Attendance in Durham Primary Schools

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Purpose: This memo examines recent data from Durham Public Schools related to student absenteeism. This memo examines four related issues surrounding absenteeism:

- Description of student absenteeism by grade-level,
- Persistence of truancy from one year to the next,
- The association between truancy and grade retention, and
- The overlap between absenteeism and tardies.

Data: The data come from the North Carolina Education Research Data Center at the Center for Child and Family Policy at Duke University. The North Carolina Department of Public Instruction annually provides the data center with information from schools and students across the state. The data center processes the data to remove individual identifiers and provides the data to researchers who can do customized and tailored analyses to answer questions relevant for programs, practices and polices.

Key Findings:

- Although most students have low (0-5 days) absenteeism, a substantial proportion of kindergarten through third graders miss 10 or more days of school (e.g. 24.5% of kindergartners and 17.7% of 3rd graders). Absenteeism drops slightly from kindergarten through third grade.
- Students who frequently miss school in one year are also likely to frequently miss school in the subsequent year. For example, 44.6% of first graders who had missed 10 or more days of school in 2010-2011, also missed 10 or more days of school in 2011-2012. In contrast, only 5.6% first graders who missed 0-5 days of school in 2010-2011 subsequently missed 10 or more days in 2011-2012.
- Students who missed 20 or more days of school were 3-4 times more likely to be retained in grade than students who missed 0-5 days of school.
- Students with frequent absences are also likely to have frequent tardies.

Discussion and Conclusions:

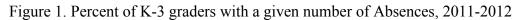
Student absenteeism in the early grades is a potentially overlooked problem that has lasting implications. Absenteeism for early elementary school students, even as young as kindergarten, has implications for academic performance as measured by grade retention—a predictor of later poor school performance. This descriptive study suggests that absenteeism begets absenteeism and that early intervention may be warranted to prevent future problems.

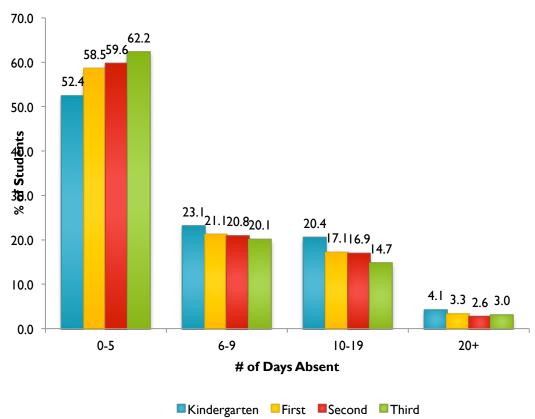
Description of Kindergarten-3rd Grade Absenteeism in 2011-2012

Table 1 and Figure 1 provide descriptive statistics by grade level about the number of days students were absent from school. The first two categories for the number of days absent (0-5 and 6-9) were chosen to reflect standard procedures in Durham elementary schools: students who have accumulated 6 unexcused absences are referred to the school social worker, and students who have 10 unexcused absences are designated truant and may be referred to court. (Note however that these data do not distinguish between excused and unexcused absences.) Table 1 statistics indicate that a quarter of kindergarten students miss two weeks or more of school, with some improvement in $1^{st} - 3^{rd}$ grade.

Table 1. Days absent in 2011-12

	Kindergarteners	1st Graders	2 nd Graders	3 rd Graders
	(%)	(%)	(%)	(%)
0-5 days	52.4	58.5	59.6	62.2
6-9 days	23.1	21.1	20.8	20.1
10-19 days	20.4	17.1	16.9	14.7
20+ days	4.1	3.3	2.6	3.0
N	2,898	2,788	2,420	2,649
Mean absences	6.8	6.1	5.8	5.7
Median	5	5	4	4
absences				





Persistence of truancy from one year to the next

Table 2 demonstrates that students who are truant in one year are also likely to be truant in the subsequent year. We examined the relationship between student attendance during the 2010-2011 school year and the probability that the student would be absent 10 or more days in the subsequent school year. These results revealed that across grades higher levels of student absenteeism in one year is a risk factor for missing 10 or more days in the subsequent year.

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Grade level in	rade level in 0-5 absences in 6		5-9 absences in 10+ absences in	
2011-2012	2010-2011	2010-2011	2010-2011	
First	5.6%	16.3%	44.6%	20.4%
Second	6.4%	18.4%	45.2%	19.5%
Third	5.9%	17.7%	45.1%	17.7%

Table 3 provides an alternative statistical summary of the same pattern, demonstrating that absences in one year predict the number of absences in the next year. The correlations observed are all greater than 40% and quite uniform across the primary grades.

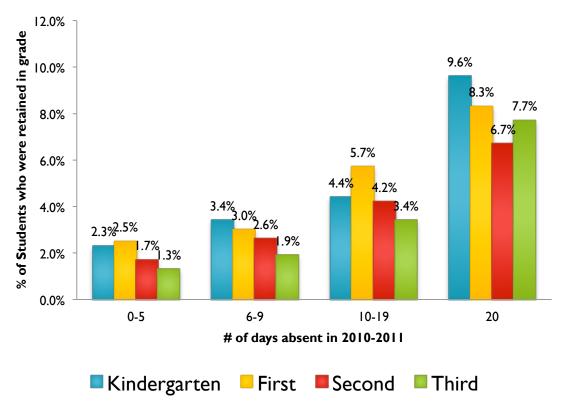
Table 3. Correlation of absences between two consecutive years (2011-12 and 2010-11)

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Grade level in 2011-2012	Correlation with absences in previous year
First	47%
Second	44%
Third	51%

Truancy as predictor of retention in grade

Figure 2 examines the percent of students who were retained based on the number of days of school that they were absent during the year. Across all grades, students who missed 20 or more days of school were about 3-4 times more likely to be retained than those who missed 0-5 days of school. Students who missed 10-19 days of schools were roughly twice as likely to be retained as students who missed 0-5 days.

Figure 2. Percent of students with indicated number of absences in 2010-11 who were retained in grade



Overlap Between Tardiness and Truancy

Tardy students miss part of the school day and disrupt classroom activity. Table 4 displays statistics on the number of tardies for first and second graders in 2006-7 (the most recent year that these statistics are available). Students are frequently (10 or more times) tardy less often than they are frequently absent: 17.5% vs. 24.5%. There is a good deal of overlap between the two behaviors: for example, only 18% of those with 0-5 absences are tardy more than 5 times, whereas 41% of those with 10-19 absences are tardy that often (see Figure 3).

Table 4. Joint percent distribution of tardies and days for first and second Graders, 2006-2007

	0-5 absences	6-9 absences	10-19 absences	20+ absences	Total
0-5 tardies	41.7%	17.7%	11.6%	2.3%	73.3%
6-9 tardies	3.5%	2.5%	2.5%	0.7%	9.2%
10-19 tardies	3.9%	2.6%	3.1%	0.9%	10.5%
20+ tardies	1.6%	2.0%	2.5%	0.9%	7.0%
Total	50.7%	24.8%	19.7%	4.8%	100.0%

