

LOS ANGELES UNIFIED SCHOOL DISTRICT
Program Evaluation and Research Branch

TO: Members, Board of Education

DATE: June 10, 2005

FROM: Ted Bartell

SUBJECT: REPORT ON THE IMPACT OF THE 3-TRACK TO 4-TRACK CALENDAR CHANGE

The attached report is a response to Board member requests to investigate student achievement and survey teachers in schools that changed from a three-track (Concept-6) to a four-track (90/30) calendar. The report draws upon data from the STAR matched individual student testing file, and data from a teacher survey conducted in the summer of 2004. We attempted to address four questions:

1. Do students in schools that converted from a three-track to a four-track calendar exhibit higher achievement gains than those in similar three-track schools?
2. Compared to the three-track calendar, how has the four-track calendar configuration influenced student, parent, and teacher behavior?
3. Given a choice, on which calendar and track would teachers choose to teach?
4. In what ways could the transition to the four-track calendar have been improved?

In reviewing the findings of this report, it should be remembered that these results are based on one year of implementation of a new calendar. Different effects might occur over a multiple year period. Staff will be able to begin to assess such multi-year effects when test data become available for 2005 and subsequent years.

Please contact Jeff White at 213-241-8266 if you have any questions regarding this report.

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**Schools Changing from a Three-Track (Concept-6)
to a Four-Track (90/30) Calendar:
Student Achievement Comparisons and Teacher Survey Responses**

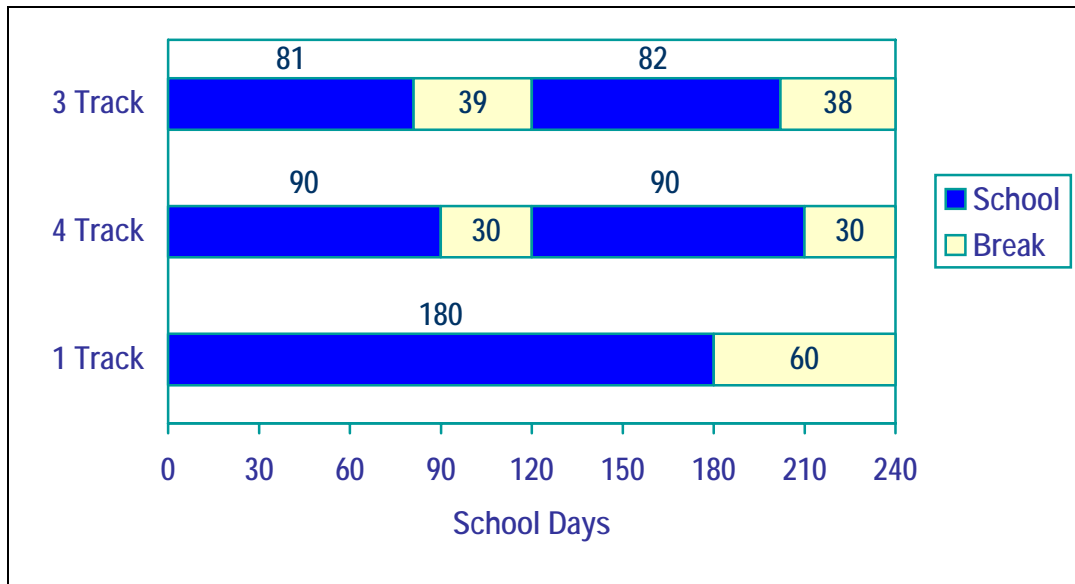
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In January 2003, the Board of Education approved a plan to convert a number of elementary and middle schools from three-track (Concept-6) to the four-track (90/30) calendar. The primary differences between three and four-track calendars are the number of student tracks, the number of school days per year, the number of instructional minutes per day, the length of the two mid-year breaks, and the increased school capacity compared to single track. Although the total number of instructional minutes per year remains constant for either calendar, three-track schools have 163 school days that are approximately 30 minutes longer than the 180 instructional days in the four-track calendar. Both three and four-track calendars have two mid-year breaks, but three-track breaks are eight to nine days longer. Compared to the single-track schools, three-track schools increase capacity by 50 percent, while four-track schools increase capacity by only 33 percent. Figure 1 presents the three school calendars currently in operation in LAUSD by on-track and off-track time.

Figure 1. On-track and Off-track Days of Each LAUSD School Calendar



Notes: The exact on and off-track days may vary across track. In order to compensate for the 17 fewer days, each day of the three-calendar is approximately 30 minutes longer. Compared to the single-track calendar, three-track increases school capacity by 50% and four-track by 33%.

While each calendar has its supporters and detractors, prior research conducted by the Program Evaluation and Research Branch has not identified student achievement differences that would lead to the recommendation of one calendar over another¹. Instead, achievement

¹ White, J.A. & Cantrell, S.C. (2002). "Comparison of Student Achievement and Teacher and Student Characteristics in Multi-Track Year-Round and Single-Track Traditional School Calendars," Program Evaluation and Research Branch, LAUSD (Publication No. 130).

differences were in line with student and teacher demographic differences. Furthermore, time and learning literature suggests that how time is used, rather than how much time and how it is partitioned, hold primary importance². The policy change to convert schools from three-track to four-track calendars provides a unique opportunity to compare student achievement in schools that converted with those that remained on the three-track calendar and to query teachers about their observations of student, parent, and their own behavior on the four-track calendar compared to those when they were on the three-track calendar.

In the 2002-03 school year, LAUSD operated 259 single-track, 143 three-track, and 37 four-track elementary schools and primary centers, and 53 single-track, 19 three-track, and 1 four-track middle schools. In 2003-04, 27 three-track elementary schools, 3 three-track primary centers, and 2 three-track middle schools were converted to the four-track calendar. The focus of this study is on student achievement differences and teacher responses regarding changes in student, parent, and teacher behavior on the four-track calendar. The following research questions guide this paper:

- 1) Do students in three to four-track calendar conversion schools exhibit higher gains than those in similar schools that remained on three-track calendars?
- 2) Compared to the three-track calendar, how has the four-track calendar configuration influenced...
 - a. ...student behavior, academic engagement, and standardized test (STAR) readiness?
 - b. ...parent involvement in their children's educational process?
 - c. ...the ability to cover curriculum in sufficient breadth and depth and to participate in off-track personal and professional opportunities?
- 3) If given a choice, on which calendar/track would teachers choose to teach?
- 4) In what ways could the transition to the four-track calendar configuration have been improved?

² Cantrell, Steven M. (2004). Separating the Solution from the Problem: The Concept 6 Calendar as a Response to Urban Density. Program Evaluation and Research Branch, LAUSD.

Do students in three to four-track calendar conversion schools exhibit higher gains than those in similar schools that remained on three-track calendars?

This question expands upon earlier studies on student achievement in multi-track calendar schools conducted by the Program Evaluation and Research Branch (PERB). These earlier studies indicate that after controlling for student and school characteristics, student achievement gains do not differ significantly across school calendar. To further test this conclusion, we compared student achievement gains in schools that converted from a three-track to a four-track calendar with those of similar schools that remained on the three-track calendar.

We first identified elementary and middle schools in LAUSD on a three-track calendar in the 2002-03 school year and on a four-track calendar in the 2003-04 school year. There were 27 elementary and 2 middle schools that converted from a three-track to a four-track calendar. Comparison schools that were on a three-track calendar in 2002-03 and 2003-04 were selected using the School Characteristic Index (SCI). The SCI can be interpreted as representing that part of performance attributed to school and student background characteristics. Thus, schools with a SCI close in numerical value are described as facing similar overall educational challenges and opportunities.³ For elementary schools, a stratified random sample of 27 comparison schools was selected from within the SCI quartiles of schools that converted to the four-track calendar. For middle schools, the two three-track schools nearest in SCI that also tested similar proportions of eighth graders in general math and Algebra I CSTs were selected.

Whereas the earlier PERB studies on school calendars used SAT/9 testing data, we used matched California Standards Test (CST) data to examine the change in scale scores from 2003 to 2004. We identified students in grades three through eight who attended schools that transitioned from a three-track to a four-track calendar as well as those who attended the three-track comparison schools in spring 2004. We combined this file with the matched 2003 to 2004 STAR testing file to measure changes in the English language arts (ELA) and math CST. Since we examined student-level changes from one year to the next, only students with a CST scale score in 2003 and 2004 were included in the analysis. To allow for a more meaningful measure of gains in test scores, retained students were excluded.

³Technical Design Group of the Advisory Committee for the Public Schools Accountability Act of 1999. *Construction of California's 1999 School Characteristics Index and Similar Schools Ranks*, April 2000.

Direct year-to-year comparisons of CST scale scores are difficult to make because the tests given to different grade levels are not vertically equated. In other words, they are not designed and scaled to make comparisons across grade levels. A linear regression analysis, in which expected scores based on previous performance are compared to actual scores, provides a more refined estimate of achievement gain because tests from different grade levels are not required to be equated. Separate regressions were conducted at each grade level and for each test (ELA and math). A residual score, or the difference between students' actual and expected scores, was calculated from each regression. If the actual score is greater than the predicted score, the residual (or adjusted gain) is positive. If the actual score is lower than the predicted score, the residual is negative.

On average, elementary school test score gains were not significantly different for students in schools that converted to a four-track calendar compared to similar schools that remained on a three-track calendar. The average CST scale scores and adjusted gains for third, fourth, and fifth graders are presented in Table 1. In all three grades, adjusted ELA gains were not significantly different across school calendar. On the math CST, adjusted gains for fourth and fifth graders were not significantly different across school calendar. In third grade, students in schools that converted to a four-track calendar had significantly lower adjusted gains, on average, than students in schools still on a three-track calendar. However, the difference in adjusted gains for third grade math had a negligible effect size of 0.07.

Table 1: CST Scale Scores for Elementary Grade Students, by School Calendar

School Calendar	Third Grade				Fourth Grade				Fifth Grade			
	N	2003	2004	Adj. Gain	N	2003	2004	Adj. Gain	N	2003	2004	Adj. Gain
ELA CST												
3-track Schools	4,489	315	299	-0.2	4,645	301	317	-0.4	4,307	317	318	0.6
3 to 4-track Schools	3,101	316	301	0.4	3,353	301	317	-0.3	3,155	320	319	-0.2
MATH CST												
3-track Schools	4,499	335	336	-0.3	4,680	324	327	0.2	4,431	326	316	-0.7
3 to 4-track Schools	3,127	334	333	-3.6	3,359	321	325	0.0	3,252	329	318	-0.4

Notes: Based on matched 2003 and 2004 CST scale scores. Adjusted gains based on the residual from a linear regression model where the 2004 test score is dependent on the 2003 score.

Since only two middle schools converted from a three to a four-track configuration, it would be difficult to attribute differential adjusted gains to the four-track calendar. Additionally, because wide variations may be observed across schools, the gains of one school could mask those of another. These concerns are complicated by the fact that the two middle schools that changed calendars are on opposite ends of the middle school distribution of School Characteristics Index scores. This indicates that other than their school calendars, these schools are vastly different from one another. For these reasons, comparisons of the two middle calendar change and similar schools are not analyzed as a group, but as two separate pairs of schools.

Adjusted gains in Byrd middle school were significantly higher than those of its comparison school in both ELA and math. Effect sizes for the ELA differences ranged from .15 to .32 in ELA, indicating small to medium effects. Effect sizes for math ranged from .22 to .36 in grade 6, 7, and general math indicating small to medium effects, and 1.21 for Algebra I indicating a very large effect. Adjusted gains in Muir middle school were mixed across grade levels. In English language arts, students exhibited higher losses in sixth grade, higher gains in seventh grade, and comparable losses in eighth grade. Effect sizes for the ELA differences ranged from -.15 to .05 indicating a very small negative and negligible positive effects. In math, results were similar, with higher losses in sixth grade, lower losses in seventh grade, and higher gains in general math and Algebra I. Effect sizes for math ranged from -.18 to .26 in grade 6, 7, and general math, indicating small negative to small positive effects, and .72 for Algebra I, indicating a large effect.

Overall, these results indicate that elementary schools that change from three-track to four-track calendars do not exhibit significantly higher adjusted gains than similar three-track calendar schools, and that middle school adjusted gains are mixed between the two schools that changed calendars compared to similar three-track calendar schools. These results are similar to previous PERB studies which have found that differences across school calendars are largely explained by student and school characteristics.

Table 2: CST Scale Scores for Middle School Students, by School Calendar

School Calendar	Sixth Grade				Seventh Grade				Eighth Grade			
	N	2003	2004	Adj. Gain	N	2003	2004	Adj. Gain	N	2003	2004	Adj. Gain
ELA CST												
South Gate MS (3-Trk)	1,271	316	308	-3.9	1,267	302	304	-2.0	1,183	306	308	-0.8
Byrd MS (3 to 4-Trk)	532	323	322	3.8	638	308	313	1.6	649	305	313	5.0
Carver MS (3-Trk)	813	298	295	-0.7	891	286	292	0.2	829	282	287	-2.2
Muir MS (3 to 4-Trk)	655	304	297	-4.1	739	290	297	1.5	648	291	294	-2.0
GRADE 6, GRADE 7, AND GENERAL MATH CST												
South Gate MS (3-Trk)	1,267	304	302	-3.3	1,310	294	291	-4.2	948	280	282	-2.8
Byrd MS (3 to 4-Trk)	535	326	322	3.5	638	307	313	6.5	484	289	300	6.6
Carver MS (3-Trk)	810	300	301	-1.2	887	289	280	-10.9	655	272	273	-5.2
Muir MS (3 to 4-Trk)	656	296	293	-7.0	739	283	282	-3.3	595	280	285	0.4
ALGEBRA MATH CST												
South Gate MS (3-Trk)	-	-	-	-	-	-	-	-	293	326	290	-15.3
Byrd MS (3 to 4-Trk)	-	-	-	-	-	-	-	-	138	348	346	24.2
Carver MS (3-Trk)	-	-	-	-	-	-	-	-	92	346	315	-5.9
Muir MS (3 to 4-Trk)	-	-	-	-	-	-	-	-	20	325	332	28.3

Notes: Based on matched 2003 and 2004 CST scale scores. Adjusted gains based on the residual from a linear regression model where the 2004 test score is dependent on the 2003 score.

Compared to the three-track calendar, how has the four-track calendar configuration influenced student, parent, and teacher behavior?

A random sample was generated of 400 of 1064 elementary school teachers and all 155 middle school teachers who were in the same school in the 2003-04 and 2002-03 school years. Surveys were mailed to sample teachers at their home addresses. Respondents were tracked via consecutively numbered form IDs associated with the LAUSD employee database. One week after the initial mailing, non-respondents were mailed a reminder postcard, followed one week later by a reminder letter and second copy of the survey. By the end of the data collection period 157 elementary and 61 middle school teachers returned completed surveys yielding response rates of 39.3%. Response rates were slightly higher for fully-credentialed and white teachers in elementary and middle schools and slightly higher for more experienced teachers in elementary schools (see Table 3).

Table 3: Comparison of Survey Respondents and Non-Respondents by Schooling Level

	Elementary School Teachers			Secondary School Teachers		
	Total Sample	Survey Completed	No Survey Completed	Total Sample	Survey Completed	No Survey Completed
Number of Teachers	400	157	243	155	61	94
Response Rate (%)	--	39.3	--	--	39.4	--
Grade Taught (%):						
PK to 2	60.0	61.8	58.9	0.0	0.0	0.0
3 to 6	40.0	38.2	41.2	0.0	0.0	0.0
6 or Higher	0.0	0.0	0.0	100.0	100.0	100.0
Credential Status (%):						
Full Credential	85.5	90.5	82.3	76.1	86.9	69.2
Alt. Credential	14.5	9.6	17.7	23.9	13.1	30.9
Years of Experience (%):						
Less than Four	15.5	12.7	17.3	25.8	24.6	26.6
Four to nine	42.0	38.9	44.0	43.9	44.3	43.6
Ten or more	42.5	48.4	38.7	30.3	31.2	29.8
Highest Degree (%):						
Bachelor	78.5	78.2	78.8	71.9	68.9	73.9
Graduate	21.5	21.8	21.3	28.1	31.2	26.1
Gender (%):						
Female	79.3	82.8	77.0	51.0	49.2	52.1
Male	20.8	17.2	23.1	49.0	50.8	47.9
Race/Ethnicity (%):						
African American	15.5	10.8	18.5	21.3	9.8	28.7
Asian	6.3	5.7	6.6	5.2	4.9	5.3
Hispanic	31.3	23.6	36.2	18.1	16.4	19.2
White	42.3	57.3	32.5	50.3	65.6	40.4
Other	4.8	2.6	6.2	5.2	3.3	6.4

The purpose of the survey was to measure the extent to which the four-track calendar influenced student, parent, and teacher behavior. The survey included four items about student behavior, academic engagement, and STAR examination readiness, one item about parent involvement, and three items about teacher curriculum coverage, and personal and professional opportunities available during off-track times. Survey items were open-ended with the majority sharing the same heading (i.e., *Compared to the three-track calendar configuration in 2002-03, how did the four-track calendar configuration in 2003-04 influence...*). Additional items were designed to gather information about which calendar and track teachers would prefer to teach, and in what ways could the transition to the four-track calendar have been improved. Appendix A includes a copy of the elementary teacher survey. Elementary and middle school surveys were identical except in items 1a and 1b where elementary teachers were asked on which grade level they were assigned and middle school teachers were asked in which subject area(s) they were assigned.

Because the items in this survey were largely open-ended, the teacher responses to items had to be summarized. First, responses were categorized as attributing a positive influence, a negative influence, or no influence to the four-track calendar compared to their experience in the prior year on the three-track calendar. These responses are presented for elementary, middle school, and all teachers. Appendix B presents these responses disaggregated by grade level, credential status, years of experience, and track. Secondly, common themes of positive and negative influences were identified through thematic analysis and reported in the text.

Influence of the four-track calendar on student behavior, academic engagement, and readiness for STAR examinations

On the first survey items, teachers were asked, *compared to the three-track calendar configuration, how did the four-track calendar configuration influence student behavior at the end of the school day, behavior prior to going off track, academic engagement, and readiness for STAR examinations*. Teacher responses to these items are summarized in the sections below and in Figure 2.

Student behavior at the end of the school day. The highest percentage of teachers (47%) reported that the four-track calendar had no influence on student behavior at the end of the day. Remaining teachers reported that four-track calendar had a slightly more positive (31%) than negative influence (22%) on student behavior at the end of the day. Middle school teachers reported a higher percentage of positive influences than elementary teachers. Common responses of teachers who reported a positive influence were that behavior was generally better, students were less tired, more alert, awake, or energetic, or that students liked leaving earlier. Common responses of those who reported a negative influence were that behavior was generally worse, students were hyperactive, more tired, less attentive, or less engaged, or that the day felt jammed, rushed, or too short.

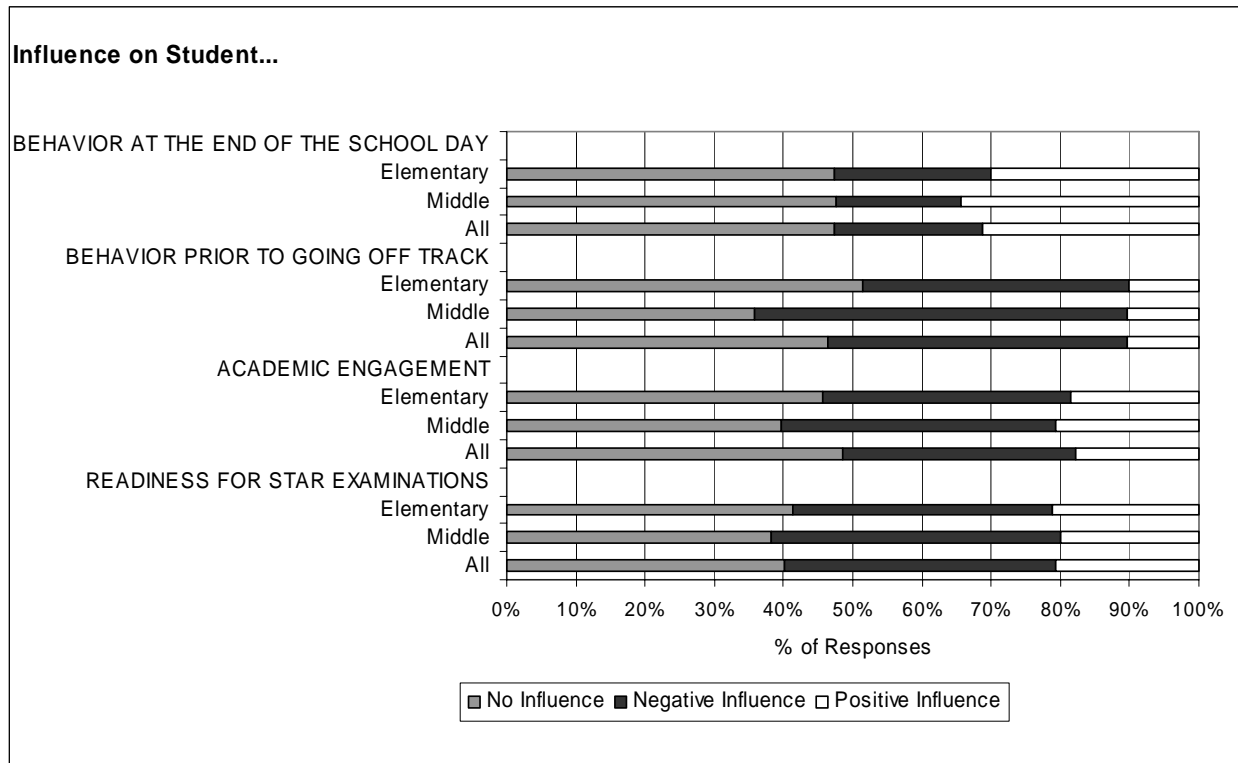
Student behavior prior to going off track. Elementary and middle school teachers had mixed views regarding student behavior prior to going off track. The greatest percentage of elementary teachers reported no influence (51%), while middle school teachers reported a negative influence (54%) of the four-track calendar. Proportionally, very few elementary and middle school teachers reported that the four-track calendar had a positive influence on student behavior prior to going off track (10%). Common responses of teachers reporting a negative influence were that behavior was generally worse, that students were antsy, anxious, unfocused,

off task, or eager for a break, while a smaller number of teachers reported that the break came too early. Common responses of the few teachers who reported a positive influence of the four-track calendar were that behavior was better overall, students were more engaged, happy, less tired or less distracted.

Student academic engagement. The highest percentage of teachers reported that the four-track calendar had no influence (48%) on student academic engagement, followed by a negative influence (34%), and a positive influence (18%). Compared to elementary teachers, middle school teachers reported lower proportions of no influence and slightly higher proportions of negative and positive influences. Common responses of teachers who reported negative influences were that students were less engaged, off-task, unfocused, or stressed, or that shorter days left too little time to cover curriculum, required shortened or rushed lessons, and that certain subjects, such as science or social science, suffered. Common responses of those who reported that the four-track calendar had positive influences were that students were more engaged, active, enthusiastic, or focused.

Student readiness for STAR examinations. Of teachers who taught in grade levels that participate in the STAR, roughly equal proportions reported that the four-track calendar had no influence (40%) or a negative influence (39%) on student readiness for STAR examinations, with the smallest proportion of teachers reporting a positive influence (21%). Common responses of teachers who reported negative influences due to the four-track calendar were that students were less ready, testing was either too early in the year or too soon after returning from a break, or that the schedule lacks continuity. Common responses for those reporting positive influences were that students were more ready, that there was more time, or that more material could be covered.

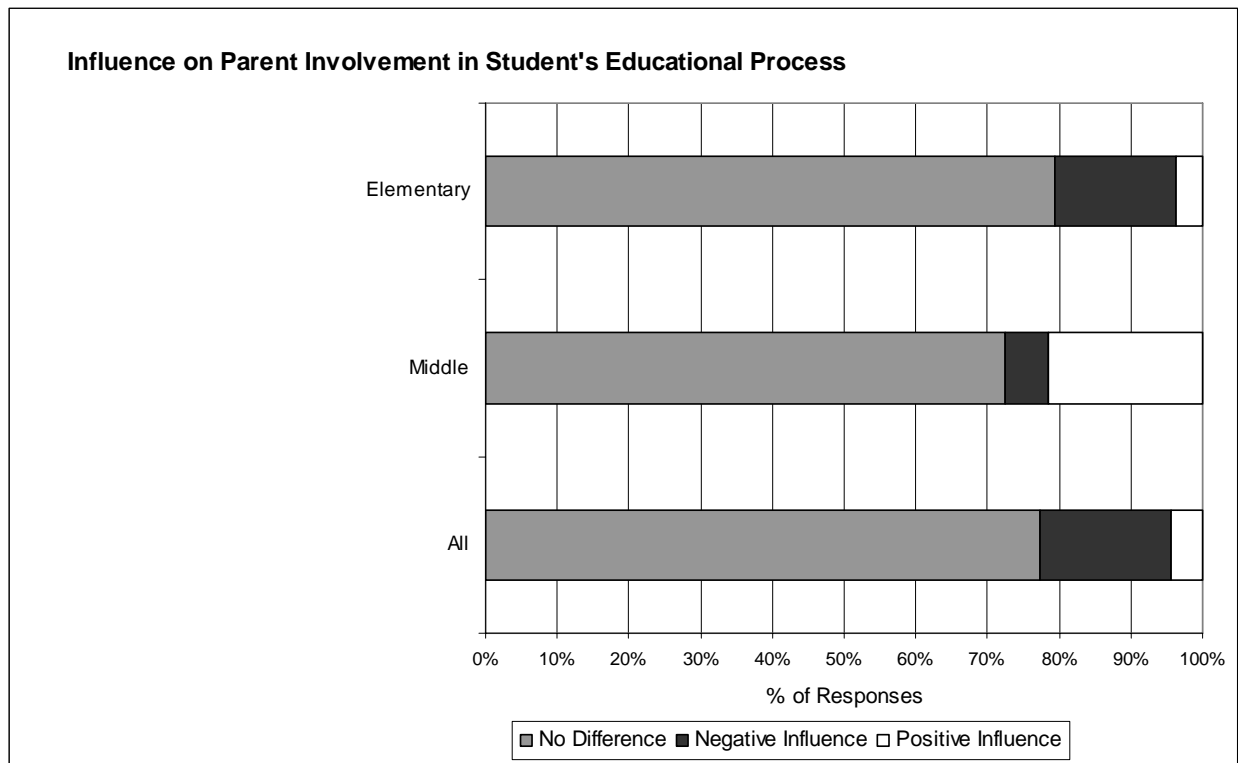
Figure 2: Teacher Responses Regarding the Influence of the Four-Track Calendar on Student Behavior by Schooling Level



Influence of the four-track calendar on parent involvement

In the next item, teachers were asked, *compared to the three-track calendar configuration, how did the four-track calendar configuration influence parent involvement in their students' educational process*. The majority of elementary and middle school teachers reported that the four-track calendar had no influence on parent involvement in student's educational process (79% and 73%, respectively). The remaining elementary and middle school teacher responses were mixed. Elementary teachers reported that the four-track calendar had a negative influence (17%), whereas, middle school teachers reported a positive influence (22%) on parent involvement in the student's educational process (see Figure 3). Common negative responses were that parents were generally less involved, the shorter day gave parents less access to the school, the new schedule was confusing, parents had children on different configurations, or that they disliked the change and did not feel that their voices were heard. Of the few positive responses, teachers reported that parents were generally more involved.

Figure 3: Teacher Responses Regarding the Influence of the Four-Track Calendar on Parent Involvement by Schooling Level



Influence of the four-track calendar on teacher curriculum coverage and off-track opportunities

In the next items, teachers were asked, *compared to the three-track calendar configuration, how did the four-track calendar configuration influence your ability to cover your curriculum, your ability to explore the concepts and ideas central to your curriculum, and personal and professional opportunities available to you during your off-track time.* Teacher responses to these items are summarized in the sections below and in Figure 4.

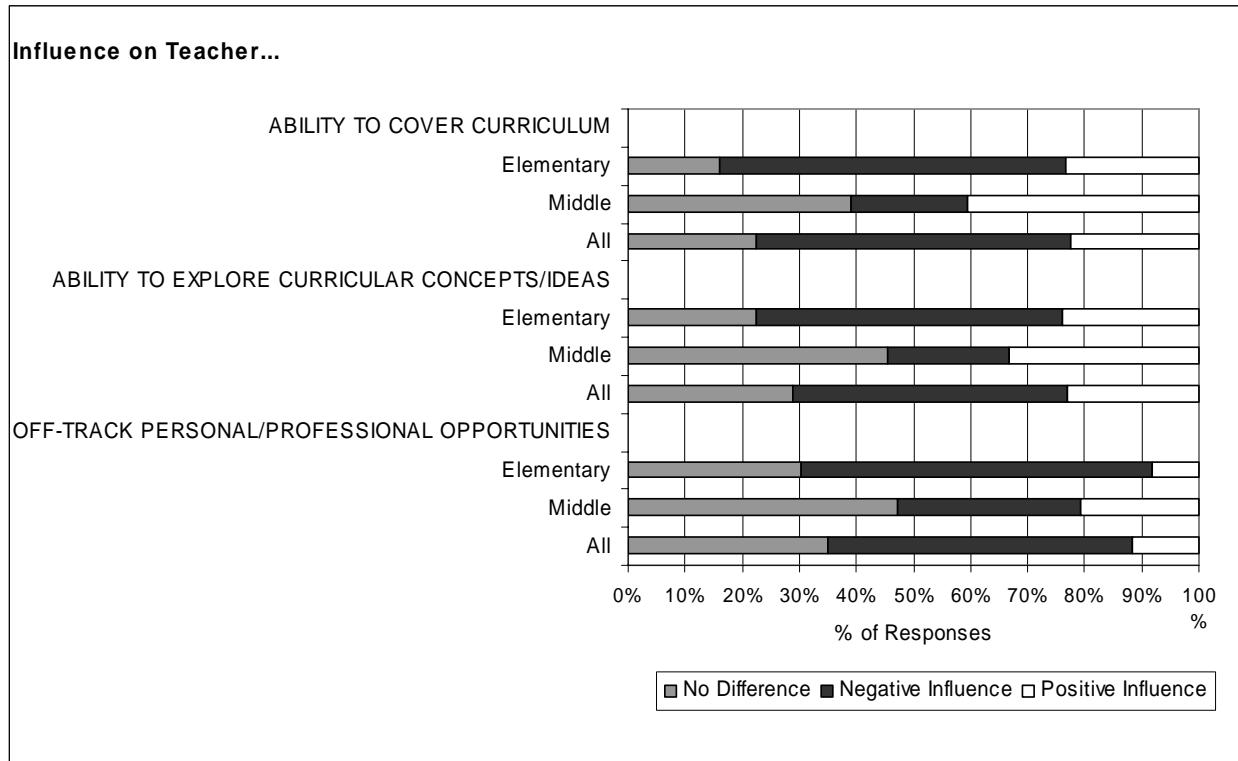
Teacher curriculum coverage. Elementary teachers reported that the four-track calendar had a negative influence on their ability to cover their curriculum (61%) with remaining teachers reporting a positive influence (23%) or no influence (16%). A roughly equal proportion of middle school teachers reported that the four-track calendar had a positive influence (41%) or no influence on curriculum coverage (39%), with remaining teachers reporting a negative influence (20%). Common negative responses were that there was not enough instructional time, it was necessary to rush at the end of the day, content coverage was reduced, lessons had to be split across days, pacing was tight, or that students regressed while off track. Positive responses

included that the additional days were beneficial, curriculum was better structured, or that more content was covered. In both positive and negative responses, some teachers reported that some subjects, such as science or social studies, were more influenced than others.

Teacher exploration of curricular concepts and ideas. The largest proportion of elementary teachers reported that the four-track calendar had a negative influence (54%) on their ability to explore concepts and ideas central to their curriculum, with roughly equal proportions reporting a positive influence (24%) or no influence (22%). The highest proportion of middle school teachers reported that the four-track calendar had no influence (46%), followed by a positive influence (33%) or a negative influence (21%). Common responses of teachers reporting a negative influence were that there was less depth of coverage, days were rushed because there was less time, the schedule was choppy or inconsistent, or it was harder to prepare. Some teachers reported that some subjects, such as science or social science, were more negatively influenced than others. Common responses of teachers reporting a positive influence were that curricular exploration was generally better, there was more time, more days, or more depth of coverage was possible.

Teacher off-track personal and professional opportunities. Regarding the available off-track personal and professional opportunities, a majority of elementary teachers believed that the four-track calendar had a negative influence (62%), followed by no influence (30%) or a positive influence (8%). The highest proportion of middle school teachers reported that the four-track calendar had no influence (47%), with remaining teachers reporting a positive (32%) or negative influence (21%). Among the negative responses were that there were generally fewer opportunities, less time, not enough days, less intersession employment opportunities, or that the schedule was unmatched to college summer school courses. Among positive responses, teachers reported that there was a general positive influence, more after school [end of the day] opportunities, or more, but unspecified, personal or professional opportunities.

Figure 4: Teacher Responses Regarding the Influence of the Four-Track Calendar on Teacher Behavior by Schooling Level



Teachers' preferred calendar and track

In this survey teachers were asked, *given a choice, on which calendar and track would you choose to teach?* The greatest percentage of elementary (54%) and middle school (43%) teachers who changed from a three-track to a four-track calendar would choose to return to the three-track calendar. Remaining elementary teachers preferred single-track and four-track calendars equally (23%), while middle school teachers preferred the four-track calendar (32%) slightly more than the single-track calendar (20%). The three remaining middle school teachers preferred anything but three-track (3.6%) or anything but single-track (1.8%). Teachers who selected multi-track calendars overwhelmingly preferred A-track over others (48% for three-track; 49% for four-track), followed by C-track (29% for three-track; 25% for four-track) and D-track (16% for four-track), with B-track least preferred of either calendar (16% for three-track; 4% for four-track).

Teachers who preferred the three-track calendar reported that the three-track has longer breaks for teacher enrichment, employment, or personal time, more teaching time, fewer split lessons or better curriculum coverage, or that three-track requires less roving. Teachers who preferred the single-track calendar reported that it allows for more continuous instruction, more

grade-levels on track which leads to more teacher collaboration, no roving, or that the single-track was the same schedule as their children. Teachers who preferred the four-track calendar reported that the shorter day is better, breaks between tracks are shorter and students have less learning loss, or that it is more similar to the traditional calendar.

Improvements in the calendar transition process

On the final item, teachers were asked, *in what ways could the transition to the four-track calendar configuration in 2003-04 have been improved?* Common responses from teachers were more advanced notice, more opportunities for teacher input, better planning, a smoother transition, or less roving. This last set of comments about roving warrants special attention and is explored below.

Roving. The term *roving* is the term applied to the necessity of changing classrooms when tracks end and begin. In all, 25 elementary and 8 middle school teachers made 54 negative comments concerning the effects of roving throughout the survey. While roving is also necessary on three-track calendars, teachers indicated that because the four-track calendar has one extra track, roving happened more often (every six weeks compared to every nine weeks). One teacher reported changing classrooms a total of nine times in one year. Other teachers complained about the instructional time that was lost while packing up and setting up rooms every time one track ended and another began. Some expressed discontent with having to move everything themselves, or having other teachers in their room setting up in the days prior to going off track. Teachers also discussed the lack of books, instructional materials, or storage space after changing to the four-track calendar. Finally, Teachers reported that packing up classrooms had a negative effect on student behavior and engagement, and led one teacher to discontinue hands on activities and creation of a stimulating environment because s/he roved between classrooms.

Conclusions

The results of academic achievement comparisons support the findings of prior studies of the achievement effects of school calendars. Elementary student achievement gains on English language arts and math California Standards Tests for schools that changed from a three to a four-track calendar did not differ from those of similar schools that remained on a three-track calendar. Middle school student achievement gains for the two middle schools that transitioned from the three-track to four-track calendar were mixed, with one school outperforming a similar school in both ELA and math, while the other exhibited mixed gains for different grade levels

and subjects. One consistent finding among the two four-track middle schools was that the few students who took the Algebra I CST significantly outperformed similar schools.

On surveys mailed to teachers in calendar change schools, teachers reported that the four-track calendar had either no influence or a positive influence on student behavior at the end of the day; and no influence or a negative influence on student behavior prior to going off track, academic engagement, and readiness for STAR examinations. Middle school teachers reported slightly more negative influences on student behavior than elementary teachers.

A sizable majority of teachers reported that the four-track calendar had no influence on parent involvement in student's educational process, with middle school teachers more likely to report a positive influence on parent involvement.

Overall, elementary and middle school teachers differed on the amount of influence the four-track calendar had on their ability to cover their curriculum and off-track opportunities. Elementary teachers were more likely to report that the four-track calendar had a negative influence, whereas middle school teachers reported that it had no influence, or a positive influence.

If given a choice, elementary and middle school teachers whose schools changed to a four-track calendar would rather teach on a three-track calendar. Remaining elementary teachers are evenly split between single and four-track schools, while slightly more middle school teachers prefer the 4-track calendar over the single-track calendar. Regardless of which multi-track calendar teachers preferred, A-track was most popular and B-track least popular.

When asked in what ways the calendar configuration could have been improved, teachers reported more advance notice, more teacher input, better planning, or a smoother transition. To this item, a high number of teachers indicated that one of the biggest problems resulting from the change to the four-track calendar was increased roving, or classroom changes. Teachers reported that increased roving had a negative effect on student behavior, academic engagement, availability of materials, curriculum coverage, and overall parent and teacher morale.

Appendix A: Teacher Survey

As you know, 2003-04 marked the first year your school operated on the four-track (90/30) calendar. We are interested to know how the transition from the three-track (Concept 6) to the four-track (90/30) calendar affected your professional life.

1) During the following years, on which grade levels and tracks were you assigned?

a) 2002-03: Grade(s): _____ Track: _____

b) 2003-04: Grade(s): _____ Track: _____

2) Compared to the three-track calendar configuration in 2002-03, how did the four-track calendar configuration in 2003-04 influence...

a) ...your students' behavior at the end of the school day?

b) ...your students' behavior in the days prior to going off track?

c) ...your students' academic engagement?

d) ...your students' readiness for STAR (CAT/6 and CST) examinations?

e) ...the extent that parents are involved in your students' educational process?

3) Compared to the three-track calendar configuration in 2002-03, how did the four-track calendar configuration in 2003-04 influence...

a) ...your ability to cover your curriculum?

b) ...your ability to explore the concepts and ideas central to your curriculum?

c) ...personal and professional opportunities available to you, during your off-track time?

4) Given a choice, on which calendar and track would you choose to teach?

Calendar: _____ Track: _____

Why? _____

5) In what ways could the transition to the four-track calendar configuration in 2003-04 have been improved?

Thank you very much for your participation in this very important study.

Appendix B: Disaggregated Teacher Responses

