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Chronic Absenteeism in Virginia and the Challenged School Divisions: A Descriptive Analysis of Patterns and Correlates

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Introduction

Schools play a vital role in providing youth with the knowledge and skills they need to be successful in whatever future endeavors they pursue. Each day millions of committed individuals dedicate themselves, assisted by significant financial resources, to providing a safe, supportive, and encouraging environment for students. The beneficial impact of these efforts and resources on students' lives is severely curtailed if students are persistently absent from school.

The importance of daily school attendance to students' success is borne out by the research. Being absent from school predicts lower test scores (Gottfried, 2011), increased likelihood of being retained in grade (Neild & Balfanz, 2006) and dropping out of high school (Rumberger & Thomas, 2000), and increased risky behaviors (Hallfors, Vevea, Iritani, Cho, Khatapoush, & Saxe, 2002). Allocating resources toward reducing student absenteeism will help improve student outcomes, and several interventions have been shown to be low-cost and cost-effective (Balfanz & Byrnes, 2013; Rogers & Feller, 2016).

Virginia school divisions are well-aware of how school attendance moderates their impact on students' lives. In Petersburg, the city and school system have recently come together under *The Petersburg City Partnership with the Schools* so as to leverage a wide array of talent, services, and resources to ensure students arrive at school ready to learn. The interagency structure of this local effort in Petersburg is mirrored in *Every Student, Every Day*, a federal-level initiative launched in November 2015 which unites the U.S. Departments of Education, Justice, Health & Human Services, and Housing & Urban Development to address and eliminate chronic absenteeism.

Eager to support local school divisions, the Virginia Governor's Children's Cabinet commissioned this report to provide a rich descriptive picture of the chronic absenteeism in Virginia and in three school divisions in particular—Norfolk, Petersburg, and Richmond—which face some of the most challenging contexts in which to ensure students' success. We begin with an exploration of how chronic absenteeism (defined as being absent for at least 10% of the days enrolled) varies across the divisions and grades and how it has changed since the 2004-05 school year. Next, we examine the relationship between chronic absenteeism and student academic performance. We then explore how student transitions between schools and school climate may contribute to chronic absenteeism.

Our analysis is descriptive in nature and does not demonstrate how any student or school characteristic *causes* a student to be chronically absent or how being chronically absent *causes* a student to behave or perform in school. Instead, this initial examination of chronic absenteeism in Virginia is intended to support a nascent policy and research agenda within the commonwealth. Accordingly, the findings presented here serve as the basis for generating hypotheses regarding efforts to reduce persistent absenteeism.

Why the Focus on Chronic Absenteeism

School attendance is not a new concern for education policy makers, practitioners, or researchers. Average daily attendance (ADA) rates, the percent of a school's student body in attendance on a typical day, have been calculated and publicly-reported for decades. However, ADA rates, which are measured at the school level, mask the fact that some students are more likely to be absent from school than other students. Schools have also long tracked student truancy, a measure of how many days a student is absent from school without an excuse. While measuring truancy shifts the focus to the individual student, truancy does not capture all the days a student is absent. Also, the definition of what constitutes an excused absence and the number of days which classify a student as truant varies across the states.

The focus on chronic absenteeism seeks to address these limitations. In defining chronic absenteeism, all absences are treated the same regardless of whether the absence is excused or if the student is serving a suspension. Although there is no one universally-adopted threshold for being chronically absent, much of the research defines chronic absenteeism as missing 10% or more of the school year (e.g., Balfanz & Byrnes, 2012; Chang & Romero, 2008; Gottfried, 2015; Musser, 2011; Schoeneberger, 2012). This is the definition recommended by *Attendance Works*,

a national and state initiative founded in 2010 to promote policy, practice, and research on school attendance. Many states and districts around the country use this definition to track chronic absenteeism.[1]

A review of the growing literature on chronic absenteeism reveals several stylized facts about chronic absenteeism. First, the prevalence of chronic absenteeism across the grades is U-shaped with the percentage of chronically absent students decreasing from kindergarten through the elementary grades and then increasing through high school (Attridge, 2016; Balfanz & Byrnes, 2012; Balfanz & Byrnes, 2013; RI DataHUB, n.d. a; Utah Education Policy Center, 2012). Second, low-income and minority students are more likely to be excessively absent from school than other students (Aldridge, Batiwalla, Booker, Hartigan, Schwartz, & Stone, 2016; Balfanz & Byrnes, 2012; Jordan & Chang, 2015; Utah Education Policy Center, 2012).

The association between being absent from school and academic performance is well-documented. Students who have excessive school absences learn less during the school year (Gershenson, Jacknowitz, & Brannegan, forthcoming; Ready, 2010). They are less likely to demonstrate proficiency on state assessments (Chang & Romero, 2008; Musser, 2011), especially when they were also chronically absent in prior years (Aldridge, Batiwalla, Booker, Hartigan, Schwartz, & Stone, 2016). There is also evidence that having chronically absent classmates lowers the achievement of students who are not chronically absent themselves (Gottfried, 2015).

Poor school attendance also predicts other important student education outcomes. Chronically absent students are more likely to be retained in grade (Connolly & Olson, 2012) and more likely to drop out of high school (Balfanz, Herzog, & MacIver, 2007; Utah Education Policy Center, 2012). They are less likely to enroll in college and, for those that do enroll, are less likely to persist in their post-secondary studies than non-chronically absent students (RI DataHUB, n.d. b). Student with excessive school absences are also more likely to engage in risky behavior such as drug and alcohol use (Hallfors, et al., 2002).

Given these associated negative outcomes, schools and districts are engaged in efforts to reduce chronic absenteeism by targeting the reasons students miss school. Reasons for being absent can be clustered into three categories (Balfanz & Byrnes, 2012; Jordan & Chang, 2015). First, students may not be able to attend school because they cannot attend, for example, if they are sick, they are homeless or experiencing other forms of housing instability, or they have family obligations such as caring for younger siblings. Second, some students are absent because they have an aversion to going to school, for example, if they are having a tough time adjusting to a new school or if they do not feel safe at school. Third, students are absent from school because either the student or the parents would rather the student be somewhere else, for example, hanging out with friends at the beach or going on a family vacation. By targeting one or more of these reasons, several interventions have proven successful at reducing chronic absenteeism (Balfanz & Byrnes, 2013; Rogers & Feller, 2016).

Data, Measures, and Analytic Strategy

Data. The current analysis makes use of data obtained through the Virginia Longitudinal Data System (VLDS). These data span the school years 2004-05 to 2014-15. For every student we observe the school and grade level in which they are enrolled and the number of days they attended and were absent. We are able to link to these enrollment records information on student performance on various statewide assessments: the Phonological Awareness Literacy Screening (PALS) from 2007-08 and on the Standards of Learning (SOL) exams from 2005-06. To these data, we link school-level aggregated information on school safety (an important dimension of school climate) collected through the annual Discipline, Crime, and Violence data collection.

From these data, we construct a database that includes a record for each school at which each student was enrolled in each school year (e.g., a student who attends three schools in 2007-08 will have three records for that school year). We exclude from the database enrollment records linked to non-regional school divisions such as the Virginia School for the Deaf and Blind. Finally, we remove enrollment records

for students observed enrolled in school for more than 190 days within a year (0.14 percent). This results in a database of 14,620,850 student-by-school-by-year enrollment records.

Measures. Our analysis focuses on several key concepts, measures of which we construct from these data.

We define chronic absenteeism as being absent from school for 10% or more of the total days enrolled. In the standard 180-day school year, this amounts to missing at least 18 days. We measure chronic absenteeism relative to the number of days enrolled (equal to the number of days attended plus the number of days absent) rather than relative to the standard 180-day school year because not all students are enrolled for 180 days. Whether a student is chronically absent is determined by looking across all the student's enrollment records for a given year. Should a student attend more than one school a year, we sum the days absent across all the schools and divide it by the sum of days enrolled across all the schools. As we will explain later, we adjust our analysis so that students enrolled for the same number of days are assigned the same weight regardless of how many schools they attend and students enrolled less than the full year are given less weight than students enrolled for the full year.

We present much of our analysis separately by three grade clusters: kindergarten through 5th grade, 6th through 8th grade, and 9th through 12th grade. These clusters align with how most divisions assign grades to schools (e.g., elementary, middle, and high schools, respectively). Petersburg deviates slightly from this grade structure. Since 2008-09, the 6th and 7th grades are together in one school and the 8th and 9th grades are in another with the high school serving the 10th through 12th grades. We examine pre-kindergarten separately as enrollment in these programs is not compulsory as is the case for the other grades.

To highlight the associations between chronic absenteeism and academic performance, we create a series of variables indicating whether the student met the state's performance benchmark for the assessment taken. We explore student performance in the following areas: kindergarten students' literacy assessed via the PALS exam, 3rd through 8th grade student performance on the reading and mathematics SOL exams, and high school student performance on the end-of-course (EOC) SOL exams in mathematics (Algebra 1, Geometry, and Algebra 2) and science (Earth Science, Biology, and Chemistry). [2]

Transitioning from one school to another poses many challenges and opportunities to students. We are interested in understanding how chronic absenteeism is associated with the various types of school transition:

1. a structural transition such as moving from an elementary school to a middle school or from a middle school to a high school;
2. a non-structural transition such as when the student moves among divisions or school catchment zones; and,
3. an entry to the Virginia public school system such as when a student ages into the system as a pre-kindergartener or kindergartener, moves to Virginia from another state, or switches to a public school from private or home schooling.

We determine whether and what type of school transition a student experiences from one year to the next by comparing the two schools in which the student is enrolled. If those schools are the same, the student did not make a transition. If the student is not enrolled in any Virginia public school the prior year, we classify the student's transition status as entering the state's public school system. If the student is observed attending a different school than the prior year and was enrolled in the prior school's highest grade, the student made a structural transition as the prior school's structure required the student to change schools in order to advance to the next grade. All other students observed changing schools are classified as making a non-structural school transition.

Finally, school safety is another reason why a student may be chronically absent. We leverage the discipline, crime, and violence data on primary offenses to construct two school-level measures to assess the association between this important dimension of school climate and chronic absenteeism: (1) the number of primary offenses per student and (2) the percent of students involved in primary offenses. These data cannot at present be linked to individual students preventing us from assessing the relationship

with individual behavior.

We classify schools into three groups by ordering them according to the school safety measure. The 30 percent of schools with the lowest values are the "safest" schools while the 30 percent of schools with the highest values are classified as the "least safe" schools. We assign schools within each division and separately for high schools and for elementary and middle schools. For this process, high schools are any school with the maximum grade equal to 9 or higher. We exclude schools with school codes in the 9000s.

Analysis. The analysis that follows is descriptive in nature. It is intended to highlight policy-relevant patterns and correlations between student and school characteristics and chronic absenteeism. This analysis is not designed to highlight the causal effect of any of these characteristics on chronic absenteeism, and readers should not draw causal inferences.

To accurately reflect the cumulative effect of absenteeism across students, we assign each enrollment record in the dataset a weight equal to the number of days enrolled as a percent of the school year. Across all records within a student within a year, this weight sums to 1 if the student was enrolled for the full year. If the student was enrolled for less than the full year, these weights will sum to the proportion of the school year

Table 1. Descriptive statistics on Virginia's Challenged School Divisions, 2014-15

	Norfolk Public Schools	Petersburg City Public Schools	Richmond Public Schools	Virginia
# Schools	40	8	35	1,861
Enrollment				
Total	32,290	4,318	23,957	1,279,773
Pre-K	2,174	342	1,713	32,784
K-5	15,680	2,061	12,042	580,117
6-8	6,517	843	4,520	287,731
9-12	7,863	1,072	5,682	382,141
Student Demographics				
% Black	61.0	92.2	76.1	23.0
% Hispanic	7.3	4.6	11.5	13.8
% White	22.4	2.0	9.5	51.3
% Other	7.3	2.8	0.2	11.9
% Economically Disadvantaged	66.5	60.4	62.9	40.0
% LEP	3.3	4.0	8.1	10.1
% Students with Disabilities	12.4	10.1	16.1	12.3
Academic Indicators				
% Passing English	67	58	59	79
% Passing Mathematics	72	57	62	79
% Passing Writing	69	49	48	77
% Passing History	80	72	72	86
% Passing Science	74	66	66	82
Virginia On-Time Graduation Rates				
2014 Cohort 4-year Rate (%)	81	84	81	90
2013 Cohort 5-year Rate (%)	80	79	78	90
Federal Graduation Indicators [a]				
2014 Cohort 4-year Rate (%)	75	71	71	85
2013 Cohort 5-year Rate (%)	76	70	68	86

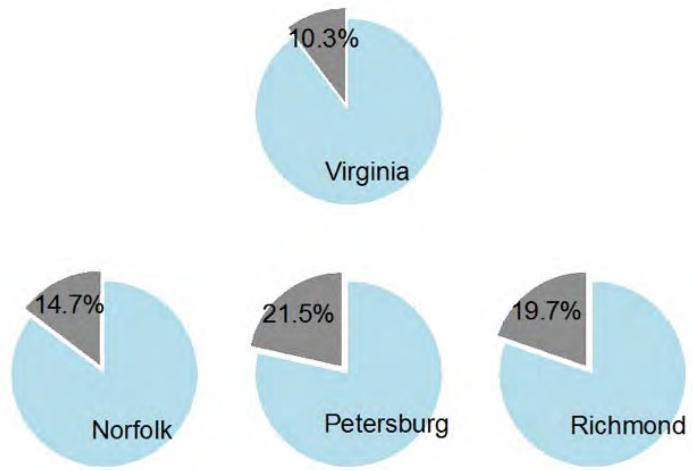
[a] The Federal Graduation Indicator is a graduation rate that includes only Standard Diplomas and Advanced Studies Diplomas. It differs from the Virginia On-Time Graduation Rate, which includes all State Board of Education-approved diplomas.
SOURCE: Virginia Fall Membership Database (www.doe.virginia.gov/statistics_reports/enrollment/fall_membership/index.shtml) and Virginia School Report Cards (https://p1pe.doe.virginia.gov/reportcard/)

the student was enrolled (e.g., sum to 0.85 if enrolled for 85 percent, or 153 days, of the standard 180-day year). We employ these weights in all the analysis presented below.

Throughout this report, we present statistics for each of the three Challenged School Divisions separately. We also include statistics for the all students in Virginia (including students enrolled in the three focus divisions) to position the three focus divisions within the state context for chronic absenteeism.

As shown in Table 1, students in the Norfolk, Petersburg, and Richmond school divisions, compared to students statewide, are more likely to be Black, less likely to be White, and more likely to be economically disadvantaged. They are also less likely to pass statewide exams in core academic subjects and less likely to graduate from high school.

Figure 1. Chronic absenteeism rates, 2014-15

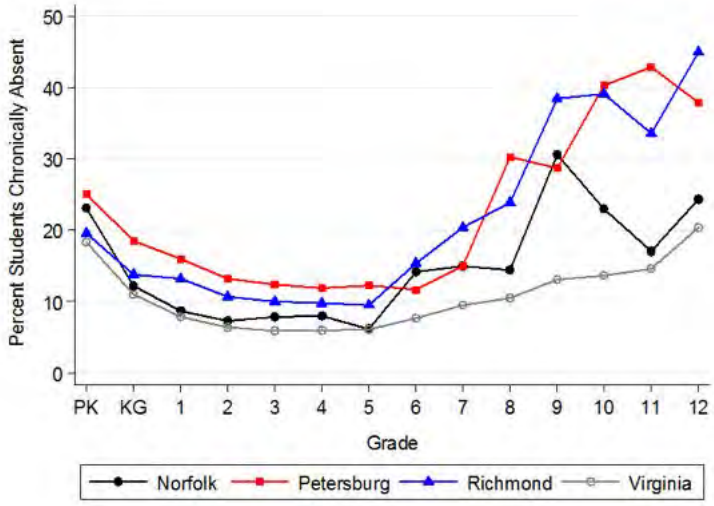


Chronic Absenteeism

Slightly more than 1 in 10 Virginia students were chronically absent from school in 2014-15 as shown in Figure 1. This is in line with national estimates that between 10 and 15 percent of students are chronically absent (Balfanz & Byrnes, 2012). Meaningfully more students are chronically absent in the three Challenged School Divisions: 1 in 5 students in Petersburg and Richmond and 1 in 7 students in Norfolk.

The prevalence of chronic absenteeism varies across grades following the familiar U-shaped pattern as shown in Figure 2. Chronic absenteeism rates generally decrease through the 5th grade and then increase through the high school grades where chronic absenteeism is particularly pronounced. Relative to elementary grade students in the same division, high school students in Richmond are almost 250% more likely to be chronic absent (39 versus 11%), nearly 200% more likely in Norfolk (25 versus 9%), and over 160% more likely in Petersburg (38 versus 14%) (see Appendix Table A2 for additional statistics). Compared to all high school students in Virginia, a high school student in either Petersburg or Richmond is nearly 150% more likely to be chronically absent and a Norfolk high-schooler is over 60% more likely.

Figure 2. Chronic absenteeism by grade and school division, 2014-15

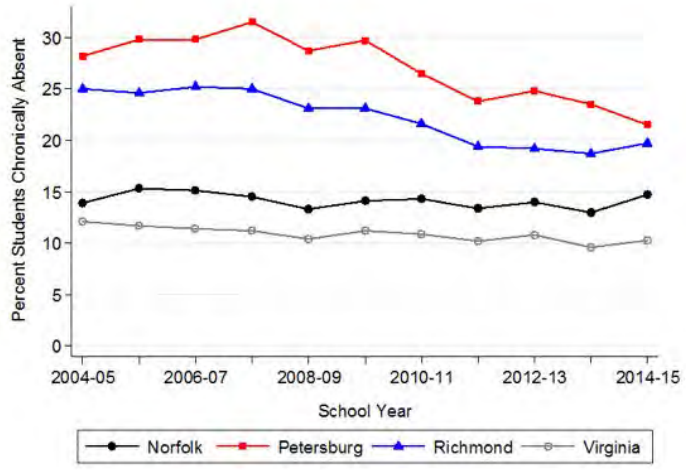


Note: See Appendix Table A1 for chronic absenteeism percentages.

Chronic absenteeism is also high among pre-kindergarteners: 20% in Richmond, 23% in Norfolk, and 25% in Petersburg. All three divisions participate in the Virginia Preschool Initiative (VPI). The potential benefits to the student of participating in VPI are likely diminished by these high rates of absences.

The rate of chronic absenteeism has declined somewhat since 2004-05 for Virginia students overall as shown in Figure 3, while Petersburg and Richmond experienced large declines. Between 2004-05 and 2014-15, chronic absenteeism in Petersburg declined 24% or 7 percentage points. Richmond experienced a similar decrease of 21% or 5 percentage points. There has been very little change in Norfolk over this period. Among all students in Virginia, chronic absenteeism dropped 15% or 2 percentage points.

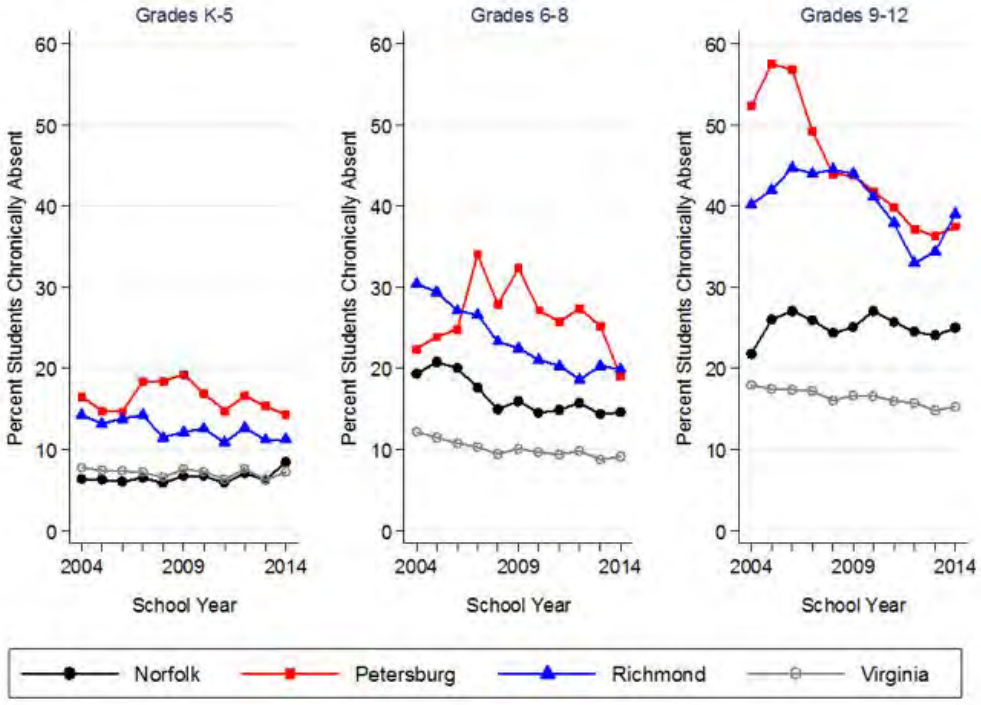
Figure 3. Chronic absenteeism by school year and division, 2004-05 to 2014-15



Note: See Appendix Table A2 for chronic absenteeism percentages.

The change in chronic absenteeism differs across the three grade clusters with the students in the middle school grades showing the largest declines as shown in Figure 4. In Richmond, the rate of chronic absenteeism among students in grades 6-8 declined 35% or 11

Figure 4. Chronic absenteeism by grade cluster, school year, and division, 2004-05 to 2014-15



Note: See Appendix Table A2 for chronic absenteeism percentages.

percentage points. In Norfolk the reduction was 24% or 5 percentage points. While middle school grade chronic absenteeism in Petersburg declined over the full period, the magnitude of the change is masked by the large spike in chronic absenteeism in 2007-08 (the year *before* the school reconfiguration). Chronic absenteeism since then has declined 44% or 15 percentage points.

Chronic absenteeism among elementary school grade students in Norfolk is very similar to that among all elementary students in Virginia. The rate has been rather constant but increased to 9% in 2014-15. Rates increased among Norfolk high schoolers during the early period with a decline in the more recent years.

Petersburg also had a large decline among 9th through 12th graders: 28% or 15 percentage points. Chronic absenteeism in the elementary school grades decreased 13% or 2 percentage points.

In Richmond, the likelihood an elementary school student is chronic absent declined 21% or 3 percentage points. The rate among high school students dropped 18% or 7 percentage points through 2012-13 but has increased in the last two years.

Chronic absenteeism within all grade clusters declined among all students in Virginia: 8% or 0.6 percentage points in kindergarten through 5th grade, 25% or 3 percentage points in the 6th through 8th grades, and 15% or 3 percentage points in the 9th through 12th grades.

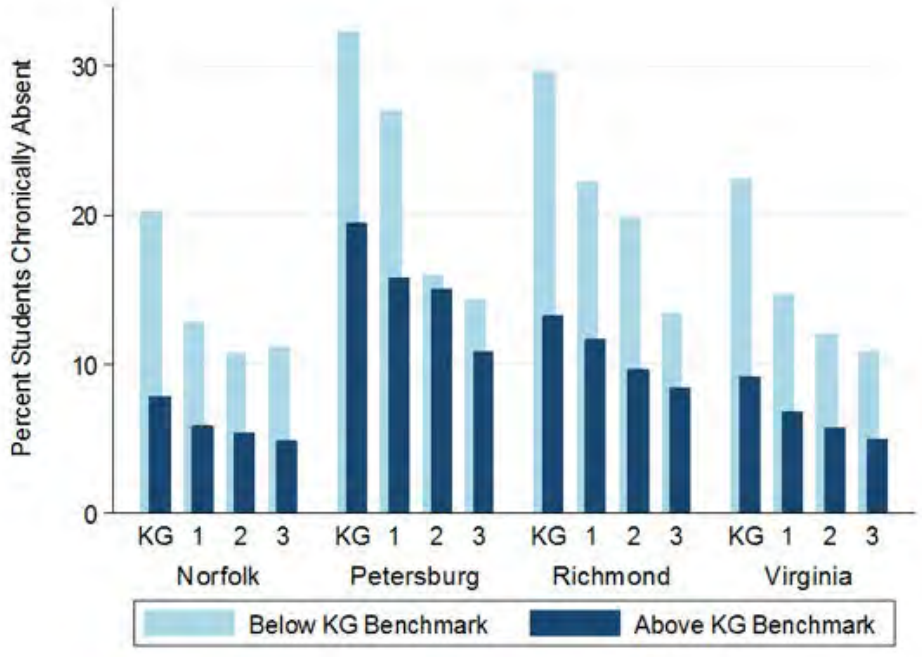
Chronic Absenteeism and Academic Performance

The implication of chronic absenteeism for students' academic performance is one of the primary reasons for the policy interest in chronic absenteeism. If students are not in school, they are not receiving instruction and may fall behind their peers. Students who struggle academically may disengage from school putting them at greater risk of excessive absences.

The PALS assessment is administered to most kindergarteners and is used as an indicator of early struggles with literacy skills. Between 2007-08 and 2014-15, 13% of tested kindergarteners in Richmond and 19% in Petersburg perform below the benchmark. These rates of below-benchmark performance are both higher than the 9% rate among all tested kindergarteners in Virginia. Norfolk's kindergarteners' performance on the PALS assessment was slightly better with 8% not meeting the benchmark.

We present in Figure 5 the chronic absenteeism rates for students whose kindergarten PALS score was above or below the benchmark as they advance to the 3rd grade. In all grades in all divisions, students below

Figure 5. Chronic absenteeism by grade cluster, school year, and division, 2004-05 to 2014-15



Note: See Appendix Table A2 for chronic absenteeism percentages.

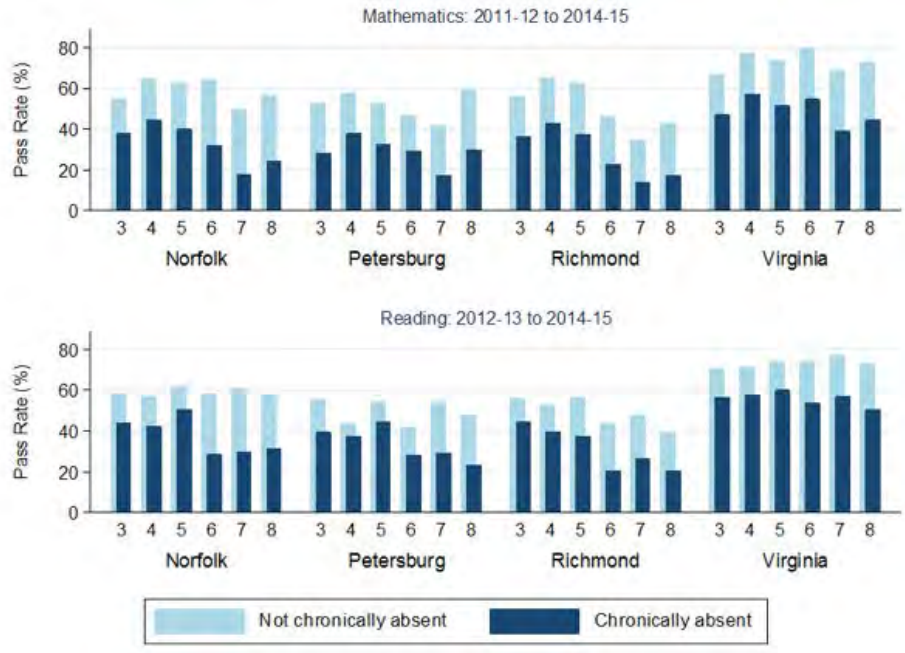
benchmark are much more likely to be chronically absent than students above benchmark. The difference in the rates of chronic absenteeism decreases with the grades indicating that, while kindergarten PALS scores are predictive of future chronic absenteeism, the predictive power diminishes as students are promoted to the 3rd grade.

The academic performance of elementary and middle school students who are chronically absent is meaningfully lower than their non-chronically absent peers as measured by the mathematics and reading SOL exams in the 3rd through 8th grades. We show in Figure 6 the passage rates on these exams by students who were and were not chronically absent during the school year. The passage rates are averaged across the years in which the current versions of the exams were administered although a similar pattern is present in the exams linked to the older standards (see Appendix Table A4).

While passage rates at all grade levels are lower among students who were chronically absent, the difference in the passage rates between those that were and were not chronically absent is more pronounced among middle school students than elementary students. For example, in Petersburg there is a 21-percentage-point difference (or 43%) in the reading passage rate among middle schoolers compared to an 11-percentage-point difference (or 21%) among students in the elementary grades. In Norfolk, the difference in mathematics passage rate between chronic absent and non-chronically absent students is 32 percentage points (or 57%) among middle school students and 20 percentage points (or 33%) among elementary students.

We also examine the relationship between same-year chronic absenteeism and academic performance for high school students (among whom chronic absenteeism is most prevalent) using performance on end-of-course exams in mathematics (Algebra 1, Geometry, and Algebra 2) and science (Earth Science, Biology, and Chemistry) as measures of their academic performance. Although the mechanics of the analysis is analogous to that above for 3rd through 8th graders, it is important to note that not all high-schoolers take these courses at the same point in high school, if they take them at all. It is very likely that the subset of students who take these courses (the only high-schoolers for whom we can measure this relationship) is not representative of all high-schoolers in the division.

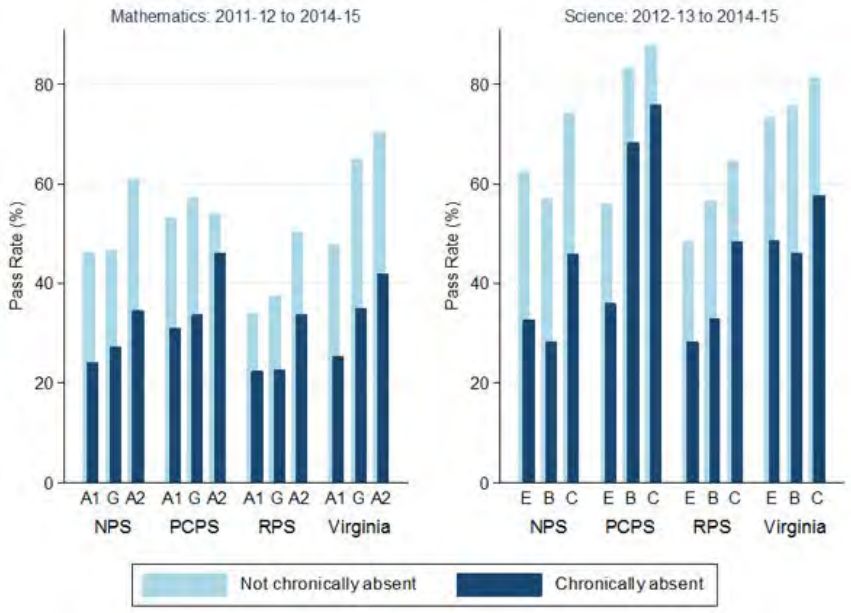
Figure 6. Passage rates on SOL mathematics and reading exams by chronically absenteeism by subject, grade, and division, 2011-12 to 2014-15



Note: See Appendix Table A4 for passage rates.

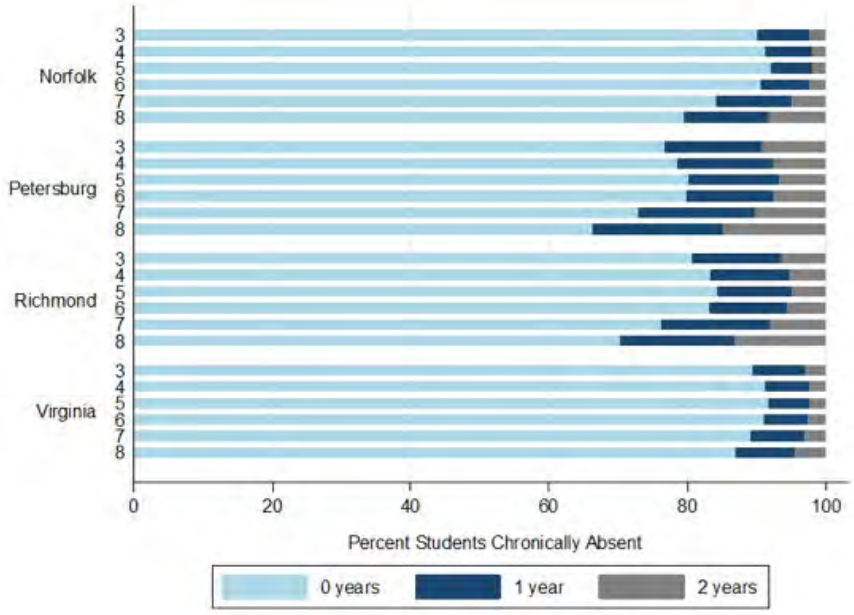
Even among this subset of high-schoolers, a familiar pattern presents itself. Chronic absent students are less likely to pass the exams than students who are not absent for an excessive number of days as shown in Figure 7. Across the mathematics courses, chronically absent Norfolk students are 44% (or 23 percentage

Figure 7. Passage rates on high school SOL-EOC mathematics and science exams by chronically absenteeism by subject, grade, and division, 2011-12 to 2014-15



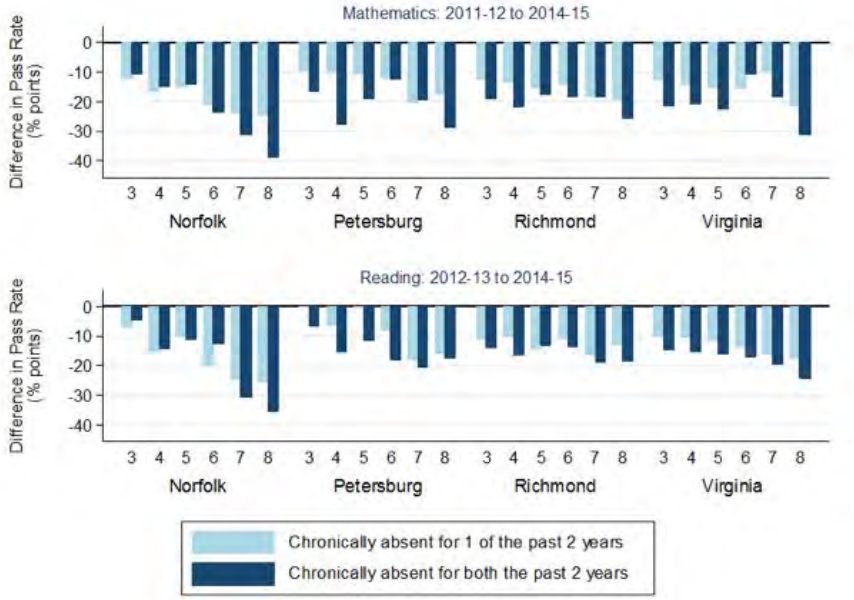
Key: NPS = Norfolk Public Schools, PCPS = Petersburg City Public Schools, RPS = Richmond Public Schools; A1 = Algebra 1, G = Geometry, A2 = Algebra 2, E = Earth Science, B = Biology, C = Chemistry
Note: See Appendix Table A5 for passage rates.

Figure 8. Percent of students chronically absent over the prior two years by grade and division, 2006-07 to 2014-15



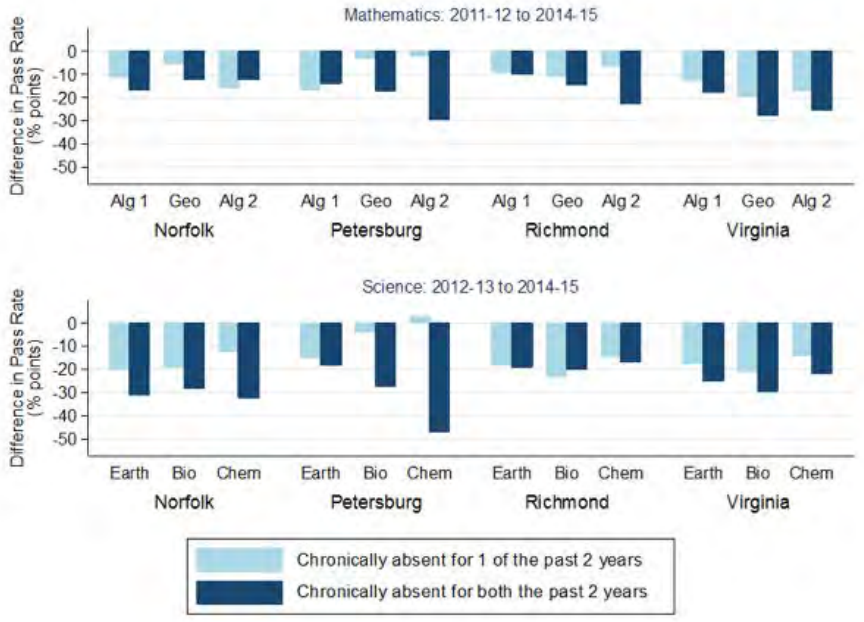
Note: See Appendix Table A5 for passage rates.

Figure 9. Difference in 3rd-8th grade SOL exam passage rates between students chronically absent in the prior two years and students not chronically absent in either of the previous two years by subject, grade, and division, 2011-12 to 2014-15



Note: See Appendix Table A5 for passage rates.

Figure 10. Difference in high school SOL-EOC exam passage rates between students chronically absent in the prior two years and students not chronically absent in either of the previous two years by course and division, 2011-12 to 2014-15



Key: Alg 1 = Algebra 1, Geo = Geometry, Alg 2 = Algebra 2, Earth = Earth Science, Bio = Biology, Chem = Chemistry
Note: See Appendix Table A9 for passage rates.

points) less likely to pass the exams than non-chronically absent students. In Petersburg they are 33% (or 18 percentage points) less likely and in Richmond they are 35% (or 14 percentage points) less likely. The passage rates across the three science subjects show a similar pattern.

Knowledge is cumulative and students who are chronically absent from school in previous years may be less likely to meet the SOL performance benchmarks. We examine this by calculating passage rates for students based on how many of the prior two years they were chronically absent (0, 1, or 2 years). This requires we observe a student for three consecutive years. This is the case for over 90% of 3rd through 8th graders in the three focus divisions as well as in Virginia. As shown in Figure 8, 13-19% of students in Petersburg were chronically absent in one of the prior two years and 7-14% were so in both years. The analogous rates in Richmond are slightly lower (11-17 and 5-13%, respectively) and lower still in Norfolk (6-12 and 2-8%, respectively).

SOL passage rates generally fall with each additional year of chronic absenteeism. We show the difference in passage rates between students with some prior chronic absenteeism and those with none in Figure 9. Again, we focus on the current version of the exams although the patterns hold for the former exams (see Appendix Tables A7 and A8). The difference in passage rates tends to be larger in mathematics than reading and larger among the middle school grades than the elementary grades, particularly in Norfolk.

Again, similar relationships exist between prior chronic absenteeism and academic performance among high school students as evidenced by the passage rates on the mathematics and science end-of-course SOL exams shown in Figure 10. High school students who were absent at least 10% of a prior school year are less likely to pass these exams than students who were not chronically absent. The differences in passage rates are greater for the science subjects (Earth Science, Biology, and Chemistry) than for the mathematics subjects (Algebra 1, Geometry, and Algebra 2).

Chronic Absenteeism and School Transitions

We next explore how the prevalence of chronic absenteeism varies among students that do and do not transition among schools from one year to the next. A student who changes schools may have a difficult time adjusting to the new educational environment and this difficulty could result in more absences. The reason why a student changes schools may also be associated with chronic absenteeism. A student who must change schools in order to advance to the next grade (i.e., a structural transition) may be at a lower risk of excessive absences than students changing schools for other reasons (such as housing or economic instability, i.e., non-structural transition).

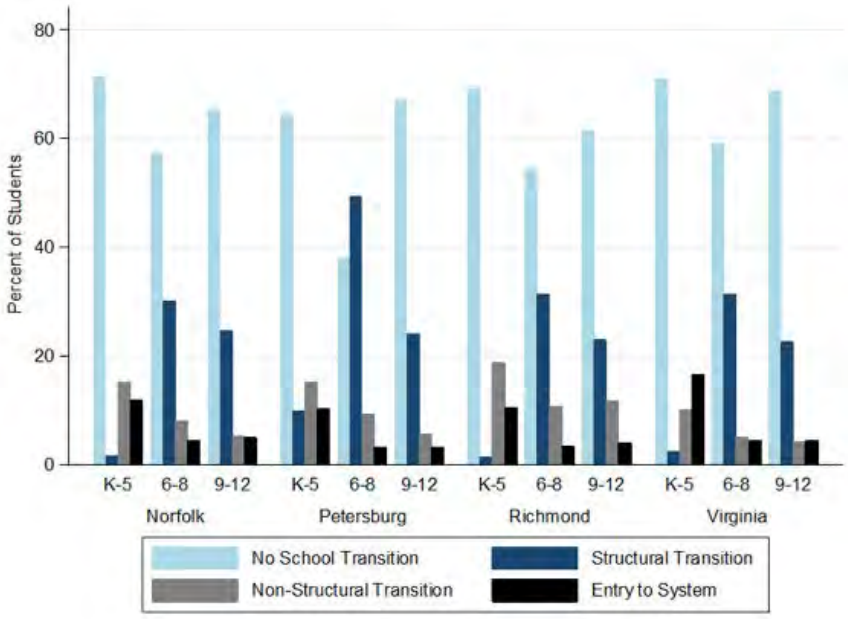
There is considerable variation across the grade clusters and school divisions in the types of school transitions students experience as shown in Figure 11. Among middle school grade students, 57% in Norfolk attend the same school as the prior year compared to 54% in Richmond and only 38% in Petersburg. We therefore examine these relationships separately by grade cluster.

Patterns in the prevalence of chronic absenteeism by school transition status are very similar across the three divisions and among all students in Virginia but differ between elementary school students and older students. We present the rates for 2014-15 in Figure 12 though the patterns are fairly similar in other years (see Appendix Table A10).

Among elementary grade students, those experiencing any type of transition (structural, non-structural, or system entry) are more likely to be chronically absent than students who attend the same school as the prior year. Transitioning students are roughly 60% more likely than non-transitioning students to be chronically absent in Norfolk and Richmond and 50% more likely in Petersburg.

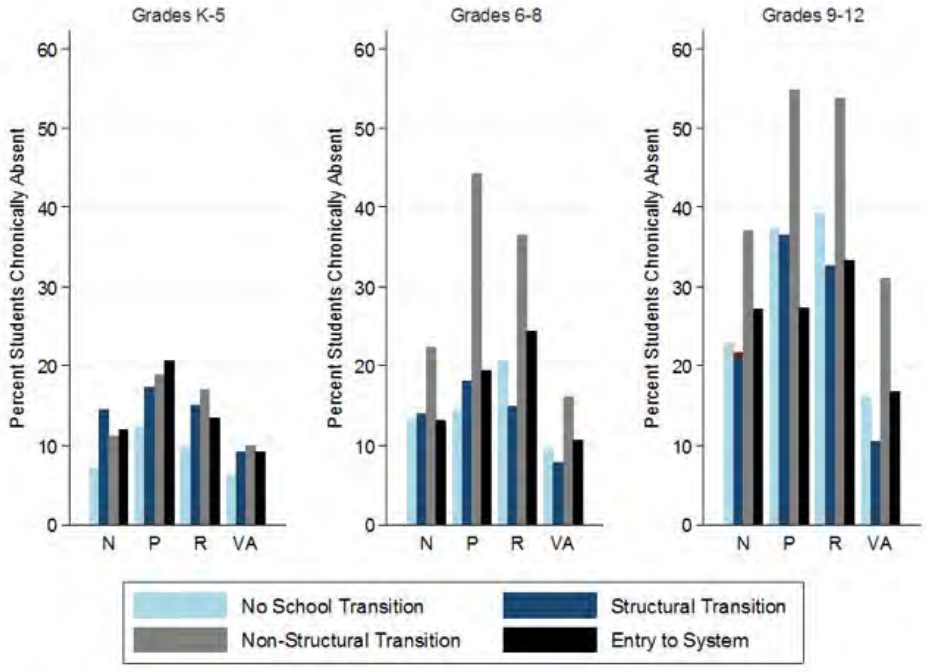
Students in 6th through 12th grade who make a non-structural transition are at the greatest risk of being chronically absent. Compared to students who do not change schools, middle school students making a non-structural transition are 69% more likely to be chronically absent in Norfolk, 200% more likely in Petersburg, and 80% more likely in Richmond. Among high school students, they are at 62% greater risk in

Figure 11. School transition status by grade clusters and school division, 2005-06 to 2014-15



Note: See Appendix Table A10 for percentages.

Figure 12. Chronic absenteeism by school transition status, grade clusters, and school division, 2014-15



Key: N = Norfolk Public Schools, P = Petersburg City Public Schools, R = Richmond Public Schools, VA = Virginia
Note: See Appendix Table A10 for chronic absenteeism percentages or additional years.

Norfolk, 47% greater risk in Petersburg, and 37% greater risk in Richmond than students who attend the same school as the prior year.

Unlike their younger peers in the same division, middle and high school grade students attending the same school as the prior year are not the least likely to be chronically absent. For example, in Richmond students making a structural transition have the lowest rates of chronic absenteeism.

Table 2. Average school safety by school safety category, school safety measure, school level, and division, 2010-11 to 2014-15

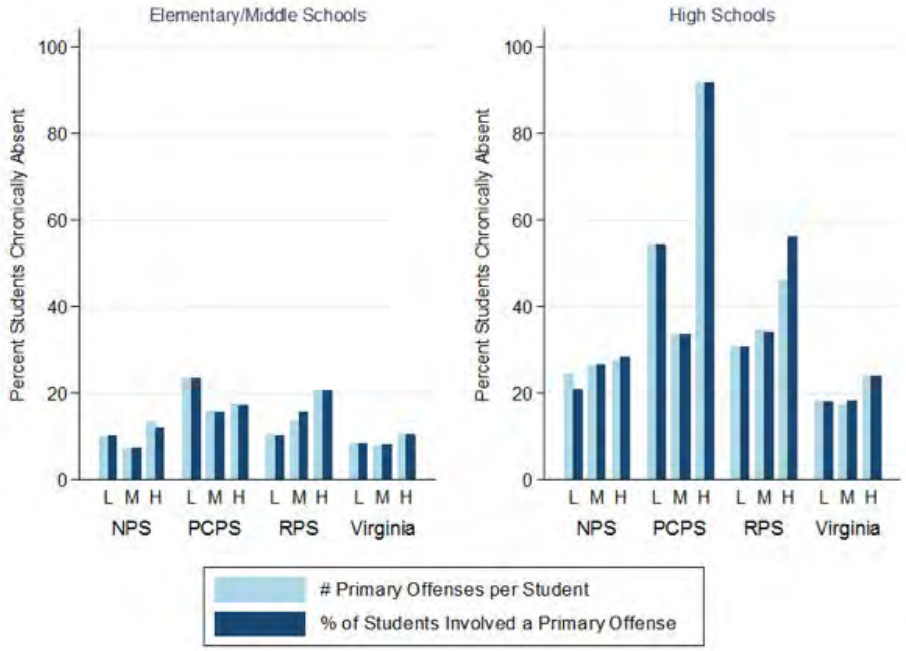
	Elementary and Middle Schools			High Schools		
	Low (Safest)	Middle	High (Least Safe)	Low (Safest)	Middle	High (Least Safe)
School Safety Measure: # of Primary Offenses per 100 Students						
Norfolk	3.0	7.7	50.6	25.6	46.3	76.9
Petersburg	8.7	30.5	59.3	43.7	70.0	208.6
Richmond	2.1	13.9	61.3	1.1	35.6	78.6
Virginia	1.5	5.6	20.0	9.5	17.9	35.8
School Safety Measure: % of Students Involved in Primary Offenses						
Norfolk	2.2	5.6	24.7	16.2	25.6	36.0
Petersburg	4.7	16.5	28.5	26.7	35.4	88.0
Richmond	1.7	8.7	28.6	1.2	20.6	38.8
Virginia	1.0	3.5	10.9	6.4	10.4	18.2

Chronic Absenteeism and School Safety

Finally, we examine the relationship between school safety and chronic absenteeism. If students do not feel safe at school, they may be less likely to attend and more likely to be chronically absent, but here again our analysis does not support a causal interpretation. Other factors may cause both absenteeism and school safety to increase.

As mentioned above, we assign elementary and middle schools and high schools to one of three school safety categories on each of two school safety measures. We present in Table 2 statistics showing how school safety varies across the categories. Average school safety within a category differs meaningfully across the divisions. For example, among elementary and middle schools in the middle category, 17% of students in Petersburg are involved in a primary offence whereas

Figure 13. Chronic absenteeism rates by school safety by grade level and school division, 2010-11 to 2014-15



Key: L = Low (bottom 30%), M = Middle (middle 40%), H = High (top 30%); NPS = Norfolk Public Schools, PCPS = Petersburg City Public Schools, RPS = Richmond Public Schools
Note: See Appendix Table A11 for the chronic absenteeism rates.

9% are in Richmond and 6% are in Norfolk.

We present the average school-level chronic absenteeism rates for each of the three school safety categories in Figure 13. To calculate these statistics, we first average across students within a school to calculate a school's chronic absenteeism rate and then average across schools within a school safety category. Our approach reflects the fact that school safety is a school-level construct, not a student-level construct.

The relationship between school safety and chronic absenteeism is not consistent across the three divisions or Virginia. Among elementary and middle schools, chronic absenteeism is most prevalent in the least safe schools in Norfolk and Richmond. In Petersburg, the safest schools have the highest rates of excessive absences. Among high schools, chronic absenteeism is most common in the least safe schools in all three divisions while the safest schools have the lowest rates in Norfolk and Richmond but not Petersburg.

Conclusion

This report provides an initial look at chronic absenteeism in Virginia and in the three Challenged School Divisions in particular. One out of every 10 Virginian students was chronically absent from school in 2014-15 with even higher rates in Norfolk (1 out of every 7 students) and in Richmond and Petersburg (1 out of every 5 students). Our analysis shows that chronic absenteeism rates are particularly high among high-schoolers, low performing students, and students who move between schools.

Although students in these three divisions are at a much higher risk of chronic absenteeism than students statewide, this risk has lessened over the last decade in each division for at least some students. The rate of chronic absenteeism among middle school students, for example, has declined in all three divisions. Despite these declines, absenteeism typically remains well above the rest of the Commonwealth. This raises the question of what strategies school divisions have undertaken to reduce chronic absenteeism.

Additional research can highlight these strategies and determine how they may be replicated in other divisions. This should include a more in-depth analysis of the practices in place at schools in each of the divisions that have outperformed expectations based on the demographics of their students. Why have some divisions and schools with high concentrations of high-poverty students been able to reduce absenteeism? What practices do they employ and how have those practices influenced student education outcomes such as achievement, on-time grade promotion, and high school graduation?

The findings in this report, however, have value even absent additional research. They inform the nascent policy and research agenda focused on helping students show up to school ready to learn each and every day. They describe the context in which any intervention would be designed to influence, they highlight observable factors associated with chronic absenteeism which could be used to target these interventions, and they serve as a benchmark against which the effectiveness of such interventions will be judged.

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[1]The U.S. Department of Education adopted a slightly different definition—missing at least 15 days of school—in a recently-released report on the national prevalence of chronic absenteeism (www2.ed.gov/datastory/chronicabsenteeism.html).

[2]It is important to note that while all 3rd through 8th graders are required to take a reading and mathematics SOL exam each year and while most kindergarteners take the PALS exam, high school graduation requirements for the standard diploma over this period required students to take at least two of math courses and two of the science courses with the associated SOL exams. Our analysis does not attempt to account for self-selection into high school courses.

References

Attridge, J. (2016). *Chronic absenteeism in Tennessee's public schools.* Nashville: Division of Data and Research, Tennessee Department of Education. Retrieved June 10, 2016 from tnattendancesupervisors.org/uploads/16S_Jonathon_Attridge_-_Chronic_Absenteeism_Data.pdf.

Aldridge, J., Batiwalla, M., Booker, L., Hartigan, L., Schwartz, N., & Stone, Z. (2016). *Chronic absenteeism in Tennessee's early grades.* Nashville: Division of Data and Research, Tennessee Department of Education. Retrieved June 10, 2016 from www.tn.gov/assets/entities/education/attachments/rpt_chronic_absenteeism_early_grades.pdf.

Balfanz, R., & Byrnes, V. (2012). *The importance of being in school: A report on absenteeism in the nation's public schools.* Baltimore, MD: Johns Hopkins University, Everyone Graduates Center. Retrieved June 10, 2016 from new.every1graduates.org/wp-content/uploads/2012/05/FINALChronicAbsenteeismReport_May16.pdf.

Balfanz, R., & Byrnes, V. (2013). *Meeting the challenge of combating chronic absenteeism: Impact of the NYC Mayor's Interagency Task Force on Chronic Absenteeism and School Attendance and its implications for other cities.* Baltimore, MD: Johns Hopkins University, Everyone Graduates Center. Retrieved June 10, 2016 from attendanceworks.org/wordpress/wp-content/uploads/2014/01/NYC-Chronic-Absenteeism-Impact-Report-Nov-2013.pdf.

Balfanz, R., Herzog, L., & MacIver, D. J. (2007). Preventing student disengagement and keeping students on the graduation path in urban middle-grades schools: Early identification and effective interventions. *Educational Psychologist, 42*(4): 223-235.

Chang, H. N., & Romero, M. (2008). *Present, engaged, and accounted For: The critical importance of addressing chronic absence in the early grades.* New York: National Center for Children in Poverty, Columbia University. Retrieved June 10, 2016 from www.nccp.org/publications/pdf/text_837.pdf.

Connolly, F., & Olson, L. S. (2012). *Early elementary performance and attendance in Baltimore City Schools' pre-kindergarten and kindergarten.* Baltimore: Baltimore Education Research Consortium. Retrieved June 10, 2016 from www.baltimore-berc.org/pdfs/ PreKKAttendanceFullReport.pdf.

Gershenson, S., Jacknowitz, A., & Brannegan, A. (forthcoming). Are student absences worth the worry in U.S. primary schools? *Education Finance and Policy.* Retrieved June 10, 2016 from www.mitpressjournals.org/doi/pdf/10.1162/EDFP_a_00207.

Gottfried, M. A. (2011). The detrimental effects of missing school: Evidence from urban siblings. *American Journal of Education, 117*(2): 147-182.

Gottfried, M. A. (2015). Chronic absenteeism in the classroom context: Effects on achievement. *Urban Education*, 1-32. Retrieved June 10, 2016 from http://uex.sagepub.com/content/early/2015/12/23/0042085915618709.

Hallfors, D., Vevea, J. L., Iritani, B., Cho, H., Khatapoush, S., & Saxe, L. (2002). Truancy, grade point average, and sexual activity: A meta-analysis of risk indicators for youth substance use. *Journal of Social Health, 72*(5): 205–11.

Jordan, P., & Chang, H. (2015). *Mapping the early attendance gap: Charting a course for school success.* New York: Attendance Works. Retrieved June 10, 2016 from www.attendanceworks.org/wordpress/ wp-content/uploads/2015/07/Mapping-the-Early-Attendance-Gap-Final-4.pdf.

Musser, M. P. (2011). *Taking attendance seriously: How school absences undermine student and school performance in New York City.* New York: The Campaign for Fiscal Equity, Inc. Retrieved June 10, 2016 from www.attendanceworks.org/wordpress/wp-content/uploads/2010/04/CFE_Attendance_FINAL.pdf.

Neild, R. C., & Baflanz, R. (2006). An extreme degree of difficulty: The educational demographics of urban neighborhood schools. *Journal of Education for Students Placed at Risk, 11*(2): 123–41.

RI DataHUB (no date a). *Chronic absenteeism among kindergarten students.* Providence, RI: RI DataHUB. Retrieved June 10, 2016 from ridatahub.org/datastories/chronic-absenteeism-in-kindergarten.

RI DataHUB (no date b). *High school absenteeism and college persistence.* Providence, RI: RI DataHUB. Retrieved June 10, 2016 from ridatahub.org/datastories/high-school-absenteeism-college-persistence.

Rogers, T., & Feller, A. (2016, February). Reducing student absences at scale (Working Paper). Harvard University. Retrieved 10 June 2016 from scholar.harvard.edu/files/todd_rogers/files/reducing.pdf?m=1456421204.

Rumberger, R. W., & Thomas, S. L. (2000). The distribution of dropout and turnover rates among urban and suburban high schools. *Sociology of Education, 73*(1): 39–67.

Schoeneberger, J. (2012). Longitudinal attendance patterns: Developing high school dropouts. *The Clearing House: A Journal of Educational Strategies, Issues and Ideas, 85*(1): 7-14.

Utah Education Policy Center (2012). *Research brief: chronic absenteeism.* Salt Lake City: University of Utah. Retrieved June 10, 2016 from www.utahdataalliance.org/downloads/ChronicAbsenteeismResearchBrief.pdf.

Appendix

Table A1. Percent of students chronically absent by grade and division, 2014-15

	Norfolk Public Schools	Petersburg City Public Schools	Richmond Public Schools	Virginia
Pre-kindergarten	23.1	25.1	19.6	18.3
Kindergarten	12.2	18.5	13.8	11.0
1st Grade	8.7	16.0	13.2	7.9
2nd Grade	7.3	13.2	10.7	6.4
3rd Grade	7.9	12.4	10.0	5.9
4th Grade	8.0	11.9	9.8	6.0
5th Grade	6.2	12.3	9.5	6.1
6th Grade	14.2	11.7	15.4	7.7
7th Grade	15.0	15.0	20.4	9.5
8th Grade	14.4	30.3	23.9	10.5
9th Grade	30.6	28.7	38.5	13.1
10th Grade	23.0	40.3	39.1	13.7
11th Grade	17.1	42.9	33.6	14.6
12th Grade	24.4	37.9	45.0	20.4
Total	23.1	25.1	19.6	18.3

Table A2. Percent of students chronically absent by grade levels and division, 2004-05 to 2014-15

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Norfolk Public Schools											
All Students	13.9	15.3	15.1	14.5	13.3	14.1	14.3	13.4	14.0	13.0	14.7
K-5 Students	6.4	6.3	6.1	6.5	5.9	6.8	6.8	5.9	7.1	6.3	8.5
6-8 Students	19.3	20.8	20.0	17.6	15.0	16.0	14.5	14.9	15.8	14.4	14.6
9-12 Students	21.8	26.0	27.1	25.9	24.4	25.1	27.1	25.7	24.5	24.1	25.0
Petersburg City Public Schools											
All Students	28.2	29.8	29.8	31.5	28.7	29.7	26.5	23.8	24.8	23.5	21.5
K-5 Students	16.5	14.8	14.7	18.4	18.4	19.3	16.9	14.8	16.6	15.4	14.3
6-8 Students	22.4	23.9	24.8	34.1	27.9	32.4	27.2	25.8	27.4	25.2	19.0
9-12 Students	52.3	57.5	56.8	49.2	43.9	43.8	41.8	39.8	37.2	36.3	37.5
Richmond Public Schools											
All Students	25.0	24.6	25.2	25.0	23.1	23.1	21.6	19.4	19.2	18.7	19.7
K-5 Students	14.3	13.2	13.8	14.3	11.5	12.2	12.6	10.9	12.7	11.2	11.3
6-8 Students	30.4	29.4	27.1	26.6	23.3	22.5	21.0	20.3	18.6	20.3	19.9
9-12 Students	40.2	42.0	44.7	44.0	44.5	44.0	41.1	37.9	33.0	34.4	39.0
Virginia											
All Students	12.1	11.7	11.4	11.2	10.4	11.2	10.9	10.2	10.8	9.6	10.3
K-5 Students	7.8	7.5	7.4	7.2	6.6	7.6	7.3	6.4	7.6	6.3	7.2
6-8 Students	12.2	11.5	10.8	10.3	9.5	10.1	9.7	9.4	9.9	8.8	9.2
9-12 Students	17.9	17.5	17.4	17.2	16.1	16.7	16.6	16.0	15.8	14.8	15.3

Table A3. Percent of students chronically absent by kindergarten PALS performance relative to benchmark, grade, and division, 2007-08 to 2014-15

	Performance Relative to Benchmark	2007	2008	2009	2010	2011	2012	2013	2014
Norfolk Public Schools									
Kindergarten	Below	6.7	7.5	7.8	8.9	6.7	8.3	6.8	9.7
	Above	22.1	18.9	21.8	19.2	19.9	21.1	16.2	22.7
1st Grade	Below		5.1	5.9	5.4	5.0	7.0	5.1	7.3
	Above		13.3	12.9	12.7	9.8	10.0	14.6	16.9
2nd Grade	Below			5.2	5.5	4.7	5.8	4.6	6.4
	Above			6.1	11.7	9.3	10.4	9.5	15.7
3rd Grade	Below				4.0	4.0	4.1	4.4	7.4
	Above				11.4	8.0	10.7	11.8	14.0
Petersburg City Public Schools									
Kindergarten	Below	21.5	21.7	20.1	18.8	18.7	21.2	17.4	16.8
	Above	37.9	29.0	37.2	20.7	36.7	38.0	32.8	26.4
1st Grade	Below		16.6	20.2	17.3	11.3	17.5	15.9	12.8
	Above		31.5	24.0	28.1	20.4	26.6	29.6	30.3
2nd Grade	Below			18.2	15.2	13.8	13.1	16.0	13.7
	Above			28.2	15.7	16.8	18.4	9.0	10.0
3rd Grade	Below				8.9	10.3	14.1	7.6	13.3
	Above				14.4	10.1	16.8	21.2	11.6
Richmond Public Schools									
Kindergarten	Below	17.7	13.4	14.2	14.4	10.7	14.5	11.5	10.2
	Above	35.0	30.4	27.8	32.9	28.7	31.9	30.0	23.8
1st Grade	Below		11.5	12.7	12.9	11.9	11.2	10.2	11.2
	Above		19.8	24.5	21.9	17.1	21.8	26.4	23.6
2nd Grade	Below			9.6	10.2	10.2	11.0	8.2	8.7
	Above			16.6	22.0	16.3	22.9	17.5	20.8
3rd Grade	Below				7.8	7.4	8.9	8.7	9.2
	Above				9.7	12.0	16.9	14.3	13.2
Virginia									
Kindergarten	Below	9.2	8.4	9.8	9.6	8.4	10.1	8.1	9.2
	Above	22.5	20.1	23.6	22.5	22.0	24.0	22.5	22.6
1st Grade	Below		6.5	7.2	7.1	6.2	7.6	6.1	7.1
	Above		13.2	14.9	15.6	13.3	15.9	14.2	15.9
2nd Grade	Below			6.0	5.7	5.2	6.2	5.2	5.9
	Above			11.4	12.1	10.9	13.0	11.8	12.7
3rd Grade	Below				5.0	4.3	5.1	4.5	5.4
	Above				9.6	9.8	11.6	10.5	12.2

Table A4. Passage rates on SOL mathematics and reading exams by whether student is chronically absent (CA) by grade and division and standards regime, 2005-06 to 2014-15

Standards Regime [a]	3rd Grade		4th Grade		5th Grade		6th Grade		7th Grade		8th Grade	
	Not CA	CA	Not CA	CA	Not CA	CA	Not CA	CA	Not CA	CA	Not CA	CA
Mathematics												
Norfolk Public Schools												
Former	84.7	70.7	79.0	61.2	85.5	67.8	56.6	25.7	59.1	22.9	75.6	42.7
Current	55.0	38.0	64.8	44.4	62.3	40.0	64.3	32.0	49.5	17.5	56.8	24.6
Petersburg City Public Schools												
Former	74.7	57.0	69.6	55.7	70.6	62.9	38.7	23.1	36.0	17.9	74.2	52.1
Current	52.8	28.1	57.8	37.8	53.1	32.6	46.8	29.2	41.5	17.3	59.6	29.8
Richmond Public Schools												
Former	85.0	70.0	80.5	68.1	88.2	71.8	53.7	37.2	59.9	38.1	78.9	54.3
Current	55.8	36.3	65.6	42.9	62.4	37.2	46.5	22.9	34.5	14.0	42.9	17.4
Virginia												
Former	90.2	78.1	84.7	69.8	88.8	74.7	71.1	45.4	73.0	45.6	86.0	62.3
Current	67.0	46.9	77.2	57.2	73.4	52.0	79.8	54.7	68.8	39.0	73.3	44.3
Reading												
Norfolk Public Schools												
Former	76.3	64.3	82.8	71.8	86.3	73.4	75.9	48.6	77.9	49.7	77.4	51.0
Current	58.2	44.2	57.3	42.2	62.2	50.7	58.5	28.5	61.0	29.7	57.8	31.2
Petersburg City Public Schools												
Former	67.5	54.4	71.5	67.9	73.2	69.5	65.8	48.5	62.0	46.5	63.3	50.6
Current	55.4	39.2	44.1	37.6	54.4	44.7	41.5	28.3	54.2	29.4	47.5	23.4
Richmond Public Schools												
Former	79.1	67.4	84.5	74.2	87.7	78.6	73.3	56.8	76.0	57.7	75.4	57.1
Current	56.1	44.7	52.6	39.6	56.5	37.5	43.9	20.6	47.9	26.3	39.1	20.6
Virginia												
Former	83.8	73.1	87.6	78.0	89.2	80.1	87.0	70.2	87.4	70.0	87.4	69.7
Current	70.9	56.8	71.1	57.7	74.2	60.1	73.7	53.7	77.3	57.1	72.6	50.5

[a] SOL performance measured against the current standards (adopted in 2009) in mathematics reflect the period between 2011-12 and 2014-15 and between 2012-13 and 2014-15 in reading. The former standards were adopted in 2002.

Table A5. Passage rates on high school SOL-EOC mathematics and science exams by whether student is chronically absent (CA) by grade and division and standards regime, 2005-06 to 2014-15

Standards Regime [a]	Algebra 1		Geometry		Algebra 2		Earth Science		Biology		Chemistry	
	Not CA	CA	Not CA	CA	Not CA	CA	Not CA	CA	Not CA	CA	Not CA	CA
Norfolk Public Schools												
Former	74.9	45.0	65.1	43.5	76.5	44.9	70.1	38.9	73.7	40.4	86.7	63.1
Current	46.2	24.0	46.6	27.2	60.9	34.4	62.4	32.6	57.0	28.2	74.2	45.8
Petersburg City Public Schools												
Former	78.5	50.3	46.9	23.4	63.0	34.2	54.9	34.7	63.9	42.2	82.1	60.8
Current	53.0	30.9	57.1	33.6	54.0	45.9	55.9	35.9	83.2	68.1	87.6	75.8
Richmond Public Schools												
Former	79.8	58.9	71.0	44.7	83.0	56.8	68.8	51.7	75.5	49.5	81.5	70.2
Current	33.9	22.3	37.4	22.5	50.3	33.7	48.2	28.2	56.5	32.9	64.4	48.3
Virginia												
Former	82.0	58.4	80.7	54.1	84.7	58.4	80.0	54.3	84.1	57.0	88.3	68.4
Current	47.7	25.3	64.9	35.0	70.4	41.9	73.3	48.6	75.5	45.9	81.3	57.5

[a] SOL-EOC performance measured against the current standards (adopted in 2009) in mathematics reflect the period between 2011-12 and 2014-15 and between 2012-13 and 2014-15 in science. The former standards were adopted in 2002.

Table A6. Percent of students by chronic absenteeism over the past two years by grade and division, 2006-07 to 2014-15

	3rd Grade	4th Grade	5th Grade	6th Grade	7th Grade	8th Grade
Norfolk Public Schools						
0 years	90.2	91.3	92.2	90.6	84.2	79.5
1 year	7.6	6.7	5.9	7.0	10.9	12.2
2 years	2.2	2.0	1.9	2.4	4.9	8.3
Petersburg City Public Schools						
0 years	76.7	78.6	80.2	79.8	72.9	66.3
1 year	14.1	13.8	13.1	12.6	16.9	18.9
2 years	9.2	7.6	6.7	7.6	10.2	14.8
Richmond Public Schools						
0 years	80.7	83.4	84.4	83.2	76.2	70.3
1 year	13.0	11.3	10.7	11.2	15.7	16.5
2 years	6.3	5.3	4.9	5.6	8.1	13.2
Virginia						
0 years	89.5	91.2	91.7	91.1	89.2	87.0
1 year	7.6	6.4	6.0	6.3	7.6	8.5
2 years	2.9	2.4	2.3	2.6	3.2	4.5

Table A7. Percent of students passing elementary school SOL mathematics and reading exams by chronic absenteeism during the previous 2 years by grade, division, and standards regime, 2007-08 to 2014-15

Standards	3rd Grade			4th Grade			5th Grade		
Regime [a]	0 years	1 year	2 years	0 years	1 year	2 years	0 years	1 year	2 years
Mathematics									
Norfolk Public Schools									
Former	84.5	74.9	71.0	80.5	65.9	65.1	86.0	76.3	66.6
Current	54.6	42.2	44.0	64.7	47.8	49.7	62.1	47.2	47.8
Petersburg City Public Schools									
Former	74.1	67.7	57.9	71.3	69.6	56.3	73.0	64.5	65.8
Current	52.4	42.8	35.8	58.4	48.3	30.4	52.6	41.9	33.6
Richmond Public Schools									
Former	85.2	77.9	76.3	83.1	74.8	72.4	89.9	81.1	75.9
Current	56.7	44.2	37.6	66.0	52.4	44.5	62.7	47.1	45.2
Virginia									
Former	90.6	83.3	79.1	86.7	76.8	72.3	90.3	81.2	76.2
Current	67.3	54.2	45.9	77.6	63.3	56.7	73.7	58.5	51.2
Reading									
Norfolk Public Schools									
Former	76.0	68.3	66.1	82.7	71.3	76.1	87.3	78.1	79.4
Current	57.1	50.1	52.2	56.8	41.4	42.5	62.1	51.9	50.8
Petersburg City Public Schools									
Former	67.6	61.1	56.8	71.6	73.3	64.6	76.5	66.3	70.2
Current	53.2	53.1	46.4	44.9	38.3	29.4	53.5	53.2	41.9
Richmond Public Schools									
Former	79.3	74.1	74.0	85.1	78.4	78.6	89.4	85.8	81.2
Current	57.2	46.2	43.3	53.2	43.1	36.7	57.0	42.7	43.9
Virginia									
Former	84.3	77.3	74.8	88.4	81.6	79.0	90.1	83.8	80.9
Current	71.2	61.1	56.7	71.3	60.8	56.1	74.5	63.0	58.2

[a] SOL performance measured against the current standards (adopted in 2009) in mathematics reflect the period between 2011-12 and 2014-15 and between 2012-13 and 2014-15 in reading. The former standards were adopted in 2002.

Table A8. Percent of students passing middle school SOL mathematics and reading exams by chronic absenteeism during the previous 2 years by grade, division, and standards regime, 2007-08 to 2014-15

Standards Regime [a]	6th Grade			7th Grade			8th Grade		
	0 years	1 year	2 years	0 years	1year	2 years	0 years	1 year	2 years
Mathematics									
Norfolk Public Schools									
Former	59.9	37.7	27.1	63.6	34.8	22.6	75.4	53.5	40.7
Current	62.3	41.1	38.6	48.3	24.4	17.0	57.0	32.3	18.0
Petersburg City Public Schools									
Former	41.7	34.2	33.6	40.6	25.4	20.5	74.8	59.2	51.5
Current	44.3	31.9	31.6	40.6	20.1	21.3	58.3	40.7	29.3
Richmond Public Schools									
Former	55.6	46.2	43.3	64.2	49.7	45.3	82.0	67.8	56.4
Current	45.1	30.9	27.0	34.3	16.2	16.2	43.1	23.7	17.3
Virginia									
Former	74.1	58.4	76.8	51.3	57.9	49.6	87.9	72.0	61.8
Current	79.6	63.9	68.8	56.9	46.9	38.7	73.7	52.3	42.6
Reading									
Norfolk Public Schools									
Former	75.0	54.3	51.4	78.4	57.4	44.1	78.1	57.1	47.7
Current	56.6	36.1	44.1	60.0	35.2	29.1	59.2	34.0	23.5
Petersburg City Public Schools									
Former	64.9	57.6	59.1	62.5	51.2	48.2	65.7	60.8	49.7
Current	40.8	32.6	22.6	52.2	33.9	31.3	46.0	30.1	28.3
Richmond Public Schools									
Former	73.7	63.1	60.7	77.4	63.8	61.2	79.1	66.5	58.5
Current	41.9	31.0	28.4	47.2	30.4	28.3	38.5	25.6	19.8
Virginia									
Former	87.5	77.7	74.6	88.4	76.7	71.2	89.1	76.5	69.5
Current	73.6	60.1	56.5	77.4	61.4	57.6	73.1	55.4	48.7

[a] SOL performance measured against the current standards (adopted in 2009) in mathematics reflect the period between 2011-12 and 2014-15 and between 2012-13 and 2014-15 in reading. The former standards were adopted in 2002.

Table A9. Percent of students passing high school SOL end-of-course exams in mathematics and science by chronic absenteeism during the previous 2 years by grade, division, and standards regime, 2005-06 to 2014-15

Standards	Algebra 1			Geometry			Algebra 2		
Regime [a]	0 years	1 year	2 years	0 years	1year	2 years	0 years	1 year	2 years
Norfolk Public Schools									
Former	71.2	53.6	47.5	61.1	46.7	47.3	73.3	53.0	53.0
Current	38.9	27.4	21.7	40.1	34.8	27.7	58.2	42.2	45.4
Petersburg City Public Schools									
Former	81.4	66.8	55.0	50.0	31.4	23.0	62.5	50.3	34.9
Current	49.8	32.9	35.6	53.3	50.1	35.7	54.6	52.1	24.6
Richmond Public Schools									
Former	79.0	65.0	53.7	69.2	50.6	42.0	80.8	60.8	55.6
Current	32.7	23.8	22.7	36.2	25.0	21.3	49.4	42.8	26.6
Virginia									
Former	80.7	66.4	60.4	79.4	61.8	55.3	83.8	67.7	62.2
Current	44.7	31.4	26.5	63.7	44.1	35.9	69.4	51.7	44.0
Standards	Earth Science			Biology			Chemistry		
Regime [a]	0 years	1 year	2 years	0 years	1year	2 years	0 years	1 year	2 years
Norfolk Public Schools									
Former	66.8	47.1	35.4	70.8	51.6	39.6	85.3	69.8	62.5
Current	59.6	39.3	28.4	52.4	33.3	23.8	71.1	58.5	38.7
Petersburg City Public Schools									
Former	56.1	47.9	36.8	63.1	48.4	43.9	86.2	75.9	68.4
Current	55.8	41.0	37.6	82.0	77.6	54.2	86.8	89.3	39.7
Richmond Public Schools									
Former	67.3	56.4	48.7	75.6	54.8	45.5	81.5	68.8	74.1
Current	47.2	29.0	28.0	55.9	32.1	35.5	63.9	49.2	46.9
Virginia									
Former	79.5	62.2	54.8	83.8	65.0	57.5	87.9	75.3	70.7
Current	73.0	55.5	47.8	75.2	54.2	45.7	80.5	66.3	58.5

[a] SOL-EOC performance measured against the current standards (adopted in 2009) in mathematics reflect the period between 2011-12 and 2014-15 and between 2012-13 and 2014-15 in science. The former standards were adopted in 2002.

Table A10. Percent of students chronically absent by grade levels, school transition status, and division, 2005-06 to 2014-15

	%	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Norfolk Public Schools											
K-5 Students											
No Transition	71.3	4.4	4.2	4.8	4.7	5.8	5.6	4.8	6.0	5.3	7.2
Structural	1.7	8.5	6.9	7.7	9.4	12.5	12.0	8.7	10.3	11.1	14.5
Non-structural	15.1	9.9	9.6	10.3	8.1	8.3	9.4	8.0	10.3	8.1	11.1
System Entry	11.9	8.4	8.8	8.8	9.8	9.6	10.5	7.8	10.4	9.8	11.9
6-8 Students											
No Transition	57.3	19.9	18.8	16.2	14.9	15.3	13.4	15.3	15.8	13.9	13.2
Structural	30.2	13.1	12.9	10.4	9.5	11.4	12.5	10.4	11.5	11.8	13.9
Non-structural	8.1	36.5	35.4	30.5	29.3	28.1	16.2	22.5	30.9	25.6	22.3
System Entry	4.5	20.8	17.0	13.7	12.3	16.3	12.3	14.2	17.0	15.8	13.1
9-12 Students											
No Transition	65.3	25.5	24.8	22.6	20.0	20.6	22.6	21.0	22.1	22.0	22.8
Structural	24.6	20.7	19.7	19.9	18.1	17.4	19.7	18.5	16.4	19.1	21.7
Non-structural	5.2	41.1	46.7	45.2	44.0	36.8	38.3	40.9	35.3	38.8	37.0
System Entry	5.0	30.4	23.4	20.9	17.9	21.7	22.4	19.3	22.0	20.7	27.1
Petersburg City Public Schools											
K-5 Students											
No Transition	64.4	10.6	11.1	14.2	16.3	18.3	14.1	13.0	14.2	13.7	12.4
Structural	10.2	23.0	24.4	21.7	24.0	24.1	18.2	18.7	22.9	19.9	17.3
Non-structural	15.1	21.1	22.2	21.4	24.5	20.7	31.0	17.3	20.5	16.8	18.8
System Entry	10.3	17.7	18.3	24.8	21.9	18.7	22.4	20.3	24.2	19.5	20.6
6-8 Students											
No Transition	38.0	23.5	25.2	37.1	43.5	34.5	29.3	22.2	28.2	29.1	14.5
Structural	49.3	18.9	17.6	24.0	26.1	30.0	23.4	24.9	25.0	21.8	18.1
Non-structural	9.4	38.0	40.7	50.9	30.4	58.7	70.5	53.3	49.8	54.9	44.2
System Entry	3.3	25.0	40.1	43.7	24.3	25.6	32.9	27.2	18.4	13.8	19.4
9-12 Students											
No Transition	67.2	60.0	61.8	49.8	41.6	40.7	40.0	37.6	36.7	32.4	37.3
Structural	24.1	50.1	42.4	44.1	45.6	45.3	40.9	35.2	32.9	40.3	36.5
Non-structural	5.6	69.9	68.0	70.6	62.4	72.1	64.8	70.1	53.9	66.5	54.8
System Entry	3.2	47.8	51.7	54.8	60.9	31.5	43.4	38.3	34.8	27.1	27.3
Richmond Public Schools											
K-5 Students											
No Transition	69.1	9.7	9.6	12.1	10.1	11.0	10.8	9.5	10.9	9.2	9.7
Structural	1.5	14.1	7.3	28.9	20.6	26.9	25.0	10.1	15.9	16.0	15.0
Non-structural	18.8	20.5	21.0	17.8	15.6	15.5	17.8	16.1	16.9	13.6	17.0
System Entry	10.6	19.3	19.0	19.9	15.0	15.9	16.7	13.7	18.1	14.2	13.5
6-8 Students											
No Transition	54.4	24.9	20.9	25.0	21.8	21.4	21.0	20.3	18.6	20.5	20.8
Structural	31.4	23.4	22.5	20.3	19.8	17.9	18.3	17.4	15.6	16.2	14.8
Non-structural	10.8	52.8	53.2	46.9	42.4	41.2	30.9	32.2	30.9	36.8	36.5
System Entry	3.4	31.7	32.2	26.1	28.0	23.3	20.3	16.9	20.4	19.3	24.4
9-12 Students											
No Transition	61.4	37.2	38.9	41.2	44.1	44.5	40.1	38.0	34.0	34.8	39.3
Structural	23.0	37.0	38.1	34.5	34.8	30.9	28.9	26.2	24.1	25.9	32.6
Non-structural	11.7	68.1	74.1	71.1	70.0	69.4	71.3	60.9	46.9	51.5	53.7
System Entry	4.0	43.9	39.3	43.7	42.9	42.7	39.8	40.8	34.1	36.1	33.3

(continued on next page)

Table A10. Percent of students chronically absent by grade levels, school transition status, and division, 2005-06 to 2014-15 (continued)

	%	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Virginia											
K-5 Students											
No Transition	71.0	6.0	5.9	6.0	5.7	6.5	6.3	5.5	6.6	5.4	6.3
Structural	2.4	8.6	8.0	9.1	7.9	9.8	8.6	8.1	9.7	9.0	9.2
Non-structural	10.1	11.4	11.5	10.8	9.3	10.6	10.5	9.7	10.6	9.3	10.0
System Entry	16.5	10.3	9.9	9.5	8.8	10.1	9.6	8.4	10.0	8.2	9.2
6-8 Students											
No Transition	59.1	10.9	10.2	10.2	9.4	10.0	9.8	9.4	9.9	8.8	9.4
Structural	31.4	9.2	8.7	8.3	7.8	8.6	8.4	8.0	8.4	7.5	7.8
Non-structural	5.1	25.5	24.1	21.9	19.4	20.7	16.6	18.6	18.7	18.4	16.1
System Entry	4.4	13.5	11.9	12.0	11.2	11.4	11.6	10.9	11.2	10.4	10.6
9-12 Students											
No Transition	68.8	17.1	16.9	17.2	16.3	17.0	17.2	16.4	16.2	15.3	16.0
Structural	22.6	13.4	13.1	12.9	11.9	12.3	11.8	11.1	11.1	10.2	10.5
Non-structural	4.3	36.7	39.1	35.1	33.9	37.5	30.8	34.5	32.1	31.1	31.0
System Entry	4.4	20.6	19.3	19.3	18.4	19.0	17.4	17.2	17.8	16.3	16.7

Note: Transition status is defined as follows: no transition = the student attends the same school as the prior year, structural = the student attends a different school than prior year and the student was enrolled in highest grade the prior year's school in the prior year, non-structural = all other students who attend a different school than the prior year, and system entry = the student is not observed at any Virginia public school in the prior year.

Table A11. Percent of students chronically absent by school-wide incident rates of discipline, crime, and violence by grade level and division, 2010-11 to 2014-15

	Number of Primary Offenses per Student			Percent of Students Involved in Primary Offenses		
	Low	Middle	High	Low	Middle	High
Norfolk Public Schools						
Elementary/Middle Schools	9.9	7.3	13.2	10.3	7.4	11.9
High Schools	24.4	26.3	27.6	21.0	26.5	28.5
Petersburg City Public Schools						
Elementary/Middle Schools	23.5	16.0	17.5	23.5	15.6	17.2
High Schools	54.2	33.6	91.8	54.2	33.6	91.8
Richmond Public Schools						
Elementary/Middle Schools	10.4	13.5	20.9	10.3	15.7	20.6
High Schools	30.6	34.6	46.1	30.6	34.2	56.3
Virginia						
Elementary/Middle Schools	8.3	8.0	10.4	8.3	8.2	10.4
High Schools	18.2	17.4	24.1	18.0	18.2	24.1

Note: Incident rate groups are defined separately within each division for elementary/middle schools and high schools. The 30 percent of school-year observations with the lowest incident rates are assigned to "low" category and the 30 percent of school-year observations with the highest rates are assigned to the "high" category.

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