Starting Time and School Life
Reflections from Educators and Students

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The authors discuss the findings from a survey of teachers and from focus group meetings attended by a variety of stakeholders — two approaches that were used to assess the impact of changing school starting times and to identify the areas of greatest concern.

WITH the 1997-98 school year in the Minneapolis Public Schools (MPS) came a change in the starting time for most of the schools in the district. It appears that Minneapolis may be the first major metropolitan school district in the United States to undertake systemwide changes in school starting time based on the current research about adolescents and their sleep needs. The seven high schools changed from a 7:15 a.m. to an 8:40 a.m. start; the seven middle schools moved from 7:40 to 9:40; and the starting times for the 71 elementary schools were set at either 7:40, 8:40, or 9:40.

A study is being conducted by the Center for Applied Research and Educational Improvement (CARE) at the University of Minnesota in conjunction with the MPS to ascertain the impact of changing school starting times on the educational endeavor and on the community. The findings revealed that the changes affect the various stakeholders differently and are acutely felt at the personal level.

Methodology
The data were collected through the use of a written teacher survey and focus groups. The focus groups were held first because the issues of the various stakeholder groups were extremely diverse and

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needed clarification before a questionnaire could be developed. Secondary and elementary schools were drawn from a stratified random sample of schools in order to identify participants for the focus groups. Groups were conducted separately by teachers, students, and support administrative staff members at three high schools and five middle schools. Administrators from each school solicited volunteers and ensured that each grade level was represented. While not specifically controlled for in this study, informal attempts were made to generate a diverse group of participants in terms of gender, ethnicity, and opinion concerning the starting time. Focus groups were also conducted at four elementary schools with only teachers and administrative/support staff members. In total, the 54 focus groups provided a forum for participants to reflect on the impact of the starting time changes and to identify areas of greatest concern.

The second form of data collection was a written survey for high school teachers developed from the findings of the MPS focus groups and from what was discovered during a case study of the Edina school district during the 1996-97 school year, reported in a larger study by Kylie Wahlstrom and Carol Freeman. The one-page questionnaire contained 14 two-scale questions and three open-ended questions. A five-point scale was used as the response set for the quantitative questions. The survey was mailed to the homes of every Minneapolis high school teacher (n=568) after the end of the 1996-97 school year. The response rate was 67%. The survey was used to validate the focus group findings and was a means by which to have much broader teacher input than the use of focus groups could allow.

Findings from the High Schools

The focus group data from the high schools revealed that there were three main areas of concern regarding the change in starting time: its impact on students, its impact on teachers' instructional endeavors, and its impact on teachers' personal lives. Thus we developed a survey questionnaire that sought to gauge the magnitude of concern among teachers about those three areas.

Impact on students as perceived by teachers. Fifty-seven percent of the teachers responding to the written survey reported that a greater number of students were more alert during the first two periods of the day than had been the case with the earlier starting time. In fact, this item generated the most agreement of any question on the survey. Sixteen percent were neutral in their answers, and 27% disagreed. Slightly more than half (53%) of the teachers also agreed or strongly agreed that they saw fewer students sleeping at their desks. Interestingly, the respondents were evenly divided (33% agreed or strongly agreed, 32% neither agreed nor disagreed, 35% disagreed or strongly disagreed) regarding the statement "I see improved student behavior in general." This finding contrasts with the findings from Edina that reported markedly improved student behavior, as evidenced by quieter behavior in the hallways between classes and less lunchroom misbehavior.

Teachers were evenly divided in reporting the nature of the comments (positive versus negative) they had heard from students and from parents regarding the later starting time. Twenty-five percent said that they had heard neither positive nor negative comments from students, and 40% said that no comment had been heard from parents. Although practices, extended-day programs, and rehearsals were shortened, students still arrived home at a later hour than when they had the previous year, forcing parental concerns about safety and some what reducing student participation in after-school activities.

Differences with students' work schedules were noted by several MPS respondents, who wrote that these teenagers had less time to work or had to work later in the day in order to put in as many hours as they once had. In the study by Wahlstrom and Freeman, 15 employers of suburban high school students were asked about the impact of the later start on their businesses. Fourteen of the 15 employers agreed that there had been no negative impact from the later dismissal, because their businesses did not need the extra help until the schools were dismissed. Minneapolis teachers observed that there appeared to be less involvement in extracurricular activities; Edina teachers did not notice any appreciable decrease in student involvement in after-school activities. Finally, both suburban and city teachers noted that some students seemed more tired at the end of the day, now that class extended an hour later into the afternoon. Additional parent feedback will be gathered in order to more fully understand the impact of the later start on students and families.

Impact on students as reported by students. Minneapolis high school students in the focus groups reported general dissatisfaction with the later start's impact on after-school activities and their own schedules. The data suggest some differentiation between grade levels, with ninth-graders consistently more negative about the later start than older students. Because the after-school schedule was pushed later in the day, students reported that they were more tired, had less time to study and do homework, and had shorter practices or practices at odd hours. For example, a lack of facilities and field lights necessitated morning practices; consequently, some students had to forgo the morning sleep that was to be a benefit of the later school starting time. Moreover, there were often conflicts in the scheduling of activities, forcing students to make tough decisions about which activity to choose and reducing their opportunities to participate in more than one.

As did the high school staff members, students expressed concern about having to leave school during the last period to attend practices and games and about middle-schoolers' being unable to participate in senior high athletics. Students explained that the later start had the same types of effects because sometimes limited the number of hours they could work, reduced their income, and affected the types of jobs available to them.

The schedule changes affected not only work, sports, and studying but also opportunities for socialization. The good news is that several students reported that they were more alert and efficient during the day, and this enabled them to complete more of their homework at school.

Student focus groups in the suburban high school revealed a very different, and generally positive, picture. As in Minneapolis, some students mentioned that athletic practices were moved to an early morning time, which seemed to them to negate the beneficial effects of having a later start. However, the majority of students in the suburban focus groups said that they felt less tired at the end of the day when they did their homework and that the later dismissal had not negatively affected their involvement in after-school activities. Nearly all the students in the focus groups noted that they felt more rested and alert for the first hour of class and that they were generally going to bed at the same time.

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as they had been when the starting time was an hour earlier — thus they were, in
deed, experiencing a one-hour rise of sleep each school night.

Impact on instructional endeavors. By slightly underestimating the
number of students who would or need to attend school during that time, the
school administrators were able to control the number of student athletes
needed to be excused from their classes to allow for an athletic event on time. One
teacher wrote, “Now, I lose one-half of my sixth-hour Interna-
tional Baccalaureate class in the fall to sports and one
quarter in the spring for track meets. Many of my
students were very disappointed by this decision because it goes against every-
thing we stand for as educators.” The ma-
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jority of teachers felt that the primary purpose of schools is to educate, not to run extracurricular sports programs. The coaches will have to adapt.

Clearly, this is a critical issue to resolve if the later starting time is to remain in place and benefit all students, not just those who are in athletics.

During the focus groups with teachers, the participants noted that fewer students were seeking academic help before and after school. This concern was substantiated by the written survey, which indicated that 40% of the teachers agreed or strongly disagreed that more students were seeking academic help before and after school. In the fall, this was in direct contrast to the findings in Edina, where teachers reported that they felt better about the school schedule. Many students came to school early to get additional help from their teachers with their homework or to meet with their teachers. Further, these findings relate to economics and having access to a car instead of having to rely on a school bus needs to be studied fur-
ther.

During the focus groups, the high school teachers generally agreed for the 8:40 start had a negative impact on the end of the school day, defined as the time period right after lunch through the last academic hour. Because of early dismissals for activities, sports practices, and personal appointments, many students missed the last period. As
a result, teachers were unable to cover the desired amount of curriculum, and students missed class discussions, labs, and required assignments. Some students even chose electives rather than required courses because they had to miss their last class so they could attend. In the fall, this created a high demand for certain classes during third hour and small classes during sixth hour.

The impact of the late starting time on transportation issues and on learning appeared to be vastly different between the city high schools and the suburban high school. Being in the “second tier” of the MSP’s three-tiered busing schedule meant that buses arrived late much more often. This was usually because of delays that occurred during the first run for the elemen-
tary schools that started at 7:40. One teach-
er noted, “Tardies are still a problem with the 8:40 start time, with many students late because of late busses. This is very frus-
trating — almost impossible to teach when you have a continuous stream of late stu-
dents.” Late busses were never mentioned by teachers as an ongoing problem in the suburban district of Edina, whose high school is also in the second tier of a three-tiered transportation schedule. However, it is very important to note that the school is about one-seventh the size of the city in terms of square miles, and it was easier to make up time with shorter distances between neighborhoods and schools.

Finally, many teachers in the high school with a later starting time commented on the positive effect the change had had on their own preparation for the instructional day. Faculty or department meetings were held before school instead of after school, and teachers found that they were fresher for thinking through difficult curricular issues and had greater energy to be engaged in professional discussions. Two suburban teachers noted that they had time to incorporate the most recent world events into their daily social studies and economics lessons because they had time to go to the Internet each morning before classes began. Will the overall effect of a later start be to improve instruction and stu-
dent achievement? That question is being studied at this time, and we may have some answers within the next year.

Impact on teachers’ personal lives. The professional and personal lives of teach-
ers are unquestionably interdependent, and the findings from the focus groups high-
lighted the need to ask more definitively about teachers’ personal lives on the winter
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question made it clear that very few (3.5%) wanted to return to the previous starting time of 7:15 a.m. The most popular time for Minneapolis high schools to start, according to these teachers, was 8 a.m. (See Figure 1.) Indeed, almost three-quarters of the teachers surveyed (72.7%) chose a starting time of 8 a.m. or later.

**Findings from the Middle Schools**

Probably the most difficult transition made in the Minneapolis school system was the shift to a 9-40 a.m. start for the middle schools. Overall, the general opinion among school personnel in the focus groups was that the 9:40 start did not provide a sufficient amount of “prime time” learning in the morning. Although a few commented that they were better able to handle discipline problems and that students were more alert and doing better, the majority of teachers reported students to be more difficult to motivate at the end of the day as a result of student and teacher fatigue. Fatigue was also perceived to contribute to impatience and decreased effectiveness in managing student behavior. In general, teachers felt that they were working harder and accomplishing less.

The class end time limited the time available for teachers to attend to personal business and appointments. This made it necessary for some to leave school early or to request a substitute for their last class. Because it was difficult to find substitutes who would teach late in the day and because some businesses were closed after school, teachers occasional- ly had to use their prep time and, in some cases, their sick days.

Teachers also noted that students involved in after-school activities often needed to leave class early, missing all or part of their last academic period and disrupting learning for others. Activities were simply too late in the day, and the time remaining after school was too short. There was a perception that, because of safety concerns, fewer middle school students were participating in after-school activities. One teacher reported that two students dropped out of the student council because their parents said it was too dangerous for them to walk in the neighborhood at 7 p.m. Because the workload for staff members concluded almost immediately after students were dismissed, parents were unable to contact the school for help if there was a problem with a late or missed bus. One support staff person suggested that the unavailability of school personnel after school hours had fostered adversarial relationships between parents and the school. Safety was also a concern in the morning, when parents left for work and students had to get themselves off to school.

Teachers who were willing and able to stay later during the first year of the change noted that fewer students stayed after school for tutoring and that before-school options were viable only for certain students. "I used to have students staying after school every week getting help," said one teacher. "Now I have no one staying after to get help. The only kids who can get help are those who can get a ride in the mornings. So it ends up being the privileged getting the help, and those who are not privileged have more and more barriers."

Like the high schools, the middle schools—the third on the three-tiered busing system—had to deal with late buses. Transportation problems were seen to affect student attendance, classroom learning, field trips, the length of after-school activities, and even district initiatives such as optional morning reading programs.

A bright spot to report in this picture is the finding of one of the middle school students who, for his "research" class, designed a survey to assess the students' opinions of the later start. To his surprise, a majority of his peers favored the later start. They noted that they were less tired for class in the morning and that learning was easier. Certainly, there is a need to have a more representative sample before generalizing from this student's "findings." Nevertheless, both the teachers and the MPS school board are interested in further assessing the opinions of the student body before considering any change back to the earlier starting time.

**Findings from the Elementary Schools**

The 14 elementary schools participating in the study experienced various starting times. Two of the schools moved from a 9-40 start to a 7:40 start, a two-hour change. All other schools experienced a one-hour shift in starting time. Two schools included in the elementary sample were elementary/middle schools serving kindergartens through eighth grade. At the elementary level, we conducted focus groups only with teachers and administrators and not with students.

Elementary teachers from the five schools that moved from an 8:40 to a 9:40 start cited a variety of areas negatively affected by the later start. Similar to the middle school responses, these areas includ-
ed teaching, busing/transportation, end of the school day, student behavior, meetings, after-school activities, safety, and personal schedules.

The areas that generated the most feedback were the negative effect the later start had on teaching and learning in the shortened morning and student fatigue and disengagement in the afternoon. With the 9:40 start, academic programs often did not begin until 10 a.m., after buses arrived and students ate breakfast at school. Teachers unanimously agreed that third-tier buses were chronically late. Also students often came to school having already watched up to three hours of television in the morning, since young children who go to bed early tend to wake early as well. One teacher described such children as having "eyes glazed over." Clearly, to the faculty and staff in these focus groups, the very late start had no apparent benefits for the elementary-aged child.

In contrast to those schools that moved from an 8:40 to a 9:40 start, teachers at elementary schools that experienced the reverse, moving from a 9:40 to an 8:40 start, reported a positive impact on the beginning and end of the school day. Students' energy and learning levels were higher in the morning and lasted throughout the day. The earlier start meant fewer before-school transitions for students (e.g., from day care to school), and it seemed to capture students when they were at their best for learning. One teacher reported, "Last year I had a student who was in day care at 6:30 a.m. By the time she came to school at 9:30 a.m., her day was over. That's just too long for kids to be up in the morning. I feel this year the kids are much better, ready to learn when they come to school. And throughout the whole school day, I still feel that they are alert and ready to learn, and I didn't feel that way last year."

The 8:40 start had a positive impact on after-school activities as well. With an earlier school ending, parents were more inclined to allow their children to participate in extracurricular activities because they did not have to miss classes to attend events, and they arrived home earlier, lessening concerns about safety. Students were reported to have more time for homework, play, and after-school academic help.

The 8:40 start was also positive for teachers personally and professionally. Most of the teachers said that they felt more relaxed, less rushed, and more energized to teach. They had time to supervise after-school activities, attend workshops, and keep personal appointments without taking time off from school.

Responses from support and administrative staff at the elementary schools that started at 8:40 confirmed teacher perspectives that students were more alert and ready to learn. The earlier start increased morning instructional time, which was viewed as advantageous to elementary-aged students, especially children with emotional and behavioral disorders. Staff members reported that fewer students left school early for appointments, and this resulted in less lost instructional time and fewer class disruptions. Students had more opportunities to participate in after-school activities, and more took advantage of them.

School climate was perceived to have improved from the previous year; morale among staff members was considered to be high, and the pace of the school was less hectic and more peaceful. Being second, as opposed to third, on the tiered busing schedule was an improvement and allowed adequate time for staff members to manage special events and address parental concerns about their children.

Elementary teachers from the two schools that experienced a two-hour change in starting time, moving from 9:40 to 7:40, reported that the earlier start had a negative impact on student attendance/tardiness, the beginning of the school day, school climate, and after-school activities. Even with school-purchased alarm clocks provided to some families, students were still absent often, making it difficult to teach the fourths of the class present. Transportation constraints and the early start also shortened student field trips.

Unlike the teachers, support staff and administrative staff members reported that the 7:40 start had a positive impact on teaching, on the end of the school day, and on after-school activities. These staff members perceived students to be "more on task and focused" during the day, which contributed to fewer afternoon behavior problems. Students with ADHD (attention deficit hyperactivity disorder) were seen to have benefited from the earlier schedule, although some reservations were expressed about what kind of an impact increased absences and tardies were having on learning. More students were also taking advantage of after-school activities, but bus schedules determined the length of after-school practices and events.

Teachers from the three elementary schools that moved from 8:40 to 7:40 commented on a number of positive effects. Children appeared to be more alert at the beginning of the day and stayed more energized throughout the day. Students experienced fewer morning transitions and were more ready to learn. Teachers per-
ceived themselves and their students to be more patient and productive in the after-
noon. Several teachers also noted that before-school academic help and that they
had opportunities for greater participation in school-related activities. Any inconve-
niences associated with the change in starting times were viewed as "workable" situa-
tions, and options, alternatives, and flexibility in scheduling were seen as available.

Moreover, the later ending to the school day and subsequent participation in after-
school activities did not raise concerns about student safety in the school context.

Clearly, the least desirable and most problematic change was the 9:40 start to
the middle schools and at some elementary schools. Teaching and learning
were considered to be significantly compromised. Instruction did not begin until
late in the morning, pushing academics into the afternoon, when students were
reported to be less alert and more interested in learning. Teachers also had to contend
with students leaving to attend events and appointments. The later ending to the school
day meant that fewer students and faculty members were involved in after-school
activities and that parents were more concerned about students arriving home late,
when it was particularly unsafe.

There was an underlying assumption that earlier school starting times (e.g., 7:40
and 8:40) were inherently better because they were more consistent with "real life"
and the typical adult work pattern. The 9:40 start seemed to communicate to per-
sonnel and students that learning was not a priority. The 8:40 start was seen to cur-
turate elementary students' prime learning time. Although there were mixed respons-
es from elementary schools about the 7:40 start, it resulted in fewer morning transi-
tions for students, who arrived better pre-
pared to learn.

The impact on the community of the changes in starting times remains unclear
and will require further research. What is evident from the findings to date is that
students are listening to the debate about school starting time and are affected by it.
Because only one full year has elapsed since the MAPS changed its starting times,
data will need to be collected over the next several years to more fully understand the
effects of a later start on school life and student learning. Differences in culture,
socioeconomic status, gender, and other areas need to be studied to determine how
various subpopulations are affected. Observational, performance, and self-report-
ed data will continue to be very helpful in understanding the link between schedules
and learning outcomes. Several key pieces of data already collected by schools (e.g.,
test scores, attendance, and behavior reports) might help define an opti-

Discussion

cal starting time for school.

Conclusion

The findings of the CAREI study raise questions about whether a universal start-
ing time or a flexible one is best for stu-
dents. It is unlikely that any one schedule could accommodate the needs of all stake-
holders. Given this fact, the district could investigate the possibility of creating flexi-
bile schedules so as to offer viable options for students, families, and school person-
etel. Several respondents to the high school teachers' questionnaire spontaneously made

such suggestions.

1. I would rather restructure the school day and schedule. Provide more learning
   time (not just credit makeup or remediation) for students after 2 p.m. — especially
courses that are interdisciplinary.
2. "Flexible start/endings would be ideal to accommodate different student needs.
   At the high school, flexible starting time should be an option. Athletes need the
   early time. Students who work need the early start, morning people like the early
   start, but others benefit from the later start.
3. "I think we should have an early start and a late start. Have school start at 7:15
   for those who want to come then and an after-school activity for those who like it
   late. Everyone goes a full six periods, but the early ones get out two hours sooner
   (or take an extra class)." There are enough students and staff who would like both start times."

One teacher noted, "The 7:15 a.m. starting
time was a death knell for period 1
(and often period 2)." The teacher on adol-
scent sleep patterns is indicating that some
change in school starting times may be ben-
eficial. In districts that rely on multi-tiered
busing, planning for the middle and ele-
mentary grades must be part of any over-
all strategy.

Educators who have experienced the
change to a later start as positive speak
forcefully about its impact. "Even though
the change in starting time has affected
after-school activities, I feel that the bene-
fits — of having school hours more tuned in
to 'teenage clocks' — are significant," said one teacher. Another commented, "If you
are involved in any kind of after-school
activity, it can be difficult to take care of
personal business, but the positives for the
kids outweigh this single personal con-
sideration." And finally, a word of caution
from one teacher about hasty decisions in
any direction: "This change has been a long
time in coming — please give it a long
trial before making a judgment."

The effects on teaching and learning are only
beginning to emerge. If we are to know
anything of substance, the medical and
educational research into this issue and its
outcomes must continue for several years
to come.


TOUCH THE PAST

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