

Chapter 4: Expenditures For Current Functions: Instruction, Student and Instructional Staff Support Services, Administration, and School Operations and Maintenance

Instructional Expenditures

Instructional expenditures include current operating expenditures for activities directly related to classroom instruction or instruction in other settings, as well as cocurricular activities. Instructional expenditures for public elementary and secondary education totaled \$171.0 billion in 1997–98 before adjustments (table 4-1). This was just over 52 percent of total district expenditures (\$326.8 billion) and just over 62 percent of current district expenditures (\$274.9 billion) in 1997–98.

Instructional Expenditures Per Pupil

Instructional expenditures per pupil in the United States averaged \$3,747 in 1997–98 before cost adjustments (table 4-1). Instructional expenditures per pupil were the highest in the Northeast (\$5,318) and the lowest in the West (\$3,302). Expenditures per pupil in the highest region were 1.6 times greater than those in the lowest region before cost adjustments and 1.5 times greater after adjustments. Further, the difference between these two regions decreased from \$2,016 to \$1,650. Instructional expenditures per pupil remained the highest in the Northeast after adjustments, followed by the Midwest, the South, and the West. (See the glossary to identify states associated with different geographic regions.)

Smaller districts had higher instructional expenditures per pupil, both before and after cost adjustments. Before cost adjustments, instructional expenditures per pupil averaged \$3,855 in districts with fewer than 1,000 students, compared to \$3,660 in districts with 10,000 or more students. After cost adjustments, smaller districts continued to have higher average instructional expenditures per pupil than larger districts. In addition, the difference between the smallest and the largest districts increased from \$195 to \$759 per pupil. Correlation analysis, however, showed a weak negative relationship between district enrollment and instructional expenditures per pupil, both before (-0.03) and after (-0.08) cost adjustments (tables A-1 and A-2).

Before cost adjustments, instructional expenditures per pupil showed weak but statistically significant positive relationships with two measures of district wealth—median household income (+0.28) and median housing value (+0.35) (table A-11). School districts with median household income at or above \$35,000 had the highest average instructional expenditures per pupil (\$4,023); districts with median household income less than \$20,000 had the lowest expenditures per pupil (\$3,490). Districts with median housing values at or above \$85,000 had the highest average instructional expenditures of \$4,161 per pupil, and districts with median housing values between \$55,000 and \$85,000 had the lowest instructional expenditures per pupil of \$3,431.

Table 4-1. Instructional expenditures, cost-adjusted instructional expenditures, instructional expenditures per pupil, and cost-adjusted expenditures per pupil in public school districts, by region, district enrollment, minority enrollment, district poverty rate, median household income, and median housing value: 1997–98

School district characteristics	Instructional expenditures (in thousands)	Cost-adjusted instructional expenditures (in thousands)	Instructional expenditures per pupil	Cost-adjusted instructional expenditures per pupil
All districts	\$171,015,158	\$169,621,839	\$3,747	\$3,728
Region				
Northeast	42,179,249	37,866,753	5,318	4,789
Midwest	39,269,206	40,158,779	3,697	3,800
South	54,538,340	58,488,452	3,310	3,550
West	35,028,363	33,107,854	3,302	3,139
District enrollment				
0–999	10,480,114	11,553,950	3,855	4,312
1,000–4,999	49,715,815	50,406,433	3,828	3,899
5,000–9,999	27,090,126	26,492,122	3,839	3,763
10,000 or more	83,729,103	81,169,334	3,660	3,553
Minority enrollment				
Less than 5 percent	42,632,628	43,852,196	3,775	3,885
5 percent–<20 percent	44,619,869	44,227,309	3,718	3,685
20 percent–<50 percent	45,508,428	45,286,932	3,545	3,528
50 percent or more	29,362,286	27,497,951	4,118	3,857
Data missing ¹	8,891,947	8,757,451	—	—
District poverty rate				
Less than 5 percent	22,758,202	20,887,886	4,400	4,044
5 percent–<15 percent	56,230,771	55,843,885	3,631	3,606
15 percent–<25 percent	41,125,306	42,706,725	3,470	3,604
25 percent or more	42,008,932	41,425,891	3,906	3,852
Data missing ¹	8,891,947	8,757,451	—	—
Median household income				
Less than \$20,000	12,079,131	13,279,734	3,490	3,837
\$20,000–<\$25,000	29,738,646	31,724,244	3,542	3,778
\$25,000–<\$30,000	42,641,581	42,582,744	3,804	3,799
\$30,000–<\$35,000	26,848,468	26,433,231	3,550	3,495
\$35,000 or more	50,815,385	46,844,435	4,023	3,710
Data missing ¹	8,891,947	8,757,451	—	—
Median housing value				
Less than \$40,000	13,217,971	14,690,292	3,613	4,015
\$40,000–<\$55,000	27,247,709	29,393,241	3,480	3,755
\$55,000–<\$85,000	49,565,175	51,059,820	3,431	3,535
\$85,000 or more	72,092,356	65,721,035	4,161	3,794
Data missing ¹	8,891,947	8,757,451	—	—

—Not available.

¹These districts were missing 1990 Census demographic data.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data, “School District Financial Survey (Form F-33): School Year 1997–98” and U.S. Department of Commerce, Bureau of the Census, 1990 Decennial Census School District Special Tabulation.

After cost adjustments, the positive correlation was weak (+0.06 with both housing value and household income) (table A-12). Adjusted instructional expenditures per pupil were highest in districts with the lowest median household incomes (\$3,837) and lower in districts with the highest incomes (\$3,710). Adjustments also raised instructional expenditures per pupil in districts with the lowest median housing values and lowered them in districts with the highest housing values.

Instructional expenditures per pupil showed a weak relationship with minority enrollment, both before (+0.09) and after (-0.02) cost adjustments. Before adjustments, school districts with the highest minority enrollments had higher instructional expenditures per pupil than districts with the lowest minority enrollments, \$4,118 and \$3,775, respectively. After adjustments, however, instructional expenditures per pupil were nearly equal in the highest-minority districts (\$3,857) and the lowest-minority districts (\$3,885).

Instructional expenditures per pupil showed a weak relationship with district poverty rate, both before (-0.05) and after (+0.02) cost adjustments. Instructional expenditures per pupil were highest in the lowest-poverty districts before and after cost adjustments (\$4,400 and \$4,044). After cost adjustments, the difference between the lowest- and highest-poverty districts was reduced from \$494 to \$192.

Variations in Instructional Expenditures Per Pupil

Restricted Range Ratio

The restricted range ratio for unadjusted instructional expenditures per pupil across the United States was 1.19 (table 4-2). This means instructional expenditures in the district at the 95th percentile were 1.19 times higher than instructional expenditures in the district at the 5th percentile. Variation across the states ranged from 0.16 in Nevada to 1.14 in Alaska. No states had a restricted range ratio greater than that for the United States.

When cost adjustments were applied, the restricted range ratio for instructional expenditures per pupil across the United States decreased to 0.97 (table 4-3). Three states exceeded the national variation after cost adjustments: Alaska, Illinois, and Montana. After cost adjustments, the range between the lowest-variation and highest-variation states remained nearly unchanged. The restricted range ratio ranged from 0.15 in Nevada to 1.11 in Alaska.

Coefficient of Variation

The coefficient of variation for unadjusted instructional expenditures per pupil across the United States was 0.27. This means approximately two-thirds of the districts nationally have instructional expenditures per pupil between \$2,735 and \$4,759, a range that is from 27 percent below the mean to 27 percent above the mean. Variation in the states ranged from 0.06 in West Virginia to 0.29 in Alaska. Only one state (Alaska) had a coefficient of variation higher than the United States ratio.

When instructional expenditures were adjusted for cost-of-education differences, the coefficient of variation for instructional expenditures per pupil across the United States decreased to 0.22. Alaska and Montana exceeded the national variation after cost adjustments. Cost adjustments decreased the range between the lowest-variation and highest-variation states. After cost adjustments, the coefficient of variation ranged from 0.07 in Delaware, Florida, and West Virginia to 0.29 in Alaska and Montana.

Gini Coefficient

The Gini coefficient for unadjusted instructional expenditures per pupil across the United States was 0.14. A Gini coefficient of 0 means expenditures are distributed equally; higher values such as 0.14 imply expenditures are more concentrated among a smaller share of students. Variation in the states ranged from 0.03 in Nevada and West Virginia to 0.13 in Alaska and Illinois. No states had a Gini coefficient higher than that for the United States.

Cost-of-education adjustments reduced the Gini coefficient for the United States to 0.12. After cost adjustments, Alaska and Montana exceeded the United States level of variation, and the range of variation remained nearly unchanged. After adjustments, the Gini coefficient ranged from 0.03 in Delaware and Nevada to 0.14 in Alaska.

Table 4-2. Variation in instructional expenditures per pupil (unadjusted dollars), by state: 1997–98

State	Restricted range ratio		Coefficient of variation		Gini coefficient		Synthesized measure of variation	
	Value	Rank	Value	Rank	Value	Rank	Average rank	Average quartile
United States	1.19	†	0.27	†	0.14	†	†	†
Alabama	0.36	16	0.10	10	0.05	7	11.00	2
Alaska	1.14	49	0.29	49	0.13	48	48.67	4
Arizona	0.44	22	0.12	21	0.06	19	20.67	2
Arkansas	0.45	23	0.10	10	0.05	7	13.33	2
California	0.29	7	0.09	4	0.05	7	6.00	1
Colorado	0.31	9	0.11	18	0.05	7	11.33	2
Connecticut	0.67	40	0.15	28	0.08	30	32.67	3
Delaware	0.36	16	0.09	4	0.05	7	9.00	1
District of Columbia	(!)	(!)	(!)	(!)	(!)	(!)	(!)	(!)
Florida	0.28	6	0.08	2	0.04	3	3.67	1
Georgia	0.46	24	0.10	10	0.05	7	13.67	2
Hawaii	(!)	(!)	(!)	(!)	(!)	(!)	(!)	(!)
Idaho	0.50	28	0.15	28	0.08	30	28.67	3
Illinois	1.10	48	0.24	47	0.13	48	47.67	4
Indiana	0.58	34	0.15	28	0.09	39	33.67	3
Iowa	0.40	20	0.10	10	0.06	19	16.33	2
Kansas	0.69	43	0.16	36	0.08	30	36.33	4
Kentucky	0.29	7	0.09	4	0.04	3	4.67	1
Louisiana	0.26	5	0.09	4	0.05	7	5.33	1
Maine	0.71	45	0.18	41	0.09	39	41.67	4
Maryland	0.43	21	0.13	23	0.07	26	23.33	2
Massachusetts	0.65	38	0.18	41	0.10	45	41.33	4
Michigan	0.53	33	0.15	28	0.08	30	30.33	3
Minnesota	0.67	40	0.22	46	0.08	30	38.67	4
Mississippi	0.39	19	0.10	10	0.06	19	16.00	2
Missouri	0.51	31	0.15	28	0.08	30	29.67	3
Montana	0.87	47	0.25	48	0.11	47	47.33	4
Nebraska	0.48	26	0.15	28	0.07	26	26.67	3
Nevada	0.16	1	0.10	10	0.03	1	4.00	1
New Hampshire	0.85	46	0.18	41	0.09	39	42.00	4
New Jersey	0.61	35	0.15	28	0.08	30	31.00	3
New Mexico	0.34	14	0.11	18	0.05	7	13.00	2
New York	0.68	42	0.16	36	0.08	30	36.00	3
North Carolina	0.25	4	0.08	2	0.04	3	3.00	1
North Dakota	0.61	35	0.19	45	0.09	39	39.67	4
Ohio	0.61	35	0.16	36	0.09	39	36.67	4
Oklahoma	0.46	24	0.14	26	0.07	26	25.33	3
Oregon	0.31	9	0.10	10	0.05	7	8.67	1
Pennsylvania	0.66	39	0.17	40	0.09	39	39.33	4
Rhode Island	0.33	13	0.09	4	0.05	7	8.00	1
South Carolina	0.31	9	0.10	10	0.05	7	8.67	1
South Dakota	0.49	27	0.14	26	0.06	19	24.00	3
Tennessee	0.52	32	0.13	23	0.07	26	27.00	3
Texas	0.38	18	0.13	23	0.06	19	20.00	2
Utah	0.31	9	0.11	18	0.05	7	11.33	2
Vermont	0.70	44	0.18	41	0.10	45	43.33	4
Virginia	0.50	28	0.16	36	0.08	30	31.33	3
Washington	0.23	3	0.09	4	0.04	3	3.33	1
West Virginia	0.22	2	0.06	1	0.03	1	1.33	1
Wisconsin	0.50	28	0.12	21	0.06	19	22.67	2
Wyoming	0.35	15	0.15	28	0.06	19	20.67	2

†Not applicable.

!Variation is not measured in the District of Columbia or Hawaii where there is only one school district.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data, "School District Financial Survey (Form F-33): School Year 1997–98."

Table 4-3. Variation in instructional expenditures per pupil (cost-adjusted dollars), by state: 1997–98

State	Restricted range ratio		Coefficient of variation		Gini coefficient		Synthesized measure of variation	
	Value	Rank	Value	Rank	Value	Rank	Average rank	Average quartile
United States	0.97	†	0.22	†	0.12	†	†	†
Alabama	0.31	9	0.09	7	0.05	7	7.67	1
Alaska	1.11	49	0.29	48	0.14	49	48.67	4
Arizona	0.37	17	0.13	21	0.07	26	21.33	3
Arkansas	0.31	9	0.10	8	0.05	7	8.00	1
California	0.33	11	0.11	14	0.06	13	12.67	2
Colorado	0.37	17	0.13	21	0.06	13	17.00	2
Connecticut	0.58	35	0.14	29	0.08	31	31.67	3
Delaware	0.24	3	0.07	1	0.03	1	1.67	1
District of Columbia	(!)	(!)	(!)	(!)	(!)	(!)	(!)	(!)
Florida	0.18	2	0.07	1	0.04	3	2.00	1
Georgia	0.27	5	0.08	4	0.05	7	5.33	1
Hawaii	(!)	(!)	(!)	(!)	(!)	(!)	(!)	(!)
Idaho	0.62	37	0.16	34	0.08	31	34.00	3
Illinois	1.05	47	0.21	44	0.11	47	46.00	4
Indiana	0.50	30	0.14	29	0.08	31	30.00	3
Iowa	0.37	17	0.10	8	0.06	13	12.67	2
Kansas	0.82	46	0.19	40	0.10	43	43.00	4
Kentucky	0.35	14	0.10	8	0.05	7	9.67	1
Louisiana	0.24	3	0.08	4	0.04	3	3.33	1
Maine	0.75	45	0.19	40	0.09	38	41.00	4
Maryland	0.36	15	0.11	14	0.06	13	14.00	2
Massachusetts	0.65	39	0.18	38	0.09	38	38.33	4
Michigan	0.42	24	0.12	19	0.07	26	23.00	3
Minnesota	0.51	32	0.22	47	0.08	31	36.67	3
Mississippi	0.36	15	0.10	8	0.06	13	12.00	1
Missouri	0.50	30	0.14	29	0.07	26	28.33	3
Montana	1.06	48	0.29	48	0.13	48	48.00	4
Nebraska	0.73	43	0.21	44	0.10	43	43.33	4
Nevada	0.15	1	0.11	14	0.03	1	5.33	1
New Hampshire	0.74	44	0.19	40	0.10	43	42.33	4
New Jersey	0.54	34	0.14	29	0.08	31	31.33	3
New Mexico	0.46	27	0.13	21	0.05	7	18.33	2
New York	0.47	29	0.13	21	0.06	13	21.00	2
North Carolina	0.27	5	0.08	4	0.04	3	4.00	1
North Dakota	0.68	41	0.21	44	0.09	38	41.00	4
Ohio	0.46	27	0.13	21	0.07	26	24.67	3
Oklahoma	0.70	42	0.19	40	0.10	43	41.67	4
Oregon	0.37	17	0.13	21	0.06	13	17.00	2
Pennsylvania	0.51	32	0.14	29	0.08	31	30.67	3
Rhode Island	0.39	22	0.11	14	0.06	13	16.33	2
South Carolina	0.33	11	0.10	8	0.05	7	8.67	1
South Dakota	0.65	39	0.17	37	0.08	31	35.67	3
Tennessee	0.38	21	0.11	14	0.06	13	16.00	2
Texas	0.60	36	0.18	38	0.09	38	37.33	4
Utah	0.43	26	0.13	21	0.06	13	20.00	2
Vermont	0.63	38	0.16	34	0.09	38	36.67	3
Virginia	0.30	8	0.12	19	0.06	13	13.33	2
Washington	0.34	13	0.13	21	0.06	13	15.67	2
West Virginia	0.27	5	0.07	1	0.04	3	3.00	1
Wisconsin	0.40	23	0.10	8	0.06	13	14.67	2
Wyoming	0.42	24	0.16	34	0.07	26	28.00	3

†Not applicable.

!Variation is not measured in the District of Columbia or Hawaii where there is only one school district.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data, "School District Financial Survey (Form F-33): School Year 1997–98."

Overall Variation

In a synthesis of the three variation measures, Southern states had the highest percentage of states in the two low-variation quartiles for instructional expenditures per pupil (table 4-4 and figure 4-1). After cost adjustments, 88 percent of Southern states were in the two quartiles with lowest variation compared with states across the country. In contrast, 78 percent of Northeastern and 83 percent of Midwestern states were in the two quartiles with highest variation. States in the West did not show a clear trend in variation.

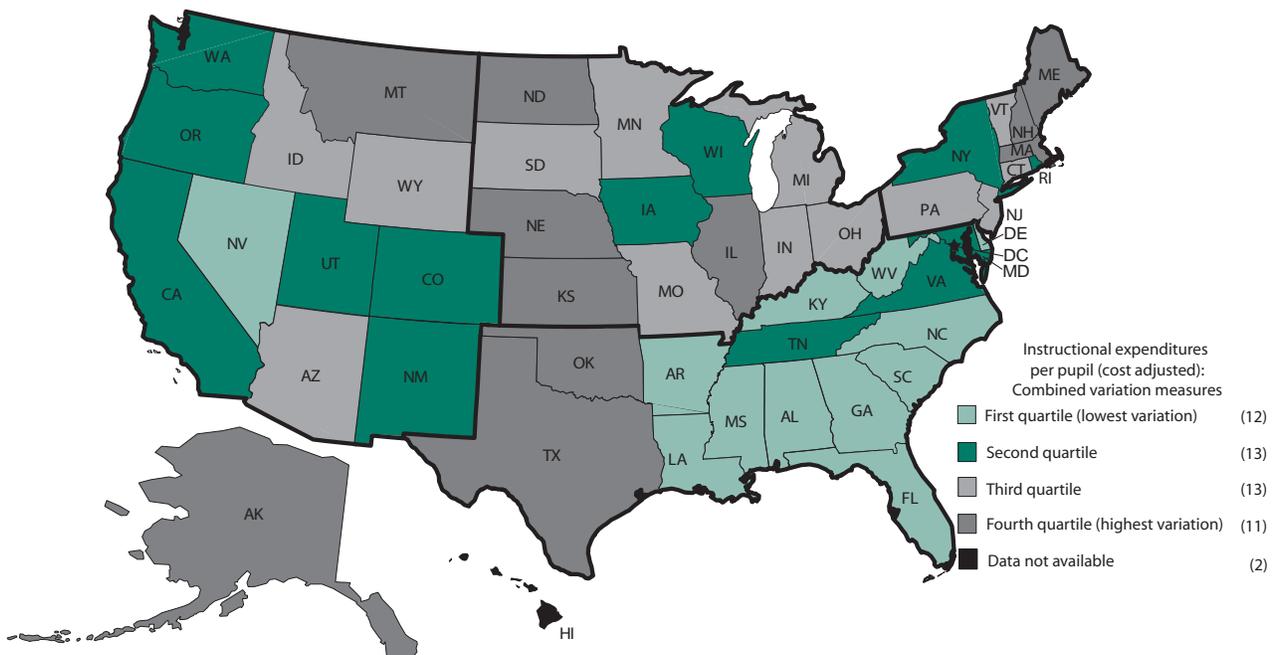
Table 4-4. Variation in instructional expenditures per pupil, by region: 1997–98

Region	Percent of states in quartiles 1 and 2 (low variation)	Percent of states in quartiles 3 and 4 (high variation)
Unadjusted instructional expenditures per pupil		
Northeast	11	89
Midwest	17	83
South	81	19
West	75	25
Cost-adjusted instructional expenditures per pupil		
Northeast	22	78
Midwest	17	83
South	88	13
West	58	42

NOTE: Detail may not sum to totals because of rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data, "School District Financial Survey (Form F-33): School Year 1997–98."

Figure 4-1. Synthesis of variation measures of instructional expenditures per pupil (cost-adjusted dollars), by state: 1997–98



NOTE: Variation is not measured in the District of Columbia or Hawaii where there is only one school district. Regions are delineated in black; Alaska and Hawaii are part of the Western Region.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data, "School District Financial Survey (Form F-33): School Year 1997–98."

Relationship Between Instructional Expenditures Per Pupil and Selected District Fiscal and Demographic Characteristics

For the United States as a whole, instructional expenditures per pupil in unadjusted dollars showed a positive relationship with a school district's median household income (+0.28) and its median housing value (+0.35) (table A-11). Similarly, at the state level, median housing value was positively related to instructional expenditures per pupil in 18 of the 40 states with sufficient data, and negatively to instructional expenditures per pupil in 11 of the 40 states (table 4-5). Only one state (Alaska) showed a strong negative relationship. Fourteen states showed no statistically significant relationship between median household income and instructional expenditures per pupil, 10 states showed a positive relationship between income and expenditures, and 16 states showed a negative relationship.

After cost adjustments, the positive relationship between district wealth and instructional expenditures per pupil was weak for the United States as a whole (+0.06 with both household income and housing value) (table A-12). No state showed a strong positive relationship between instructional expenditures per pupil and median housing value. Three states (Alaska, Iowa, and West Virginia) showed a strong negative relationship (figure 4-2). No state had a strong positive relationship between a district's median household income and adjusted instructional expenditures per pupil and five states showed a moderate positive relationship between these variables. Sixteen states showed a moderate negative relationship and five states showed a strong negative relationship (figure 4-3).

Instructional expenditures per pupil showed a weak relationship with minority enrollment for the United States as a whole, both before (+0.09) and after (-0.02) cost adjustments. Seven states (Alaska, Connecticut, Indiana, Iowa, Massachusetts, Wisconsin, and Wyoming) showed a strong positive relationship between minority enrollment and instructional expenditures per pupil before cost adjustments but only four states (Alaska, Delaware, Massachusetts, and Wyoming) showed this relationship after cost adjustments (figure 4-4). Nevada showed a strong negative relationship between minority enrollment and instructional expenditures per pupil before cost adjustments. No state had a strong negative relationship after cost adjustments.

District poverty rate showed a weak relationship with instructional expenditures per pupil at the national level, both before (-0.05) and after (+0.02) cost adjustments. Three states (Alaska, Utah, and Wyoming) showed a strong positive relationship between district poverty rate and instructional expenditures per pupil and four states (Alaska, Utah, West Virginia, and Wyoming) showed this relationship after cost adjustments. No state showed a strong negative relationship between district poverty rate and instructional expenditures per pupil, either before or after cost adjustments (figure 4-5).

Student and Instructional Staff Support Services Expenditures

Student support expenditures include expenditures for guidance, health, and logistical support that enhance instruction. Such support includes attendance, social work, student accounting, counseling, student appraisal, student records maintenance, and placement services. Student support services also include medical, dental, nursing, psychological, and speech services. Instructional staff support services include expenditures for supervision of instructional services, instructional staff training, and media, library, audiovisual, television, and computer-assisted instruction services.

Student and instructional staff support services expenditures for public elementary and secondary education totaled \$23.3 billion in 1997–98 (table 4-6). This was just over 7 percent of total school district

Table 4-5. Correlations between instructional expenditures per pupil and selected fiscal and demographic characteristics, by state: 1997–98

Characteristics	States (before cost adjustments)	States (after cost adjustments)
Minority enrollment		
Strong positive relationship	Alaska, Connecticut, Indiana, Iowa, Massachusetts, Wisconsin, Wyoming	Alaska, Delaware, ¹ Massachusetts, Wyoming
Moderate positive relationship	Arizona, California, Florida, Illinois, Michigan, Minnesota, Missouri, Montana, North Dakota, Ohio, Oregon, South Carolina, Tennessee, Utah, Washington	Arizona, Connecticut, ¹ Illinois, Indiana, ¹ Iowa, ¹ Michigan, Minnesota, Missouri, Montana, North Dakota, Ohio, Oregon, South Carolina, Utah, Wisconsin ¹
Weak positive relationship	<i>US overall</i>	California ¹
Weak negative relationship	Texas	<i>US overall</i> ¹
Moderate negative relationship	Nebraska, Pennsylvania	Kansas, ¹ Louisiana, ¹ Nebraska, New Hampshire, ¹ New York, ¹ Pennsylvania, Texas ¹
Strong negative relationship	Nevada	[none]
No significant relationship	Alabama, Delaware, Idaho, Kansas, Louisiana, Maine, Maryland, New Hampshire, New York, North Carolina, Rhode Island, Vermont, Virginia, West Virginia	Alabama, Florida, ¹ Idaho, Maine, Maryland, Nevada, ¹ North Carolina, Rhode Island, Tennessee, ¹ Vermont, Virginia, Washington, ¹ West Virginia
District poverty rate		
Strong positive relationship	Alaska, Utah, Wyoming	Alaska, Utah, West Virginia, ¹ Wyoming
Moderate positive relationship	Arizona, California, Connecticut, Indiana, Iowa, Kansas, Massachusetts, Michigan, Minnesota, Missouri, Montana, North Dakota, Oregon, Texas, Washington, West Virginia, Wisconsin	Arizona, California, Connecticut, Florida, ¹ Illinois, ¹ Indiana, Iowa, Kansas, Maine, ¹ Massachusetts, Michigan, Minnesota, Missouri, Montana, North Carolina, ¹ North Dakota, Oregon, South Carolina, ¹ Tennessee, ¹ Texas, Washington, Wisconsin
Weak positive relationship	Illinois	Nebraska, ¹ <i>US overall</i> ¹
Weak negative relationship	<i>US overall</i>	[none]
Moderate negative relationship	Alabama, Louisiana, New York, Pennsylvania, Virginia	Louisiana, New York, Pennsylvania
Strong negative relationship	[none]	[none]
No significant relationship	Delaware, Florida, Idaho, Maine, Maryland, Nebraska, Nevada, New Hampshire, North Carolina, Ohio, Rhode Island, South Carolina, Tennessee, Vermont	Alabama, ¹ Delaware, Idaho, Maryland, Nevada, New Hampshire, Ohio, Rhode Island, Vermont, Virginia ¹
Median household income		
Strong positive relationship	Delaware, Louisiana, New York, Pennsylvania, Virginia	[none]
Moderate positive relationship	Alabama, Illinois, Michigan, Missouri, Ohio, <i>US overall</i>	Louisiana, ¹ New York, ¹ Ohio, Pennsylvania, ¹ Virginia, ¹ Illinois, ¹ <i>US overall</i> ¹
Weak positive relationship	[none]	Michigan ¹
Weak negative relationship	California	Arizona, California, ¹ Indiana, Kansas, Maine, ¹ Massachusetts, Minnesota, Missouri, ¹ Montana, Nebraska, North Carolina, ¹ North Dakota, Oregon, Texas, Wisconsin, ¹ Wyoming ¹
Moderate negative relationship	Arizona, Indiana, Iowa, Kansas, Massachusetts, Minnesota, Montana, Nebraska, North Dakota, Oregon, Texas, Washington, West Virginia	Alabama, ¹ Connecticut, Delaware, ¹ Florida, Idaho, Maryland, Nevada, New Hampshire, Rhode Island, South Carolina, Tennessee, Vermont, Wisconsin, Wyoming
Strong negative relationship	Alaska, Utah	Alaska, Iowa, ¹ Utah, Washington, ¹ West Virginia ¹
No significant relationship	Connecticut, Florida, Idaho, Maine, Maryland, Nevada, New Hampshire, North Carolina, Rhode Island, South Carolina, Tennessee, Vermont, Wisconsin, Wyoming	Alabama, ¹ Connecticut, Delaware, ¹ Florida, ¹ Idaho, Maryland, Nevada, New Hampshire, Rhode Island, South Carolina, Tennessee, Vermont
Median housing value		
Strong positive relationship	Delaware, Florida, Louisiana, New York, Pennsylvania, Virginia	[none]
Moderate positive relationship	Alabama, California, Illinois, Massachusetts, Michigan, Missouri, New Hampshire, North Carolina, Ohio, Tennessee, Vermont, Wisconsin, <i>US overall</i>	Illinois, New York, ¹ Ohio, Pennsylvania, ¹ Vermont, Virginia ¹
Weak positive relationship	[none]	<i>US overall</i> ¹
Weak negative relationship	[none]	[none]
Moderate negative relationship	Arizona, Indiana, Iowa, Kansas, Montana, Nebraska, Oregon, Texas, Washington, West Virginia	Arizona, California, ¹ Indiana, Kansas, Minnesota, ¹ Missouri, ¹ Montana, Nebraska, North Dakota, ¹ Oregon, Texas, Utah, ¹ Washington, Wyoming ¹
Strong negative relationship	Alaska	Alaska, Iowa, ¹ West Virginia ¹
No significant relationship	Connecticut, Idaho, Maine, Maryland, Minnesota, Nevada, North Dakota, Rhode Island, South Carolina, Utah, Wyoming	Alabama, ¹ Connecticut, Delaware, ¹ Florida, ¹ Idaho, Louisiana, ¹ Maine, Maryland, Massachusetts, ¹ Michigan, ¹ Nevada, New Hampshire, ¹ North Carolina, ¹ Rhode Island, South Carolina, Tennessee, ¹ Wisconsin ¹

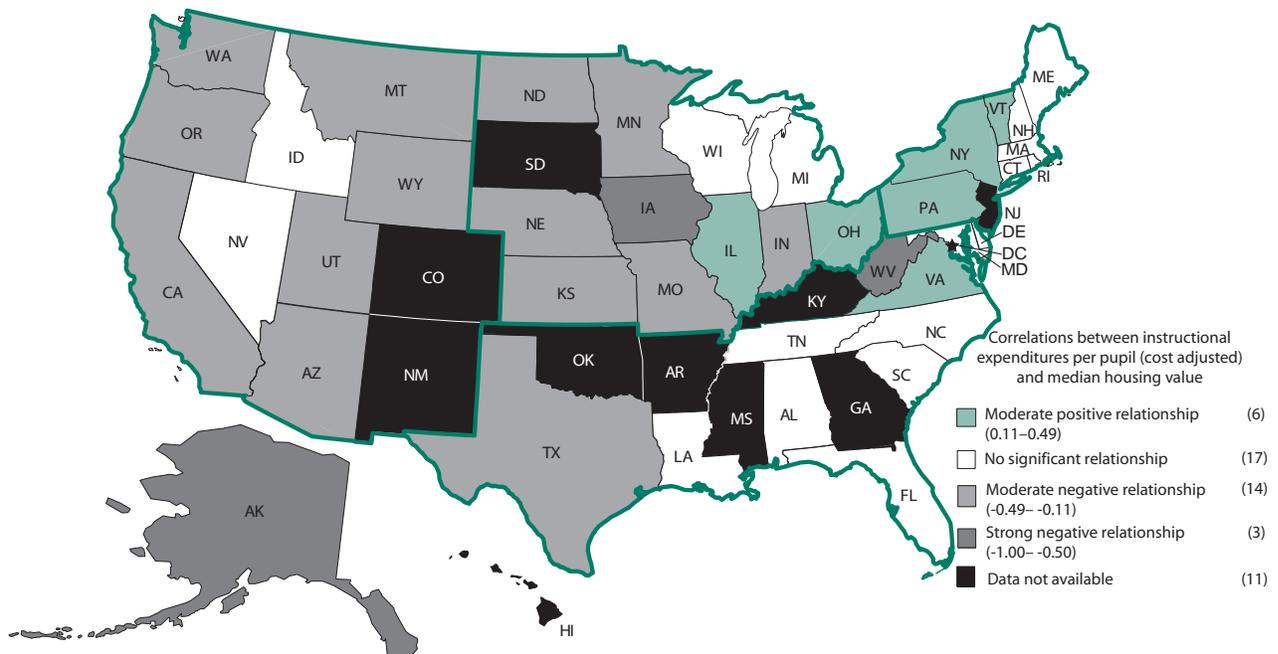
Table 4-5. Correlations between instructional expenditures per pupil and selected fiscal and demographic characteristics, by state: 1997–98—Continued

Characteristics	States (before cost adjustments)	States (after cost adjustments)
Student membership		
Strong positive relationship	Delaware	[none]
Moderate positive relationship	Connecticut, Florida, Georgia, Indiana, Maryland, Massachusetts, Michigan, Ohio, Tennessee, Vermont	Indiana
Weak positive relationship	[none]	[none]
Weak negative relationship	Nebraska, <i>US overall</i>	California, ¹ <i>US overall</i>
Moderate negative relationship	Alaska, Arizona, Colorado, Idaho, Kansas, Maine, Montana, New Mexico, North Carolina, Oklahoma, Oregon, Texas, Utah, Washington, Wyoming	Alabama, ¹ Alaska, Arizona, Arkansas, ¹ Colorado, Georgia, ¹ Idaho, Iowa, ¹ Kansas, Kentucky, ¹ Maine, Mississippi, ¹ Missouri, ¹ Montana, Nebraska, ¹ New Hampshire, ¹ New Mexico, North Carolina, North Dakota, ¹ Oklahoma, Oregon, South Dakota, ¹ Texas, Utah, Washington, Wyoming
Strong negative relationship	[none]	[none]
No significant relationship	Alabama, Arkansas, California, Illinois, Iowa, Kentucky, Louisiana, Minnesota, Mississippi, Missouri, Nevada, New Hampshire, New Jersey, New York, North Dakota, Pennsylvania, Rhode Island, South Carolina, South Dakota, Virginia, West Virginia, Wisconsin	Connecticut, ¹ Delaware, ¹ Florida, ¹ Illinois, Louisiana, Maryland, ¹ Massachusetts, ¹ Michigan, ¹ Minnesota, Nevada, New Jersey, New York, Ohio, ¹ Pennsylvania, Rhode Island, South Carolina, Tennessee, ¹ Vermont, ¹ Virginia, West Virginia, Wisconsin

¹State changed categories after cost adjustments.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data, "School District Financial Survey (Form F-33): School Year 1997–98" and U.S. Department of Commerce, Bureau of the Census, 1990 Decennial Census School District Special Tabulation.

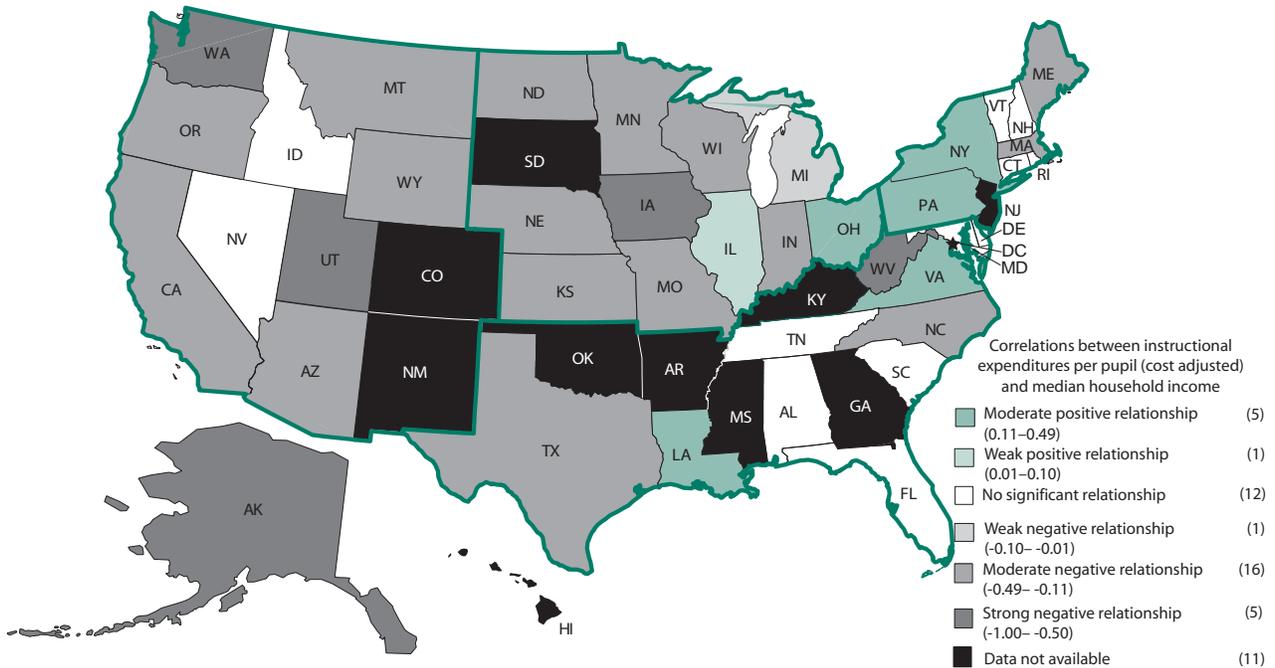
Figure 4-2. Correlations between instructional expenditures per pupil and median housing value (cost-adjusted dollars), by state: 1997–98



NOTE: No state-level correlation analysis was possible for the District of Columbia or Hawaii since they only have one district. Nine other states (Arkansas, Colorado, Georgia, Kentucky, Mississippi, New Jersey, New Mexico, Oklahoma, and South Dakota) were excluded from state-level correlation analysis because more than 50 percent of the school districts were missing Census data. Regions are delineated in green; Alaska and Hawaii are part of the Western Region.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data, "School District Financial Survey (Form F-33): School Year 1997–98" and U.S. Department of Commerce, Bureau of the Census, 1990 Decennial Census School District Special Tabulation.

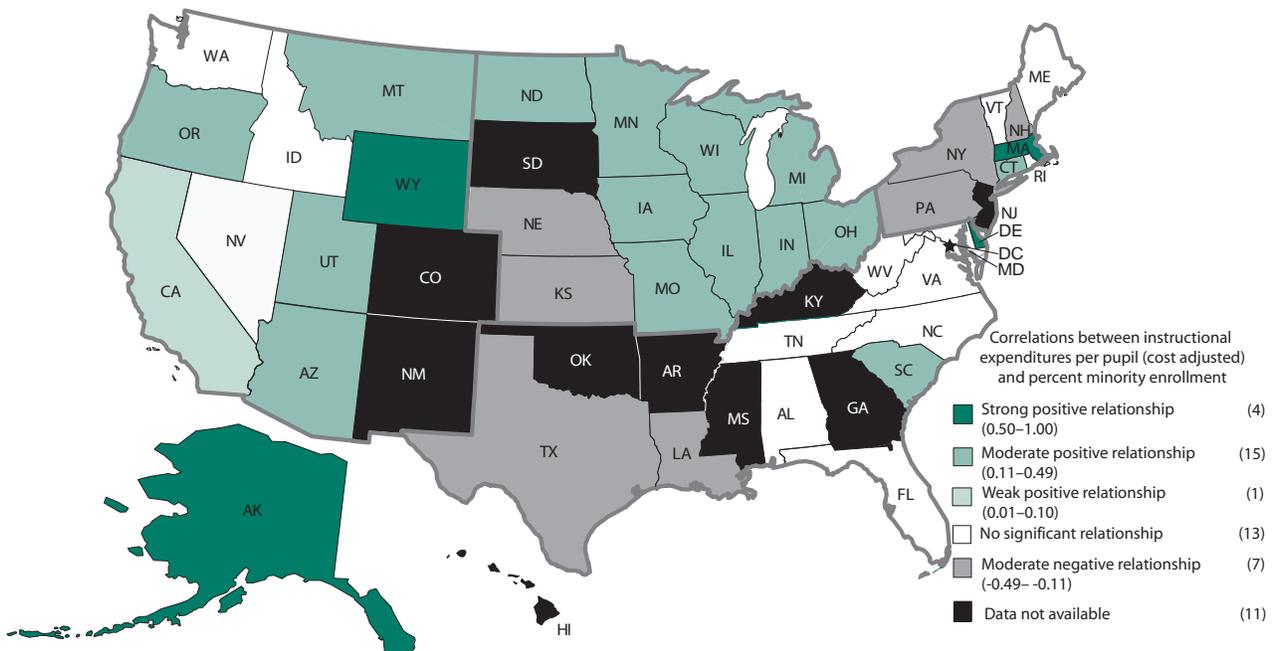
Figure 4-3. Correlations between instructional expenditures per pupil and median household income (cost-adjusted dollars), by state: 1997–98



NOTE: No state-level correlation analysis was possible for the District of Columbia or Hawaii since they only have one district. Nine other states (Arkansas, Colorado, Georgia, Kentucky, Mississippi, New Jersey, New Mexico, Oklahoma, and South Dakota) were excluded from state-level correlation analysis because more than 50 percent of the school districts were missing Census data. Regions are delineated in green; Alaska and Hawaii are part of the Western Region.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data, "School District Financial Survey (Form F-33): School Year 1997–98" and U.S. Department of Commerce, Bureau of the Census, 1990 Decennial Census School District Special Tabulation.

Figure 4-4. Correlations between instructional expenditures per pupil and percent minority enrollment (cost-adjusted dollars), by state: 1997–98



NOTE: No state-level correlation analysis was possible for the District of Columbia or Hawaii since they only have one district. Nine other states (Arkansas, Colorado, Georgia, Kentucky, Mississippi, New Jersey, New Mexico, Oklahoma, and South Dakota) were excluded from state-level correlation analysis because more than 50 percent of the school districts were missing Census data. Regions are delineated in gray; Alaska and Hawaii are part of the Western Region.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data, "School District Financial Survey (Form F-33): School Year 1997–98" and U.S. Department of Commerce, Bureau of the Census, 1990 Decennial Census School District Special Tabulation.

Table 4-6. Student and instructional staff support services expenditures, cost-adjusted student and instructional staff support services expenditures, student and instructional staff support services expenditures per pupil, and cost-adjusted student and instructional staff support services expenditures per pupil in public school districts, by region, district enrollment, minority enrollment, district poverty rate, median household income, and median housing value: 1997–98

School district characteristics	Student and instructional staff support services expenditures (in thousands)	Cost-adjusted student and instructional staff support services expenditures (in thousands)	Student and instructional staff support services expenditures per pupil	Cost-adjusted student and instructional staff support services expenditures per pupil
All districts	\$23,348,428	\$23,211,918	\$512	\$510
Region				
Northeast	5,048,339	4,521,418	637	572
Midwest	5,598,833	5,649,825	527	535
South	8,405,996	8,951,797	510	543
West	4,295,260	4,088,878	405	388
District enrollment				
0–999	1,063,995	1,167,067	391	436
1,000–4,999	6,379,370	6,460,718	491	500
5,000–9,999	3,716,732	3,645,825	527	518
10,000 or more	12,188,331	11,938,308	533	523
Minority enrollment				
Less than 5 percent	5,125,251	5,233,219	454	464
5 percent–<20 percent	6,258,862	6,195,966	522	516
20 percent–<50 percent	6,889,032	6,897,650	537	537
50 percent or more	3,802,067	3,626,749	533	509
Data missing ¹	1,273,216	1,258,334	—	—
District poverty rate				
Less than 5 percent	3,282,564	3,005,462	635	582
5 percent–<15 percent	7,442,243	7,384,173	481	477
15 percent–<25 percent	5,784,526	6,004,465	488	507
25 percent or more	5,565,879	5,559,483	518	517
Data missing ¹	1,273,216	1,258,334	—	—
Median household income				
Less than \$20,000	1,609,425	1,759,991	465	509
\$20,000–<\$25,000	4,054,833	4,314,541	483	514
\$25,000–<\$30,000	5,504,652	5,578,527	491	498
\$30,000–<\$35,000	3,849,152	3,783,434	509	500
\$35,000 or more	7,057,150	6,517,091	559	516
Data missing ¹	1,273,216	1,258,334	—	—
Median housing value				
Less than \$40,000	1,657,301	1,822,145	453	498
\$40,000–<\$55,000	3,633,761	3,914,286	464	500
\$55,000–<\$85,000	7,285,478	7,506,048	504	520
\$85,000 or more	9,498,672	8,711,105	548	503
Data missing ¹	1,273,216	1,258,334	—	—

—Not available.

¹These districts were missing 1990 Census demographic data.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data, “School District Financial Survey (Form F-33): School Year 1997–98” and U.S. Department of Commerce, Bureau of the Census, 1990 Decennial Census School District Special Tabulation.

Before cost adjustments, student and instructional staff support services expenditures per pupil showed weak but statistically significant positive relationships with two measures of district wealth—median household income (+0.20) and median housing value (+0.12) (table A-13). Before cost adjustments, districts with higher median household income had higher student and instructional staff support services expenditures. The same findings held true for the relationship between student and instructional staff support and median housing value.

After cost adjustments, this correlation became weak and changed direction in the case of housing value (-0.04) (table A-14). Districts with median household income at or above \$35,000 had the highest average expenditures per pupil (\$516), and expenditures per pupil in districts with median household

income less than \$20,000 were lower (\$509). Similar results were found for the relationship between median housing value and adjusted average expenditures per pupil. Districts with median housing value between \$55,000 and \$85,000 had the highest average expenditure per pupil at \$520. Districts with the lowest and highest median housing values had similar adjusted expenditures per pupil—\$498 and \$503, respectively.

Student and instructional staff support services expenditures per pupil showed a moderate positive relationship with minority enrollment before cost adjustments (+0.12), and a weak positive relationship after adjustments (+0.08). Before adjustments, school districts with higher minority enrollments had higher student and instructional staff support services expenditures per pupil and districts with the lowest minority enrollments had the lowest expenditures per pupil, \$533 and \$454, respectively. After adjustments, districts with less than 5 percent minority enrollment still had the lowest student and instructional staff support services expenditures per pupil (\$464) and districts with greater than 50 percent minority enrollment had expenditures per pupil averaging \$509. The difference between the highest- and lowest-minority districts was reduced from \$79 to \$45.

Student and instructional staff support services expenditures per pupil had a weak negative correlation with district poverty rate before cost adjustments (-0.05) and no significant relationship after. Student and instructional staff support services expenditures per pupil were highest in the lowest-poverty districts before and after cost adjustments (\$635 and \$582, respectively). After cost adjustments, the difference between the lowest- and highest-poverty districts was reduced from \$117 to \$65.

Variations in Student and Instructional Staff Support Services Expenditures Per Pupil

Restricted Range Ratio

The restricted range ratio for unadjusted student and instructional staff support services expenditures per pupil across the United States was 3.91 (table 4-7). This means support services expenditures in the district at the 95th percentile were 3.91 times higher than support services expenditures in the district at the 5th percentile. Variation across the states ranged from 0.28 in Nevada to 10.42 in North Dakota.

When cost adjustments were applied, the restricted range ratio for student and instructional staff support services expenditures per pupil across the United States decreased to 3.12 (table 4-8). Six states exceeded the national variation after cost adjustments: Illinois, Maine, Michigan, Montana, New York, and North Dakota. Cost adjustments also reduced the range between the lowest-variation and the highest-variation states. After cost adjustments, the restricted range ratio ranged from 0.31 in Maryland to 9.76 in North Dakota.

Coefficient of Variation

The coefficient of variation for unadjusted student and instructional staff support services expenditures per pupil across the United States was 0.47. This means approximately two-thirds of the districts nationally have support services expenditures per pupil between \$271 and \$753, a range that is from 47 percent below the mean to 47 percent above the mean. Variation in the states ranged from 0.11 in Maryland to 0.71 in California. Six states (California, Illinois, Michigan, Montana, New York, and North Dakota) had a coefficient of variation higher than the United States coefficient.

Chapter 4: Expenditures for Current Functions

Table 4-7. Variation in student and instructional staff support services expenditures per pupil (unadjusted dollars), by state: 1997–98

State	Restricted range ratio		Coefficient of variation		Gini coefficient		Synthesized measure of variation	
	Value	Rank	Value	Rank	Value	Rank	Average rank	Average quartile
United States	3.91	†	0.47	†	0.25	†	†	†
Alabama	1.17	19	0.22	11	0.13	16	15.33	2
Alaska	1.22	22	0.30	26	0.13	16	21.33	2
Arizona	1.27	23	0.24	17	0.12	12	17.33	2
Arkansas	1.55	30	0.31	27	0.16	26	27.67	3
California	(¹)	(¹)	0.71	49	0.39	49	49.00	4
Colorado	1.03	13	0.25	18	0.14	20	17.00	2
Connecticut	2.20	35	0.31	27	0.17	29	30.33	3
Delaware	0.91	7	0.20	7	0.10	5	6.33	1
District of Columbia	(²)	(²)	(²)	(²)	(²)	(²)	(²)	(²)
Florida	0.52	3	0.14	2	0.08	3	2.67	1
Georgia	0.78	5	0.21	8	0.11	8	7.00	1
Hawaii	(²)	(²)	(²)	(²)	(²)	(²)	(²)	(²)
Idaho	1.39	27	0.28	23	0.15	23	24.33	2
Illinois	5.56	47	0.58	47	0.28	45	46.33	4
Indiana	2.55	39	0.42	42	0.23	42	41.00	4
Iowa	1.68	31	0.29	24	0.16	26	27.00	3
Kansas	2.18	34	0.39	39	0.21	39	37.33	4
Kentucky	1.11	16	0.26	19	0.14	20	18.33	2
Louisiana	0.81	6	0.18	4	0.10	5	5.00	1
Maine	4.87	46	0.36	33	0.20	37	38.67	4
Maryland	0.40	2	0.11	1	0.06	1	1.33	1
Massachusetts	1.85	32	0.34	31	0.18	32	31.67	3
Michigan	4.26	44	0.50	45	0.28	45	44.67	4
Minnesota	2.33	38	0.36	33	0.19	35	35.33	3
Mississippi	1.17	19	0.27	21	0.15	23	21.00	2
Missouri	2.04	33	0.37	37	0.20	37	35.67	3
Montana	4.29	45	0.49	44	0.26	44	44.33	4
Nebraska	1.46	28	0.31	27	0.17	29	28.00	3
Nevada	0.28	1	0.18	4	0.06	1	2.00	1
New Hampshire	1.48	29	0.36	33	0.17	29	30.33	3
New Jersey	1.01	10	0.22	11	0.12	12	11.00	1
New Mexico	1.19	21	0.22	11	0.11	8	13.33	1
New York	3.66	43	0.56	46	0.31	48	45.67	4
North Carolina	0.58	4	0.15	3	0.08	3	3.33	1
North Dakota	10.42	48	0.58	47	0.29	47	47.33	4
Ohio	2.25	36	0.39	39	0.22	41	38.67	4
Oklahoma	2.26	37	0.34	31	0.19	35	34.33	3
Oregon	1.06	14	0.23	15	0.12	12	13.67	2
Pennsylvania	1.35	26	0.29	24	0.15	23	24.33	2
Rhode Island	1.01	10	0.23	15	0.13	16	13.67	2
South Carolina	0.99	9	0.21	8	0.11	8	8.33	1
South Dakota	2.91	41	0.43	43	0.24	43	42.33	4
Tennessee	1.01	10	0.27	21	0.14	20	17.00	2
Texas	1.29	24	0.26	19	0.13	16	19.67	2
Utah	1.15	18	0.36	33	0.16	26	25.67	3
Vermont	3.34	42	0.38	38	0.21	39	39.67	4
Virginia	1.31	25	0.39	39	0.18	32	32.00	3
Washington	1.14	17	0.22	11	0.12	12	13.33	1
West Virginia	2.83	40	0.32	30	0.18	32	34.00	3
Wisconsin	0.98	8	0.21	8	0.11	8	8.00	1
Wyoming	1.10	15	0.19	6	0.10	5	8.67	1

†Not applicable.

¹The restricted range ratio could not be calculated for student and instructional staff support services expenditures in California because the fifth percentile—by which the difference is divided—was equal to zero.

²Variation is not measured in the District of Columbia or Hawaii where there is only one school district.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data, "School District Financial Survey (Form F-33): School Year 1997–98."

Table 4-8. Variation in student and instructional staff support services expenditures per pupil (cost-adjusted dollars), by state: 1997–98

State	Restricted range ratio		Coefficient of variation		Gini coefficient		Synthesized measure of variation	
	Value	Rank	Value	Rank	Value	Rank	Average rank	Average quartile
United States	3.12	†	0.43	†	0.23	†	†	†
Alabama	1.06	18	0.21	10	0.12	12	13.33	2
Alaska	1.01	16	0.32	29	0.13	16	20.33	2
Arizona	1.15	23	0.26	21	0.13	16	20.00	2
Arkansas	1.35	28	0.28	26	0.15	26	26.67	3
California	(¹)	(¹)	0.71	49	0.39	49	49.00	4
Colorado	1.03	17	0.25	17	0.14	21	18.33	2
Connecticut	2.17	37	0.31	28	0.17	32	32.33	3
Delaware	0.96	11	0.20	6	0.10	5	7.33	1
District of Columbia	(²)	(²)	(²)	(²)	(²)	(²)	(²)	(²)
Florida	0.54	3	0.14	2	0.08	3	2.67	1
Georgia	0.68	5	0.20	6	0.11	8	6.33	1
Hawaii	(²)	(²)	(²)	(²)	(²)	(²)	(²)	(²)
Idaho	1.38	29	0.27	25	0.15	26	26.67	3
Illinois	4.54	46	0.53	46	0.26	46	46.00	4
Indiana	2.35	39	0.40	42	0.22	42	41.00	4
Iowa	1.51	30	0.26	21	0.14	21	24.00	3
Kansas	2.52	40	0.38	40	0.20	39	39.67	4
Kentucky	1.12	20	0.25	17	0.14	21	19.33	2
Louisiana	0.87	6	0.19	5	0.10	5	5.33	1
Maine	4.19	45	0.35	36	0.19	38	39.67	4
Maryland	0.31	1	0.11	1	0.06	1	1.00	1
Massachusetts	1.78	34	0.34	35	0.18	36	35.00	3
Michigan	3.57	44	0.46	44	0.25	44	44.00	4
Minnesota	1.64	33	0.32	29	0.16	31	31.00	3
Mississippi	1.19	24	0.26	21	0.14	21	22.00	2
Missouri	1.54	31	0.32	29	0.17	32	30.67	3
Montana	4.56	47	0.49	45	0.25	44	45.33	4
Nebraska	1.22	25	0.30	27	0.15	26	26.00	3
Nevada	0.34	2	0.18	4	0.06	1	2.33	1
New Hampshire	1.62	32	0.36	38	0.17	32	34.00	3
New Jersey	0.96	11	0.22	13	0.12	12	12.00	1
New Mexico	1.13	22	0.23	15	0.11	8	15.00	2
New York	3.55	43	0.55	47	0.30	48	46.00	4
North Carolina	0.57	4	0.15	3	0.08	3	3.33	1
North Dakota	9.76	48	0.58	48	0.28	47	47.67	4
Ohio	2.02	35	0.36	38	0.20	39	37.33	4
Oklahoma	2.03	36	0.33	34	0.18	36	35.33	3
Oregon	0.97	14	0.22	13	0.12	12	13.00	2
Pennsylvania	1.27	27	0.25	17	0.14	21	21.67	2
Rhode Island	1.07	19	0.23	15	0.13	16	16.67	2
South Carolina	1.00	15	0.21	10	0.12	12	12.33	1
South Dakota	2.34	38	0.40	42	0.22	42	40.67	4
Tennessee	0.96	11	0.25	17	0.13	16	14.67	2
Texas	1.24	26	0.26	21	0.13	16	21.00	2
Utah	0.93	9	0.35	36	0.15	26	23.67	3
Vermont	3.10	42	0.39	41	0.20	39	40.67	4
Virginia	0.95	10	0.32	29	0.15	26	21.67	2
Washington	0.88	7	0.21	10	0.11	8	8.33	1
West Virginia	2.75	41	0.32	29	0.17	32	34.00	3
Wisconsin	0.90	8	0.20	6	0.10	5	6.33	1
Wyoming	1.12	20	0.20	6	0.11	8	11.33	1

†Not applicable.

¹The restricted range ratio could not be calculated for student and instructional staff support services expenditures in California because the fifth percentile—by which the difference is divided—was equal to zero.²Variation is not measured in the District of Columbia or Hawaii where there is only one school district.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data, "School District Financial Survey (Form F-33): School Year 1997–98."

When student and instructional staff support services expenditures were adjusted for cost-of-education differences, the coefficient of variation for student and instructional staff support services expenditures per pupil across the United States decreased to 0.43. The same states exceeded the national variation after cost adjustments as before cost adjustments. Cost adjustments did not change the range between the lowest-variation and highest-variation states. After cost adjustments, the coefficient of variation ranged from 0.11 in Maryland to 0.71 in California.

Gini Coefficient

The Gini coefficient for unadjusted student and instructional staff support services expenditures per pupil across the United States was 0.25. A Gini coefficient of 0 means expenditures are distributed equally; higher values such as 0.25 imply expenditures are more concentrated among a smaller share of students. Variation in the states ranged from 0.06 in Maryland and Nevada to 0.39 in California.

Cost of education adjustments reduced the Gini coefficient to 0.23. After cost adjustment, 6 states (California, Illinois, Michigan, Montana, New York, and North Dakota) exceeded the United States level of variation, and the range of variation remained unchanged. After adjustments, the Gini coefficient ranged from 0.01 in Maryland and Nevada to 0.39 in California.

Overall Variation

In a synthesis of the three variation measures, the South and West had the highest percentage of states in the two low-variation quartiles for support services expenditures per pupil (table 4-9 and figure 4-6). After cost adjustments, 81 percent of states in the South and 67 percent of states in the West were in the two quartiles with lowest variation compared with states across the country. In contrast, nearly all Midwestern states (92 percent) were in the two quartiles with highest variation.

Table 4-9. Variation in student and instructional staff support services expenditures per pupil, by region: 1997–98

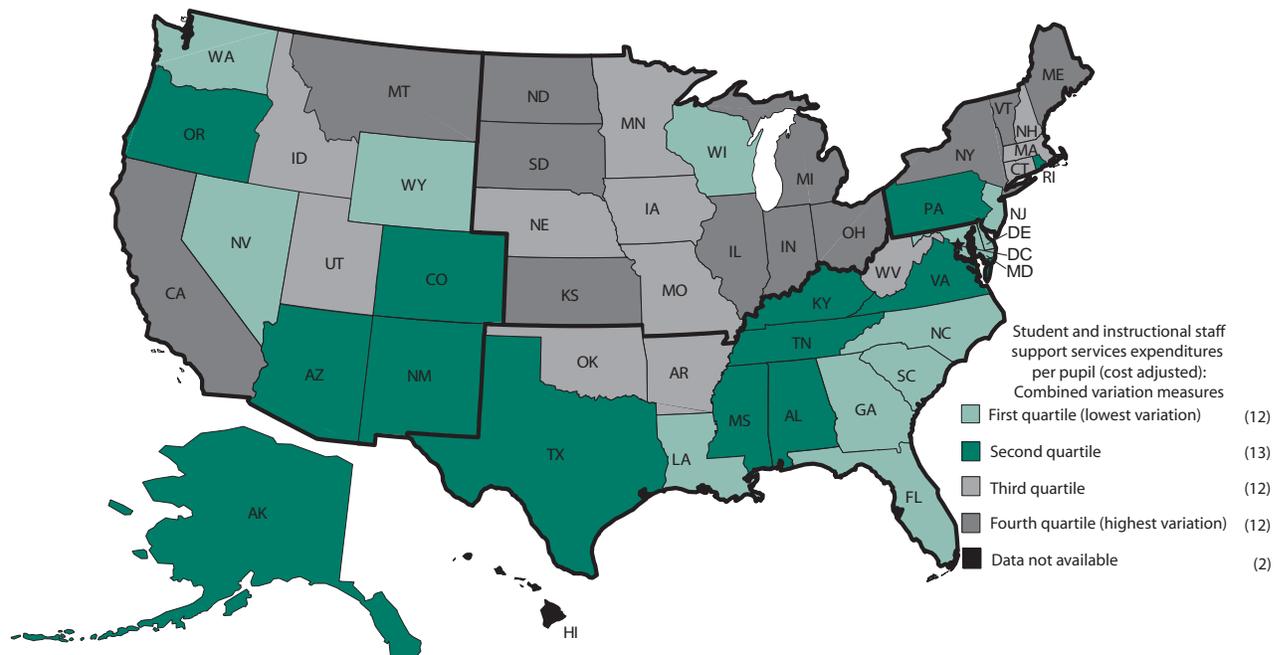
Region	Percent of states in quartiles 1 and 2 (low variation)	Percent of states in quartiles 3 and 4 (high variation)
Unadjusted student and instructional staff support services expenditures per pupil		
Northeast	33	67
Midwest	8	92
South	75	25
West	75	25
Cost-adjusted student and instructional staff support services expenditures per pupil		
Northeast	33	67
Midwest	8	92
South	81	19
West	67	33

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data, "School District Financial Survey (Form F-33): School Year 1997–98."

Relationship Between Student and Instructional Staff Support Services Expenditures Per Pupil and Selected District Fiscal and Demographic Characteristics

For the United States as a whole, student and instructional staff support services expenditures per pupil in unadjusted dollars showed a positive relationship with a school district's median household income (+0.20) and its median housing value (+0.12) (table A-13). Similarly, at the state level, median housing

Figure 4-6. Synthesis of variation measures of student and instructional staff support services expenditures per pupil (cost-adjusted dollars), by state: 1997–98



NOTE: Variation is not measured in the District of Columbia or Hawaii where there is only one school district. Regions are delineated in black; Alaska and Hawaii are part of the Western Region.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data, "School District Financial Survey (Form F-33): School Year 1997–98."

value was positively related to student and instructional staff support services expenditures per pupil in 25 of the 40 states with sufficient data, and negatively to student and instructional staff support services expenditures per pupil in only 2 states (table 4-10). Only two states (Arizona and Indiana) showed a moderate negative relationship. Nineteen states showed no statistically significant relationship between household income and student and instructional staff support services expenditures per pupil, 14 states showed a positive relationship between income and expenditures, and 6 states showed a negative relationship.

After cost adjustments, the relationship between district wealth and student and instructional staff support services expenditures per pupil was weak for the United States as a whole (table A-14). After cost adjustments, more than half of the states with sufficient data (21) showed no relationship between student and instructional staff support services expenditures per pupil and median housing value (figure 4-7). No state showed a strong negative relationship. Three states (Maryland, Pennsylvania, and Virginia) showed a strong positive relationship. No state had a strong negative relationship between a district's median household income and adjusted student and instructional staff support services expenditures per pupil and nine states showed a moderate negative relationship between these variables. Seven states showed a moderate positive relationship and only one state (New York) showed a strong positive relationship (figure 4-8).

Student and instructional staff support services expenditures per pupil showed a moderate positive relationship with minority enrollment for the United States as a whole before cost adjustments (+0.12) and a weak positive relationship after adjustments (+0.08). Seven states (Indiana, Massachusetts, Minnesota, Missouri, Ohio, Rhode Island, and Utah) showed a strong positive relationship between minority enrollment and student and instructional staff support services expenditures per pupil before cost

Table 4-10. Correlations between student and instructional staff support services expenditures per pupil and selected fiscal and demographic characteristics, by state: 1997–98

Characteristics	States (before cost adjustments)	States (after cost adjustments)
Minority enrollment		
Strong positive relationship	Indiana, Massachusetts, Minnesota, Missouri, Ohio, Rhode Island, Utah	Massachusetts, Minnesota, Missouri, Ohio, Utah
Moderate positive relationship	Alabama, Arizona, California, Florida, Illinois, Iowa, Kansas, Maine, Montana, Nebraska, New Hampshire, North Dakota, Oregon, South Carolina, Tennessee, Texas, Vermont, Washington, Wisconsin, <i>US overall</i>	Alabama, Arizona, California, Illinois, Indiana, ¹ Iowa, Kansas, Maine, Montana, Nebraska, New Hampshire, North Carolina, ¹ North Dakota, Oregon, Rhode Island, ¹ South Carolina, Tennessee, Texas, Washington, Wisconsin
Weak positive relationship	[none]	<i>US overall</i> ¹
Weak negative relationship	[none]	[none]
Moderate negative relationship	[none]	Pennsylvania ¹
Strong negative relationship	New York	New York
No significant relationship	Alaska, Connecticut, Delaware, Idaho, Louisiana, Maryland, Michigan, Nevada, North Carolina, Pennsylvania, Virginia, West Virginia, Wyoming	Alaska, Connecticut, Delaware, Florida, ¹ Idaho, Louisiana, Maryland, Michigan, Nevada, Vermont, ¹ Virginia, West Virginia, Wyoming
District poverty rate		
Strong positive relationship	Utah	Utah
Moderate positive relationship	Arizona, California, Indiana, Massachusetts, Minnesota, Missouri, Montana, Nebraska, North Dakota, Ohio, Rhode Island, Tennessee, Texas, Wisconsin	Alabama, ¹ Arizona, California, Indiana, Kansas, ¹ Massachusetts, Minnesota, Missouri, Montana, Nebraska, North Dakota, Ohio, Tennessee, Texas, Washington, ¹ Wisconsin
Weak positive relationship	[none]	[none]
Weak negative relationship	Illinois, Michigan, <i>US overall</i>	Illinois, Michigan
Moderate negative relationship	Louisiana, Pennsylvania, West Virginia	Pennsylvania, West Virginia
Strong negative relationship	New York	New York
No significant relationship	Alabama, Alaska, Connecticut, Delaware, Florida, Idaho, Iowa, Kansas, Maine, Maryland, Nevada, New Hampshire, North Carolina, Oregon, South Carolina, Vermont, Virginia, Washington, Wyoming	Alaska, Connecticut, Delaware, Florida, Idaho, Iowa, Louisiana, ¹ Maine, Maryland, Nevada, New Hampshire, North Carolina, Oregon, Rhode Island, ¹ South Carolina, Vermont, Virginia, Wyoming, <i>US overall</i> ¹
Median household income		
Strong positive relationship	Maryland, New York, Pennsylvania	New York
Moderate positive relationship	Alaska, Connecticut, Idaho, Illinois, Iowa, Louisiana, Maine, Michigan, Oregon, Virginia, West Virginia, <i>US overall</i>	Alaska, Connecticut, Illinois, Louisiana, Michigan, Pennsylvania, ¹ Virginia
Weak positive relationship	Wisconsin	<i>US overall</i> ¹
Weak negative relationship	[none]	[none]
Moderate negative relationship	Arizona, Indiana, Montana, Rhode Island, Texas, Utah	Arizona, Florida, ¹ Indiana, Missouri, ¹ Montana, Nebraska, ¹ Texas, Utah, Washington ¹
Strong negative relationship	[none]	[none]
No significant relationship	Alabama, California, Delaware, Florida, Kansas, Massachusetts, Minnesota, Missouri, Nebraska, Nevada, New Hampshire, North Carolina, North Dakota, Ohio, South Carolina, Tennessee, Vermont, Washington, Wyoming	Alabama, California, Delaware, Idaho, ¹ Iowa, ¹ Kansas, Maine, ¹ Maryland, ¹ Massachusetts, Minnesota, Nevada, New Hampshire, North Carolina, North Dakota, Ohio, Oregon, ¹ Rhode Island, ¹ South Carolina, Tennessee, Vermont, West Virginia, ¹ Wisconsin, ¹ Wyoming
Median housing value		
Strong positive relationship	Illinois, Maryland, Pennsylvania, Virginia	Maryland, Pennsylvania, Virginia
Moderate positive relationship	Alabama, California, Idaho, Iowa, Kansas, Louisiana, Maine, Massachusetts, Michigan, Minnesota, Missouri, Nebraska, Nevada, New Hampshire, North Carolina, North Dakota, Ohio, Vermont, Washington, West Virginia, Wisconsin, <i>US overall</i>	California, Idaho, Illinois, ¹ Iowa, Maine, Massachusetts, Michigan, Minnesota, North Dakota, Ohio, West Virginia
Weak positive relationship	[none]	[none]
Weak negative relationship	Texas	New York, ¹ <i>US overall</i> ¹
Moderate negative relationship	Arizona, Indiana	Arizona, Indiana, Texas, ¹ Utah ¹
Strong negative relationship	[none]	[none]
No significant relationship	Alaska, Connecticut, Delaware, Florida, Montana, New York, Oregon, Rhode Island, South Carolina, Tennessee, Utah, Wyoming	Alabama, ¹ Alaska, Connecticut, Delaware, Florida, Kansas, ¹ Louisiana, ¹ Missouri, ¹ Montana, Nebraska, ¹ Nevada, ¹ New Hampshire, ¹ North Carolina, ¹ Oregon, Rhode Island, South Carolina, Tennessee, Vermont, ¹ Washington, ¹ Wisconsin, ¹ Wyoming

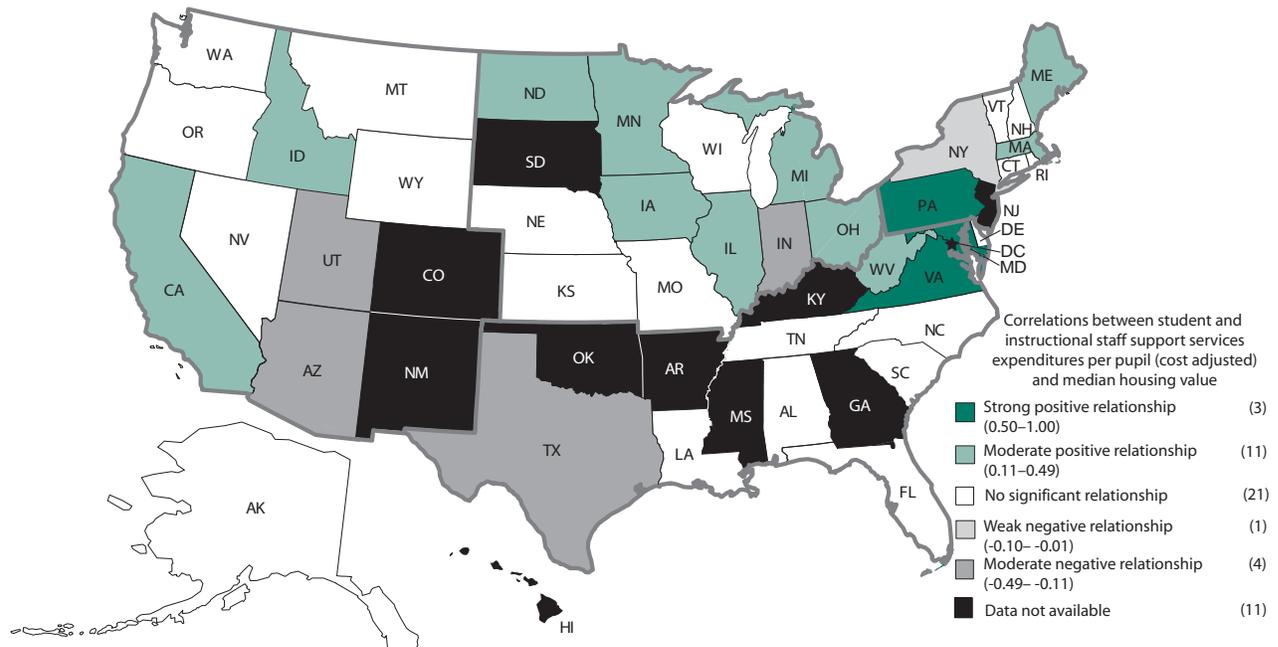
Table 4-10. Correlations between student and instructional staff support services expenditures per pupil and selected fiscal and demographic characteristics, by state: 1997–98—Continued

Characteristics	States (before cost adjustments)	States (after cost adjustments)
Student membership		
Strong positive relationship	[none]	[none]
Moderate positive relationship	Arkansas, California, Connecticut, Indiana, Iowa, Kansas, Maine, Massachusetts, Michigan, Minnesota, Missouri, Montana, Nebraska, North Dakota, Ohio, Oklahoma, Oregon, South Dakota, Texas, Vermont, Virginia, Washington, Wisconsin	Arkansas, California, Indiana, Iowa, Kansas, Maine, Michigan, Minnesota, Montana, Nebraska, Ohio, Oklahoma, Oregon, South Dakota, Vermont, Washington
Weak positive relationship	Illinois, New Jersey, <i>US overall</i>	Missouri, ¹ <i>US overall</i>
Weak negative relationship	[none]	[none]
Moderate negative relationship	North Carolina	North Carolina, South Carolina ¹
Strong negative relationship	[none]	[none]
No significant relationship	Alabama, Alaska, Arizona, Colorado, Delaware, Florida, Georgia, Idaho, Kentucky, Louisiana, Maryland, Mississippi, Nevada, New Hampshire, New Mexico, New York, Pennsylvania, Rhode Island, South Carolina, Tennessee, Utah, West Virginia, Wyoming	Alabama, Alaska, Arizona, Colorado, Connecticut, ¹ Delaware, Florida, Georgia, Idaho, Illinois, ¹ Kentucky, Louisiana, Maryland, Massachusetts, ¹ Mississippi, Nevada, New Hampshire, New Jersey, ¹ New Mexico, New York, North Dakota, ¹ Pennsylvania, Rhode Island, Tennessee, Texas, ¹ Utah, Virginia, ¹ West Virginia, Wisconsin, ¹ Wyoming

¹State changed categories after cost adjustments.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data, "School District Financial Survey (Form F-33): School Year 1997–98" and U.S. Department of Commerce, Bureau of the Census, 1990 Decennial Census School District Special Tabulation.

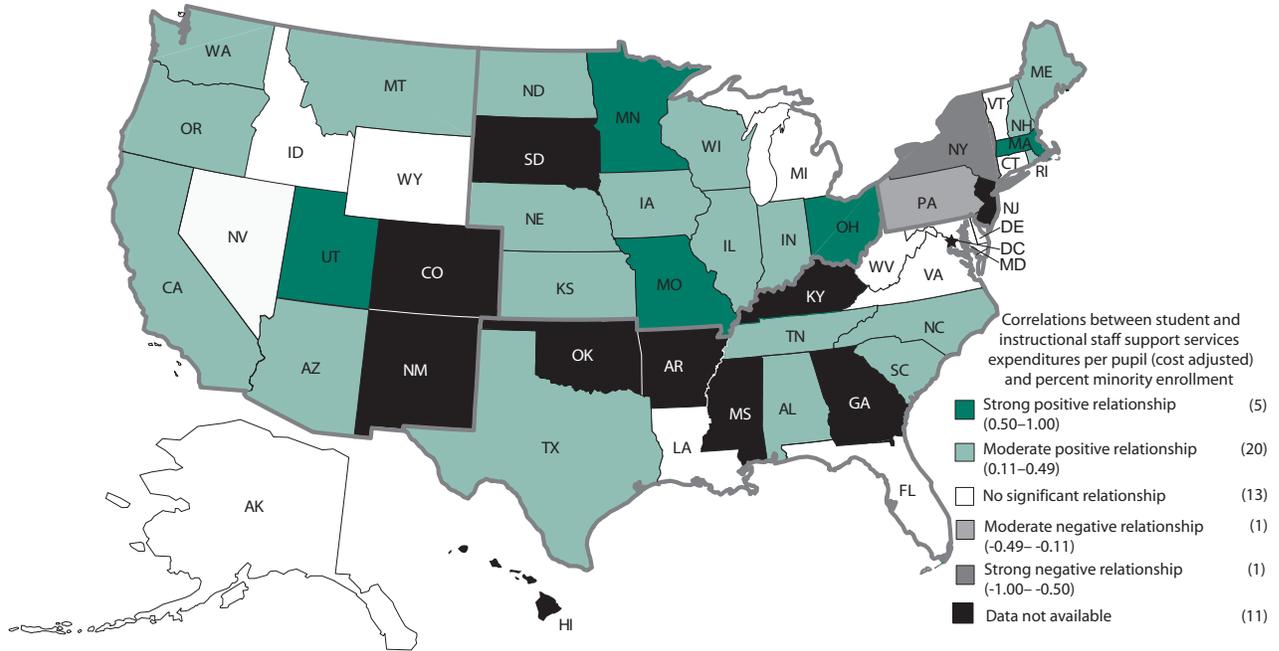
Figure 4-7. Correlations between student and instructional staff support services expenditures per pupil and median housing value (cost-adjusted dollars), by state: 1997–98



NOTE: No state-level correlation analysis was possible for the District of Columbia or Hawaii since they only have one district. Nine other states (Arkansas, Colorado, Georgia, Kentucky, Mississippi, New Jersey, New Mexico, Oklahoma, and South Dakota) were excluded from state-level correlation analysis because more than 50 percent of the school districts were missing Census data. Regions are delineated in gray; Alaska and Hawaii are part of the Western Region.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data, "School District Financial Survey (Form F-33): School Year 1997–98" and U.S. Department of Commerce, Bureau of the Census, 1990 Decennial Census School District Special Tabulation.

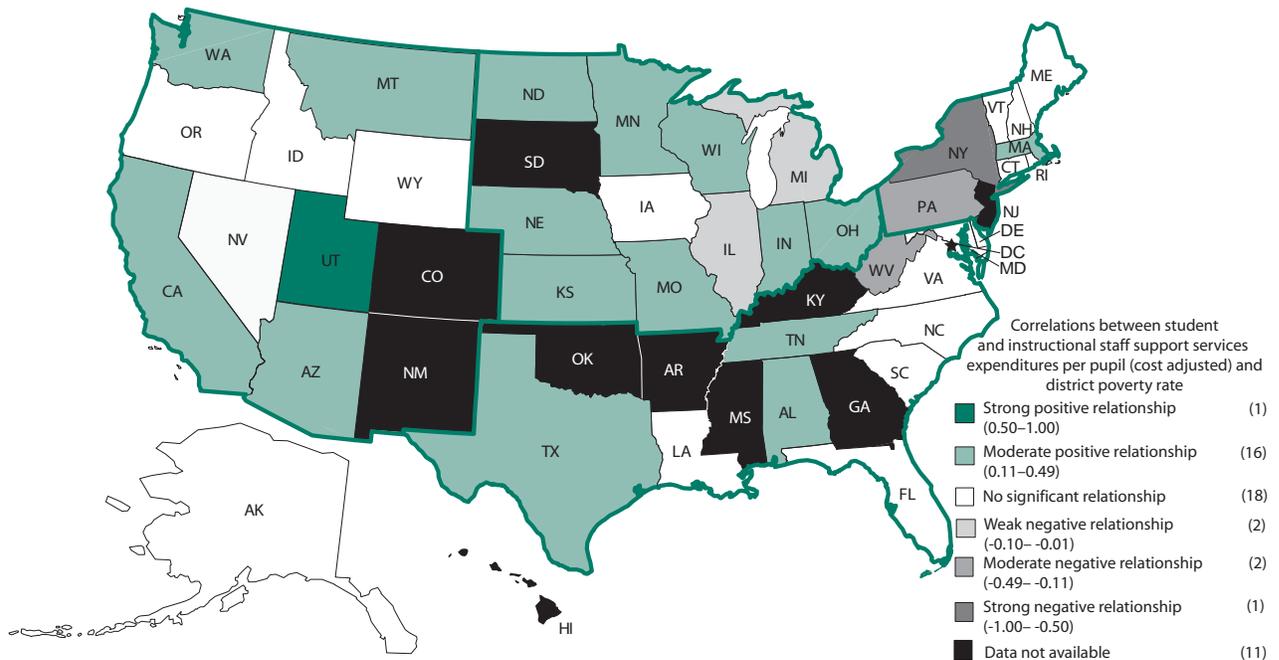
Figure 4-9. Correlations between student and instructional staff support services expenditures per pupil and percent minority enrollment (cost-adjusted dollars), by state: 1997–98



NOTE: No state-level correlation analysis was possible for the District of Columbia or Hawaii since they only have one district. Nine other states (Arkansas, Colorado, Georgia, Kentucky, Mississippi, New Jersey, New Mexico, Oklahoma, and South Dakota) were excluded from state-level correlation analysis because more than 50 percent of the school districts were missing Census data. Regions are delineated in gray; Alaska and Hawaii are part of the Western Region.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data, “School District Financial Survey (Form F-33): School Year 1997–98” and U.S. Department of Commerce, Bureau of the Census, 1990 Decennial Census School District Special Tabulation.

Figure 4-10. Correlations between student and instructional staff support services expenditures per pupil and district poverty rate (cost-adjusted dollars), by state: 1997–98



NOTE: No state-level correlation analysis was possible for the District of Columbia or Hawaii since they only have one district. Nine other states (Arkansas, Colorado, Georgia, Kentucky, Mississippi, New Jersey, New Mexico, Oklahoma, and South Dakota) were excluded from state-level correlation analysis because more than 50 percent of the school districts were missing Census data. Regions are delineated in green; Alaska and Hawaii are part of the Western Region.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data, “School District Financial Survey (Form F-33): School Year 1997–98” and U.S. Department of Commerce, Bureau of the Census, 1990 Decennial Census School District Special Tabulation.

Table 4-11. Administration expenditures, cost-adjusted administrative expenditures, administrative expenditures per pupil, and cost-adjusted administration expenditures per pupil in public school districts, by region, district enrollment, minority enrollment, district poverty rate, median household income, and median housing value: 1997–98

School district characteristics	Administration expenditures (in thousands)	Cost-adjusted administration expenditures (in thousands)	Administration expenditures per pupil	Cost-adjusted administration expenditures per pupil
All districts	\$27,993,329	\$27,941,623	\$613	\$614
Region				
Northeast	5,766,671	5,190,694	727	656
Midwest	7,346,736	7,477,575	692	708
South	9,054,260	9,715,875	550	590
West	5,825,662	5,557,479	549	527
District enrollment				
0–999	2,012,945	2,215,355	740	827
1,000–4,999	8,039,847	8,210,971	619	635
5,000–9,999	4,142,262	4,072,811	587	578
10,000 or more	13,798,275	13,442,486	603	588
Minority enrollment				
Less than 5 percent	6,838,102	7,088,456	605	628
5 percent–<20 percent	7,411,892	7,384,816	618	615
20 percent–<50 percent	7,589,646	7,578,391	591	590
50 percent or more	4,589,266	4,344,375	644	609
Data missing ¹	1,564,423	1,545,586	—	—
District poverty rate				
Less than 5 percent	3,673,196	3,387,779	710	656
5 percent–<15 percent	9,383,273	9,357,150	606	604
15 percent–<25 percent	6,824,060	7,107,797	576	600
25 percent or more	6,548,377	6,543,311	609	608
Data missing ¹	1,564,423	1,545,586	—	—
Median household income				
Less than \$20,000	2,124,597	2,335,517	614	675
\$20,000–<\$25,000	4,972,366	5,313,136	592	633
\$25,000–<\$30,000	6,570,949	6,658,570	586	594
\$30,000–<\$35,000	4,493,804	4,434,058	594	586
\$35,000 or more	8,267,190	7,654,756	654	606
Data missing ¹	1,564,423	1,545,586	—	—
Median housing value				
Less than \$40,000	2,391,524	2,665,048	654	728
\$40,000–<\$55,000	4,578,763	4,935,945	585	630
\$55,000–<\$85,000	8,331,062	8,583,270	577	594
\$85,000 or more	11,127,557	10,211,774	642	589
Data missing ¹	1,564,423	1,545,586	—	—

—Not available.

¹These districts were missing 1990 Census demographic data.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data, “School District Financial Survey (Form F-33): School Year 1997–98” and U.S. Department of Commerce, Bureau of the Census, 1990 Decennial Census School District Special Tabulation.

Administration Expenditures Per Pupil

Administration expenditures per pupil in the United States averaged \$613 in 1997–98 before cost adjustments (table 4-11). Administration expenditures per pupil were highest in the Northeast (\$727) and lowest in the West (\$549). The West was followed closely by the South (\$550). Expenditures per pupil in the highest region were 1.3 times greater than those in the lowest region before and after cost adjustments. Further, the difference between these two regions increased from \$178 to \$181 after adjustments. Administration expenditures per pupil were highest in the Midwest after adjustments, followed by the Northeast, the South, and the West.

Smaller districts had higher administration expenditures per pupil, both before and after cost adjustments. Before cost adjustments, districts with fewer than 1,000 students had an average expenditure of \$740, compared to \$603 in districts with 10,000 or more students. After cost adjustments, larger districts continued to have lower average administration expenditures per pupil than smaller districts. In addition, the difference between the largest and the smallest school districts increased from \$137 to \$239 per pupil. Correlation analysis showed a weak negative relationship between district enrollment and administration expenditures per pupil, both before (-0.05) and after (-0.08) cost adjustments (tables A-1 and A-2).

Before cost adjustments, administration expenditures per pupil showed a small but statistically significant positive relationships with two measures of district wealth—median household income (+0.16) and median housing value (+0.09) (table A-15). School districts with median household income at or above \$35,000 had the highest average administration expenditures per pupil (\$654) and districts with median household income less than \$20,000 had the second highest expenditures per pupil (\$614). Districts with median housing values less than \$40,000 had the highest average administration expenditures of \$654 per pupil, while districts with median housing values of \$85,000 and higher had the second-highest administration expenditures per pupil (\$642).

After cost adjustments, administrative expenditures showed a weak negative correlation with median housing value (-0.11) and no significant correlation with median household income (table A-16). Districts with median household income less than \$20,000 had the highest average expenditure per pupil at \$675, compared to \$586 in districts with median household income between \$30,000 and \$35,000. Districts with median housing value less than \$40,000 had highest average expenditure per pupil at \$728, compared to \$589 in districts with median housing value of \$85,000 or above.

Administration expenditures per pupil showed a weak relationship with percent minority enrollment, both before (+0.05) and after (-0.02) cost adjustments. Before adjustments, school districts with the highest minority enrollments had highest administration expenditures per pupil (\$644) and districts with less than 5 percent minority enrollments had expenditures averaging \$605 per pupil. After adjustments, districts with less than 5 percent minority enrollment had the highest administration expenditures per pupil (\$628) and districts with greater than 50 percent minority enrollment had expenditures per pupil averaging \$609.

Administration expenditures per pupil had a weak correlation with district poverty rates before cost adjustments (-0.05). Administration expenditures per pupil were highest in the lowest-poverty districts, both before and after cost adjustments (\$710 and \$656, respectively). After cost adjustments, the difference between the lowest- and highest-poverty districts was reduced from \$101 to \$48.

Variations in Administration Expenditures Per Pupil

Restricted Range Ratio

The restricted range ratio for unadjusted administration expenditures per pupil across the United States was 2.09 (table 4-12). This means administration expenditures in the district at the 95th percentile were 2.09 times higher than administration expenditures in the district at the 5th percentile. Variation across the states ranged from 0.24 in Nevada to 3.69 in Montana. (The restricted range ratio could not be calculated in California because expenditures per pupil at the 5th percentile were equal to zero.)

Chapter 4: Expenditures for Current Functions

Table 4-12. Variation in administration expenditures per pupil (unadjusted dollars), by state: 1997–98

State	Restricted range ratio		Coefficient of variation		Gini coefficient		Synthesized measure of variation	
	Value	Rank	Value	Rank	Value	Rank	Average rank	Average quartile
United States	2.09	†	0.40	†	0.19	†	†	†
Alabama	0.68	8	0.19	9	0.10	10	9.00	1
Alaska	2.03	45	0.60	48	0.24	48	47.00	4
Arizona	0.99	23	0.27	29	0.13	28	26.67	3
Arkansas	1.44	41	0.27	29	0.14	30	33.33	3
California	(¹)	(¹)	0.67	49	0.35	49	49.00	4
Colorado	2.46	47	0.43	44	0.22	46	45.67	4
Connecticut	1.10	31	0.22	16	0.12	18	21.67	2
Delaware	0.39	2	0.12	2	0.07	3	2.33	1
District of Columbia	(²)	(²)	(²)	(²)	(²)	(²)	(²)	(²)
Florida	0.47	3	0.11	1	0.06	2	2.00	1
Georgia	0.78	14	0.20	11	0.11	15	13.33	2
Hawaii	(²)	(²)	(²)	(²)	(²)	(²)	(²)	(²)
Idaho	1.13	33	0.28	32	0.14	30	31.67	3
Illinois	1.85	44	0.43	44	0.19	43	43.67	4
Indiana	0.96	21	0.21	14	0.12	18	17.67	2
Iowa	0.72	10	0.21	14	0.10	10	11.33	1
Kansas	0.90	17	0.25	25	0.13	28	23.33	2
Kentucky	1.40	39	0.29	33	0.16	38	36.67	4
Louisiana	1.03	25	0.23	20	0.12	18	21.00	2
Maine	1.07	28	0.31	35	0.14	30	31.00	3
Maryland	0.70	9	0.15	3	0.09	5	5.67	1
Massachusetts	0.95	19	0.23	20	0.12	18	19.00	2
Michigan	1.14	35	0.30	34	0.14	30	33.00	3
Minnesota	1.13	33	0.32	37	0.14	30	33.33	3
Mississippi	0.91	18	0.20	11	0.11	15	14.67	2
Missouri	1.37	38	0.31	35	0.16	38	37.00	4
Montana	3.69	48	0.53	47	0.23	47	47.33	4
Nebraska	1.02	24	0.32	37	0.14	30	30.33	3
Nevada	0.24	1	0.17	5	0.05	1	2.33	1
New Hampshire	1.55	42	0.35	41	0.17	40	41.00	4
New Jersey	1.08	29	0.22	16	0.12	18	21.00	2
New Mexico	1.19	36	0.34	39	0.14	30	35.00	3
New York	1.41	40	0.37	42	0.19	43	41.67	4
North Carolina	0.58	5	0.17	5	0.09	5	5.00	1
North Dakota	1.23	37	0.47	46	0.17	40	41.00	4
Ohio	1.09	30	0.24	22	0.12	18	23.33	2
Oklahoma	1.05	26	0.26	28	0.12	18	24.00	3
Oregon	0.66	7	0.22	16	0.10	10	11.00	1
Pennsylvania	1.10	31	0.25	25	0.12	18	24.67	3
Rhode Island	0.77	13	0.18	8	0.10	10	10.33	1
South Carolina	0.72	10	0.17	5	0.09	5	6.67	1
South Dakota	1.55	42	0.34	39	0.17	40	40.33	4
Tennessee	1.06	27	0.22	16	0.12	18	20.33	2
Texas	0.74	12	0.24	22	0.10	10	14.67	2
Utah	0.81	16	0.24	22	0.09	5	14.33	2
Vermont	2.10	46	0.37	42	0.19	43	43.67	4
Virginia	0.97	22	0.27	29	0.14	30	27.00	3
Washington	0.61	6	0.19	9	0.09	5	6.67	1
West Virginia	0.53	4	0.16	4	0.08	4	4.00	1
Wisconsin	0.79	15	0.20	11	0.11	15	13.67	2
Wyoming	0.95	19	0.25	25	0.12	18	20.67	2

†Not applicable.

¹The restricted range ratio could not be calculated for administration expenditures in California because the fifth percentile—by which the difference is divided—was equal to zero.

²Variation is not measured in the District of Columbia or Hawaii where there is only one school district.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data, "School District Financial Survey (Form F-33): School Year 1997–98."

When cost adjustments were applied, the restricted range ratio for administration expenditures per pupil across the United States decreased to 1.76 (table 4-13). Six states exceeded the national variation after cost adjustments: Alaska, Colorado, Illinois, Montana, New Hampshire, and South Dakota. Cost adjustments also increased the range between the lowest-variation and the highest-variation states. After cost adjustments, the restricted range ratio ranged from 0.28 in Nevada to 3.99 in Montana.

Coefficient of Variation

The coefficient of variation for unadjusted administration expenditures per pupil across the United States was 0.40. This means approximately two-thirds of the districts nationally have administration expenditures per pupil between \$368 and \$858, a range that is from 40 percent below the mean to 40 percent above the mean. Variation in the states ranged from 0.11 in Florida to 0.67 in California. Six states (Alaska, California, Colorado, Illinois, Montana, and North Dakota) had a coefficient of variation higher than the United States coefficient.

When administration expenditures were adjusted for cost-of-education differences, the coefficient of variation for administration expenditures per pupil across the United States decreased to 0.38. Nine states (Alaska, California, Colorado, Illinois, Montana, Nebraska, New Hampshire, North Dakota, and South Dakota) exceeded the national variation after cost adjustments. Cost adjustments slightly decreased the range between the lowest-variation and highest-variation states. After cost adjustments, the coefficient of variation ranged from 0.11 in Delaware to 0.66 in California.

Gini Coefficient

The Gini coefficient for unadjusted administration expenditures per pupil across the United States was 0.19. A Gini coefficient of 0 means expenditures are distributed equally; higher values such as 0.19 imply expenditures are more concentrated among a smaller share of students. Variation in the states ranged from 0.05 in Nevada to 0.35 in California.

Cost of education adjustments reduced the Gini coefficient to 0.18. After cost adjustments, eight states (Alaska, California, Colorado, Illinois, Montana, New York, North Dakota, and South Dakota) exceeded the United States level of variation, and the range of variation remained nearly unchanged. After adjustments, the Gini coefficient ranged from 0.06 in Delaware, Florida, and Nevada to 0.35 in California.

Overall Variation

In a synthesis of the three variation measures, states in the South had the highest percentage of states in the two low-variation quartiles for administration expenditures per pupil. Both before and after cost adjustments, 75 percent of Southern states ranked among those states with the lowest variation (table 4-14 and figure 4-11). Similar patterns were not apparent in other regions.

Relationship Between Administration Expenditures Per Pupil and Selected District Fiscal and Demographic Characteristics

For the United States as a whole, administration expenditures per pupil in unadjusted dollars showed a moderate positive relationship with a school district's median household income (+0.16) and a weak

Table 4-13. Variation in administration expenditures per pupil (cost-adjusted dollars), by state: 1997–98

State	Restricted range ratio		Coefficient of variation		Gini coefficient		Synthesized measure of variation	
	Value	Rank	Value	Rank	Value	Rank	Average rank	Average quartile
United States	1.76	†	0.38	†	0.18	†	†	†
Alabama	0.68	8	0.19	8	0.10	8	8.00	1
Alaska	2.37	47	0.57	47	0.24	47	47.00	4
Arizona	1.08	31	0.31	35	0.15	33	33.00	3
Arkansas	1.25	34	0.28	30	0.14	29	31.00	3
California	(¹)	(¹)	0.66	49	0.35	49	49.00	4
Colorado	2.25	46	0.44	45	0.22	46	45.67	4
Connecticut	1.02	28	0.22	15	0.12	22	21.67	2
Delaware	0.37	2	0.11	1	0.06	1	1.33	1
District of Columbia	(²)	(²)	(²)	(²)	(²)	(²)	(²)	(²)
Florida	0.52	4	0.13	2	0.06	1	2.33	1
Georgia	0.70	9	0.20	9	0.11	12	10.00	1
Hawaii	(²)	(²)	(²)	(²)	(²)	(²)	(²)	(²)
Idaho	1.36	37	0.30	32	0.15	33	34.00	3
Illinois	1.81	43	0.42	44	0.19	42	43.00	4
Indiana	0.77	12	0.21	14	0.11	12	12.67	2
Iowa	0.82	15	0.24	22	0.11	12	16.33	2
Kansas	1.23	33	0.30	32	0.15	33	32.67	3
Kentucky	1.27	35	0.27	26	0.15	33	31.33	3
Louisiana	0.87	17	0.22	15	0.11	12	14.67	2
Maine	1.19	32	0.27	26	0.14	29	29.00	3
Maryland	0.63	6	0.14	3	0.08	4	4.33	1
Massachusetts	0.93	21	0.23	20	0.12	22	21.00	2
Michigan	0.96	24	0.24	22	0.12	22	22.67	3
Minnesota	0.93	21	0.33	37	0.14	29	29.00	3
Mississippi	0.95	23	0.20	9	0.11	12	14.67	2
Missouri	1.07	30	0.28	30	0.15	33	31.00	3
Montana	3.99	48	0.57	47	0.25	48	47.67	4
Nebraska	1.47	40	0.39	41	0.16	39	40.00	4
Nevada	0.28	1	0.18	5	0.06	1	2.33	1
New Hampshire	2.08	45	0.39	41	0.18	40	42.00	4
New Jersey	0.92	20	0.22	15	0.12	22	19.00	2
New Mexico	1.39	39	0.38	40	0.15	33	37.33	4
New York	1.38	38	0.36	38	0.19	42	39.33	4
North Carolina	0.63	6	0.18	5	0.09	6	5.67	1
North Dakota	1.61	41	0.54	46	0.19	42	43.00	4
Ohio	1.03	29	0.22	15	0.11	12	18.67	2
Oklahoma	1.28	36	0.31	35	0.14	29	33.33	3
Oregon	0.76	11	0.25	25	0.10	8	14.67	2
Pennsylvania	0.96	24	0.24	22	0.11	12	19.33	2
Rhode Island	0.88	18	0.20	9	0.11	12	13.00	2
South Carolina	0.71	10	0.18	5	0.10	8	7.67	1
South Dakota	1.87	44	0.40	43	0.20	45	44.00	4
Tennessee	0.79	14	0.20	9	0.11	12	11.67	1
Texas	0.99	26	0.30	32	0.12	22	26.67	3
Utah	0.88	18	0.27	26	0.10	8	17.33	2
Vermont	1.74	42	0.36	38	0.18	40	40.00	4
Virginia	0.82	15	0.22	15	0.12	22	17.33	2
Washington	0.60	5	0.23	20	0.09	6	10.33	1
West Virginia	0.49	3	0.16	4	0.08	4	3.67	1
Wisconsin	0.78	13	0.20	9	0.11	12	11.33	1
Wyoming	1.01	27	0.27	26	0.13	28	27.00	3

†Not applicable.

¹The restricted range ratio could not be calculated for administration expenditures in California because the fifth percentile—by which the difference is divided—was equal to zero.²Variation is not measured in the District of Columbia or Hawaii where there is only one school district.

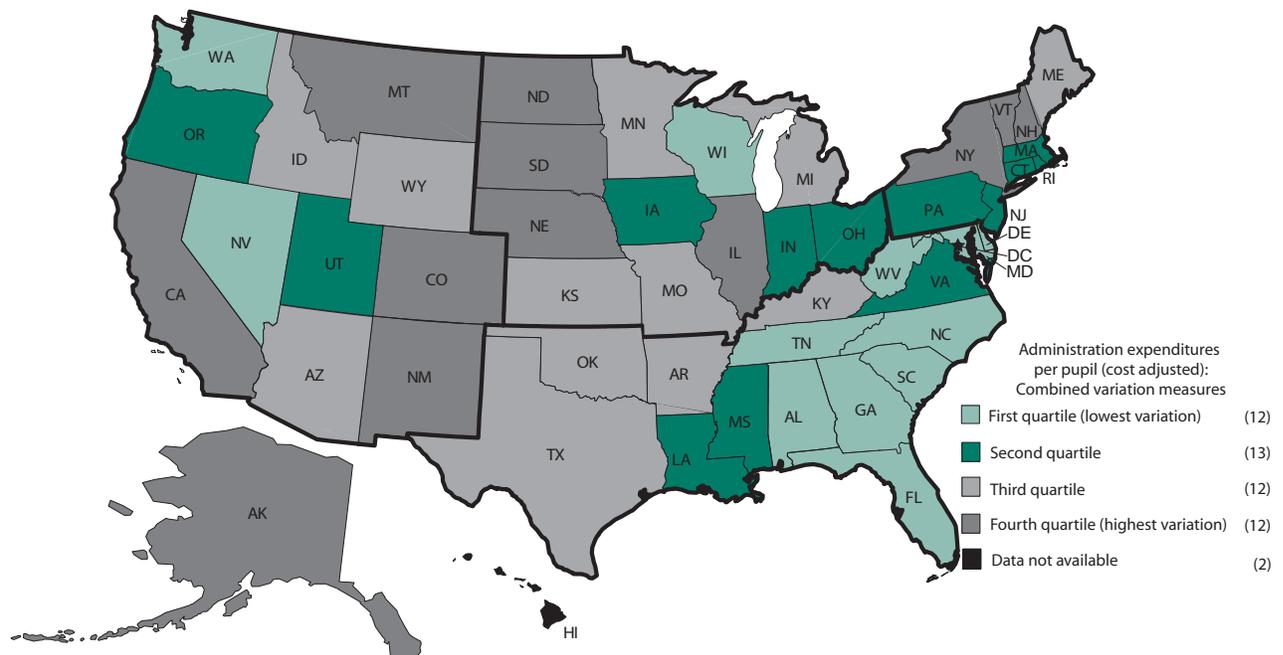
SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data, "School District Financial Survey (Form F-33): School Year 1997–98."

Table 4-14. Variation in administration expenditures per pupil, by region: 1997–98

Region	Percent of states in quartiles 1 and 2 (low variation)	Percent of states in quartiles 3 and 4 (high variation)
Unadjusted administration expenditures per pupil		
Northeast	44	56
Midwest	42	58
South	75	25
West	42	58
Cost-adjusted administration expenditures per pupil		
Northeast	56	44
Midwest	33	67
South	75	25
West	33	67

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data, "School District Financial Survey (Form F-33): School Year 1997–98."

Figure 4-11. Synthesis of variation measures of administration expenditures per pupil (cost-adjusted dollars), by state: 1997–98



NOTE: Variation is not measured in the District of Columbia or Hawaii where there is only one school district. Regions are delineated in black; Alaska and Hawaii are part of the Western Region.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data, "School District Financial Survey (Form F-33): School Year 1997–98."

positive relationship with its median housing value (+0.09) (table A-15). Similarly, at the state level, median housing value was positively related to administration expenditures per pupil in 15 of the 40 states with sufficient data, and negatively to administration expenditures per pupil in 11 of the 40 states (table 4-15). Two states (Alaska and Nevada) showed a strong negative relationship. Seventeen states showed no statistically significant relationship between household income and administration expenditures per pupil, 8 states showed a positive relationship between income and expenditures, and 15 states showed a negative relationship.

After cost adjustments, the relationship between median housing value and administration expenditures per pupil was moderately negative for the United States as a whole (-0.11) and the relationship with household income was not statistically significant (table A-16). After cost adjustments, 14 states

Table 4-15. Correlations between administration expenditures per pupil and selected fiscal and demographic characteristics, by state: 1997–98

Characteristics	States (before cost adjustments)	States (after cost adjustments)
Minority enrollment		
Strong positive relationship	Alaska, Arizona, Indiana, Missouri, South Carolina	Alaska, Arizona, South Carolina
Moderate positive relationship	Alabama, California, Connecticut, Idaho, Maine, Massachusetts, Michigan, Minnesota, Montana, North Dakota, Ohio, Pennsylvania, Vermont, Virginia, Washington, Wisconsin, Wyoming	Alabama, California, Idaho, Indiana, ¹ Massachusetts, Michigan, Minnesota, Missouri, ¹ Montana, North Carolina, ¹ North Dakota, Ohio, Pennsylvania, Vermont, Wisconsin, Wyoming
Weak positive relationship	<i>US overall</i>	[none]
Weak negative relationship	[none]	Nebraska, ¹ Texas, ¹ <i>US overall</i> ¹
Moderate negative relationship	Illinois, New York	Illinois, Iowa, ¹ New Hampshire ¹
Strong negative relationship	[none]	New York ¹
No significant relationship	Delaware, Florida, Iowa, Kansas, Louisiana, Maryland, Nebraska, Nevada, New Hampshire, North Carolina, Oregon, Rhode Island, Tennessee, Texas, Utah, West Virginia	Connecticut, ¹ Delaware, Florida, Kansas, Louisiana, Maine, ¹ Maryland, Nevada, Oregon, Rhode Island, Tennessee, Utah, Virginia, ¹ Washington, ¹ West Virginia
District poverty rate		
Strong positive relationship	Alaska, Arizona, Indiana	Alaska, Arizona, Indiana
Moderate positive relationship	Connecticut, Florida, Kansas, Maine, Massachusetts, Michigan, Minnesota, Missouri, Montana, Nebraska, North Dakota, Ohio, South Carolina, Texas, Utah, Vermont, Wisconsin, Wyoming	Alabama, ¹ California, ¹ Florida, Idaho, ¹ Kansas, Maine, Massachusetts, Michigan, Minnesota, Missouri, Montana, Nebraska, North Carolina, ¹ North Dakota, Ohio, Oregon, ¹ Pennsylvania, ¹ South Carolina, Texas, Utah, Vermont, Washington, ¹ Wisconsin, Wyoming
Weak positive relationship	California	[none]
Weak negative relationship	<i>US overall</i>	[none]
Moderate negative relationship	Illinois	Illinois
Strong negative relationship	New York	New York
No significant relationship	Alabama, Delaware, Idaho, Iowa, Louisiana, Maryland, Nevada, New Hampshire, North Carolina, Oregon, Pennsylvania, Rhode Island, Tennessee, Virginia, Washington, West Virginia	Connecticut, ¹ Delaware, Iowa, Louisiana, Maryland, Nevada, New Hampshire, Rhode Island, Tennessee, Virginia, West Virginia, <i>US overall</i> ¹
Median household income		
Strong positive relationship	Delaware, Maryland, New York	Maryland
Moderate positive relationship	Illinois, Louisiana, Pennsylvania, Tennessee, Virginia, <i>US overall</i>	Illinois, Louisiana, New York, ¹ Virginia
Weak positive relationship	[none]	[none]
Weak negative relationship	[none]	[none]
Moderate negative relationship	Alaska, Arizona, Idaho, Indiana, Iowa, Kansas, Maine, Montana, Nebraska, New Hampshire, North Dakota, Oregon, South Carolina, Texas, Utah	Alaska, Florida, ¹ Idaho, Indiana, Iowa, Kansas, Maine, Michigan, ¹ Minnesota, ¹ Missouri, ¹ Montana, Nebraska, New Hampshire, North Dakota, Oregon, South Carolina, Texas, Utah, Washington, ¹ Wisconsin ¹
Strong negative relationship	[none]	Arizona ¹
No significant relationship	Alabama, California, Connecticut, Florida, Massachusetts, Michigan, Minnesota, Missouri, Nevada, North Carolina, Ohio, Rhode Island, Vermont, Washington, West Virginia, Wisconsin, Wyoming	Alabama, California, Connecticut, Delaware, ¹ Massachusetts, Nevada, North Carolina, Ohio, Pennsylvania, ¹ Rhode Island, Tennessee, ¹ Vermont, West Virginia, Wyoming, <i>US overall</i> ¹
Median housing value		
Strong positive relationship	Delaware, Maryland, Virginia	Maryland, Virginia
Moderate positive relationship	California, Illinois, Louisiana, Massachusetts, Missouri, New York, North Carolina, Ohio, Pennsylvania, Tennessee, Vermont, Wisconsin	California, Illinois, Louisiana, Massachusetts, Rhode Island, ¹ Tennessee, Vermont
Weak positive relationship	<i>US overall</i>	Ohio ¹
Weak negative relationship	[none]	[none]
Moderate negative relationship	Arizona, Idaho, Indiana, Iowa, Kansas, Montana, Nebraska, North Dakota, Texas	Arizona, Idaho, Indiana, Iowa, Kansas, Michigan, ¹ Minnesota, ¹ Missouri, ¹ Montana, Nebraska, North Dakota, Oregon, ¹ Texas, Washington, ¹ <i>US overall</i> ¹
Strong negative relationship	Alaska, Nevada	Alaska, Nevada
No significant relationship	Alabama, Connecticut, Florida, Maine, Michigan, Minnesota, New Hampshire, Oregon, Rhode Island, South Carolina, Utah, Washington, West Virginia, Wyoming	Alabama, Connecticut, Delaware, ¹ Florida, Maine, New Hampshire, New York, ¹ North Carolina, ¹ Pennsylvania, ¹ South Carolina, Utah, West Virginia, Wisconsin, ¹ Wyoming

Table 4-15. Correlations between administration expenditures per pupil and selected fiscal and demographic characteristics, by state: 1997–98—Continued

Characteristics	States (before cost adjustments)	States (after cost adjustments)
Student membership		
Strong positive relationship	[none]	[none]
Moderate positive relationship	California, Maryland	California
Weak positive relationship	[none]	[none]
Weak negative relationship	Michigan, Wisconsin, <i>US overall</i>	<i>US overall</i>
Moderate negative relationship	Alabama, Arizona, Arkansas, Idaho, Iowa, Kansas, Maine, Mississippi, Montana, New Hampshire, New Jersey, New Mexico, North Carolina, North Dakota, Oklahoma, Oregon, South Dakota, Texas, Utah, Washington, Wyoming	Alabama, Arizona, Arkansas, Connecticut, ¹ Florida, ¹ Georgia, ¹ Idaho, Indiana, ¹ Iowa, Kansas, Maine, Massachusetts, ¹ Michigan, ¹ Minnesota, ¹ Mississippi, Missouri, ¹ Montana, New Hampshire, New Jersey, New Mexico, North Carolina, North Dakota, Oklahoma, Oregon, South Carolina, ¹ South Dakota, Texas, Utah, Washington, Wisconsin, ¹ Wyoming
Strong negative relationship	[none]	[none]
No significant relationship	Alaska, Colorado, Connecticut, Delaware, Florida, Georgia, Illinois, Indiana, Kentucky, Louisiana, Massachusetts, Minnesota, Missouri, Nebraska, Nevada, New York, Ohio, Pennsylvania, Rhode Island, South Carolina, Tennessee, Vermont, Virginia, West Virginia	Alaska, Colorado, Delaware, Illinois, Kentucky, Louisiana, Maryland, ¹ Nebraska, Nevada, New York, Ohio, Pennsylvania, Rhode Island, Tennessee, Vermont, Virginia, West Virginia

¹State changed categories after cost adjustments.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data, "School District Financial Survey (Form F-33): School Year 1997–98" and U.S. Department of Commerce, Bureau of the Census, 1990 Decennial Census School District Special Tabulation.

with sufficient data showed no relationship between administration expenditures per pupil and median housing value (figure 4-12). Two states (Alaska and Nevada) continued to show a strong negative relationship and two states (Maryland and Virginia) showed a strong positive relationship. One state (Maryland) had a strong positive relationship and one state (Arizona) had a strong negative relationship between median household income and adjusted administration expenditures per pupil. Twenty states showed a moderate negative relationship between these variables. Four states showed a moderate positive relationship (figure 4-13).

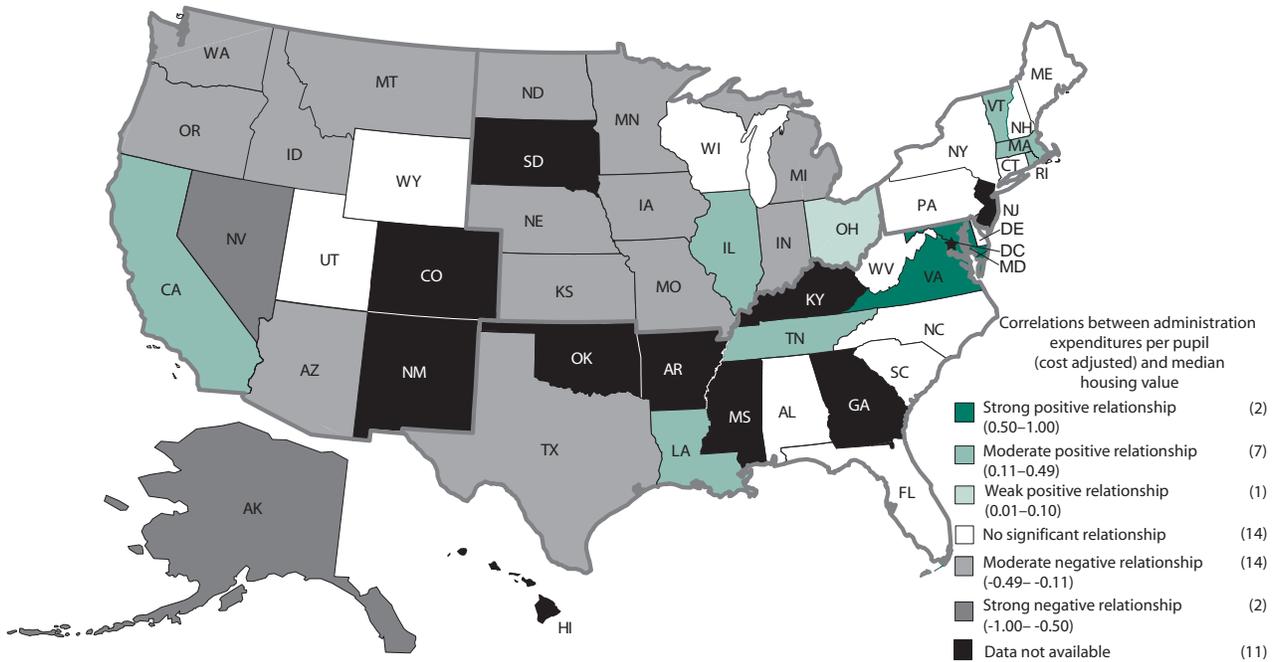
Administration expenditures per pupil showed a weak relationship with minority enrollment for the United States as a whole, both before (+0.05) and after (-0.02) cost adjustments. Five states (Alaska, Arizona, Indiana, Missouri, and South Carolina) showed a strong positive relationship between minority enrollment and administration expenditures per pupil before cost adjustments and only three states (Alaska, Arizona, and South Carolina) showed this relationship after cost adjustments (figure 4-14). No state showed a strong negative relationship before cost adjustments and only one state (New York) showed a strong negative relationship after cost adjustments.

District poverty rate showed a weak negative relationship with administration expenditures per pupil at the national level before cost adjustments (-0.05) and no significant relationship after. Three states (Alaska, Arizona, and Indiana) showed a strong positive relationship between district poverty rate and administration expenditures per pupil, both before and after cost adjustments. Only one state (New York) showed a strong negative relationship, both before and after cost adjustments (figure 4-15).

School Operations and Maintenance Expenditures

School operations and maintenance services includes building services (heating, electricity, air conditioning, and property insurance), care and upkeep of grounds and equipment, all transportation vehicle

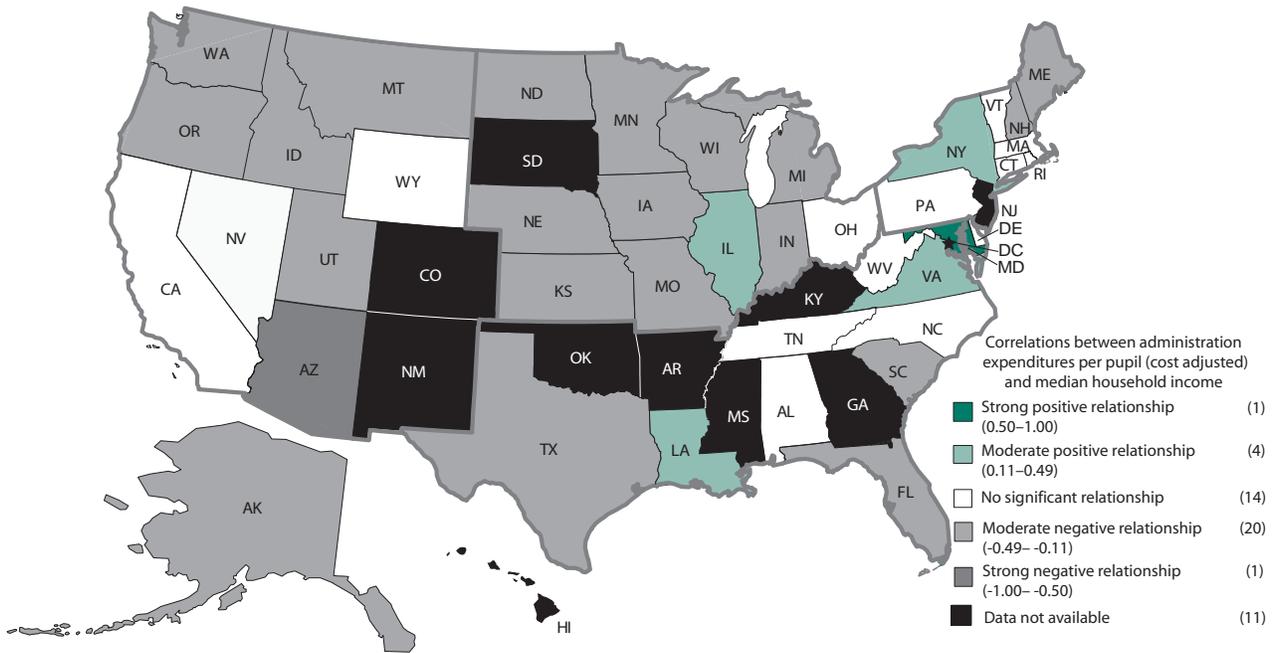
Figure 4-12. Correlations between administration expenditures per pupil and median housing value (cost-adjusted dollars), by state: 1997–98



NOTE: No state-level correlation analysis was possible for the District of Columbia or Hawaii since they only have one district. Nine other states (Arkansas, Colorado, Georgia, Kentucky, Mississippi, New Jersey, New Mexico, Oklahoma, and South Dakota) were excluded from state-level correlation analysis because more than 50 percent of the school districts were missing Census data. Regions are delineated in gray; Alaska and Hawaii are part of the Western Region.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data, “School District Financial Survey (Form F-33): School Year 1997–98” and U.S. Department of Commerce, Bureau of the Census, 1990 Decennial Census School District Special Tabulation.

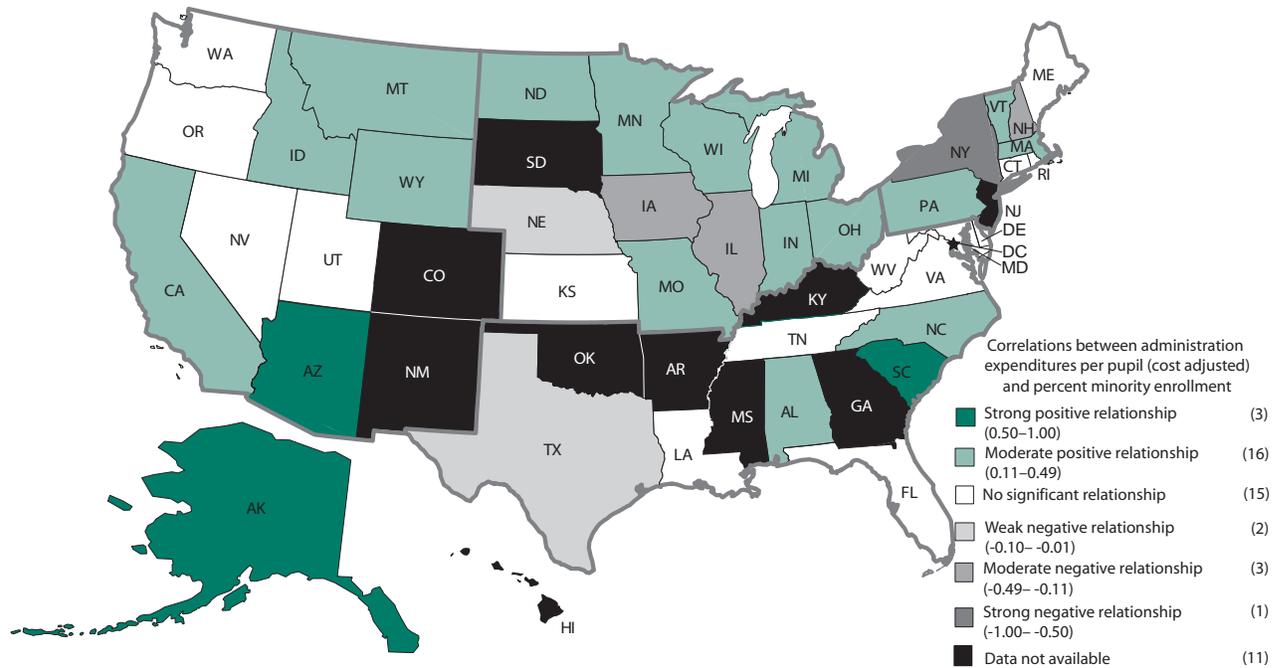
Figure 4-13. Correlations between administration expenditures per pupil and median household income (cost-adjusted dollars), by state: 1997–98



NOTE: No state-level correlation analysis was possible for the District of Columbia or Hawaii since they only have one district. Nine other states (Arkansas, Colorado, Georgia, Kentucky, Mississippi, New Jersey, New Mexico, Oklahoma, and South Dakota) were excluded from state-level correlation analysis because more than 50 percent of the school districts were missing Census data. Regions are delineated in gray; Alaska and Hawaii are part of the Western Region.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data, “School District Financial Survey (Form F-33): School Year 1997–98” and U.S. Department of Commerce, Bureau of the Census, 1990 Decennial Census School District Special Tabulation.

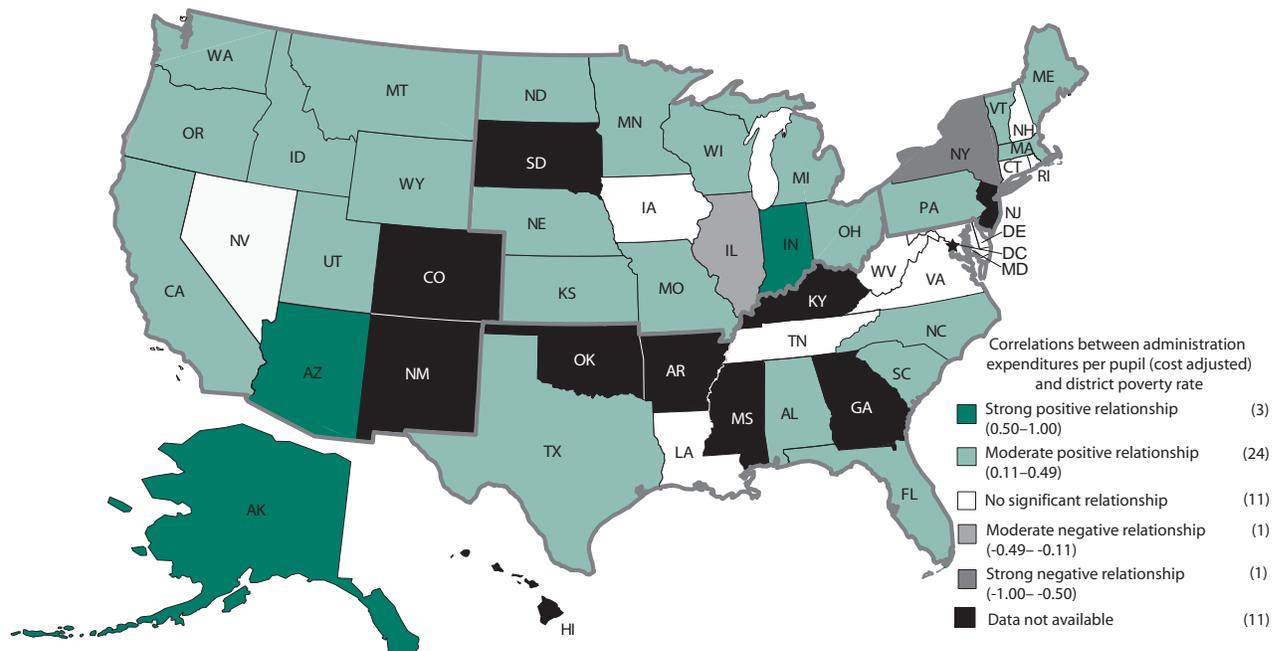
Figure 4-14. Correlations between administration expenditures per pupil and percent minority enrollment (cost-adjusted dollars), by state: 1997–98



NOTE: No state-level correlation analysis was possible for the District of Columbia or Hawaii since they only have one district. Nine other states (Arkansas, Colorado, Georgia, Kentucky, Mississippi, New Jersey, New Mexico, Oklahoma, and South Dakota) were excluded from state-level correlation analysis because more than 50 percent of the school districts were missing Census data. Regions are delineated in gray; Alaska and Hawaii are part of the Western Region.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data, “School District Financial Survey (Form F-33): School Year 1997–98” and U.S. Department of Commerce, Bureau of the Census, 1990 Decennial Census School District Special Tabulation.

Figure 4-15. Correlations between administration expenditures per pupil and district poverty rate (cost-adjusted dollars), by state: 1997–98



NOTE: No state-level correlation analysis was possible for the District of Columbia or Hawaii since they only have one district. Nine other states (Arkansas, Colorado, Georgia, Kentucky, Mississippi, New Jersey, New Mexico, Oklahoma, and South Dakota) were excluded from state-level correlation analysis because more than 50 percent of the school districts were missing Census data. Regions are delineated in gray; Alaska and Hawaii are part of the Western Region.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data, “School District Financial Survey (Form F-33): School Year 1997–98” and U.S. Department of Commerce, Bureau of the Census, 1990 Decennial Census School District Special Tabulation.

operations and maintenance, and security services. These operations and services are for schools and all other school district facilities. Operations expenditures for public elementary and secondary education totaled \$40.4 billion in 1997–98 (table 4-16). This was just over 12 percent of total school district expenditures (\$326.8 billion) and just under 15 percent of current district expenditures (\$274.9 billion) in 1997–98.

Smaller districts had higher operations expenditures per pupil, both before and after cost adjustments. Before cost adjustments, districts with less than 1,000 students had average expenditures per pupil of \$975, compared to \$832 in districts with 10,000 or more students. After cost adjustments, smaller districts continued to have higher average operations expenditures per pupil than larger districts. In

Table 4-16. School operations expenditures, cost-adjusted school operations expenditures, school operations expenditures per pupil, and cost-adjusted school operations expenditures per pupil in public school districts, by region, district enrollment, minority enrollment, district poverty rate, median household income, and median housing value: 1997–98

School district characteristics	School operations expenditures (in thousands)	Cost-adjusted school operations expenditures (in thousands)	School operations expenditures per pupil	Cost-adjusted school operations expenditures per pupil
All districts	\$40,360,717	\$39,927,119	\$884	\$878
Region				
Northeast	9,429,324	8,480,885	1,189	1,073
Midwest	9,504,316	9,688,072	895	917
South	12,300,169	13,146,989	747	798
West	9,126,908	8,611,173	860	816
District enrollment				
0–999	2,651,437	2,897,500	975	1,081
1,000–4,999	12,151,557	12,230,681	936	946
5,000–9,999	6,517,551	6,333,602	924	900
10,000 or more	19,040,172	18,465,336	832	808
Minority enrollment				
Less than 5 percent	10,164,957	10,455,900	900	926
5 percent–<20 percent	10,405,574	10,273,594	867	856
20 percent–<50 percent	10,974,148	10,882,623	855	848
50 percent or more	6,687,454	6,278,414	938	881
Data missing ¹	2,128,584	2,036,588	—	—
District poverty rate				
Less than 5 percent	5,461,302	5,017,847	1,056	971
5 percent–<15 percent	13,106,849	12,989,983	846	839
15 percent–<25 percent	9,827,106	10,167,760	829	858
25 percent or more	9,836,876	9,714,941	915	903
Data missing ¹	2,128,584	2,036,588	—	—
Median household income				
Less than \$20,000	2,960,901	3,227,844	856	933
\$20,000–<\$25,000	6,966,514	7,404,786	830	882
\$25,000–<\$30,000	9,854,833	9,850,894	879	879
\$30,000–<\$35,000	6,287,155	6,194,116	831	819
\$35,000 or more	12,162,730	11,212,890	963	888
Data missing ¹	2,128,584	2,036,588	—	—
Median housing value				
Less than \$40,000	3,231,803	3,565,081	883	974
\$40,000–<\$55,000	6,389,642	6,865,551	816	877
\$55,000–<\$85,000	11,632,083	11,947,844	805	827
\$85,000 or more	16,978,605	15,512,054	980	895
Data missing ¹	2,128,584	2,036,588	—	—

—Not available.

¹These districts were missing 1990 Census demographic data.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data, “School District Financial Survey (Form F-33): School Year 1997–98” and U.S. Department of Commerce, Bureau of the Census, 1990 Decennial Census School District Special Tabulation.

addition, the difference between the groups with the highest and lowest expenditures increased from \$143 to \$273 per pupil. Correlation analysis showed a weak negative relationship between district enrollment and operations expenditures per pupil, both before (-0.04) and after (-0.07) cost adjustments (tables A-1 and A-2).

Before cost adjustments, operations expenditures per pupil showed small but statistically significant positive relationships with two measures of district wealth—median household income (+0.22) and median housing value (+0.23) (table A-17). School districts with median household income at or above \$35,000 had the highest average operations expenditures per pupil (\$963) and districts with median household income less than \$20,000 had lower expenditures per pupil (\$856). Districts with median housing values at \$85,000 or more had the highest average operations expenditures of \$980 per pupil, while districts with median housing values between \$55,000 and \$85,000 had the lowest operations expenditures per pupil (\$805).

After cost adjustments, there were weak positive correlations between operations expenditures per pupil and household income (+0.07) and housing value (+0.03) (table A-18). Districts with median household income less than \$20,000 had the highest average expenditure per pupil (\$933), and districts with median household income \$35,000 or more had the second-highest expenditures per pupil (\$888). Similarly, districts with median housing value less than \$40,000 had highest average expenditure per pupil at \$974, while districts with median housing value \$85,000 or greater had the second highest (\$895).

Operations expenditures per pupil showed a weak relationship with minority enrollment, both before (+0.06) and after (-0.02) cost adjustments. Before adjustments, school districts with the highest minority enrollments had highest operations expenditures per pupil and districts with the lowest minority enrollments had the second-highest expenditures per pupil, \$938 and \$900, respectively. After adjustments, districts with less than 5 percent minority enrollment had the highest operations expenditures per pupil (\$926) and districts with 50 percent or higher minority enrollment had the second-highest expenditures per pupil (\$881).

Operations expenditures per pupil showed a weak negative relationship with district poverty rate before cost adjustments (-0.04). Operations expenditures per pupil were highest in the lowest-poverty districts before and after cost adjustments (\$1,056 and \$971, respectively). After cost adjustments, the difference between the lowest- and highest-poverty districts was reduced from \$141 to \$68.

Variations in Operations Expenditures Per Pupil

Restricted Range Ratio

The restricted range ratio for unadjusted operations expenditures per pupil across the United States was 2.03 (table 4-17). This means operations expenditures in the district at the 95th percentile were 2.03 times higher than operations expenditures in the district at the 5th percentile. Variation across the states ranged from 0.35 in Maryland to 2.88 in California.

When cost adjustments were applied, the restricted range ratio for operations expenditures per pupil across the United States decreased to 1.80 (table 4-18). Five states exceeded the national variation after cost adjustments: Alaska, California, Montana, North Dakota, and Oregon. Cost adjustments also in-

Table 4-17. Variation in school operations expenditures per pupil (unadjusted dollars), by state: 1997–98

State	Restricted range ratio		Coefficient of variation		Gini coefficient		Synthesized measure of variation	
	Value	Rank	Value	Rank	Value	Rank	Average rank	Average quartile
United States	2.03	†	0.39	†	0.20	†	†	†
Alabama	0.77	18	0.17	12	0.09	7	12.33	2
Alaska	2.01	45	0.50	48	0.22	48	47.00	4
Arizona	1.11	37	0.34	42	0.13	33	37.33	4
Arkansas	0.89	23	0.20	20	0.11	23	22.00	2
California	2.88	49	0.57	49	0.28	49	49.00	4
Colorado	0.56	5	0.19	15	0.09	7	9.00	1
Connecticut	0.73	16	0.16	6	0.09	7	9.67	2
Delaware	0.66	12	0.15	4	0.08	5	7.00	1
District of Columbia	(!)	(!)	(!)	(!)	(!)	(!)	(!)	(!)
Florida	0.42	3	0.10	1	0.05	1	1.67	1
Georgia	1.02	32	0.22	25	0.11	23	26.67	3
Hawaii	(!)	(!)	(!)	(!)	(!)	(!)	(!)	(!)
Idaho	0.94	27	0.35	43	0.13	33	34.33	3
Illinois	1.48	43	0.30	40	0.14	39	40.67	4
Indiana	0.92	25	0.19	15	0.10	18	19.33	2
Iowa	0.62	9	0.16	6	0.09	7	7.33	1
Kansas	1.03	33	0.24	29	0.12	27	29.67	3
Kentucky	0.70	15	0.16	6	0.09	7	9.33	1
Louisiana	0.60	7	0.16	6	0.09	7	6.67	1
Maine	0.84	20	0.20	20	0.10	18	19.33	2
Maryland	0.35	1	0.10	1	0.05	1	1.00	1
Massachusetts	1.16	39	0.23	27	0.12	27	31.00	3
Michigan	0.94	27	0.24	29	0.13	33	29.67	3
Minnesota	0.78	19	0.19	15	0.10	18	17.33	2
Mississippi	0.67	13	0.18	13	0.10	18	14.67	2
Missouri	1.84	44	0.39	44	0.18	44	44.00	4
Montana	2.08	46	0.46	46	0.21	47	46.33	4
Nebraska	1.16	39	0.29	38	0.15	42	39.67	4
Nevada	0.53	4	0.19	15	0.06	3	7.33	1
New Hampshire	1.08	35	0.23	27	0.12	27	29.67	3
New Jersey	1.09	36	0.24	29	0.13	33	32.67	3
New Mexico	0.87	21	0.29	38	0.13	33	30.67	3
New York	1.04	34	0.24	29	0.11	23	28.67	3
North Carolina	0.63	11	0.16	6	0.09	7	8.00	1
North Dakota	2.27	48	0.49	47	0.20	46	47.00	4
Ohio	1.18	41	0.28	37	0.14	39	39.00	4
Oklahoma	0.96	30	0.27	36	0.13	33	33.00	3
Oregon	2.10	47	0.44	45	0.19	45	45.67	4
Pennsylvania	1.01	31	0.22	25	0.12	27	27.67	3
Rhode Island	0.68	14	0.16	6	0.09	7	9.00	1
South Carolina	0.56	5	0.15	4	0.08	5	4.67	1
South Dakota	0.89	23	0.25	33	0.12	27	27.67	3
Tennessee	0.88	22	0.21	23	0.12	27	24.00	2
Texas	0.61	8	0.18	13	0.09	7	9.33	1
Utah	0.62	9	0.26	34	0.09	7	16.67	2
Vermont	1.13	38	0.26	34	0.14	39	37.00	4
Virginia	0.95	29	0.21	23	0.11	23	25.00	2
Washington	0.92	25	0.20	20	0.09	7	17.33	2
West Virginia	0.40	2	0.12	3	0.06	3	2.67	1
Wisconsin	0.75	17	0.19	15	0.10	18	16.67	2
Wyoming	1.32	42	0.32	41	0.16	43	42.00	4

†Not applicable.

!Variation is not measured in the District of Columbia or Hawaii where there is only one school district.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data, "School District Financial Survey (Form F-33): School Year 1997–98."

Table 4-18. Variation in school operations expenditures per pupil (cost-adjusted dollars), by state: 1997–98

State	Restricted range ratio		Coefficient of variation		Gini coefficient		Synthesized measure of variation	
	Value	Rank	Value	Rank	Value	Rank	Average rank	Average quartile
United States	1.80	†	0.35	†	0.18	†	†	†
Alabama	0.77	20	0.17	8	0.09	8	12.00	1
Alaska	2.17	46	0.46	46	0.21	46	46.00	4
Arizona	1.28	39	0.38	44	0.15	40	41.00	4
Arkansas	0.76	19	0.19	19	0.10	15	17.67	2
California	3.37	49	0.60	49	0.29	49	49.00	4
Colorado	0.65	7	0.23	26	0.11	25	19.33	2
Connecticut	0.78	22	0.17	8	0.09	8	12.67	2
Delaware	0.82	26	0.15	5	0.08	5	12.00	1
District of Columbia	(!)	(!)	(!)	(!)	(!)	(!)	(!)	(!)
Florida	0.38	2	0.09	1	0.05	1	1.33	1
Georgia	0.93	28	0.18	12	0.09	8	16.00	2
Hawaii	(!)	(!)	(!)	(!)	(!)	(!)	(!)	(!)
Idaho	1.12	34	0.37	43	0.14	34	37.00	4
Illinois	1.39	42	0.28	33	0.14	34	36.33	4
Indiana	0.75	18	0.17	8	0.09	8	11.33	1
Iowa	0.73	13	0.18	12	0.09	8	11.00	1
Kansas	1.16	36	0.28	33	0.15	40	36.33	4
Kentucky	0.73	13	0.16	7	0.09	8	9.33	1
Louisiana	0.66	8	0.18	12	0.10	15	11.67	1
Maine	1.00	30	0.23	26	0.11	25	27.00	3
Maryland	0.27	1	0.09	1	0.05	1	1.00	1
Massachusetts	1.17	37	0.24	29	0.13	31	32.33	3
Michigan	0.77	20	0.20	20	0.11	25	21.67	3
Minnesota	0.81	25	0.21	23	0.10	15	21.00	2
Mississippi	0.66	8	0.17	8	0.09	8	8.00	1
Missouri	1.45	43	0.34	42	0.16	43	42.67	4
Montana	2.25	47	0.51	47	0.22	47	47.00	4
Nebraska	1.37	41	0.33	39	0.15	40	40.00	4
Nevada	0.53	4	0.20	20	0.06	3	9.00	1
New Hampshire	1.31	40	0.26	32	0.14	34	35.33	3
New Jersey	0.98	29	0.24	29	0.13	31	29.67	3
New Mexico	1.06	31	0.33	39	0.14	34	34.67	3
New York	0.74	15	0.21	23	0.10	15	17.67	2
North Carolina	0.64	6	0.15	5	0.08	5	5.33	1
North Dakota	2.67	48	0.56	48	0.22	47	47.67	4
Ohio	1.06	31	0.25	31	0.12	30	30.67	3
Oklahoma	1.17	37	0.29	36	0.13	31	34.67	3
Oregon	2.09	45	0.44	45	0.19	45	45.00	4
Pennsylvania	0.92	27	0.20	20	0.11	25	24.00	3
Rhode Island	0.79	24	0.18	12	0.10	15	17.00	2
South Carolina	0.60	5	0.14	4	0.08	5	4.67	1
South Dakota	1.09	33	0.29	36	0.14	34	34.33	3
Tennessee	0.70	11	0.18	12	0.10	15	12.67	2
Texas	0.69	10	0.22	25	0.10	15	16.67	2
Utah	0.78	22	0.30	38	0.11	25	28.33	3
Vermont	1.14	35	0.28	33	0.14	34	34.00	3
Virginia	0.74	15	0.18	12	0.10	15	14.00	2
Washington	0.74	15	0.23	26	0.10	15	18.67	2
West Virginia	0.45	3	0.13	3	0.07	4	3.33	1
Wisconsin	0.70	11	0.18	12	0.10	15	12.67	2
Wyoming	1.45	43	0.33	39	0.17	44	42.00	4

†Not applicable.

!Variation is not measured in the District of Columbia or Hawaii where there is only one school district.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data, "School District Financial Survey (Form F-33): School Year 1997–98."

creased the range between the lowest-variation and the highest-variation states. After cost adjustments, the restricted range ratio ranged from 0.27 in Maryland to 3.37 in California.

Coefficient of Variation

The coefficient of variation for unadjusted operations expenditures per pupil across the United States was 0.39. This means approximately two-thirds of the districts nationally have operations expenditures between \$539 and \$1,229, a range that is from 39 percent below the mean to 39 percent above the mean. Variation in the states ranged from 0.10 in Florida and Maryland to 0.57 in California. Six states (Alaska, California, Montana, North Dakota, and Oregon) had a coefficient of variation higher than the United States coefficient.

When operations expenditures were adjusted for cost-of-education differences, the coefficient of variation for operations expenditures per pupil across the United States decreased to 0.35. Seven states (Alaska, Arizona, California, Idaho, Montana, North Dakota, and Oregon) exceeded the national variation after cost adjustments. Cost adjustments increased the range between the lowest-variation and highest-variation states. After cost adjustments, the coefficient of variation ranged from 0.09 in Florida and Maryland to 0.60 in California.

Gini Coefficient

The Gini coefficient for unadjusted operations expenditures per pupil across the United States was 0.20. A Gini coefficient of 0 means expenditures are distributed equally; higher values such as 0.20 imply expenditures are more concentrated among a smaller share of students. Variation in the states ranged from 0.05 in Florida and Maryland to 0.28 in California.

Cost-of-education adjustments reduced the Gini coefficient to 0.18. After cost adjustments, Alaska, California, Montana, North Dakota, and Oregon exceeded the United States level of variation, and the range of variation remained nearly unchanged. After adjustments, the Gini coefficient ranged from 0.05 in Florida and Maryland to 0.29 in California.

Overall Variation

In a synthesis of the three variation measures, states in the South had the highest percentage of states in the two low-variation quartiles for operations expenditures per pupil (table 4-19 and figure 4-16). Nearly all Southern states (94 percent) showed low variation in operations expenditures per pupil after cost adjustments.

Relationship Between Operations Expenditures Per Pupil and Selected District Fiscal and Demographic Characteristics

For the United States as a whole, operations expenditures per pupil in unadjusted dollars showed a positive relationship with a school district's median household income (+0.22) and its median housing value (+0.23) (table A-17). Similarly, at the state level, median housing value was positively related to operations expenditures per pupil in 14 of the 40 states with sufficient data, and negatively to operations expenditures per pupil in 10 of the 40 states (table 4-20). Three states (Maryland, North Carolina, and Virginia) showed a strong positive relationship and one state (Alaska) showed a strong negative

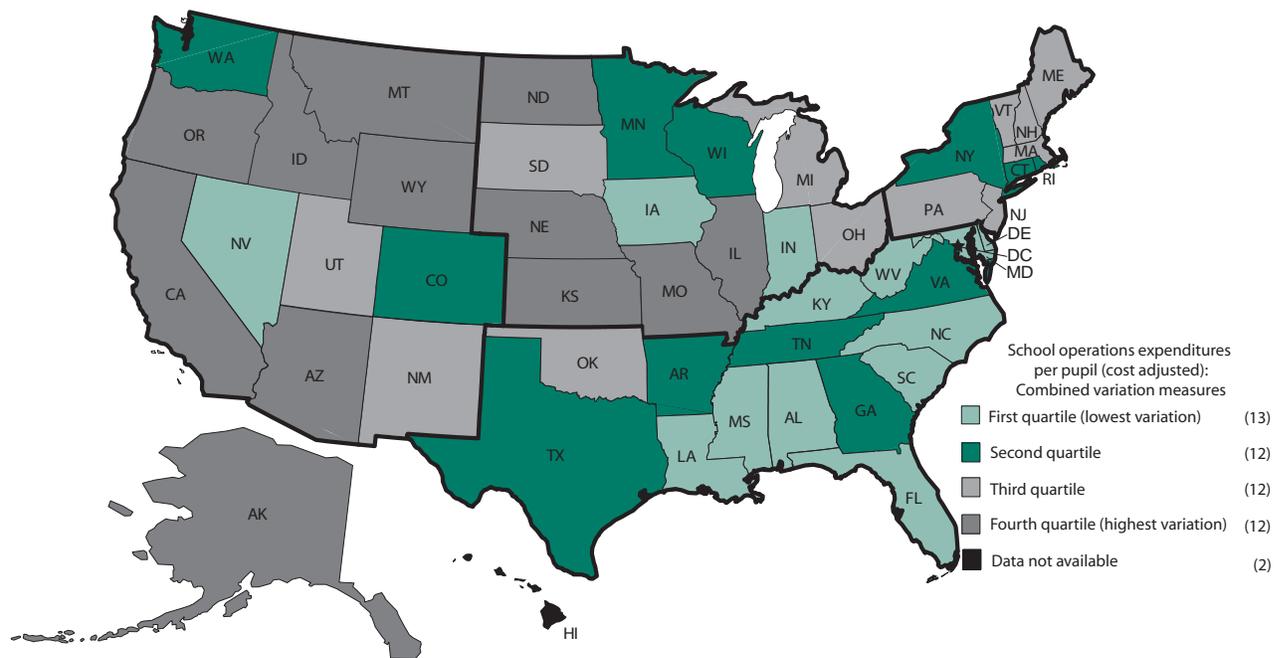
Table 4-19. Variation in school operations expenditures per pupil, by region: 1997–98

Region	Percent of states in quartiles 1 and 2 (low variation)	Percent of states in quartiles 3 and 4 (high variation)
Unadjusted operations expenditures per pupil		
Northeast	33	67
Midwest	33	67
South	88	13
West	33	67
Cost-adjusted operations expenditures per pupil		
Northeast	33	67
Midwest	33	67
South	94	6
West	25	75

NOTE: Detail may not sum to totals because of rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data, "School District Financial Survey (Form F-33): School Year 1997–98."

Figure 4-16. Synthesis of variation measures of school operations expenditures per pupil (cost-adjusted dollars), by state: 1997–98



NOTE: Variation is not measured in the District of Columbia or Hawaii where there is only one school district. Regions are delineated in black; Alaska and Hawaii are part of the Western Region.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data, "School District Financial Survey (Form F-33): School Year 1997–98."

relationship. Seventeen states showed no statistically significant relationship between household income and operations expenditures per pupil, 10 states showed a positive relationship between income and expenditures, and 13 states showed a negative relationship.

After cost adjustments, the relationship between district wealth and operations expenditures per pupil became weak positive for the United States as a whole (+0.07 with household income and +0.03 with housing value) (table A-18). After cost adjustments, 15 states with sufficient data showed no relationship between operations expenditures per pupil and median housing value (figure 4-17). No state showed a strong positive relationship. Two states (Alaska and West Virginia) showed a strong negative relation-

Chapter 4: Expenditures for Current Functions

Table 4-20. Correlations between school operations expenditures per pupil and selected fiscal and demographic characteristics, by state: 1997–98

Characteristics	States (before cost adjustments)	States (after cost adjustments)
Minority enrollment		
Strong positive relationship	Alaska, Indiana, Massachusetts, Minnesota, Missouri, Oregon, Tennessee	Alaska, Massachusetts, Missouri, Oregon
Moderate positive relationship	Arizona, Connecticut, Florida, Michigan, Montana, Nebraska, Ohio, South Carolina, Texas, Virginia, Washington, Wisconsin	Arizona, Indiana, ¹ Michigan, Minnesota, ¹ Montana, Nebraska, Ohio, South Carolina, Tennessee, ¹ Virginia, Washington, Wisconsin
Weak positive relationship	<i>US overall</i>	[none]
Weak negative relationship	[none]	Pennsylvania, <i>US overall</i> ¹
Moderate negative relationship	California, New Hampshire, New York	California, Illinois, ¹ Iowa, ¹ New Hampshire, New York, Rhode Island ¹
Strong negative relationship	Nevada	[none]
No significant relationship	Alabama, Delaware, Idaho, Illinois, Iowa, Kansas, Louisiana, Maine, Maryland, North Carolina, North Dakota, Pennsylvania, Rhode Island, Utah, Vermont, West Virginia, Wyoming	Alabama, Connecticut, ¹ Delaware, Florida, ¹ Idaho, Kansas, Louisiana, Maine, Maryland, Nevada, ¹ North Carolina, North Dakota, Texas, ¹ Utah, Vermont, West Virginia, Wyoming
District poverty rate		
Strong positive relationship	Alaska	Alaska, Missouri ¹
Moderate positive relationship	Arizona, Connecticut, Indiana, Kansas, Massachusetts, Michigan, Minnesota, Missouri, Montana, Nebraska, North Dakota, Oregon, Tennessee, Utah, Washington, West Virginia, Wisconsin	Arizona, Florida, ¹ Indiana, Iowa, ¹ Kansas, Massachusetts, Michigan, Minnesota, Montana, Nebraska, North Dakota, Oregon, South Carolina, ¹ Tennessee, Texas, ¹ Utah, Washington, West Virginia, Wisconsin
Weak positive relationship	Texas	[none]
Weak negative relationship	<i>US overall</i>	[none]
Moderate negative relationship	Illinois, Maryland, New Hampshire, New York, Pennsylvania, Rhode Island	Illinois, Maryland, New York, Rhode Island
Strong negative relationship	[none]	[none]
No significant relationship	Alabama, California, Delaware, Florida, Idaho, Iowa, Louisiana, Maine, Nevada, North Carolina, Ohio, South Carolina, Vermont, Virginia, Wyoming	Alabama, California, Connecticut, ¹ Delaware, Idaho, Louisiana, Maine, Nevada, New Hampshire, ¹ North Carolina, Ohio, Pennsylvania, ¹ Vermont, Virginia, Wyoming, <i>US overall</i> ¹
Median household income		
Strong positive relationship	Maryland, New York	[none]
Moderate positive relationship	Illinois, Louisiana, North Carolina, Ohio, Pennsylvania, Rhode Island, Virginia, <i>US overall</i>	Illinois, Maryland, ¹ New York, ¹ Ohio, Pennsylvania, Rhode Island
Weak positive relationship	Michigan	<i>US overall</i> ¹
Weak negative relationship	California, Missouri	[none]
Moderate negative relationship	Alaska, Arizona, Kansas, Massachusetts, Minnesota, Montana, Nebraska, North Dakota, Oregon, Washington, West Virginia	Arizona, California, ¹ Florida, ¹ Indiana, ¹ Iowa, ¹ Kansas, Maine, ¹ Massachusetts, Missouri, ¹ Montana, Nebraska, North Dakota, Oregon, Texas, ¹ Utah, ¹ Vermont, ¹ Washington, West Virginia
Strong negative relationship	[none]	Alaska, ¹ Minnesota ¹
No significant relationship	Alabama, Connecticut, Delaware, Florida, Idaho, Indiana, Iowa, Maine, Nevada, New Hampshire, South Carolina, Tennessee, Texas, Utah, Vermont, Wisconsin, Wyoming	Alabama, Connecticut, Delaware, Idaho, Louisiana, ¹ Michigan, ¹ Nevada, New Hampshire, North Carolina, ¹ South Carolina, Tennessee, Virginia, ¹ Wisconsin, Wyoming
Median housing value		
Strong positive relationship	Maryland, North Carolina, Virginia	[none]
Moderate positive relationship	Connecticut, Florida, Illinois, Michigan, New Hampshire, New York, Ohio, Pennsylvania, South Carolina, Tennessee, Wisconsin, <i>US overall</i>	Illinois, Maryland, ¹ New York, North Carolina, ¹ Ohio, Pennsylvania, Rhode Island, ¹ Virginia ¹
Weak positive relationship	[none]	<i>US overall</i> ¹
Weak negative relationship	[none]	[none]
Moderate negative relationship	Arizona, California, Kansas, Montana, Nebraska, North Dakota, Oregon, Texas, West Virginia	Arizona, California, Indiana, ¹ Iowa, ¹ Kansas, Maine, ¹ Minnesota, ¹ Missouri, ¹ Montana, Nebraska, North Dakota, Oregon, Texas, Utah, ¹ Washington ¹
Strong negative relationship	Alaska	Alaska, West Virginia ¹
No significant relationship	Alabama, Delaware, Idaho, Indiana, Iowa, Louisiana, Maine, Massachusetts, Minnesota, Missouri, Nevada, Rhode Island, Utah, Vermont, Washington, Wyoming	Alabama, Connecticut, ¹ Delaware, Florida, ¹ Idaho, Louisiana, Massachusetts, Michigan, ¹ Nevada, New Hampshire, ¹ South Carolina, ¹ Tennessee, ¹ Vermont, Wisconsin, ¹ Wyoming

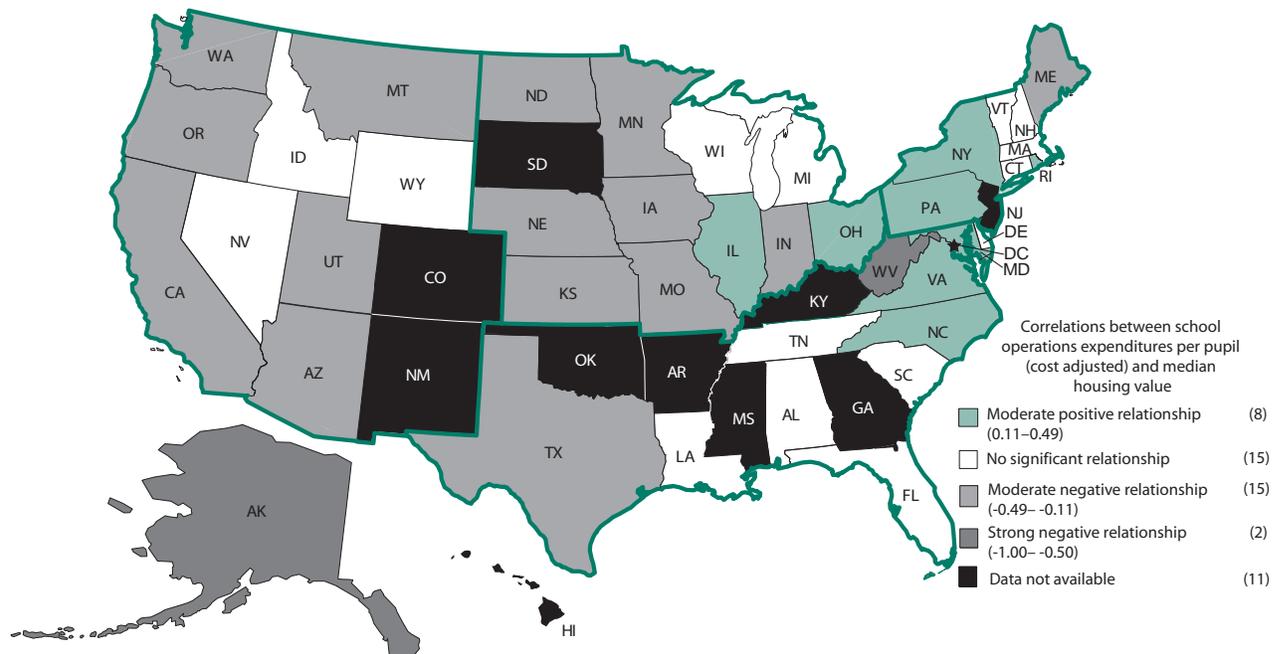
Table 4-20. Correlations between school operations expenditures per pupil and selected fiscal and demographic characteristics, by state: 1997–98—Continued

Characteristics	States (before cost adjustments)	States (after cost adjustments)
Student membership		
Strong positive relationship	[none]	[none]
Moderate positive relationship	Georgia, Indiana, Kentucky, Missouri	Tennessee ¹
Weak positive relationship	Michigan, Ohio	[none]
Weak negative relationship	Texas, <i>US overall</i>	Wisconsin, ¹ <i>US overall</i>
Moderate negative relationship	Arizona, California, Colorado, Idaho, Iowa, Kansas, Maine, Montana, New Hampshire, New Mexico, Oregon, South Dakota, Utah, Vermont, Washington, Wyoming	Alaska, ¹ Arizona, Arkansas, ¹ California, Colorado, Connecticut, ¹ Florida, ¹ Idaho, Iowa, Kansas, Louisiana, ¹ Maine, Minnesota, ¹ Montana, New Hampshire, New Mexico, North Carolina, ¹ Oklahoma, ¹ Oregon, South Dakota, Texas, ¹ Utah, Vermont, Washington, West Virginia, ¹ Wyoming
Strong negative relationship	[none]	[none]
No significant relationship	Alabama, Alaska, Arkansas, Connecticut, Delaware, Florida, Illinois, Louisiana, Maryland, Massachusetts, Minnesota, Mississippi, Nebraska, Nevada, New Jersey, New York, North Carolina, North Dakota, Oklahoma, Pennsylvania, Rhode Island, South Carolina, Tennessee, Virginia, West Virginia, Wisconsin	Alabama, Delaware, Georgia, ¹ Illinois, Indiana, ¹ Kentucky, ¹ Maryland, Massachusetts, Michigan, ¹ Mississippi, Missouri, ¹ Nebraska, Nevada, New Jersey, New York, North Dakota, Ohio, ¹ Pennsylvania, Rhode Island, South Carolina, Virginia

¹State changed categories after cost adjustments.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data, “School District Financial Survey (Form F-33): School Year 1997–98” and U.S. Department of Commerce, Bureau of the Census, 1990 Decennial Census School District Special Tabulation.

Figure 4-17. Correlations between school operations expenditures per pupil and median housing value (cost-adjusted dollars), by state: 1997–98

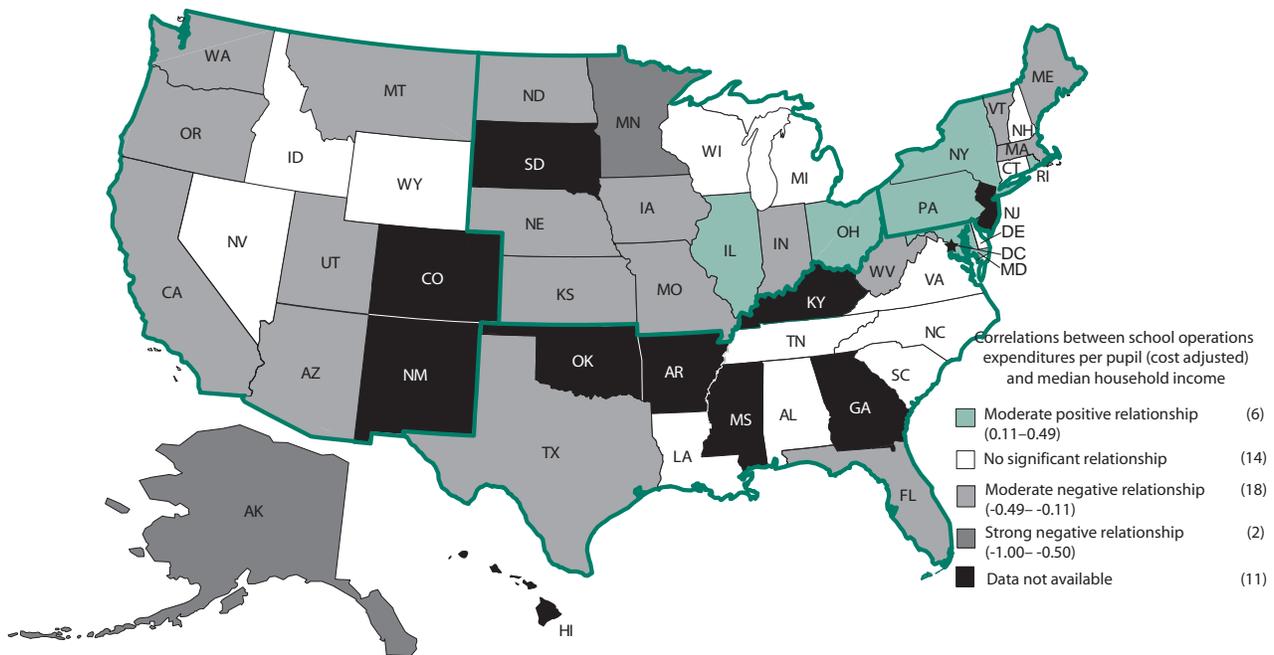


NOTE: No state-level correlation analysis was possible for the District of Columbia or Hawaii since they only have one district. Nine other states (Arkansas, Colorado, Georgia, Kentucky, Mississippi, New Jersey, New Mexico, Oklahoma, and South Dakota) were excluded from state-level correlation analysis because more than 50 percent of the school districts were missing Census data. Regions are delineated in green; Alaska and Hawaii are part of the Western Region.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data, “School District Financial Survey (Form F-33): School Year 1997–98” and U.S. Department of Commerce, Bureau of the Census, 1990 Decennial Census School District Special Tabulation.

ship. No state showed a strong positive relationship between a district’s median household income and adjusted operations expenditures per pupil. Two states (Alaska and Minnesota) showed a strong negative relationship. Eighteen states showed a moderate negative relationship between these variables, and six states showed a moderate positive relationship (figure 4-18).

Figure 4-18. Correlations between school operations expenditures per pupil and median household income (cost-adjusted dollars), by state: 1997–98



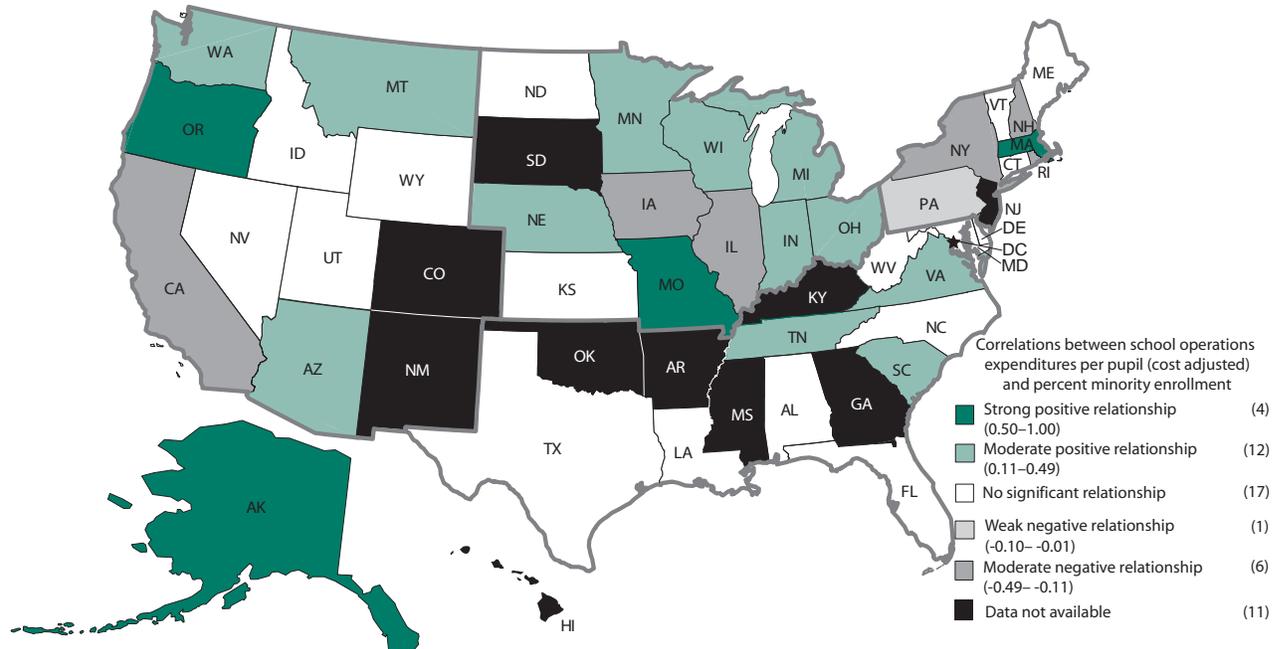
NOTE: No state-level correlation analysis was possible for the District of Columbia or Hawaii since they only have one district. Nine other states (Arkansas, Colorado, Georgia, Kentucky, Mississippi, New Jersey, New Mexico, Oklahoma, and South Dakota) were excluded from state-level correlation analysis because more than 50 percent of the school districts were missing Census data. Regions are delineated in green; Alaska and Hawaii are part of the Western Region.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data, “School District Financial Survey (Form F-33): School Year 1997–98” and U.S. Department of Commerce, Bureau of the Census, 1990 Decennial Census School District Special Tabulation.

Operations expenditures per pupil showed a weak relationship with minority enrollment for the United States as a whole, both before (+0.06) and after (-0.02) cost adjustments. Seven states (Alaska, Indiana, Massachusetts, Minnesota, Missouri, Oregon, and Tennessee) showed a strong positive relationship between minority enrollment and operations expenditures per pupil before cost adjustments and only four states (Alaska, Massachusetts, Missouri, and Oregon) showed this relationship after cost adjustments (figure 4-19). Nevada showed a strong negative relationship before cost adjustments and no state showed a strong negative relationship after cost adjustments.

District poverty rate showed a weak negative relationship with operations expenditures per pupil at the national level before cost adjustments (-0.04). One state (Alaska) showed a strong positive relationship between district poverty rate and operations expenditures per pupil before cost adjustment and two states (Alaska and Missouri) showed this relationship after adjustments. No state showed a strong negative relationship between district poverty rate and operations expenditures per pupil, either before or after cost adjustments (figure 4-20).

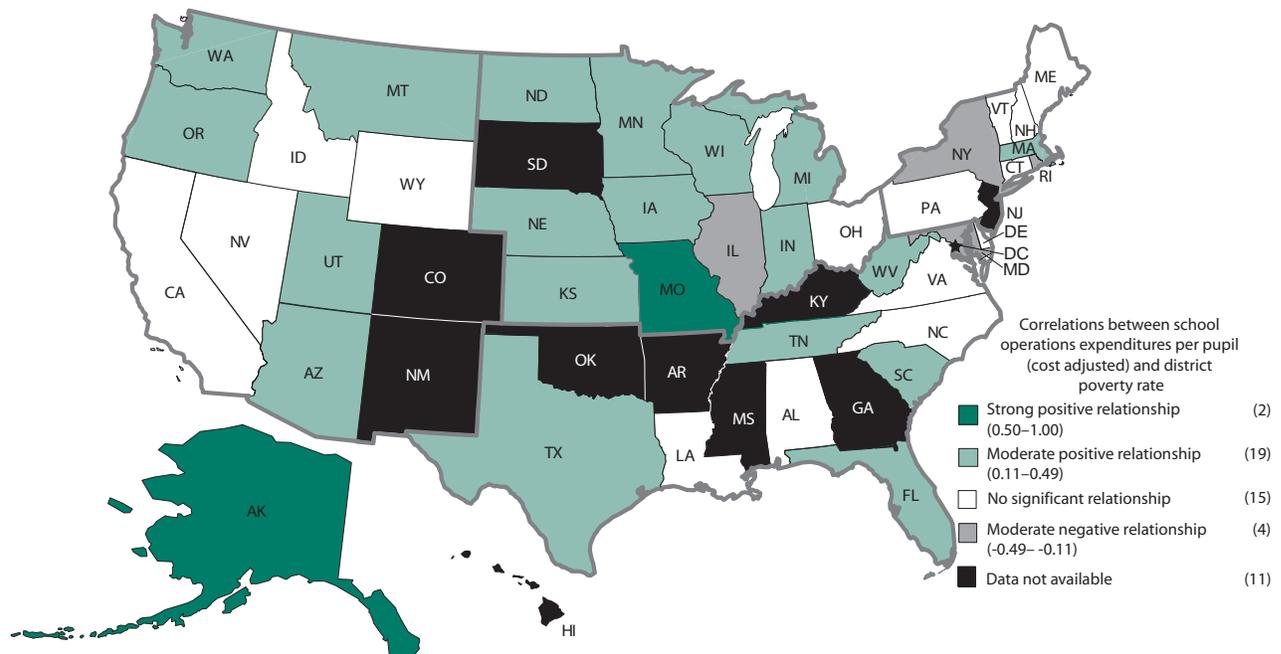
Figure 4-19. Correlations between school operations expenditures per pupil and percent minority enrollment (cost-adjusted dollars), by state: 1997–98



NOTE: No state-level correlation analysis was possible for the District of Columbia or Hawaii since they only have one district. Nine other states (Arkansas, Colorado, Georgia, Kentucky, Mississippi, New Jersey, New Mexico, Oklahoma, and South Dakota) were excluded from state-level correlation analysis because more than 50 percent of the school districts were missing Census data. Regions are delineated in gray; Alaska and Hawaii are part of the Western Region.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data, "School District Financial Survey (Form F-33): School Year 1997–98" and U.S. Department of Commerce, Bureau of the Census, 1990 Decennial Census School District Special Tabulation.

Figure 4-20. Correlations between school operations expenditures per pupil and district poverty rate (cost-adjusted dollars), by state: 1997–98



NOTE: No state-level correlation analysis was possible for the District of Columbia or Hawaii since they only have one district. Nine other states (Arkansas, Colorado, Georgia, Kentucky, Mississippi, New Jersey, New Mexico, Oklahoma, and South Dakota) were excluded from state-level correlation analysis because more than 50 percent of the school districts were missing Census data. Regions are delineated in gray; Alaska and Hawaii are part of the Western Region.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data, "School District Financial Survey (Form F-33): School Year 1997–98" and U.S. Department of Commerce, Bureau of the Census, 1990 Decennial Census School District Special Tabulation.

