

APPENDIX A. CALCULATION OF STANDARD ERRORS

Because of NAEP's complex sampling design, conventional formulas for estimating sampling variability that assume simple random sampling are inappropriate. Instead, NAEP provides 62 jackknife weights for a replication procedure that is used to estimate standard errors. Replication methods involve using the weights to construct a number of subsamples, or replicates, from the full sample and computing the statistic of interest for each replicate. The mean square error of the replicate estimates around the full sample estimate provides an estimate of the variance of the statistic.

In this report, the statistic of interest—the change measure—is constructed by the application of regression results estimated using data from one NAEP administration to find predicted probabilities of inclusion for students with disabilities from a second NAEP administration. The standard errors we use in this report for statistical inference take into account error from two sources: (a) NAEP sampling error and (b) the regression estimates.

(a) Sampling error: Using one set of regression coefficients, we aggregate predicted probabilities for the 62 replicate samples.

First, we estimate the regression using initial-year data using NAEP sampling weights (ORIGWT). Using these regression results, we calculate predicted probabilities of inclusion for individual students with disabilities in the second-year data for the state-specific approach and for individual students with disabilities in the initial and second year for the nation-based approach. Then, we obtain the change measure by aggregating individual SD predicted probabilities to the state level using the sampling weights (ORIGWT). Finally, we estimate 62 replicate change measures by aggregating individual SD predicted probabilities to state level 62 times using their replicate weights (SRWT01 – SRWT62).

The error from sampling equals the square root of the sum of the 62 squared differences between the measures using each of the replicate weights and the measure using the sampling weight.

(b) Error from regression estimates: We obtain 62 sets of regression coefficients estimated using replicate sample and then aggregate the full sample for each of 62 sets of predicted probabilities.

First, we estimate the regression using initial-year data using NAEP sampling weights (ORIGWT). Then, we estimate the regression 62 times using initial-year data using the 62 NAEP replicate weights (SRWT01 – SRWT62). Using each of these regression results, we calculate predicted probabilities for individual SDs in second-year data for the state-specific approach, for individual SDs in the initial and second year in the nation-based approach. We obtain the change measure by aggregating individual SD sampling weight predicted probabilities to the state level using the sampling weights (ORIGWT). We obtain 62 replicate change measures by aggregating the 62 individual SD replicate-weight predicted probabilities to the state level using the sampling weights (ORIGWT).

The error from estimation equals the square root of the sum of the 62 squared differences between the measures using each of the replicate weights and the measure using the sampling weight.

The two sources of error, (a) and (b), are then combined to produce the standard error for our change measure: the square root of the sum of the squares of the two error sources. Significance of each statistic is tested using a simple *t*-test.

APPENDIX B. CHANGES INCLUSION RATES FROM 2003 TO 2005

Prior to, and in anticipation of, the release of the 2007 NAEP results, the methodology presented in this report was developed using 2003 and 2005 NAEP data. These data were used to examine changes in state-level inclusion rates from 2003 to 2005 with 2003 as the initial period and 2005 as the second period. Results are presented in the following tables B-1 to B-10.

Table B-1. Percentages of students with disabilities in NAEP grade 4 mathematics assessments, estimated using nation-based approach: By state, 2003 and 2005

State	Actual rates		Predicted rates		Diff. from predicted ¹		Change 2003–05	Standard error	Composite index ²
	2003	2005	2003	2005	2003	2005			
Alabama	85.8	89.6	75.9	74.0	9.9	15.6	5.7	3.13	(4,0)
Alaska	93.8	93.7	82.2	81.0	11.6	12.7	1.1	2.64	(4,0)
Arizona	72.6	80.3	79.6	80.4	-7.0	-0.1	7.0	4.02	(1,0)
Arkansas	90.7	86.3	75.5	73.6	15.2	12.6	-2.5	2.86	(4,0)
California	81.8	81.0	81.1	80.9	0.7	0.1	-0.6	3.35	(2,0)
Colorado	85.7	83.7	78.8	76.3	7.0	7.4	0.5	3.02	(3,0)
Connecticut	76.8	87.9	81.2	82.8	-4.4	5.1	9.5*	3.59	(1,1)
Delaware	61.4	58.4	78.9	80.3	-17.5	-21.9	-4.4	3.01	(1,0)
District of Columbia	73.8	67.7	70.6	67.9	3.2	-0.2	-3.4	3.22	(2,0)
Florida	90.3	88.6	79.8	81.3	10.5	7.2	-3.3	2.78	(4,0)
Georgia	86.8	87.9	80.4	80.9	6.4	7.0	0.6	2.69	(3,0)
Hawaii	86.5	85.2	80.0	75.6	6.5	9.6	3.1	3.36	(3,0)
Idaho	92.6	92.2	78.8	77.0	13.8	15.2	1.4	2.43	(4,0)
Illinois	85.1	86.5	81.8	79.4	3.3	7.1	3.8	3.19	(2,0)
Indiana	87.4	91.7	83.9	85.3	3.4	6.5	3.0	3.11	(2,0)
Iowa	85.0	88.3	80.2	83.5	4.9	4.8	-0.1	2.88	(3,0)
Kansas	90.6	85.7	81.5	78.6	9.1	7.1	-2.0	2.66	(4,0)
Kentucky	79.0	83.7	74.5	77.6	4.5	6.0	1.6	3.87	(3,0)
Louisiana	86.0	83.8	81.1	85.0	4.9	-1.2	-6.1	4.86	(3,0)
Maine	83.1	83.0	79.1	78.4	4.0	4.6	0.5	3.10	(2,0)
Maryland	80.2	79.4	81.1	78.6	-1.0	0.8	1.7	3.87	(1,0)
Massachusetts	89.5	83.9	80.1	81.9	9.4	2.0	-7.5*	2.85	(4,-1)
Michigan	66.6	74.6	77.3	78.4	-10.7	-3.8	6.9	4.07	(1,0)
Minnesota	83.3	86.3	80.5	80.6	2.8	5.8	3.0	3.18	(2,0)
Mississippi	49.5	80.4	79.7	84.3	-30.2	-3.8	26.4*	4.06	(1,1)
Missouri	79.6	87.2	82.3	81.7	-2.6	5.5	8.1*	3.49	(1,1)
Montana	86.0	83.4	80.0	78.4	5.9	4.9	-1.0	3.59	(3,0)
Nebraska	87.5	88.7	83.8	84.0	3.7	4.8	1.1	2.66	(2,0)
Nevada	81.0	80.7	79.0	79.2	2.0	1.6	-0.4	4.32	(2,0)
New Hampshire	86.2	90.3	81.1	80.1	5.1	10.2	5.0	2.76	(3,0)
New Jersey	90.4	87.7	82.1	80.4	8.2	7.3	-1.0	4.14	(4,0)
New Mexico	90.1	89.3	77.5	78.5	12.5	10.8	-1.7	3.44	(4,0)
New York	82.1	83.7	82.2	78.5	0.0	5.2	5.2	4.34	(1,0)
North Carolina	79.1	87.5	77.7	80.9	1.4	6.6	5.2*	2.61	(2,1)
North Dakota	89.5	85.5	82.8	83.5	6.7	2.0	-4.7*	2.21	(3,-1)
Ohio	66.4	73.0	72.5	76.4	-6.1	-3.4	2.7	5.49	(1,0)
Oklahoma	82.5	78.8	78.8	75.8	3.7	3.0	-0.7	3.07	(2,0)
Oregon	81.7	78.7	80.2	78.3	1.6	0.4	-1.2	3.32	(2,0)
Pennsylvania	84.8	85.3	79.3	78.6	5.5	6.7	1.2	3.97	(3,0)
Rhode Island	93.1	87.9	82.3	83.2	10.8	4.7	-6.1*	2.70	(4,-1)
South Carolina	63.7	73.8	80.8	79.6	-17.1	-5.8	11.3*	3.39	(1,1)
South Dakota	91.0	91.0	83.5	85.4	7.5	5.6	-1.9	2.11	(4,0)
Tennessee	82.3	76.1	75.2	71.0	7.1	5.1	-2.0	4.26	(4,0)
Texas	52.6	65.2	76.0	77.6	-23.5	-12.5	11.0*	3.53	(1,1)
Utah	85.7	88.6	81.3	80.2	4.4	8.4	4.0	3.03	(3,0)
Vermont	78.2	80.4	75.8	75.3	2.4	5.1	2.7	2.79	(2,0)
Virginia	66.6	71.6	80.2	81.3	-13.6	-9.7	3.9	4.24	(1,0)
Washington	83.1	85.4	76.8	75.3	6.3	10.1	3.7	3.13	(3,0)
West Virginia	81.0	88.5	79.7	81.2	1.3	7.3	6.0	3.18	(2,0)
Wisconsin	80.3	88.3	76.1	78.7	4.2	9.6	5.4	3.21	(3,0)
Wyoming	92.7	91.8	83.1	80.1	9.6	11.7	2.1	2.35	(4,0)

* Significantly different from zero ($p < .05$).

Estimate rounds to zero.

¹ The 2003 *difference from predicted* is also the *starting point* measure.

² The *composite index* (q,s) is the quartile of the *starting point*, q (from 1, the lowest, to 4, the highest), and statistical significance of the *change* score, s , where s is -1 if the change is negative and statistically significant, 1 if positive and statistically significant, and 0 if changes are not statistically different from zero ($p < .05$).

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP) 2003 and 2005 Mathematics Assessments.

Table B-2. Percentages of students with disabilities in NAEP grade 8 mathematics assessments, estimated using nation-based approach: By state, 2003 and 2005

State	Actual rates		Predicted rates		Diff. from predicted ¹		Change 2003-05	Standard Composite error	Composite index ²
	2003	2005	2003	2005	2003	2005			
Alabama	85.6	92.3	75.2	78.4	10.3	13.9	3.5	3.16	(4,0)
Alaska	93.3	84.2	80.5	79.9	12.8	4.3	-8.5*	2.34	(4,-1)
Arizona	80.3	71.4	80.5	80.9	-0.2	-9.5	-9.3	5.13	(2,0)
Arkansas	90.7	80.2	75.3	74.6	15.5	5.6	-9.8*	2.91	(4,-1)
California	89.6	84.4	80.0	79.4	9.7	5.0	-4.6	2.54	(4,0)
Colorado	89.7	83.9	79.7	77.8	10.0	6.0	-4.0	3.00	(4,0)
Connecticut	77.6	83.7	81.0	81.5	-3.4	2.3	5.7*	2.55	(2,1)
Delaware	48.3	34.1	73.7	77.7	-25.5	-43.5	-18.1*	3.51	(1,-1)
District of Columbia	68.8	71.2	71.6	71.7	-2.8	-0.5	2.4	3.39	(2,0)
Florida	88.1	85.6	78.4	80.4	9.6	5.2	-4.4	2.73	(4,0)
Georgia	86.9	82.0	79.5	80.3	7.4	1.7	-5.7	3.59	(3,0)
Hawaii	84.2	86.1	79.6	79.7	4.6	6.4	1.8	2.71	(2,0)
Idaho	95.7	86.3	81.6	76.9	14.1	9.4	-4.7	2.59	(4,0)
Illinois	77.3	83.7	77.5	79.7	-0.2	3.9	4.2	3.50	(2,0)
Indiana	84.1	76.5	80.0	82.3	4.2	-5.9	-10.0*	3.45	(2,-1)
Iowa	85.7	83.8	80.3	80.2	5.4	3.6	-1.8	3.03	(3,0)
Kansas	84.0	76.6	78.7	78.3	5.3	-1.7	-7.0*	3.56	(3,-1)
Kentucky	68.5	72.7	74.9	78.8	-6.3	-6.1	0.3	4.91	(1,0)
Louisiana	73.0	70.7	77.7	81.9	-4.7	-11.2	-6.5	5.73	(1,0)
Maine	77.7	75.2	78.3	76.9	-0.6	-1.7	-1.1	3.53	(2,0)
Maryland	75.8	67.2	79.9	79.3	-4.1	-12.1	-7.9	5.82	(1,0)
Massachusetts	88.1	68.6	80.6	81.6	7.6	-13.0	-20.6*	4.11	(3,-1)
Michigan	67.6	69.4	76.5	78.0	-8.9	-8.6	0.4	4.65	(1,0)
Minnesota	86.0	85.5	80.8	78.1	5.2	7.4	2.2	2.99	(3,0)
Mississippi	46.7	68.6	79.3	81.8	-32.7	-13.2	19.5*	5.50	(1,1)
Missouri	77.0	72.5	81.9	78.1	-4.9	-5.6	-0.7	4.34	(1,0)
Montana	85.8	84.2	78.2	79.6	7.5	4.6	-2.9	2.88	(3,0)
Nebraska	81.0	91.1	83.4	83.0	-2.4	8.1	10.5*	2.58	(2,1)
Nevada	86.7	82.4	81.3	80.7	5.4	1.7	-3.7	3.20	(3,0)
New Hampshire	82.7	87.9	81.4	80.0	1.3	7.9	6.6*	2.92	(2,1)
New Jersey	93.8	83.1	80.7	82.1	13.1	1.0	-12.1*	3.20	(4,-1)
New Mexico	91.4	87.1	78.4	79.9	13.0	7.2	-5.8*	2.68	(4,-1)
New York	75.9	81.2	80.7	81.6	-4.8	-0.4	4.4	4.23	(1,0)
North Carolina	81.0	85.8	78.3	79.4	2.6	6.5	3.9	3.40	(2,0)
North Dakota	90.0	74.0	78.6	79.3	11.4	-5.3	-16.6*	2.92	(4,-1)
Ohio	61.3	59.9	71.1	74.4	-9.8	-14.4	-4.6	6.25	(1,0)
Oklahoma	87.2	76.5	80.9	77.3	6.3	-0.8	-7.1*	3.26	(3,-1)
Oregon	83.0	82.1	77.5	76.4	5.5	5.8	0.2	3.14	(3,0)
Pennsylvania	91.0	80.8	80.3	78.8	10.6	2.0	-8.7*	3.63	(4,-1)
Rhode Island	88.5	85.1	83.0	82.9	5.6	2.2	-3.4	2.31	(3,0)
South Carolina	53.2	59.2	76.4	80.0	-23.3	-20.7	2.6	4.87	(1,0)
South Dakota	85.3	82.9	78.2	77.7	7.2	5.1	-2.1	2.40	(3,0)
Tennessee	82.5	68.7	76.9	74.9	5.7	-6.1	-11.8*	3.98	(3,-1)
Texas	59.1	61.0	77.3	80.0	-18.3	-19.0	-0.7	5.03	(1,0)
Utah	79.5	82.4	78.0	77.1	1.5	5.3	3.8	3.17	(2,0)
Vermont	84.1	79.2	79.1	77.7	5.0	1.4	-3.6	2.61	(2,0)
Virginia	62.6	70.9	79.7	82.5	-17.1	-11.6	5.5	4.30	(1,0)
Washington	87.3	83.0	77.0	76.8	10.3	6.2	-4.1	3.09	(4,0)
West Virginia	82.7	83.0	79.2	81.0	3.5	2.1	-1.5	3.16	(2,0)
Wisconsin	84.0	78.7	75.7	76.1	8.2	2.6	-5.6	3.32	(3,0)
Wyoming	94.4	89.4	79.4	81.1	15.0	8.2	-6.8*	2.44	(4,-1)

* Significantly different from zero ($p < .05$).

¹ The 2003 difference from predicted is also the starting point measure.

² The composite index (q,s) is the quartile of the starting point, q (from 1, the lowest, to 4, the highest), and statistical significance of the change score, s , where s is -1 if the change is negative and statistically significant, 1 if positive and statistically significant, and 0 if changes are not statistically different from zero ($p < .05$).

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP) 2003 and 2005 Mathematics Assessments.

Table B-3. Percentages of students with disabilities in NAEP grade 4 reading assessments, estimated using nation-based approach: By state, 2003 and 2005

State	Actual rates		Predicted rates		Diff. from predicted ¹		Change 2003-05	Standard error	Composite index ²
	2003	2005	2003	2005	2003	2005			
Alabama	84.3	85.3	63.3	61.1	21.0	24.2	3.2	3.47	(4,0)
Alaska	86.6	84.5	68.7	66.3	17.9	18.2	0.3	3.72	(4,0)
Arizona	56.5	66.7	65.0	67.2	-8.5	-0.6	7.9	5.42	(1,0)
Arkansas	63.0	53.3	61.2	61.8	1.9	-8.6	-10.5 *	5.09	(2,-1)
California	74.7	74.9	70.7	71.8	4.0	3.1	-1.0	4.24	(3,0)
Colorado	82.9	78.6	65.2	64.0	17.7	14.7	-3.0	3.17	(4,0)
Connecticut	73.5	78.5	70.3	66.9	3.1	11.6	8.4 *	3.86	(3,1)
Delaware	35.5	28.6	67.2	66.5	-31.7 *	-37.9	-6.2 *	3.10	(1,-1)
District of Columbia	60.0	57.7	58.0	56.7	1.9	1.0	-1.0	3.60	(2,0)
Florida	83.6	76.0	67.9	71.5	15.8	4.5	-11.2 *	3.72	(4,-1)
Georgia	77.7	59.7	68.8	66.3	8.9	-6.6	-15.6 *	4.12	(3,-1)
Hawaii	76.6	82.5	64.6	64.3	11.9	18.2	6.3	3.86	(4,0)
Idaho	78.8	72.2	64.7	65.4	14.0	6.9	-7.2	4.44	(4,0)
Illinois	71.7	65.3	67.0	66.9	4.6	-1.6	-6.3	4.99	(3,0)
Indiana	72.6	75.2	69.3	71.8	3.3	3.4	0.1	4.86	(3,0)
Iowa	56.4	65.2	60.6	64.6	-4.2	0.6	4.7	5.61	(2,0)
Kansas	83.4	77.4	65.3	65.8	18.1	11.7	-6.4 *	3.15	(4,-1)
Kentucky	41.6	45.4	64.0	63.3	-22.4	-17.9	4.5	4.04	(1,0)
Louisiana	71.1	41.2	72.1	71.2	-1.0	-30.0	-29.1 *	5.54	(2,-1)
Maine	63.7	65.8	63.5	68.1	0.1	-2.3	-2.5	3.75	(2,0)
Maryland	57.0	63.3	68.0	68.9	-11.0	-5.6	5.5	4.06	(1,0)
Massachusetts	85.1	67.2	69.2	70.3	15.8	-3.0	-18.8 *	3.48	(4,-1)
Michigan	44.5	52.3	62.3	63.3	-17.9	-11.1	6.8	5.39	(1,0)
Minnesota	80.2	84.5	66.9	69.6	13.3	14.9	1.6	3.00	(4,0)
Mississippi	41.3	66.9	69.5	76.2	-28.1	-9.3	18.8 *	4.53	(1,1)
Missouri	55.5	55.8	69.0	68.2	-13.5	-12.5	1.0	4.17	(1,0)
Montana	65.3	61.1	64.3	62.1	1.0	-1.0	-2.0	4.70	(2,0)
Nebraska	78.0	75.2	73.0	74.4	5.0	0.8	-4.3	4.05	(3,0)
Nevada	66.2	60.4	63.4	65.0	2.8	-4.5	-7.3	5.00	(2,0)
New Hampshire	81.0	83.0	69.0	69.7	12.0	13.4	1.4	3.68	(4,0)
New Jersey	76.0	73.8	67.2	68.7	8.8	5.1	-3.7	5.67	(3,0)
New Mexico	78.2	64.4	67.7	64.9	10.5	-0.5	-11.0 *	5.14	(3,-1)
New York	63.3	74.5	70.0	67.7	-6.7	6.8	13.6 *	4.43	(1,1)
North Carolina	64.5	83.2	65.1	70.9	-0.6	12.4	13.0 *	3.88	(2,1)
North Dakota	76.7	64.7	74.2	71.5	2.4	-6.7	-9.1 *	3.61	(2,-1)
Ohio	53.9	40.8	59.8	59.8	-5.9	-18.9	-13.1 *	5.58	(2,-1)
Oklahoma	70.4	72.5	64.7	67.9	5.7	4.6	-1.1	4.14	(3,0)
Oregon	63.4	69.4	65.9	67.4	-2.5	2.0	4.5	3.74	(2,0)
Pennsylvania	79.1	73.3	65.1	66.7	14.0	6.5	-7.5	4.41	(4,0)
Rhode Island	85.5	88.0	69.4	71.3	16.1	16.7	0.6	3.14	(4,0)
South Carolina	56.0	61.1	70.2	71.2	-14.3	-10.1	4.1	3.58	(1,0)
South Dakota	72.6	71.4	70.6	68.9	1.9	2.5	0.6	3.05	(2,0)
Tennessee	71.8	38.4	66.8	58.4	5.0	-20.0	-25.0 *	5.59	(3,-1)
Texas	48.3	58.5	65.6	71.3	-17.2	-12.9	4.3	4.52	(1,0)
Utah	80.3	72.0	69.3	66.1	11.0	5.9	-5.1	3.27	(3,0)
Vermont	64.5	68.4	63.3	59.7	1.2	8.6	7.5 *	3.37	(2,1)
Virginia	44.3	36.8	67.7	67.5	-23.4	-30.8	-7.4	4.61	(1,0)
Washington	69.1	76.8	62.3	62.8	6.8	14.0	7.3	4.56	(3,0)
West Virginia	38.4	69.1	64.5	71.6	-26.1 *	-2.5	23.6 *	3.93	(1,1)
Wisconsin	68.7	71.7	62.3	63.4	6.3	8.3	1.9	4.52	(3,0)
Wyoming	88.8	90.4	66.7	68.4	22.1	22.1	0.0	2.74	(4,0)

* Significantly different from zero ($p < .05$).

¹ The 2003 difference from predicted is also the starting point measure.

² The composite index (q,s) is the quartile of the starting point, q (from 1, the lowest, to 4, the highest), and statistical significance of the change score, s , where s is -1 if the change is negative and statistically significant, 1 if positive and statistically significant, and 0 if changes are not statistically different from zero ($p < .05$).

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP) 2003 and 2005 Reading Assessments.

Table B-4. Percentages of students with disabilities in NAEP grade 8 reading assessments, estimated using nation-based approach: By state, 2003 and 2005

State	Actual rates		Predicted rates		Diff. from predicted ¹		Change 2003-05	Standard Composite error	Composite index ²
	2003	2005	2003	2005	2003	2005			
Alabama	81.3	88.0	70.3	72.5	11.0	15.4	4.5	3.95	(4,0)
Alaska	86.3	88.0	71.2	74.0	15.0	14.0	-1.1	2.50	(4,0)
Arizona	65.8	73.3	67.4	70.6	-1.7	2.7	4.3	5.02	(2,0)
Arkansas	72.3	62.0	64.3	63.8	8.0	-1.8	-9.8	5.12	(3,0)
California	78.4	80.1	71.5	72.4	6.9	7.7	0.8	4.29	(3,0)
Colorado	84.0	76.7	68.9	69.7	15.1	7.1	-8.0	4.25	(4,0)
Connecticut	80.3	84.4	76.3	75.0	4.0	9.5	5.5	2.92	(2,0)
Delaware	47.5	33.3	65.6	68.2	-18.1	-34.9	-16.8 *	3.48	(1,-1)
District of Columbia	60.9	62.1	63.3	64.2	-2.4	-2.1	0.3	3.23	(2,0)
Florida	77.5	80.2	70.1	73.8	7.3	6.3	-1.0	3.97	(3,0)
Georgia	79.0	62.4	68.0	71.0	11.0	-8.6	-19.6 *	5.17	(4,-1)
Hawaii	79.1	82.4	72.5	71.8	6.5	10.5	4.0	2.64	(3,0)
Idaho	76.2	81.5	71.4	71.9	4.8	9.6	4.9	3.91	(2,0)
Illinois	73.4	72.4	68.7	73.1	4.6	-0.7	-5.3	4.42	(2,0)
Indiana	78.0	73.5	73.2	76.2	4.9	-2.8	-7.7	4.10	(3,0)
Iowa	71.4	75.9	70.0	74.0	1.4	2.0	0.6	4.43	(2,0)
Kansas	81.6	72.6	68.9	69.0	12.7	3.7	-9.1 *	3.84	(4,-1)
Kentucky	46.9	44.8	70.7	67.1	-23.8	-22.3	1.5	4.74	(1,0)
Louisiana	62.4	49.8	71.9	75.4	-9.6	-25.6	-16.0 *	5.86	(1,-1)
Maine	71.4	65.9	69.0	71.0	2.4	-5.2	-7.6 *	3.50	(2,-1)
Maryland	78.8	69.1	70.2	71.6	8.6	-2.5	-11.1 *	4.98	(3,-1)
Massachusetts	83.6	69.0	71.3	75.6	12.4	-6.7	-19.0 *	3.96	(4,-1)
Michigan	51.1	56.1	67.7	69.8	-16.6	-13.7	2.9	5.10	(1,0)
Minnesota	78.7	82.8	70.6	71.6	8.0	11.2	3.2	3.25	(3,0)
Mississippi	40.9	58.0	70.9	75.4	-30.0	-17.4	12.6 *	5.67	(1,1)
Missouri	51.2	49.5	71.1	69.7	-19.9	-20.2	-0.3	4.93	(1,0)
Montana	68.6	66.6	71.5	71.1	-2.9	-4.5	-1.6	3.73	(2,0)
Nebraska	76.0	77.2	77.1	73.1	-1.1	4.1	5.2	3.05	(2,0)
Nevada	84.1	74.7	71.9	72.9	12.2	1.8	-10.4 *	3.57	(4,-1)
New Hampshire	84.0	87.7	74.5	76.5	9.5	11.2	1.7	2.63	(3,0)
New Jersey	86.1	78.5	71.4	75.1	14.7	3.3	-11.4 *	4.09	(4,-1)
New Mexico	77.7	68.7	69.2	73.5	8.5	-4.8	-13.3 *	4.04	(3,-1)
New York	66.3	65.2	72.9	72.5	-6.6	-7.2	-0.6	4.80	(1,0)
North Carolina	63.0	80.9	69.8	72.7	-6.8	8.2	15.0 *	3.76	(1,1)
North Dakota	71.3	55.9	73.6	72.6	-2.2	-16.7	-14.5 *	3.61	(2,-1)
Ohio	56.1	50.8	60.3	68.6	-4.2	-17.8	-13.6 *	6.76	(2,-1)
Oklahoma	75.4	74.2	68.7	68.9	6.8	5.3	-1.5	4.63	(3,0)
Oregon	76.5	77.4	71.2	69.6	5.3	7.7	2.4	3.19	(3,0)
Pennsylvania	85.6	79.3	69.1	71.5	16.5	7.8	-8.7 *	4.09	(4,-1)
Rhode Island	85.9	84.6	75.8	76.4	10.1	8.2	-2.0	2.10	(4,0)
South Carolina	45.6	52.2	69.1	70.9	-23.5	-18.7	4.8	4.89	(1,0)
South Dakota	68.9	73.0	70.7	68.0	-1.7	5.0	6.8	3.68	(2,0)
Tennessee	81.5	43.4	71.5	64.9	10.1	-21.5	-31.5 *	4.48	(4,-1)
Texas	57.6	63.1	71.3	74.9	-13.7	-11.7	2.0	3.98	(1,0)
Utah	79.8	72.1	70.9	71.0	8.9	1.1	-7.8 *	3.86	(3,-1)
Vermont	75.9	77.5	69.3	72.0	6.6	5.4	-1.2	2.71	(3,0)
Virginia	47.2	54.9	69.6	73.7	-22.4	-18.8	3.7	4.35	(1,0)
Washington	79.6	72.5	68.1	67.3	11.5	5.2	-6.3	4.13	(4,0)
West Virginia	48.5	62.7	69.5	70.6	-21.1	-7.9	13.2 *	5.24	(1,1)
Wisconsin	69.5	68.3	66.0	69.2	3.5	-0.9	-4.5	4.73	(2,0)
Wyoming	85.4	81.6	73.2	73.8	12.2	7.8	-4.4	2.69	(4,0)

* Significantly different from zero ($p < .05$).

¹ The 2003 difference from predicted is also the starting point measure.

² The composite index (q,s) is the quartile of the starting point, q (from 1, the lowest, to 4, the highest), and statistical significance of the change score, s , where s is -1 if the change is negative and statistically significant, 1 if positive and statistically significant, and 0 if changes are not statistically different from zero ($p < .05$).

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP) 2003 and 2005 Reading Assessments.

Table B-5. Starting point and change measures for percentages of students with disabilities in NAEP grade 4 mathematics assessments from state-specific approach: By state, 2003 and 2005

State	Starting point measure—2003		2003–05 change		Composite index ¹
	Estimated	Std error	Change	Std error	
Alabama	7.7 *	2.14	2.3	3.12	(4,0)
Alaska	9.5 *	1.86	0.7	1.72	(4,0)
Arizona	-9.4 *	2.74	4.2	3.99	(1,0)
Arkansas	12.7 *	1.81	-3.2	2.87	(4,0)
California	-1.4	2.54	-2.2	3.13	(2,0)
Colorado	4.8 *	1.91	4.0	2.77	(3,0)
Connecticut	-6.9 *	3.04	5.8 *	2.79	(1,1)
Delaware	-19.7 *	1.95	-7.3 *	2.91	(1,-1)
District of Columbia	-0.1	2.19	-7.7 *	2.83	(2,-1)
Florida	8.4 *	1.70	-4.6 *	2.33	(4,-1)
Georgia	4.5 *	1.70	-0.3	4.53	(3,0)
Hawaii	4.2	2.56	0.9	4.69	(3,0)
Idaho	11.3 *	1.37	4.9 *	2.02	(4,1)
Illinois	1.4	2.58	0.7	3.19	(2,0)
Indiana	1.8	2.36	1.6	2.73	(2,0)
Iowa	2.7	2.12	0.8	2.24	(3,0)
Kansas	7.3 *	1.66	-7.3 *	3.61	(4,-1)
Kentucky	2.5	2.74	2.8	4.02	(3,0)
Louisiana	2.6	4.13	-3.0	4.33	(3,0)
Maine	1.6	2.11	1.4	2.94	(2,0)
Maryland	-3.1	2.99	0.1	3.70	(1,0)
Massachusetts	7.1 *	1.51	-6.5 *	2.63	(4,-1)
Michigan	-13.5 *	3.14	3.1	3.50	(1,0)
Minnesota	0.8	1.62	0.2	5.35	(2,0)
Mississippi	-33.3 *	3.27	17.9 *	3.52	(1,1)
Missouri	-4.5	2.33	9.6 *	3.45	(1,1)
Montana	3.4	1.96	6.1	8.46	(3,0)
Nebraska	2.1	1.80	-2.4	2.52	(2,0)
Nevada	-0.5	3.14	-1.3	4.24	(2,0)
New Hampshire	3.0	2.17	6.3 *	2.79	(3,1)
New Jersey	6.0	3.28	-0.7	4.19	(4,0)
New Mexico	9.9 *	2.19	3.4	4.97	(4,0)
New York	-2.3	3.62	4.8	4.46	(1,0)
North Carolina	-0.7	2.04	5.8	3.38	(2,0)
North Dakota	5.0 *	1.36	-5.7 *	2.58	(4,-1)
Ohio	-8.9 *	4.30	0.8	4.86	(1,0)
Oklahoma	1.3	2.21	-1.2	3.21	(2,0)
Oregon	-0.7	2.14	-1.3	3.30	(2,0)
Pennsylvania	3.5	2.56	-2.2	3.84	(3,0)
Rhode Island	8.7 *	1.26	-6.8 *	2.29	(4,-1)
South Carolina	-19.3 *	2.47	4.2	3.26	(1,0)
South Dakota	5.8 *	1.33	-1.3	1.56	(4,0)
Tennessee	4.3	2.77	-5.9	4.17	(3,0)
Texas	-26.8 *	2.90	2.3	3.22	(1,0)
Utah	2.4	2.39	2.4	2.90	(3,0)
Vermont	-0.1	1.68	9.1 *	2.96	(2,1)
Virginia	-15.8 *	3.09	0.9	3.85	(1,0)
Washington	3.8	2.15	2.8	3.79	(3,0)
West Virginia	-0.7	2.51	5.1	3.28	(2,0)
Wisconsin	2.1	2.03	-1.1	3.39	(3,0)
Wyoming	7.6 *	1.05	11.6 *	2.38	(4,1)

* Significantly different from zero ($p < .05$).

¹ The *composite index* (q,s) is the quartile of the *starting point*, q (from 1, the lowest, to 4, the highest), and statistical significance of the *change* score, s , where s is -1 if the change is negative and statistically significant, 1 if positive and statistically significant, and 0 if changes are not statistically different from zero ($p < .05$).

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP) 2003 and 2005 Mathematics Assessments.

Table B-6. Starting point and change measures for percentages of students with disabilities in NAEP grade 8 mathematics assessments from state-specific approach: By state, 2003 and 2005

State	Starting point measure—2003		2003–05 change		Composite index ¹
	Estimated	Std error	Change	Std error	
Alabama	8.1 *	2.46	8.6 *	3.41	(4,1)
Alaska	11.2 *	1.14	-8.2 *	3.83	(4,-1)
Arizona	-2.1	3.00	-10.7	5.69	(2,0)
Arkansas	13.2 *	1.68	-9.9 *	2.78	(4,-1)
California	8.0 *	1.66	-3.2	2.68	(4,0)
Colorado	8.4 *	1.79	-7.0 *	3.14	(4,-1)
Connecticut	-5.1 *	1.80	6.9 *	2.77	(2,1)
Delaware	-28.4 *	2.76	-15.2 *	3.38	(1,-1)
District of Columbia	-5.7 *	1.98	4.5	4.31	(2,0)
Florida	7.8 *	1.59	-2.5	2.69	(4,0)
Georgia	5.4 *	2.17	-6.9 *	2.89	(3,-1)
Hawaii	2.7	1.83	-0.5	2.44	(2,0)
Idaho	12.4 *	1.64	-3.0	5.90	(4,0)
Illinois	-2.3	2.47	3.6	3.61	(2,0)
Indiana	2.3	2.21	-5.5	4.03	(2,0)
Iowa	3.4	1.79	-0.5	2.84	(3,0)
Kansas	3.5	1.88	-5.9	3.41	(3,0)
Kentucky	-8.6 *	3.93	1.2	4.79	(1,0)
Louisiana	-7.0 *	3.44	-0.9	6.25	(1,0)
Maine	-2.5	2.48	-1.2	3.55	(2,0)
Maryland	-6.1	4.18	-7.5	5.67	(1,0)
Massachusetts	5.6 *	2.58	-16.4 *	4.60	(3,-1)
Michigan	-11.4 *	3.16	0.7	4.71	(1,0)
Minnesota	3.5	2.07	4.3	2.70	(3,0)
Mississippi	-34.9 *	3.85	7.8 *	3.74	(1,1)
Missouri	-6.6 *	2.86	-1.8	4.34	(1,0)
Montana	5.5 *	1.90	-2.1	2.63	(3,0)
Nebraska	-3.8	2.01	12.4 *	2.82	(2,1)
Nevada	3.6	1.87	-2.8	3.02	(3,0)
New Hampshire	-0.3	2.11	7.1	3.71	(2,0)
New Jersey	11.1 *	1.58	-12.4 *	2.96	(4,-1)
New Mexico	10.9 *	1.71	-3.2	3.14	(4,0)
New York	-6.7 *	3.20	6.2	4.27	(1,0)
North Carolina	0.7	2.55	2.0	2.81	(2,0)
North Dakota	9.5 *	1.62	-16.0 *	2.99	(4,-1)
Ohio	-12.5 *	4.78	-2.6	6.49	(1,0)
Oklahoma	4.4 *	2.02	-7.7 *	3.28	(3,-1)
Oregon	3.6	1.96	4.5	3.18	(3,0)
Pennsylvania	8.7 *	2.05	-8.4 *	3.57	(4,-1)
Rhode Island	4.0 *	1.38	0.3	2.46	(3,0)
South Carolina	-25.6 *	3.33	1.8	4.40	(1,0)
South Dakota	5.2 *	1.66	-0.7	2.41	(3,0)
Tennessee	3.3	2.19	-14.2 *	3.90	(3,-1)
Texas	-20.9 *	4.10	-1.7	4.29	(1,0)
Utah	-0.3	2.54	4.0	3.50	(2,0)
Vermont	3.3	1.76	1.2	3.29	(2,0)
Virginia	-19.1 *	2.80	4.4	4.42	(1,0)
Washington	8.1 *	1.97	-2.0	3.45	(4,0)
West Virginia	1.4	2.52	-0.4	3.08	(2,0)
Wisconsin	6.1 *	2.23	-2.9	3.05	(3,0)
Wyoming	13.1 *	0.97	-2.9	3.59	(4,0)

* Significantly different from zero ($p < .05$).

¹ The *composite index* (q,s) is the quartile of the *starting point*, q (from 1, the lowest, to 4, the highest), and statistical significance of the *change* score, s , where s is -1 if the change is negative and statistically significant, 1 if positive and statistically significant, and 0 if changes are not statistically different from zero ($p < .05$).

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP) 2003 and 2005 Mathematics Assessments.

Table B-7. Starting point and change measures for percentages of students with disabilities in NAEP grade 4 reading assessments from state-specific approach: By state, 2003 and 2005

State	Starting point measure—2003		2003–05 change		Composite index ¹
	Estimated	Std error	Change	Std error	
Alabama	19.7 *	2.70	2.6	3.61	(4,0)
Alaska	16.5 *	2.15	-4.1	3.04	(4,0)
Arizona	-10.2 *	4.41	6.6	6.11	(1,0)
Arkansas	0.1	3.69	-11.4 *	4.88	(2,-1)
California	2.7	3.50	-1.7	4.05	(3,0)
Colorado	16.5 *	1.62	-5.4	2.90	(4,0)
Connecticut	1.8	2.53	8.6 *	3.99	(3,1)
Delaware	-33.3 *	1.93	-7.3 *	3.04	(1,-1)
District of Columbia	0.2	2.40	-3.8	4.16	(2,0)
Florida	14.6 *	2.33	-9.4 *	3.69	(4,-1)
Georgia	7.5 *	2.37	-18.2 *	4.06	(3,-1)
Hawaii	10.4 *	2.61	7.0	3.99	(4,0)
Idaho	12.4 *	3.10	-6.2	4.98	(4,0)
Illinois	3.3	3.58	-6.1	5.16	(3,0)
Indiana	1.9	3.54	-1.4	4.48	(3,0)
Iowa	-6.0	4.17	6.3	4.78	(2,0)
Kansas	16.8 *	1.83	-4.7	3.57	(4,0)
Kentucky	-24.2 *	2.95	-0.5	4.14	(1,0)
Louisiana	-2.4	3.54	-30.4 *	5.02	(2,-1)
Maine	-1.4	2.56	0.5	3.24	(2,0)
Maryland	-12.5 *	2.97	2.8	3.95	(1,0)
Massachusetts	14.5 *	2.29	-18.4 *	3.67	(4,-1)
Michigan	-19.7 *	3.88	2.1	6.39	(1,0)
Minnesota	12.0 *	2.13	4.1	3.02	(4,0)
Mississippi	-29.6 *	3.22	14.9 *	4.32	(1,1)
Missouri	-14.8 *	3.08	-0.1	4.28	(1,0)
Montana	-0.5	3.36	-5.0	5.19	(2,0)
Nebraska	3.7	2.53	-7.4	4.16	(3,0)
Nevada	1.2	3.50	-7.5	4.70	(2,0)
New Hampshire	10.6 *	2.77	4.3	6.21	(4,0)
New Jersey	7.2	4.51	-1.8	5.58	(3,0)
New Mexico	9.2 *	2.93	-13.2 *	4.77	(3,-1)
New York	-8.3 *	3.43	14.6 *	4.44	(1,1)
North Carolina	-2.3	3.29	14.2 *	3.71	(2,1)
North Dakota	1.2	2.66	-9.2 *	4.61	(2,-1)
Ohio	-7.4	4.44	-16.9 *	4.32	(2,-1)
Oklahoma	4.3	3.21	-1.4	3.96	(3,0)
Oregon	-3.9	2.81	-0.1	3.66	(2,0)
Pennsylvania	12.5 *	3.03	-1.0	5.45	(4,0)
Rhode Island	14.7 *	2.11	-1.2	2.79	(4,0)
South Carolina	-15.7 *	2.22	-1.9	3.28	(1,0)
South Dakota	0.7	2.26	-4.2	2.92	(2,0)
Tennessee	3.5	3.05	-31.4 *	6.19	(3,-1)
Texas	-18.9 *	3.68	-1.6	4.40	(1,0)
Utah	9.6 *	2.09	-8.4 *	3.31	(3,-1)
Vermont	-0.5	2.42	6.4	3.26	(2,0)
Virginia	-24.8 *	3.40	-14.2 *	4.22	(1,-1)
Washington	5.1	3.27	7.5	4.47	(3,0)
West Virginia	-28.0 *	3.01	15.1 *	4.19	(1,1)
Wisconsin	4.8	2.86	2.8	5.58	(3,0)
Wyoming	20.8 *	1.73	1.1	1.77	(4,0)

* Significantly different from zero ($p < .05$).

¹ The *composite index* (q,s) is the quartile of the *starting point*, q (from 1, the lowest, to 4, the highest), and statistical significance of the *change* score, s , where s is -1 if the change is negative and statistically significant, 1 if positive and statistically significant, and 0 if changes are not statistically different from zero ($p < .05$).

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP) 2003 and 2005 Reading Assessments.

Table B-8. Starting point and change measures for percentages of students with disabilities in NAEP grade 8 reading assessments from state-specific approach: By state, 2003 and 2005

State	Starting point measure—2003		2003–05 change		Composite index ¹
	Estimated	Std error	Change	Std error	
Alabama	9.8 *	2.85	5.5	3.65	(4,0)
Alaska	14.2 *	1.90	2.3	2.04	(4,0)
Arizona	-2.8	3.99	9.6 *	4.54	(2,1)
Arkansas	6.3	3.32	-11.1 *	5.02	(3,-1)
California	6.1	3.82	4.1	4.67	(3,0)
Colorado	14.1 *	2.70	-0.5	4.58	(4,0)
Connecticut	3.1	1.99	6.2 *	3.08	(2,1)
Delaware	-19.4 *	2.08	-15.0 *	3.59	(1,-1)
District of Columbia	-3.7	2.22	0.4	3.63	(2,0)
Florida	6.3 *	3.19	1.8	3.77	(3,0)
Georgia	9.7 *	3.46	-16.0 *	5.01	(4,-1)
Hawaii	5.6 *	1.66	3.9	2.70	(3,0)
Idaho	3.8	2.83	7.8 *	3.73	(3,1)
Illinois	3.7	2.49	-2.7	4.44	(2,0)
Indiana	3.6	2.98	-2.1	4.50	(2,0)
Iowa	0.3	3.37	2.7	4.15	(2,0)
Kansas	11.6 *	2.05	-6.1	4.02	(4,0)
Kentucky	-25.5 *	3.41	-0.4	4.56	(1,0)
Louisiana	-11.0 *	4.20	-14.7 *	5.33	(1,-1)
Maine	1.2	2.15	-4.5	3.91	(2,0)
Maryland	7.7 *	3.45	-12.7 *	4.74	(3,-1)
Massachusetts	11.2 *	2.53	-15.3 *	3.89	(4,-1)
Michigan	-17.9 *	3.83	2.7	5.51	(1,0)
Minnesota	6.9 *	2.36	5.2	3.12	(3,0)
Mississippi	-31.0 *	3.67	12.6 *	5.99	(1,1)
Missouri	-21.2 *	3.16	1.9	4.82	(1,0)
Montana	-4.0	2.41	1.3	3.97	(2,0)
Nebraska	-2.4	2.05	9.1 *	3.27	(2,1)
Nevada	11.1 *	2.37	-8.7 *	2.93	(4,-1)
New Hampshire	8.6 *	2.03	5.1 *	2.27	(3,1)
New Jersey	14.0 *	2.58	-8.0 *	3.78	(4,-1)
New Mexico	7.8 *	2.63	-10.1 *	3.28	(3,-1)
New York	-7.7 *	3.64	0.2	4.98	(1,0)
North Carolina	-8.2 *	2.77	15.6 *	3.48	(1,1)
North Dakota	-3.7	2.47	-11.3 *	4.24	(2,-1)
Ohio	-6.0	5.27	-5.7	5.87	(2,0)
Oklahoma	5.8	3.37	-0.4	4.44	(3,0)
Oregon	4.3	2.34	4.8	3.49	(3,0)
Pennsylvania	15.5 *	2.84	-3.2	3.98	(4,0)
Rhode Island	9.3 *	1.41	-0.3	1.93	(4,0)
South Carolina	-25.0 *	3.04	2.1	4.68	(1,0)
South Dakota	-2.8	2.63	6.3	4.36	(2,0)
Tennessee	9.2 *	2.36	-34.3 *	4.68	(4,-1)
Texas	-15.0 *	3.27	2.9	3.33	(1,0)
Utah	8.1 *	2.36	-6.8	4.06	(3,0)
Vermont	5.5 *	1.64	5.0	2.80	(3,0)
Virginia	-24.1 *	3.38	2.3	4.06	(1,0)
Washington	10.6 *	2.92	-6.4	4.43	(4,0)
West Virginia	-22.6 *	4.03	14.9 *	5.27	(1,1)
Wisconsin	2.1	3.12	0.6	5.03	(2,0)
Wyoming	11.3 *	1.61	-0.6	2.79	(4,0)

* Significantly different from zero ($p < .05$).

¹ The *composite index* (q,s) is the quartile of the *starting point*, q (from 1, the lowest, to 4, the highest), and statistical significance of the *change* score, s , where s is -1 if the change is negative and statistically significant, 1 if positive and statistically significant, and 0 if changes are not statistically different from zero ($p < .05$).

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP) 2003 and 2005 Reading Assessments.

Table B-9. Number of states in each composite index score category by estimation approach based on NAEP grades 4 and 8 mathematics assessments: 2003 and 2005

Starting Quartile	Grade 4						Grade 8					
	Nation-based			State-specific			Nation-based			State-specific		
	▼	=	▲	▼	=	▲	▼	=	▲	▼	=	▲
4 more inclusive	2	11	0	5	6	2	7	6	0	6	6	1
3	1	12	0	0	12	1	4	9	0	4	9	0
2	0	12	1	1	11	1	1	9	3	0	11	2
1 less inclusive	0	7	5	1	8	3	1	10	1	1	10	1
Overall	3	42	6	7	37	7	13	34	4	11	36	4

▲ Measure of change is positive and statistically significant indicating higher inclusion rates ($p < .05$).

= Measure of change is not statistically significant ($p < .05$).

▼ Measure of change is negative and statistically significant indicating lower inclusion rates ($p < .05$).

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP) 2003 and 2005 Mathematics Assessments.

Table B-10. Number of states in each composite index score category by estimation approach based on NAEP grades 4 and 8 reading assessments: 2003 and 2005

Starting Quartile	Grade 4						Grade 8					
	Nation-based			State-specific			Nation-based			State-specific		
	▼	=	▲	▼	=	▲	▼	=	▲	▼	=	▲
4 more inclusive	3	10	0	2	11	0	7	6	0	5	8	0
3	3	9	1	4	8	1	3	10	0	3	8	2
2	4	7	2	4	8	1	3	10	0	1	9	3
1 less inclusive	1	8	3	2	7	3	2	7	3	2	7	3
Overall	11	34	6	12	34	5	15	33	3	11	32	8

▲ Measure of change is positive and statistically significant indicating higher inclusion rates ($p < .05$).

= Measure of change is not statistically significant ($p < .05$).

▼ Measure of change is negative and statistically significant indicating lower inclusion rates ($p < .05$).

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP) 2003 and 2005 Reading Assessments.

APPENDIX C. RECENTERING MEASURES

State-level predicted inclusion rates and *distance above the predicted inclusion rate* measures are essentially based on average inclusion rates across the country.¹ Hence, under the procedures described in the methodology section, half the states will have positive *starting point* measures and half will have negative *starting point* measures. This applies to both the nation-based and state-specific approaches. Rather than report predicted inclusion rates and measures centered on the average, we explored for this report recentering all *distance above the predicted* measures and corresponding state-level predicted inclusion rates for presentation. Recentering involves adding a constant to all state-level predicted inclusion rates, and this corresponds to subtracting the same constant from all *distance above the predicted* measures. The motivation was a concern that predicted inclusion rates and *distance above the predicted* might be misinterpreted as normative and readers might interpret the results to say that states that are very inclusive should reduce their inclusion rates. Recentering would put almost all states below the predicted rate by increasing the predicted rate by a fixed amount for all states.

Recentering procedures were later abandoned because it was deemed to be an unnecessary precaution that not only confused readers but also detracted from the focus of the paper, which is the change analysis. The recentering had no effect on the change measure but was simply a means to provide an alternative presentation of the starting point measures. In this appendix we report on exploratory analysis on recentering results for presentation.

The constant that was chosen to use for recentering was the average of the five largest *distance above the predicted* measures in the initial period.² This average is used as an empirical reference point for rescaling state-level predicted inclusion rates and *distance above the predicted* measures. Although we focus on the average of the five largest *distance above the predicted* measures, it is possible to use a different constant to add to the predictions. We could also have use the 1 largest or, alternatively, the 10 largest *distance above the predicted* measures. Discussion below of the recentering method is based on using the 5 largest measures, but tables in this appendix present results for the 1 largest and 10 largest criteria as well.

The first step in recentering is to find the average of the 5 largest *distance above the predicted* measures:

$$Top5^0 = \frac{1}{5} \cdot \left(\sum_{s \in \{5 \text{ Maximum } DistAbovePredicted\}} DistAbovePredicted_s^0 \right)$$

Next, this constant is simply added to each state-level benchmark to recenter them.

$$RecenteredPredicted_s^0 = StateLevelPredicted_s^0 + Top5^0$$

$$RecenteredPredicted_s^1 = StateLevelPredicted_s^1 + Top5^0$$

1 The logistic regression using all observations from all states estimates the relationship between SD characteristics and the probability of inclusion. The resulting predicted probability for each combination of student characteristics is the student-type benchmark and equals the average probability of inclusion for students with those characteristics across the country. State-level benchmarks are aggregations of these averages weighted by the distribution of SD characteristics in the state.

2 Instead of the 5 largest scores, we could have instead used the top (1) largest score or the top 10 largest scores or some other similar variant of this.

Because the state-level predicted inclusion rates have been raised, the *distance above the predicted* measures corresponding to these new predictions are lowered by that same constant.

$$\begin{aligned}
 \text{RecenteredDistance}_s^y &= \text{Included}_s^y - \text{RecenteredPredicted}_s^y \\
 &= \text{Included}_s^y - (\text{StateLevelPredicted}_s^y + \text{Top5}^0) \\
 &= \text{DistAbovePredicted}_s^y - \text{Top5}^0
 \end{aligned}$$

Through substitution, we confirm that the recentered *distance above the predicted* inclusion rate is simply the *distance above the predicted* minus the average of the five largest initial-period states *distance above the predicted* measures.

It is important to reiterate that this recentering does not change the relative position of states in the *starting point* measure. We have simply subtracted a constant from all the *distance above the predicted* measures; hence, the percentage-point difference between and ranking of states will be unaffected. Similarly, the change measure is not affected in any way by the recentering; it is the same whether we use *distance above the predicted* or *recentered distance above the predicted* measures. This is confirmed by the equations below, which show that the change measure in the nation-based approach is equivalent using the unadjusted or recentered *distance above the benchmark* measures.

$$\begin{aligned}
 &\text{RecenteredDistance}_s^1 - \text{RecenteredDistance}_s^0 \\
 &= (\text{DistAbovePredicted}_s^1 - \text{Top5}^0) - (\text{DistAbovePredicted}_s^0 - \text{Top5}^0) \\
 &= (\text{DistAbovePredicted}_s^1 - \text{DistAbovePredicted}_s^0) - (\text{Top5}^0 - \text{Top5}^0) \\
 &= \text{DistAbovePredicted}_s^1 - \text{DistAbovePredicted}_s^0
 \end{aligned}$$

Table C-1. Benchmark percentages of students with disabilities in NAEP grade 4 mathematics assessments, estimated using nation-based approach and recentered to the top 1, 5, and 10 states: By state, 2005 and 2007

State	Unadjusted		Top 1		Top 5		Top 10	
	2005	2007	2005	2007	2005	2007	2005	2007
Alabama	79.7	83.0	91.4	94.7	89.3	92.6	88.2	91.5
Alaska	84.1	81.5	95.8	93.2	93.7	91.1	92.6	90.0
Arizona	82.7	82.0	94.4	93.7	92.4	91.6	91.2	90.5
Arkansas	78.1	77.8	89.7	89.5	87.7	87.4	86.5	86.3
California	83.6	83.1	95.3	94.8	93.2	92.8	92.1	91.6
Colorado	79.2	79.9	90.9	91.5	88.9	89.5	87.7	88.3
Connecticut	86.0	82.5	97.6	94.2	95.6	92.1	94.4	91.0
Delaware	80.1	78.2	91.8	89.9	89.8	87.8	88.6	86.7
District of Columbia	71.7	75.1	83.3	86.8	81.3	84.7	80.1	83.6
Florida	83.9	85.3	95.6	97.0	93.6	94.9	92.4	93.8
Georgia	84.1	83.5	95.8	95.2	93.7	93.1	92.6	92.0
Hawaii	79.5	81.0	91.2	92.6	89.2	90.6	88.0	89.4
Idaho	80.5	80.7	92.2	92.3	90.2	90.3	89.0	89.1
Illinois	81.9	83.1	93.5	94.8	91.5	92.8	90.3	91.6
Indiana	86.1	85.1	97.8	96.7	95.8	94.7	94.6	93.5
Iowa	85.0	82.9	96.7	94.6	94.7	92.6	93.5	91.4
Kansas	80.3	79.1	92.0	90.8	89.9	88.8	88.8	87.6
Kentucky	80.4	83.6	92.1	95.3	90.1	93.2	88.9	92.1
Louisiana	84.7	84.1	96.4	95.8	94.3	93.7	93.2	92.6
Maine	81.0	81.2	92.7	92.9	90.6	90.8	89.5	89.7
Maryland	81.7	81.3	93.4	93.0	91.4	90.9	90.2	89.8
Massachusetts	83.9	80.7	95.6	92.4	93.5	90.3	92.4	89.2
Michigan	78.4	81.2	90.1	92.9	88.0	90.8	86.9	89.7
Minnesota	82.4	80.9	94.1	92.6	92.0	90.5	90.9	89.4
Mississippi	87.1	87.4	98.8	99.1	96.7	97.1	95.6	95.9
Missouri	82.7	81.4	94.4	93.1	92.4	91.0	91.2	89.9
Montana	80.6	77.3	92.3	89.0	90.3	86.9	89.1	85.8
Nebraska	85.1	85.2	96.8	96.9	94.8	94.9	93.6	93.7
Nevada	83.3	82.3	95.0	94.0	93.0	92.0	91.8	90.8
New Hampshire	82.0	82.3	93.7	94.0	91.6	92.0	90.5	90.8
New Jersey	83.9	82.5	95.6	94.2	93.6	92.1	92.4	91.0
New Mexico	81.9	80.2	93.6	91.9	91.6	89.9	90.4	88.7
New York	83.2	85.2	94.9	96.9	92.8	94.8	91.7	93.7
North Carolina	83.7	84.6	95.4	96.2	93.3	94.2	92.2	93.0
North Dakota	84.9	81.9	96.6	93.6	94.5	91.6	93.4	90.4
Ohio	78.9	77.3	90.6	89.0	88.6	87.0	87.4	85.8
Oklahoma	78.5	79.9	90.2	91.6	88.1	89.6	87.0	88.4
Oregon	80.0	80.3	91.7	92.0	89.6	89.9	88.5	88.8
Pennsylvania	80.5	81.5	92.2	93.2	90.2	91.1	89.0	89.9
Rhode Island	84.6	84.0	96.3	95.7	94.3	93.6	93.1	92.5
South Carolina	83.4	85.7	95.1	97.4	93.0	95.3	91.9	94.2
South Dakota	86.1	85.2	97.8	96.9	95.7	94.9	94.6	93.7
Tennessee	73.3	73.3	85.0	85.0	82.9	82.9	81.8	81.8
Texas	82.5	82.8	94.1	94.4	92.1	92.4	90.9	91.2
Utah	81.8	82.0	93.5	93.7	91.4	91.7	90.3	90.5
Vermont	79.1	78.2	90.8	89.9	88.7	87.8	87.6	86.7
Virginia	82.4	82.8	94.1	94.4	92.0	92.4	90.9	91.2
Washington	78.1	80.5	89.8	92.2	87.7	90.1	86.6	89.0
West Virginia	84.3	87.4	96.0	99.1	94.0	97.0	92.8	95.9
Wisconsin	81.3	82.7	93.0	94.4	91.0	92.4	89.8	91.2
Wyoming	83.2	81.1	94.9	92.8	92.9	90.7	91.7	89.6

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP) 2005 and 2007 Mathematics Assessments.

Table C-2. Benchmark percentages of students with disabilities in NAEP grade 8 mathematics assessments, estimated using nation-based approach and recentered to the top 1, 5, and 10 states: By state, 2005 and 2007

State	Unadjusted		Top 1		Top 5		Top 10	
	2005	2007	2005	2007	2005	2007	2005	2007
Alabama	78.9	76.7	92.3	90.1	89.6	87.3	88.6	86.3
Alaska	78.0	72.3	91.4	85.7	88.7	83.0	87.7	82.0
Arizona	77.5	78.2	90.9	91.7	88.2	88.9	87.2	87.9
Arkansas	74.0	76.1	87.4	89.5	84.6	86.8	83.6	85.8
California	78.6	81.4	92.0	94.8	89.3	92.1	88.3	91.1
Colorado	77.6	77.6	91.0	91.0	88.3	88.3	87.3	87.3
Connecticut	80.9	81.3	94.3	94.7	91.6	91.9	90.6	90.9
Delaware	71.2	72.2	84.7	85.6	81.9	82.9	80.9	81.9
District of Columbia	70.5	69.9	83.9	83.3	81.1	80.6	80.1	79.6
Florida	78.6	80.8	92.0	94.2	89.2	91.5	88.2	90.5
Georgia	79.5	79.6	92.9	93.0	90.2	90.3	89.2	89.3
Hawaii	79.2	79.5	92.6	92.9	89.9	90.2	88.9	89.2
Idaho	76.2	76.8	89.6	90.2	86.9	87.5	85.9	86.5
Illinois	76.7	74.3	90.1	87.7	87.4	85.0	86.4	84.0
Indiana	77.3	77.5	90.7	90.9	88.0	88.2	87.0	87.2
Iowa	76.7	80.6	90.1	94.1	87.4	91.3	86.4	90.3
Kansas	73.4	72.1	86.8	85.5	84.0	82.8	83.0	81.8
Kentucky	76.0	72.7	89.4	86.1	86.7	83.4	85.7	82.4
Louisiana	75.1	74.9	88.5	88.3	85.8	85.6	84.8	84.6
Maine	73.7	77.0	87.1	90.4	84.4	87.7	83.4	86.7
Maryland	74.1	73.2	87.5	86.6	84.8	83.9	83.8	82.8
Massachusetts	76.3	73.2	89.7	86.6	87.0	83.9	86.0	82.9
Michigan	75.3	74.1	88.7	87.5	86.0	84.8	85.0	83.8
Minnesota	76.4	76.3	89.8	89.7	87.1	87.0	86.1	86.0
Mississippi	80.8	83.0	94.2	96.4	91.5	93.6	90.5	92.6
Missouri	73.0	73.2	86.4	86.6	83.7	83.9	82.7	82.9
Montana	77.8	74.8	91.2	88.2	88.4	85.5	87.4	84.5
Nebraska	81.3	81.9	94.7	95.3	92.0	92.6	91.0	91.6
Nevada	80.6	76.9	94.1	90.3	91.3	87.6	90.3	86.6
New Hampshire	78.4	80.0	91.8	93.4	89.0	90.6	88.0	89.6
New Jersey	79.5	78.5	92.9	91.9	90.2	89.2	89.2	88.2
New Mexico	78.2	76.3	91.6	89.7	88.9	87.0	87.9	86.0
New York	79.9	80.9	93.3	94.4	90.6	91.6	89.6	90.6
North Carolina	79.5	82.8	92.9	96.2	90.2	93.5	89.2	92.5
North Dakota	75.2	75.3	88.6	88.7	85.9	85.9	84.9	84.9
Ohio	70.8	67.6	84.3	81.0	81.5	78.2	80.5	77.2
Oklahoma	73.4	73.7	86.8	87.1	84.1	84.4	83.1	83.4
Oregon	73.6	76.4	87.1	89.8	84.3	87.1	83.3	86.1
Pennsylvania	75.9	78.0	89.3	91.4	86.6	88.7	85.6	87.7
Rhode Island	81.0	82.4	94.4	95.8	91.7	93.1	90.7	92.1
South Carolina	78.8	79.6	92.2	93.0	89.5	90.3	88.5	89.3
South Dakota	75.7	75.4	89.1	88.8	86.4	86.1	85.3	85.1
Tennessee	71.3	71.0	84.7	84.4	82.0	81.7	81.0	80.7
Texas	78.3	78.6	91.8	92.0	89.0	89.3	88.0	88.3
Utah	74.2	74.6	87.6	88.0	84.9	85.3	83.9	84.3
Vermont	75.8	74.3	89.2	87.7	86.5	85.0	85.5	84.0
Virginia	79.5	78.5	92.9	91.9	90.2	89.1	89.2	88.1
Washington	74.3	74.0	87.7	87.4	85.0	84.7	84.0	83.7
West Virginia	80.0	83.0	93.4	96.4	90.7	93.6	89.7	92.6
Wisconsin	72.1	74.2	85.5	87.6	82.8	84.9	81.8	83.9
Wyoming	78.8	79.4	92.2	92.8	89.5	90.0	88.5	89.0

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP) 2005 and 2007 Mathematics Assessments.

Table C-3. Benchmark percentages of students with disabilities in NAEP grade 4 reading assessments, estimated using nation-based approach and recentered to the top 1, 5, and 10 states: By state, 2005 and 2007

State	Unadjusted		Top 1		Top 5		Top 10	
	2005	2007	2005	2007	2005	2007	2005	2007
Alabama	65.3	71.6	88.0	94.2	84.1	90.4	81.9	88.1
Alaska	66.3	69.2	89.0	91.8	85.1	88.0	82.8	85.7
Arizona	66.2	70.7	88.8	93.4	85.0	89.5	82.7	87.2
Arkansas	60.0	67.2	82.6	89.9	78.8	86.0	76.5	83.7
California	71.8	73.7	94.5	96.4	90.6	92.5	88.3	90.3
Colorado	64.0	69.3	86.7	92.0	82.8	88.1	80.5	85.8
Connecticut	69.4	72.8	92.1	95.5	88.2	91.6	85.9	89.4
Delaware	59.3	58.5	81.9	81.1	78.1	77.3	75.8	75.0
District of Columbia	54.1	57.2	76.8	79.9	72.9	76.0	70.7	73.8
Florida	71.2	75.7	93.8	98.3	90.0	94.5	87.7	92.2
Georgia	62.9	65.9	85.6	88.5	81.7	84.7	79.5	82.4
Hawaii	68.5	68.8	91.2	91.5	87.3	87.6	85.1	85.3
Idaho	64.1	69.5	86.7	92.2	82.9	88.3	80.6	86.1
Illinois	64.4	70.9	87.0	93.6	83.2	89.7	80.9	87.4
Indiana	67.6	72.6	90.3	95.3	86.4	91.4	84.2	89.2
Iowa	60.2	65.9	82.8	88.5	79.0	84.7	76.7	82.4
Kansas	62.2	70.4	84.8	93.0	81.0	89.2	78.7	86.9
Kentucky	58.8	66.3	81.5	88.9	77.6	85.1	75.4	82.8
Louisiana	64.9	70.7	87.6	93.4	83.7	89.5	81.4	87.3
Maine	66.0	67.8	88.6	90.5	84.8	86.6	82.5	84.3
Maryland	67.3	66.4	89.9	89.1	86.1	85.2	83.8	83.0
Massachusetts	67.1	67.5	89.7	90.2	85.9	86.3	83.6	84.1
Michigan	61.9	67.6	84.6	90.2	80.7	86.4	78.5	84.1
Minnesota	70.6	72.9	93.3	95.6	89.4	91.7	87.2	89.5
Mississippi	74.5	76.6	97.2	99.3	93.3	95.4	91.1	93.2
Missouri	63.2	73.2	85.8	95.9	82.0	92.0	79.7	89.8
Montana	59.0	63.6	81.6	86.3	77.8	82.4	75.5	80.2
Nebraska	70.5	72.1	93.2	94.8	89.3	91.0	87.0	88.7
Nevada	64.2	69.2	86.9	91.9	83.0	88.0	80.7	85.7
New Hampshire	68.4	72.7	91.1	95.4	87.2	91.6	85.0	89.3
New Jersey	64.7	66.8	87.4	89.5	83.6	85.6	81.3	83.4
New Mexico	64.2	69.5	86.8	92.1	83.0	88.3	80.7	86.0
New York	68.8	71.1	91.4	93.7	87.6	89.9	85.3	87.6
North Carolina	69.1	74.0	91.7	96.7	87.9	92.8	85.6	90.6
North Dakota	67.1	65.7	89.8	88.3	85.9	84.5	83.6	82.2
Ohio	54.4	61.1	77.1	83.7	73.2	79.9	70.9	77.6
Oklahoma	63.9	67.6	86.6	90.3	82.7	86.4	80.4	84.2
Oregon	67.0	69.2	89.7	91.9	85.8	88.0	83.6	85.7
Pennsylvania	63.5	68.9	86.2	91.6	82.3	87.8	80.1	85.5
Rhode Island	70.1	72.8	92.8	95.5	89.0	91.6	86.7	89.3
South Carolina	70.0	72.5	92.7	95.2	88.8	91.3	86.5	89.1
South Dakota	65.1	71.1	87.8	93.8	83.9	89.9	81.6	87.7
Tennessee	53.6	58.7	76.2	81.4	72.4	77.5	70.1	75.2
Texas	72.7	71.3	95.3	93.9	91.5	90.1	89.2	87.8
Utah	66.0	68.5	88.6	91.2	84.8	87.3	82.5	85.0
Vermont	59.7	64.3	82.4	87.0	78.5	83.1	76.3	80.8
Virginia	59.7	70.0	82.4	92.7	78.5	88.8	76.2	86.6
Washington	63.3	68.5	86.0	91.2	82.1	87.3	79.9	85.1
West Virginia	69.4	74.7	92.0	97.3	88.2	93.5	85.9	91.2
Wisconsin	61.5	70.1	84.1	92.8	80.3	88.9	78.0	86.7
Wyoming	67.8	68.4	90.4	91.0	86.6	87.2	84.3	84.9

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP) 2005 and 2007 Reading Assessments.

Table C-4. Benchmark percentages of students with disabilities in NAEP grade 8 reading assessments, estimated using nation-based approach and recentered to the top 1, 5, and 10 states: By state, 2005 and 2007

State	Unadjusted		Top 1		Top 5		Top 10	
	2005	2007	2005	2007	2005	2007	2005	2007
Alabama	72.7	74.0	88.0	89.3	86.1	87.5	84.6	85.9
Alaska	72.8	72.5	88.0	87.8	86.2	86.0	84.6	84.4
Arizona	67.9	73.3	83.1	88.6	81.3	86.8	79.7	85.2
Arkansas	60.8	71.8	76.0	87.1	74.2	85.3	72.6	83.7
California	71.5	77.1	86.7	92.4	84.9	90.6	83.3	89.0
Colorado	68.3	74.9	83.6	90.2	81.8	88.4	80.2	86.8
Connecticut	75.4	75.7	90.6	90.9	88.8	89.1	87.2	87.5
Delaware	62.0	64.4	77.3	79.7	75.4	77.9	73.8	76.3
District of Columbia	62.6	59.6	77.9	74.9	76.0	73.1	74.5	71.5
Florida	72.3	77.9	87.6	93.2	85.7	91.4	84.2	89.8
Georgia	69.2	69.7	84.4	85.0	82.6	83.2	81.0	81.6
Hawaii	72.8	74.2	88.0	89.4	86.2	87.6	84.6	86.0
Idaho	70.4	74.9	85.7	90.2	83.9	88.4	82.3	86.8
Illinois	66.9	70.3	82.2	85.6	80.3	83.8	78.7	82.2
Indiana	70.4	72.4	85.7	87.7	83.9	85.9	82.3	84.3
Iowa	69.6	73.0	84.8	88.3	83.0	86.5	81.4	84.9
Kansas	64.3	71.6	79.6	86.9	77.7	85.1	76.1	83.5
Kentucky	60.7	63.5	76.0	78.8	74.2	77.0	72.6	75.4
Louisiana	67.0	74.5	82.3	89.8	80.5	88.0	78.9	86.4
Maine	67.3	72.0	82.5	87.2	80.7	85.4	79.1	83.8
Maryland	66.2	67.2	81.5	82.5	79.7	80.6	78.1	79.0
Massachusetts	70.3	71.9	85.6	87.1	83.7	85.3	82.2	83.7
Michigan	65.7	71.3	81.0	86.5	79.2	84.7	77.6	83.1
Minnesota	71.0	73.4	86.3	88.6	84.5	86.8	82.9	85.2
Mississippi	74.1	75.9	89.4	91.2	87.6	89.4	86.0	87.8
Missouri	62.7	73.8	77.9	89.0	76.1	87.2	74.5	85.6
Montana	66.4	71.5	81.7	86.8	79.9	85.0	78.3	83.4
Nebraska	67.5	74.7	82.8	90.0	80.9	88.2	79.4	86.6
Nevada	71.6	70.6	86.9	85.9	85.0	84.1	83.4	82.5
New Hampshire	73.8	76.8	89.1	92.1	87.3	90.2	85.7	88.7
New Jersey	72.6	71.7	87.8	87.0	86.0	85.1	84.4	83.6
New Mexico	70.5	73.0	85.8	88.2	84.0	86.4	82.4	84.8
New York	69.4	74.8	84.6	90.1	82.8	88.2	81.2	86.6
North Carolina	71.1	76.9	86.4	92.2	84.6	90.4	83.0	88.8
North Dakota	65.5	68.2	80.8	83.4	78.9	81.6	77.3	80.0
Ohio	63.9	63.1	79.2	78.3	77.4	76.5	75.8	74.9
Oklahoma	65.9	71.2	81.1	86.4	79.3	84.6	77.7	83.0
Oregon	68.0	70.7	83.2	86.0	81.4	84.2	79.8	82.6
Pennsylvania	69.0	73.8	84.2	89.0	82.4	87.2	80.8	85.6
Rhode Island	74.0	78.3	89.2	93.5	87.4	91.7	85.8	90.1
South Carolina	68.7	72.2	83.9	87.5	82.1	85.6	80.5	84.0
South Dakota	62.7	70.3	78.0	85.5	76.2	83.7	74.6	82.1
Tennessee	60.1	62.8	75.4	78.1	73.6	76.3	72.0	74.7
Texas	73.7	72.8	89.0	88.0	87.2	86.2	85.6	84.6
Utah	67.6	67.6	82.9	82.9	81.1	81.1	79.5	79.5
Vermont	69.3	73.9	84.5	89.2	82.7	87.4	81.1	85.8
Virginia	69.6	73.3	84.8	88.5	83.0	86.7	81.4	85.1
Washington	65.6	71.8	80.9	87.1	79.0	85.3	77.4	83.7
West Virginia	67.1	74.9	82.4	90.2	80.6	88.4	79.0	86.8
Wisconsin	63.6	66.4	78.9	81.7	77.1	79.9	75.5	78.3
Wyoming	71.3	68.9	86.6	84.2	84.8	82.4	83.2	80.8

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP) 2005 and 2007 Reading Assessments.

Table C-5. Distance above benchmark rate of students with disabilities in NAEP grade 4 mathematics assessments, estimated using nation-based approach and recentered to the top 1, 5, and 10 states: By state, 2005 and 2007

State	Unadjusted		Top 1		Top 5		Top 10	
	2005	2007	2005	2007	2005	2007	2005	2007
Alabama	9.9	5.4	-1.8	-6.3	0.3	-4.3	1.4	-3.1
Alaska	9.7	9.8	-2.0	-1.8	0.0	0.2	1.2	1.4
Arizona	-2.4	1.4	-14.1	-10.2	-12.0	-8.2	-10.9	-7.0
Arkansas	8.2	2.0	-3.5	-9.7	-1.4	-7.6	-0.3	-6.5
California	-2.6	0.8	-14.2	-10.9	-12.2	-8.9	-11.0	-7.7
Colorado	4.5	8.3	-7.2	-3.3	-5.1	-1.3	-4.0	-0.1
Connecticut	1.9	7.2	-9.8	-4.5	-7.7	-2.5	-6.6	-1.3
Delaware	-21.8	-5.1	-33.5	-16.7	-31.4	-14.7	-30.3	-13.5
District of Columbia	-3.9	-8.8	-15.6	-20.5	-13.6	-18.4	-12.4	-17.3
Florida	4.6	3.0	-7.1	-8.7	-5.0	-6.6	-3.9	-5.5
Georgia	3.8	0.0	-7.9	-11.7	-5.9	-9.6	-4.7	-8.5
Hawaii	5.7	9.5	-6.0	-2.1	-3.9	-0.1	-2.8	1.1
Idaho	11.7	5.7	0.0	-6.0	2.0	-4.0	3.2	-2.8
Illinois	4.6	-5.5	-7.1	-17.2	-5.0	-15.2	-3.8	-14.0
Indiana	5.6	0.6	-6.1	-11.1	-4.0	-9.0	-2.9	-7.9
Iowa	3.3	7.1	-8.4	-4.6	-6.4	-2.6	-5.2	-1.4
Kansas	5.5	-0.2	-6.2	-11.9	-4.2	-9.8	-3.0	-8.7
Kentucky	3.3	0.6	-8.4	-11.1	-6.4	-9.0	-5.2	-7.9
Louisiana	-0.9	3.7	-12.6	-8.0	-10.5	-5.9	-9.4	-4.8
Maine	2.0	2.5	-9.7	-9.2	-7.7	-7.2	-6.5	-6.0
Maryland	-2.3	-8.6	-14.0	-20.3	-12.0	-18.2	-10.8	-17.1
Massachusetts	0.0	-6.3	-11.7	-18.0	-9.7	-16.0	-8.5	-14.8
Michigan	-3.8	-5.1	-15.5	-16.8	-13.4	-14.7	-12.3	-13.6
Minnesota	4.0	5.0	-7.7	-6.7	-5.7	-4.6	-4.5	-3.5
Mississippi	-6.6	4.9	-18.3	-6.8	-16.3	-4.8	-15.1	-3.6
Missouri	4.5	-4.8	-7.2	-16.5	-5.2	-14.4	-4.0	-13.3
Montana	2.7	4.4	-8.9	-7.3	-6.9	-5.2	-5.7	-4.1
Nebraska	3.6	0.5	-8.1	-11.2	-6.0	-9.2	-4.9	-8.0
Nevada	-2.6	2.1	-14.3	-9.5	-12.2	-7.5	-11.1	-6.3
New Hampshire	8.3	6.4	-3.4	-5.3	-1.3	-3.2	-0.2	-2.1
New Jersey	3.8	5.5	-7.9	-6.2	-5.8	-4.2	-4.7	-3.0
New Mexico	7.4	3.0	-4.3	-8.7	-2.3	-6.7	-1.1	-5.5
New York	0.5	6.0	-11.2	-5.7	-9.1	-3.7	-8.0	-2.5
North Carolina	3.8	5.1	-7.9	-6.6	-5.8	-4.5	-4.7	-3.4
North Dakota	0.6	-5.6	-11.1	-17.3	-9.0	-15.3	-7.9	-14.1
Ohio	-5.9	-5.8	-17.6	-17.5	-15.5	-15.4	-14.4	-14.3
Oklahoma	0.3	-12.1	-11.4	-23.8	-9.3	-21.8	-8.2	-20.6
Oregon	-1.3	5.5	-13.0	-6.1	-10.9	-4.1	-9.8	-2.9
Pennsylvania	4.8	4.6	-6.9	-7.1	-4.9	-5.0	-3.7	-3.9
Rhode Island	3.3	7.0	-8.4	-4.7	-6.4	-2.7	-5.2	-1.5
South Carolina	-9.6	2.4	-21.3	-9.2	-19.3	-7.2	-18.1	-6.0
South Dakota	4.9	7.0	-6.8	-4.7	-4.7	-2.7	-3.6	-1.5
Tennessee	2.8	-13.9	-8.9	-25.6	-6.8	-23.5	-5.7	-22.4
Texas	-17.3	-19.9	-29.0	-31.6	-26.9	-29.6	-25.8	-28.4
Utah	6.8	2.4	-4.9	-9.3	-2.8	-7.3	-1.7	-6.1
Vermont	1.3	8.2	-10.4	-3.5	-8.3	-1.5	-7.2	-0.3
Virginia	-10.8	-8.7	-22.5	-20.4	-20.5	-18.3	-19.3	-17.2
Washington	7.3	5.3	-4.4	-6.4	-2.4	-4.4	-1.2	-3.2
West Virginia	4.1	4.2	-7.5	-7.5	-5.5	-5.4	-4.3	-4.3
Wisconsin	7.0	2.8	-4.7	-8.9	-2.6	-6.9	-1.5	-5.7
Wyoming	8.6	8.6	-3.1	-3.1	-1.1	-1.1	0.1	0.1

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP) 2005 and 2007 Mathematics Assessments.

Table C-6. Distance above benchmark rate of students with disabilities in NAEP grade 8 mathematics assessments, estimated using nation-based approach and recentered to the top 1, 5, and 10 states: By state, 2005 and 2007

State	Unadjusted		Top 1		Top 5		Top 10	
	2005	2007	2005	2007	2005	2007	2005	2007
Alabama	13.4	0.1	0.0	-13.3	2.7	-10.5	3.7	-9.5
Alaska	6.2	-9.2	-7.2	-22.6	-4.5	-19.9	-3.5	-18.9
Arizona	-6.1	-2.9	-19.5	-16.3	-16.8	-13.6	-15.8	-12.6
Arkansas	6.3	5.6	-7.1	-7.8	-4.4	-5.1	-3.4	-4.1
California	5.9	1.6	-7.6	-11.8	-4.8	-9.1	-3.8	-8.1
Colorado	6.3	9.6	-7.1	-3.8	-4.4	-1.1	-3.4	-0.1
Connecticut	2.9	9.4	-10.5	-4.0	-7.8	-1.2	-6.8	-0.2
Delaware	-37.1	-15.1	-50.5	-28.5	-47.8	-25.8	-46.8	-24.8
District of Columbia	0.7	-24.2	-12.7	-37.6	-9.9	-34.9	-8.9	-33.9
Florida	7.0	2.7	-6.4	-10.7	-3.7	-8.0	-2.7	-7.0
Georgia	2.5	-29.4	-10.9	-42.8	-8.2	-40.1	-7.2	-39.1
Hawaii	6.9	11.3	-6.5	-2.1	-3.8	0.7	-2.8	1.7
Idaho	10.1	9.7	-3.4	-3.7	-0.6	-1.0	0.4	0.1
Illinois	6.9	-8.7	-6.5	-22.1	-3.7	-19.4	-2.7	-18.4
Indiana	-0.8	-13.7	-14.2	-27.1	-11.5	-24.4	-10.5	-23.4
Iowa	7.1	3.6	-6.3	-9.8	-3.6	-7.1	-2.6	-6.1
Kansas	3.3	-2.6	-10.1	-16.0	-7.4	-13.3	-6.4	-12.3
Kentucky	-3.3	-21.1	-16.7	-34.5	-13.9	-31.8	-12.9	-30.8
Louisiana	-4.4	-0.8	-17.8	-14.2	-15.1	-11.5	-14.1	-10.5
Maine	1.4	-5.1	-12.0	-18.5	-9.2	-15.8	-8.2	-14.7
Maryland	-6.9	-34.9	-20.3	-48.3	-17.6	-45.5	-16.6	-44.5
Massachusetts	-7.7	-23.8	-21.1	-37.2	-18.4	-34.4	-17.4	-33.4
Michigan	-5.9	-4.9	-19.3	-18.3	-16.6	-15.6	-15.6	-14.6
Minnesota	9.1	7.1	-4.3	-6.3	-1.6	-3.5	-0.6	-2.5
Mississippi	-12.3	-4.5	-25.7	-17.9	-22.9	-15.2	-21.9	-14.2
Missouri	-0.5	-7.8	-13.9	-21.2	-11.2	-18.5	-10.2	-17.5
Montana	6.5	2.5	-7.0	-10.9	-4.2	-8.2	-3.2	-7.2
Nebraska	9.8	1.0	-3.6	-12.4	-0.9	-9.6	0.1	-8.6
Nevada	1.7	-3.1	-11.7	-16.5	-9.0	-13.8	-8.0	-12.8
New Hampshire	9.6	3.3	-3.8	-10.1	-1.1	-7.3	-0.1	-6.3
New Jersey	3.6	4.2	-9.8	-9.2	-7.1	-6.5	-6.1	-5.5
New Mexico	8.9	7.2	-4.5	-6.2	-1.8	-3.5	-0.8	-2.5
New York	1.3	-1.7	-12.1	-15.1	-9.3	-12.4	-8.3	-11.3
North Carolina	6.3	3.9	-7.1	-9.5	-4.4	-6.8	-3.4	-5.8
North Dakota	-1.2	-17.1	-14.6	-30.6	-11.8	-27.8	-10.8	-26.8
Ohio	-10.9	-14.0	-24.3	-27.4	-21.6	-24.6	-20.6	-23.6
Oklahoma	3.1	-28.8	-10.3	-42.2	-7.6	-39.5	-6.6	-38.5
Oregon	8.5	1.6	-4.9	-11.8	-2.2	-9.1	-1.2	-8.0
Pennsylvania	4.9	-0.1	-8.5	-13.5	-5.8	-10.8	-4.8	-9.8
Rhode Island	4.1	5.6	-9.3	-7.8	-6.6	-5.1	-5.6	-4.1
South Carolina	-19.5	-19.4	-32.9	-32.8	-30.2	-30.1	-29.2	-29.1
South Dakota	7.2	2.9	-6.2	-10.5	-3.5	-7.8	-2.5	-6.8
Tennessee	-2.6	-24.0	-16.0	-37.4	-13.3	-34.7	-12.3	-33.7
Texas	-17.3	-20.1	-30.7	-33.5	-28.0	-30.8	-27.0	-29.8
Utah	8.2	2.5	-5.2	-10.9	-2.5	-8.2	-1.5	-7.1
Vermont	3.3	3.7	-10.1	-9.7	-7.4	-7.0	-6.3	-6.0
Virginia	-8.6	-19.6	-22.0	-33.0	-19.2	-30.3	-18.2	-29.3
Washington	8.7	-0.9	-4.7	-14.3	-2.0	-11.6	-1.0	-10.6
West Virginia	3.0	5.9	-10.4	-7.5	-7.7	-4.8	-6.7	-3.8
Wisconsin	6.6	-0.5	-6.8	-14.0	-4.1	-11.2	-3.1	-10.2
Wyoming	10.6	5.3	-2.8	-8.1	-0.1	-5.3	0.9	-4.3

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP) 2005 and 2007 Mathematics Assessments.

Table C-7. Distance above benchmark rate of students with disabilities in NAEP grade 4 reading assessments, estimated using nation-based approach and recentered to the top 1, 5, and 10 states: By state, 2005 and 2007

State	Unadjusted		Top 1		Top 5		Top 10	
	2005	2007	2005	2007	2005	2007	2005	2007
Alabama	20.0	6.6	-2.6	-16.1	1.2	-12.2	3.5	-10.0
Alaska	18.2	11.7	-4.5	-11.0	-0.6	-7.1	1.7	-4.9
Arizona	0.5	4.1	-22.2	-18.5	-18.3	-14.7	-16.0	-12.4
Arkansas	-6.7	-12.2	-29.4	-34.9	-25.5	-31.0	-23.2	-28.7
California	3.1	3.6	-19.5	-19.1	-15.7	-15.2	-13.4	-12.9
Colorado	14.7	10.6	-8.0	-12.0	-4.1	-8.2	-1.9	-5.9
Connecticut	9.0	12.2	-13.6	-10.4	-9.8	-6.6	-7.5	-4.3
Delaware	-30.7	-12.4	-53.4	-35.1	-49.5	-31.2	-47.3	-29.0
District of Columbia	3.6	-28.6	-19.1	-51.3	-15.2	-47.4	-12.9	-45.2
Florida	4.8	1.7	-17.8	-21.0	-14.0	-17.1	-11.7	-14.9
Georgia	-3.3	-22.5	-25.9	-45.2	-22.1	-41.3	-19.8	-39.0
Hawaii	14.0	8.4	-8.7	-14.3	-4.8	-10.5	-2.5	-8.2
Idaho	8.2	7.6	-14.5	-15.0	-10.6	-11.2	-8.4	-8.9
Illinois	1.0	-3.3	-21.7	-26.0	-17.9	-22.2	-15.6	-19.9
Indiana	7.6	5.0	-15.1	-17.7	-11.2	-13.8	-8.9	-11.6
Iowa	5.0	5.3	-17.7	-17.3	-13.8	-13.5	-11.5	-11.2
Kansas	15.3	-8.0	-7.4	-30.6	-3.5	-26.8	-1.2	-24.5
Kentucky	-13.4	-13.1	-36.1	-35.8	-32.2	-31.9	-30.0	-29.7
Louisiana	-23.7	8.6	-46.4	-14.1	-42.5	-10.2	-40.3	-8.0
Maine	-0.2	1.7	-22.9	-21.0	-19.0	-17.2	-16.7	-14.9
Maryland	-3.9	-15.0	-26.6	-37.7	-22.7	-33.8	-20.5	-31.5
Massachusetts	0.2	4.5	-22.5	-18.1	-18.6	-14.3	-16.3	-12.0
Michigan	-9.7	0.6	-32.3	-22.0	-28.5	-18.2	-26.2	-15.9
Minnesota	13.9	4.1	-8.8	-18.5	-4.9	-14.7	-2.6	-12.4
Mississippi	-7.6	1.0	-30.3	-21.7	-26.4	-17.8	-24.1	-15.5
Missouri	-7.4	5.6	-30.1	-17.0	-26.2	-13.2	-24.0	-10.9
Montana	2.1	1.1	-20.5	-21.5	-16.7	-17.7	-14.4	-15.4
Nebraska	4.7	0.0	-18.0	-22.7	-14.2	-18.8	-11.9	-16.6
Nevada	-3.8	1.0	-26.4	-21.7	-22.6	-17.8	-20.3	-15.6
New Hampshire	14.6	7.0	-8.1	-15.6	-4.2	-11.8	-1.9	-9.5
New Jersey	9.0	-5.1	-13.6	-27.8	-9.8	-23.9	-7.5	-21.7
New Mexico	0.2	-15.2	-22.5	-37.9	-18.6	-34.0	-16.3	-31.8
New York	5.7	1.4	-16.9	-21.2	-13.1	-17.4	-10.8	-15.1
North Carolina	14.2	13.6	-8.5	-9.1	-4.6	-5.2	-2.4	-2.9
North Dakota	-2.4	-19.5	-25.0	-42.2	-21.2	-38.3	-18.9	-36.1
Ohio	-13.5	-10.4	-36.2	-33.1	-32.4	-29.2	-30.1	-26.9
Oklahoma	8.6	-8.9	-14.1	-31.5	-10.2	-27.7	-7.9	-25.4
Oregon	2.3	5.1	-20.3	-17.6	-16.5	-13.7	-14.2	-11.5
Pennsylvania	9.7	3.1	-12.9	-19.6	-9.1	-15.7	-6.8	-13.4
Rhode Island	17.9	10.1	-4.8	-12.6	-0.9	-8.7	1.3	-6.4
South Carolina	-8.9	1.2	-31.6	-21.4	-27.7	-17.6	-25.5	-15.3
South Dakota	6.3	-4.9	-16.4	-27.6	-12.5	-23.7	-10.2	-21.5
Tennessee	-15.2	-21.7	-37.9	-44.4	-34.0	-40.5	-31.7	-38.2
Texas	-14.2	-19.6	-36.9	-42.2	-33.0	-38.4	-30.7	-36.1
Utah	6.0	-5.7	-16.7	-28.3	-12.8	-24.5	-10.5	-22.2
Vermont	8.6	2.7	-14.0	-20.0	-10.2	-16.1	-7.9	-13.9
Virginia	-22.9	-14.5	-45.6	-37.2	-41.7	-33.3	-39.5	-31.1
Washington	13.5	4.0	-9.1	-18.7	-5.3	-14.8	-3.0	-12.5
West Virginia	-0.3	16.4	-22.9	-6.3	-19.1	-2.4	-16.8	-0.2
Wisconsin	10.2	2.3	-12.5	-20.4	-8.6	-16.5	-6.3	-14.2
Wyoming	22.7	10.3	0.0	-12.4	3.9	-8.6	6.1	-6.3

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP) 2005 and 2007 Reading Assessments.

Table C-8. Distance above benchmark rate of students with disabilities in NAEP grade 8 reading assessments, estimated using nation-based approach and recentered to the top 1, 5, and 10 states: By state, 2005 and 2007

State	Unadjusted		Top 1		Top 5		Top 10	
	2005	2007	2005	2007	2005	2007	2005	2007
Alabama	15.3	0.2	0.0	-15.1	1.8	-13.3	3.4	-11.7
Alaska	15.2	11.6	-0.1	-3.7	1.8	-1.8	3.3	-0.2
Arizona	5.5	-6.0	-9.8	-21.3	-8.0	-19.5	-6.4	-17.9
Arkansas	1.2	-9.7	-14.0	-25.0	-12.2	-23.2	-10.6	-21.6
California	8.7	3.2	-6.6	-12.0	-4.8	-10.2	-3.2	-8.6
Colorado	8.4	3.2	-6.8	-12.1	-5.0	-10.3	-3.4	-8.7
Connecticut	9.1	11.3	-6.2	-3.9	-4.4	-2.1	-2.8	-0.5
Delaware	-28.7	-1.8	-44.0	-17.1	-42.1	-15.3	-40.5	-13.7
District of Columbia	-0.5	-26.1	-15.8	-41.4	-14.0	-39.5	-12.4	-37.9
Florida	7.9	5.5	-7.4	-9.7	-5.6	-7.9	-4.0	-6.3
Georgia	-6.8	-24.8	-22.0	-40.0	-20.2	-38.2	-18.6	-36.6
Hawaii	9.6	13.4	-5.7	-1.8	-3.8	0.0	-2.2	1.6
Idaho	11.1	0.0	-4.2	-15.3	-2.4	-13.4	-0.8	-11.9
Illinois	5.6	2.1	-9.7	-13.2	-7.9	-11.3	-6.3	-9.7
Indiana	3.1	-1.5	-12.2	-16.8	-10.4	-14.9	-8.8	-13.3
Iowa	6.4	-1.3	-8.9	-16.6	-7.1	-14.8	-5.5	-13.2
Kansas	8.4	-5.8	-6.9	-21.0	-5.1	-19.2	-3.5	-17.6
Kentucky	-15.9	-21.1	-31.2	-36.3	-29.3	-34.5	-27.8	-32.9
Louisiana	-17.2	5.6	-32.5	-9.7	-30.7	-7.9	-29.1	-6.3
Maine	-1.4	-4.1	-16.7	-19.4	-14.8	-17.6	-13.2	-16.0
Maryland	2.8	-19.4	-12.4	-34.7	-10.6	-32.8	-9.0	-31.2
Massachusetts	-1.3	-3.2	-16.6	-18.4	-14.8	-16.6	-13.2	-15.0
Michigan	-9.7	-7.8	-25.0	-23.1	-23.1	-21.3	-21.5	-19.7
Minnesota	11.8	-0.2	-3.5	-15.4	-1.6	-13.6	-0.1	-12.0
Mississippi	-16.1	-12.7	-31.4	-27.9	-29.6	-26.1	-28.0	-24.5
Missouri	-13.2	2.4	-28.4	-12.9	-26.6	-11.1	-25.0	-9.5
Montana	0.2	-2.3	-15.1	-17.6	-13.3	-15.7	-11.7	-14.2
Nebraska	9.7	-0.9	-5.6	-16.2	-3.7	-14.4	-2.1	-12.8
Nevada	3.1	-1.1	-12.2	-16.4	-10.4	-14.6	-8.8	-13.0
New Hampshire	13.9	3.9	-1.4	-11.3	0.5	-9.5	2.1	-7.9
New Jersey	5.9	-7.0	-9.4	-22.3	-7.6	-20.5	-6.0	-18.9
New Mexico	-1.8	-12.5	-17.1	-27.7	-15.3	-25.9	-13.7	-24.3
New York	-4.1	-8.0	-19.4	-23.2	-17.6	-21.4	-16.0	-19.8
North Carolina	9.8	6.3	-5.5	-9.0	-3.7	-7.2	-2.1	-5.6
North Dakota	-9.6	-29.4	-24.8	-44.7	-23.0	-42.9	-21.4	-41.3
Ohio	-13.1	-12.2	-28.4	-27.4	-26.6	-25.6	-25.0	-24.0
Oklahoma	8.4	-11.8	-6.9	-27.1	-5.1	-25.3	-3.5	-23.7
Oregon	9.4	10.8	-5.9	-4.4	-4.0	-2.6	-2.4	-1.0
Pennsylvania	10.3	0.1	-4.9	-15.2	-3.1	-13.4	-1.5	-11.8
Rhode Island	10.6	7.0	-4.7	-8.2	-2.8	-6.4	-1.3	-4.8
South Carolina	-16.5	-15.0	-31.8	-30.3	-29.9	-28.5	-28.3	-26.9
South Dakota	10.3	-19.6	-5.0	-34.9	-3.2	-33.1	-1.6	-31.5
Tennessee	-16.7	-22.1	-32.0	-37.4	-30.2	-35.6	-28.6	-34.0
Texas	-10.6	-16.1	-25.8	-31.4	-24.0	-29.6	-22.4	-28.0
Utah	4.5	-6.4	-10.8	-21.7	-9.0	-19.9	-7.4	-18.3
Vermont	8.2	-0.2	-7.1	-15.5	-5.2	-13.6	-3.7	-12.0
Virginia	-14.7	-17.4	-29.9	-32.6	-28.1	-30.8	-26.5	-29.2
Washington	7.0	-4.3	-8.3	-19.6	-6.5	-17.8	-4.9	-16.2
West Virginia	-4.4	11.7	-19.6	-3.5	-17.8	-1.7	-16.2	-0.1
Wisconsin	4.7	-3.5	-10.6	-18.8	-8.8	-17.0	-7.2	-15.4
Wyoming	10.3	7.8	-5.0	-7.5	-3.1	-5.6	-1.5	-4.0

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP) 2005 and 2007 Reading Assessments.

Table C-9. Distance above benchmark rate of students with disabilities in NAEP grade 4 and 8 mathematics assessments, estimated using state-specific approach and recentered to the top 1, 5, and 10 states: By state, 2005

State	Grade 4				Grade 8			
	Distance above benchmark	Centered on			Distance above benchmark	Centered on		
		Top 1	Top 5	Top 10		Top 1	Top 5	Top 10
Alabama	7.5	-2.3	-0.3	1.0	11.9	0.0	2.5	3.6
Alaska	8.0	-1.8	0.2	1.5	4.3	-7.6	-5.2	-4.0
Arizona	-4.2	-14.1	-12.1	-10.8	-7.7	-19.6	-17.2	-16.0
Arkansas	5.7	-4.2	-2.1	-0.9	4.4	-7.5	-5.1	-3.9
California	-4.4	-14.3	-12.2	-11.0	4.6	-7.3	-4.9	-3.7
Colorado	2.8	-7.1	-5.0	-3.7	5.0	-6.9	-4.4	-3.3
Connecticut	0.2	-9.7	-7.6	-6.4	1.6	-10.3	-7.8	-6.7
Delaware	-23.5	-33.3	-31.3	-30.0	-39.8	-51.7	-49.3	-48.2
District of Columbia	-7.3	-17.2	-15.1	-13.9	-1.4	-13.3	-10.9	-9.7
Florida	3.1	-6.8	-4.7	-3.5	5.9	-6.0	-3.5	-2.4
Georgia	2.3	-7.6	-5.5	-4.3	1.2	-10.7	-8.3	-7.1
Hawaii	3.1	-6.8	-4.7	-3.5	5.6	-6.3	-3.8	-2.7
Idaho	9.9	0.0	2.1	3.3	9.0	-3.0	-0.5	0.6
Illinois	3.4	-6.5	-4.4	-3.2	5.8	-6.1	-3.6	-2.5
Indiana	4.9	-4.9	-2.9	-1.6	-1.9	-13.8	-11.4	-10.2
Iowa	2.4	-7.5	-5.4	-4.2	6.0	-5.9	-3.5	-2.3
Kansas	4.1	-5.7	-3.7	-2.4	1.7	-10.2	-7.7	-6.6
Kentucky	1.4	-8.5	-6.4	-5.1	-5.4	-17.3	-14.8	-13.7
Louisiana	-1.8	-11.6	-9.6	-8.3	-6.0	-17.9	-15.4	-14.3
Maine	-0.2	-10.1	-8.1	-6.8	-0.5	-12.5	-10.0	-8.9
Maryland	-4.4	-14.3	-12.2	-11.0	-9.1	-21.0	-18.5	-17.4
Massachusetts	-1.7	-11.6	-9.5	-8.3	-9.3	-21.2	-18.7	-17.6
Michigan	-5.9	-15.8	-13.7	-12.5	-8.2	-20.1	-17.6	-16.5
Minnesota	2.6	-7.3	-5.2	-3.9	7.8	-4.1	-1.6	-0.5
Mississippi	-8.1	-17.9	-15.9	-14.6	-13.5	-25.4	-23.0	-21.8
Missouri	2.6	-7.2	-5.2	-3.9	-2.6	-14.5	-12.0	-10.9
Montana	1.1	-8.8	-6.7	-5.4	4.9	-7.0	-4.6	-3.4
Nebraska	2.8	-7.1	-5.0	-3.7	8.9	-3.0	-0.5	0.6
Nevada	-4.8	-14.6	-12.6	-11.3	0.5	-11.4	-9.0	-7.8
New Hampshire	6.4	-3.4	-1.4	-0.1	8.1	-3.8	-1.3	-0.2
New Jersey	1.9	-8.0	-5.9	-4.7	1.9	-10.0	-7.5	-6.4
New Mexico	5.3	-4.6	-2.5	-1.3	7.5	-4.4	-1.9	-0.8
New York	-1.9	-11.8	-9.7	-8.5	0.0	-11.9	-9.4	-8.3
North Carolina	2.4	-7.5	-5.4	-4.2	4.7	-7.2	-4.7	-3.6
North Dakota	-0.9	-10.8	-8.7	-7.5	-2.9	-14.8	-12.3	-11.2
Ohio	-7.9	-17.7	-15.7	-14.4	-13.2	-25.1	-22.6	-21.5
Oklahoma	-1.6	-11.4	-9.4	-8.1	1.0	-10.9	-8.5	-7.3
Oregon	-3.1	-12.9	-10.9	-9.6	7.4	-4.5	-2.0	-0.9
Pennsylvania	3.2	-6.7	-4.6	-3.3	3.2	-8.7	-6.2	-5.1
Rhode Island	1.9	-8.0	-6.0	-4.7	3.1	-8.8	-6.3	-5.2
South Carolina	-10.9	-20.8	-18.7	-17.4	-20.8	-32.7	-30.3	-29.1
South Dakota	3.9	-5.9	-3.9	-2.6	5.8	-6.1	-3.6	-2.5
Tennessee	0.7	-9.2	-7.1	-5.9	-4.6	-16.6	-14.1	-13.0
Texas	-19.3	-29.1	-27.1	-25.8	-18.6	-30.5	-28.0	-26.9
Utah	5.2	-4.7	-2.6	-1.4	6.2	-5.7	-3.2	-2.1
Vermont	-1.0	-10.9	-8.8	-7.5	1.8	-10.1	-7.7	-6.5
Virginia	-12.4	-22.3	-20.2	-19.0	-10.2	-22.1	-19.7	-18.5
Washington	5.1	-4.8	-2.8	-1.5	6.9	-5.0	-2.6	-1.4
West Virginia	3.0	-6.9	-4.8	-3.6	2.0	-9.9	-7.5	-6.3
Wisconsin	5.2	-4.7	-2.6	-1.3	5.0	-6.9	-4.5	-3.3
Wyoming	7.2	-2.7	-0.7	0.6	9.3	-2.6	-0.1	1.0

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP) 2005 Mathematics Assessments.

Table C-10. Distance above benchmark rate of students with disabilities in NAEP grade 4 and 8 reading assessments, estimated using state-specific approach and recentered to the top 1, 5, and 10 states: By state, 2005

State	Grade 4				Grade 8			
	Distance above benchmark	Centered on			Distance above benchmark	Centered on		
		Top 1	Top 5	Top 10		Top 1	Top 5	Top 10
Alabama	18.8	-2.3	1.7	3.9	14.4	0.0	1.9	3.6
Alaska	16.4	-4.6	-0.7	1.6	14.4	0.0	2.0	3.6
Arizona	-1.5	-22.6	-18.6	-16.4	4.4	-10.0	-8.1	-6.4
Arkansas	-9.5	-30.6	-26.6	-24.4	-1.1	-15.4	-13.5	-11.8
California	1.4	-19.7	-15.7	-13.4	7.6	-6.8	-4.8	-3.2
Colorado	12.9	-8.2	-4.2	-1.9	7.0	-7.4	-5.4	-3.8
Connecticut	7.7	-13.4	-9.4	-7.2	8.1	-6.3	-4.3	-2.7
Delaware	-34.0	-55.1	-51.1	-48.8	-31.4	-45.8	-43.8	-42.2
District of Columbia	0.7	-20.4	-16.4	-14.2	-2.3	-16.7	-14.7	-13.1
Florida	3.2	-17.9	-13.9	-11.6	7.0	-7.4	-5.5	-3.8
Georgia	-6.1	-27.2	-23.2	-21.0	-8.6	-23.0	-21.1	-19.4
Hawaii	12.9	-8.2	-4.2	-2.0	8.9	-5.5	-3.6	-1.9
Idaho	6.1	-15.0	-11.0	-8.8	9.7	-4.7	-2.8	-1.1
Illinois	-1.0	-22.1	-18.1	-15.9	4.5	-9.9	-7.9	-6.3
Indiana	5.4	-15.7	-11.7	-9.4	1.8	-12.6	-10.6	-9.0
Iowa	2.5	-18.6	-14.6	-12.4	5.4	-9.0	-7.1	-5.4
Kansas	13.0	-8.1	-4.1	-1.9	6.5	-7.9	-5.9	-4.3
Kentucky	-17.0	-38.1	-34.1	-31.8	-18.9	-33.3	-31.3	-29.7
Louisiana	-27.1	-48.2	-44.2	-41.9	-19.6	-34.0	-32.1	-30.4
Maine	-2.9	-24.0	-20.0	-17.7	-3.4	-17.8	-15.8	-14.2
Maryland	-6.0	-27.1	-23.1	-20.9	0.8	-13.6	-11.7	-10.0
Massachusetts	-2.1	-23.1	-19.2	-16.9	-2.6	-17.0	-15.0	-13.4
Michigan	-12.5	-33.5	-29.6	-27.3	-11.6	-26.0	-24.1	-22.4
Minnesota	12.4	-8.7	-4.7	-2.5	10.5	-3.9	-1.9	-0.3
Mississippi	-9.0	-30.1	-26.1	-23.9	-16.9	-31.3	-29.3	-27.7
Missouri	-10.6	-31.7	-27.7	-25.4	-15.4	-29.8	-27.9	-26.2
Montana	-0.1	-21.2	-17.2	-15.0	-1.2	-15.6	-13.6	-12.0
Nebraska	2.6	-18.5	-14.5	-12.3	8.7	-5.7	-3.7	-2.1
Nevada	-6.0	-27.1	-23.1	-20.8	1.8	-12.6	-10.6	-9.0
New Hampshire	12.6	-8.5	-4.5	-2.3	12.9	-1.5	0.5	2.1
New Jersey	6.5	-14.6	-10.6	-8.3	4.6	-9.8	-7.8	-6.2
New Mexico	-2.0	-23.1	-19.1	-16.8	-2.8	-17.2	-15.2	-13.6
New York	3.8	-17.3	-13.3	-11.1	-5.3	-19.7	-17.7	-16.1
North Carolina	12.2	-8.9	-4.9	-2.6	8.4	-6.0	-4.0	-2.4
North Dakota	-4.8	-25.9	-21.9	-19.7	-11.6	-26.0	-24.0	-22.4
Ohio	-16.8	-37.9	-33.9	-31.7	-15.2	-29.6	-27.6	-26.0
Oklahoma	6.2	-14.9	-10.9	-8.7	7.0	-7.4	-5.4	-3.8
Oregon	0.4	-20.7	-16.7	-14.5	8.4	-6.0	-4.0	-2.4
Pennsylvania	7.4	-13.7	-9.7	-7.5	9.2	-5.2	-3.2	-1.6
Rhode Island	16.2	-4.9	-0.9	1.4	9.9	-4.5	-2.5	-0.9
South Carolina	-10.5	-31.6	-27.6	-25.3	-17.8	-32.2	-30.2	-28.6
South Dakota	3.8	-17.3	-13.3	-11.0	8.6	-5.8	-3.9	-2.2
Tennessee	-18.8	-39.9	-35.9	-33.6	-19.0	-33.4	-31.4	-29.8
Texas	-15.3	-36.3	-32.4	-30.1	-10.9	-25.3	-23.3	-21.7
Utah	4.1	-17.0	-13.0	-10.8	3.1	-11.3	-9.3	-7.7
Vermont	6.1	-15.0	-11.0	-8.8	6.9	-7.5	-5.5	-3.9
Virginia	-26.3	-47.4	-43.4	-41.2	-16.3	-30.7	-28.7	-27.1
Washington	11.4	-9.7	-5.7	-3.4	5.7	-8.6	-6.7	-5.0
West Virginia	-2.4	-23.5	-19.5	-17.2	-6.1	-20.5	-18.5	-16.9
Wisconsin	7.7	-13.4	-9.4	-7.1	3.3	-11.1	-9.2	-7.5
Wyoming	21.1	0.0	4.0	6.2	9.4	-5.0	-3.1	-1.4

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP) 2005 Reading Assessments.