## Absences Add Up:

## How School Attendance <br> Influences Student Success

## By Alan Ginsburg, Phyllis Jordan and Hedy Chang

August 2014

This analysis of national testing data shows that students with higher absenteeism rates have lower scores on national standardized tests. It reinforce a growing body of research confirming the connection between school attendance and student achievement and reveals the critical importance of intervening as soon as absences begin to add up, whether early in a child's school career or at the beginning of the school year. The good news is poor attendance can be turned around when policies and practices encourage schools and communities to partner with students and their families to monitor their data and implement promising and proven practices.

Amid the sometimes fierce debate about improving our nation's schools lies an indisputable truth: Students must attend school regularly to benefit from what is taught there. But each year, an estimated 5 million to 7.5 million U.S. students miss nearly a month of school. This lost instructional time exacerbates dropout rates and achievement gaps. It erodes the promise of early education and confounds efforts to master reading by the end of third grade. Too often, though, states and school districts overlook this problem because they simply aren't looking at the right data. They know how many students show up for school every day and how many are truant, but they don't add up all absences - excused and unexcused - to see how many students miss so many days that they are headed off track academically.

A new state-by-state analysis of national testing data demonstrates that students who miss more school than their peers score lower on the National Assessment for Educational Progress (NAEP). This is true at every age, in every racial and ethnic group and in every state and city examined. In many cases, the students with more absences have skill levels one to two years below their peers. While students from low-income families are more likely to be chronically absent, the ill effects of missing too much school hold true for all socio-economic groups.

This analysis of results from the 2013 NAEP offers a unique nationwide and state-by-state snapshot of how students with poor attendance perform compared to their better attending peers. The NAEP, considered the Nation's Report Card, is given every two years to a sample of fourth- and eighth-grade students in all 50 states and 21 large cities. In addition to testing math and reading skills, NAEP asks students a series of nonacademic questions, including how many days they missed in the month before the exam, which is typically given from late January to early March. This analysis defines poor attendance as missing three or more days in that period, regardless of whether the absences were excused or unexcused. While the information is self-reported and limited to a single month, the results nonetheless reflect many of the achievement and demographic trends found in research involving data from the entire year. The state-by-state data, as well as the city information, provide comparison points for states and cities that have not looked closely at their rates for excused and unexcused absences. The information also underscores the need for states and cities to take a deeper dive into their own data to analyze chronic absence for an entire school year so that they know the full scope of the attendance problem.

## DEFINING TERMS

Average Daily Attendance: The percentage of a school's student body that attends on a typical day. The definition is the same nationwide, but does not provide student-level data.

Truancy: A measure of how many students miss school without an excuse. The definition varies from state to state.

Chronic absence: A measure of how many students miss a certain percentage or number of days, including excused and unexcused absences and suspensions. Researchers often track 10 percent of the school year, but there is no common definition among states.

Poor Attendance in NAEP: Missing 3 or more days in the month before the assessment.

## Key Findings include:

1. Poor attendance is a national challenge. About one in five students in both fourth and eighth grade reported missing three or more days in the month before the test. If that pattern persisted all year, the students would have missed 27 days or about 15 percent of the school year. About 3 percent of students missed 10 or more days in the prior month, a level of absenteeism associated with the weakest scores.

- While absenteeism was a problem in every state, some states had greater rates of students missing three or more days in the prior month. Montana and New Mexico had among the worst statewide absenteeism rates at the fourth grade level, with 25 percent or more of students reporting that they missed 3 or more days prior to the assessment. At the eighth grade level, they are joined by Arizona, Oklahoma, Oregon and Wyoming. (See Appendix I for state-by-state tables)
- California, Georgia, Illinois, Indiana, Massachusetts, New Hampshire, Texas and the Department of Defense schools have the best reported rates of attendance at the fourth grade level, using the same standard of missing 3 or more days in the prior month. In eighth grade, the states with the best records are Georgia, Illinois, Indiana, Massachusetts, Texas, Vermont and DOD schools.
- Absenteeism rates are especially high in some of the 21 large cities where the NAEP is administered to a sample of students. In Detroit, for instance, about a third of the students reported missing three or more days in the past month, compared to the 20 percent national average. Cleveland, the District of Columbia, Milwaukee and Philadelphia also had high rates. (See Appendix 1 for city-by-city tables).
- Absenteeism rates of 3 or more days were consistently the lowest in the large urban districts of Houston and Miami-Dade.

2. Student attendance matters for academic performance. The association between poor attendance and lower NAEP scores is robust and holds for every state and for each of the 21 urban districts regardless of size, region or composition of the student population.

- Students reporting missing 3 or more days of school in the prior month had lower average NAEP scores in reading and math than students with fewer absences. In fourth grade, the absentee students scored an average 12 points lower on the reading assessment than those with no absences - more than a full grade level on the NAEP achievement scale. In eighth grade, absentee students scored an average 18 points lower on the math assessment.

- Along with test scores, proficiency rates were lower for students who missed more school. About 28 percent of the students missing three or more days in the prior month scored proficient or better on the fourth grade reading assessment, compared to 38 percent of those who missed no days in the prior month.

3. Poor attendance contributes to the achievement gap for students struggling with poverty and from communities of color.

- Students eligible for free and reduced price meals, a common marker for low-income status, are more likely to miss three days or more in the prior month. In fourth grade, these students are 30 percent more likely to miss that much school. In eighth grade they are 40 percent more likely.
- Low-income students generally scored lower on the NAEP than their more affluent peers, although the students from all socio-economic groups experienced lower test scores when they missed too much school. Low-income fourth graders with poor attendance scored 10 points (equivalent to one grade on the NAEP scale) lower than those with perfect attendance. For fourth graders from more affluent families, the difference was 8 points.
- Native-American students reported the highest rates of poor attendance, and Asian/Pacific Islanders experienced the lowest rates, findings consistent with several state and local analyses. African American and Hispanic students have rates slightly higher than white students. Again, students from all racial and ethnic groups experienced lower scores when they had higher rates of absenteeism.

For supplementary data tables, go to:

## The Research Case

The NAEP analysis reinforces a growing body of research showing the pernicious effects of chronic absence throughout a student's academic career. We know:

- Poor attendance in the first month of school can predict chronic absence for the entire year. A new study by the Baltimore Education Research Consortium found that half the students who missed two to four days in September went on to be chronically absent for the year, missing an average of 25 days. Nine out of 10 students who missed at least 5 days in September were chronically absent, averaging 70 absences. (See Appendix II for more details)
- Absenteeism in kindergarten can affect whether a child develops the grit and perseverance needed to succeed in school. A recently released study by researcher Michael Gottfried at the University of California, Santa Barbara shows the negative impact of chronic absenteeism on both academic performance and social-emotional skills needed to persist and engage in learning. The effects are particularly pronounced among students who miss four or more weeks of school. (See Appendix II for more details)
- Absenteeism in preschool and kindergarten can influence whether a child will be held back in third grade. Several studies document a link between chronic absence - missing 10 percent of the school year - in the early grades and a child's ability to master reading by the end of third grade. Researchers in Baltimore and Chicago found the effects starting in preschool. With 14 states now linking third grade promotion to reading performance, chronic absence can undermine the broader efforts to improve literacy. (See Apendix II for more details)
- Absenteeism in middle and high school can predict dropout rates. As early as 6 th grade, absenteeism becomes an indicator that a student will drop out, Johns Hopkins University research shows. Other early warning signs include poor grades in core courses and behavior leading to suspensions. A statewide study in Utah found that a student who is chronically absent in any year between 8th and 12th grade is 7.4 times more likely to drop out.
- Absenteeism influences not just chances for graduating but also for completing college. A new analysis of Rhode Island data found that only 11 percent of the chronically absent students who graduated from high school made it to a second year of college, compared to 51 percent of students with better high school attendance records.
- Improving attendance is an essential strategy for reducing achievement gaps. State and national data shows that students from low-income families are more likely to be chronically absent than their peers, often because they face challenges to getting to school, such as a lack of access to health care, community violence, unreliable transportation and unstable housing. Low-income students also lose out more when they are absent, perhaps because their families lack resources to make up for lost time, research shows. Children of color also have disproportionately higher rates of absenteeism and lower achievement levels. Some local research has found chronic absence occurs much earlier for some groups, including African American students, than others. In this case, it is essential to intervene early to ensure an equal opportunity to learn.
- When students reduce absences, they can make academic gains. When Chicago focused on attendance and other risk factors in ninth grade, graduation rates rose. When New York City reduced chronic absence rates through it success mentoring program, more students stayed in school until graduation. In the early grades, several studies suggest that the children who arrived with the weakest skills and attended regularly saw outsized gains in achievement.
- Research points to effective strategies for improving attendance. Early warning systems, like that used in Chicago, and programs that offer preventative supports early in the school year, like New York City's Success Mentors, are evidence-based approaches that prevent or reduce chronic absence. Effective strategies use data to target action, engage students and families working together to improve attendance, and bring in extra resources (health, social, transportation etc.) to support those struggling with chronic absenteeism.

Taken together with other research, the NAEP analysis shows definitively how absenteeism can undermine student achievement and our goals for school improvements. Research and experience also shows that when we turn around chronic absence, we can turn around the trajectory of a student's academic career. Parents, schools and state leaders can work together to ensure we pay attention to student absenteeism and intervene to put students back on track for success.

## See Appendix II for more details on recent research

## Recommendations

The extent of absenteeism that the NAEP analysis and others studies document from kindergarten through high school, along with its direct connection to student achievement, demands that school districts and state education agencies take action to staunch the loss of valuable instructional time. This is important for educators and policymakers investing in early education to ensure students have a strong start in school. This is critical for those working to ensure all children master reading before moving into fourth grade. And this is paramount for those working to increase our nation's graduation rates and improve our standing in the 21st century economy. We have a better chance of meeting goals if we have more students attending school regularly.

Policymakers and advocates at the local, state and federal level can take several key steps to support this work including:

1. Standard definition. Promote a standard definition in order to calculate chronic absenteeism across districts and states. The definition should clarify that chronic absence includes excused and unexcused absences (truancy), as well as days missed to suspensions or children switching schools. At a minimum, a standard definition should exist for each state so they can compare rates across all of their schools and districts.

We also recommend exploring the development of a national definition of chronic absence for the purpose of reporting and comparing rates across states. A 2014 analysis by the Data Quality Campaign found that only 17 states report that they track chronic absence, and few use the same definition. This NAEP analysis provides the first consistent measure of student-level absenteeism that allows for comparison across states, but it is
only a snapshot in time. A better measure for state-by-state comparison would be the proportion of students missing 10 percent of the school year. This definition, recommended by Attendance Works, can be applied to districts regardless of the length of school year and allows for earlier attention to intervention.

If adopted, a standard national metric could be used for reporting purposes only. States would retain the authority to define chronic absence for the purposes of accountability within their own states based upon their own realities and historical practice.
2. Attendance Tracking: Invest in tracking individual attendance and absences with longitudinal student databases. Most school district data systems include this information, but this Data Quality Campaign brief shows six states do not include it in statewide systems. Support accurate and consistent entry of attendance data.
3. Chronic Absence Data: Ensure that reports providing chronic absence data for every district, school, grade and student subgroup are produced and made publicly available through school and district report cards. School districts can also send the data - broken down by grade, school and other indicators - to principals and teachers regularly so that they can address barriers to attendance or reach out to students with high rates of absenteeism.
4. Parent Engagement: Provide parents with actionable, real-time data on their children's attendance, as well as an alert if their children are accruing so many absences - excused and unexcused - that they are academically at risk. Ensure opportunities exist for school staff or community partners to meet with parents to review the data on absenteeism for their children and identify how to work together to improve attendance.
5. Public awareness: Convey why absenteeism matters for doing well in school, graduating from high school and eventually succeeding in the workplace. Encourage schools to promote good attendance for all students with incentives, contests and positive messaging.
6. Strategies for intervening: Help schools and community partners to intervene with chronically absent students through community-wide approaches to health and transportation challenges, as well as personalized outreach. These interventions can use data from the first month of school and from the past year, along with other factors, to identify which students are at risk of chronic absence. The students and their families should be a priority for linking to positive supports that motivate good attendance. For additional insights into effective strategies, see The Power of Positive Connections: Reducing Chronic Absence Through PEOPLE: Priority Early Outreach for Positive Linkages and Engagement
7. Early Warning for Third-Grade Retention: Address poor attendance as a red flag that students need extra support to read well by the end of third grade. This is especially important in states with retention policies that hold back struggling third grade readers. As early as kindergarten, schools should look at absenteeism, along with reading assessments, to identify which students need support.
8. Early Warning for High School Dropout: Adopt early warning indicator systems that track attendance and other warning signs that students may drop out of high school. As early as middle school, school districts should track absenteeism, as well as course failure and disciplinary action, to determine which students are off track for graduation.
9. Accountability: Build chronic absence into accountability systems so that district and school improvement plans include strategies for nurturing a culture of attendance, partnering with students and families to identify and address causes of absences, and intervening effectively with chronically absent students.
10. Resource Allocation: Use chronic absence rates to determine allocation of community resources, such as where to place health services, early education and afterschool programs and volunteer tutors. These resources have proven successful in reducing absenteeism.
11. Research: Invest in qualitative and quantitative research to identify what are effective solutions for different racial and ethnic populations and age groups, as well as in different settings such as inner-city neighborhoods and rural communities. While the research shows that absenteeism affects outcomes for students of all backgrounds, it is important to recognize that solutions must be grounded in an understanding of the particular barriers to attendance faced by students and families of different linguistic, cultural, racial and socioeconomic backgrounds as well as the assets different types of families and communities bring to the table.

## NAEP Scores and Grade Level Equivalency

The National Assessment of Educational Progress (NAEP) rates student skill levels as basic, proficient or advanced based on their scores on the assessments. In addition, many students score below the basic level. This report displays the association between student attendance and the percent of students achieving at the NAEP proficient level or above, as proficiency represents solid academic performance for each grade assessed. Note NAEP proficiency is a national standard and does not equate with student proficient performance on state-level tests, which are set by each state.

| NAEP Skill <br> Level | 4th Grade <br> Scores | 8th Grade <br> Scores |
| :---: | :---: | :---: |
| Basic | 208 | 243 |
| Proficient | 238 | 281 |
| Advanced | 268 | 323 |

Researchers who interpret NAEP data estimate that 10 points on the NAEP scale is the equivalent of one grade worth of skills. That figure was derived by dividing the roughly 40 points between grades 4 and 8 on the NAEP reading and math scales by 4 to represent an average grade change.

## APPENDIX 1: Tables

## PERCENTAGE OF STUDENTS WITH POOR ATTENDANCE

| Percentages of grade 4 and 8 students by days absent from school 3 or more days in the prior month, 2013 |  |  |
| :---: | :---: | :---: |
| Jurisdiction | Days Absent Prior Month |  |
|  | 4th Grade | 8th Grade |
|  | \% | \% |
| National | 19 | 20 |
| Alabama | 22 | 20 |
| Alaska | $\ddagger$ | $\ddagger$ |
| Arizona | 23 | 25 |
| Arkansas | 24 | 21 |
| California | 18 | 19 |
| Colorado | 23 | 23 |
| Connecticut | 21 | 21 |
| Delaware | 21 | 21 |
| District of Columbia | 27 | 27 |
| Florida | 19 | 22 |
| Georgia | 17 | 18 |
| Hawaii | 23 | 24 |
| Idaho | 19 | 21 |
| Illinois | 17 | 17 |
| Indiana | 17 | 17 |
| lowa | 19 | 19 |
| Kansas | 23 | 22 |
| Kentucky | 20 | 20 |
| Louisiana | 21 | 22 |
| Maine | 21 | 22 |
| Maryland | 20 | 20 |
| Massachusetts | 18 | 16 |
| Michigan | 22 | 21 |
| Minnesota | 20 | 20 |
| Mississippi | 21 | 20 |
| Missouri | 19 | 20 |
| Montana | 26 | 29 |
| Nebraska | 20 | 22 |
| Nevada | 22 | 22 |
| New Hampshire | 18 | 19 |
| New Jersey | 21 | 19 |
| New Mexico | 25 | 27 |
| New York | 20 | 20 |
| North Carolina | 21 | 22 |
| North Dakota | 20 | 24 |
| Ohio | 20 | 21 |
| Oklahoma | 23 | 26 |
| Oregon | 23 | 25 |
| Pennsylvania | 19 | 20 |
| Rhode Island | 21 | 21 |
| South Carolina | 19 | 20 |
| South Dakota | 19 | 20 |
| Tennessee | 22 | 20 |
| Texas | 16 | 17 |
| Utah | 23 | 24 |
| Vermont | 22 | 18 |
| Virginia | 20 | 19 |
| Washington | 22 | 21 |
| West Virginia | 24 | 21 |
| Wisconsin | 20 | 20 |
| Wyoming | 24 | 27 |
| DoDEA | 18 | 17 |
| " $\ddagger$ Reporting standards not met. <br> *Days absent is for math responders at grade 8, as some Limited English Proficient students do not take the NAEP reading assessment and their attendance is not counted. <br> Source: NAEP Date Explorer. Prepared for Attendance Works by Alan Ginsburg |  |  |


| Urban district percentages of grade 4 and 8 students by days <br> absent from school 3 or more days in the prior month, 2013 |  |  |
| ---: | :---: | :---: |
|  | Days Absent Prior Month |  |
|  | Grade 4 | Grade 8 |
|  | $\%$ | $\%$ |
| National | 19 | 20 |
| Albuquerque | 24 | 23 |
| Atlanta | 19 | 23 |
| Austin | 17 | 20 |
| Baltimore City | 25 | 24 |
| Boston | 19 | 21 |
| Charlotte | 20 | 24 |
| Chicago | 19 | 16 |
| Cleveland | 25 | 30 |
| Dallas | 17 | 21 |
| Detroit | 30 | 33 |
| District of Columbia (DCPS) | 26 | 28 |
| Fresno | 18 | 24 |
| Hillsborough County (FL) | 18 | 25 |
| Houston | 15 | 18 |
| Jefferson County (KY) | 21 | 20 |
| Los Angeles | 18 | 19 |
| Miami-Dade | 16 | 16 |
| Milwaukee | 27 | 28 |
| New York City | 22 | 22 |
| Philadelphia | 28 | 24 |
| San Diego | 22 | 21 |
| SourCE: NAEP Data Explorer. Prepared by Alan Ginsburg for Attendance Works |  |  |
|  |  |  |
|  |  |  |

## GRADE 4 SCORES FOR READING AND MATH BY STATE

State NAEP scores for math, grade 4, for students with 3 or more days absent from school in the prior month, 2013

| Jurisdiction | Days Absent Prior Month |  |  | Diff. in NAEP score: None minus 3 or more days absent prior month* |
| :---: | :---: | :---: | :---: | :---: |
|  | None | 1-2 days | 3 or more days |  |
| National | 246 | 241 | 233 | 13 |
| Alabama | 237 | 232 | 227 | 10 |
| Alaska | $\ddagger$ | $\ddagger$ | $\ddagger$ | $\ddagger$ |
| Arizona | 244 | 239 | 234 | 10 |
| Arkansas | 243 | 240 | 235 | 8 |
| California | 239 | 230 | 224 | 15 |
| Colorado | 251 | 246 | 240 | 11 |
| Connecticut | 247 | 245 | 233 | 15 |
| Delaware | 247 | 244 | 234 | 13 |
| District of Columbia | 235 | 230 | 218 | 17 |
| Florida | 245 | 240 | 234 | 12 |
| Georgia | 244 | 240 | 230 | 13 |
| Hawaii | 250 | 243 | 231 | 19 |
| Idaho | 243 | 241 | 236 | 6 |
| Illinois | 243 | 238 | 230 | 13 |
| Indiana | 252 | 248 | 241 | 11 |
| lowa | 250 | 246 | 237 | 13 |
| Kansas | 250 | 247 | 238 | 11 |
| Kentucky | 245 | 242 | 232 | 13 |
| Louisiana | 235 | 232 | 223 | 12 |
| Maine | 249 | 245 | 240 | 9 |
| Maryland | 249 | 247 | 234 | 15 |
| Massachusetts | 257 | 251 | 246 | 11 |
| Michigan | 242 | 237 | 228 | 15 |
| Minnesota | 257 | 253 | 246 | 11 |
| Mississippi | 233 | 233 | 225 | 8 |
| Missouri | 242 | 241 | 231 | 11 |
| Montana | 247 | 245 | 239 | 8 |
| Nebraska | 248 | 242 | 234 | 13 |
| Nevada | 240 | 237 | 228 | 12 |
| New Hampshire | 257 | 252 | 245 | 12 |
| New Jersey | 251 | 246 | 240 | 12 |
| New Mexico | 236 | 234 | 225 | 11 |
| New York | 246 | 239 | 230 | 16 |
| North Carolina | 250 | 245 | 234 | 16 |
| North Dakota | 249 | 247 | 240 | 10 |
| Ohio | 250 | 245 | 236 | 14 |
| Oklahoma | 242 | 239 | 234 | 8 |
| Oregon | 244 | 240 | 233 | 11 |
| Pennsylvania | 249 | 243 | 235 | 14 |
| Rhode Island | 247 | 241 | 231 | 16 |
| South Carolina | 241 | 237 | 224 | 18 |
| South Dakota | 244 | 242 | 232 | 12 |
| Tennessee | 245 | 239 | 230 | 15 |
| Texas | 245 | 241 | 233 | 12 |
| Utah | 246 | 245 | 235 | 10 |
| Vermont | 251 | 249 | 242 | 8 |
| Virginia | 250 | 245 | 239 | 11 |
| Washington | 251 | 245 | 239 | 13 |
| West Virginia | 242 | 238 | 230 | 12 |
| Wisconsin | 250 | 243 | 236 | 13 |
| Wyoming | 249 | 247 | 242 | 8 |
| DoDEA | 247 | 245 | 239 | 9 |
| ${ }^{*}$ A 10 point difference is about equivalent to a one-year gain on NAEP between grades 4 and 8. $\ddagger$ Reporting standards not met. <br> SOURCE: NAEP Data Explorer. Prepared for Attendance Works by Alan Ginsburg |  |  |  |  |

State NAEP scores for reading, grade 4, by days absent from school in the prior month, 2013

| Jurisdiction | Days Absent Prior Month |  |  | Diffc. In NAEP scores: none minus 3 or more days absent prior month* |
| :---: | :---: | :---: | :---: | :---: |
|  | None | 1-2 days | 3 or more days |  |
| National | 225 | 222 | 214 | 12 |
| Alabama | 223 | 220 | 209 | 14 |
| Alaska | $\ddagger$ | $\ddagger$ | $\ddagger$ | $\ddagger$ |
| Arizona | 218 | 213 | 204 | 14 |
| Arkansas | 221 | 220 | 211 | 10 |
| California | 217 | 209 | 206 | 10 |
| Colorado | 229 | 227 | 220 | 9 |
| Connecticut | 233 | 230 | 222 | 10 |
| Delaware | 230 | 225 | 218 | 12 |
| District of Columbia | 212 | 209 | 192 | 20 |
| Florida | 231 | 228 | 218 | 12 |
| Georgia | 224 | 221 | 216 | 8 |
| Hawaii | 221 | 213 | 204 | 17 |
| Idaho | 223 | 222 | 209 | 14 |
| Illinois | 223 | 216 | 211 | 12 |
| Indiana | 229 | 226 | 216 | 13 |
| lowa | 229 | 223 | 213 | 16 |
| Kansas | 227 | 223 | 219 | 8 |
| Kentucky | 228 | 223 | 218 | 11 |
| Louisiana | 215 | 210 | 201 | 14 |
| Maine | 229 | 225 | 218 | 10 |
| Maryland | 234 | 234 | 225 | 9 |
| Massachusetts | 236 | 233 | 223 | 13 |
| Michigan | 222 | 216 | 210 | 13 |
| Minnesota | 230 | 228 | 220 | 10 |
| Mississippi | 213 | 207 | 201 | 12 |
| Missouri | 226 | 223 | 213 | 12 |
| Montana | 226 | 225 | 216 | 10 |
| Nebraska | 228 | 225 | 213 | 14 |
| Nevada | 218 | 213 | 206 | 12 |
| New Hampshire | 234 | 233 | 226 | 8 |
| New Jersey | 232 | 231 | 220 | 12 |
| New Mexico | 210 | 206 | 199 | 11 |
| New York | 228 | 224 | 215 | 12 |
| North Carolina | 225 | 223 | 214 | 11 |
| North Dakota | 226 | 226 | 216 | 10 |
| Ohio | 228 | 225 | 214 | 13 |
| Oklahoma | 220 | 218 | 211 | 9 |
| Oregon | 224 | 220 | 212 | 11 |
| Pennsylvania | 230 | 227 | 217 | 12 |
| Rhode Island | 230 | 222 | 210 | 20 |
| South Carolina | 218 | 215 | 202 | 16 |
| South Dakota | 222 | 219 | 205 | 17 |
| Tennessee | 224 | 222 | 208 | 16 |
| Texas | 221 | 214 | 209 | 12 |
| Utah | 226 | 224 | 215 | 12 |
| Vermont | 231 | 229 | 222 | 10 |
| Virginia | 232 | 231 | 217 | 15 |
| Washington | 230 | 223 | 218 | 11 |
| West Virginia | 218 | 215 | 210 | 8 |
| Wisconsin | 224 | 221 | 214 | 10 |
| Wyoming | 227 | 227 | 223 | 3 |
| DoDEA | 234 | 233 | 226 | 8 |

[^0]
## GRADE 8 SCORES FOR READING AND MATH BY STATE

State NAEP scores for reading, grade 8, by days absent from school in the prior month, 2013

| Jurisdiction | Days Absent Prior Month |  |  | Diffc. In NAEP score:none minus 3 or more days absent prior month* |
| :---: | :---: | :---: | :---: | :---: |
|  | None | 1-2 days | 3 or more days |  |
| National | 271 | 269 | 258 | 13 |
| Alabama | 260 | 259 | 249 | 11 |
| Alaska | $\ddagger$ | $\ddagger$ | $\ddagger$ | $\ddagger$ |
| Arizona | 264 | 262 | 253 | 11 |
| Arkansas | 264 | 264 | 253 | 11 |
| California | 266 | 261 | 251 | 14 |
| Colorado | 274 | 274 | 263 | 11 |
| Connecticut | 280 | 274 | 264 | 17 |
| Delaware | 268 | 269 | 258 | 10 |
| District of Columbia | 253 | 251 | 239 | 14 |
| Florida | 271 | 266 | 257 | 14 |
| Georgia | 268 | 265 | 256 | 12 |
| Hawaii | 265 | 259 | 250 | 15 |
| Idaho | 273 | 272 | 262 | 10 |
| Illinois | 270 | 268 | 255 | 15 |
| Indiana | 271 | 266 | 258 | 14 |
| lowa | 273 | 269 | 261 | 12 |
| Kansas | 270 | 268 | 260 | 10 |
| Kentucky | 273 | 271 | 261 | 11 |
| Louisiana | 261 | 259 | 247 | 13 |
| Maine | 272 | 273 | 259 | 13 |
| Maryland | 279 | 275 | 262 | 16 |
| Massachusetts | 280 | 278 | 267 | 14 |
| Michigan | 271 | 266 | 258 | 13 |
| Minnesota | 274 | 272 | 261 | 13 |
| Mississippi | 255 | 256 | 245 | 10 |
| Missouri | 270 | 268 | 260 | 10 |
| Montana | 274 | 275 | 266 | 8 |
| Nebraska | 272 | 272 | 260 | 12 |
| Nevada | 266 | 262 | 253 | 14 |
| New Hampshire | 277 | 277 | 265 | 11 |
| New Jersey | 279 | 277 | 268 | 11 |
| New Mexico | 260 | 258 | 248 | 12 |
| New York | 272 | 267 | 256 | 16 |
| North Carolina | 267 | 268 | 254 | 13 |
| North Dakota | 269 | 270 | 262 | 7 |
| Ohio | 274 | 270 | 259 | 16 |
| Oklahoma | 266 | 264 | 255 | 11 |
| Oregon | 272 | 269 | 263 | 9 |
| Pennsylvania | 276 | 274 | 263 | 13 |
| Rhode Island | 274 | 265 | 256 | 17 |
| South Carolina | 265 | 263 | 251 | 14 |
| South Dakota | 271 | 270 | 260 | 11 |
| Tennessee | 268 | 267 | 256 | 12 |
| Texas | 268 | 263 | 256 | 12 |
| Utah | 274 | 270 | 264 | 10 |
| Vermont | 277 | 276 | 267 | 10 |
| Virginia | 271 | 270 | 257 | 13 |
| Washington | 275 | 273 | 265 | 10 |
| West Virginia | 263 | 257 | 250 | 13 |
| Wisconsin | 272 | 269 | 257 | 16 |
| Wyoming | 273 | 273 | 266 | 7 |
| DoDEA | 279 | 277 | 273 | 5 |

State NAEP scores for math, grade 8, by days absent from school in the prior month, 2013

| Jurisdiction | Days Absent Prior Month |  |  | Diffc. In NAEP score:none minus 3 or more days absent prior month* |
| :---: | :---: | :---: | :---: | :---: |
|  | None | 1-2 days | 3 or more days |  |
| National | 290 | 285 | 272 | 18 |
| Alabama | 273 | 272 | 257 | 17 |
| Alaska | $\ddagger$ | $\ddagger$ | $\ddagger$ | $\ddagger$ |
| Arizona | 285 | 281 | 270 | 14 |
| Arkansas | 284 | 277 | 269 | 15 |
| California | 281 | 276 | 265 | 16 |
| Colorado | 293 | 294 | 278 | 15 |
| Connecticut | 290 | 287 | 273 | 17 |
| Delaware | 287 | 286 | 268 | 20 |
| District of Columbia | 269 | 269 | 257 | 12 |
| Florida | 286 | 283 | 269 | 17 |
| Georgia | 283 | 281 | 266 | 17 |
| Hawaii | 290 | 280 | 268 | 21 |
| Idaho | 291 | 287 | 278 | 12 |
| Illinois | 290 | 285 | 272 | 18 |
| Indiana | 294 | 286 | 274 | 21 |
| lowa | 290 | 287 | 272 | 18 |
| Kansas | 294 | 290 | 280 | 14 |
| Kentucky | 286 | 281 | 270 | 16 |
| Louisiana | 277 | 276 | 261 | 15 |
| Maine | 293 | 292 | 277 | 16 |
| Maryland | 293 | 287 | 274 | 20 |
| Massachusetts | 306 | 301 | 284 | 22 |
| Michigan | 288 | 281 | 265 | 23 |
| Minnesota | 299 | 296 | 285 | 15 |
| Mississippi | 274 | 272 | 264 | 10 |
| Missouri | 288 | 283 | 272 | 16 |
| Montana | 293 | 292 | 282 | 12 |
| Nebraska | 290 | 287 | 275 | 15 |
| Nevada | 284 | 279 | 266 | 18 |
| New Hampshire | 301 | 296 | 286 | 15 |
| New Jersey | 303 | 295 | 284 | 19 |
| New Mexico | 279 | 275 | 264 | 14 |
| New York | 289 | 283 | 267 | 21 |
| North Carolina | 291 | 289 | 271 | 21 |
| North Dakota | 293 | 293 | 283 | 10 |
| Ohio | 298 | 290 | 272 | 25 |
| Oklahoma | 282 | 277 | 265 | 17 |
| Oregon | 288 | 284 | 277 | 12 |
| Pennsylvania | 295 | 291 | 277 | 18 |
| Rhode Island | 294 | 283 | 268 | 26 |
| South Carolina | 285 | 279 | 272 | 12 |
| South Dakota | 292 | 287 | 277 | 15 |
| Tennessee | 284 | 279 | 263 | 22 |
| Texas | 294 | 288 | 273 | 21 |
| Utah | 289 | 287 | 274 | 14 |
| Vermont | 299 | 297 | 287 | 12 |
| Virginia | 294 | 289 | 273 | 21 |
| Washington | 295 | 290 | 281 | 14 |
| West Virginia | 280 | 276 | 262 | 18 |
| Wisconsin | 293 | 290 | 277 | 16 |
| Wyoming | 292 | 290 | 281 | 11 |
| DoDEA | 294 | 290 | 283 | 11 |
| fference is about equival | one-y | AEP bet | s 4 and 8. |  |

## SCORES FOR READING AND MATH IN URBAN DISTRICTS

Urban district NAEP scores for math, grade 4, by days absent from school in the prior month, 2013

| Jurisdiction | Days Absent Last Month |  |  | Diffc. In NAEP score: none minus 3 or more days absent prior month* |
| :---: | :---: | :---: | :---: | :---: |
|  | None | 1-2 days | 3 or more days |  |
| National | 246 | 241 | 233 | 13 |
| Albuquerque | 238 | 235 | 229 | 9 |
| Atlanta | 238 | 230 | 225 | 13 |
| Austin | 250 | 243 | 233 | 17 |
| Baltimore City | 227 | 223 | 217 | 10 |
| Boston | 243 | 232 | 228 | 15 |
| Charlotte | 253 | 247 | 234 | 19 |
| Chicago | 235 | 231 | 218 | 17 |
| Cleveland | 219 | 217 | 211 | 9 |
| Dallas | 239 | 231 | 225 | 14 |
| Detroit | 210 | 204 | 199 | 11 |
| District of Columbia (DCPS) | 235 | 230 | 217 | 18 |
| Fresno | 223 | 219 | 210 | 13 |
| Hillsborough County (FL) | 247 | 240 | 235 | 12 |
| Houston | 240 | 233 | 224 | 16 |
| Jefferson County (KY) | 239 | 234 | 223 | 16 |
| Los Angeles | 232 | 227 | 219 | 13 |
| Miami-Dade | 241 | 236 | 228 | 13 |
| Milwaukee | 227 | 220 | 215 | 12 |
| New York City | 243 | 233 | 225 | 18 |
| Philadelphia | 229 | 223 | 217 | 12 |
| San Diego | 245 | 240 | 235 | 10 |

*A 10 point difference is about equivalent to a one-year gain on NAEP between grades 4 and 8 . SOURCE: NAEP Data Explorer. Prepared by Alan Ginsburg for Attendance Works

Urban district NAEP scores for math, grade 8, by days absent from school in the prior month, 2013

| Jurisdiction | Days Absent Prior Month |  |  | Diffe. In NAEP <br> score: none minus 3 <br> or more days absent |
| ---: | :---: | :---: | :---: | :---: |
|  | None | $1-2$ days | 3 or more days |  |

[^1]Urban district NAEP scores for reading, grade 4, by days absent from school in the prior month, 2013

| Jurisdiction | Days Absent Prior Month |  |  | $\begin{array}{c}\text { Diffc. In NAEP score: } \\ \text { none minus 3 or more }\end{array}$ |
| ---: | :---: | :---: | :---: | :---: |
|  | None | $1-2$ days | 3 or more days |  |
| days absent prior month |  |  |  |  |$)$

*A 10 point difference is about equivalent to a one-year gain on NAEP between grades 4 and 8 .
SOURCE: NAEP Data Explorer. Prepared by Alan Ginsburg for Attendance Works

Urban district NAEP scores for reading, grade 8, by days absent from school in the prior month, 2013

| Jurisdiction | Days Absent Prior Month |  |  | Diffc. In NAEP score: <br> none minus 3 or more <br> days absent prior <br> month |
| ---: | :---: | :---: | :---: | :---: |
|  | None | 1-2 days | 3 or more days |  |

*A 10 point difference is about equivalent to a one-year gain on NAEP between grades 4 and 8 .
SOURCE: NAEP Data Explorer. Prepared by Alan Ginsburg for Attendance Works

## APPENDIX II: Summary of Recent Research

This brief contains information from several new research studies that were released recently or about to be released. Below is a summary of these studies.

## A. Why September Matters: Improving Student Attendance

A new analysis from the Baltimore Education Research Consortium provides evidence that poor attendance early in the school year can predict chronic absence. In Why September Matters: Improving Student Attendance, Linda S. Olson studies attendance in the Baltimore City Public Schools for pre-kindergarten through 12th grade students in September and throughout the rest of the 2012-13 school year. She focused on students who missed 20 days of school in excused or unexcused absences, which is Maryland's measure of chronic absence. The study found:

- Students who missed fewer than 2 days in September typically had good attendance rates for the entire year.
- Half the students who missed 2-4 days in September went on to miss a month or more of school, which is known as chronic absence. This group missed an average of 25 days.
- Nearly 9 out of 10 students who missed more than 4 days in September were chronically absent that year. These students missed an average of 70 days.


## B. Chronic Absence and Its Effects on Students' Academic and Socioemotional Outcomes

A study that was accepted for publication in August 2014 in the Journal of Education for Students Placed at Risk reflects on how chronic absence correlates with weaker achievement scores and social-emotional skills in kindergarten. For the analysis, researcher Michael A. Gottfried at the University of California Santa Barbara used a U.S. Department of Education data base that tracks 10,740 students. That data base, known as the Early Childhood Longitudinal Study, includes results for kindergarten tests measuring reading and math ability, as well as six social and emotional skills. While many researchers define chronic absence as missing 10 percent of the school year or about 18 days, Gottfried divided the absentee students into two levels - those missing 11 to 19 days (what he calls "moderate") and those missing 20 or more days (which he calls "strong").

## Gottfried's findings include:

- About 13 percent of the students were chronically absent - 10 percent of them at the moderate level and 3 percent at the strong level.
- Chronically absent students at both levels performed below their better-attending peers on math and reading skills assessments. The differences were wider in math than reading, and more significant for those missing a month or more than for those at the moderate level.
- Chronic absence is associated with a lack of certain social skills, including a child's ability to pay attention, work independently, adapt to change and persist in tasks. It also reflects a lack of eagerness to learn new things and a lack of engagement in school. Again, the differences are greater for the students who miss more school. Poor attendance did not correlate with a child's ability to control emotions or make friends.
- A comparison of social skills testing done in the fall and spring of the kindergarten years found that most students started school with similar levels of engagement. Those with worse attendance showed decreases in their engagement in school and eagerness to learn by the spring testing.
- Family circumstances mattered for chronic absence. Students from low-income families whose parents were not married were more likely to be chronically absent.
- Parent involvement mattered for chronic absence. Students with lower absences had parents who were more likely to take them to book stores, music lessons or tutoring, among other activities.
- Attending preschool mattered. Students who did not attend preschool were more likely to be chronically absent in kindergarten.
C. Attendance in the Early Grades: Why It Matters for Reading. A 2014 brief from Attendance Works and the Campaign for Grade-Level Reading provides a scan of the research documenting how chronic absence early on can leave a child unable to read well. The research points include:
- A 2011 California study connected early attendance with third grade reading mastery, which is considered a key indicator of future academic success. Applied Survey Research found that 64 percent of the students with good attendance in kindergarten and first grade scored proficient on the state's third grade English language arts test. That compares to 17 percent of students chronically absent in both kindergarten and first grade. These trends reflect the increased emphasis on literacy skills in the early grades. From 1998 to 2006, kindergarten teachers reported devoting 25 percent more time to teaching early literacy, up from 5.5 hours to seven hours per week, according to the working paper recently released by the University of Virginia.
- Missing this critical literacy instruction in kindergarten and first grade has graver consequences for children from low-income families than their more affluent peers, according to a 2010 study by Douglas D. Ready. Tapping a national data base, Ready found that chronically absent children gained 14 percent fewer literacy skills in kindergarten than those who attended more regularly. The negative impact, though, is 75 percent greater for a low-income student in kindergarten than for more affluent peers and 40 percent greater in first grade. Ready's study showed that poor children are far more likely to be chronically absent.
- The effects of absenteeism on literacy skills start before kindergarten, two recent studies show. The University of Chicago Consortium of Chicago School Research followed 25,000 3- and 4-year-olds served by Chicago Public Schools school-based preschool programs and found that nearly half of 3 -year-olds and more than one-third of 4-year-olds missed at least 10 percent of the school year. Chronic absence for 4 -year-old students correlated with weaker kindergarten readiness scores, including letter recognition and pre-literacy scores. The effects were particularly pronounced for the children who arrived at preschool with the weakest skills. Once again, these are the students who were more likely to be chronically absent, the 2013 study found. And for every year a student is chronically absent, his or her chance for reading success diminished. The Baltimore

Education Research Consortium also focused on Pre-Kindergarten (PreK) and Kindergarten (K) attendance and followed these young students over time. The 2012 study finds that students with low attendance in both PreK and K often continue to have low attendance, are more likely to be retained by grade 3 and on average have lower academic outcomes than peers with better attendance.

- The good news is that when students attend school regularly, they can see outsized literacy gains. Ready's study showed that low-income kids who attended regularly appeared to benefit from the instruction more than their higher income peers. They gained 8 percent more literacy skills in kindergarten and nearly 7 percent more in first grade. This narrows the reading gap between rich and poor by nearly a third. Likewise the Chicago research showed that students who arrived at preK with the weakest skill and attended regularly saw the biggest gains. And when chronically absent students improve their attendance, they can get back on track acade mically, the Baltimore research found.

Attendance Works is a national organization dedicated to improving the policy, practice and research around attendance. Its website offers materials, research and success stories about reducing chronic absence. Attendance Works also offers technical assistance to school districts and communities.

This report was made possible by through generous financial support provided to Attendance Works by the Annie E. Casey Foundation, Campaign for Grade-Level Reading and W.K. Kellogg Foundation. We appreciate their support and acknowledge that the conclusions in the report are those of the Attendance Works team alone.


[^0]:    ${ }^{*}$ A 10 point difference is about equivalent to a one-year gain on NAEP between grades 4 and 8 .

[^1]:    *A 10 point difference is about equivalent to a one-year gain on NAEP between grades 4 and 8 .
    SOURCE: NAEP Data Explorer. Prepared by Alan Ginsburg for Attendance Works

