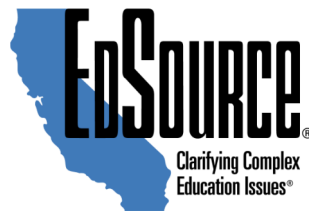


TECHNICAL APPENDIX B • FEBRUARY 2010

Gaining Ground in the Middle Grades: Why Some Schools Do Better

A Large-Scale Study of Middle Grades
Practices and Student Outcomes



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Gaining Ground in the Middle Grades: Why Some Schools Do Better

TECHNICAL APPENDIX B

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APPENDIX B - Descriptive Statistics of the Middle Grades Study Schools

Figure B-1: Student Demographics/Background

This table compares average demographic and student background characteristics of participating schools and non-participating schools within the study's two SCI bands (20th-35th and 70th-85th SCI percentile bands) and across all schools statewide serving middle grade students. The table lists means and standard deviations, noting any significant differences between participating and non-participating schools within each of the SCI bands.

Figure B-2: English Language Arts CSTs

This table compares average scores on the grades 6-8 English Language Arts California Standards Tests (CSTs) for participating schools and non-participating schools within the study's two SCI bands (20th-35th and 70th-85th SCI percentile bands), noting any significant differences between participating and non-participating schools within the SCI bands.

Figure B-3: Mathematics CSTs

This table compares average scores on four grades 6-8 Mathematics California Standards Tests (CSTs) for participating schools and non-participating schools within the study's two SCI bands (20th-35th and 70th-85th SCI percentile bands), noting any significant differences between participating and non-participating schools within the SCI bands.

Figure B-4: Cohort Size

This table compares the average cohort size of participating schools, non-participating schools, and all schools statewide that serve middle grade students, noting any significant differences between participating and non-participating schools within the study's two SCI bands (20th-35th and 70th-85th SCI percentile bands).

Figure B-5: Grade Configuration

This table compares the grade configurations for participating schools, non-participating schools, and all schools statewide that serve middle grade students, noting significant differences between participating and non-participating schools statewide, as well as within each of the study's two SCI bands (20th-35th and 70th-85th SCI percentile bands).

Figure B-6: District Types

This table compares the response rates of superintendents whose districts contained at least one participating school, by district type (e.g., elementary, unified, high, etc.).

Figures B-7- B-8: California Regions

This table compares the location of participating schools, non-participating schools, and schools serving middle grade students statewide, by California region, noting any overall significant differences (chi-square test) between participating and non-participating schools. Figure B-8 illustrates the regional participation.

Gaining Ground in the Middle Grades: Why Some Schools Do Better

Average Grade 6-8 Student Demographics of Participating Schools, Non-Participating Schools, and All Schools in Study's Two SCI Bands, Plus All Schools Statewide Serving Middle Grades ¹

Figure B-1: Student Demographics/Background	20th-35th Percentile of the SCI			70th-85th Percentile of the SCI			Statewide Totals ² n=1,726
	Participating Schools n=144	Non-Participating Schools n=111	All Schools in the SCI Band n=255	Participating Schools n=159	Non-Participating Schools n=102	All Schools in the SCI Band n=261	
	Total Students, 6-8: 102,572	Total Students, 6-8: 68,463	Total Students, 6-8: 171,035	Total Students, 6-8: 101,318	Total Students, 6-8: 57,472	Total Students, 6-8: 158,790	Total Students, 6-8: 1,106,773
	Mean (SD)	Mean (SD)	Mean (SD)	Mean (SD)	Mean (SD)	Mean (SD)	Mean (SD)
Average % African American	10.0 (.13)	9.1 (.13)	9.6 (.13)	4.9 (.05)	4.4 (.05)	4.7 (.05)	7.1 (.11)
Average % Asian	3.9 (.06)	4.3 (.07)	4.1 (.06)	7.9 (.10)	12.4 (.19)	9.7 (.14)	8.0 (.13)
Average % Filipino	3.0 (.05)	2.0 (.03)	2.6 (.05)	3.2 (.04)	3.7 (.06)	3.4 (.05)	2.6 (.04)
Average % Hispanic	67.7 (.20)	69.0 (.23)	68.3 (.21)	25.0 (.12)	24.2 (.15)	24.7 (.13)	46.1 (.29)
Average % Pacific Islander	0.8 (.01)	0.9 (.02)	0.9 (.01)	0.7 (.01)	0.7 (.01)	0.7 (.01)	0.7 (.01)
Average % White	13.2 (.11)	12.4 (.14)	12.9 (.12)	55.9 (.19)	51.7 (.26)	54.3 (.22)	33.2 (.28)
Average % Socioeconomically Disadvantaged	75.6 (.12)	78.3 (.14)	76.8 (.13)	29.1 (.11)	31.3 (.15)	30.0 (.13)	54.1 (.29)
Average % English Learners	26.6 (.11)	27.6 (.13)	27.0 (.12)	6.5 (.05)	8.7 (.09)	7.4 (.07)	18.0 (.15)
Average % Reclassified Fluent English Proficient (RFEP)	22.3 (.10)	23.0 (.12)	22.6 (.11)	8.5 (.07)	10.1 (.10)	9.1 (.09)	16.6 (.12)
Average % Parental Education - Less than High School	27.5 (.13)	26.6 (.14)	27.1 (.13)	5.0 (.03)	5.9 (.05)	5.3 (.04)	16.7 (.16)
Average % Parental Education - High School Graduate	26.0 (.08)	25.4 (.09)	25.7 (.08)	14.6 (.07)	16.7 (.08)	15.4 (.07)	19.8 (.10)
Average % Parental Education - Some College	19.0 (.07) *	16.7 (.07) *	18.0 (.07)	26.4 (.10)	26.7 (.10)	26.5 (.10)	20.3 (.11)
Average % Parental Education - College Graduate	8.4 (.04)	7.4 (.04)	8.0 (.04)	25.8 (.09)	23.7 (.08)	25.0 (.09)	15.9 (.11)
Average % Parental Education - Graduate School	3.0 (.02)	3.0 (.03)	3.0 (.03)	14.3 (.07)	12.9 (.07)	13.7 (.07)	9.6 (.12)
Percentage of Students Continuously Enrolled ³	91.8 (4.17)	92.8 (3.13)	92.2 (3.78)	95.7 (2.39)	96.1 (2.34)	95.9 (2.38)	93.5 (8.00)

* Statistically significant difference (p.<.05) between means of participating and non-participating schools within SCI band.

The EdSource sample of 303 participating schools is very similar to the 513 schools who did not participate as illustrated above. Tests by SCI band show only one significant difference (in the 20th-35th SCI band) between participating and non-participating schools.

Notes:

1: All calculations except Percentage of Students Continuously Enrolled based on the sum of students tested in English Language Arts in 6th, 7th, and 8th grades. See footnote 3.

Percentages based on the number of students tested in a subgroup divided by the total number of students tested overall.

A total of 69 Schools in the Full 20th-35th Percentile SCI band did not have a 6th grade.

A total of 53 Schools in the Full 70th-85th Percentile SCI band did not have a 6th grade.

Percentages of ethnicity groups and parental education levels may not sum to 100 % because some students choose not to disclose data and not all categories are included.

SCI: School Characteristics Index. SCI percentile bands established from California Department of Education's (CDE) 2007 Base Academic Performance Index (API) data file: <http://www.cde.ca.gov/ta/ac/ap/>

2: For a complete discussion of the calculation of Statewide Totals, see the section "Determining the Schools Eligible to Participate in the Study" in the Initial Research Report.

3: Percentage of Students Continuously Enrolled from CDE - API (CBMOB): <http://www.cde.ca.gov/ta/ac/ap/>

Data Source: CDE - 2009 California Standardized Testing and Reporting (STAR) Program: <http://star.cde.ca.gov/star2009/>

Gaining Ground in the Middle Grades: Why Some Schools Do Better

Average California State Test Scores (CST) of Participating Schools, Non-Participating Schools, and All Schools in Study's Two SCI Bands ¹

Figure B-2: English Language Arts (ELA) CSTs	20th-35th Percentile of the SCI			70th-85th Percentile of the SCI		
	Participating Schools	Non-Participating Schools ²	All Schools in the SCI Band	Participating Schools	Non-Participating Schools ²	All Schools in the SCI Band
	Total Students, 6-8: 102,572	Total Students, 6-8: 68,463	Total Students, 6-8: 171,035	Total Students, 6-8: 101,318	Total Students, 6-8: 57,472	Total Students, 6-8: 158,790
Grade 6 ELA						
Number of Schools	102	84	186	118	89	207
Mean (SD)	337.6 (11.9)	336.0 (12.1)	336.9 (12.0)	366.9 (13.2)	368.7 (12.9)	367.7 (13.1)
Median	337.8	336.1	337.3	366.3	369.8	368.1
Range (Min-Max)	315.1-390.0	308.7 - 375.4	308.7-390.0	336.3-424.5	335.4-405.3	335.4-424.5
Grade 7 ELA						
Number of Schools	144	108	252	159	102	261
Mean (SD)	341.1 (10.0) *	338 (12.5) *	339.8 (11.2)	372.9 (11.9)	375.7 (11.9)	374.0 (12.0)
Median	340.7	338.0	339.2	372.3	374.9	373.1
Range (Min-Max)	318.1-367.1	307.0-393.8	307.0-393.8	325.6-402.0	345.4-409.7	325.6-409.7
Grade 8 ELA						
Number of Schools	144	108	252	159	101	260
Mean (SD)	335.9 (10.9)	335.3 (14.0)	335.6 (12.3)	367.7 (13.0)	370.8 (14.5)	368.9 (13.7)
Median	334.4	333.0	333.9	368.4	370.4	368.9
Range (Min-Max)	310.1-373.0	298.6-400.5	298.6-400.5	328.7-406.7	325.3-411.3	325.3-411.3

* Statistically significant difference (p.<.05) between means of participating and non-participating schools within SCI band.

The EdSource sample of participating schools is very similar to the non-participating schools as illustrated above. Tests by SCI band show that CST means of participating and non-participating schools differ on one outcome measure, ELA Grade 7 CST in the 20th to 35th Percentile of the SCI.

Notes:

1: SCI: School Characteristics Index. SCI percentile bands established from CDE's 2007 Base API data file: <http://www.cde.ca.gov/ta/ac/ap/>

2: CST means of non-participating schools are censored for schools where ten or fewer students were tested. N's also vary slightly due to year-to-year changes in grade configuration.

Data Source: CDE - 2009 California Standardized Testing and Reporting (STAR) Program: <http://star.cde.ca.gov/star2009/>

Average California State Test Scores (CST) of Participating Schools, Non-Participating Schools, and All Schools in Study's Two SCI Bands ¹

Figure B-3: Mathematics CSTs	20th-35th Percentile of the SCI			70th-85th Percentile of the SCI		
	Participating Schools	Non-Participating Schools ²	All Schools in the SCI Band	Participating Schools	Non-Participating Schools ²	All Schools in the SCI Band
	Total Students, 6-8: 102,572	Total Students, 6-8: 68,463	Total Students, 6-8: 171,035	Total Students, 6-8: 101,318	Total Students, 6-8: 57,472	Total Students, 6-8: 158,790
Grade 6 Math						
Number of Schools	102	84	186	118	89	207
Mean (SD)	334 (17.9)	332.1 (18.6)	333.1 (18.2)	367.8 (23.3)	372.1 (21.4)	369.7 (22.6)
Median	332.0	331.4	331.8	365.1	373.4	367.5
Range (Min-Max)	296.1 - 409.0	290.9-405.6	290.9-409.0	326.0 - 462.6	325.8 - 424.9	325.8-462.6
Grade 7 Math						
Number of Schools	144	108	252	159	102	261
Mean (SD)	334 (18.2)	333.1 (18.2)	333.6 (18.2)	359.8 (18.9)	361.7 (22.7)	360.6 (20.4)
Median	332.5	331.4	331.9	359.4	358.3	358.4
Range (Min-Max)	287.1 - 397.7	294.9-392.4	287.1-397.7	307.9 - 440.4	319.5 - 421.1	307.9 - 440.4
Grade 8 General Math						
Number of Schools	109	81	190	143	79	222
Mean (SD)	301.6 (25.9)	307.1 (26.6)	303.9 (26.2)	325.2 (29.8)	331.6 (25.7)	327.5 (28.5)
Median	301.7	309.4	302.9	327.5	333.7	330.8
Range (Min-Max)	222.4 - 356.7	239.6 - 387.2	222.4-387.2	250.8-402.4	257.1-400.0	250.8-402.4
Grade 8 Algebra						
Number of Schools	141	104	245	157	96	253
Mean (SD)	336.7 (38.9)	343.2 (39.6)	339.4 (39.2)	372.6 (40.8)	377.4 (42.4)	374.4 (41.4)
Median	327.7	343.1	332.8	366.5	376.4	368.5
Range (Min-Max)	254.5 - 490.8	269.9 - 457.0	254.5-490.8	286.6 - 475.3	283.2-528.2	283.2-528.2

The EdSource sample of participating schools is very similar to the non-participating schools as illustrated above. Tests by SCI band show that the overall participating schools Math CST means do not significantly differ from the overall non-participating schools means.

Notes:
 1: SCI: School Characteristics Index. SCI percentile bands established from CDE's 2007 Base API data file: <http://www.cde.ca.gov/ta/ac/ap/>
 2: CST means of non-participating schools are censored for schools where ten or fewer students were tested.
 Data Source: CDE - 2009 California Standardized Testing and Reporting (STAR) Program: <http://star.cde.ca.gov/star2009/>

Gaining Ground in the Middle Grades: Why Some Schools Do Better

Average Cohort Size for Participating Schools, Non-Participating Schools, Plus All Schools Statewide Serving Middle Grades ¹					
Figure B-4: Cohort Size ²	20th-35th Percentile of the SCI Band		70th-85th Percentile of the SCI Band		
	Participating Schools n=144	Non-Participating Schools n=111 ³	Participating Schools n=159	Non-Participating Schools n=102	Statewide Totals n=1,726
	Total Students, 6-8: 102,572	Total Students, 6-8: 68,463	Total Students, 6-8: 101,318	Total Students, 6-8: 57,472	Total Students, 6-8: 1,106,773
Mean (SD) Cohort Size, Grades 7-8	296 (168)	254 (187)	261 (197)	222 (186)	256 (183)
Median Cohort Size, Grades 7-8	296	246	257	139	249
Range Cohort Size (Min-Max), Grades 7-8	16 - 633	3 - 733	8 - 834	13 - 689	0 - 1140

The EdSource sample of participating schools is very similar to the non-participating schools as illustrated above. Tests by SCI band show no significant differences on overall average cohort size.

Notes:

- 1: For a complete discussion of the calculation of Statewide Totals, see the section "Determining the Schools Eligible to Participate in the Study" in the Initial Research Report.
- 2: As a measure of school enrollment, EdSource calculated and controlled for cohort size, or the average grade enrollment in 7th and 8th grades [(Percent of enrollments in grades 7 and 8 multiplied by school enrollment) divided by 2]
- 3: One school was omitted from this calculation as it no longer serves students in grades 7-8

Data Source: CDE - API: <http://www.cde.ca.gov/ta/ac/ap/> [Enrollment (ENROLL) and Percentage of Enrollments in grades 7-8 (PEN_78)]

Grade Configuration of Participating Schools¹, Non-Participating Schools², Plus All Schools Statewide Serving the Middle Grades³

Figure B-5: Grade Configuration	Pooled Sample *		Statewide Totals n=1,726
	Participating Schools n=303	Non-Participating Schools n=213	
Grade Configuration K-8	73 (48%)	78 (52%)	466
Grade Configuration 7-8	80 (69%)	36 (31%)	316
Grade Configuration 6-8, Other	150 (60%)	99 (40%)	944
* Statistically significant difference between participating and non-participating schools (p. <.05).			

Figure B-5: Grade Configuration by SCI	20th-35th Percentile of the SCI		70th-85th Percentile of the SCI*	
	Participating Schools n=144	Non-Participating Schools n=111	Participating Schools * n=159	Non-Participating Schools * n=102
	Total Students, 6-8: 102,572	Total Students, 6-8: 68,463	Total Students, 6-8: 101,318	Total Students, 6-8: 57,472
	Number (%)	Number (%)	Number (%)	Number (%)
Grade Configuration K-8	25 (45%)	30 (55%)	48 (50%)	48 (50%)
Grade Configuration 7-8	41 (63%)	24 (37%)	39 (76%)	12 (24%)
Grade Configuration 6-8, Other	78 (58%)	57 (42%)	72 (63%)	42 (37%)
* Statistically significant difference between participating and non-participating schools (p. <.05).				

Respondents to the EdSource survey included schools with different types of Grade Configurations. Overall, in terms of Grade Configuration, there was a significant difference between the participating schools and non-participating schools. This pattern is more pronounced in the 70th-85th SCI band. Generally, K-8 schools were somewhat underrepresented and both 7-8 and 6-8 schools somewhat overrepresented.

Notes:

- 1: Grade Configuration of Participating Schools derived from EdSource Principal Survey.
- 2: Grade Configuration of Non-Participating Schools derived from California Basic Educational Data System (CBEDS): <http://www.cde.ca.gov/ds/sd/cb/reports.asp>
- 3: Grade Configuration of Statewide Schools derived from (CBEDS): <http://www.cde.ca.gov/ds/sd/cb/reports.asp>

For a complete discussion of the calculation of Statewide Totals, see the section "Determining the Schools Eligible to Participate in the Study" in the Initial Research Report.

Data Source: EdSource Principal Survey and CBEDS as noted above

District Superintendent Response Rate

Figure B-6: District Types	Districts Containing at Least One Participating School	
	Districts Returning Superintendent Survey	Districts Not Returning Superintendent Survey
	Number	Number
Elementary District	49	12
Unified District	96	12
High School District	7	0
Charter Management Organization (CMO), Other	5	3

The final survey pool yielded 184 districts—including 7 CMOs. In total, 157 districts responded—including 5 CMOs; 27 districts did not respond.

Data Source: EdSource Superintendent Survey

Participating and Non-Participating Schools by California Region, Plus All Schools Statewide Serving Middle Grades¹

Figure B-7: California Regions	Pooled Sample		Statewide Totals n=1,726
	Participating Schools n=303	Non-Participating Schools n=213	
Northern (Santa Cruz, Santa Clara, Merced, Madera, Mono, and all other counties northward)	37% (n=111)	41% (n=87)	41% (n=705)
Central (areas between designated northern and southern areas)	9% (n=28)	8% (n=16)	9% (n=153)
Southern California (San Luis Obispo, Kern, San Bernardino, and all other counties southward)	54% (n=164)	52% (n=110)	50% (n=868)

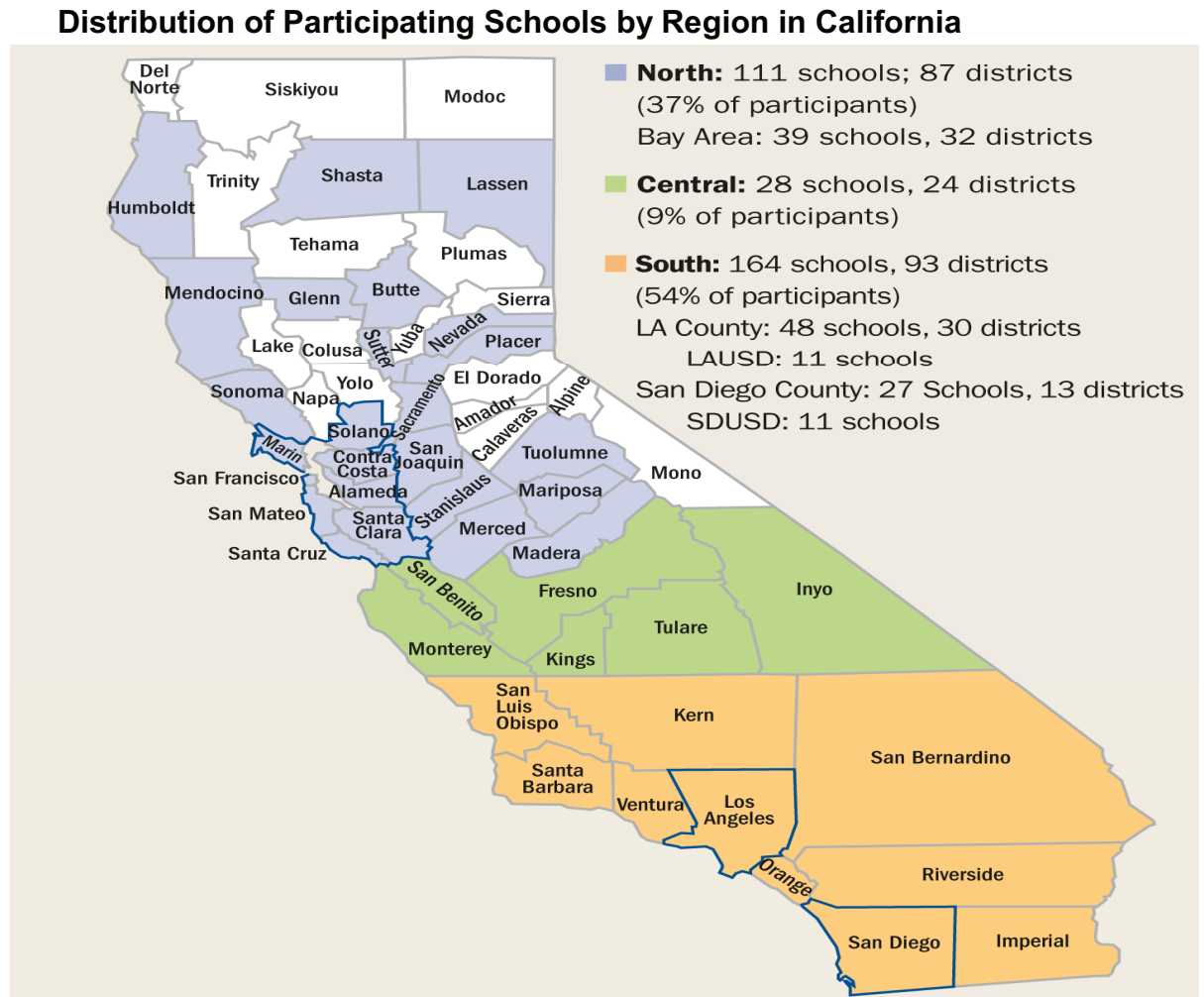
The 303 participating schools in the EdSource sample are located in similar regions as non-participating schools and all schools serving middle grades students statewide.

Note:

1: For a complete discussion of the calculation of Statewide Totals, see the section "Determining the Schools Eligible to Participate in the Study" in the Initial Research Report.
Data Source: CDE-2007 Academic Performance Index (API): <http://www.cde.ca.gov/ta/ac/ap/>

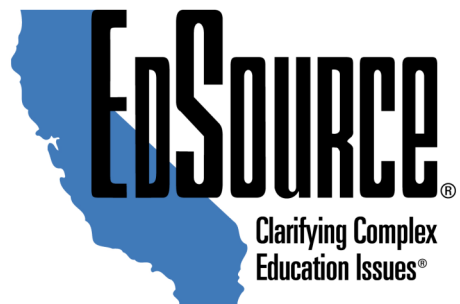
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Figure B-8: Map - California Regions



The sample of middle grade schools in this study reflect the geographic diversity of California.

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