Table S1.

*Descriptive Statistics of the National Assessment of Educational Progress 4th Grade Samples (Math) 2003 and 2015 (weighted).*

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| 　 | Alabama% | Arkansas% | Florida% | Georgia% | Louisiana% |
| 　 | 2003 | 2015 | 2003 | 2015 | 2003 | 2015 | 2003 | 2015 | 2003 | 2015 |
| Black | 31 | 31 | 21 | 19 | 21 | 20 | 37 | 33 | 42 | 38 |
| Hispanic | 15 | 17 | 20 | 25 | 34 | 41 | 20 | 25 | 20 | 18 |
| White | 54 | 53 | 59 | 56 | 45 | 40 | 43 | 42 | 38 | 43 |
| Male | 52 | 52 | 50 | 51 | 52 | 51 | 51 | 50 | 51 | 51 |
| Free/reduced price lunch | 57 | 61 | 56 | 66 | 50 | 62 | 52 | 68 | 68 | 68 |
| ELL | 1 | 2 | 3 | 8 | 9 | 10 | 4 | 5 | 2 | 3 |
| IEP | 10 | 11 | 13 | 11 | 17 | 13 | 11 | 12 | 19 | 11 |
| ***N*** | 52390 | 45510 | 28560 | 29490 | 165490 | 177470 | 64930 | 106630 | 47930 | 41550 |
|  | Mississippi% | North Carolina% | South Carolina% | Tennessee% | Texas% | Virginia% |
|  | 2003 | 2015 | 2003 | 2015 | 2003 | 2015 | 2003 | 2015 | 2003 | 2015 | 2003 | 2015 |
| Black | 48 | 41 | 29 | 23 | 36 | 30 | 24 | 23 | 12 | 14 | 22 | 22 |
| Hispanic | 15 | 17 | 17 | 28 | 17 | 19 | 16 | 17 | 53 | 56 | 20 | 24 |
| White | 37 | 42 | 54 | 49 | 47 | 51 | 62 | 60 | 36 | 30 | 58 | 54 |
| Male | 48 | 52 | 51 | 51 | 50 | 52 | 52 | 50 | 51 | 51 | 51 | 52 |
| Free/reduced price lunch | 72 | 73 | 45 | 60 | 54 | 63 | 42 | 57 | 56 | 65 | 33 | 44 |
| ELL | \* | 2 | 4 | 7 | 2 | 7 | 1 | 4 | 16 | 23 | 5 | 7 |
| IEP | 5 | 11 | 14 | 11 | 11 | 13 | 11 | 13 | 9 | 8 | 9 | 12 |
| ***N*** | 32580 | 33170 | 80660 | 98310 | 42050 | 49170 | 59490 | 64680 | 258960 | 317400 | 76450 | 77260 |

*Note:* Percentages or rates and races may not add to 100% because of rounding. ELL=English Language Learner; IEP=Individualized Education Program. \*=insufficient cell size.

Table S2

*Descriptive Statistics of the National Assessment of Educational Progress U.S., U.S. South, and non-U.S. South Samples (Math) 2003 and 2015 (weighted).*

|  |  |
| --- | --- |
|  | 2003 |
| 　 |  U.S.4th grade % |  Non-South 4th grade % |  South 4th grade % |  U.S.8th grade % |  Non-South 8th grade % |  South 8th grade % |
| Black | 15.3 | 11.1 | 24.2 | 16.3 | 11.4 | 26.4 |
| Hispanic | 31.9 | 32.6 | 30.4 | 24.6 | 24.9 | 24.1 |
| White | 52.8 | 56.3 | 45.5 | 59.1 | 63.7 | 49.5 |
| Male | 51.1 | 51.1 | 51.0 | 50.5 | 50.5 | 50.3 |
| Free or reduced-price lunch | 45.8 | 42.9 | 52.1 | 37.7 | 34.3 | 44.8 |
| ELL | 9.3 | 10.1 | 7.7 | 5.1 | 5.8 | 3.6 |
| IEP*N* | 11.32,946,040 | 11.12,006,550 | 11.7939,490 | 11.42,879,930 | 11.71,946,800 | 10.6933,130 |
|  | 2015 |
|  |  U.S. 44h grade % | Non-South 4th grade % | South 4th grade % | U.S. 8th grade % | Non-South8th grade % |  South8th grade % |
| Black | 14.8 | 11.0 | 22.5 | 14.5 | 10.7 | 21.9 |
| Hispanic | 36.1 | 36.3 | 35.6 | 34.0 | 33.8 | 34.3 |
| White | 49.1 | 52.7 | 41.9 | 51.5 | 55.6 | 43.7 |
| Male | 50.8 | 50.7 | 51.0 | 51.0 | 51.0 | 50.8 |
| Free or reduced-price lunch | 56.7 | 53.7 | 62.6 | 53.0 | 50.0 | 58.8 |
| ELL | 11.6 | 11.6 | 11.4 | 6.3 | 6.4 | 6.1 |
| IEP*N* | 13.73,110,890 | 13.72,070,270 | 13.71,040,620 | 12.73,056,140 | 13.22,010,140 | 11.91,046,000 |

*Note*: Percentages or rates and races may not add to 100% because of rounding. ELL=English Language Learner; IEP=Individualized Education Program. U.S. South aggregates NAEP samples from the following 11 U.S. States: Alabama, Arkansas, Florida, Georgia, Louisiana, Mississippi, North Carolina, South Carolina, Tennessee, Texas, and Virginia. Non South schools excluded DOD and U.S. territory school

Table S3.

*Descriptive Statistics of the National Assessment of Educational Progress 8th Grade Samples (Math) 2003 and 2015 (weighted), States in the U.S. South*

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| 　 | Alabama% | Arkansas% | Florida% | Georgia% | Louisiana% | Mississippi% |
| 　 | 2003 | 2015 | 2003 | 2015 | 2003 | 2015 | 2003 | 2015 | 2003 | 2015 | 2003 | 2015 |
| Black | 34 | 31 | 21 | 21 | 27 | 22 | 38 | 35 | 44 | 46 | 47 | 47 |
| Hispanic | 8 | 10 | 10 | 16 | 29 | 41 | 11 | 21 | 9 | 10 | 7 | 9 |
| White | 58 | 60 | 69 | 63 | 44 | 38 | 51 | 45 | 47 | 45 | 46 | 44 |
| Male | 51 | 50 | 53 | 51 | 50 | 51 | 50 | 50 | 49 | 50 | 49 | 50 |
| Free/reduced price lunch | 47 | 55 | 47 | 61 | 46 | 64 | 45 | 64 | 57 | 65 | 59 | 71 |
| ELL | 1 | 1 | 2 | 7 | 6 | 6 | 2 | 3 | 1 | 1 | \* | 1 |
| IEP | 11 | 9 | 13 | 11 | 12 | 13 | 10 | 11 | 12 | 17 | 4 | 10 |
| ***N*** | 51410 | 48050 | 30070 | 31680 | 143590 | 171660 | 95550 | 101900 | 40670 | 41330 | 31400 | 33130 |
|  | North Carolina% | South Carolina% | Tennessee% | Texas% | Virginia% |
|  | 2003 | 2015 | 2003 | 2015 | 2003 | 2015 | 2003 | 2015 | 2003 | 2015 |
| Black | 31 | 24 | 38 | 34 | 23 | 19 | 15 | 10 | 25 | 23 |
| Hispanic | 11 | 23 | 9 | 11 | 9 | 11 | 47 | 61 | 14 | 19 |
| White | 58 | 54 | 53 | 56 | 68 | 70 | 38 | 29 | 62 | 58 |
| Male | 50 | 51 | 51 | 51 | 50 | 52 | 50 | 51 | 50 | 51 |
| Free/reduced price lunch | 41 | 57 | 46 | 56 | 39 | 54 | 47 | 59 | 25 | 39 |
| ELL | 4 | 5 | 1 | 4 | 2 | 2 | 6 | 11 | 2 | 5 |
| IEP | 13 | 14 | 8 | 11 | 12 | 13 | 10 | 11 | 10 | 13 |
| *N* | 81100 | 99450 | 45640 | 46870 | 60180 | 64470 | 279130 | 332490 | 74380 | 749701 |

*Note:* Percentages or rates and races may not add to 100% because of rounding. ELL=English Language Learner; IEP=Individualized Education Program.

\*=insufficient cell size.

Table S4.

*Descriptive Statistics of the National Assessment of Educational Progress Samples (Math) 2015 (weighted) White.*

|  |  |
| --- | --- |
|  | 2015 |
| 　 |  U.S.White4th grade *n* (%)No IEP |  U.S.White4th grade *n* (%)IEP |  South White4th grade *n* (%)No IEP |  SouthWhite4th grade *n* (%)IEP |  U.S.White8th grade *n* (%)No IEP |  U.S.White8th grade *n* (%)IEP |  South White88h grade *n* (%)No IEP |  SouthWhite8th grade *n* (%)IEP |
| Male | 639,840 (49.2%) | 143,010 (50.9%) | 182,390 (41.6%) | 42,720 (45.7%) | 677,720 (51.9%) | 122,390 (48.5%) | 195,660 (43.6%) | 33,250 (40.5%) |
| Free or reduced-price lunch | 467,600 (31.3%) | 103,270 (38.5%) | 151,770 (27.4%) | 32,960 (34.0%) | 413,700 (30.1%) | 85,630 (35.0%) | 136,430 (25.8%) | 27,090 (31.4%) |
| ELL | 41,000 (13.2%)  | 5,730 (11.6%)  | 12,650 (12.1%) | 1,660 (11.1%) | 8,910 (5.7%)  | 2,250 (6.0%)  | 1,960 (3.6) | 420 (4.6%) |
| Mean Math Score/SD | 251.3 (119) | 227.0 (148) | 252.0 (137) | 229.3 (174) | 297.0 (145) | 257.4 (165) | 294.7 (177) | 256.8 (197) |
| N  | 1,309,980 (48.8%) | 216,910 (51.0%) | 372,160 (41.4%) | 63,840 (44.8%) | 1,386,660 (52.0%) | 187,880 (48.3%) | 406,290 (44.1%) | 50,940 (41.0%) |

*Note*: Percentages or rates and races may not add to 100% because of rounding. ELL=English Language Learner; IEP=Individualized Education Program. U.S. South aggregates NAEP samples from the following 11 U.S. States: Alabama, Arkansas, Florida, Georgia, Louisiana, Mississippi, North Carolina, South Carolina, Tennessee, Texas, and Virginia.

Table S5.

*Descriptive Statistics of the National Assessment of Educational Progress Samples (Math) 2015 (weighted) Black.*

|  |  |
| --- | --- |
|  | 2015 |
| 　 |  U.S.Black4th grade *n* (%)No IEP |  U.S.Black4th grade *n* (%)IEP |  South Black4th grade *n* (%)No IEP |  SouthBlack4th grade *n* (%)IEP |  U.S.Black8th grade *n* (%)No IEP |  U.S.Black8th grade *n* (%)IEP |  South Black8th grade *n* (%)No IEP |  SouthBlack8th grade *n* (%)IEP |
| Male | 190,410 (14.6%) | 46,470 (16.6%) | 96,570 (22.1%) | 22,250 (23.8%) | 183,680 (14.1%) | 46,470 (18.5%) | 98,050 (21.8%) | 21,840 (26.6%) |
| Free or reduced-price lunch | 306,260 (20.5%) | 57,610 (21.5%) | 161,670 (29.2%) | 28,650 (29.6%) | 288,850 (21.0%) | 56,280 (23.0%) | 155,810 (29.4%) | 27,490 (31.9%) |
| ELL | 17,800 (5.8%)  | 3,010 (6.1%)  | 5,600 (5.4%) | 910 (6.1%) | 8,630 (5.5%)  | 1,180 (3.4%)  | 2,750 (5.0%) | 480 (5.2%) |
| Mean Math Score/SD | 229.1 (116) | 205.5 (130) | 230.8 (123) | 209.1 (147) | 265.5 (138) | 231.1 (139) | 265.3 (144) | 231.2 (153) |
| N  | 391,190 (14.6%) | 70,700 (16.6%) | 199,880 (22.2%) | 34,290 (24.1%) | 373,580(14.0% ) | 70,180 (18.1%) | 196,490 (21.3%) | 33,030 (26.6%) |

*Note*: Percentages or rates and races may not add to 100% because of rounding. ELL=English Language Learner; IEP=Individualized Education Program. U.S. South aggregates NAEP samples from the following 11 U.S. States: Alabama, Arkansas, Florida, Georgia, Louisiana, Mississippi, North Carolina, South Carolina, Tennessee, Texas, and Virginia.

Table S6.

*Descriptive Statistics of the National Assessment of Educational Progress Samples (Math) 2015 (weighted) Hispanic.*

|  |  |
| --- | --- |
|  | 2015 |
| 　 |  U.S.Hispanic4th grade *n* (%)No IEP |  U.S.Hispanic4th grade *n* (%)IEP |  South Hispanic4th grade *n* (%)No IEP |  SouthHispanic4th grade *n* (%)IEP |  U.S.Hispanic8th grade *n* (%)No IEP |  U.S.Hispanic8th grade *n* (%)IEP |  South Hispanic88h grade *n* (%)No IEP |  SouthHispanic8th grade *n* (%)IEP |
| Male | 470,440 (36.2%) | 91,370 (32.5%) | 158,900 (36.3%) | 28,450 (30.4%) | 443,340 (34.0%) | 83,330 (33.0%) | 155,570 (34.6%) | 26,940 (32.8%) |
| Free or reduced-price lunch | 720,670 (48.2%) | 107,060 (40.0%) | 240,920 (43.5%) | 35,210 (36.4%) | 673,080 (48.9%) | 103,020 (42.1%) | 237,080 (44.8%) | 31,660 (36.7%) |
| ELL | 250,860 (81.0%)  | 40,880 (82.4%)  | 85,940 (82.5%) | 12,350 (82.8%) | 138,160 (88.7%)  | 34,120 (90.9%)  | 49,740 (91.4%) | 8,320 (90.2%) |
| Mean Math Score/SD | 235.3 (140) | 207.7 (157) | 241.5 (147) | 213.6 (149) | 274.3 (169) | 237.6 (166) | 277.6 (186) | 244.2 (184) |
| N  | 984,490 (36.7%) | 137,610 (32.4%) | 326,100 (36.3%) | 44,360 (31.1%) | 907,220 (34.0%) | 130,610 (33.6%) | 319,040 (34.6%) | 40,210 (32.4%) |

*Note*: Percentages or rates and races may not add to 100% because of rounding. ELL=English Language Learner; IEP=Individualized Education Program. U.S. South aggregates NAEP samples from the following 11 U.S. States: Alabama, Arkansas, Florida, Georgia, Louisiana, Mississippi, North Carolina, South Carolina, Tennessee, Texas, and Virginia

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Table S7.

*Descriptive Statistics of the National Assessment of Educational Progress Samples (Math) 2003 (weighted) White.*

|  |  |
| --- | --- |
|  | 2003 |
| 　 |  U.S.White4th grade *n* (%)No IEP |  U.S.White4th grade *n* (%)IEP |  South White4th grade *n* (%)No IEP |  SouthWhite4th grade *n* (%)IEP |  U.S.White8th grade *n* (%)No IEP |  U.S.White8th grade *n* (%)IEP |  South White88h grade *n* (%)No IEP |  SouthWhite8th grade *n* (%)IEP |
| Male | 685,870 (53.3%) | 117,570 (53.1%) | 189,030 (46.5%) | 32,310 (44.4%) | 737,090 (59.7%) | 120,430 (55.0%) | 200,470 (50.0%) | 31,870 (46.9%) |
| Free or reduced-price lunch | 345,170 (29.4%) | 66,280 (36.4%) | 108,020 (25.6%) | 19,440 (29.0%) | 285,070 (30.8%) | 58,350 (35.8%) | 88,530 (24.5%) | 16,160 (28.7%) |
| ELL | 26,120 (11.3%) | 8,060 (18.3%)  | 6,810 (11.7%) | 2,600 (18.8%) | 8,960 (8.0%)  | 5,210 (15.0%)  | 1,970 (8.3) | 1,490 (14.4%) |
| Mean Math Score/SD | 245.9 (97) | 223.0 (111) | 245.8 (116) | 225.8 (142) | 292.1 (129) | 254.7 (146) | 290.2 (158) | 255.0 (202) |
| N  | 1,383,680 (52.8%) | 174,180 (52.5%) | 379,860 (45.8%) | 47,340 (43.2%) | 1,527,020 (59.8%) | 176,130 (53.8%) | 416,400 (49.9%) | 45,560 (46.2%) |

*Note*: Percentages or rates and races may not add to 100% because of rounding. ELL=English Language Learner; IEP=Individualized Education Program. U.S. South aggregates NAEP samples from the following 11 U.S. States: Alabama, Arkansas, Florida, Georgia, Louisiana, Mississippi, North Carolina, South Carolina, Tennessee, Texas, and Virginia.

Table S8.

*Descriptive Statistics of the National Assessment of Educational Progress Samples (Math) 2003 (weighted) Blacks.*

|  |  |
| --- | --- |
|  | 2003 |
| 　 |  U.S.Black4th grade *n* (%)No IEP |  U.S.Black4th grade *n* (%)IEP |  South Black4th grade *n* (%)No IEP |  SouthBlack4th grade *n* (%)IEP |  U.S.Black8th grade *n* (%)No IEP |  U.S.Black8th grade *n* (%)IEP |  South Black8th grade *n* (%)No IEP |  SouthBlack8th grade *n* (%)IEP |
| Male | 193,130 (15.0%) | 35,270 (15.9%) | 93,990 (23.1%) | 18,840 (25.9%) | 198,180 (16.0%) | 36,980 (16.9%) | 104,080 (25.9%) | 17,950 (26.4%) |
| Free or reduced-price lunch | 296,490 (25.3%) | 42,620 (23.4%) | 150,660 (35.7%) | 23,440 (35.0%) | 271,400 (29.4%) | 42,280 (25.9%) | 150,360 (41.6%) | 20,200 (35.9%) |
| ELL | 7,740 (3.3%)  | 3,290 (7.5%)  | 2,060 (3.5%) | 1,370 (9.9%) | 3,120 (2.8%)  | 2,520 (7.3%)  | 1,670 (7.0%) | 1,280 (12.4%) |
| Mean Math Score/SD | 219.0 (94) | 199.3 (103) | 220.5 (95) | 201.6 (114) | 256.2 (136) | 219.0 (144) | 256.3 (139) | 219.1 (158) |
| N  | 398,100 (15.2%) | 52,580 (15.8%) | 198,660 (23.9%) | 28,180 (25.7%) | 413,580 (16.2%) | 55,760 (17.0%) | 220,900 (26.5%) | 25,780 (26.1%) |

*Note*: Percentages or rates and races may not add to 100% because of rounding. ELL=English Language Learner; IEP=Individualized Education Program. U.S. South aggregates NAEP samples from the following 11 U.S. States: Alabama, Arkansas, Florida, Georgia, Louisiana, Mississippi, North Carolina, South Carolina, Tennessee, Texas, and Virginia.

Table S9.

*Descriptive Statistics of the National Assessment of Educational Progress Samples (Math) 2003 (weighted) Hispanics.*

|  |  |
| --- | --- |
|  | 2003 |
| 　 |  U.S.Hispanic4th grade *n* (%)No IEP |  U.S.Hispanic4th grade *n* (%)IEP |  South Hispanic4th grade *n* (%)No IEP |  SouthHispanic4th grade *n* (%)IEP |  U.S.Hispanic8th grade *n* (%)No IEP |  U.S.Hispanic8th grade *n* (%)IEP |  South Hispanic88h grade *n* (%)No IEP |  SouthHispanic8th grade *n* (%)IEP |
| Male | 407,420 (31.7%) | 68,590 (31.0%) | 123,300 (30.4%) | 21,650 (29.7%) | 300,080 (24.3%) | 61,750 (28.2%) | 96,680 (24.1%) | 18,160 (26.7%) |
| Free or reduced-price lunch | 530,370 (45.2%) | 73,090 (40.2%) | 163,850 (38.8%) | 24,080 (36.0%) | 368,000 (39.8%) | 62,600 (38.4%) | 122,900 (34.0%) | 19,930 (35.4%) |
| ELL | 197,940 (85.4%)  | 32,720 (74.3%)  | 49,360 (84.8%) | 9,860 (71.3%) | 100,590 (89.3%)  | 26,960 (77.2%)  | 20,050 (84.6%) | 7,560 (73.2%) |
| Mean Math Score/SD | 227.3 (119) | 205.8 (123) | 231.4 (138) | 210.8 (150) | 265.6 (166) | 228.6 (159) | 270.6 (195) | 230.4 (205) |
| N  | 936,860 (32.0%) | 105,240 (31.7%) | 251,440 (30.3%) | 34,000 (31.0%) | 614,940 (24.1%) | 95,440 (29.2%) | 197,190 (23.6%) | 27,300 (27.7%) |

*Note*: Percentages or rates and races may not add to 100% because of rounding. ELL=English Language Learner; IEP=Individualized Education Program. U.S. South aggregates NAEP samples from the following 11 U.S. States: Alabama, Arkansas, Florida, Georgia, Louisiana, Mississippi, North Carolina, South Carolina, Tennessee, Texas, and Virginia

Table S10.

 *Descriptive Statistics for Specific Disability Conditions, U.S. South*

|  |  |  |  |
| --- | --- | --- | --- |
|  | 2015Math | 2013Math | 2003Math |
|  | 4th grade | 8th grade | 4th grade | 8th grade | 4th grade  | 8th grade  |
|   | % | % | % | % | % | % |
| IEP | 10.5 | 11.8 | 12.2 | 11.1 | 11.5 | 10.2 |
| Emotional Disturbance | 0.3 | 0.6 | 0.3 | 0.4 | 0.4 | 0.6 |
| Autism | 0.6 | 0.5 | 0.5 | 0.4 | 0.1 | 0.1 |
| Other Health Impairment | 3.0 | 2.7 | 2.4 | 2.3 | 0.7 | 0.6 |
| Specific Learning Disability | 5.8 | 6.8 | 5.1 | 5.9 | 4.7 | 5.6 |
| Speech Language Impairment | 3.4 | 1.0 | 3.2 | 0.9 | 2.2 | 0.3 |
| Intellectual Disability | 0.4 | 0.5 | 0.4 | 0.5 | 0.5 | 0.7 |
| ADHD | 2.3 | 1.9 | 1.6 | 1.6 | - | - |
| Other Disability Conditions | 0.4 | 0.3 | 0.4 | 0.3 | 0.2 | 0.2 |
| N | 29800 | 29790 | 39660 | 36210 | 37780 | 29420 |

*Note:* ADHD information is not available in 2003

Table S11.

*Logistic Regression Odds Ratio Coefficients, National Assessment of Educational Progress 4th Grade (Reading) Samples 2003 (IEP)*

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | Alabama | Arkansas | Florida | Georgia | Louisiana |
|  | Model 1 | Model 2 | Model 1 | Model 2 | Model 1 | Model 2 | Model 1 | Model 2 | Model 1 | Model 2 |
| Black | 1.07 | 0.35 \*\*\* | 1.10 | 0.32 \*\*\* | 1.41 \* | 0.64 \* | 0.73 | 0.43 \*\*\* | 1.38 \* | 0.45 \*\*\* |
| Hispanic | 1.85 \*\*\* | 0.47 \*\* | 2.00 \*\* | 0.55 \* | 0.96 | 0.50 \*\*\* | 1.41 \* | 0.66 \* | 1.62 \*\* | 0.44 \*\*\* |
| Reading composite score |  | 0.19 \*\*\* |  | 0.22 \*\*\* |  | 0.31 \*\*\* |  | 0.36 \*\*\* |  | 0.29 \*\*\* |
| Male |  | 1.63 \*\* |  | 1.45 \* |  | 1.78 \*\*\* |  | 1.79 \*\*\* |  | 1.80 \*\*\* |
| Free or reduced price lunch |  | 0.82 |  | 0.80 |  | 0.86 |  | 0.68 \* |  | 1.25 |
| English language learner |  | 4.39 + |  | 4.79 \* |  | 1.60 + |  | 2.18 + |  | 12.06 \*\*\* |
| School fixed effects |  | X |  | X |  | X |  | X |  | X |
|  | Mississippi | North Carolina | South Carolina | Tennessee | Texas | Virginia |
|  | Model 1 | Model 2 | Model 1 | Model 2 | Model 1 | Model 2 | Model 1 | Model 2 | Model 1 | Model 2 | Model 1 | Model 2 |
| Black | 0.45 \*\* | 0.23 \*\*\* | 1.00 | 0.46 \*\*\* | 0.86 | 0.44 \*\*\* | 0.72 + | 0.31 \*\*\* | 0.54 \* | 0.42 \*\* | 0.73 | 0.49 \*\* |
| Hispanic | 0.69 | 0.38 \*\* | 1.50 \* | 0.60 \* | 0.97 | 0.50 \*\*\* | 1.06 | 0.51 \*\* | 0.91 | 0.59 \*\* | 1.05 | 0.71 |
| Reading composite score |  | 0.50 \*\*\* |  | 0.35 \*\*\* |  | 0.45 \*\*\* |  | 0.37 \*\*\* |  | 0.47 \*\*\* |  | 0.49 \*\*\* |
| Male |  | 1.30 |  | 1.48 \*\* |  | 1.71 \*\*\* |  | 1.38 \* |  | 2.10 \*\*\* |  | 1.80 \*\*\* |
| Free or reduced price lunch |  | 1.20 |  | 0.85 |  | 1.08 |  | 1.06 |  | 0.56 \*\* |  | 0.73 |
| English language learner |  |  |  | 2.84 \*\* |  | 1.95 |  | 2.26 |  | 1.93 \* |  | 2.25 + |
| School fixed effects |  | X |  | X |  | X |  | X |  | X |  | X |

Table S12.

*Logistic Regression Odds Ratio Coefficients, National Assessment of Educational Progress 8th Grade (Math) Samples 2003 (IEP)*

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | Alabama | Arkansas | Florida | Georgia | Louisiana |
|  | Model 1 | Model 2 | Model 1 | Model 2 | Model 1 | Model 2 | Model 1 | Model 2 | Model 1 | Model 2 |
| Black | 1.02 | 0.16 \*\*\* | 1.30 | 0.17 \*\*\* | 0.98 | 0.23 \*\*\* | 1.13 | 0.28 \*\*\* | 1.17 | 0.29 \*\*\* |
| Hispanic | 2.40 \*\*\* | 0.34 \*\* | 1.58 \* | 0.35 \*\*\* | 1.23 | 0.57 \*\* | 1.33 | 0.33 \*\*\* | 1.60 + | 0.40 \*\* |
| Math composite score |  | 0.13 \*\*\* |  | 0.12 \*\*\* |  | 0.20 \*\*\* |  | 0.21 \*\*\* |  | 0.23 \*\*\* |
| Male |  | 2.32 \*\*\* |  | 3.04 \*\*\* |  | 3.67 \*\*\* |  | 4.53 \*\*\* |  | 2.37 \*\*\* |
| Free or reduced price lunch |  | 1.09 |  | 1.46 + |  | 0.73 + |  | 0.80 |  | 1.10 |
| English language learner |  | 1.27 |  | 0.81 |  | 0.73 |  | 1.91 |  | 8.61 \* |
| School fixed effects |  | X |  | X |  | X |  | X |  | X |
|  | Mississippi | North Carolina | South Carolina | Tennessee | Texas | Virginia |
|  | Model 1 | Model 2 | Model 1 | Model 2 | Model 1 | Model 2 | Model 1 | Model 2 | Model 1 | Model 2 | Model 1 | Model 2 |
| Black | 1.27 | 0.37 \*\* | 1.38 \* | 0.51 \*\*\* | 1.41 + | 0.44 \*\* | 1.08 | 0.39 \*\*\* | 0.90 | 0.18 \*\*\* | 0.91 | 0.33 \*\*\* |
| Hispanic | 1.69 | 0.47 | 1.34 | 0.36 \*\*\* | 1.91 \* | 0.67 | 1.55 \* | 0.57 + | 1.23 | 0.34 \*\*\* | 1.31 | 0.56 \* |
| Math composite score |  | 0.24 \*\*\* |  | 0.37 \*\*\* |  | 0.31 \*\*\* |  | 0.38 \*\*\* |  | 0.24 \*\*\* |  | 0.31 \*\*\* |
| Male |  | 3.54 \*\*\* |  | 2.81 \*\*\* |  | 1.68 \*\* |  | 2.08 \*\*\* |  | 2.39 \*\*\* |  | 3.76 \*\*\* |
| Free or reduced price lunch |  | 0.89 |  | 1.22 |  | 1.10 |  | 0.99 |  | 1.29 |  | 0.89 |
| English language learner |  |  |  | 2.08 + |  | 4.17 \* |  | 2.98 \* |  | 1.78 + |  | 5.48 \*\* |
| School fixed effects |  | X |  | X |  | X |  | X |  | X |  | X |

Table S13:

*Logistic Regression Odds Ratio Coefficients, National Assessment of Educational Progress 8th Grade (Reading) Samples 2003 (IEP)*

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | Alabama | Arkansas | Florida | Georgia | Louisiana |
|  | Model 1 | Model 2 | Model 1 | Model 2 | Model 1 | Model 2 | Model 1 | Model 2 | Model 1 | Model 2 |
| Black | 1.03 | 0.33 \*\*\* | 1.62 \* | 0.35 \*\*\* | 1.12 | 0.36 \*\*\* | 1.19 | 0.32 \*\*\* | 1.12 | 0.39 \*\*\* |
| Hispanic | 2.77 \*\*\* | 0.62 | 1.45 | 0.43 \*\* | 1.23 | 0.58 \*\* | 1.64 + | 0.34 \*\* | 2.21 \*\* | 0.53 + |
| Reading composite score |  | 0.18 \*\*\* |  | 0.21 \*\*\* |  | 0.27 \*\*\* |  | 0.18 \*\*\* |  | 0.27 \*\*\* |
| Male |  | 1.49 \* |  | 1.25 |  | 1.67 \*\*\* |  | 1.45 \* |  | 1.38 |
| Free or reduced price lunch |  | 0.91 |  | 1.23 |  | 1.06 |  | 0.76 |  |  |
| English language learner |  | 1.38 |  | 1.66 |  | 0.92 |  | 1.10 |  | 1.01 |
| School fixed effects |  | X |  | X |  | X |  | X |  | X |
|  | Mississippi | North Carolina | South Carolina | Tennessee | Texas | Virginia |
|  | Model 1 | Model 2 | Model 1 | Model 2 | Model 1 | Model 2 | Model 1 | Model 2 | Model 1 | Model 2 | Model 1 | Model 2 |
| Black | 0.79 | 0.19 \*\*\* | 1.22 | 0.67 \* | 1.07 | 0.47 \*\*\* | 0.96 | 0.53 \*\* | 0.89 | 0.31 \*\*\* | 0.80 | 0.34 \*\*\* |
| Hispanic | 1.51 | 0.28 \* | 1.18 | 0.35 \*\* | 1.10 | 0.38 \* | 1.63 \* | 0.53 \* | 1.09 | 0.35 \*\*\* | 1.56 \* | 0.71 |
| Reading composite score |  | 0.22 \*\*\* |  | 0.36 \*\*\* |  | 0.34 \*\*\* |  | 0.43 \*\*\* |  | 0.29 \*\*\* |  | 0.33 \*\*\* |
| Male |  | 1.71 + |  | 1.87 \*\*\* |  | 1.56 + |  | 1.22 |  | 1.22 |  | 1.49 \* |
| Free or reduced price lunch |  | 1.38 |  | 0.72 \* |  | 1.00 |  | 0.81 |  | 1.06 |  | 1.04 |
| English language learner |  |  |  | 5.72 \*\*\* |  |  |  | 5.63 \*\*\* |  | 1.97 \* |  | 3.57 \* |
| School fixed effects |  | X |  | X |  | X |  | X |  | X |  | X |

Table S14

*Logistic Regression Odds Ratio Coefficients, National Assessment of Educational Progress 4th Grade (Math) Samples 2013 (IEP)*

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | Alabama | Arkansas | Florida | Georgia | Louisiana |
|  | Model 1 | Model 2 | Model 1 | Model 2 | Model 1 | Model 2 | Model 1 | Model 2 | Model 1 | Model 2 |
| Black | 0.89 | 0.28 \*\*\* | 1.15 | 0.46 \*\*\* | 1.10 | 0.61 \*\* | 0.68 \* | 0.32 \*\*\* | 1.19 | 0.58 \*\* |
| Hispanic | 0.90 | 0.31 \*\*\* | 1.21 | 0.62 \* | 0.74 \* | 0.56 \*\*\* | 0.75 | 0.34 \*\*\* | 1.17 | 0.57 \*\* |
| Math composite score |  | 0.30 \*\*\* |  | 0.36 \*\*\* |  | 0.43 \*\*\* |  | 0.29 \*\*\* |  | 0.38 \*\*\* |
| Male |  | 2.30 \*\*\* |  | 2.36 \*\*\* |  | 2.59 \*\*\* |  | 2.03 \*\*\* |  | 2.24 \*\*\* |
| Free or reduced price lunch |  | 1.19 |  | 1.23 |  | 0.86 |  | 0.61 \* |  | 1.05 |
| English language learner |  | 0.64 |  | 0.98 |  | 0.51 \*\* |  | 1.70 |  | 1.47 |
| School fixed effects |  | X |  | X |  | X |  | X |  | X |
|  | Mississippi | North Carolina | South Carolina | Tennessee | Texas | Virginia |
|  | Model 1 | Model 2 | Model 1 | Model 2 | Model 1 | Model 2 | Model 1 | Model 2 | Model 1 | Model 2 | Model 1 | Model 2 |
| Black | 0.71 \* | 0.34 \*\*\* | 1.23 | 0.47 \*\*\* | 1.30 + | 0.50 \*\*\* | 1.19 | 0.46 \*\*\* | 0.81 | 0.37 \*\*\* | 0.88 | 0.43 \*\*\* |
| Hispanic | 0.73 | 0.33 \*\*\* | 1.11 | 0.38 \*\*\* | 1.85 \*\*\* | 0.87 | 1.47 \* | 0.75 | 0.74 \* | 0.53 \*\*\* | 1.24 | 0.69 \* |
| Math composite score |  | 0.41 \*\*\* |  | 0.33 \*\*\* |  | 0.30 \*\*\* |  | 0.30 \*\*\* |  | 0.30 \*\*\* |  | 0.37 \*\*\* |
| Male |  | 2.22 \*\*\* |  | 2.50 \*\*\* |  | 1.96 \*\*\* |  | 2.00 \*\*\* |  | 2.13 \*\*\* |  | 2.49 \*\*\* |
| Free or reduced price lunch |  | 0.96 |  | 1.24 |  | 0.98 |  | 0.86 |  | 0.66 \* |  | 0.77 + |
| English language learner |  | 2.22 |  | 2.04 \*\* |  | 0.47 \* |  | 0.98 |  | 0.43 \*\*\* |  | 1.47 |
| School fixed effects |  | X |  | X |  | X |  | X |  | X |  | X |

Table S15.

*Logistic Regression Odds Ratio Coefficients, National Assessment of Educational Progress 4th Grade (Reading) Samples 2013 (IEP)*

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | Alabama | Arkansas | Florida | Georgia | Louisiana |
|  | Model 1 | Model 2 | Model 1 | Model 2 | Model 1 | Model 2 | Model 1 | Model 2 | Model 1 | Model 2 |
| Black | 0.91 | 0.32 \*\*\* | 1.40 \* | 0.52 \*\* | 0.83 | 0.43 \*\*\* | 0.87 | 0.52 \*\* | 1.21 | 0.53 \*\*\* |
| Hispanic | 1.07 | 0.40 \*\*\* | 1.16 | 0.61 \* | 0.70 \*\* | 0.56 \*\*\* | 1.01 | 0.59 \* | 1.49 \* | 0.65 \* |
| Reading composite score |  | 0.20 \*\*\* |  | 0.24 \*\*\* |  | 0.35 \*\*\* |  | 0.35 \*\*\* |  | 0.24 \*\*\* |
| Male |  | 1.26 |  | 1.92 \*\*\* |  | 1.67 \*\*\* |  | 1.63 \*\* |  | 1.69 \*\*\* |
| Free or reduced price lunch |  | 0.65 + |  | 1.10 |  | 0.72 \*\* |  | 0.57 \*\* |  | 0.86 |
| English language learner |  | 0.25 \* |  | 0.33 \*\*\* |  | 0.50 \*\*\* |  | 1.00 |  | 0.25 + |
| School fixed effects |  | X |  | X |  | X |  | X |  | X |
|  | Mississippi | North Carolina | South Carolina | Tennessee | Texas | Virginia |
|  | Model 1 | Model 2 | Model 1 | Model 2 | Model 1 | Model 2 | Model 1 | Model 2 | Model 1 | Model 2 | Model 1 | Model 2 |
| Black | 0.80 | 0.32 \*\*\* | 1.05 | 0.49 \*\*\* | 1.19 | 0.41 \*\*\* | 0.79 | 0.26 \*\*\* | 0.84 | 0.48 \*\*\* | 1.42 \* | 0.58 \*\* |
| Hispanic | 0.87 | 0.28 \*\*\* | 1.16 | 0.52 \*\*\* | 1.03 | 0.52 \*\* | 1.07 | 0.45 \*\*\* | 0.72 \* | 0.55 \*\* | 1.13 | 0.47 \*\*\* |
| Reading composite score |  | 0.29 \*\*\* |  | 0.25 \*\*\* |  | 0.18 \*\*\* |  | 0.18 \*\*\* |  | 0.23 \*\*\* |  | 0.24 \*\*\* |
| Male |  | 1.81 \*\*\* |  | 1.59 \*\*\* |  | 1.64 \*\*\* |  | 2.12 \*\*\* |  | 1.29 + |  | 1.58 \*\* |
| Free or reduced price lunch |  | 1.09 |  | 0.83 |  | 0.85 |  | 0.59 \*\* |  | 0.56 \*\*\* |  | 0.83 |
| English language learner |  | 0.56 |  | 0.70 |  | 0.10 \*\*\* |  | 0.31 \*\* |  | 0.28 \*\*\* |  | 0.72 |
| School fixed effects |  | X |  | X |  | X |  | X |  | X |  | X |

Table S16.

*Logistic Regression Odds Ratio Coefficients, National Assessment of Educational Progress 8th Grade (Math) Samples 2013 (IEP)*

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | Alabama | Arkansas | Florida | Georgia | Louisiana |
|  | Model 1 | Model 2 | Model 1 | Model 2 | Model 1 | Model 2 | Model 1 | Model 2 | Model 1 | Model 2 |
| Black | 1.67 \*\* | 0.39 \*\*\* | 1.28 | 0.32 \*\*\* | 0.87 | 0.32 \*\*\* | 1.16 | 0.40 \*\*\* | 1.78 \*\*\* | 0.61 \* |
| Hispanic | 1.25 | 0.42 \* | 1.35 | 0.80 | 1.02 | 0.59 \*\*\* | 1.38 + | 0.72 | 1.51 + | 0.67 |
| Math composite score |  | 0.16 \*\*\* |  | 0.23 \*\*\* |  | 0.32 \*\*\* |  | 0.23 \*\*\* |  | 0.23 \*\*\* |
| Male |  | 1.49 \* |  | 2.93 \*\*\* |  | 2.08 \*\*\* |  | 1.92 \*\*\* |  | 2.40 \*\*\* |
| Free or reduced price lunch |  | 0.90 |  | 1.16 |  | 1.28 |  | 0.79 |  | 1.05 |
| English language learner |  | 0.30 |  | 0.69 |  | 0.30 \*\*\* |  | 0.66 |  | 0.44 |
| School fixed effects |  | X |  | X |  | X |  | X |  | X |
|  | Mississippi | North Carolina | South Carolina | Tennessee | Texas | Virginia |
|  | Model 1 | Model 2 | Model 1 | Model 2 | Model 1 | Model 2 | Model 1 | Model 2 | Model 1 | Model 2 | Model 1 | Model 2 |
| Black | 1.22 | 0.31 \*\*\* | 1.54 \*\* | 0.54 \*\*\* | 1.24 | 0.32 \*\*\* | 1.37 + | 0.40 \*\*\* | 1.78 \*\* | 0.58 \* | 1.38 + | 0.40 \*\*\* |
| Hispanic | 1.31 | 0.49 \* | 1.07 | 0.44 \*\*\* | 1.51 + | 0.55 \* | 1.45 + | 0.59 + | 0.92 | 0.44 \*\*\* | 1.32 | 0.55 \*\* |
| Math composite score |  | 0.23 \*\*\* |  | 0.22 \*\*\* |  | 0.19 \*\*\* |  | 0.19 \*\*\* |  | 0.19 \*\*\* |  | 0.22 \*\*\* |
| Male |  | 1.93 \*\*\* |  | 2.00 \*\*\* |  | 2.97 \*\*\* |  | 2.06 \*\*\* |  | 1.84 \*\*\* |  | 2.21 \*\*\* |
| Free or reduced price lunch |  | 1.09 |  | 1.08 |  | 1.12 |  | 0.70 + |  | 0.61 \*\* |  | 1.03 |
| English language learner |  | 1.80 |  | 1.32 |  | 0.61 |  | 0.91 |  | 0.58 + |  | 1.18 |
| School fixed effects |  | X |  | X |  | X |  | X |  | X |  | X |

Table S17:

*Logistic Regression Odds Ratio Coefficients, National Assessment of Educational Progress 4th Grade (Reading) Samples 2015 (IEP)*

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | Alabama | Arkansas | Florida | Georgia | Louisiana |
|  | Model 1 | Model 2 | Model 1 | Model 2 | Model 1 | Model 2 | Model 1 | Model 2 | Model 1 | Model 2 |
| Black | 0.85 | 0.39 \*\*\* | 0.68 \* | 0.32 \*\*\* | 0.84 | 0.45 \*\*\* | 0.69 + | 0.47 \*\*\* | 1.45 \* | 0.78 |
| Hispanic | 1.00 | 0.38 \*\* | 0.74 + | 0.56 \* | 0.73 \* | 0.50 \*\*\* | 0.82 | 0.57 \*\* | 1.18 | 0.62 \* |
| Reading composite score |  | 0.27 \*\*\* |  | 0.28 \*\*\* |  | 0.37 \*\*\* |  | 0.33 \*\*\* |  | 0.28 \*\*\* |
| Male |  | 2.00 \*\*\* |  | 1.73 \*\* |  | 1.70 \*\*\* |  | 1.80 \*\*\* |  | 1.37 \* |
| Free or reduced price lunch |  | 0.73 |  | 0.81 |  | 0.85 |  | 0.41 \*\*\* |  | 0.73 + |
| English language learner |  | 0.63 |  | 0.48 + |  | 0.58 \*\* |  | 0.57 |  | 0.08 \*\*\* |
| School fixed effects |  | X |  | X |  | X |  | X |  | X |
|  | Mississippi | North Carolina | South Carolina | Tennessee | Texas | Virginia |
|  | Model 1 | Model 2 | Model 1 | Model 2 | Model 1 | Model 2 | Model 1 | Model 2 | Model 1 | Model 2 | Model 1 | Model 2 |
| Black | 0.83 | 0.38 \*\*\* | 0.82 | 0.26 \*\*\* | 1.19 | 0.46 \*\*\* | 0.87 | 0.35 \*\*\* | 1.34 | 0.70 | 1.31 | 0.62 \* |
| Hispanic | 0.84 | 0.37 \*\*\* | 0.68 \* | 0.26 \*\*\* | 1.31 | 0.57 \* | 1.15 | 0.51 \* | 0.74 + | 0.66 \* | 1.00 | 0.60 \* |
| Reading composite score |  | 0.30 \*\*\* |  | 0.19 \*\*\* |  | 0.15 \*\*\* |  | 0.23 \*\*\* |  | 0.25 \*\*\* |  | 0.25 \*\*\* |
| Male |  | 1.68 \*\* |  | 2.15 \*\*\* |  | 1.93 \*\*\* |  | 1.28 |  | 1.64 \*\* |  | 1.74 \*\*\* |
| Free or reduced price lunch |  | 0.90 |  | 0.98 |  | 0.52 \*\* |  | 0.77 |  | 0.59 \*\* |  | 0.59 \*\* |
| English language learner |  | 0.57 |  | 0.32 \*\*\* |  | 0.23 \*\* |  | 0.34 + |  | 0.27 \*\*\* |  | 0.67 |
| School fixed effects |  | X |  | X |  | X |  | X |  | X |  | X |

Table S18:

*Logistic Regression Odds Ratio Coefficients, National Assessment of Educational Progress 8th Grade (Math) Samples 2015 (IEP).*

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | Alabama | Arkansas | Florida | Georgia | Louisiana |
|  | Model 1 | Model 2 | Model 1 | Model 2 | Model 1 | Model 2 | Model 1 | Model 2 | Model 1 | Model 2 |
| Black | 1.69 \*\* | 0.43 \*\* | 1.14 | 0.28 \*\*\* | 1.02 | 0.45 \*\*\* | 1.07 | 0.40 \*\*\* | 1.52 \* | 0.56 \* |
| Hispanic | 1.69 + | 0.71 | 0.88 | 0.47 \*\* | 1.06 | 0.76 | 0.98 | 0.42 \*\* | 0.84 | 0.39 \*\* |
| Math composite score |  | 0.16 \*\*\* |  | 0.19 \*\*\* |  | 0.34 \*\*\* |  | 0.21 \*\*\* |  | 0.26 \*\*\* |
| Male |  | 2.01 \*\*\* |  | 2.64 \*\*\* |  | 2.22 \*\*\* |  | 2.69 \*\*\* |  | 2.12 \*\*\* |
| Free or reduced price lunch |  | 0.71 |  | 0.83 |  | 1.04 |  | 0.82 |  | 0.95 |
| English language learner |  | 0.48 |  | 0.60 |  | 0.33 \*\*\* |  | 0.67 |  | 0.67 |
| School fixed effects |  | X |  | X |  | X |  | X |  | X |
|  | Mississippi | North Carolina | South Carolina | Tennessee | Texas | Virginia |
|  | Model 1 | Model 2 | Model 1 | Model 2 | Model 1 | Model 2 | Model 1 | Model 2 | Model 1 | Model 2 | Model 1 | Model 2 |
| Black | 0.85 | 0.19 \*\*\* | 1.77 \*\*\* | 0.62 \* | 1.65 \*\* | 0.40 \*\*\* | 1.46 + | 0.42 \*\*\* | 1.47 + | 0.36 \*\* | 1.57 \* | 0.66 \* |
| Hispanic | 2.46 \*\*\* | 0.56 + | 1.34 + | 0.59 \* | 1.44 | 0.53 + | 0.96 | 0.60 + | 0.86 | 0.36 \*\*\* | 1.61 \* | 0.85 |
| Math composite score |  | 0.15 \*\*\* |  | 0.23 \*\*\* |  | 0.17 \*\*\* |  | 0.22 \*\*\* |  | 0.21 \*\*\* |  | 0.29 \*\*\* |
| Male |  | 2.13 \*\*\* |  | 1.90 \*\*\* |  | 2.14 \*\*\* |  | 1.92 \*\*\* |  | 2.23 \*\*\* |  | 1.99 \*\*\* |
| Free or reduced price lunch |  | 1.02 |  | 0.87 |  | 1.06 |  | 0.74 |  | 1.21 |  | 0.79 |
| English language learner |  | 0.30 |  | 1.16 |  | 0.86 |  | 0.34 |  | 0.44 \*\* |  | 1.46 |
| School fixed effects |  | X |  | X |  | X |  | X |  | X |  | X |

Table S19.

*Logistic Regression Odds Ratio Coefficients, National Assessment of Educational Progress 8th Grade (Reading) Samples 2015 (IEP).*

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | Alabama | Arkansas | Florida | Georgia | Louisiana |
|  | Model 1 | Model 2 | Model 1 | Model 2 | Model 1 | Model 2 | Model 1 | Model 2 | Model 1 | Model 2 |
| Black | 1.29 | 0.33 \*\*\* | 1.20 | 0.35 \*\*\* | 1.64 \* | 0.91 | 1.02 | 0.41 \*\*\* | 2.03 \*\*\* | 0.83 |
| Hispanic | 1.46 | 0.51 + | 1.05 | 0.56 + | 1.09 | 0.83 | 1.08 | 0.46 \*\* | 1.31 | 0.77 |
| Reading composite score |  | 0.17 \*\*\* |  | 0.19 \*\*\* |  | 0.37 \*\*\* |  | 0.31 \*\*\* |  | 0.34 \*\*\* |
| Male |  | 1.26 |  | 1.10 |  | 1.34 \* |  | 1.59 \*\* |  | 1.75 \*\*\* |
| Free or reduced price lunch |  | 0.98 |  | 0.72 + |  | 1.02 |  | 0.90 |  | 1.54 \* |
| English language learner |  | 0.42 |  | 0.61 |  | 0.25 \*\*\* |  | 2.38 \* |  | 0.00 \*\*\* |
| School fixed effects |  | X |  | X |  | X |  | X |  | X |
|  | Mississippi | North Carolina | South Carolina | Tennessee | Texas | Virginia |
|  | Model 1 | Model 2 | Model 1 | Model 2 | Model 1 | Model 2 | Model 1 | Model 2 | Model 1 | Model 2 | Model 1 | Model 2 |
| Black | 1.18 | 0.35 \*\*\* | 1.54 \*\* | 0.57 \*\* | 1.81 \*\*\* | 0.54 \* | 1.44 | 0.60 + | 1.00 | 0.32 \*\*\* | 1.31 | 0.47 \*\* |
| Hispanic | 1.37 | 0.38 \*\* | 1.23 | 0.53 \*\* | 2.09 \*\*\* | 1.20 | 1.32 | 0.58 + | 0.89 | 0.42 \*\*\* | 1.44 + | 0.68 |
| Reading composite score |  | 0.20 \*\*\* |  | 0.25 \*\*\* |  | 0.17 \*\*\* |  | 0.28 \*\*\* |  | 0.22 \*\*\* |  | 0.26 \*\*\* |
| Male |  | 1.60 \*\* |  | 1.54 \*\* |  | 1.43 \* |  | 1.96 \*\*\* |  | 1.49 \* |  | 1.40 \* |
| Free or reduced price lunch |  | 1.21 |  | 1.13 |  | 0.80 |  | 0.86 |  | 1.17 |  | 0.89 |
| English language learner |  | 0.08 \*\* |  | 0.96 |  | 0.19 \*\* |  | 0.96 |  | 0.26 \*\*\* |  | 0.89 |
| School fixed effects |  | X |  | X |  | X |  | X |  | X |  | X |

Table S20.

*Logistic Regression Odds Ratio Coefficients, National Assessment of Educational Progress 8th Grade (Reading) Samples 2013 (IEP).*

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | Alabama | Arkansas | Florida | Georgia | Louisiana |
|  | Model 1 | Model 2 | Model 1 | Model 2 | Model 1 | Model 2 | Model 1 | Model 2 | Model 1 | Model 2 |
| Black | 1.14 | 0.30 \*\*\* | 0.94 | 0.31 \*\*\* | 0.87 | 0.51 \*\*\* | 0.79 | 0.30 \*\*\* | 1.48 \*\* | 0.54 \*\*\* |
| Hispanic | 1.61 + | 0.63 | 1.02 | 0.81 | 0.98 | 0.72 + | 0.91 | 0.54 \* |  0.81 | 0.41 \*\* |
| Reading composite score |  | 0.13 \*\*\* |  | 0.20 \*\*\* |  | 0.39 \*\*\* |  | 0.25 \*\*\* |  | 0.29 \*\*\* |
| Male |  | 1.36 |  | 1.87 \*\*\* |  | 1.66 \*\*\* |  | 1.68 \*\* |  | 1.80 \*\*\* |
| Free or reduced price lunch |  | 0.89 |  | 0.83 |  | 1.01 |  | 0.87 |  | 1.49 \* |
| English language learner |  | 0.09 \* |  | 0.20 \*\*\* |  | 0.21 \*\*\* |  | 0.22 + |  | 0.00 \*\*\* |
| School fixed effects |  | X |  | X |  | X |  | X |  | X |
|  | Mississippi | North Carolina | South Carolina | Tennessee | Texas | Virginia |
|  | Model 1 | Model 2 | Model 1 | Model 2 | Model 1 | Model 2 | Model 1 | Model 2 | Model 1 | Model 2 | Model 1 | Model 2 |
| Black | 0.89 | 0.22 \*\*\* | 1.27 + | 0.51 \*\*\* | 1.80 \*\*\* | 0.56 \*\* | 0.89 | 0.41 \*\*\* | 1.20 | 0.40 \*\*\* | 1.40 \* | 0.62 \* |
| Hispanic | 1.22 | 0.38 \*\* | 1.01 | 0.57 \* | 1.43 | 0.81 | 1.60 \* | 0.91 | 0.91 | 0.40 \*\*\* | 1.33 | 0.65 + |
| Reading composite score |  | 0.26 \*\*\* |  | 0.24 \*\*\* |  | 0.19 \*\*\* |  | 0.24 \*\*\* |  | 0.21 \*\*\* |  | 0.28 \*\*\* |
| Male |  | 1.68 \*\* |  | 1.38 \* |  | 1.40 \* |  | 1.54 \* |  | 1.13 |  | 1.48 \*\* |
| Free or reduced price lunch |  | 1.42 |  | 1.14 |  | 1.19 |  | 0.88 |  | 0.69 \* |  | 0.75 + |
| English language learner |  | 0.21 + |  | 0.34 \*\* |  | 0.22 \*\* |  | 0.86 |  | 0.41 \*\* |  | 1.62 |
| School fixed effects |  | X |  | X |  | X |  | X |  | X |  | X |

Table S21.

*Logistic Regression Odds Ratio Coefficients, National Assessment of Educational Progress Samples 8th Grade math 2015, Specific Disability Conditions*

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | IEP | Emotional Disturbance | Autism | Other Health Impairment | Specific Learning Disability |
|  | Model 1 | Model 2 | Model 1 | Model 2 | Model 1 | Model 2 | Model 1 | Model 2 | Model 1 | Model 2 |
| Black | 1.34 \*\*\* | 0.45 \*\*\* | 0.88 | 0.38 \*\* | 0.61 | 0.45 \* | 0.87 | 0.45 \*\*\* | 1.68 \*\*\* | 0.56 \*\*\* |
| Hispanic | 1.01 | 0.62 \*\*\* | 0.66 | 0.50 + | 0.62 | 0.58 | 0.73 \* | 0.60 \*\*\* | 1.32 \*\* | 0.80 + |
| Math composite score |  | 0.25 \*\*\* |  | 0.46 \*\*\* |  | 0.42 \*\*\* |  | 0.42 \*\*\* |  | 0.25 \*\*\* |
| Male |  | 2.17 \*\*\* |  | 2.41 \*\*\* |  | 4.20 \*\*\* |  | 2.51 \*\*\* |  | 1.72 \*\*\* |
| Free or reduced price lunch |  | 0.93 |  | 1.74 + |  | 0.33 \*\*\* |  | 0.78 + |  | 1.10 |
| English language learner |  | 0.56 \*\*\* |  | 0.13 \*\*\* |  | 1.19 |  | 0.48 \* |  | 0.65 \* |
| School fixed effects |  | X |  | X |  | X |  | X |  | X |
|  | Speech/Language Impairment | Intellectual Disability | ADHD | Other Disability Conditions |
|  | Model 1 | Model 2 | Model 1 | Model 2 | Model 1 | Model 2 | Model 1 | Model 2 |
| Black | 1.47 + | 0.66 + | 2.16 \*\* | 0.42 \*\* | 0.87 | 0.43 \*\*\* | 0.73 | 0.40 \* |
| Hispanic | 1.58 \* | 1.15 | 1.05 | 0.47 + | 0.69 \* | 0.61 \*\* | 0.61 | 0.38 \* |
| Math composite score |  | 0.36 \*\*\* |  | 0.15 \*\*\* |  | 0.36 \*\*\* |  | 0.46 \*\*\* |
| Male |  | 1.70 \*\* |  | 1.47 |  | 2.62 \*\*\* |  | 0.88 |
| Free or reduced price lunch |  | 0.90 |  | 2.01 + |  | 0.63 \*\* |  | 0.89 |
| English language learner |  | 0.64 |  | 0.63 |  | 0.31 \*\* |  | 1.79 |
| School fixed effects |  | X |  | X |  | X |  | X |

Other disability condition includes visual, hearing, brain, developmental delay or orthopedic impairment.

Number of cases with each of the disabilities: IEP = 3,500; emotional disturbance = 160; autism = 140; other health impairment = 810; specific learning disability =2,030; speech language impairment = 290; intellectual disability = 150; ADHD = 570; other disability condition = 100. ADHD = attention-deficit/hyperactivity disorder; ELL = English language learner; IEP = Individualized Educational Program.

+*p* < .10. \**p* < .05. \*\**p* < .01. \*\*\**p* < .001.

Table S22.

*Logistic Regression Odds Ratio Coefficients, National Assessment of Educational Progress Samples 4th Grade math 2013, Specific Disability Conditions.*

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | IEP | Emotional Disturbance | Autism | Other Health Impairment | Specific Learning Disability |
|  | Model 1 | Model 2 | Model 1 | Model 2 | Model 1 | Model 2 | Model 1 | Model 2 | Model 1 | Model 2 |
| Black | 1.00 | 0.47 \*\*\* | 0.72 | 0.32 \*\* | 0.32 \*\*\* | 0.21 \*\*\* | 0.67 \*\*\* | 0.43 \*\*\* | 1.34 \*\*\* | 0.53 \*\*\* |
| Hispanic | 0.85 \*\* | 0.56 \*\*\* | 0.78 | 0.59 | 0.56 \* | 0.57 + | 0.59 \*\*\* | 0.55 \*\*\* | 1.07 | 0.62 \*\*\* |
| Math composite score |  | 0.35 \*\*\* |  | 0.45 \*\*\* |  | 0.41 \*\*\* |  | 0.48 \*\*\* |  | 0.31 \*\*\* |
| Male |  | 2.24 \*\*\* |  | 4.01 \*\*\* |  | 6.21 \*\*\* |  | 2.36 \*\*\* |  | 1.62 \*\*\* |
| Free or reduced price lunch |  | 0.82 \*\* |  | 1.70 |  | 0.45 \*\* |  | 0.66 \*\*\* |  | 1.12 |
| English language learner |  | 0.65 \*\*\* |  | 0.12 \*\*\* |  | 0.22 \*\* |  | 0.36 \*\*\* |  | 0.60 \*\*\* |
| School fixed effects |  | X |  | X |  | X |  | X |  | X |
|  | Speech/Language Impairment | Intellectual Disability | ADHD | Other Disability Conditions |
|  | Model 1 | Model 2 | Model 1 | Model 2 | Model 1 | Model 2 | Model 1 | Model 2 |
| Black | 0.83 + | 0.55 \*\*\* | 2.05 \* | 0.58 | 0.62 \*\*\* | 0.38 \*\*\* | 1.27 | 0.76 |
| Hispanic | 0.79 \* | 0.67 \*\*\* | 1.97 \* | 0.75 | 0.44 \*\*\* | 0.42 \*\*\* | 1.12 | 0.88 |
| Math composite score |  | 0.52 \*\*\* |  | 0.18 \*\*\* |  | 0.46 \*\*\* |  | 0.45 \*\*\* |
| Male |  | 2.36 \*\*\* |  | 1.51 + |  | 2.62 \*\*\* |  | 1.26 |
| Free or reduced price lunch |  | 0.76 \*\* |  | 1.55 |  | 0.69 \* |  | 0.72 |
| English language learner |  | 0.66 \* |  | 0.66 |  | 0.25 \*\*\* |  | 0.69 |
| School fixed effects |  | X |  | X |  | X |  | X |

Other disability condition includes visual, hearing, brain, developmental delay or orthopedic impairment.

Number of cases with each of the disabilities: IEP = 4,850; emotional disturbance = 120; autism = 190; other health impairment = 940; specific learning disability =2,030; speech language impairment = 1,250; intellectual disability = 160; ADHD = 660; other disability condition = 160. ADHD = attention-deficit/hyperactivity disorder; ELL = English language learner; IEP = Individualized Educational Program.

+*p* < .10. \**p* < .05. \*\**p* < .01. \*\*\**p* < .001.

Table S23:

*Logistic Regression Odds Ratio Coefficients, National Assessment of Educational Progress Samples 8th Grade math 2013.*

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | IEP | Emotional Disturbance | Autism | Other Health Impairment | Specific Learning Disability |
|  | Model 1 | Model 2 | Model 1 | Model 2 | Model 1 | Model 2 | Model 1 | Model 2 | Model 1 | Model 2 |
| Black | 1.35 \*\*\* | 0.45 \*\*\* | 2.34 \*\*\* | 1.16 | 0.59 \* | 0.46 \*\* | 0.78 \* | 0.39 \*\*\* | 1.55 \*\*\* | 0.50 \*\*\* |
| Hispanic | 1.05 | 0.65 \*\*\* | 1.00 | 0.78 | 0.60 + | 0.70 | 0.59 \*\*\* | 0.51 \*\*\* | 1.35 \*\* | 0.79 \* |
| Math composite score |  | 0.24 \*\*\* |  | 0.43 \*\*\* |  | 0.48 \*\*\* |  | 0.38 \*\*\* |  | 0.26 \*\*\* |
| Male |  | 1.98 \*\*\* |  | 2.65 \*\*\* |  | 4.40 \*\*\* |  | 2.08 \*\*\* |  | 1.75 \*\*\* |
| Free or reduced price lunch |  | 0.85 \* |  | 0.96 |  | 0.39 \*\*\* |  | 0.68 \*\* |  | 1.14 |
| English language learner |  | 0.66 \* |  | 0.45 |  | 0.21 \* |  | 0.27 \*\* |  | 0.71 + |
| School fixed effects |  | X |  | X |  | X |  | X |  | X |
|  | Speech/Language Impairment | Intellectual Disability | ADHD | Other Disability Conditions |
|  | Model 1 | Model 2 | Model 1 | Model 2 | Model 1 | Model 2 | Model 1 | Model 2 |
| Black | 1.35 | 0.66 \* | 3.48 \*\*\* | 0.94 | 0.85 | 0.36 \*\*\* | 1.04 | 0.53 + |
| Hispanic | 0.99 | 0.77 | 1.83 + | 1.22 | 0.65 \*\* | 0.50 \*\*\* | 0.64 | 0.49 + |
| Math composite score |  | 0.36 \*\*\* |  | 0.15 \*\*\* |  | 0.34 \*\*\* |  | 0.43 \*\*\* |
| Male |  | 1.64 \*\* |  | 1.35 |  | 2.59 \*\*\* |  | 1.00 |
| Free or reduced price lunch |  | 0.67 \* |  | 0.59 |  | 0.79 + |  | 0.91 |
| English language learner |  | 0.66 |  | 0.08 \*\*\* |  | 0.29 \* |  | 0.66 |
| School fixed effects |  | X |  | X |  | X |  | X |

Other disability condition includes visual, hearing, brain, developmental delay or orthopedic impairment.

Number of cases with each of the disabilities: IEP = 4,010; emotional disturbance = 160; autism = 140; other health impairment = 830; specific learning disability =2,140; speech language impairment = 320; intellectual disability = 170; ADHD = 570; other disability condition = 110. ADHD = attention-deficit/hyperactivity disorder; ELL = English language learner; IEP = Individualized Educational Program.

+*p* < .10. \**p* < .05. \*\**p* < .01. \*\*\**p* < .001.

Table S24:

*Logistic Regression Odds Ratio Coefficients, National Assessment of Educational Progress Samples 4th Grade math 2003.*

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | IEP | Emotional Disturbance | Autism | Other Health Impairment | Specific Learning Disability |
|  | Model 1 | Model 2 | Model 1 | Model 2 | Model 1 | Model 2 | Model 1 | Model 2 | Model 1 | Model 2 |
| Black | 1.14 \* | 0.55 \*\*\* | 1.40 | 0.59 + | 0.39 + | 0.42 | 0.76 | 0.42 \*\*\* | 1.11 | 0.50 \*\*\* |
| Hispanic | 1.08 | 0.62 \*\*\* | 0.99 | 0.59 | 0.45 | 0.48 | 0.51 \*\* | 0.42 \*\*\* | 1.05 | 0.59 \*\*\* |
| Math composite score |  | 0.43 \*\*\* |  | 0.48 \*\*\* |  | 0.65 + |  | 0.42 \*\*\* |  | 0.40 \*\*\* |
| Male |  | 2.22 \*\*\* |  | 3.41 \*\*\* |  | 10.38 \*\*\* |  | 2.22 \*\*\* |  | 2.24 \*\*\* |
| Free or reduced price lunch |  | 1.00 |  | 1.81 \* |  | 0.38 |  | 0.66 \* |  | 1.01 |
| English language learner |  | 1.48 \*\* |  | 0.64 |  | 1.17 |  | 0.27 \*\* |  | 1.28 |
| School fixed effects |  | X |  | X |  | X |  | X |  | X |
|  | Speech/Language Impairment | Intellectual Disability | ADHD | Other Disability Conditions |
|  | Model 1 | Model 2 | Model 1 | Model 2 | Model 1 | Model 2 | Model 1 | Model 2 |
| Black | 1.19 | 0.96 | 2.46 \*\*\* | 0.52 \*\* | - | - | 1.56 | 0.78 |
| Hispanic | 1.07 | 0.88 | 1.76 \* | 0.64 + | - | - | 0.75 | 0.41 + |
| Math composite score |  | 0.76 \*\*\* |  | 0.17 \*\*\* |  | - |  | 0.37 \*\*\* |
| Male |  | 1.59 \*\*\* |  | 1.14 |  | - |  | 2.20 \* |
| Free or reduced price lunch |  | 0.95 |  | 1.75 \* |  | - |  | 0.70 |
| English language learner |  | 1.33 |  | 0.39 |  | - |  | 1.73 |
| School fixed effects |  | X |  | X |  | X |  | X |

ADHD information is not available in 2003. Other disability condition includes visual, hearing, brain, developmental delay or orthopedic impairment. Number of cases with each of the disabilities: IEP =4,350; emotional disturbance = 140; autism = 30; other health impairment = 280; specific learning disability =1,770; speech language impairment = 810; intellectual disability = 190; other disability condition = 70. ADHD = attention-deficit/hyperactivity disorder;ELL = English language learner; IEP = Individualized Educational Program.+*p* < .10. \**p* < .05. \*\**p* < .01. \*\*\**p* < .001.

Table S25:

*Logistic Regression Odds Ratio Coefficients, National Assessment of Educational Progress Samples 8th Grade math 2003.*

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | IEP | Emotional Disturbance | Autism | Other Health Impairment | Specific Learning Disability |
|  | Model 1 | Model 2 | Model 1 | Model 2 | Model 1 | Model 2 | Model 1 | Model 2 | Model 1 | Model 2 |
| Black | 1.07 | 0.29 \*\*\* | 1.32 | 0.51 \*\* | 0.24 | 0.13 \* | 0.53 \*\* | 0.26 \*\*\* | 0.97 | 0.29 \*\*\* |
| Hispanic | 1.27 \*\* | 0.50 \*\*\* | 0.92 | 0.40 \* | 0.38 | 0.33 | 0.53 \* | 0.37 \*\* | 1.27 \* | 0.59 \*\*\* |
| Math composite score |  | 0.25 \*\*\* |  | 0.38 \*\*\* |  | 0.46 \* |  | 0.35 \*\*\* |  | 0.28 \*\*\* |
| Male |  | 2.77 \*\*\* |  | 2.96 \*\*\* |  | 8.00 \* |  | 2.93 \*\*\* |  | 2.61 \*\*\* |
| Free or reduced price lunch |  | 1.00 |  | 1.08 |  | 0.71 |  | 0.52 \*\* |  | 1.00 |
| English language learner |  | 1.78 \*\* |  | 1.96 |  | 0.00 \*\*\* |  | 0.63 |  | 1.05 |
| School fixed effects |  | X |  | X |  | X |  | X |  | X |
|  | Speech/Language Impairment | Intellectual Disability | ADHD | Other Disability Conditions |
|  | Model 1 | Model 2 | Model 1 | Model 2 | Model 1 | Model 2 | Model 1 | Model 2 |
| Black | 1.08 | 0.50 + | 3.52 \*\*\* | 0.54 \* | - | - | 1.09 | 0.59 |
| Hispanic | 2.12 \* | 0.88 | 1.92 \*\* | 0.58 + | - | - | 1.11 | 0.52 |
| Math composite score |  | 0.50 \*\*\* |  | 0.14 \*\*\* |  | - |  | 0.58 \*\* |
| Male |  | 1.66 + |  | 0.97 |  | - |  | 2.47 \* |
| Free or reduced price lunch |  | 1.23 |  | 2.14 \*\* |  | - |  | 1.22 |
| English language learner |  | 3.49 \* |  | 0.29 \* |  | - |  | 3.32 + |
| School fixed effects |  | X |  | X |  | X |  | X |

ADHD information is not available in 2003; Other disability condition includes visual, hearing, brain, developmental delay or orthopedic impairment.Number of cases with each of the disabilities: IEP =3,000; emotional disturbance = 170; autism = 13; other health impairment = 180; specific learning disability = 1,660; speech language impairment = 90; intellectual disability = 200; other disability condition = 50. ADHD = attention-deficit/hyperactivity disorder; ELL = English language learner; IEP = Individualized Educational Program. +*p* < .10. \**p* < .05. \*\**p* < .01. \*\*\**p* < .001.