
	2y vs. 1y – 96B vs. 97B (EOC97)				3y vs. 2y – 96B vs. 97B (EOC98)				3y vs. 1y – 96B vs. 98B (EOC98)				5y vs. 3y – 94B vs. 96B (EOC98)			

EII	2.44	2.40	0.03	-	2.67	2.62	0.05	-	2.67	2.61	0.05	-	2.72	2.67	0.05	-
	2y vs. 1y – 97B vs. 98B (EOC98)				**4y vs. 3y – 94B vs. 95B (EOC97)**				**4y vs. 2y – 94B vs. 96B (EOC97)**				**5y vs. 2y – 94B vs. 97B (EOC98)**			
EII	2.62	2.61	0.01	-	2.60	2.53	0.07	-	2.60	2.44	0.16	**	2.72	2.62	0.10	*
	5y vs. 4y – 94B vs. 95B (EOC98)				**4y vs. 3y – 95B vs. 96B (EOC98)**				**4y vs. 2y – 95B vs. 97B (EOC98)**				**5y vs. 1y – 94B vs. 98B (EOC98)**			
EII	2.72	2.73	-0.01	-	2.73	2.67	0.06	*	2.73	2.62	0.11	**	2.72	2.61	0.11	-

Table 5. Comparison of EOC Test Mean T Scores for Five Core Subjects (1995 – 1998) for Schools with Different Lengths of Time in Block Scheduling (Adjusted by Starting Point and Parent Education Level)

	Block Longer	Block Shorter	Difference (BL - BS)	SL	Block Longer	Block Shorter	Difference (BL - BS)	SL	Block Longer	Block Shorter	Difference (BL - BS)	SL	Block Longer	Block Shorter	Difference (BL - BS)	SL
	2y vs. 1y – 94B vs. 95B (EOC95)				**3y vs. 2y – 94B vs. 95B (EOC96)**				**3y vs. 1y – 94B vs. 96B (EOC96)**				**4y vs. 1y – 94B vs. 97B (EOC97)**			
EI	50.92	50.51	0.42	-	50.00	49.80	0.20	-	50.00	49.43	0.57	-	50.02	49.87	0.15	-
AI	48.85	49.24	-0.40	-	48.39	48.14	0.25	-	48.39	47.46	0.93	-	48.83	47.25	1.59	*
ELP	51.12	50.48	0.29	-	50.18	50.07	0.11	-	50.18	49.87	0.40	-	50.11	50.74	-0.63	-
BI	50.60	50.83	-0.23	-	50.36	50.00	0.36	-	50.36	49.92	0.44	-	50.31	49.58	0.73	-
USH	51.16	50.78	0.38	-	50.54	49.87	0.67	-	50.54	49.62	0.91	*	50.86	49.42	1.45	**
	2y vs. 1y – 95B vs. 96B (EOC96)				**3y vs. 2y – 95B vs. 96B (EOC97)**				**3y vs. 1y – 95B vs. 97B (EOC97)**				**4y vs. 1y – 95B vs. 98B (EOC98)**			
EI	49.80	49.43	0.37	-	49.67	49.39	0.28	-	49.67	49.87	-0.20	-	49.72	50.29	-0.57	-
AI	48.14	47.46	0.68	-	48.42	47.91	0.52	-	48.42	47.25	1.18	*	48.96	47.88	1.09	-
ELP	50.07	49.87	0.30	-	50.13	49.87	0.26	-	50.13	50.74	-0.61	-	50.26	49.08	1.18	-
BI	50.00	49.92	0.08	-	50.32	49.98	0.34	-	50.32	49.58	0.74	-	50.25	50.12	0.12	-
USH	49.87	49.62	0.25	-	49.78	49.40	0.37	-	49.78	49.42	0.36	-	49.44	49.20	0.24	-
	2y vs. 1y – 96B vs. 97B (EOC97)				**3y vs. 2y – 96B vs. 97B (EOC98)**				**3y vs. 1y – 96B vs. 98B (EOC98)**				**5y vs. 3y – 94B vs. 96B (EOC98)**			
EI	49.39	49.87	-0.48	-	49.24	50.02	-0.78	*	49.24	50.29	-1.05	*	50.49	49.24	1.24	**
AI	47.91	47.25	0.66	-	48.75	47.94	0.81	-	48.75	47.88	0.87	-	48.99	48.75	0.24	-
ELP	49.87	50.74	-0.87	-	49.97	50.71	-0.74	-	49.97	49.08	0.89	-	51.07	49.97	1.10	-
BI	49.98	49.58	0.40	-	49.97	49.56	0.41	-	49.97	50.12	-0.15	-	50.39	49.97	0.41	-
USH	49.40	49.42	-0.01	-	49.16	49.56	-0.40	-	49.16	49.20	-0.04	-	49.71	49.16	0.55	-
	2y vs. 1y – 97B vs. 98B (EOC98)				**4y vs. 3y – 94B vs. 95B (EOC97)**				**4y vs. 2y – 94B vs. 96B (EOC97)**				**5y vs. 2y – 94B vs. 97B (EOC98)**			
EI	50.02	50.29	-0.27	-	50.02	49.67	0.35	-	50.02	49.39	0.63	-	50.49	50.02	0.46	-
AI	47.94	47.88	0.06	-	48.83	48.42	0.41	-	48.83	47.91	0.93	-	48.99	47.94	1.05	-
ELP	50.71	49.08	1.63	-	50.11	50.13	-0.02	-	50.11	49.87	0.24	-	51.07	50.71	0.36	-
BI	49.56	50.12	-0.56	-	50.31	50.32	0	-	50.31	49.98	0.34	-	50.39	49.56	0.82	-
USH	49.56	49.20	0.36	-	50.86	49.78	1.09	**	50.86	49.40	1.46	**	49.71	49.56	0.15	-
	5y vs. 4y – 94B vs. 95B (EOC98)				**4y vs. 3y – 95B vs. 96B (EOC98)**				**4y vs. 2y – 95B vs. 97B (EOC98)**				**5y vs. 1y – 94B vs. 98B (EOC98)**			
EI	50.49	49.72	0.77	-	49.72	49.24	0.48	-	49.72	50.02	-0.30	-	50.49	50.29	0.20	-
AI	48.99	48.96	0.02	-	48.96	48.75	0.21	-	48.96	47.94	1.03	-	48.99	47.88	1.11	-
ELP	51.07	50.26	0.81	-	50.26	49.97	0.28	-	50.26	50.71	-0.46	-	51.07	49.08	1.99	*
BI	50.39	50.25	0.14	-	50.25	49.97	0.28	-	50.25	49.56	0.69	-	50.39	50.12	0.26	-
USH	49.71	49.44	0.27	-	49.44	49.16	0.28	-	49.44	49.56	-0.12	-	49.71	49.20	0.51	-

Table 6. Comparison of EOC Test Mean T Scores for Five Core Subjects (1994 – 1998) for Block Scheduling and Nonblock Scheduling Schools (without Adjustment)

	EOC Test 1994				EOC Test 1995				EOC Test 1996				EOC Test 1997				EOC Test 1998			
	Block	Non Block	Difference (B -NB)	SL	Block	Non Block	Difference (B -NB)	SL	Block	Non Block	Difference (B -NB)	SL	Block	Non Block	Difference (B -NB)	SL	Block	Non Block	Difference (B -NB)	SL
	Block Started in 94																			
EI	50.87	50.45	0.42	-	50.23	50.50	-0.27	-	49.79	50.78	-0.99	-	49.79	51.01	-1.22	-	50.17	50.82	-0.66	-
AI	48.24	48.08	0.16	-	49.19	48.07	1.12	-	48.90	48.62	0.28	-	49.08	48.40	0.68	-	49.27	47.91	1.36	-
ELP	50.24	50.63	-0.39	-	50.59	50.59	0	-	50.03	50.78	-0.75	-	49.91	50.71	-0.80	-	50.71	50.23	0.48	-
BI	50.96	50.67	0.29	-	50.21	50.50	-0.29	-	50.47	50.95	-0.48	-	50.47	50.79	-0.32	-	50.58	50.38	0.20	-
USH	50.49	50.80	-0.31	-	50.48	50.83	-0.36	-	50.29	51.20	-0.92	-	50.63	51.11	-0.48	-	49.67	51.68	-2.02	*
	Before Block				Block Started in 95															
EI					49.43	50.50	-1.07	-	49.18	50.78	-1.61	*	49.00	51.01	-2.01	**	49.06	50.82	-1.76	**
AI					48.81	48.07	0.74	-	47.87	48.62	-0.74	-	48.04	48.40	-0.36	-	48.56	47.91	0.65	-
ELP					50.18	50.59	-0.41	-	49.81	50.78	-0.97	-	49.74	50.71	-0.97	-	49.81	50.23	-0.42	-
BI					49.88	50.50	-0.61	-	49.47	50.95	-1.47	*	49.79	50.79	-1.00	-	49.77	50.38	-0.61	-
USH					49.56	50.83	-1.28	*	49.13	51.20	-2.07	**	49.18	51.11	-1.93	**	48.95	51.68	-2.73	**
	Before Block								Block Started in 96											
EI									48.65	50.78	-2.13	**	48.70	51.01	-2.31	**	48.55	50.82	-2.28	**
AI									46.38	48.62	-2.24	**	46.72	48.40	-1.68	-	47.70	47.91	-0.21	-
ELP									49.17	50.78	-1.62	*	49.19	50.71	-1.52	-	49.26	50.23	-0.96	-
BI									48.89	50.95	-2.06	**	48.99	50.79	-1.80	*	48.99	50.38	-1.39	-
USH									48.58	51.20	-2.62	**	48.50	51.11	-2.61	**	48.34	51.68	-3.34	**
	Before Block												Block Started in 97							
EI													49.56	51.01	-1.45	*	49.64	50.82	-1.18	-
AI													47.54	48.40	-0.86	-	48.32	47.91	0.40	-
ELP													50.63	50.71	-0.08	-	50.38	50.23	0.15	-
BI													49.06	50.79	-1.72	-	49.12	50.38	-1.26	-
USH													48.68	51.11	-2.42	**	48.95	51.68	-2.74	**
	Before Block																Block Started in 98			
EI																	51.02	50.82	0.20	-
AI																	47.70	47.91	-0.21	-
ELP																	49.52	50.23	-0.70	-
BI																	50.49	50.38	0.11	-
USH																	48.58	51.68	-3.10	*

	Total Block in 94				Total Block in 95				Total Block in 96				Total Block in 97				Total Block in 98			
EI	50.87	50.45	0.42	-	49.66	50.50	-0.84	-	49.07	50.78	-1.71	**	49.11	51.01	-1.90	**	49.27	50.82	-1.55	**
AI	48.24	48.08	0.16	-	48.91	48.07	0.84	-	47.42	48.62	-1.20	*	47.64	48.40	-0.76	-	48.28	47.91	0.37	-
ELP	50.24	50.63	-0.39	-	50.30	50.59	-0.29	-	49.59	50.78	-1.19	**	49.73	50.71	-0.98	*	49.83	50.23	-0.40	-

BI	50.96	50.67	0.29	-	49.97	50.50	-0.52	-	49.41	50.95	-1.54	**	49.49	50.79	-1.29	**	49.58	50.38	-0.80	-
USH	50.49	50.80	-0.31	-	49.81	50.83	-1.02	*	49.09	51.20	-2.11	**	49.06	51.11	-2.05	**	45.82	51.68	-2.86	**