

Appendix A

Methodology

The tables on the following pages reflect an analysis by researcher Alan Ginsburg of absenteeism data reported by students who took the National Assessment of Educational Progress (NAEP) in 2011 and 2013. Every two years, the NAEP assesses the reading and math skills of students in grades 4 and 8 across the country, using a representative sample in each state of about 2,500 students at each grade. In addition to testing, NAEP asks the sampled students about the numbers of days they were absent the prior month. Analysis shows that missing three or more days in the prior month (high-absenteeism) is associated with lower test scores for students in every state and city tested. Using information NAEP collects about students, the percentages of high-absentee students were broken out for three different school-reported student characteristics:

- (1) Eligibility for the national school lunch program;
- (2) Race/ethnicity used to report trends (White, Black, Hispanic, Asian and American Indian); and
- (3) Disability status of student, which includes students who have 504 plans.

A gap analysis identified the states with the widest gaps between higher at-risk students (e.g., students eligible for school-lunch; Black, Hispanic and American Indian students; and students identified with disability) and less at-risk students.

To improve the accuracy of the NAEP state estimates of the percentage of students absent three or more days by the different student groups, our analyses pooled the 2011 and 2013 NAEP surveys and reported the average of the high-absenteeism percentages over the two years.

Percentage of grade 4 and 8 students with poor attendance by race/ethnicity

Exhibit 1. Percent of grade 4 students absent 3 or more days last month by race/ethnicity of students and state, 2011-13*

	All (percent)	White (percent)	Black (percent)	Hispanic (percent)	Asian (percent)	American Indian (percent)
National	20	19	22	21	14	29
Alabama	21	21	22	18	±	±
Alaska	±	±	±	±	±	±
Arizona	23	20	23	26	17	34
Arkansas	24	24	26	24	19	±
California	19	19	22	20	12	±
Colorado	21	19	32	25	21	±
Connecticut	20	17	26	27	14	±
Delaware	20	20	22	21	8	±
District of Columbia	28	18	30	26	±	±
Florida	19	19	17	19	13	±
Georgia	18	17	19	18	10	±
Hawaii	23	19	20	21	24	±
Idaho	20	19	±	22	±	±
Illinois	19	17	23	21	14	±
Indiana	19	19	23	18	±	±
Iowa	19	17	25	24	19	±
Kansas	20	19	26	23	15	±
Kentucky	20	20	20	13	16	±
Louisiana	22	21	22	25	±	±
Maine	21	21	18	±	±	±
Maryland	20	18	21	22	11	±
Massachusetts	17	16	18	24	11	±
Michigan	23	21	32	28	16	±
Minnesota	19	17	26	24	18	±
Mississippi	21	22	21	25	±	±
Missouri	20	18	24	22	18	±
Montana	24	23	±	26	±	33
Nebraska	19	18	24	22	15	±
Nevada	21	20	24	21	15	±
New Hampshire	18	18	±	27	12	±
New Jersey	21	19	25	26	14	±
New Mexico	25	23	31	25	±	31
New York	21	18	27	28	13	±
North Carolina	21	20	23	23	15	30
North Dakota	18	17	17	21	±	27
Ohio	19	18	25	25	±	±
Oklahoma	23	22	24	22	15	26
Oregon	22	22	24	24	20	±
Pennsylvania	20	18	27	25	14	±
Rhode Island	22	19	23	29	17	±
South Carolina	21	20	22	22	±	±
South Dakota	18	16	20	22	±	27
Tennessee	21	21	22	23	8	±
Texas	17	17	15	17	14	±
Utah	22	21	±	24	19	±
Vermont	22	22	±	±	±	±
Virginia	19	18	22	21	12	±
Washington	21	20	23	24	15	±
West Virginia	23	24	22	±	±	±
Wisconsin	19	18	28	22	16	±
Wyoming	25	24	±	25	±	32
DoDEA	19	19	20	21	18	±

*Data shown are the mean of the percent of students absent 3 or more days on the 2011 and 2013 NAEP reading assessments.

± Reporting standards not met.

Source: NAEP Data Explorer (2015). Prepared by Alan Ginsburg for Attendance Works.

Exhibit 2. Percent of grade 8 students absent 3 or more days last month by race/ethnicity of students and state, 2011-13*

	All (percent)	White (percent)	Black (percent)	Hispanic (percent)	Asian (percent)	American Indian (percent)
National	20	19	23	22	11	30
Alabama	20	20	21	18	±	±
Alaska	±	±	±	±	±	±
Arizona	26	26	25	26	10	32
Arkansas	22	21	24	19	±	±
California	19	21	22	19	9	±
Colorado	25	23	28	30	12	±
Connecticut	19	17	23	29	9	±
Delaware	21	20	23	21	10	±
District of Columbia	30	17	32	27	±	±
Florida	23	23	23	23	12	±
Georgia	17	17	19	18	7	±
Hawaii	24	26	±	25	24	±
Idaho	21	21	±	23	±	±
Illinois	17	17	18	18	9	±
Indiana	18	17	25	19	±	±
Iowa	19	18	22	25	13	±
Kansas	21	20	24	21	13	±
Kentucky	20	20	19	23	±	±
Louisiana	23	22	25	21	±	±
Maine	21	22	22	±	±	±
Maryland	20	18	24	24	11	±
Massachusetts	16	14	18	27	7	±
Michigan	22	20	32	26	11	±
Minnesota	20	19	24	23	16	±
Mississippi	20	20	20	17	±	±
Missouri	19	18	24	21	±	±
Montana	27	25	±	29	±	42
Nebraska	20	19	27	24	±	±
Nevada	22	22	22	22	14	±
New Hampshire	19	19	±	32	13	±
New Jersey	18	17	20	21	6	±
New Mexico	28	25	26	28	±	35
New York	22	18	28	29	13	±
North Carolina	21	20	24	21	8	±
North Dakota	22	20	±	±	±	35
Ohio	20	19	27	23	±	±
Oklahoma	24	24	22	26	8	29
Oregon	24	24	±	27	14	±
Pennsylvania	21	19	28	25	13	±
Rhode Island	21	18	21	31	18	±
South Carolina	20	21	20	19	±	±
South Dakota	19	17	±	18	±	34
Tennessee	20	19	24	17	±	±
Texas	18	18	19	19	5	±
Utah	25	23	±	29	26	±
Vermont	17	17	±	±	±	±
Virginia	19	19	20	21	11	±
Washington	22	21	20	27	14	±
West Virginia	22	22	19	±	±	±
Wisconsin	19	17	30	24	14	±
Wyoming	27	27	±	31	±	±
DoDEA	18	19	20	20	12	±

*Data shown are the mean of the percent of students absent 3 or more days on the 2011 and 2013 NAEP math assessments.

± Reporting standards not met.

Source: NAEP Data Explorer (2015). Prepared by Alan Ginsburg for Attendance Works.

Percentage of grade 4 and 8 students with poor attendance by lunch eligibility

Exhibit 3. Percent of grade 4 students absent 3 or more days last month by school lunch eligibility of students and state, 2011-13*

	All (percent)	Eligible for school lunch (percent)	Not eligible for school lunch (percent)
National	20	23	17
Alabama	21	24	17
Alaska	‡	‡	‡
Arizona	23	26	20
Arkansas	24	28	19
California	19	20	17
Colorado	21	25	18
Connecticut	20	27	16
Delaware	20	24	17
District of Columbia	28	30	20
Florida	19	21	15
Georgia	18	20	14
Hawaii	23	28	17
Idaho	20	22	17
Illinois	19	22	17
Indiana	19	23	15
Iowa	19	24	15
Kansas	20	24	17
Kentucky	20	23	16
Louisiana	22	23	17
Maine	21	25	18
Maryland	20	24	16
Massachusetts	17	23	14
Michigan	23	29	18
Minnesota	19	23	16
Mississippi	21	23	17
Missouri	20	24	15
Montana	24	28	21
Nebraska	19	24	16
Nevada	21	22	18
New Hampshire	18	23	16
New Jersey	21	27	17
New Mexico	25	27	20
New York	21	25	17
North Carolina	21	24	18
North Dakota	18	21	16
Ohio	19	25	15
Oklahoma	23	25	20
Oregon	22	24	20
Pennsylvania	20	25	16
Rhode Island	22	28	16
South Carolina	21	24	16
South Dakota	18	23	14
Tennessee	21	25	16
Texas	17	18	15
Utah	22	25	19
Vermont	22	26	18
Virginia	19	24	16
Washington	21	24	17
West Virginia	23	26	19
Wisconsin	19	25	16
Wyoming	25	27	19
DoDEA	19	‡	‡

*Data shown are the mean of the percent of students absent 3 or more days on the 2011 and 2013 NAEP reading assessments.

‡ Reporting standards not met.

SOURCE: NAEP Data Explorer (2015). Prepared by Alan Ginsburg for Attendance Works.

Exhibit 4. Percent of grade 8 students absent 3 or more days a last month by school lunch eligibility of students and state, 2011-13*

	All (percent)	Eligible for school lunch (percent)	Not eligible for school lunch (percent)
National	20	24	16
Alabama	20	25	15
Alaska	‡	‡	‡
Arizona	26	27	24
Arkansas	22	25	17
California	19	20	17
Colorado	25	30	22
Connecticut	19	27	15
Delaware	21	26	17
District of Columbia	30	33	23
Florida	23	26	18
Georgia	17	20	14
Hawaii	24	29	19
Idaho	21	24	19
Illinois	17	20	15
Indiana	18	23	15
Iowa	19	26	15
Kansas	21	26	17
Kentucky	20	24	15
Louisiana	23	26	18
Maine	21	27	17
Maryland	20	27	16
Massachusetts	16	23	12
Michigan	22	30	16
Minnesota	20	25	17
Mississippi	20	22	16
Missouri	19	25	15
Montana	27	32	24
Nebraska	20	24	17
Nevada	22	24	19
New Hampshire	19	26	17
New Jersey	18	22	16
New Mexico	28	30	24
New York	22	27	16
North Carolina	21	26	16
North Dakota	22	28	19
Ohio	20	28	14
Oklahoma	24	28	20
Oregon	24	27	22
Pennsylvania	21	27	17
Rhode Island	21	30	14
South Carolina	20	22	18
South Dakota	19	25	15
Tennessee	20	23	16
Texas	18	20	15
Utah	25	30	22
Vermont	17	21	15
Virginia	19	23	17
Washington	22	27	18
West Virginia	22	26	16
Wisconsin	19	27	15
Wyoming	27	32	25
DoDEA	18	‡	‡

*Data shown are the mean of the percent of students absent 3 or more days on the 2011 and 2013 NAEP math assessments.

‡ Reporting standards not met.

SOURCE: NAEP Data Explorer (2015). Prepared by Alan Ginsburg for Attendance Works.

Percentage of grade 4 and 8 students with poor attendance by disability status

Exhibit 5. Percent of grade 4 students absent 3 or more days last month by disability status of students and state, 2011-13*

	All (percent)	Identified with disability (percent)	Not identified with disability (percent)
National	20	25	19
Alabama	21	27	21
Alaska	‡	‡	‡
Arizona	23	30	22
Arkansas	24	31	23
California	19	25	19
Colorado	21	25	21
Connecticut	20	30	19
Delaware	20	27	19
District of Columbia	28	36	27
Florida	19	23	18
Georgia	18	24	17
Hawaii	23	31	22
Idaho	20	24	19
Illinois	19	23	19
Indiana	19	23	18
Iowa	19	25	18
Kansas	20	25	20
Kentucky	20	25	19
Louisiana	22	27	20
Maine	21	26	20
Maryland	20	19	20
Massachusetts	17	23	16
Michigan	23	31	23
Minnesota	19	23	18
Mississippi	21	28	20
Missouri	20	25	19
Montana	24	28	24
Nebraska	19	26	18
Nevada	21	25	20
New Hampshire	18	23	17
New Jersey	21	30	20
New Mexico	25	29	25
New York	21	27	20
North Carolina	21	28	21
North Dakota	18	20	18
Ohio	19	27	18
Oklahoma	23	28	22
Oregon	22	28	22
Pennsylvania	20	25	19
Rhode Island	22	30	21
South Carolina	21	29	20
South Dakota	18	20	17
Tennessee	21	28	20
Texas	17	23	17
Utah	22	27	22
Vermont	22	25	21
Virginia	19	27	18
Washington	21	27	20
West Virginia	23	28	23
Wisconsin	19	25	19
Wyoming	25	28	24
DoDEA	19	25	19

*Data shown are the mean of the percent of students absent 3 or more days on the 2011 and 2013 NAEP reading assessments.

‡ Reporting standards not met.

SOURCE: NAEP Data Explorer (2015). Prepared by Alan Ginsburg for Attendance Works.

Exhibit 6. Percent of grade 8 students absent 3 or more days last month by disability status of student and state, 2011-13*

	All (percent)	Identified with disability (percent)	Not identified with disability (percent)
National	20	28	19
Alabama	20	36	19
Alaska	‡	‡	‡
Arizona	26	34	25
Arkansas	22	30	20
California	19	24	18
Colorado	25	33	24
Connecticut	19	25	18
Delaware	21	32	19
District of Columbia	30	35	30
Florida	23	30	22
Georgia	17	23	17
Hawaii	24	37	23
Idaho	21	27	21
Illinois	17	23	16
Indiana	18	24	17
Iowa	19	30	18
Kansas	21	22	20
Kentucky	20	25	19
Louisiana	23	28	22
Maine	21	28	20
Maryland	20	24	19
Massachusetts	16	22	15
Michigan	22	34	21
Minnesota	20	26	19
Mississippi	20	29	19
Missouri	19	25	19
Montana	27	34	26
Nebraska	20	26	19
Nevada	22	29	21
New Hampshire	19	23	18
New Jersey	18	27	16
New Mexico	28	36	27
New York	22	29	20
North Carolina	21	33	20
North Dakota	22	27	21
Ohio	20	28	19
Oklahoma	24	33	23
Oregon	24	29	24
Pennsylvania	21	27	20
Rhode Island	21	30	19
South Carolina	20	25	20
South Dakota	19	27	18
Tennessee	20	29	19
Texas	18	25	17
Utah	25	33	24
Vermont	17	23	16
Virginia	19	30	18
Washington	22	29	21
West Virginia	22	32	20
Wisconsin	19	27	18
Wyoming	27	34	27
DoDEA	18	24	18

*Data shown are the mean of the percent of students absent 3 or more days on the 2011 and 2013 NAEP math assessments.

‡ Reporting standards not met.

SOURCE: NAEP Data Explorer (2015). Prepared by Alan Ginsburg for Attendance Works.

Difference in scores based on attendance in grade 4 and 8

Exhibit 7. Difference in NAEP scores for 4th grade reading between students with no absences minus students with 3 or more days absent last month by school-lunch status of student and state, 2011-13*

	All	Eligible for school lunch	Not eligible for school lunch
National	12	9	8
Alabama	12	10	8
Alaska	‡	‡	‡
Arizona	14	10	15
Arkansas	11	7	9
California	11	11	8
Colorado	10	6	6
Connecticut	15	11	8
Delaware	11	8	8
District of Columbia	18	14	11
Florida	11	8	10
Georgia	11	10	4
Hawaii	17	12	11
Idaho	11	10	8
Illinois	11	8	8
Indiana	10	6	8
Iowa	14	10	9
Kansas	10	6	6
Kentucky	11	7	8
Louisiana	14	11	12
Maine	9	6	6
Maryland	10	8	6
Massachusetts	13	8	8
Michigan	13	9	6
Minnesota	12	11	7
Mississippi	10	7	8
Missouri	14	11	8
Montana	8	7	6
Nebraska	14	14	7
Nevada	10	8	7
New Hampshire	8	5	6
New Jersey	12	10	6
New Mexico	10	8	7
New York	13	11	8
North Carolina	11	9	7
North Dakota	9	9	7
Ohio	14	10	8
Oklahoma	12	10	10
Oregon	11	8	9
Pennsylvania	15	13	8
Rhode Island	18	10	12
South Carolina	14	10	9
South Dakota	16	14	10
Tennessee	12	9	7
Texas	10	10	7
Utah	12	13	8
Vermont	9	8	4
Virginia	14	11	10
Washington	14	11	8
West Virginia	11	9	8
Wisconsin	12	7	7
Wyoming	5	4	3
DoDEA	6	‡	‡

*Data shown are the mean of the NAEP scores on the 2011 and 2013 NAEP assessments.

‡ Reporting standards not met.

SOURCE: NAEP Data Explorer (2015). Prepared by Alan Ginsburg for Attendance Works.

Exhibit 8. Difference in NAEP scores for 8th grade math between students with no absences minus students with 3 or more days absent last month by school-lunch status of student and state, 2011-13*

	All	Eligible for school lunch	Not eligible for school lunch
National	18	15	15
Alabama	17	13	12
Alaska	‡	‡	‡
Arizona	16	14	15
Arkansas	15	11	13
California	18	16	18
Colorado	17	14	13
Connecticut	22	15	17
Delaware	19	17	14
District of Columbia	16	11	18
Florida	15	13	13
Georgia	17	13	16
Hawaii	21	18	19
Idaho	13	12	11
Illinois	18	14	17
Indiana	20	14	18
Iowa	17	14	14
Kansas	13	10	9
Kentucky	16	9	15
Louisiana	14	14	8
Maine	16	11	14
Maryland	22	17	18
Massachusetts	22	17	14
Michigan	23	18	17
Minnesota	14	14	9
Mississippi	13	10	10
Missouri	17	12	14
Montana	14	13	10
Nebraska	16	13	13
Nevada	17	16	17
New Hampshire	16	15	11
New Jersey	20	14	17
New Mexico	15	12	17
New York	23	21	18
North Carolina	17	14	13
North Dakota	13	13	10
Ohio	22	14	18
Oklahoma	17	16	13
Oregon	13	11	11
Pennsylvania	21	14	17
Rhode Island	25	15	21
South Carolina	12	10	9
South Dakota	16	17	10
Tennessee	20	17	16
Texas	19	17	16
Utah	15	13	12
Vermont	15	12	12
Virginia	22	12	23
Washington	19	15	16
West Virginia	17	13	15
Wisconsin	17	13	11
Wyoming	11	13	9
DoDEA	12	‡	‡

*Data shown are the mean of the NAEP scores on the 2011 and 2013 NAEP assessments.

‡ Reporting standards not met.

SOURCE: NAEP Data Explorer (2015). Prepared by Alan Ginsburg for Attendance Works.