

**“Will I See You in September?”**

**An Economic Explanation for the Summer School Vacation**

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**Abstract:** The September-to-June school year is not an agricultural holdover. It is a coordinating device to facilitate geographic mobility. The adoption of graded schools, which work best if all students start together, and the growth of worker mobility, which requires extra time and amenable weather to relocate households, produced the standard calendar. A “natural experiment” supporting this explanation is the equator. Summer vacation is a norm both north and south of it. However, American and European families on temporary assignment in the Southern Hemisphere use schools that maintain a Northern-Hemisphere school year in order to facilitate relocation to their home countries.

## §1. It Isn't about Children Working on the Farm.

Economists are apt to look at the ten-week summer vacation of their local public schools and see a seriously underutilized stock of public capital. Instead of building new schools in growing districts, they suggest that we utilize the ones we have more efficiently by adopting year-round education. School years could remain at 180 days, but starting and ending dates for various groups would be staggered so that classrooms are never empty for a long period. Capital facilities could be reduced by about twenty-five percent, neglecting increased depreciation. (An alternative rationale for year-round schooling is that having more numerous but shorter vacations would reduce students' forgetting of lessons over the long summer [Cooper, Nye, Charlton, Lindsay & Greathouse 1996], but children seem to forget about as much over four three-week vacations — the typical alternative — as over one summer [McMillen 2001].)

Year-round schooling is an idea that has been around a long time, but it has never gotten very far.<sup>1</sup> I have casually asked social scientists why they think American schools end in June and begin a new school year in September. The answer almost invariably is the farming tradition. Children in a rural society had to work on the farm in the summer, and American schools have simply kept doing it.

Tradition! Otherwise hard-headed social scientists all sound like Tevye on the subject of summer vacation, even though farming has not been a dominant American occupation for almost a century. Even on its own terms, the agrarian-tradition explanation does not work. For one thing, the nineteenth-century farm work for which extra hands were especially helpful was during planting and harvesting. In most

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<sup>1</sup> About three percent of U.S. public school students attend a "year-round" school, according to [www.nayre.org/related.html](http://www.nayre.org/related.html) June 10, 2003. My examination of the calendars of about a quarter of the schools listed revealed that most "year-round" calendars simply have shorter-than-average summer vacations and longer breaks at other times of the year. Summer typically remains the longest vacation, and the school year usually begins in August. True year-round schools, which have staggered calendars for two or more tracks and thus use the school plant more intensively, are a minority of those listed. They are situated disproportionately in California and the Southwest, where rapid growth and fiscal constraints probably give some districts a stronger incentive to conserve on capital facilities.

temperate regions of the U.S., these occur in the spring and the autumn, when the now-standard nine-month school year is in session.

Rural New England schools in fact responded to the seasonal rhythms of agriculture. For almost the entire nineteenth century, rural New Englanders held school in the winter and in the summer, with fall and spring off for harvesting and planting (Kaestle 1983, p. 15; Perlmann & Margo 2001, pp. 21-28; Tyack 1972, p. 6). New England was the historical leader in universal public education, so its experience is most relevant to the norms that spread elsewhere.<sup>2</sup> Their nineteenth-century school districts, formed to enable children to walk to one-room school houses, had almost complete discretion with respect to school calendars, and they were highly responsive to local voter sentiment.

The foregoing historical accounts mention that the summer term was mostly attended by younger children. Their older siblings would often work on the farm and attend school only in the winter. Thus summer was a time for agricultural work for some children. But today's longer school year cannot have emerged from this tradition, since the opportunity cost of school attendance by most youth was clearly highest in fall and spring.

## **§2. Climate Is Not Much of the Answer.**

A different reason for summer vacation in the twentieth century could have been the discomfort of summertime schooling. For the first half of the century, at least, it was possible to heat buildings in the winter but not cool them in the summer. Learning in the summer would be less than in the winter, the more so because of children's longing to be out of doors in warmer weather. A cost-minimizing approach to education would thus dictate a long summer vacation.

This explanation is surely part of the story, but by itself it does not work well to explain the *uniformity* of summer vacation around the country. Climate differences

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<sup>2</sup> Gold (1997, chap. 1) documents the widespread use of summer terms in rural New York, Michigan, and Virginia as well as in New England states. He found that the summer term was about as well attended as the winter term as recently as 1875. Web-page histories of individual districts in New York, Pennsylvania, Ohio, Indiana, Illinois, Iowa, Michigan, Wisconsin, Minnesota, Kansas, and South Carolina confirm that rural schools were in session in winter and summer and off in the spring and fall during much of the nineteenth century.

would warrant regional variety. In order to save on winter heating costs, some northern districts would have started in March and ended in December. In the now-air-conditioned schools in the deep South, taking a long spring vacation would be preferable for outdoor recreation, with a start of the school year in June or July.

The climatic explanation is also confuted by the fact that schools in larger cities in the late nineteenth century were also open in the summer (Gold 1997, chap. 1; Zykowski et al. 1991). Many cities had long school years, often twice as long as that of their rural cousins. The modern summer-and-September calendar did not become a national norm until the early part of the twentieth century. The convergence of rural and city schools on a uniform calendar apparently occurred gradually and without any central direction. City schools shortened their school year by eliminating summer, and rural districts lengthened their calendar by eliminating summer and adding spring and fall. By the 1920s, the September-to-June school year seems to have become the dominant if not the invariable norm.

One of two scholars to investigate summer vacation's roots is historian Kenneth Gold. In his doctoral dissertation, Gold (1997, chap. 2) attributes the demise of summer education in cities to concern about children's health from mental overwork. He cites numerous medical studies from the nineteenth century that claimed that continuous study was harmful to children. Aside from failing to explain why the rural school year got longer during the same period, the medical claims would have warranted — if indeed they were believed — numerous short vacations for city children rather than a long summer break. Gold's explanation for why *rural* schools abandoned summer vacation was simply that educators wanted to make the school year longer. It remains unclear why this required any especially long vacation period, let alone a long vacation during summer, a season that Gold shows was traditionally well attended in both rural and urban areas.

The other scholar to address summer vacation without the delusion that farm work was its source is Todd Rakoff, a Harvard Law School professor. His book, *A Time for Every Purpose* (2002), insightfully reviews several aspects of standardizing time to coordinate human activity, including the adoption of time zones, the weekend, and

standard work days. His answer deserves respect for his approach to time as a social coordinator.

Rakoff locates the origin of the summer school vacation in state compulsory-attendance laws, which began in the late nineteenth century. Attendance laws, which were in part the product of laws to discourage child labor, required that a compromise be reached between the rural and urban interests (pp. 102-105). Many cities had schools that were in session more than 200 days a year (though not all students attended that long), while many rural districts had fewer than 100 days.

Yet as Rakoff concedes, compulsory attendance for what gradually became the 180-day calendar does not explain the long summer vacation (p. 109). He notes only that summer-and-September became standard by about 1920, about the time that compulsory attendance and a standard year-length had become widespread. The standardization of the year's length, however, would not have compelled local districts to adopt any particular starting date or vacation pattern. Rakoff suggests that the choice of summer for the longer vacation might be either a rural remnant (p. 109), despite his previous demolition of the farm work myth (p. 101), or a bow to climate, but he does not press either proposition with any confidence. He does argue that a uniform school calendar helps families coordinate their activities better than the staggered schedules of year-round schooling (pp. 119-120), but that could be accomplished with a standard school year that begins in January (or any other month) and has evenly-spaced seasonal vacations. Rakoff does not invoke graded schooling and interurban household mobility as the joint sources of summer vacation and September beginnings, as I shall presently argue.

### **§3. Graded Schooling Required Coordinated Beginnings.**

The answer that I will advance here has two parts. The first and historically the firmest is the invention of the graded school. Beginning about 1840, urban schools gradually switched from single-room instruction of all ages to a graded system, in which age-groups were separated in different rooms (Cubberley 1919, pp. 226-34; Kaestle 1983, pp. 132-34; Tyack 1974, p. 44-46). This innovation was widespread by 1860 in the larger, northern cities, where a sufficiently large population was within walking

distance of a single school. However, most of the American population in the nineteenth century was rural,<sup>3</sup> and multi-room schooling did not reach much of the rural population until after 1900.<sup>4</sup> This was most likely because transportation was too costly to allow enough students to be assembled to make a graded school practical.

In the one-room rural school house, students would drop in and out of school over the term and over the years. Rural attendance was spotty until compulsory attendance laws were passed later in the nineteenth century, and even then it was irregular by today's standards.<sup>5</sup> As a result of these discontinuities and the small number of pupils in any single age group, instruction in the one-room school was tailored to the individual and a few others who happened to require instruction in that subject. A few children of various ages might be taught grammar together — usually by having them memorize rules and then recite aloud for the teacher — while another group might be much advanced or much behind and would later in the day get a different lesson. Early attendance laws reflected one-room-schools' pedagogical technology. The laws prescribed only a minimum number of days for children to attend school, subject to the local school being open that long, rather than expecting a student's attendance for a standard school year (Rakoff 2002, p. 105).

The ungraded method of teaching could be effective when the teacher was working with a particular group of students, but in the one-room school it meant that most of the time the teacher paid no attention to other students, who had to be assigned a self-paced task or merely be kept quiet. The necessary inactivity of a large fraction of a diverse classroom of students helps explain the legendary discipline problems faced by

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<sup>3</sup> The proportion of the American population that was "urban" (in a population center with at least 2,500) was 19.7 percent in 1860, 28.1 percent in 1880, and 39.6 percent in 1900. It did not surpass 50 percent prior to the 1920 Census, when it was 51.2 percent. U.S. Bureau of the Census, *Historical Statistics of U.S., Colonial Times to 1970*, pp. 11-12.

<sup>4</sup> Perlmann & Margo (2001, p. 97) report that in Michigan, 81 percent of all teachers were in ungraded (one-room) schools in 1880, but this fraction shrank to 47 percent in 1910, mostly through the growth of graded schools rather than decline in one-room units. However, even in 1900, most rural students did not have access to high schools (Krug 1965, p. 180). Without such access, the demand for a regularized school year would have been weak in rural areas. Writing in 1913, Iowa professor George Betts still complained of the shorter year and the "haphazard" system of age-grading in rural schools (pp. 20-22).

<sup>5</sup> Betts (1913, p. 41) reported that average daily attendance in rural schools was only about sixty percent of those enrolled.

rural, one-room school teachers. Accounts of the one-room rural district school's pedagogy range from nostalgic (Burton 1850) to highly critical (Church and Sedlak 1976, pp. 8-16), but given the low population density, poor transportation, and modest wealth of the rural population in nineteenth-century America, the ungraded curriculum looks like the best that could be done under the circumstances, and it did produce a reasonably literate citizenry (Kaestle 1983, pp. 13-29; Reese 1995, pp. 25-28).

Although the drawbacks of the one-room school were probably overemphasized by reformers such as Horace Mann and education-department historians such as Ellwood Cubberley (1919), there is little doubt that the graded school was a considerable improvement for students as well as teachers and taxpayers. Sorting students into age-specific grades allowed the teacher to apply the same lesson to many students simultaneously, since all were about the same age and on the same page.

Graded schools initially sorted students into broader cohorts than a single year. Many rural "graded" schools had but two teachers in a two-room school house, and even many urban schools in 1880 were only broadly graded (Reese 1995, p. 168). Sorting nonetheless established the idea of a progression from primary school to grammar school and then, for a few, on to high school (Reisner 1930, pp. 423-24). Parallel to the gradual diffusion of grading were many other innovations. Grading permitted school officials to develop a systematic curriculum and standard textbooks appropriate to the capacities of each age group. This was both cost-effective (allowing for larger classes per teacher) and educationally efficient. Teachers could now specialize by age-group, and student discipline became more manageable. The latter facilitated the hiring of women to teach older children, which also reduced the cost (Kaestle 1983, p. 125; Perlmann & Margo 2001, pp. 94-101).

The technology of graded schooling required regular attendance by all students, because long or frequent absences would require costly remedial attention. Thus compulsory attendance laws and a standard school year (as Rakoff emphasized) were complementary with the concept of graded schooling. Indeed, prior to graded schooling, the concept of a "school year" was not especially meaningful (Kaestle 1983, p. 132; Church and Sedlak 1976, p. 13). Students in ungraded schools just attended until they

learned whatever the teacher could offer, assuming the value of the time spent learning exceeded that spent working on the farm or elsewhere.

By the beginning of the twentieth century, America had become sufficiently urbanized that graded schooling could become the norm. Improved roads, cheaper automobiles, and motorized school buses, introduced after 1910, made it possible for many rural students to be collected in larger schools that could then be divided into multiple rooms for multiple grades. Even the remaining one-room schools had begun to adhere to a more-or-less graded curriculum by the end of the nineteenth century,<sup>6</sup> though that reform did little to solve the problems faced by a single teacher dealing with multiple age-groups (Fuller 1994, p. 55; Lord 1931, p. 60). Grading in rural schools, long urged by state-level authorities, became locally desirable (and hence actually done) in order to assure that local graduates could continue in high schools, which by 1910 had begun their spectacular attendance growth (Goldin 1998).

In order for graded instruction to work over a period of years, school calendars had to be regularized. It would not do for third grade to start in June and end in February if fourth grade started in December and ended in August. Increasing attendance at high schools after 1900 also required that elementary schools adopt a school year that was synchronized with high schools and thus with each other.<sup>7</sup> The efficiencies of graded schooling required that children in all grades start and finish at the same time of year.

#### **§4. Interurban Job Mobility and Network Effects Are Keys.**

Graded schools clearly encouraged a single beginning date for all students in the same school. But why should that same time of year be early September, and why

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<sup>6</sup> Perlmann & Margo (2001, pp. 94-95) note that in Illinois and Iowa in 1881, perhaps a third of all graded schools were in places of less than 1000 inhabitants. By their definition, a graded school is any that has more than one teacher. They also note that some respondents to the 1881 surveys may have regarded those one-room schools in which teachers sorted students by grade as “graded schools.” In either case, however, schooling was geared to full time students who were best taught if they all began at the same time.

<sup>7</sup> Colleges and universities typically had summer vacations and autumn beginnings in the late nineteenth century (Gold 1997, p. 42), and it might be argued that their school year filtered downward to high schools and thence to elementary schools. But this does not fit the historical pattern. The September-to-June school year began well before college attendance became widespread. As of 1890, fewer than two percent of the eligible population attended college or university (Church and Sedlak 1976, p. 294).

should it be preceded by ten weeks of vacation? And how did these dates become a national standard? I propose that it was the intermetropolitan mobility of American workers, which was perfected early in the twentieth century, that made summer vacation with a September beginning the inevitable choice all over the nation.

Economic historians have found that intermetropolitan wage differentials among workers were persistent up to about 1880 (Rosenbloom 1996). Regional wage differentials for similar occupations are normally interpreted to mean that out-migration was not sufficiently rapid to boost wages in low-wage areas and in-migration was not so rapid as to depress wages in high-wage areas. By the end of the nineteenth century, however, wages for labor with similar skills were fairly similar in most regions. Workers were apparently able to move fairly readily to new opportunities anywhere in the country. Being able to enroll their children in schools was an important consideration in such moves.

In graded schools, children learned best if they all began at the same time. Schools within a given city or region had to settle on a single starting date because families often changed locations within a given city. A standardized, age-specific curriculum reduced the redundancy of education in a child's new school (Church and Sedlak 1976, p. 187). But within-district standardization in the late nineteenth century actually made it easy to move during the school year. A February move from one school to another was not too disruptive if the school the child entered was closely following the annual curriculum of the school he or she had left.

Before interurban migration became important, the particular date at which school began did not matter, as long as it was the same for all schools in the district. But when new students were coming from some distance because their families were moving to a new region, school districts needed to allow sufficient time for newcomers to arrive and get settled.<sup>8</sup> Losing four days of school because of a cross-town move was easily remedied, but losing four weeks of school because the family moved from Boston to Cleveland was more costly. In addition, the precise curriculum of the Cleveland school

was apt to be different from that of Boston, even if both schools were graded. Even if transportation were instantaneous, a transfer between districts months after the school-year began would be disruptive.

Recent research suggests that loss from nonuniform beginnings applies less to the late-comers to school and more to the children who were there at the start of the term (Hanushek, Kain, and Rivkin 2003). Having new students come into the fourth grade (say) in November causes less learning by the children who had been there since September 1. So both parties (new and existing families) have an incentive to want to begin with everyone in the class at the same time.

September became the preferred time to start the school year because in the Northern Hemisphere travel is cheapest during July and August. Summer travel was least likely to be disrupted by inclement weather, and so summer became the standard time for families to move and for schools to be closed. Schools that expected many new students from outside their district would find that it paid to have a standard vacation time during which all students were idle. Interurban job-changers found that it paid to leave one's employment in summer so that they could move to another area and start their children in a new school in September. Summer remains the prime season for households to move, especially if they have children.<sup>9</sup>

This coincidence of interests — that of the schools for uniform grade beginnings and of families for their children to start in new schools at the beginning of the school year — is an example of a network benefit. The typical example of such a benefit is having a large number of telephone subscribers who use compatible technologies (Liebowitz and Margolis 1994). In the present instance, the benefit is a scale economy in teaching that is best realized by having all students begin at the same time. The network works best in a mobile society if a single date is chosen to begin schools at all locations. In this

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<sup>8</sup> It also mattered that the number of years of high school became standardized. The four-year norm was not widespread even among cities until about 1890 (Reisner, 1930, p. 384, 423-24).

<sup>9</sup> The incidence of moves is twice as high during the summer months (Hansen 1998; Goodman 1992). Many families nonetheless do move during the school year. Within-district moves may have little adverse effect on their children if all schools within the district adhere to a standard curriculum for each grade. Out-of-county and out-of-state moves during the school year, however, are surely disruptive for new students.

respect, the simultaneous start of the school year is no different from the simultaneous work week and work day. Most economic activity involves communicating with others and coordinating activities with them, which is why we put up with rush-hour commuting and Monday-through-Friday work weeks.

Household mobility by itself was not the source of summer vacation. Americans were at least as mobile during the nineteenth century as during the twentieth (Fischer 2000, p. 4). But prior to the widespread adoption of a graded curriculum (and its complementary features, standard textbooks, compulsory attendance, and a uniform number of days of school), a family moving from one school district to another would not put its school-age children at any significant disadvantage. In ungraded schools, teachers did not have to make age-group adjustments for a newcomer. As one critic of the ungraded system put it, the newcomer's "studies were determined by the books he brought. His first lesson was apt to follow the last one that his former teacher had given him" (Shearer, 1899, p. 11).

A second network effect may have augmented the graded-school benefit of summer and September. Many adult jobs benefit from a uniform starting date for new workers. It is often easier to orient a large number of newcomers to a job at a single time than to be training a few all year long. The most obvious is teaching school, and teacher mobility is considerably enhanced by having a coordinated calendar among districts. (This may be one reason that teachers and their unions are skeptical of year-round calendars.) The graduates of normal schools, the teacher-training academies that blossomed after the Civil War, carried with them a more systematic approach to education that was built upon age-specific grading of students (Herbst 1989). It may be supposed that June graduates of those schools would be hired, usually by systems with graded schools, for September employment.

Other institutions benefit in a similar way from simultaneous beginnings of employment years. Hospitals, for example, find it worthwhile to devote a week or two in late summer to orienting new doctors (both new MDs and newly hired, experienced doctors) rather than continually training newcomers throughout the year. In other words, it could be that the network economies of the graded school also applied to on-the-job

training for at least some of the parents at work. The unwritten rule that fiscal years and employment contracts begin on

July 1 may be a manifestation of the latter network benefit.<sup>10</sup> (Japan's school year, discussed below, begins April 1, and so does the fiscal year for most of its corporations and government agencies.)

### **§5. Property Markets Provide the Political Discipline for Calendar Coordination**

Interurban migration and graded schooling make it *rational* for school districts throughout the nation to adopt a September starting date and give immigrants sufficient time to arrive. But as far as I can tell, no state or national politician or school official noticed this fact and urged a uniform law to enforce it. By all (sketchy) accounts, it just happened. I propose that a decentralized mechanism, the property market, provided the necessary information and incentive to adopt what has become a national norm.

American household mobility has always been high, with about one in four or five changing residence every year. It has actually declined slightly in the last 50 years, mostly because the rate of local (within-county) moves has declined (Fischer 2000). We know from numerous studies that housing prices are influenced by families with children, who pay a premium for homes in better school districts (Black 1999). This fact does not go unnoticed by local school officials, who are in most communities sensitive to demands of existing homeowners (Fischel 2001). In order to maintain or improve the value of their largest financial asset, homeowners, even those without children, insist that local school boards keep their school systems attractive to potential homebuyers. Most of the scholarship concerning this link has focused on school spending, taxes, and test scores, but it is reasonable to suppose that features like the friendliness of the school calendar enter into it.

School districts that deviated substantially from the summer-and-September norm would have found themselves at a disadvantage in that their education systems were more costly or less effective and thus less attractive to potential residents with children. It would be more difficult to hire teachers, since an opening in a district that began its

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<sup>10</sup> Goodman (1992) finds that summer is also high season for relocation by households without children. He explains this as an agglomeration advantage in the housing market: Opportunities to buy and sell are better when many other people move. The possibility I mention in the text — network benefits to training new employees — could be an additional factor in explaining why summer is also the dominant season for relocation by the childless.

school year in April might appear while the best candidate's current school was still in session. Interscholastic exchanges, such as athletics and debate teams and professional conferences, would be more complicated to arrange. A nonstandard school calendar also makes it harder for a family to move into the district and harder to leave it for a destination with a standard school year. Both moves could subject children to a longer-than-summer gap between ending one school year and beginning another, or it could compress the gap to a matter of days. Either deviation would be unwelcome to potential homebuyers.

By trial and error, districts would learn that substantial deviations from the September-to-June norm were costly, and feedback from employers and property owners would induce local officials to conform to the national standard. One anti-year-round web site displayed letters from a Texas realtor claiming that a particular district with year-round calendars was less attractive to homebuyers.<sup>11</sup> The paucity and fleeting life of such calendars are elements that an empirical inquiry along this line would have to consider.

#### **§6. Do August Beginnings Portend a Shift in National Norms?**

As I have previously suggested, one reason the standard starting date for school was September rather than some other month is because moving households during the summer is cheaper than during the winter. This is where climate played a role. In most of the United States, transportation is more certain in the summer, and weather conditions are less apt to damage or delay delivery of household goods. Summer was also a better time to take family vacations, which were increasingly popular in the 1920s as urban incomes rose, working hours declined, and automobile ownership ballooned.

But if transport cost and vacation time warranted a longer-than-usual summer break, why does it persist in an era on interstate highways, long-range weather forecasts, ski vacations, and efficient real-estate markets? It is true that selling one's home can take time, and the incidence of homeownership has gotten slightly higher than it was fifty years ago. (This may account for the decline in within-county moves.) But it isn't actually

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<sup>11</sup> < <http://www.geocities.com/weswalker99/lockwood1.htm> > Oct. 4, 2003.

necessary for most people to sell their homes, if they own one, in order to move. It should not take ten weeks for most families to relocate to almost any point within the United States.

An economic factor that could account for the lengthy summer's persistence is the asymmetrical nature of the costs of arriving after the school year has begun. If recent research is to be credited, late enrollment is worse for the existing students than for the newcomers.<sup>12</sup> Thus the existing district, which sets the vacation time, would want a larger window of opportunity to get all students assembled. Truancy laws can handle delinquent students within the district itself, but they do not reach families moving from outside the district.

Another factor contributing to the long break are variations in the school year from one district to another. These variations are caused partly by legal standards for days of instruction (among states), but random factors also enter into it. A school year may be extended by unusually harsh weather in the winter or by teacher strikes, either of which can send the school year into late June if not early July. Add to that the aforementioned need by schools for a generous time period to collect incoming students, and early August would be a reasonably practical date at which to start school.

And August is now the contested territory of summer. It appears that American schools are moving toward August beginnings and spreading vacations into other seasons. Crooning "see you in September" has become as dated as "saying goodbye at the station." (The song was a hit in 1966.)

The encroachment of the start of the school year into August could be the product of more rapid transportation and better real-estate markets, which would reduce the time for interurban moves. But August encroachment also raises the issue of the changing role of climate in location decisions. Moving people and goods is no longer much affected by seasonal weather variations. At the same time, the rise of the service economy and its footloose firms that are no longer connected to mines, seaports, and

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<sup>12</sup> Hanushek, Kain, and Rivkin 2003, p. 21. Interviews of teachers in two high-turnover districts confirm that introducing new students to an ongoing classroom detracts from other students' education (U.S. General Accounting Office 1994, p. 37).

water power, has made amenable climates more important (Greenwood et al. 1991). Opportunities for outdoor recreation by employees affect business location decisions, and the seasonal advantages of family recreation would play a role. Going to school during the best recreation times has, in other words, become more costly.

The recreational attractions of summer do not explain the original, national uniformity of the September starting date and the long summer vacation. Summer is not the superior season for outdoor recreation in the South and much of the arid West. However, it would be disruptive for migrants to and from the South to have a June-to-March school year, which would allow for outdoor recreation in the pleasant spring months, when the North had a September-to-June calendar. Thus the seasonal preferences of the most populous sections of the country — still the North and non-arid West — would most likely prevail.

Within the broad parameters of this system, it appears that summer vacation in the South is coming to have a slightly different schedule than in the North, at least as air-conditioned schools become more prevalent in the South. Although in-state variability remains high, my web searches for “school starts August x” where x was each weekday in early August 2003, indicated that almost the only schools whose opening dates were between August 1 and August 15 are in the South (Tennessee and North Carolina and south) or the arid West (Utah, Arizona, and inland California). These early-opening schools tend to end the academic year in late May. Most still have eight or nine weeks of summer vacation, but they have traded much of the heated August component for the milder, early-June component and for more frequent breaks in other seasons. The lesser but still palpable encroachment into August by Northern schools could be a response to this, as the population dominance of the cooler regions of the country is fading.

The early-August beginnings of many Southern districts is strong enough to have generated organized opposition. Individual districts in Texas had been gradually moving the beginning of the school year ever earlier in August. This alarmed the travel industry,

among others, which lobbied to roll back the local trend at the state level. A 2001 state law now prevents local districts from beginning before the week containing August 21.<sup>13</sup>

### **§7. International Practice of High-Income Countries (Except Japan) Is Similar to the USA's**

Because the historical origin of the American summer vacation is so murky, I turn to contemporary international experience for insight. What is most striking is the general uniformity among high-income countries and most of their neighbors. While there is considerable variety in length of school year around the world, a summer vacation whose length exceeds that of any other break followed by the beginning of the school year in August or September (or, in the Southern Hemisphere, around February) is the norm for almost the entire world's population. The variations from the standard, primarily by Japan, some equatorial nations, and most trans-equatorial international schools, reveal a pattern that is supportive of the worker-and-family mobility function of summer vacation. This and the following section selectively review worldwide practice by region, starting with North America.<sup>14</sup>

Canada's provinces each set their own school year, but all start within a week of September 1 and end near the last week of June. Most Canadian school years exceed those of the United States by two or three weeks, which is perhaps about the time it takes to learn French or English as a second language.<sup>15</sup> Several Canadian districts have experimented with year-round calendars, but they seem no more widespread than in the States. Schools in Mexico have a calendar similar to that of the USA.

European nations have greater variety in their school calendars than the three North American nations, but almost all start a new school year within three weeks of September 1, and most complete the graded school year in June.<sup>16</sup> Russia and Middle

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<sup>13</sup> <[www.traditionalschoolyear.org/index.html](http://www.traditionalschoolyear.org/index.html)> June 10, 2003.

<sup>14</sup> My school-calendar research was done by web searches and was thus limited to countries with some web presence and by my ability to decode their language where translations were not available. Where official sites did not reveal calendars, I include a country in this discussion only if at least two independent sites described the beginning and end of the school year. Missionary organizations and international teacher placement services were the most useful unofficial sites.

<sup>15</sup> <[www.acea.ca/calendar/school\\_cal\\_e\\_2001\\_2002.pdf](http://www.acea.ca/calendar/school_cal_e_2001_2002.pdf)> June 15, 2003.

<sup>16</sup> <[www.eurydice.org/Documents/Time6/en/FrameSet.htm](http://www.eurydice.org/Documents/Time6/en/FrameSet.htm)> June 15, 2003

Eastern nations such as Egypt, Israel, Iran, and Iraq follow a similar pattern. A few European countries go into July before starting a summer vacation; the maximum appears to be a region of the Netherlands that ends on July 24. Several countries, most notably Germany and Austria, have different calendars for different states (Länder), but all begin and end within three weeks of one another.

The length of Europe's summer vacations varies from 6 weeks in Germany, Britain, and Liechtenstein to 12 or 13 weeks in Italy, Portugal, and the three Baltic nations. In all countries, though, summer is the single longest school vacation of the year. Workers with children and teachers who change jobs within or between the nations of Europe would have little difficulty starting in school if they arrive in their new homes in mid-August, though they might have to hurry some if they left from the Netherlands.

Japan, however, would give international job-changers with children a major problem. It starts school in April, takes a six-week summer vacation (end of July through August), and finishes in March. If you arrive in August or September, the school year is one-third over. The calendar appears to have little local variation which, along with the centrally determined curriculum, make it easy for Japanese to change schools within their country. The April start is said to be associated with the Japanese tradition of spring beginnings, but one official source, which is addressed to children, obliquely suggests that it could be a barrier to mobility:

“There are some, though, who want to change the school year so that it starts in September. They say that this will make it easier for students in other countries to come and study here and for Japanese students to attend schools abroad. But because spring is so closely associated with new beginnings, the school year will probably continue to start in April.

The fiscal year, which the government and businesses use in planning their annual activities, also starts in April.”<sup>17</sup>

Japan's nonstandard school year does not appear to be an Asian tradition. Only Korea, which was ruled by Japan for the early part of the twentieth century, has a

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<sup>17</sup> <[www.jinjapan.org/kidsweb/calendar/april/schoolyear.html](http://www.jinjapan.org/kidsweb/calendar/april/schoolyear.html)> June 15, 2003. A few Japanese universities have adopted a special October-entrance term to accommodate international students, but most of their courses continue on a cycle that also begins in April.

similar calendar and curriculum. Asian school-years do have more variety than Europe; developing nations generally have more irregular schools and calendars. Some rural areas in these countries appear to recapitulate the experience of rural America in the nineteenth century, where schools were not held during spring planting and autumn harvest seasons. In a study for Britain's Department for International Development, Taylor and Mulhall (1997, chap. 6) discuss ways by which developing nations have promoted education in agricultural areas. Among them are:

Flexibility of the school calendar so that the cultural, work and climatic requirements are met. For instance, vacation periods may occur at crop-planting and harvest time when children are required to work on the farm (China, Lao PDR, Maldives, Nepal, Pakistan, Philippines, Rep. Of Korea, Sri Lanka, Thailand, Vietnam)

Schools in urban parts of China, Cambodia, and Taiwan generally follow an American/European calendar, starting in September and ending in early July. Indonesia is roughly congruent, going from late July to early June. However, the school year in India and the Philippines goes from June to March, and the Thai school year is May to February. The nonstandard calendars of India, Thailand, and the Philippines are a partial barrier to international mobility, but they may nonetheless facilitate mobility within the country. In much of South Asia, travel conditions are much better during the warm and dry spring than during the heavy rains of the summer monsoon, which starts around June or July.

The evidence from North America and Europe suggests that school calendars facilitate migration of students, teachers, and their families within and among high-income nations. Japan's unusual calendar, therefore, requires some explanation. The Japanese may feel less need to adjust their traditional school calendar because their standard curriculum is so exceptional that it alone retards international families from using the public schools.

Japanese children attend schools 240 days a year, about the same as a standard working year. The curriculum is geared to learning material that will appear on high-stakes tests, which largely determine students' place in universities and occupations. That the system discourages Japanese from temporary use of other nation's schools is

suggested by the existence of several private schools that specialize in remedial education for Japanese children returning from non-Japanese educational experiences in other countries. The exceptional nature of the official Japanese curriculum is also evident in the rules that are applied to international schools in Japan. For example, the Osaka YMCA International School, which offers a Canadian curriculum and calendar (not the aforementioned remedial education), warns applicants that

“...students graduating from OYIS may find it difficult, if not almost impossible, to continue their studies at Japanese universities. Parents must be reminded that, if a child with Japanese nationality enters the School, it means that the child would be abandoning the ‘ordinary’ Japanese Education set by the Japanese Government. If the child is a Japanese citizen, he/she is required by Japanese Law to obtain an official permit from the Japanese Board of Education, allowing him/her to be released from Gimukyoiku, and this must be completed before they can be accepted into OYIS.”<sup>18</sup>

#### **§8. Expatriate and Equatorial Evidence for the Mobility– Coordination Hypothesis.**

Japan’s expatriate primary and secondary schools do not adopt a local calendar. The Japanese School of Kuala Lumpur, Malaysia, set up by Japanese business leaders, not only adopts the Japanese homeland curriculum, it adheres to its April-to-March school calendar. (Malaysian schools follow the January-to-December calendar of the Southern Hemisphere, discussed below.) The Japanese School of Brussels, Belgium, and Seigakuin Atlanta International School, a Japanese Christian school, also use the April-to-March calendar. Japanese language-and-culture schools in Chicago and Detroit meet only on Saturdays, but the calendar is nonetheless April-to-March.

There are two Japanese-run international schools in Hong Kong, and their calendars are geared to the anticipated migration of its families and students. The English-language school is specifically for those who expect to stay in Hong Kong or move to non-Japanese countries.<sup>19</sup> Its school year is mid August-to-June, like that of indigenous Hong Kong schools and unlike that of the Japanese-language school.

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<sup>18</sup> <[oyis.org/programs/curriculum%20differences.htm](http://oyis.org/programs/curriculum%20differences.htm)> July 15, 2003 The web site contained group pictures of students displaying their promotion certificates, and about half the students seemed to have Japanese names.

<sup>19</sup> <[www2.jis.edu.hk/jises/about/about.htm](http://www2.jis.edu.hk/jises/about/about.htm)> June 15, 2003

The conformity of the expatriate Japanese school calendar to that of the mother country supports the hypothesis that school calendars facilitate employment and educational mobility, but one might question whether the example is too specific to Japan itself. Further evidence comes from south of the equator. Most Southern-Hemisphere schools also have summer vacations. Australia's are a bit shorter than most, usually starting in mid-December and ending in the last week of January, when the new school year begins. Calendars are not uniform among the Australian states, but all end and begin within two weeks of one another.<sup>20</sup> New Zealand practice is the same, and it is similar in South America and South Africa and the nations of equatorial Africa for which I could obtain information.

The February-to-November calendar is sufficiently widespread, give or take a few weeks, that there are references to a "Southern-Hemisphere calendar" for schools. The term does not always denote location below the equator. Malaysia and Singapore, which are slightly north of the equator, follow the Southern-Hemisphere calendar, as do most of the nations of Central America (discussed in the next section). The most extreme exception is Afghanistan, which follows a Southern Hemisphere calendar, starting school in March and ending in November. Indonesia, most of which is slightly south of the equator, follows a modified Northern-Hemisphere calendar.

The Southern-Hemisphere calendar offers evidence about the parameters of summer vacation as a coordinating device. The uniform summer vacation of Australia and New Zealand, most of South America, and southern Africa facilitates worker and student mobility within their respective regions. But a Southern-Hemisphere calendar retards mobility with respect to other high-income countries of the Northern Hemisphere. A Melbourne family arriving in London after school ended in Australia in December would have an eight-month educational hiatus to fill before British schools started their year in September. A Chicago family moving to Capetown would have a similar gap between the Illinois school's end in June and the South African school's beginning in February. It is possible that a nation's adoption of Southern-Hemisphere

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<sup>20</sup> <[www.sofweb.vic.edu.au/edtimes/admin4.htm](http://www.sofweb.vic.edu.au/edtimes/admin4.htm)> June 15, 2003

calendar reflects the greater importance of internal, regional mobility rather than international migration.

In this regard, it is notable that many private schools for the children of American and European personnel (both corporate and governmental) in the Southern Hemisphere have Northern-Hemisphere calendars.<sup>21</sup> For example, American international schools (a generic designation) in Harare, Zimbabwe, Johannesburg, South Africa, Sydney, Australia, and Sao Paulo, Brazil, all operate on the Northern-Hemisphere calendar of mid-August to June, while the nearby local public schools operate on a March-to-December calendar. A desire to facilitate family movement to and from North America and Europe — some schools are explicit about this<sup>22</sup> — apparently dominates the inconveniences that come from not coordinating with the local public school systems. Inconveniences would include the difficulties of arranging sports and cultural programs with indigenous public schools and hiring teachers from a local labor force that runs on a different school calendar. Indeed, where the majority of the clientele of the “international school” reside permanently in the Southern Hemisphere, most seem to keep the local calendar.<sup>23</sup>

Perhaps the most interesting contrast occurs on the equator. The *Australian International School* in Singapore operates on the Australian February-to-December

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<sup>21</sup> The U.S. State Department lists and briefly describes private international schools and their calendars at <[www.state.gov/m/a/os/c1684.htm](http://www.state.gov/m/a/os/c1684.htm)> Aug. 3, 2003. Almost all of those listed in South America, southern Africa, and the South Pacific use the Northern Hemisphere calendar. A similar list for European government and business employees is at <[www.cois.org/directory/SchoolCal.htm](http://www.cois.org/directory/SchoolCal.htm)> Aug. 3, 2003.

<sup>22</sup> The Buenos Aires Christian Academy lists as one of its advantages: “US Calendar — We recognize that parents like to plan return travel to the United States around the traditional education calendar.” <[www.baica.com/](http://www.baica.com/)> Oct. 3, 2003.

<sup>23</sup> A selective list of English-language international schools in southern Africa is at <[www.aisa.or.ke/SSchools/](http://www.aisa.or.ke/SSchools/)> Oct. 3, 2003. Several adhere to a Southern Hemisphere calendar, in seeming contradiction to my hypothesis. It is my strong impression from visiting the available web-sites, however, that such schools cater largely to a local population that is less likely to move to the Northern Hemisphere because of parental job changes or in pursuit of university education. (Sites often show pictures of students, and for Africa one can surmise who is local and who is not.) In response to my e-mail query about calendars, the head of one such school, Sifundzani, located in Swaziland, confirmed my impression: “The majority of our learners are regionally originated and for this reason it is more sensible to follow the southern hemisphere timetables.” Chris Davies <[cdavies@realnet.co.sz](mailto:cdavies@realnet.co.sz)>, August 8, 2003. A similar response was received from the head of the Westwood International School in Botswana, who went on to acknowledge that his school’s use of the Southern Hemisphere calendar “does cause

calendar, but the nearby Singapore *American* School operates on the American September-to-June calendar. (Singapore itself, which is just north of the equator, uses the Southern-Hemisphere calendar of Australia.) The

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adjustment problems for students coming from and returning to the Northern Hemisphere school year.”  
Michael J. Thompson, <westwood@info.bw>, Oct. 10, 2003.

Australians carry their calendar north, too.<sup>24</sup> Their school in Hong Kong, well north of the equator, operates on Australia's February to December schedule, while indigenous Hong Kong schools operate on the Northern-Hemisphere calendar.

### **§9. No Island Is an Island.**

Another example of the school calendar's coordinating function arises among the Southern-Hemisphere Pacific islands. Their calendar variations are consistent with the need for educated workers, including teachers, to be able to transfer at the end of school years. American Samoa's schools operate on an American (Northern Hemisphere) calendar, which would facilitate movement back and forth to the United States, of which American Samoa is a Territory. In contrast, Fiji, an independent nation 600 miles to the west, operates on a Southern-Hemisphere calendar, as does the independent island nation of Vanuatu. The French territory of Tahiti, 1200 miles east of Samoa (and directly south of Hawaii), follows the French (Northern-Hemisphere) school calendar as well as its curriculum, but the French possession of New Caledonia, which is 900 miles off the east coast of Australia, operates on the Southern-Hemisphere calendar. It seems that coordinating labor and educational exchange between New Caledonia and Australia and New Zealand is enough to trump the Napoleonic ideal of every French student studying the same lesson on the same day.

It is notable that none of the South Pacific islands operates on a nonstandard calendar. Each is coordinated with some larger nation, and none goes off like Japan on a calendar unique to its indigenous culture. An island group in the South Atlantic also conforms to this pattern. The Falkland Islands, a British colony of 2800 souls located 400 miles east of southern Argentina, follows the main parameters of the school calendar of Britain, 8000 miles to the north. The Falklands School — there's only one — starts its year in September, but it does take a summer break in December and

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<sup>24</sup> Australian universities also begin in February and end in December. The one exception is Bond University, Australia's only private university, which has three terms at which students may begin their studies, including one in September. Fifty percent of its students come from other countries, and Bond advertises its flexible calendar as its number one attraction for study-abroad students. <[www.bond.edu.au/admiss/studyabroad/](http://www.bond.edu.au/admiss/studyabroad/)> Oct. 3, 2003.

January. It finishes the school year in early August, leaving enough time to scuttle back to England to begin school in September.

Central America and the Caribbean nations also demonstrate that adult migration patterns, whether to the home country or to independent neighboring nations, are important in establishing which school calendar to use. Caribbean island nations, including Cuba, use the North American school year. Venezuela, whose population centers face the Caribbean, is the only independent South American nation to use the Northern-Hemisphere school year. Venezuela's neighbor, Columbia, is also (mostly) north of the equator, but its population centers are inland or near the Pacific Ocean. It adopts the Southern-Hemisphere school year, like most of the rest of the continent south of the equator.<sup>25</sup>

The Central American countries of Guatemala, Nicaragua, Costa Rica, El Salvador, and Honduras use the Southern-Hemisphere calendar, which coordinates their schools with calendars on most of the continent of South America. (Most of Central America's population is closer to the Pacific than the Caribbean.) Public schools in Panama run from April to December (which is just a shorter Southern Hemisphere calendar), but the former Panama Canal Zone's American schools conformed to the Northern-Hemisphere calendar, as do most other American international schools in Central America and South America. The Caribbean-oriented and English-speaking nation of Belize (formerly British Honduras) is the only Central American nation that follows the Northern-Hemisphere calendar.<sup>26</sup>

## **§10. Conclusion and Policy Implications**

A nationwide, summer vacation prior to the beginning of the school year is a twentieth century, urban invention. Within the United States and probably most other high-income nations, this norm coordinates age-graded education in a way that keeps total social costs at a minimum. The social costs include family relocation and job-

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<sup>25</sup> An exception is Ecuador, which has a May-to-January year on the coast and an October-to-July year in the highlands. <[www.ecuadoramazing.com/learn/abc5.html](http://www.ecuadoramazing.com/learn/abc5.html)> Sept. 5, 2003.

<sup>26</sup> Mexico, which is usually not regarded as part of Central America, uses the Northern Hemisphere calendar, like the other two North American nations.

changing costs (especially for teachers) and the educational disruptions from having new students entering graded schools after the term has begun. Summer vacation may get a bit shorter over the years, but a mobile society will still find that a longer-than-usual summer vacation period following the end of the school year in June is a less costly way to structure education than the year-round calendars that are perennially advocated by education reformers.

It has been easy to overlook the coordination explanation for summer vacation because the family-relocation benefits of summer usually run parallel to the recreational benefits of summer. In most of the world, summer is the best time to take a vacation as well as to move one's household. Where summer is not the ideal time for recreation, the persistence of summer school vacation is best explained by the need to coordinate with a larger labor market, including that of parents, teachers, and students continuing in other schools.

Coordination is most obvious in observations that spanned that widest of natural experiments, the equator. Countries near the equator appear to choose school calendars that facilitate migration to and from their most important neighbors. Small islands, including the "islands" of expatriate business and government employees on the continents of the Southern Hemisphere, are the cleanest evidence in support of the importance of family mobility as a determinant of school calendars.

The immediate policy implication raised by this explanation is that "true" year-round schooling may be economically undesirable. Even though school capital facilities could be more efficiently utilized by having four 9-month school years that began on July 1, October 1, January 1, and April 1, substantial network benefits would be foregone in such a system. Families with children might arrive or leave the school district at inconvenient times, graduating students would miss timely opportunities to enroll in colleges, and teachers and other school personnel would have more difficulty taking jobs in such districts. Few advocates year-round programs would actually abolish summer vacation or begin the school year months away from September 1, but even substantial abbreviation of summer vacation or beginning school years in July would still impose mobility costs on families, teachers, and graduating students.

It may not be necessary to impose a summer-preserving policy from above, as the state of Texas seems to have done (section 6 above). Deviations from summer vacation and August/September beginnings does have a self-correcting mechanism. The voices that question summer's vacation benefit and suggest year-round schools are typically those of people who are not moving from one school district to another. Local school governance is undertaken by established residents who are relatively immobile, but the majority of students change school districts at some time during their thirteen years of public schooling, and many change more often (Skandera and Sousa 2002). The parents of these students had no voice, prior to their arrival, in local debates about year-round schools. But they did have the option of selecting school districts when they were planning to move. By voting with their feet and thereby influencing the value of property in the set of districts they choose from, they may have enforced the summer-vacation norm as effectively as any established school-board member.

The theme of this paper may also offer insight into a larger issue. The coordination function of summer-and-September was created without evident thought about its need. No American national authority issued a decree that July and August must be free so that teachers, children and their parents can move without disrupting school. It was the product, at least in the USA, of decentralized decisions. As such, it is an example in support of the ability of local districts to create an efficient national school system. In the debates about the relative merits of local control of schools compared to uniform state or national standards, the coordination function of the school calendar offers a point in support of localism.

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