

Extended Learning Strategies

In this report, Hanover Research will review recent literature to determine what extended learning strategies have been suggested to improve student performance. The report will cover strategies such as extended day and year proposals, as well as after-school programs and Saturday and summer classes. In the analysis of all such proposals, Hanover will highlight the impact these strategies are projected to have on academic performance and offer case studies of their implementation.

Overview

For decades, education reformers have been calling for school time reform. As early as 1983, a report on education called “A Nation At Risk” offered five principal recommendations to improve the state of education in the United States: implement rigorous standards, hold high expectations/strengthen accountability, improve teaching profession, strengthen leadership and increase fiscal support, and increase learning time by extending the school day or year.¹ Of these, all initiatives apart from “increase learning time by extending school day and/or year” have attracted systemic action or funding. In recent years, however, extended learning strategies are garnering more attention and more recognition of success. In fact, in 2007, U.S. Secretary of Education Margaret Spellings asserted that the expansion of learning time would be the next major frontier in U.S. education reform.²

This report will offer an overview of the literature available on extended learning strategies, including reports measuring the success of those schools that have already implemented such reforms. This report will proceed in two parts, organized as follows:

- ❖ **Introduction to Extended Learning Strategies:** This section of the report will present the relevant literature surrounding the different strategies that are part of the overall extended time arsenal. These include alternate scheduling arrangements, extended school day schedules, and extended school year schedules including summer school. This section will consider the general arguments in favor of extending the time that American students spend in school as well as the most pertinent counter-arguments.
- ❖ **Reports of Student Success:** Here, Hanover will consider the various reports that analyze student success rates at those schools and districts that have implemented extended learning opportunities for their students. Together, these reports show a positive relationship between additional class time and academic achievement. However, these case studies also show a *complicated* picture in which it is difficult to isolate the independent impact of extended learning time and establish a causal relationship. The studies concur that additional time reforms are most successful when implemented as one element of a *broader strategy*.

¹ Farbman, Ph.D., David and Claire Kaplan. “Time for a Change: The Promise of Extended-Time Schools for Promoting Student Achievement.” Massachusetts 2020, Fall 2005, 5. [http://www.mass2020.org/files/file/Time-for-a-change\(1\).pdf](http://www.mass2020.org/files/file/Time-for-a-change(1).pdf)

² Rocha, Elena. “Choosing More Time for Students: The What, Why, and How of Expanded Learning.” Center for American Progress, August 2007, 1 http://www.americanprogress.org/issues/2007/08/pdf/expanded_learning.pdf

Selected Key Findings

- ❖ Extending the school day can allow schools to offer additional, important academic programs to students. Continuing to engage students outside the typical school hours also provides important adult supervision to help keep students out of trouble.
- ❖ We have shifted again to an information-driven economy that requires ever-greater numbers of graduates with post-secondary education. Furthermore, some argue that the change in school scheduling is necessary not only because of the increasing level of education required to succeed in an information economy, but also due to changes in family structures.
- ❖ Extended learning time can be especially beneficial to the lower-income student population. In particular, summer learning loss disproportionately affects low-income students.
- ❖ As suggested by the literature, it is difficult to isolate time reform from the other elements that comprise a successful school philosophy. Though causation is difficult to prove, a correlation is clear. Reports on the link between extended learning schedules and student success generally conclude that the additional hours, provided that they are comprised of high-quality learning opportunities, are positively related to student achievement.

Introduction to Extended Learning Strategies

This section will establish several different methods of extending learning time, explaining the impetus behind each, and offer an overview of the debate on time reform.

Approaches to Extended Learning

Extended learning strategies generally include any reform that increases the time students spend in the classroom with the assumed side effect of more in-depth and meaningful teaching and learning. An article published by the Center on Innovation and Improvement offers an overview of the ways in which schools are approaching extended learning, including: “(1) transforming school day schedules; (2) extending the school day; and (3) altering the school year structure.”³

Using the Current Day More Efficiently

By transforming school day schedules, schools are attempting to more efficiently use the time students currently spend in the classroom. Some schools aim to increase the

Block scheduling helped to close the achievement gap for students involved in the San Diego Blueprint for Student Success program by 15 percent over two years.

amount of time students spend on core subjects such as reading and math. One way to transform the school day is to implement block scheduling. Schools on block schedules usually have fewer, longer class periods per day (generally four periods of 80-100 minutes) and alternate subject matter by day or by semester.⁴ Block scheduling

helped to close the achievement gap for students involved in the San Diego Blueprint for Student Success program by 15 percent over two years.⁵

Other options for increasing effective use of the day include simply extending the time spent on each core class at the expense of the other subjects. Some schools also offer long-block science lab, cross-age and peer tutoring, distance learning options, and/or build additional teacher time for planning and collaboration into the day.⁶

³ “Restructuring and Extending the School Day.” Center for Innovation and Improvement National High School Center, 1. http://www.centerii.org/handbook/Resources/8_A_Restructuring_School_Day.pdf

⁴ *Ibid.*

⁵ *Ibid.*

⁶ Brown, Cynthia G. et. al. “Getting Smarter, Becoming Fairer: A Progressive Education Agenda for a Stronger Nation.” *Renewing Our Schools, Securing Our Future* National Task Force on Public Education. The Center for American Progress and the Institute for America’s Future, August 2005, 20. <http://www.americanprogress.org/kf/taskforcereportfinal.pdf>

Extending the School Day

Another common strategy for increasing the time students spend in key classes is to extend the hours of the school day. Extending the school day can allow schools to offer additional, important academic programs to students; schools may use the extra time for “implementing transition programs or credit recovery classes, creating community partnerships in which students participate in internships or online or web-based classes, and offering after-school or supplemental education services (SES) for students.”⁷ Continuing to engage students outside the typical school hours also provides important adult supervision to help keep them out of trouble; the absence of adult supervision after school has been associated with accidents and injuries, lower social competence, lower grades, lower achievement test scores and participation in high-risk behaviors including delinquency, alcohol, drug, and tobacco use, and sex.⁸

Besides increasing mandatory academic hours, some schools choose to offer after-school programs. These can include instruction, or may be geared towards other activities such as athletics. To be most successful, these programs must guarantee free access and participation to the most at-risk students.⁹ After-school and other supplementary programs are required for low-income students in low-performing schools by the No Child Left Behind (NCLB) Act.¹⁰

Extending the school day can allow schools to offer additional, important academic programs to students and provide important adult supervision to help keep students out of trouble.

To cite one example of a school offering extended learning throughout the normal school calendar, **Tennessee’s Murfreesboro City Schools has implemented an optional extended learning program available at a small fee to all students in the K-8 district.** To provide extended options, Murfreesboro opens its schools early and closes them late. While the program is not currently “free,” the district has paid for it through innovative means, charging parents under a dollar per hour for additional education and by pulling in resources from areas where the extended program has cut costs, like after school transportation. To make extended programming more affordable, the district has brought in low-cost college students and parents, part-time employees, and volunteers to assist classes. In cases where parents cannot afford to enroll their students in the program, the district offers scholarship options. Murfreesboro's approach contains a variety of novel options.

⁷ “Restructuring and Extending the School Day,” *Op. cit.*

⁸ Brown, Cynthia G. et. al., *Op. cit.*, 17

⁹ *Ibid.*, 21

¹⁰ Silva, Elena. “On the Clock: Rethinking the Way Schools Use Time.” Education Sector Reports, January 2007. P. 1 <http://www.educationsector.org/sites/default/files/publications/OntheClock.pdf>

For instance, many teachers work on flexible schedules, leaving school at 1:45 for a quarter of the year and then working extended days or hours for the remainder.¹¹

Extending the School Year

The Center on Innovation and Improvement article also lists extending or altering the school year as an extended learning strategy. By extending the school year, teachers and administrators avoid the summer month brain-drain. This loss of knowledge and interruption of study is significant – according to one study, students lose an average of 2.6 months worth of math skills over the long summer vacation, requiring extensive review at the start of each new school year.¹² Extended year programs can solve this problem by continuing to engage students for the summer months, truncating the summer vacation and retaining student focus. These programs

To be most effective, the extended schedule must increase the total number of days spent in school and not simply reorganize the current 180 days.

take several forms and have diverse purposes: some focus on academic recovery, others offer summer internship or leadership programs, and some center on multi-disciplinary projects. For other schools, extending the year simply means

increasing the number of normal academic days.¹³ To be most effective, the extended schedule must increase the total number of days spent in school and not simply reorganize the current 180 days.¹⁴ The “Renewing Our Schools, Securing Our Future” National Task Force on Public Education recommends lengthening the school year by 30 days to allow students in low-performing school districts to catch up.¹⁵

Some schools do choose to distribute the current 180 day school year over 12 months to avoid the long summer vacation. One popular configuration is offering 45 days of instruction followed by 15 days of vacation.¹⁶ The motivation behind this switch is generally overcrowding, but because some schools provide enrichment programs during the 15 day breaks, they may serve to strengthen student learning.

Why Increase School Time?

The number one recommendation made by the “Renewing Our Schools, Securing Our Future” National Task Force on Public Education is “more and better use of learning time.” The Task Force argues that the current school schedule is terribly

¹¹ Jones, J. H. "Extending school hours: A capital idea." *Educational Leadership*, 53.3, Nov. 1995, 44. Accessed via ProQuest.

<http://search.proquest.com/socialsciences/docview/224848214/12D00528FCE367F6A7B/1?accountid=132487>

¹² “Restructuring and Extending the School Day,” *Op. cit.*, 2

¹³ *Ibid.*

¹⁴ *Ibid.*, 1

¹⁵ Brown, Cynthia G. et. al., *Op. cit.*, 20

¹⁶ *Ibid.*

outdated. When the nation switched to a manufacturing-driven economy, the school schedule changed to accommodate the new demand for high school graduates. Now, the Task Force explains, **we have shifted again to an information-driven economy that requires ever greater numbers of graduates with post-secondary education.** The supporting school system must therefore again adapt so as to best prepare students for the growing academic demands.¹⁷

The change in school schedule is necessary not only because of the increasing level of education required to succeed in an information economy, but also due to changes in family structures. The Task Force report explains that 32 percent of children now grow up in single-parent households, and that both parents work outside the home in over two-thirds of two-parent households with school-age children. All together, this creates a population of 14 million children in the United States that is alone at home after school. This means that parents are more interested than ever in adequate after-school care. Rather than stagnating, the school system must adapt to the growing and changing needs of modern-day students and their families.¹⁸

The basic justification for time reform is that more school time results in more learning. Research supports the fact that schools who enact time reform see increased success, but with a caveat. Silva states in a 2007 Education Sector report that, **“improving the quality of instructional time is at least as important as increasing the quantity of time in school.”**¹⁹ Schools can only successfully enact extended learning strategies if they are already effectively and efficiently using the time available.

Additionally, extended learning time can be especially beneficial to the lower-income student population. In particular, **summer learning loss disproportionately affects low-income students** who cannot afford private summer camps or enrichment courses, **as well as students learning English** to whom a break in practice can be especially detrimental. This was established by a 20-year-long longitudinal study begun in 1982, which focused upon children in Baltimore City Public Schools. In this study, Doris Entwisle and Karl Alexander demonstrate that **achievement differences between students from differing economic backgrounds are magnified over the years, and that much of this gap originates during the summer vacation.**²⁰ Due to increased resources, higher-income students do not stop learning over the summer months but are instead able to pursue opportunities elsewhere. Lower-income students do not have these opportunities.

¹⁷ Brown, Cynthia G., et. al. *Op. cit.*, 15

¹⁸ Brown, Cynthia G., et. al. *Op. cit.*, 15

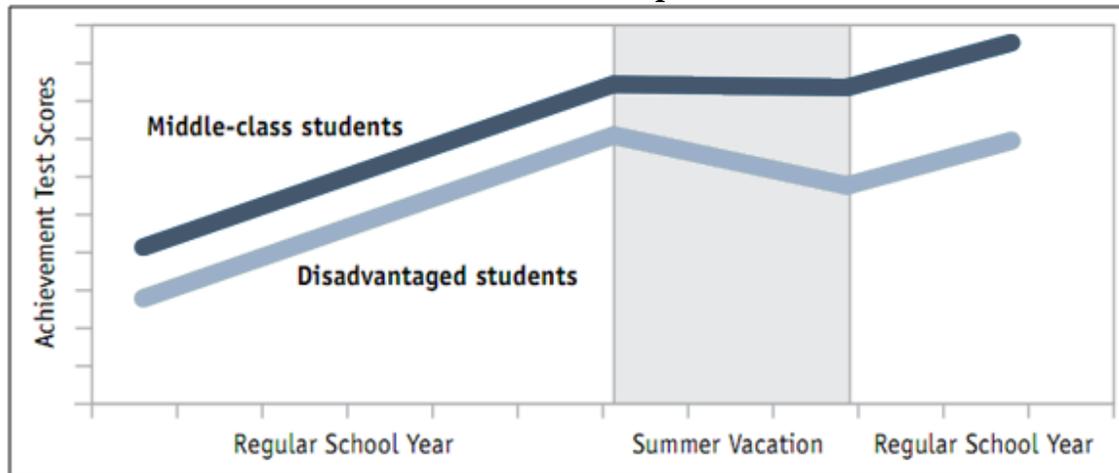
¹⁹ Silva, Elena, *Op. cit.*

²⁰ Alexander, Karl L. and Doris R. Entwistle. 2003. “The Beginning School Study, 1982-2002.” Available at: Henry A. Murray Research Archive.

<http://dvn.iq.harvard.edu/dvn/dv/mra/faces/study/StudyPage.xhtml?globalId=hdl:1902.1/01293>

An analysis of 39 research studies completed by Harris Cooper and his colleagues also demonstrates how the widening achievement gap is related to summer learning loss. This study, titled “The Effects of Summer Vacation on Achievement Test Scores,” likewise found that socioeconomic inequities are heightened by summer vacation.²¹ Figure 1 below consolidates the data from the study and is available through the National Summer Learning Association.²²

Figure 1: General Pattern of Reading Achievement for Students from Different Income Groups



Source: National Summer Learning Association

The Case against Extended Learning Strategies

One element in the argument against extended learning time is tradition. It is difficult to change elements of schooling, such as the summer vacation, that we have come to take for granted. Some parents may oppose extending the school year on the basis of their own nostalgia for summer holidays. Changing schooling times would also disrupt families' routines and, some worry, impede students' abilities to participate in the experiences that are traditionally offered over the summer months (i.e. summer jobs and internships, and summer camps.)²³

More significant, however, are opponents' concerns about the economic impacts of extending learning time. The industries that thrive on summer vacations fear that extending the school year will impact their business. Many employers rely on high school age summer employees, and the tourism and camping industries anticipate a

²¹ Cooper, H. et. al. “The Effects of Summer Vacation on Achievement Test Scores: A Narrative and Meta-Analytic Review.” *Review of Educational Research*, 1996, 66:3, 262. <http://www.jstor.org/stable/1170523>

²² “More Than a Hunch: Kids Lose Learning Skills Over the Summer Months.” National Summer Learning Association. http://www.summerlearning.org/resource/collection/CB94AEC5-9C97-496F-B230-1BECDFC2DF8B/Research_Brief_04_-_Cooper.pdf

²³ These opinions are promoted by the Save Our Summers groups such as Save Florida Summers and Save Alabama Summers. The websites for these organizations, along with lists of their positions, can be accessed at the following web addresses: <http://savefloridasummers.org/> and <http://www.savealabamasummers.org/>.

loss of revenue should mandatory summer schooling go into effect. Other industries, such as child care, are reliant on the short school day.²⁴

Additional days and hours are also expensive for the school because they require additional resources. These resources include additional teaching hours and building maintenance costs. According to Silva, “most calculations suggest that a 10 percent increase in time would require a 6 to 7 percent increase in cost.”²⁵ The Massachusetts schools profiled by the Massachusetts 2020 report mentioned in the next section admit that cost was the major barrier to enacting extended time schedules.²⁶

However, these costs can be mitigated by extending school days rather than the school year. Costs will be cheaper if hours rather than full days are added because per-pupil costs per hour will decrease as the school day grows longer.²⁷ Schools that have implemented additional time have been able to raise additional funds or transfer existing resources to cover the costs, but this tactic will not be sustainable when these reforms spread further. According to the Massachusetts 2020 report, “any effort to extend learning time beyond a few innovative but isolated models will require substantial public investment and a deliberate and predictable funding structure.”²⁸

²⁴ Silva, Elena, *Op. cit.*, 6

²⁵ *Ibid.*

²⁶ Farbman, Ph.D., David and Claire Kaplan. “Time for a Change: The Promise of Extended-Time Schools for Promoting Student Achievement.” Massachusetts 2020, Fall 2005. P. 35 [http://www.mass2020.org/files/file/Time-for-a-change\(1\).pdf](http://www.mass2020.org/files/file/Time-for-a-change(1).pdf)

²⁷ *Ibid.*

²⁸ *Ibid.*

Reports of Student Success

In this section of the report, we will focus on certain case studies that examine the role of time reform at various schools in the United States. Much of the research on the effectiveness of extended-day or extended-year programs has been fairly inconclusive. In particular, it has been difficult for researchers to isolate the impacts of extended schooling because other variables, such as student poverty, are often associated with schools that implement such programs. This inability to distinguish extended learning from other strategies has made it difficult to state causation. Until a case study is able to control for all other aspects of school policies, it will be difficult to prove that additional time independently drives student achievement.

Though causation is difficult to prove, a correlation is clear. Reports on the link between extended learning schedules and student success generally conclude that the additional hours, provided that they are comprised of high-quality learning opportunities, are positively related to student achievement. All of these case studies also list additional elements of reform that are positively associated with student success, and recommend that schools consider each as an element of a greater strategy. The studies agree that leadership and school culture are important contributors to student success. Other important elements include community and family involvement, and staff support.

As it stands, extended learning strategies appear to be commonly implemented in charter schools. This is because charter schools generally have more autonomy and are therefore afforded more control over school culture and policies. For example, the KIPP Academies mentioned later in this section are all charter schools and offer 60 percent more in-school time to their middle school students.²⁹ During the 2003-2004 school year, for instance, 82 percent of the 48 charter schools in Massachusetts featured longer school weeks than the norm and 50 percent featured a longer school calendar.³⁰ However, it should be noted that the Massachusetts 2020 study also includes some traditional public schools, offering models of how extended learning strategies can be implemented within public school districts.

Extended Learning in Massachusetts: The Rennie Center Report

In 2003, the Rennie Center for Education Research and Policy published a report that identified the nine highest performing, non-selective urban schools in Massachusetts for study, including:³¹

²⁹ Farbman, Ph.D., David and Claire Kaplan, *Op. cit.*, 7

³⁰ *Ibid.*

³¹ "Head of the Class: Characteristics of Higher Performing Urban High Schools in Massachusetts." The Rennie Center for Education Research & Policy at MassINC, Fall 2003, 4.
http://www.renniecenter.org/research_docs/0311_HeadofClass.pdf

- ❖ Fenway High School, Boston (pilot school)
- ❖ Lynn Classical, Lynn
- ❖ Somerville High School, Somerville
- ❖ Accelerated Learning Lab, Worcester
- ❖ Boston Arts Academy, Boston (pilot school)
- ❖ Sabis International School, Springfield (charter school)
- ❖ Media and Technology Charter School, Boston (charter school)
- ❖ University Park Campus School, Worcester
- ❖ Academy of the Pacific Rim, Boston (charter school)

These schools were selected based on their status as high-minority, low-income urban schools. Each school district had a poverty rate of more than 50 percent, as defined by the percentage of the student population eligible for free lunch programs, and a minority population of 50 percent.³² Of these schools, only students at University Park Campus School consistently perform at high levels. The other eight were classified as “improving” based on scores on the Massachusetts Comprehensive Assessment System (MCAS), high attendance rates, low dropout rates, and 2-year and 4-year college plans of their graduates.³³

The report lists five important practices as responsible for the success of these schools: high standards and expectations, culture of personalization, small learning communities, data driven curricula, and strong community relationships.³⁴ In addition, every single one of these highest-performing schools maintains a schedule that keeps students in the classroom beyond the traditional 1,170 hours per year. Not all of the schools achieve this through mandatory extended scheduling; some of the schools offer additional support programs to students in need without mandating these programs for the entire student body.

The school with the most extended schedule, Academy of the Pacific Rim, keeps students in the classroom for 210 days, a total of nearly 1,800 hours per year.³⁵ MATCH, Sabis, Fenway High, and

This study correlates the additional time with the relative academic success of these schools, but does not go so far as to list it as an independent cause of their success.

Boston Arts Academy also have longer school days. Until 2003, University Park and the Accelerated Learning Lab had extended school days as well. They only discontinued the practice due to fiscal constraints.³⁶ The report considers this as an aspect of supportive school cultures and high standards and expectations. It explains that, “a common practice use[d] to support academics is the provision of additional time.”³⁷ The study links the additional time with the relative academic success of

³² “Head of the Class: Characteristics of Higher Performing Urban High Schools in Massachusetts,” *Op. cit.*, 8.

³³ *Ibid.*, 4.

³⁴ *Ibid.*, 4-5.

³⁵ Farbman, Ph.D., David and Claire Kaplan, *Op. cit.*, 7.

³⁶ “Head of the Class: Characteristics of Higher Performing Urban High Schools in Massachusetts,” *Op. cit.*, 19.

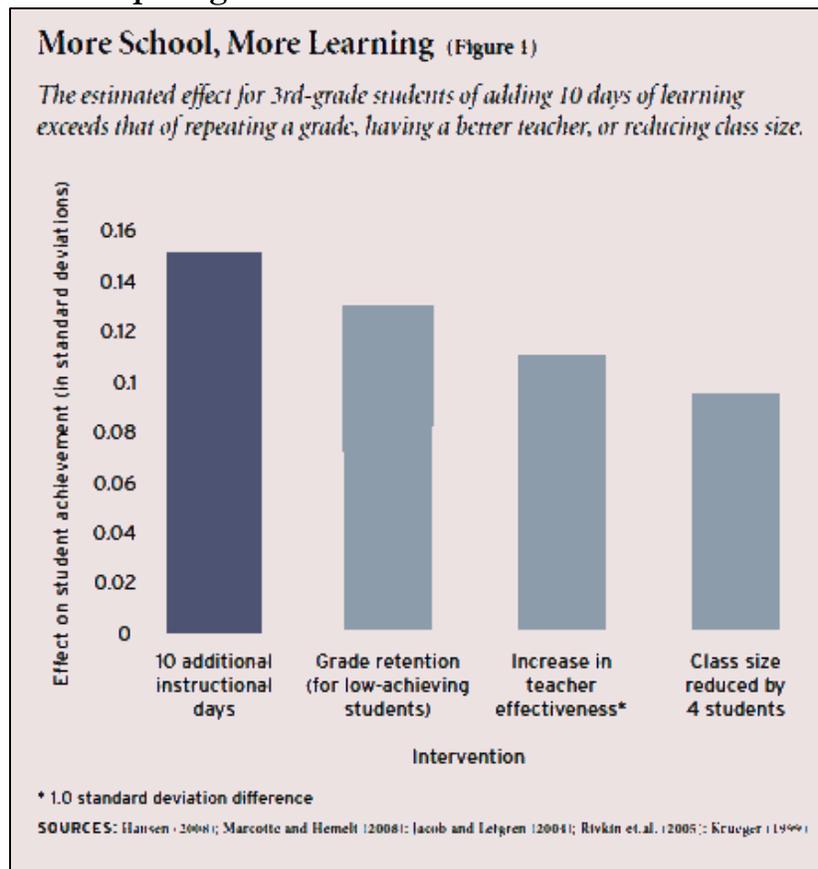
³⁷ *Ibid.*, 26.

these schools, but does not go so far as to list it as an independent cause of their success.

Marcotte and Hansen's Snow Day Findings

In 2007 and 2008 studies, Marcotte and Hansen took a unique approach to this topic by comparing data from schools where classroom time fluctuated from year-to-year due to snow or other weather conditions. Amongst third, fifth, and eighth grade math students, they found that less school time (as a result of snow) resulted in lowered spring performance on standard math assessments. Notably, assessments were taken before students had a chance to make up missed days at the end of a particular school year. In sum, they estimate that “an additional 10 days of instruction results in an increase in student performance on state math assessments of just under 0.2 standard deviations” (see figure from Marcotte and Hansen’s research below).³⁸

Figure 2: Comparing Additional School Time to Other Interventions



Source: Marcotte, D. and B. Hansen, as cited below.

Comparing findings from these studies to those of researchers discussing other variables impacting student achievement, Marcotte and Hansen conclude that 10

³⁸ Marcotte, D. and B. Hansen, “Time for School?” *Education Next*, 2010. <http://educationnext.org/time-for-school/>

additional instruction days have a higher impact on student achievement than grade retention (for lower achieving students), an increase in teacher effectiveness, *or* a class size reduction by four students. Additional recent studies (Marcotte and Hemelt, Hastedt, and Sims) have yielded similar results, contributing to a growing body of evidence that extended learning is, in fact, beneficial to student performance.³⁹

Study of Promising After-School Programs

Focusing upon promising after-school programs, researchers from the University of California-Irvine, University of Wisconsin-Madison and Policy Studies Associates, Inc. conducted a study known as the “Study of Promising After-School Programs.” This particular study evaluated the impacts of 35 after-school programs selected for quality based upon expert recommendations, publications, and on and off-site evaluations. Selected programs included multiple school levels and were dispersed across the United States; however, all selected programs served large groups of ethnically-diverse and low-income youth. Locations amongst the study group included metropolitan, urban, and rural locations.⁴⁰

Related to classroom outcomes, the “Study of Promising After-School Programs” researchers found that students participating in “high-quality after-school programs and other adult-supervised experiences fared significantly better than did their peers who were unsupervised after school.” More specifically, teachers of students participating in after-school programs for two years cited “more positive work habits,” increased persistence when “completing tasks,” heightened academic performance, increased social skills when interacting with peers, and less aggression towards peers.⁴¹

Researchers from the University of California-Irvine, University of Wisconsin-Madison and Policy Studies Associates found that participation in after-school programs positively impacts classroom outcomes.

German Short School Years Study

In a 2006 working paper, Jörn-Steffen Pischke of London's School of Economics discusses the impact of school year length on student performance and earnings. Looking at data from a school system in West Germany, which implemented a major

³⁹ Marcotte, D. and B. Hansen. *Op. cit.*

⁴⁰ Vandell, D. L., Reisner, E. R., & Pierce, K. M. “Outcomes linked to high-quality afterschool programs: Longitudinal findings from the Study of Promising Afterschool Programs.” Report to the Charles Stewart Mott Foundation, 2007, 1-2.

<http://www.gse.uci.edu/childcare/pdf/afterschool/PP%20Longitudinal%20Findings%20Final%20Report.pdf>

⁴¹ Reisner, E., D. Vandell, et. al. “Charting the Benefits of High-Quality After-School Program Experiences: Evidence from New Research on Improving After-School Opportunities for Disadvantaged Youth.” Policy Studies Associates, Inc., 2007, 6-7.

<http://www.gse.uci.edu/childcare/pdf/afterschool/reports/PASP%20Charting%20the%20Benefits.pdf>

reform in the 1960s that “dramatically changed the amount of instructional time for some students in school...without directly affecting the curriculum, the highest grade completed, or the secondary school degree received by these students,” Pischke found that students that experienced a compressed school year were generally “on par” with peers that experienced a traditional length school year. However, Pischke also found that shortened school years led to “increased grade repetition in primary school” and a decreased number of students “attending higher secondary school tracks.”⁴²

Perhaps most interestingly, Pischke found little confluence between term length and student performance or term length and future employment opportunities. Instead,

German students undergoing shortened school years were found to be generally “on par” with their peers; however, they were more likely to repeat grades in primary school and less likely to attend “higher secondary school tracks.”

Pischke’s study elucidates a notable finding that may well accompany the phenomena of student performance as it relates to school year and school day length in other studies discussed here. With a longer period of time in school, students are often afforded more opportunities to learn, i.e. the curriculum can be broadened, with new topics introduced. However, in the German study, students were offered the *same curriculum* during the shortened school year as in

the traditional school year. Controlling for the curriculum taught may have mitigated the impact that more class time had upon student achievement, a potential flaw of other studies on this topic.⁴³

That said, the impact of shortened term length on grade repetition and the attendance of higher tracks is notable. As Pischke concludes, this information “indicates that the length of instructional time matters differently for different students.” Students with remedial abilities may benefit from additional class time more than those with more advanced skills. Similarly, students returning to unstable home environments at the end of a school day may benefit more from an extended school program than students returning to stable, nurturing homes. What these findings suggest is that a variety of factors often associated with after-school and extended-year programs correspond to their overall effectiveness. Further studies controlling for each of these factors would be necessary to better explain which student demographics would benefit most from extended learning opportunities.⁴⁴

⁴² Pischke, J. "The Impact of Length of the School Year on Student Performance and Earnings: Evidence from the German Short School Years." London School of Economics, 2006.

[http://eprints.lse.ac.uk/6129/2/The_Impact_of_Length_of_the_School_Year_on_Student_Performance_and_Earnings\(Working_paper\).pdf](http://eprints.lse.ac.uk/6129/2/The_Impact_of_Length_of_the_School_Year_on_Student_Performance_and_Earnings(Working_paper).pdf)

⁴³ *Ibid.*

⁴⁴ Pischke, J., *Op. cit.*

Massachusetts 2020 Study

Massachusetts 2020 is a nonprofit foundation that supports the expansion of education and economic opportunities for children and families in Massachusetts and advocates extending the amount of time students spend in school. In 2005, Massachusetts 2020 published a study that profiles eight schools that have successfully implemented extended-time schedules.⁴⁵ The study, co-authored by David Farbman and Claire Kaplan, argues that the 180 six-hour-day schedule is a vestige of the nineteenth-century agrarian economy, a hold-over that is inconsistent with the demands of the Information Age.⁴⁶ Students today are expected to know more, do more, and score higher, yet are not given the education or support to live up to these expectations. The report explains that, “the call for more learning time in schools is informed by what seems to be common sense: more time equals more learning.”⁴⁷

“[T]he call for more learning time in schools is informed by what seems to be common sense: more time equals more learning.”
- Farbman and Kaplan, 2005

The schools that Massachusetts 2020 chose for analysis share certain features. All of the schools’ schedules include 15 percent more school hours than other schools in their districts supporting the conventional schedule. In addition, over 50 percent of each school’s student body qualifies for free or reduced lunch, each incorporates unique extended time approaches and shows positive learning outcomes, and each is located in a city with a population greater than 50,000.⁴⁸ These schools are: Community Day Charter School in Lawrence, MA; KIPP Academy of Lynn in Lynn, MA; KIPP Academy New York in Bronx, NY; Murphy School in Boston, MA; Roxbury Preparatory Charter School in Boston, MA; Timilty Middle School in Boston, MA; University Park Campus School in Worcester, MA, and; Young Achievers Science and Mathematics Pilot School in Boston, MA. As mentioned above, University Park Campus School is no longer an extended-time school, but was for the first six years of its existence.⁴⁹ The study examines how the extended time schools use the additional time, how the additional time impacts student learning and staffing, the additional costs associated with extended time, the reactions of participants to the reforms, and the other factors that contribute to the schools’ success.⁵⁰ Because we are only interested here in the impact that these reforms have on student learning and achievement, we will restrict our analysis of this report to the most pertinent areas.

⁴⁵ Farbman, Ph.D., David and Claire Kaplan, *Op. cit.*, 3

⁴⁶ *Ibid.*, 4

⁴⁷ *Ibid.*, 6

⁴⁸ *Ibid.*, 8

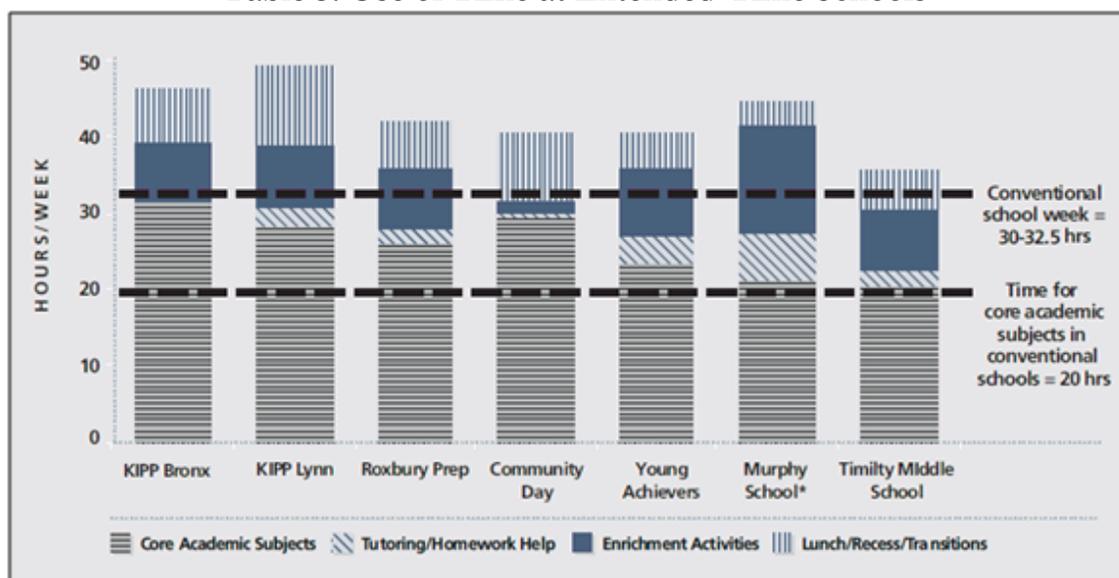
⁴⁹ *Ibid.*

⁵⁰ *Ibid.*, 9

How Schools Use Additional Time

Table 3 shows the results of the study's survey of how the selected schools utilize the additional time. The totals presented in the graph are based on sixth grade schedules, except at KIPP Academy Lynn which only offered up to fifth grade at the time of the study. The core academic subjects represented include math, English language arts, science, social studies, and foreign languages. The enrichment activities include art, PE, music, dance, clubs, computers, advisory/homeroom, school-wide community-building activities, and foreign languages that are offered as electives. In addition to the mandatory additional time, most of the schools analyzed also offer optional after-school, Saturday school, and summer school programs.⁵¹

Table 3: Use of Time at Extended-Time Schools



Source: Massachusetts 2020⁵²

The report concludes that, “regardless of the specific scheduling approach, the additional hours generally translate into greater academic support for all students and a greater variety of enrichment activities.”⁵³

Impact of Additional Time on Student Learning

Farbman and Kaplan present five key ways in which additional time leads to more in-depth learning:⁵⁴

- ❖ Longer class periods mean more time on task for students.

⁵¹ Farbman, Ph.D., David and Claire Kaplan, *Op. cit.*, 10

⁵² *Ibid.*

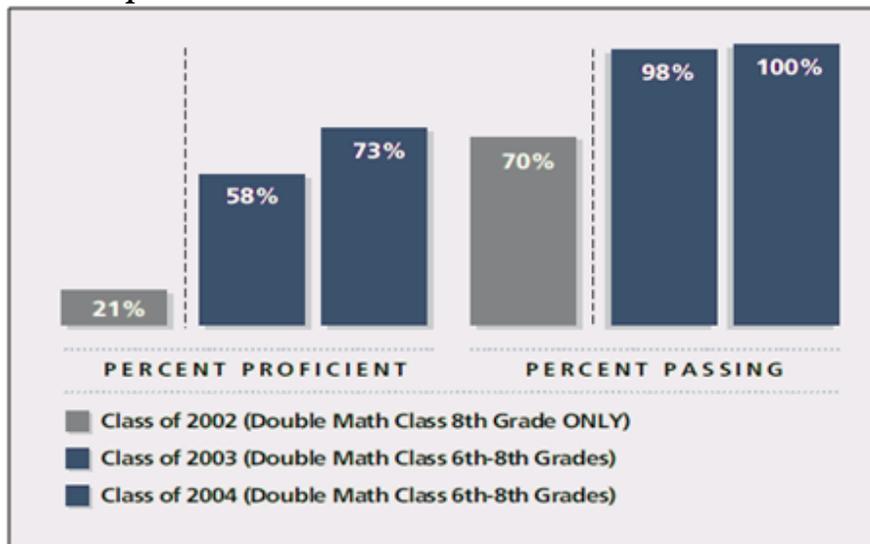
⁵³ *Ibid.*

⁵⁴ *Ibid.*

- ❖ Teachers are able to offer more depth and breadth of instruction with more time for each lesson.
- ❖ Teachers have additional opportunities for planning and on-site professional development during the extended day.
- ❖ Students will have greater opportunities for enrichment and experiential learning as more time spent in school equates to more time available for the “extras.”
- ❖ An extended school day promotes increased student-teacher interaction and stronger adult-child relationships.

The study argues that these factors, all of which are supported by an extended schedule, lead to increased teacher competency and student academic achievement.⁵⁵ Some quantifiable results that support this opinion are listed in Table 4. Table 4 displays the increase in student success that Roxbury Preparatory Charter School in Boston saw when it switched to a double session of math in both the 6th and 8th grades. The percentages refer to the proportion of students achieving proficiency and passing the 8th grade math MCAS.

Table 4: The Impact of Double Math on Student Outcomes at Roxbury Prep



Source: Massachusetts 2020⁵⁶

⁵⁵ Farbman, Ph.D., David and Claire Kaplan, *Op. cit.*

⁵⁶ *Ibid.*, 15

Additional Contributing Factors

Extra time alone is not enough; schools must also be efficiently and effectively using the time they already have in order to validate the switch to an extended learning schedule.

This report echoes the conclusion made by much of the literature on extended learning strategies: extra time alone is not enough. Schools must also efficiently and effectively use the time they already have in order to validate the switch to an extended learning schedule. Farbman and Kaplan warn, “trying to add extra hours without also taking into account... other elements of success would be unlikely to yield positive results.”⁵⁷ The other elements of success, as identified by this report, include:⁵⁸

- ❖ Strength of leadership
- ❖ Focus on professional development and teaching quality
- ❖ Use of data to drive continuous improvement
- ❖ Positive school culture
- ❖ Effective family engagement

This study correlates extended learning time with student achievement, but only within the context of other meaningful reforms.

Extended Learning at New York City Charter Schools

Finally, a report authorized by the New York City Charter Schools Evaluation Project in 2009 offers an in-depth analysis of student achievement at New York City’s Charter Schools.⁵⁹ The report does not solely focus on extended learning strategies, but rather aims to understand how student achievement at the schools might be related to individual policies. Achievement is measured in test scores for all types of students and all subjects.

In Chapter V of the report, entitled “Associating Charter Schools’ Effects with their Policies,” the report concludes that the following charter school policies are associated with the schools’ having more positive effects on student achievement:⁶⁰

- ❖ A long school year;
- ❖ A greater number of minutes devoted to English during each school day;

⁵⁷ Farbman, Ph.D., David and Claire Kaplan, *Op. cit.*, 30

⁵⁸ *Ibid.*

⁵⁹ Hoxby, Caroline M., Sonali Murarka, and Jenny Kang. “How New York City’s Charter Schools Affect Achievement.” New York City Charter Schools Evaluation Project, September 2009.

http://www.nber.org/~schools/charterschoolseval/how_NYC_charter_schools_affect_achievement_sept2009.pdf

⁶⁰ *Ibid.*, V-3

- ❖ A small rewards/small penalties disciplinary policy;
- ❖ Teacher pay based somewhat on performance or duties, as opposed to a traditional pay scale based strictly on seniority and credentials;
- ❖ A mission statement that emphasizes academic performance, as opposed to other goals.

The report concludes that the association between the long school year and achievement is, “extremely robust. It shows up strongly no matter which other policies we control for.” Whether considered alone or along with other characteristics, the length of the school year is positively associated with the school’s effect on achievement. A multiple-variable regression shows that schools that have ten more days in the year than the typical schedule have achievement effects that are 0.15 standard deviations higher than average. This is especially notable because a ten day difference is common, with 12 days being the standard deviation among charter schools from the normal school year length. The charter schools are also able to maintain the longer school year on a lower operating budget than that of other public schools because they save money by having smaller administrative staffs, younger teachers, and slightly expanded class sizes.⁶¹

Other extended learning characteristics that are associated with positive achievement effects at these schools are a long school day and a greater number of minutes devoted to English during each school day. The long school day is associated with a school’s having a greater effect on achievement only when considered by itself; when considered with other statistics, the association is not statistically significantly different from zero. This complicates conclusions on the effect of additional school hours. However, because the long school day is typically correlated with the long school year, the study concludes that, “a package that combines a long school year and a long school day is associated with more positive achievement effects.” Other extended schedule options such as Saturday school or an optional after-school program were found to not be statistically significant to student achievement. Saturday school could not be shown to have an association with achievement effects that is statistically significant from zero, making it impossible to conclude what impact Saturday school may have. However, if Saturday school is made mandatory for everyone, it automatically adds days to the school year which can be proved by this report to be associated with a positive effect on student achievement.⁶²

This report is careful to stress that, “the associations can be difficult to interpret because some policies are routinely found together in packages... it is essential to remember that none of the associations we have described is a causal effect”⁶³ However, the associations do exist, and in concert with the other case studies

⁶¹ Hoxby, Caroline M., Sonali Murarka, and Jenny Kang, *Op. cit.*, V-3, v-4, and V-6.

⁶² *Ibid.*, V-4, V-5, and V-7.

⁶³ *Ibid.*, V-10

presented by this report, support an optimistic view of the potential for extended learning strategies to impact student achievement.

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