

Multi-Track Year-Round Schooling as Cost Saving Reform: Not Just a Matter of Time

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MULTI-TRACK YEAR-ROUND SCHOOLING AS COST SAVING REFORM: NOT JUST A MATTER OF TIME

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Abstract

In the face of school crowding and fears about inequality-inducing summer learning loss, many schools have started to adopt multi-track year-round school calendars, which keep the same number of school days, but spread them more evenly across the calendar year. This change allows schools to support a larger student population by rotating which students are on break at any point in time. While year-round schooling can save money, the impact on academic achievement is uncertain and only recently have large-scale studies become available for policy makers. This brief examines research on the effects of multi-track year-round schooling, focusing on two rigorously executed case studies. This research gives little support for claims that year-round schooling will boost student achievement. Except as a remedy for highly over-crowded schools, year-round schooling seems to have little impact on achievement, and has even been shown to decrease achievement, especially among the most high-risk student populations.

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INTRODUCTION

Summer vacation has been a defining feature of the American public school system for nearly 150 years (Johnson and Spradlin 2007). Virtually all states follow a school calendar that includes 180 days of learning, beginning in late August or early September and running until late May or June. The three “summer” months of the year are typically spent outside the formal school environment. Recently, however, in the face of widespread school crowding and fears about inequality-inducing “summer learning loss,” many schools have started to experiment with alternative school calendars. Multi-track year-round school (MTYRS) calendars, which shorten the summer break and redistribute the vacation time more evenly across the year, have become particularly popular.¹

All year-round calendars spread the 180-days of learning more evenly across the year. Figures 1 and 2 illustrate one way in which a year-round school (figure 1) can differ from the traditional calendar (figure 2). Under the single track model, all students follow the same balanced calendar. Under MTYRS calendars, students are placed into a particular track, each with its own unique schedule, and at least one track of students and teachers is always on vacation. Because of this rotation of tracks, the same facility can serve more students than it would be able to under a traditional school calendar. In this brief, we focus our discussion on the MTYRS calendar, in part because it is the more popular policy option due to cost-saving properties and also because there is much less evidence available regarding the impacts of single-track year-round calendars.

The increased capacity of schools on a MTYRS model makes these calendars especially popular among overcrowded schools. According to a report by the U.S. Department of Education, roughly one-quarter of public schools were experiencing overcrowding as of 1999 (USDOE 2000). Overcrowding can result from a combination of growth in student populations, as well as a lack of capacity in schools. In many areas, enrollment levels have been rising since 1985 and projections report continued growth in the future. Additionally, school facilities continue to deteriorate in quality and new school construction lags behind population growth (USDOE 1999, 2005).

In addition to their ability to address school crowding, advocates of the MTYRS calendar argue that redistributing the lengthy summer break across the calendar year could lead to increased academic achievement. This belief

1. In response to summer learning loss concerns, some schools have adopted longer school days or longer school years. Although there are studies finding more time in school to positively impact achievement (Pischke 2007; Marcotte 2007; Marcotte and Hemelt 2008), the additional staff and student time can come at a high cost: up to \$1,300 per student. This additional cost represents a 12 to 15 percent increase over traditional expenditures (Associated Press 2009).

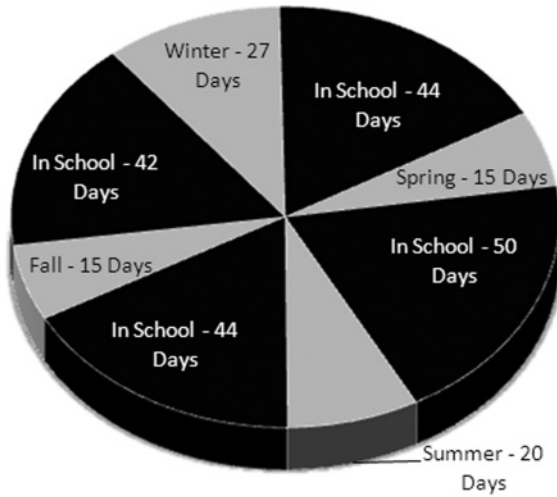


Figure 1. Example of a Year-Round Calendar (McMullen and Rouse 2012b, figure 1B)

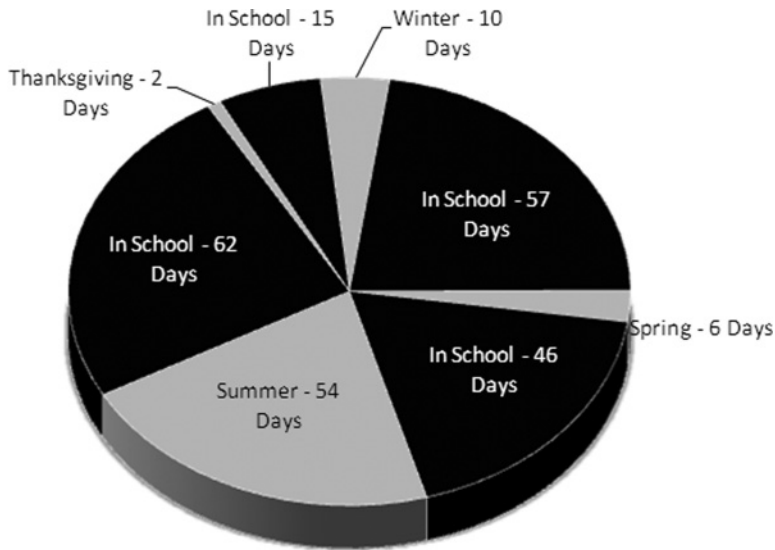


Figure 2. Example of a Traditional Calendar (McMullen and Rouse 2012b, figure 1A)

stems from a wealth of research supporting the assertion that students lose valuable skills over the long summer break (Jamar 1994; Cooper et al. 1996; Downey, von Hippel, and Broh 2004; Alexander, Entwisle, and Olson 2007). It is estimated that all students lose roughly a month of math skills and that low-income students are estimated to lose as much as three months of learning in reading skills (Von Drehle 2010). By the end of ninth grade almost two-thirds of the socioeconomic achievement gap can be explained by differential summer learning loss (Alexander, Entwisle, and Olson 2007).

It is no surprise, then, that from 1986 to 2006 there was a 635 percent increase in the number of year-round schools operating in the United States (Education Week 2004). As of 2007, there were more than 2 million students in 2,764 public schools operating on a year-round calendar in 43 states and also in Washington, DC.² There are areas with particularly high concentrations of year-round schools, such as the state of California and Wake County, North Carolina, which are both discussed in this brief.

Given concerns over the merits of the long summer break, along with growing student populations and tight education funding, one would not be surprised to see continued growth in adoption of MTYRS calendars. A troubling aspect of this policy adoption, however, is that whereas potential cost-savings have been established (Merino 1983; Daneshvary and Clauretje 2001; Cooper et al. 2003; CDE 2012) there has not been rigorous empirical research on the academic effects of year-round school calendars, leaving policy makers to make decisions about adoption of such calendars without essential information. Some of the common reasons cited for implementation of year-round school calendars (e.g., their ability to alleviate learning loss) are not supported by the more recent studies on year-round schools.

The purpose of this policy brief is to dispel these myths and to discuss the most recent reliable evidence on the academic impacts of MTYRS calendars. We begin by discussing the relationship between school crowding, cost savings, and MTYRS. Then, we investigate the conditions under which year-round school may counteract summer learning loss. Next, we highlight recent empirical evidence from two places where the calendars have been widely adopted: the state of California and Wake County, NC. Lastly, we provide recommendations for policy makers considering the implementation of the MTYRS calendar.

SCHOOL OVERCROWDING, COST-SAVINGS, AND THE MULTI-TRACK YEAR-ROUND CALENDAR

Cost-savings can arise under the multi-track model of year-round school because a year-round facility is used continually throughout the year, allowing it to accommodate more students. Both the Wake County Public School System in North Carolina and the California Department of Education (CDE) report that a MTYRS can accommodate 20 to 33 percent more students than a traditional school. This can reduce costs by limiting the need for new school construction.

Additionally, because the school building is used continually throughout the year, the MTYRS calendar is expected to decrease other costs. The CDE notes potential cost savings arising from areas such as shared materials,

2. See NAYRE 2007.

benefits (which are calculated on a twelve-month basis) and reduced absenteeism, as well as reduced capital outlay, staffing, and transportation.³ Other operational costs associated with the continual use of the facility, however, such as utility and maintenance costs, could increase and potentially offset these savings. The CDE also cites increased transitional costs (administrative planning, staff development, storage space, etc.) associated with the MTYRS calendar.

On balance, evidence supports the assertion that the MTYRS is a cost-effective solution to school overcrowding, though it may be more costly when a school is not crowded. The CDE cost analysis suggests that in a school with a capacity of 500 students and an enrollment of 635 students, the per-pupil cost of education is \$25 lower under a year-round calendar. With an enrollment of 635 students, this amounts to more than \$15,000 per school.⁴ A study of MTYRS in Clark County, Nevada, by Daneshvary and Clauretje (2001) suggests the potential cost savings of MTYRS is much higher, or roughly \$200 per student per year. These comparatively large estimates likely reflect the fact that their study includes the real estate cost (value of building and land) in per pupil cost estimates, directly incorporating the fact that under MTYRS this large cost is spread over more students as the building is used more efficiently. Cooper et al. (2003) find the multi-track system becomes the most cost effective solution once a school's population reaches 115 percent of its building capacity. Although the range of estimates varies, there is a consensus that the cost savings can be substantial.

YEAR-ROUND SCHOOLING AND STUDENT ACHIEVEMENT

Year-round school is often endorsed as a solution to summer learning loss, despite the fact that it does not actually increase learning time. Advocates argue that the calendar is particularly beneficial for at-risk students, many of whom cannot afford supplemental learning activities during the long summer break (Shields and Oberg 2000; Cooper et al. 2003). For year-round school to help students through shortening of the summer break, however, at least one of two conditions must be met. First, it could be that student achievement falls faster as a break progresses—that is, their learning loss could accelerate. If so, then cutting the break off earlier would get the students back in the classroom before the students lose most of their progress from the previous year. Second, it is possible that learning rates decrease the longer students are in school without a significant break. In this case, the more frequent breaks of a year-round schedule might improve student learning.

3. See www.cde.ca.gov/ls/fa/yr/guide.asp.

4. See footnote 3.

Alternatively, if we make different assumptions about the learning process, then year-round school could be detrimental. If the rate of learning loss slows over the summer, or the rate of learning increases over the school year, then the traditional calendar would be preferable. It is possible that frequently stopping and starting instruction may be detrimental to student achievement. Moreover, it is possible that neither learning nor learning loss accelerates or decelerates. If students learn and forget at relatively constant rates, then all school calendars that have the same amount of instructional time will yield similar results.

The most common causal explanation for summer learning loss, and the reason it occurs disproportionately for traditionally disadvantaged students, is differences in students' in-school versus out-of-school environments. Presumably, the out-of-school environment is less conducive to academic achievement than time spent in school. Both in-school and out-of-school environments differ across students, however. Even though disadvantaged and minority students attend lower-quality schools on average, their out-of-school environments may be even lower in quality compared to other students. Downey, von Hippel, and Broh (2004) explain that because of this, the summer break creates a wider academic divide, and the school year acts as an "equalizer" between minority or disadvantaged students and others. Moreover, there are reasons to believe that the distribution of school and vacation days might affect disadvantaged students differently. Although the child care and/or supplemental activities that students from poor families are able to afford during summer months are likely lower quality than for other students, this may be even more so during the non-summer months. It is possible that vacation time mid-winter, for example, is less likely to coincide with an affordable out-of-school camp or educational program.

Theory alone cannot predict the academic effects of the year-round school calendar. Depending on the rate of learning loss during vacation versus learning gains during school time, year-round schools could have positive, neutral, or negative effects on student skill accumulation. Moreover, we might also expect there to be differing effects for disadvantaged and minority students, but theory alone does not predict whether impacts on these students would be worse or better than for the rest of the student population. Only empirical evidence can shed more light on these questions.

RESEARCH ON YEAR-ROUND SCHOOLING

Despite widespread debates over the benefits and costs of year-round school, until recently, there was little longitudinal research on the subject.⁵ Reviews

5. Longitudinal research refers to studies using multiple years of data in their analysis.

of the literature by Cooper et al. (2003) and Johnson and Spradlin (2007) provide a thorough review of the existing literature on the impact of year-round schooling, and conclude that “a truly credible study of modified calendar effects has yet to be conducted” (Cooper et al. 2003, p. 42). Fortunately, recent research has been able to improve on previous studies (Graves 2010, 2011; McMullen and Rouse 2012a, b). Recent education policy initiatives and the availability of rich longitudinal data have made it possible to evaluate the effects of year-round schooling using more advanced methods. These recent studies have focused on the state of California and on Wake County, NC, both of which have implemented MTYRS calendars in response to high levels of crowding in their public schools. We therefore focus our discussion on advancements in knowledge of MTYRSs that have resulted from this research.

MTYRS in California and Wake County

The ten-year span from the mid 1990s to mid 2000s was the height of use of year-round calendars in California.⁶ In any given year, California alone has typically accounted for roughly half of the total number of schools on a year-round calendar nationally (just under 3,000 schools nationally), as well as half of the total enrollment in year-round schools nationally (around 2 million students nationally) (NAYRE 2006, 2007). The total number of public school students enrolled in a California school with a year-round calendar accounted for roughly 20–23 percent of overall public school enrollment in the state.

Within California, the year-round school calendar of choice was predominantly the multi-track model, with roughly two-thirds of year-round schools in California on a MTYRS calendar (CDE 2006). The majority of the MTYRS calendars used follow a 60/20 schedule: 60 days on and 20 days off rotation. The second most common schedule is the 45/15. Both the 60/20 and 45/15 schedules make use of four tracks of students, where one track is on break at any given time. During intersession, a mandatory remediation is required of districts, just as it is during the summer months on a traditional calendar.

The Wake County, NC, public school system is a large district that has seen student population double since 1993 and projects an increase of 40,000 students by 2020.⁷ Year-round school calendars have existed in the Wake County, NC, school system since the early 1990s. The majority of the year-round calendars used in Wake County, NC, are MTYRS calendars that follow a 45 days on 15 days off schedule. Schools on this calendar have four tracks of students. The number of year-round schools was relatively modest, however,

6. Along with tabulations made by the National Association for Year-Round Education (NAYRE), school and enrollment totals for the state of California can be found on the CDE Web site at www.cde.ca.gov/ds/sd/cb/.

7. www.wcps.net/about-us/our-students/demographics/.

until 2007 when, in response to rapid population growth, the school system converted 22 existing schools and all new schools to MTYRS calendars. This policy change increased the number of year-round schools operating in the district from 14 to 42 in the course of one year.

Analyzing the effects of MTYRS is a challenge because year-round calendars occurred disproportionately in crowded schools with demographics that differ from other less-crowded schools. In California, the average Hispanic/Latino population in a multi-track school was roughly 61 percent and the white population 21%, whereas the corresponding percentages were 38 percent Hispanic/Latino and 41% white in traditional schools. California MTYRSs also had larger student-to-teacher ratios and a lower percentage of fully-credentialed teachers. Because of these differences, a simple comparison between year-round schools and traditional schools would likely find lower achievement associated with the MTYRS calendar, even if there were no real impact. In contrast, crowded schools in Wake County tended to have a disproportionate number of high-achieving students and relatively low minority populations. Failure to account for this difference in school populations would lead to inflated estimates of year-round school on student achievement. Fortunately, detailed longitudinal data are available for both case studies, which allow researchers to address these problems.⁸

Impact of MTYRS on Student Achievement: California versus Wake County

Table 1 summarizes the main results from these two case studies. The evidence from California is presented in columns A, B, and C, and the results from Wake County, NC, are presented in columns D and E.

Results show that, in California, MTYRSs can be detrimental to the average student's academic achievement.⁹ Graves (2010) finds this occurs primarily in the first few years after implementation. Therefore, the estimates we present in table 1 for California correspond with a school being two years on a MTYRS.

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8. Graves (2010, 2011) uses detailed data from the CDE on all public schools in the state, by grade level within each school and over time. Her estimation includes school fixed effects and school-specific time trends, which together account for both stable and time-varying school-specific differences that may drive implementation of a specific calendar type. McMullen and Rouse (2012a, b) use data available through The North Carolina Education Research Data Center (NCERDC), housed in the Center for Child and Family Policy at Duke University, on all students in public schools in North Carolina. These individual student data allow them to use methods that address the differences in student populations across calendar type.
 9. In discussing the case for California, it should be noted that findings in this study were not the result of Concept 6 multi-track schools. Concept 6 multi-track schools reduced the number of school days to 163 in order to fit more students in the same school facility and should not be confused with the general multi-track calendar that maintains 180 days of schooling. The Concept 6 multi-track calendar was widely believed to have negative impacts on students, even prompting a lawsuit (*Williams vs. California*) that resulted in the complete phasing out of these calendars from the California public school system.

Table 1. Summary of Key Findings by Study and Population

	State of California			Wake County, NC	
	[A]	[B]	[C]	[D]	[E]
	Math	Reading	Language	Math	Reading
All estimates measured in standard deviation units					
Multi-Track YRS and Achievement	The average change in national percentile rank for students in a year-round calendar, relative to a traditional calendar			The average change in test scores (or test score growth) for a student in a year-round calendar, relative to a traditional calendar	
1. Overall results					
Level of achievement	-0.060 ^a	-0.040 ^a	-0.044 ^a	-0.002	0.016
Growth in achievement	N/A	N/A	N/A	-0.003	-0.012
2. Results by level of crowding ^b					
Non-crowded school	N/A	N/A	N/A	-0.095	-0.089
Moderately crowded school	N/A	N/A	N/A	0.063	0.073
Severely crowded school ^c	-0.099	-0.138 ^a	-0.105 ^a	0.075	0.137 ^a
3. Results by subgroup ^d					
Overall	0.037	-0.031 ^a	-0.066 ^a		
Low socioeconomic status	-0.199 ^a	-0.142 ^a	-0.198 ^a	N/A	N/A
White	N/A	N/A	N/A	-0.002	-0.008
African American	0.64	-1.311	0.029	0.026	0.001
Hispanic	-0.438	-0.818	-1.276 ^a	-0.050	-0.073 ^a

Note: ^aDenotes estimate is statistically different from zero.

^bThe test score for Wake County is measured as growth in test score.

^cGraves (2010) examines effects in critically overcrowded versus non-crowded schools, where critically overcrowded includes schools similar to moderately and severely crowded in Wake County. The most directly comparable estimates are presented here. In other specifications, however, Graves (2010) finds negative estimates for math as well.

^dThe estimates by subgroup for California should be interpreted as the average change in the percent of students scoring at or above the 50th percentile on nationally standardized tests in a year-round calendar, relative to a traditional calendar. Additionally, estimation involved a series of bounding exercises. Therefore, one should not put too much emphasis on the specific magnitude of the estimates. In additional specifications, negative and significant results were found for African American and Hispanic students.

Graves (2010) finds that students in MTYRS in California experience a drop in percentile rank on nationally standardized tests in reading, math, and language of roughly 0.04 standard deviations, with this number increasing in magnitude to a drop of roughly 0.11 standard deviations in all three subjects in severely crowded schools (see panels 1 and 2 of table 1).¹⁰

10. While the specific estimate reported for severely crowded schools is not significant for math, Graves (2010) does find evidence that math is negatively affected similarly to reading and language.

The same study also finds evidence of negative effects for single-track year-round calendars in California, but the impact is smaller in magnitude than those found for MTYRSs. Both multi-track and single-track calendars alter the timing of vacation and in-school time in a similar way. Therefore, findings for single-track calendars can tell us something about the source of negative effects found for multi-track calendars. The negative effects found for single-track year-round schools provide support for the theory that frequently starting and stopping may be detrimental to learning. This cannot entirely explain the larger effects found for MTYRSs, however. The larger negative effects found for the MTYRS calendar are therefore also partly driven by something unique to the multi-track year-round model, such as the organizational burdens arising from rotating tracks.

In a follow-up study using two additional years of data, Graves (2011) finds that MTYRSs can be especially harmful for academic achievement of disadvantaged and minority groups. Estimates, shown in panel 3, columns A, B, and C of table 1, use as a dependent variable the percent of students in each subgroup scoring at or above the 50th percentile in each subject. These estimates suggest that the percent scoring above this threshold drops for the overall population in both reading and language. This is much more pronounced for students of low socioeconomic status across all three subjects. In general, Hispanic and Latino students experience quite sizeable drops in the percent scoring above the 50th percentile nationally in both math and language (the specific estimates presented here are only significant for language). Black students also show negative and significant effects of being on a MTYRS in California, but this effect only appears in the first year on the calendar type (not shown here). These findings are especially disconcerting because the calendar change has often been touted as being helpful for minority and disadvantaged groups of students.

McMullen and Rouse (2012b), studying Wake County, NC, examine the impact of year-round education on reading and math test scores, holding school crowding constant. Overall results from this paper are shown in panel 1, columns D and E, of table 1. These results, ranging from -0.012 to 0.016 , imply that the large calendar change had essentially no impact on average math or reading achievement. Moreover, contrary to the early literature on year-round education, even when the students are separated by race (see panel 3, columns D and E of table 1), the authors find little evidence that the calendars have an impact on any particular demographic group, with the exception of some evidence that it might diminish the reading gains of Hispanic students (by roughly 0.07 standard deviations).

In a second study, McMullen and Rouse (2012a) ask if year-round calendars are more beneficial for students in highly crowded schools. Interestingly, the

Table 2. Comparison of Case Study Characteristics

Study Location	State of California	Wake County, NC
Data source	California Department of Education	NCERDC
Year of study	1998–2005	2005–2009
Short run or medium-run effects	Both	Short-run
Approximate enrollment in YRS	1 million students	44,000
Most common type of MTYR calendar	60/20	45/15
Other types of MTYR calendars	45/15	N/A
Number of tracks	4 (for both types)	4
Capacity increase in MTYR	25–33%	20–33%
Requires remedial program to be offered?	Yes	Varies
Demographics - traditional only		
%White	41	51
%African American	5	28
%Hispanic	38	10
Demographics - year-round schools		
%White	21	58
%African American	8	22
%Hispanic	61	10

Note: Enrollment for Wake County is based on 2010 figures.

results in that paper (shown in panel 2, columns D and E, of table 1) suggest that when used in the absence of school crowding year-round schools have a small negative impact on student achievement. When year-round calendars are used in moderately or severely crowded schools, however, they have a positive impact on achievement. Estimates imply MTYRS increases achievement in severely crowded schools by roughly 0.14 standard deviations. Thus, the MTYRS calendar can partially offset some of the negative effects of a crowded school. This result stands in contrast to the evidence from California, in which Graves (2010) finds worse impacts for highly crowded schools.

There are a few characteristics, summarized in table 2, that distinguish the year-round schools in California from those in North Carolina that might account for the conflicting estimates across the two case studies. First, the year-round schools in California have a particularly large minority population, especially in terms of the proportion of students that are Hispanic or Latino (61 percent), whereas Wake County, NC, has a larger proportion of students who are white (58 percent). The challenges faced by schools with very high minority, low socioeconomic status and potentially English-learner populations are likely to differ from schools where this demographic does not make up as

large of a proportion of the students. Second, Graves (2010) finds that the negative impacts of year-round calendars are more pronounced in the second and third years under the calendar. The shorter comparison window in McMullen and Rouse (2012a, b) may result in more moderate impacts.

POLICY RECOMMENDATIONS AND CONCLUSIONS

Predictions regarding the academic impacts of year-round schools have been mixed, as have opinions on the matter, with groups such as the NAYRE and Summer Matters passionately arguing opposing sides of the debate. Policy makers and politicians should, therefore, draw on empirical evidence to make informed policy decisions. Although the most recent evidence has not settled the debate, there are some key recommendations that can be drawn from these studies' findings. In the remainder of this brief, we lay out our recommendations for policy makers and practitioners considering the implementation of a MTYRS calendar.

Are Cost Savings Large Enough?

Cost-savings have been established within the literature. The size of these savings, however, varies with the extent of school overcrowding. Each school or district should examine the extent of the costs savings they might face, including whether new school construction or remaining overcrowding in the existing facility is the contending alternative course of action. In either case, policy makers should weigh the potential cost savings associated with shared costs arising from continual use of the facility, with potential offsetting costs related to maintenance and schedule transitions. Given, however, that the available evidence is still not definitive, and at least one study finds large negative effects on student learning, districts or schools should be cautious in adopting MTYRS calendars. Small cost savings may not justify risking student achievement.

Context Matters

In the case of higher levels of school crowding, large cost savings are possible and MTYRS calendars could be a beneficial option. In determining whether it is worthwhile to proceed with a MTYRS calendar, context is critical. Before making use of these studies for policy, it is therefore helpful to consider whether the situation faced by the district under consideration is more similar in many aspects to California or Wake County, NC. Estimates for California simply cannot be as easily generalized to areas with very small minority populations. Likewise, estimates for Wake County, NC, are likely not as fitting

for areas that have such high minority groups as California experiences.¹¹ In applying the findings of the studies discussed here, it is important for policy makers to attend to the characteristics of the school and students when considering MTYRS calendar implementation. For example:

- (1) policy makers should exhibit particular caution in schools in which the low-income and/or minority populations are large, and
- (2) there is almost no evidence supporting academic achievement gains except as a remedy for severe crowding.

Implementation Considerations

Because more frequent stopping and starting of instruction and breaks is a key feature of the MTYRS calendar, policy makers must consider how features of calendar implementation might disrupt or complement the learning environment. For example, how will the district accommodate remedial programs during intersession periods to make them at least as effective as they would be during the traditional summer break? How much review will be provided at the start of each session to ensure students are caught up and yet minimal new material is pushed aside for review time?

Further, although the CDE Program Guide (CDE 2012) specifically prohibits loading tracks by ability level, Mitchell and Mitchell (2005) find evidence of track segregation in a single large school district in California along the lines of student and teacher characteristics, as well as student ability and programs. We cannot say whether this contributes to the negative estimates found for California. A school or district should consider carefully how it will handle track assignment, however.¹²

California also lists “opportunities for salary enhancements through substitute and/or intersession employment” as a potential benefit afforded by year-round schools (CDE 2012). Although there is no further information provided on exactly how schools in California adjust their teacher contracts and compensation to the MTYRS model, this is likely to be an important consideration for policy makers and practitioners. This presumably means that teachers may be increasing their total teaching time. Even if this is desired on the part of teachers, it does not necessarily mean that it will be beneficial for students. A teacher may be willing to be “overworked” to gain additional

11. Although each of the studies discussed here account for selection concerns, and some even explore differing effects by race and socioeconomic status, the sample of available schools to observe in both states is fundamentally different.
12. Although tracking occurs on a traditional calendar, and the study makes no comparison to the degree of segregation on a comparable traditional calendar, it is possible that segregation occurs to a larger degree in multi-track schools than in traditional schools for California but not in Wake County, NC.

income, but quality of teaching could still suffer. Policy makers should be careful to consider teacher burnout and effectiveness in determining how to adjust teacher contracts to accommodate the new calendar schedule.

Despite negative effects for California, we remain cautiously optimistic about the use of year-round schools as policy reform. It should be emphasized that this is not because of the academic impacts but rather because they have been shown to be cost-saving, which in the face of tightening financial situations becomes increasingly important. In the case of Wake County, NC, the use of year-round schools seems to be beneficial, with cost savings and neutral academic impacts. When year-round school calendar adoption mimics the case for Wake County, NC, it can be a desirable policy option. This does not mean the policy maker does not need to be cautious, as year-round schools have had a clear detrimental effect in California. We reiterate the recommendation put forth in Johnson and Spradlin (2007) that districts choosing to use the modified school calendar should carefully document and evaluate student performance throughout the process of implementation and beyond to ensure that any cost savings of the MTYRS calendar are attained without detriment to student learning.

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