Preschool Attendance in Chicago Public Schools
Relationships with Learning Outcomes and Reasons for Absences

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ACKNOWLEDGEMENTS We would like to acknowledge the many people who contributed to this work through their partnership, support, encouragement, and feedback. This work is the result of a collaboration between the University of Chicago Consortium on Chicago School Research (UChicago CCSR) and the Office of Early Childhood Education at Chicago Public Schools (CPS), with funding from the McCormick Foundation. From CPS, Serah Fatani, Noriko Magari, and Sheila O’Connell were critical partners throughout every stage of the project. They not only provided us with essential data for this research, but they also supported our efforts in data collection, gave feedback on research questions and findings, and collaborated on dissemination activities. Elizabeth Mascitti-Miller has already started to incorporate the implications of key findings from this study into preschool programs across the district. We also thank Barbara Bowman for having the foresight and conviction to learn more about how absenteeism affects preschool children in the district, which was the impetus for this research.

Our collaboration with The McCormick Foundation was equally important. This project was generously funded by the McCormick Foundation, and Sara Slaughter, Lindsay Alvis Cochrane, and Erika Okezie-Phillips at the Foundation were important thought partners at every phase of this work. They provided critical feedback on research questions and findings, but most importantly, they pushed us to think carefully about how to make this work relevant and meaningful for schools, teachers, and preschool students and their families.

The authors also benefited from the feedback and support from our colleagues at CCSR. We want to thank Stuart Luppescu for his work analyzing the Kindergarten Readiness Tool (KRT) data; Laney Shaler, Eric Brown, Michelle Huynh, and Josie Gore for assistance with data collection, transcription, and analysis; Lauren Sartain and Eliza Moeller for their detailed comments on draft versions of this work; and Jennifer Cowhy for her careful technical read. Emily Krone provided countless hours of support and feedback, always finding ways to improve our writing and message.

We are also grateful for the opportunity to connect this work with that of Hedy Chang of Attendance Works. Hedy works tirelessly to connect the research focusing on attendance and with practitioners in the field nationwide.

As always, we are indebted to the members of our Steering Committee, who exhibited engagement and excitement over this work. A special thank you goes to Kim Zalent and Reyna Hernandez for their careful read of this document and their feedback.
Significant attention is currently focused on ensuring that children are enrolled in preschool. However, regular attendance is also critically important. Children with better preschool attendance have higher kindergarten readiness scores; this is especially true for students entering with low skills. Unfortunately, many preschool-aged children are chronically absent. They often miss preschool for health reasons, but many families also face a range of logistical obstacles in getting their children to preschool every day.

Consistent school attendance is a foundation of student learning. While missing one or two days of school each year is not likely to have serious consequences, chronic absenteeism is related to significantly lower outcomes for students. Research shows that chronic absenteeism (or missing 10 percent or more of school) seriously undermines the academic performance of adolescents. And new research suggests that absenteeism is not only a problem among adolescents but also is a significant problem among very young students: 11 percent of kindergarteners across the nation are chronically absent. Kindergarten students who miss more school learn less during the school year, and the impact of high absenteeism is particularly detrimental for students from high-poverty neighborhoods. While policymakers and others might be tempted to assume that attendance similarly affects students in kindergarten and preschool, there is very little research on attendance in the preschool years and whether it matters for learning outcomes. This is significant because many children start their formal schooling before kindergarten.

To address this gap in research, the University of Chicago Consortium on Chicago School Research (UChicago CCSR) partnered with the Office of Early Childhood Education at the Chicago Public Schools (CPS) in 2011 to study absenteeism among CPS preschool students. This report outlines key findings from this study. It describes the extent of absenteeism among preschool students and compares it with absenteeism among students in kindergarten through third grade; examines the relationship between preschool absenteeism and learning outcomes, both during preschool and in second grade; and explores reasons why preschool students miss school. The project has been generously funded by the McCormick Foundation.

Who We Studied and How

We studied preschool students served by CPS between 2008-09 and 2011-12 in four school-based preschool programs: Child-Parent Centers, Head Start, Preschool for All, and tuition based; the study does not include community partnership preschool programs, for which data are unavailable. Roughly 25,000 three- and four-year-olds are served by these four programs each year, representing 77 percent of all preschool children served by CPS (the remainder attend community-based preschool programs). The extent of absenteeism and patterns in absenteeism were analyzed based on daily attendance files provided by the district. To learn about the reasons students were absent, UChicago CCSR collected additional data in 57 preschool classrooms. Teachers recorded reasons for student absences in attendance logs, resulting in information for 1,229 students over nine weeks of the school year. CCSR also administered surveys to parents in these classrooms (n=627) and conducted follow-up interviews with 40 parents.
Defining Absences

We refer to two attendance terms in this brief: absence rate and chronic absenteeism. **Absence rate** is the proportion of days a student misses school out of the total number of days s/he is enrolled. **Chronic absenteeism** is defined as having an absence rate of 10 percent or higher. For a preschool student who is enrolled in the system for 150 days, which was typical in our sample, this is equivalent to missing 15 school days over the year, or three weeks of school. Note that this definition of chronic absenteeism is distinct from truancy. Truancy rates only include absences that are unexcused; chronic absenteeism does not differentiate between excused and unexcused absences because both result in a day of missed learning.

Key Findings

**How Prevalent Is Absenteeism in Preschool, and Who Is Most Likely to be Chronically Absent?**

Preschool students miss a lot of school: Almost half of three-year-olds and more than one-third of four-year-olds are chronically absent from preschool. In 2011-12, 45 percent of three-year-old preschool students and 36 percent of four-year-old preschool students were chronically absent, meaning they missed at least 10 percent of their enrolled days (see Figure 1). However, attendance does improve substantially between preschool and kindergarten. In 2011-12, the percentage of kindergarten students who were chronically absent was 20 percent, half the rate of preschool students. **This improvement continues into the early elementary grades.**

**African American children are almost twice as likely to be chronically absent as other students.** Some groups of students are much more likely to be chronically absent than others. Racial differences are particularly stark: African American students are almost twice as likely as other students to be chronically absent. Latino students are more likely to be chronically absent than white students, although they do exhibit better attendance patterns than African American students. Chronic absenteeism is also higher among students who live in high-poverty neighborhoods than among students who live in moderate- or low-poverty neighborhoods. However, even after we take into account neighborhood poverty, African American preschool students are still much more likely to be chronically absent than students of any other race/ethnicity (see Figure 2). As we show...
later in this report, African American and Latino preschool students miss more school because they are sick more often and parents of African American students face more obstacles in getting their children to school.

Are Preschool Absences Related to Learning Outcomes at the End of Preschool?

Students who miss more preschool end the year with lower skills; this relationship is strongest for students with low incoming skills. Across all students, the more days of preschool a student misses at age four, the lower s/he scores on CPS’s Kindergarten Readiness Tool (KRT) at the end of the school year, controlling for entering skills. As shown in Figure 3, this pattern holds for math, letter recognition, and social-emotional development outcomes, but not for pre-literacy scores.

This relationship is particularly strong for students who enter preschool with the lowest incoming skills; children with lower skills show the biggest benefit from preschool attendance for some learning outcomes. For example, for letter recognition and math skills, students who enter preschool with the lowest incoming skills and attend school regularly have higher kindergarten readi-

Note: (1) Data are modeled points based on four-year-old students who took both the Woodcock-Johnson III Letter-Word Identification Test at the beginning of the school year and the KRT at the end of the school year in 2010-2011; n=1,265. (2) Main effects of absence rate on KRT scores are significant at p<.05 for math, letter recognition, and social-emotional development subtests. Interaction effects between absence rate and incoming skills on KRT scores are significant at p<.05 for math and letter recognition subtests. (3) Incoming skills were defined as the following: “low skills” were Woodcock-Johnson III scores that were one standard deviation below the mean or lower; “high skills” were Woodcock-Johnson III scores equal to one standard deviation above the mean or higher; and “average skills” were Woodcock-Johnson III scores that fell between one standard deviation below the mean and one standard deviation above the mean. (4) Because fewer than 10 percent of all children with high prior skills had absence rates higher than 15 percent, we exclude this point estimate from the graphs.
ness scores than their peers who were absent more (see the blue lines in Figure 3). Yet, these same students who begin the year with the weakest skills are also the least likely to attend preschool regularly. About 44 percent of students with low initial letter-word identification skills (see endnote 7) are chronically absent in preschool at age four, compared with 28 percent of students with high initial letter-word identification skills.

The relationship between social-emotional development and attendance has a different pattern. More absences are related to lower social-emotional scores for all students, regardless of incoming skills. That is, for all groups of students, those who are absent more finish the school year with lower social-emotional development scores.

**FIGURE 4**

One-third of chronically absent four-year-olds continue to be chronically absent in kindergarten; of those students, more than 30 percent are still chronically absent in second grade.

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**Is Preschool Attendance Related to Later Attendance and Learning Outcomes?**

**Students who are chronically absent in preschool are five times more likely to be chronically absent in second grade.** Preschool attendance is related to chronic absenteeism in kindergarten, a detrimental pattern that often continues into elementary school. While just 6 percent of non-chronically absent four-year-old students go on to be chronically absent in kindergarten, roughly one-third of chronically absent four-year-old preschoolers continue to be chronically absent kindergarteners (see Figure 4). This relationship continues into later years: chronically absent preschool children are five times more likely to be chronically absent in second grade than their peers.

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**Note:** Population includes students who were in preschool at age 4 in 2008-09; n=15,713
who were not. When students are chronically absent in both preschool and kindergarten, they are particularly at-risk for future absenteeism: More than 30 percent of these students are still chronically absent in second grade.

The more years students are chronically absent over the early grades, the lower their reading scores are at the end of second grade. Students who are chronically absent for multiple years have significantly lower learning outcomes at the end of second grade than their counterparts who are not chronically absent in the early years. Each successive year of chronic absenteeism compounds the risk. In fact, second-graders who have been chronically absent every year since preschool are, on average, close to the threshold for needing intensive reading intervention (see Figure 5).

Why Are Preschool Students Absent from School?

Health is the primary reason children miss preschool; a range of logistical obstacles are secondary. More than half of all the days missed in preschool were due to children being sick (e.g., the flu, a cold, an ear infection), according to teacher logs recorded over a nine-week period (see Figure 6). However, another 18 percent of days missed were due to a range of logistical obstacles for families (represented by the green slices in Figure 6). These included difficulties getting children to and from school, child care issues, and multiple family-related matters (including a sick family member, WIC visits, court appearances, siblings with a day off from school).

Many of these obstacles arise because of difficulty with half-day preschool schedules. Almost all school-based preschool programs in CPS are half-day programs, which in 2012 lasted two-and-a-half or three hours (depending on the program type). Half-day programs require that parents find childcare for the remainder of the day and arrange drop off/pick up in the middle of the day. The half-day programming not only presented logistical challenges, but also affected parents’ attitudes towards the importance of attendance—missing just two-and-a-half-hours did not seem too consequential.

Particular family circumstances are related to higher absences for children. Through surveys and interviews with parents, we found that the following circumstances were associated with higher absences: being in a single-parent family; having younger parents;
having parents with poorer health; using the emergency room for primary medical care; relying on public transportation to go to school; living in neighborhoods with higher levels of poverty; and having a parent who is not both college-educated and employed. For instance, children in single-parent families missed 10.3 percent of school while those in families with multiple adults caring for them missed 7.2 percent of school. This three percentage point difference may seem small, but it amounts to about a week of school. Similar patterns emerged around parental health. Children whose parents rated their own health as fair or poor had an absence rate of 13.3 percent, compared with 7.7 percent for children whose parents rated their health as good or very good. As these circumstances pile up for families, attendance gets worse. Children in families without any of the aforementioned circumstances missed roughly 5.6 percent of school, those with one obstacle missed 7.6 percent, those with two missed 9.0 percent, and those with three or more missed 12.9 percent.10

Parents who believe that regular preschool attendance is important have children with better attendance. Within our interview sample, parent beliefs fell into three categories. One group expressed that preschool attendance mattered—just as much as when their child was older; the second said that attendance in preschool mattered, but not as much as when their child was in older grades; and the last believed that preschool was only somewhat important or did not matter. Absence rates were lowest (an average of 7.5 percent) for children of parents who believed that preschool attendance matters as much as later years (see Figure 7). Children whose parents said that attendance in preschool was important, but would be even more important in later years, had higher absence rates (an average of 10.7 percent). Finally, children whose parents stated that attendance in preschool only somewhat mattered or did not matter much at all had the highest absence rates, with an average of 13.2 percent. Similar trends exist in our larger sample of surveyed parents.

**FIGURE 7**
Across our interview sample, parent beliefs about the importance of regular preschool attendance are related to children’s attendance.
feeling connected to the elementary school as a whole, rather than feeling as if they are in a program that is separate from the older grades. When schools are strong on any of these components, their preschool students have an overall average attendance rate that is between one and one-and-a-half percentage points higher than schools that are weak on the same component.

Why Do African American and Latino Children Miss More Preschool?

African American and Latino students are sick more often than white students, and African American families face many more logistical obstacles. On average, African American and Latino children missed more days of school because they were sick more often than white students. Over a nine-week period in a sample of 57 classrooms, African American students missed roughly one-and-a-half more days of school due to health reasons than white students. (see Table 1).

### TABLE 1

Over a nine-week period, Latino and African American students missed more days, on average, due to sickness and logistical obstacles.

<table>
<thead>
<tr>
<th></th>
<th>Average Number of Days Missed Due to Sickness$^1,2$</th>
<th>Average Number of Days Missed Due to Logistical Obstacles$^2$</th>
</tr>
</thead>
<tbody>
<tr>
<td>White</td>
<td>2.3</td>
<td>1.8</td>
</tr>
<tr>
<td>Latino</td>
<td>3.5</td>
<td>2.8</td>
</tr>
<tr>
<td>African American</td>
<td>3.9</td>
<td>4.1</td>
</tr>
</tbody>
</table>

Note: 1 This statistic is only calculated for preschool students who ever missed school because of sickness. 2 This assumes that every student was enrolled for a total of 34 days during the attendance log data collection period.

Data Source: Attendance log; n = 1,156

African American children, and to a lesser degree Latino children, were also more likely to miss school because of logistical obstacles (transportation, child care, or family-related reasons; Figure 8). In fact, over our nine-week data collection period, 38 percent of African American children missed school due to a logistical obstacle, for an average of 4.1 days. In comparison, 22 percent of Latino students missed school for a logistical obstacle, for an average of 2.8 days, and 16 percent of white students missed for an average of 1.8 days.

There are a variety of circumstances that contribute to the higher rates of chronic absenteeism for African American students vs. white students. From our survey sample of over 500 parents, we found that African American children were more likely to be from a single-parent family and have parents with poor health; children with each of these factors had higher rates of being chronically absent. Additionally, African American children were more likely to have unemployed parents with lower levels of educational attainment, which for children in our sample was also related to missing school more than other students. Finally, families that relied on the emergency room for medical care—which was also more common for our African American students—had higher rates of chronic absenteeism.

### Summary

Chronic absenteeism in preschool is a significant problem, with more than one-third of all four-year-old CPS preschool students chronically absent. Chronically absent preschool students not only have lower levels of kindergarten readiness but they also are more likely to be chronically absent in subsequent grades, potentially setting the stage for ongoing learning struggles. These findings suggest that tracking attendance in a
systematic way and addressing some of its root causes as early as possible may help to improve the educational trajectories of students who are most likely to be absent from school. Students who are chronically absent for multiple years are particularly at-risk for poor educational outcomes, suggesting a need for coordinating attendance efforts between preschool and kindergarten teachers.

There has been a great deal of discussion in the public about getting students enrolled in preschool, but enrolling students is just the first step. Deepening parents’ understanding that regular attendance in preschool—not just enrollment in preschool programs—is crucial for early learning may be important for addressing high rates of absenteeism. Most parents we interviewed and surveyed viewed preschool attendance as important, but not all recognized that regular attendance in preschool was as important as regular attendance in later grades. This message is especially essential to communicate to parents of children with low incoming skills, for whom attendance is most strongly related to academic learning outcomes.

While parental commitment matters, it can sometimes be undermined by many other issues that families face. The reasons preschool children miss so much school are connected to a number of different social issues, including poverty, access to quality health care, transportation problems, and access to child care. Schools cannot reasonably be expected to tackle these issues by themselves. But school-community partnerships, such as with community health organizations or local churches and youth organizations, could potentially be a powerful force in addressing some of the factors contributing to preschool students’ high rates of absenteeism.

Families and communities are likely to differ in the particular needs and challenges they face in making sure their children attend preschool regularly. Thus improving attendance of very young children is likely to require a “student by student, family by family” approach. The pre-existing emphasis on family involvement in preschool provides an opportunity for teachers to build relationships with parents of chronically absent students to understand the specific reasons why some students miss so much school. Beginning this process in the earliest of years has the potential to redirect children onto the pathway towards ongoing educational success.
Endnotes

1. Allensworth and Easton (2007); Neild, Balfanz, and Herzog (2007)
2. Romero and Lee (2007)
4. Please see accompanying technical appendix for more detail on the analyses behind our findings. This document can be found at https://ccsr.uchicago.edu.
5. Head Start is a federally funded preschool program for low-income and at-risk students. Preschool for All is Illinois’s state-funded preschool program. Child-Parent Centers are funded through Title I funds of the No Child Left Behind Act, and target low-income areas. Tuition-based programs are paid for by parents.
6. We ran multiple years of analyses cross-sectionally (examining rates among students who were different ages in the same year) and longitudinally (examining the same group of students over time). Either method shows similar patterns; the rates of chronically absent students reduce substantially from preschool to kindergarten.
7. Entering skills were measured using the Woodcock-Johnson III Letter-Word Identification Test on a subset of four-year-olds (Woodcock, McGrew, & Mather, 2001). The Kindergarten Readiness Tool (KRT) is a locally developed tool that measures math, letter recognition, pre-literacy, and social-emotional development at the end of preschool.
8. Of students who were chronically absent in preschool in 2008-09, 15.5 percent were chronically absent in second grade in 2011-12, compared with 3.1 percent of students who were not chronically absent in preschool.
10. Because the overall absence rate for our survey sample is lower than the overall absence rate for all CPS school-based preschool children, these rates may be an underestimation of the relationship between circumstances and absences.
ABOUT THE AUTHORS

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This report reflects the interpretation of the authors. Although CCSR’s Steering Committee provided technical advice, no formal endorsement by these individuals, organizations, or the full Consortium should be assumed.
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