

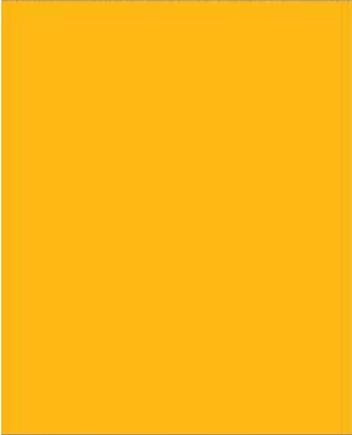
11th Annual

Construction Report

2006



SCHOOL
Planning & Management



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11th Annual School Construction Report

by Paul Abramson

The year 2005 will be long remembered in the United States for a series of cataclysmic natural events that took a toll on the nation's infrastructure and construction, including the long, busy hurricane season that swept damaging storms across Texas and Florida, culminating in the disaster of Hurricane Katrina.

Aside from the hurricanes, storms and floods ravaged areas of the west, while drought and fire attacked Texas and Oklahoma. Rain and floods plagued the northeast after a summer of drought.

In part, as a result of the swings of weather, the price of oil climbed precipitously, and prices of many other commodities followed. Construction inflation, which had been rising at a manageable three and four percent a year, rose more than that in the year's last three months.

To compound the economic problems, interest rates were pushed up making borrowing money more expensive, and foreign markets, particularly China, took more and more of the available steel and other construction commodities, leading to regional shortages.

All in all, 2005 was a rough year, creating economic and labor cost problems that may affect school districts. But none of those problems had any appreciable effect on school construction completed in 2005. For the most part, construction completed

in 2005 was so far along that the natural and economic storms of the last 12 months did not affect them.

School construction completed in 2005 totaled more than \$21.6 billion, the highest one-year total in our nation's history. Of that amount, almost \$12.8 billion (59.2 percent) was spent on entirely new schools. The balance went into existing buildings, adding space (just less than \$5 billion) and renovating existing space (almost \$3.9 billion). Altogether, about \$8.8 billion was spent expanding and improving existing school facilities.

While construction reached an all-time high in 2005, projections for the future — some of them definitely effected by the events of the past year — indicate that school construction may slow. Completed construction in 2006 is expected to total about \$20.2 billion, and starts this year are a little lower — \$19.4 billion.

These projections, however, should be taken with a grain of salt. For whatever reason, school districts through the years have tended to either underestimate or under-report construction projects not completed or not yet underway.

These are among the findings of School Planning & Management's 11th Annual School Construction Report compiled in partnership with Market Data Retrieval, a company of D&B. Market Data Retrieval



All tables in this report were developed by the author based upon material provided by Market Data Retrieval.



gathers information for this report from mailed and e-mailed survey forms and telephone calls to every school district in the United States. Information is gathered on individual projects during a three- and four-year period as each project progresses from planned construction to completion. Each follow-up contact is designed to elicit more detailed and refined information on costs, size and facilities.

Construction in 2005

School construction exceeded \$20 billion in calendar year 2000 for the first time in history. Since then, it has remained at or close to that number annually. Two years ago, in 2003, construction fell just below \$20 billion and it appeared that it might be slowing, but in 2004, it reached \$20.2 billion and in 2005, at \$21.6 billion, annual school construction equals its highest total ever.

the nation's school construction dollars were spent in Region 11. With two of the nation's fastest growing states (Nevada and Arizona) within the region, it is not surprising that better than three out of four construction dollars went to providing new school buildings. As a matter of fact, more money was spent on new buildings alone in Region 11 than was spent on all construction in nine of the nation's 12 regions. School districts in Region 11 did spend almost \$500 million on renovating existing space and another \$315 million on additions.



School Planning & Management takes the raw information and compiles it into national and regional estimates.

Estimates are based on the point in each project when data was gathered, the number and percentage of districts responding, size of districts and location of the districts.

The National Scene

School districts in the United States spent more than \$21.6 billion on construction projects completed during the 2005 calendar year, including almost \$12.8 billion on new schools (accounting for 59.2 percent of the construction dollars), almost \$5 billion (22.9 percent) on additions to existing buildings and almost \$3.9 billion (17.9 percent) on retrofit and modernization of existing structures (see Table 2).

It should be noted that all of these figures are "annual in nature." They do not accumulate ongoing construction, but rather compile information on what was completed, expected to be completed or started in a given calendar year. School districts are involved in a great deal more construction, but work started or completed outside the targeted years is not shown.

Table 2 shows the national construction picture. It also shows how much school districts in each of 12 regions of the nation (See map above. A more detailed account of regional activity begins on page C-11.) spent on construction and how they spent it. Eight of the 12 regions spent more than \$1 billion on construction completed in 2005. School districts in two regions put more than \$3 billion worth of construction in place last year, and another spent almost that much at \$2.9 billion. Each of the four regions that did not reach the \$1 billion mark were relatively close to it.

Region 11, including Arizona, California, Hawaii and Nevada, was the highest spending region with more than \$3.5 billion worth of construction put in place. More than 16.2 percent of

Region 2, including New York, New Jersey and Pennsylvania, was the second highest region with more than \$3 billion worth of construction put in place. School districts in these regions, which are not gaining in population, spent their money quite differently than those in Region 11 with only 40.7 percent of their construction dollars going into new buildings and almost 60 percent being spent on additions to and renovations of existing structures.

Region 9, including Texas, Louisiana, Oklahoma and Arkansas, was the third highest spending region accounting for 13.4 percent of all spending nationally. School districts in these four states spent more than \$2.9 billion on school construction, with almost \$2 billion (68 percent) going into new buildings.

	2005 Completions	2006 Projected Completions	2006 Starts
New Schools	\$12,796,915	\$12,470,175	\$11,796,875
Additions	\$4,952,538	\$4,447,965	\$3,852,292
Renovations	\$3,878,061	\$3,324,214	\$3,791,764
Total	\$21,627,514	\$20,242,354	\$19,440,931



Region 5 (Florida, Georgia, Alabama, Mississippi) was the fourth highest spending region, putting just more than \$2 billion of construction in place —

9.4 percent of the nation's spending. The emphasis in Region 5 was on creating new space, with 64 percent of the dollars spent on new buildings and 27 percent on

additions. Just nine percent was spent on renovation of existing buildings — a figure that may change drastically in the future depending on how school districts,

TABLE 2
School Construction Completed in 2005

Region	New	Addition	Renovation	Total	% of Spending For			% Reg I Of Nation
					New	Addition	Renovation	
1	\$680,033,992	\$591,722,345	\$239,552,187	\$1,511,308,524	45.0%	39.2%	15.8%	7.0%
2	\$1,249,926,555	\$969,180,195	\$849,161,110	\$3,068,267,860	40.7%	31.6%	27.7%	14.2%
3	\$448,860,266	\$243,103,616	\$255,918,930	\$947,882,812	47.4%	25.6%	27.0%	4.4%
4	\$992,746,633	\$289,578,221	\$293,731,003	\$1,576,055,857	63.0%	18.4%	18.6%	7.4%
5	\$1,304,111,148	\$551,407,915	\$183,621,997	\$2,039,141,060	64.0%	27.0%	9.0%	9.4%
6	\$1,078,345,119	\$398,077,181	\$469,430,776	\$1,945,853,076	55.4%	20.5%	24.1%	9.0%
7	\$862,815,204	\$362,789,013	\$236,345,410	\$1,461,949,627	59.0%	24.8%	16.2%	6.8%
8	\$451,546,549	\$273,401,591	\$237,401,610	\$962,349,750	46.9%	28.4%	24.7%	4.4%
9	\$1,976,823,724	\$576,220,767	\$353,809,984	\$2,906,854,475	68.0%	19.8%	12.2%	13.4%
10	\$576,396,456	\$170,096,576	\$107,511,668	\$854,004,700	67.5%	19.9%	12.6%	3.9%
11	\$2,707,670,651	\$314,767,811	\$486,745,102	\$3,509,183,564	77.2%	9.0%	13.8%	16.2%
12	\$467,639,098	\$212,193,040	\$164,831,180	\$844,663,318	55.4%	25.1%	19.5%	3.9%
Nat'l	\$12,796,915,395	\$4,952,538,271	\$3,878,060,957	\$21,627,514,623	59.2%	22.9%	17.9%	100.0%

To read this table: Public schools in Region 1 (New England) completed new buildings worth more than \$680 million in 2005. They also put in place \$591 million in additions to existing buildings and spent \$239 million on renovations. School districts in Region 1 completed more than \$1.5 billion of school construction in 2005 with 45 percent of those dollars spent on new buildings, the balance on adding to and upgrading existing buildings. Region 1 accounted for 7.0 percent of all school construction dollars spent in the United States in 2005.

TABLE 3
School Construction Expected to Be Completed in 2006

Region	New	Addition	Renovation	Total	% of Spending For			% Reg I Of Nation
					New	Addition	Renovation	
1	\$607,002,247	\$452,509,293	\$393,961,064	\$1,453,472,604	41.8%	31.1%	27.1%	7.2%
2	\$1,369,944,435	\$695,881,390	\$684,387,443	\$2,750,213,268	49.8%	25.3%	24.9%	13.6%
3	\$611,668,368	\$148,070,951	\$218,355,077	\$978,094,396	62.5%	15.1%	22.4%	4.8%
4	\$846,180,362	\$380,903,781	\$180,839,308	\$1,407,923,451	60.1%	27.1%	12.8%	7.0%
5	\$1,488,473,689	\$389,580,357	\$191,294,104	\$2,069,348,150	71.9%	18.8%	9.3%	10.2%
6	\$800,766,187	\$557,993,112	\$241,516,678	\$1,600,275,977	50.0%	34.9%	15.1%	7.9%
7	\$790,106,571	\$205,459,777	\$206,989,134	\$1,202,555,482	65.7%	17.1%	17.2%	5.9%
8	\$490,482,218	\$204,626,871	\$179,837,775	\$874,946,864	56.1%	23.4%	20.5%	4.3%
9	\$1,861,256,918	\$525,538,522	\$347,587,123	\$2,734,382,563	68.1%	19.2%	12.7%	13.5%
10	\$437,091,444	\$232,795,402	\$177,210,177	\$847,097,023	51.6%	27.5%	20.9%	4.2%
11	\$2,772,359,481	\$413,677,901	\$333,211,877	\$3,519,249,259	78.8%	11.8%	9.4%	17.4%
12	\$394,843,225	\$240,928,008	\$169,024,230	\$804,795,463	49.1%	29.9%	21.0%	4.0%
Nat'l	\$12,470,175,145	\$4,447,965,365	\$3,324,213,990	\$20,242,354,500	61.6%	22.0%	16.4%	100.0%

To read this table: In 2006, public schools in Region 1 (New England) are expecting to complete new buildings worth \$607 million. They also expect to complete additions worth \$452 million and renovations valued at \$393 million. Total spending in Region 1 is projected at \$1.453 billion, with 41.8 percent of the dollars for new buildings, the balance for additions and renovations. New England is projected to account for 7.2 percent of all school construction dollars spent in the nation.



especially in Florida and Mississippi, deal with buildings damaged during last years' severe hurricane seasons.

School districts in Region 6 (Michigan, Ohio and Indiana) were responsible for \$1.95 billion worth of construction — nine percent of total spending in the United States. These school districts spent just more than \$1 billion on new construction (55.4 percent of total spending) and then split the balance of their money on additions and renovations.

School districts in Region 4 (North Carolina, South Carolina, Kentucky and Tennessee) followed a similar pattern, spending a total of just less than \$1.6 billion, of which 63 percent went into new construction with the balance relatively evenly divided among additions and renovations.

School districts in Region 1 (Maine, New Hampshire, Vermont, Rhode Island, Massachusetts and Connecticut) put better than \$1.5 billion worth of construction in place, with the bulk of it going to new space, including \$680 million spent on new buildings and

\$592 million on additions.

Region 7 (Minnesota, Illinois and Wisconsin) was responsible for almost \$1.5 billion worth of construction — 6.8 percent of the nation's total. Region 7 spent 59 percent of its construction dollars on new buildings and just less than 25 percent on additions to existing ones.

The four states making up Region 8 (Iowa, Kansas, Missouri and Nebraska) spent a total of \$962 million on school construction, with just slightly less than half of that on new buildings and the balance on adding to and renovating existing buildings. Region 3 (Delaware, District of Columbia, Maryland, Virginia and West Virginia) followed an almost identical pattern, spending a total of \$948 million, with \$449 million (47.4 percent) on new buildings and the balance on additions and renovations.

Region 10 (Colorado, Montana, New Mexico, North Dakota, South Dakota, Utah and Wyoming) spent a total of \$854 million, the most districts in that region have spent in any one year. Almost 68 percent of that spending went into new

buildings, with another 20 percent used to add space to existing structures.

Region 12 (Alaska, Idaho, Washington and Oregon) in the Pacific Northwest spent somewhat less in 2005 than it did the year before, but still reached almost \$850 million in construction put in place. It put 55 percent of its dollars into new buildings and another 25 percent into adding space to existing buildings. School districts in Region 12 were responsible for just 3.9 percent of total construction spending in the United States.

What's Underway Now?

Table 2, Construction Completed in Calendar Year 2005, deals with history. Table 3 examines construction that school districts say they will complete in calendar year 2006.

School districts reporting last year have told us that they expect to complete about \$20.2 billion worth of construction this year, with \$12.5 billion going into new buildings, \$4.5 billion adding space to existing buildings and \$3.3 billion spent on renovation.

Although the \$20.2 billion total would

TABLE 4
School Construction Projected to Start in 2006

Region	New	Addition	Renovation	Total	% of Spending For			% Reg I Of Nation
					New	Addition	Renovation	
1	\$639,934,119	\$362,169,891	\$295,808,955	\$1,297,912,965	49.3%	27.9%	22.8%	6.7%
2	\$1,229,858,054	\$608,022,020	\$658,841,723	\$2,496,721,797	49.3%	24.4%	26.3%	12.8%
3	\$451,465,909	\$218,476,082	\$218,147,188	\$888,089,179	50.8%	24.6%	24.6%	4.6%
4	\$998,643,135	\$212,231,654	\$186,558,689	\$1,397,433,478	71.5%	15.2%	13.3%	7.2%
5	\$1,215,336,816	\$402,036,845	\$420,944,874	\$2,038,318,535	59.6%	19.7%	20.7%	10.5%
6	\$1,074,757,637	\$263,603,593	\$309,061,295	\$1,647,422,525	65.2%	16.0%	18.8%	8.5%
7	\$675,674,034	\$254,192,846	\$184,182,515	\$1,114,049,395	60.7%	22.8%	16.5%	5.7%
8	\$414,550,870	\$214,833,214	\$389,284,195	\$1,018,668,279	40.7%	21.1%	38.2%	5.2%
9	\$2,162,523,349	\$250,265,801	\$500,977,624	\$2,913,766,774	74.2%	8.6%	17.2%	15.0%
10	\$528,938,636	\$113,501,322	\$122,144,643	\$764,584,601	69.2%	14.8%	16.0%	3.9%
11	\$1,942,202,918	\$809,990,564	\$393,682,908	\$3,145,876,390	61.7%	25.7%	12.6%	16.2%
12	\$462,989,621	\$142,968,247	\$112,129,643	\$718,087,511	64.5%	19.9%	15.6%	3.7%
Nat'l	\$11,796,875,098	\$3,852,292,079	\$3,791,764,252	\$19,440,931,429	60.7%	19.8%	19.5%	100.0%

To read this table: In the year 2006, school districts in Region 1 (New England) expect to start construction on new buildings worth more than \$639 million. They will also start work on \$362 million in additions to existing buildings and renovations valued at \$295 million. Altogether, school districts in Region 1 predict they will start \$1.297 billion worth of school construction in 2006, with 49.3 percent of the dollars devoted to new schools, the balance to additions and renovations. Region 1's spending is about 6.7 percent of all school construction spending projected to start in 2006.



indicate that school construction is slowing, that may not be the case. Many school districts are reluctant to report work that is in process until it is actually completed and history has shown that final reports on any given year usually exceed the projections. Nevertheless, it is instructive to note that once again, school districts in Region 11 expect to be completing more than \$3.5 billion worth of construction and those in Regions 2 and 9 believe that they will be completing more than \$2.7 billion each.

It is conceivable that when the final totals are in, construction in 2006 will be slightly off the record numbers of last year, but considering the urgency of the cleanup from the storms of 2005 and the willingness of Congress to move dollars to help those states badly effected by Hurricane Katrina, I am led to believe that construction completed in 2006 will equal or exceed last year's total.

Looking Ahead

Table 4 looks at construction projected to start this year. The total shown, \$19.4 billion, once again appears to reflect a slowing of construction activity, but actually, that is the highest projection of construction starts in at least five years. For obvious reasons, school districts that are planning construction but have not yet received the funding for it hesitate to announce their plans, so there is always a lag between the reporting of construction starts and the actual starts.

Once again, the greatest amount of activity is scheduled for Region 11 (\$3.1 billion). School districts in Region 9, Region 2 and Region 5 have all indicated that more than \$2 billion worth of construction will start this year. The question may not be how much construction will start in 2006, but whether the money that has been authorized will be enough to cover the increasing

costs, many of which are the result of the events of last year.

New Schools Currently Underway

Table 5 provides a profile on a national basis of new schools being built and expected to be completed during the current calendar year. The figures shown in Table 5 are medians. That means, for example, that among elementary schools being built in the nation today, half of them will cost \$152.94 per sq. ft. or more and half \$152.94 or less. By using medians rather than averages, we are able to minimize the influence of special case schools that may be extremely expensive, or extremely inexpensive, or cases where reporting is faulty.

Table 5 shows that the median elementary

school in the United States costs \$152.94 per sq. ft. to build. The median spending was \$18,422 per pupil, and the median school provided 120.2 sq. ft. for each student. The median school was designed for 600 students and provided 77,000 sq. ft. at a total cost of \$11,440,000. Note that in finding medians, each variable is looked at separately so that the school that costs \$152.94 per sq. ft. is not necessarily the same one that spends \$18,422 per pupil.

For the second year in a row, median costs per sq. ft. and per student are significantly higher this year than last. Inflation, of course, is the culprit, driven by a variety of national and international events over which schools have no control.

Looking at middle schools, the median cost was more than \$138 per sq. ft. and

TABLE 5
Profile of New Schools Currently Underway

National Medians	\$/Sq. Ft.	\$/Student	Sq. Ft./ Student	No. Of Students	Building Size (Sq. Ft.)	Building Cost (\$000s)
Elementary	\$152.94	\$18,422	120.2	600	77,000	\$11,440
Middle	\$138.58	\$21,332	146.2	793	120,000	\$17,487
High	\$150.00	\$25,333	162.5	1,200	185,000	\$30,000
Low Quartile	\$/Sq. Ft.	\$/Student	Sq. Ft./ Student	No. Of Students	Building Size (Sq. Ft.)	Building Cost (\$000s)
Elementary	\$118.28	\$13,750	105.1	484	57,000	\$8,500
Middle	\$107.00	\$15,385	130.0	600	95,000	\$11,259
High	\$127.34	\$19,940	129.4	800	122,500	\$19,500
High Quartile	\$/Sq. Ft.	\$/Student	Sq. Ft./ Student	No. Of Students	Building Size (Sq. Ft.)	Building Cost (\$000s)
Elementary	\$187.50	\$24,088	140.0	800	90,000	\$14,500
Middle	\$184.83	\$26,667	172.2	1,000	150,000	\$24,000
High	\$195.20	\$31,540	187.5	1,649	250,500	\$42,000
Top 10 Percent	\$/Sq. Ft.	\$/Student	Sq. Ft./ Student	No. Of Students	Building Size (Sq. Ft.)	Building Cost (\$000s)
Elementary	\$237.90	\$31,977	163.8	900	107,285	\$18,000
Middle	\$220.43	\$35,397	188.9	1,350	175,300	\$32,900
High	\$259.20	\$41,111	216.7	2,000	342,000	\$63,258

To read this table: The national median cost per square foot for construction of an elementary school currently underway is \$152.94. Cost per student is \$18,422, and the median school provides 120 sq. ft. per student. One quarter of all school districts (the low 25 percent) is spending \$118.28 per sq. ft. or less for its elementary school construction, while one quarter of all districts spends \$187.50 per sq. ft. or more. One in 10 school districts estimated their cost per sq. ft. for a new elementary school at more than \$237.90.

Base: 331 Elementary Schools; 128 Middle Schools; 123 High Schools



exceeded \$21,000 per student. The median middle school provides \$146.2 sq. ft. for the 793 students it houses. The cost of the median middle school is \$17,487,000, and it provides 120,000 sq. ft. of total space.

The median high school currently under construction is costing \$150 per sq. ft. and \$25,333 per student. The median is 162 sq. ft. per student and the median school houses 1,200 students in 185,000 sq. ft. The total cost of the building is \$30 million.

Finding Your Fit

Your district may not be a median district in terms of aspirations, local costs or in terms of what it puts into a building. The low quartile shown in Table 5 is the point at which 75 percent of the reporting schools are higher and 25 percent are lower. Thus, 25 percent of elementary schools being completed or currently under construction will cost \$118.28 per sq. ft. or less. Twenty-five percent of all new elementary schools currently under construction provide just 105.1 sq. ft. or less per student. One-quarter of all reporting school districts expect to build their elementary school for \$8,500,000 or less. Once again, it must be emphasized that these are not necessarily the same school building.

It is interesting to note the number of students in the low quartile buildings. One-quarter of all new elementary school will house 484 or fewer students. One-quarter of middle schools will be for 600 or fewer students, and one-quarter of new high schools will be for 800 or fewer students — perhaps an indication that school districts are

beginning to consider the value of providing smaller learning environments from the start, rather than building larger schools and then breaking them into smaller pieces.

If your district is in a high-cost area or feels that it is a high-quality district in terms of how it spends its money and how it builds its buildings, you may want to look at the high quartile numbers. They show that 25 percent of new elementary schools being built cost \$187.50 per sq. ft. or more. One-quarter of the elementary schools are providing more than 140 sq. ft. per student. At the high school level, 25 percent of the districts will spend \$195.20 per sq. ft. or more, and one-quarter of all the new high schools

under construction will cost more than \$42 million.

The high quartile in terms of numbers of students being placed in a building and the size of those buildings need have nothing to do with the cost. One-quarter of new high school buildings is being built for 1,649 or more students and encompassing 250,500 sq. ft. There are 800 or more students in one-quarter of the new elementary schools and 1,000 or more in one-quarter of the middle schools.

There are school districts in relatively high spending areas that may provide fewer sq. ft. per pupil and school districts in lower spending areas that provide more.

TABLE 6
School Construction: Where the Money Goes, by Building Type

2005 Completions	Elementary	Middle	High	District	Total
New	\$4,581,988,907	\$3,181,769,633	\$4,987,279,668	\$45,877,188	\$12,796,915,396
Additions	\$1,481,775,984	\$1,133,028,369	\$2,273,097,641	\$64,636,278	\$4,952,538,272
Renovation	\$1,226,682,511	\$866,567,553	\$1,689,196,937	\$95,613,956	\$3,878,060,957
Total	\$7,290,447,402	\$5,181,365,555	\$8,949,574,246	\$206,127,422	\$21,627,514,625
% of Year's Dollars	33.6%	24.0%	41.4%	1.0%	100.0%
2006 Expected Completions	Elementary	Middle	High	District	Total
New	\$4,069,301,236	\$3,058,341,048	\$5,342,105,443	\$427,419	\$12,470,175,146
Additions	\$1,302,870,590	\$1,209,067,210	\$1,917,881,762	\$18,145,803	\$4,447,965,365
Renovation	\$1,002,472,901	\$1,029,383,903	\$1,267,727,929	\$24,629,256	\$3,324,213,989
Total	\$6,374,644,727	\$5,296,792,161	\$8,527,715,134	\$43,202,478	\$20,242,354,500
% of Year's Dollars	31.5%	26.2%	42.1%	0.2%	100.0%
2006 Projected Starts	Elementary	Middle	High	District	Total
New	\$4,267,454,278	\$2,195,672,243	\$5,305,993,037	\$27,755,542	\$11,796,875,100
Additions	\$1,356,529,639	\$838,135,886	\$1,644,431,992	\$13,194,562	\$3,852,292,079
Renovation	\$1,332,182,316	\$727,543,285	\$1,681,012,070	\$51,026,582	\$3,791,764,253
Total	\$6,956,166,233	\$3,761,351,414	\$8,631,437,099	\$91,976,686	\$19,440,931,432
% of Year's Dollars	35.8%	19.3%	44.4%	0.5%	100.0%
Total	Elementary	Middle	High	District	Total
New	\$12,918,744,420	\$8,435,782,924	\$15,635,378,148	\$74,060,149	\$37,063,965,641
Additions	\$4,141,176,212	\$3,180,231,465	\$5,835,411,395	\$95,976,642	\$13,252,795,714
Renovation	\$3,561,337,728	\$2,623,494,741	\$4,637,936,936	\$171,269,794	\$10,994,039,199
Total	\$20,621,258,360	\$14,239,509,130	\$26,108,726,479	\$341,306,584	\$61,310,800,554
% of Identified Dollars	33.6%	23.2%	42.6%	0.6%	100.0%

To read this table: Of the \$12.796 billion spent on new buildings in 2005, \$4.582 billion went into elementary schools, \$3.182 billion was spent on middle schools and \$4.987 billion on high schools. Another \$45 million was spent on district buildings encompassing multiple grades, special programs or administrative functions.



For example, schools in California and Arizona tend to provide less space per student because they are in a benign climate and students pass from room to room by going outside. Schools in the north, on the other hand, must provide indoor corridors for student movement, adding significantly to the total sq. ft. per student.

Table 5 gives you an opportunity to compare your district with others around the nation that you think have your aspirations, your climate and/or your ability to pay. It is meant as an indicator not an arbiter.

Where to Put the Money?

Most school districts have multiple construction needs. Whether it is an expanding student population, lack of technology in one or more schools, ques-

tions of safety and accessibility or the need to upgrade schools built in another age, school boards are often faced with multiple demands for construction dollars.

Which is more important, to build a new elementary school to relieve overcrowding or to remodel an existing junior high school so that a middle school program can be installed? Should a high school be expanded or a new one constructed? Can an existing building be changed from one grade level to another? If we go to a full-day kindergarten, how will that effect our space needs and how will we solve the problem? How much money can we

afford to spend, and which projects are most likely to generate public support?

Table 6 takes a look, in terms of dollars, at how some of those questions are being

answered. It shows the school level at which construction is taking place and the type of construction that was undertaken. For example, among school construction projects completed in 2005, 33.6 percent of the total dollars spent went into elementary schools, while 24 percent went to middle schools. High schools got the largest share of the construction dollars, 41.4 percent. (District buildings generally were identified as administrative space, transportation or maintenance space, or alternative and special schools.)

Table 6 not only shows the level at which construction dollars were spent, but the purpose. For example, of the \$7.29 billion spent last year on elementary schools, almost \$4.6 billion was used to add to existing buildings (\$1.5 billion) and retrofit them (\$1.2 billion).

TABLE 7
Does School Size Matter?

	Median Number of Students	Median Size of Building	Median Project Cost	Median Cost per sq. ft.	Median Cost per Student	Median Space per Student (SF)
Elementary Schools smallest quarter (less than 480)	400	50,000	\$9,000,000	\$180.88	\$23,620	137.3
National Median	600	77,000	\$11,440,000	\$152.94	\$18,422	120.2
largest quarter (800 to 1,900 students)	850	91,000	\$14,000,000	\$133.33	\$15,000	108.0
Middle Schools smallest quarter (less than 600)	499	79,425	\$9,500,000	\$134.65	\$21,803	165.0
National Median	793	120,000	\$17,486,581	\$138.58	\$21,332	146.2
largest quarter (1,037 to 1,800 students)	1,224	163,500	\$24,500,000	\$148.26	\$19,467	132.6
High Schools smallest quarter (less than 800)	600	88,000	\$15,000,000	\$146.67	\$26,667	169.1
National Median	1,200	185,000	\$30,000,000	\$150.00	\$25,333	162.5
largest quarter (1,649 to 3,000 students)	2,000	300,000	\$47,000,000	\$142.68	\$21,267	150.0

It is interesting to note that in terms of money spent on new schools, the high schools received just slightly more than elementary schools. A much larger percentage of the high school construction funding goes into additions and renovations. This is not surprising. Communities with a single high school (perhaps 80 percent of all school districts in the United States) tend not to think in terms of creating a second school, but simply of adding to the existing one and upgrading it. That is where the money is spent, creating, for example, new science wings, an additional gymnasium and the like.

In looking at buildings expected to be completed in the current calendar year, once again, high schools get the largest percentage of the dollars, but middle schools are now beginning to com-



pete, with more than one-quarter of the dollars scheduled for these structures. Elementary schools, which in the past have gotten 40 percent of the construction dollars, appear to be getting a smaller portion of those dollars now.

compared to \$142.68 for the larger ones. In terms of cost per student, the smaller schools spend more, but they also provide more space. It interesting that the median cost for a school with 600 students is \$15 million and the median cost for one

Does Size Matter?

There is increasing evidence, from an educational point of view, that students do better in smaller schools. Table 5 shows that some school districts, at least, appear to be taking this to heart with one-quarter of new high schools being planned for 800 or fewer students. But there is a prevailing opinion that small schools are more expensive, and that, while they may have certain advantages, at least at the high school level, districts must build big in order to economically provide all that is desired.

Table 7 makes an effort to look at the question of the comparative cost of building schools by size. In this case, all of the new school buildings on which information was available were lined up by size, then they were divided into four equal groups so that median costs and other information could be found among the smaller and larger buildings.

Looking at elementary schools, one-quarter were designed to house 480 or fewer students. Among that group, the median school will house 400. It will contain 50,000 sq. ft. and cost \$9 million. The median cost-per-sq.-ft. among the smaller elementary schools was \$180.88. The median cost per student was \$23,620 and the median amount of space provided for each student was 137.3 sq. ft.

By contrast, the largest quarter of the new elementary schools will house from 800 to 1,900 students, certainly large schools by any measure. The median was 850 students, and the median cost was \$14 million. In terms of cost per student, the median among larger schools was \$133.33 — significantly less than the smaller schools, but these schools provided less space per student — just 108 sq. ft. On the basis of cost per student, it appears that small elementary schools cost about one and one-half times as much as the largest ones.

The middle school story is somewhat different. Among the smallest quarter, those with fewer than 600 students, the median size is 499 and the building size is about 79,500 sq. ft. In terms of cost per sq. ft., the smaller schools cost \$134.65 per sq. ft., while the larger ones (with a median size of 1,224) cost \$148.26 per sq. ft. The cost per student is very close — \$21,803 for the smaller ones and \$19,467 for the larger. The smaller schools provide more space per student.

Among high schools, the smallest schools (with fewer than 800 students) cost \$146.67 per sq. ft.

TABLE 8
What New Schools Starting in 2006 Will Provide
(% of new schools that contain facility, by grade level)

		Elementary	Middle/JHS	High School
Core Facilities	Classrooms	100.0%	100.0%	100.0%
	Library	91.3%	94.4%	92.6%
	Media Center	66.3%	100.0%	92.6%
	Computer Lab	74.5%	96.3%	98.1%
	Science Lab	6.3%	98.1%	100.0%
	Music	94.2%	96.3%	92.6%
	Arts/Crafts	99.0%	98.1%	88.9%
	Gymnasium	92.3%	100.0%	100.0%
	Multipurpose Room	20.2%	13.0%	24.1%
	Stage	17.3%	40.7%	72.2%
	Auditorium/Theater	6.3%	35.2%	68.5%
	Special Ed/Resource	72.1%	74.1%	64.8%
	Home Arts	0.0%	7.4%	33.3%
	Industrial Tech.	0.0%	1.9%	13.0%
	Vocational Shops	0.0%	3.7%	14.8%
Photo Lab	0.0%	0.0%	3.7%	
TV/Radio Studio	0.0%	0.0%	7.4%	
Support Facilities	Offices	100.0%	100.0%	100.0%
	Infirmary/Clinic	100.0%	100.0%	100.0%
	Cafeteria	98.1%	100.0%	98.1%
	Kitchen	97.6%	98.1%	96.3%
	Hall Lockers	4.3%	92.6%	100.0%
Technology Support	LANs	99.5%	100.0%	100.0%
	Fiber Optics/Cable	99.5%	100.0%	100.0%
	Phone Lines in Class	41.8%	37.0%	44.4%
	Technology Lab	1.0%	5.6%	25.9%
	Language Lab	0.0%	0.0%	7.4%
Athletic Support	WANs	87.0%	96.3%	100.0%
	Locker Rooms	3.4%	90.7%	90.7%
	Bleachers	13.5%	92.6%	85.2%
	Track	0.0%	0.0%	14.8%
	Field House	0.0%	0.0%	9.3%
	Fitness Center	0.0%	5.6%	29.6%
	Tennis	0.0%	0.0%	16.7%
	Pool	0.0%	0.0%	1.9%
	Stadium	0.0%	0.0%	11.1%
	Athletic Fields/Playground	13.5%	83.3%	77.8%
Other facilities	Day Care/Nursery	6.7%	0.0%	1.9%
	Elevators	6.3%	7.4%	31.5%
	Portables	0.5%	1.9%	0.0%
	Security Equipment	100.0%	100.0%	100.0%



TABLE 9
The Top 10 Additions by School Type
 (% of school additions that contain facility, by grade level)

Elementary		
1	Classrooms	66.4%
2	Library/Media Center	15.3%
3	Music	12.0%
4	Arts/Crafts	9.1%
5	Cafeteria	8.4%
6	Daycare/Nursery	8.4%
7	Gymnasium	6.9%
8	Offices	6.6%
9	Special Ed/Resource	6.2%
10	Kitchen	4.7%
Middle/JHS		
1	Classrooms	56.4%
2	Library/Media Center	15.4%
3	Science Labs	15.4%
4	Gymnasium	12.8%
5	Cafeteria	7.7%
6	Offices	7.7%
7	Music	5.1%
8	Bleachers	5.1%
9	Computer Labs	5.1%
10	Lockers	2.6%
High School		
1	Classrooms	50.6%
2	Gymnasium	26.5%
3	Science Labs	21.7%
4	Cafeteria	19.3%
5	Auditorium/Theater/Stage	18.1%
6	Library/Media Center	16.8%
7	Music	15.7%
8	Offices	14.5%
9	Locker Rooms	13.3%
10	Bleachers	10.8%

with 2,000 students is \$47 million. Educationally, small high schools are better. Might it make sense to build three \$15-million small high schools than one \$47-million larger high school serving approximately the same number of students?

Providing Facilities

New school buildings have great similarities. All have classrooms and offices. Virtually all have facilities for physical education. Some kind of infirmary or nurse's station is a regular feature of all school buildings. Libraries are in all buildings, though in some they may be listed as media centers. In elementary schools, gymnasiums and cafeterias are provided, but some are listed as multipurpose rooms. Table 8 records the percentage of new schools planned to start in 2006 that will include specific facilities.

Table 9 details information collected on additions to existing schools. It shows the facilities most often included by school type. Classrooms are included in a majority of all school additions. No other single facility is in as many as 30 percent of any of the school types. High school gymnasiums or physical education facilities are in 26.5 percent of high school additions and science labs in 21.7 percent. Cafeterias, auditoriums and library/ media centers also get strong attention. In elementary schools, library/media centers and music facilities are the only ones that appear in 10 percent or more of the additions projects. At the middle school level, library/media centers, science labs and gymnasiums are all in more than 10 percent of the additions.

A Closer Look at Regions

National figures are always instructive, but from the point of view of the local school administrator or school board, it may be more important to know what your neighbors are doing. *School Planning & Management's* regional figures are designed to help you do that.

On the following pages, figures are given for each of the 12 regions of the United States. They show the total amount of construction activity by year and how that money was spent, on new schools, additions or renovations. They also show by year what percentage of money in your region goes into elementary schools, middle schools, high schools and district projects.

Finally, for new schools only, you can see the median cost per sq. ft., cost per student and sq. ft. per student for elementary schools, middle schools and high schools in your region. Also shown is the median project size including overall cost, number of students accommodated and size of the building.

The purpose of this report is to provide you with data that can help you understand not only what your own district needs, but also what others are doing and how much their projects cost. The regional tables allow you to measure yourself against your neighbors. The national tables, particularly Table 5, allow you to compare with districts with similar aspirations. Thus, if districts in your region on average tend to provide minimal space per student, but your district aspires to a variety of programs that need space, you may want to look at the amount of space per pupil provided in the high quarter or 10 percent of the nation's schools.

With this information, you will have the data necessary to make your own plans and, in many cases, to help the public understand what you are building, why you are doing it and what it is likely to cost. Remember, there is no right or wrong. These are guidelines that need to be applied to your own local needs.

Paul Abramson is education industry analyst for SP&M and president of Stanton Leggett Associates in Harrison, N.Y. He can be reached at <intelled@aol.com>.

2006 Construction Report



REGION 1 CT, ME, MA, NH, RI, VT

Construction Activity

HOW MUCH IS BEING SPENT(\$000s)?

	New Schools	Additions	Renovations	Total
Completions in 2005	\$680,034	\$591,722	\$239,552	\$1,511,308
Completions in 2006	\$607,002	\$452,509	\$393,961	\$1,453,472
Starting in 2006	\$639,934	\$362,170	\$295,809	\$1,297,913
Total Activity	\$1,926,970	\$1,406,401	\$929,322	\$4,262,693
% of Total	45.2%	33.0%	21.8%	

WHERE IS THE MONEY GOING?

	Total (\$000s)	Elementary	Middle	High	District
Completions in 2005	\$1,511,308	22.9%	19.3%	57.5%	0.3%
Completions in 2006	\$1,453,472	26.9%	27.5%	45.5%	0.1%
Starting in 2006	\$1,297,913	32.8%	26.3%	40.9%	0.0%
Total Activity	\$4,262,693	27.3%	24.2%	48.3%	0.2%

NEW SCHOOLS ONLY

	Cost/ sq. ft.	Cost/student (\$000s)	Sq. ft./ student	Median Cost (\$000s)	Median # Students	Median Size (Sq. ft.)
Elementary	\$205.29	\$27,610	140.2	\$12,220	445	67,900
Middle/JHS	\$184.24	\$38,872	162.4	\$29,500	700	165,000
High School	\$192.19	\$31,034	171.4	\$39,000	1,200	196,000

Region 1, consisting of the six New England states, completed more than \$1.5 billion worth of construction in 2005, slightly less than was completed the year before. Its districts project spending to be approximately the same this year. Construction in New England costs more than in most other parts of the nation. Schools not only spend more per sq. ft., they provide more space per student than most others. It is not surprising then that the median school in New England costs more per pupil than its counterparts elsewhere.

Based on total dollars spent on new schools and average cost, indications are that the \$680 million spent on new construction in 2005 in New England resulted in about 26 new school buildings. Most of those buildings were middle schools and high schools.

Approximately 39 percent of Region 1's districts either completed a construction project in 2005 or expect to complete or start a project this year.

REGION 2 NJ, NY, PA

Construction Activity

HOW MUCH IS BEING SPENT (\$000s)?

	New Schools	Additions	Renovations	Total
Completions in 2005	\$1,249,927	\$969,180	\$849,161	\$3,068,268
Completions in 2006	\$1,369,944	\$695,881	\$684,387	\$2,750,212
Starting in 2006	\$1,229,858	\$608,022	\$658,842	\$2,496,722
Total Activity	\$3,849,729	\$2,273,083	\$2,192,390	\$8,315,202
% of Total	46.3%	27.3%	26.4%	

WHERE IS THE MONEY GOING?

	Total (\$000s)	Elementary	Middle	High	District
Completions in 2005	\$3,068,268	23.2%	28.3%	47.2%	1.3%
Completions in 2006	\$2,750,212	31.5%	28.6%	39.6%	0.3%
Starting in 2006	\$2,496,722	37.7%	17.3%	44.3%	0.7%
Total Activity	\$8,315,202	30.3%	25.1%	43.8%	0.8%

NEW SCHOOLS ONLY

	Cost/ sq. ft.	Cost/student (\$000s)	Sq. ft./ student	Median Cost (\$000s)	Median # Students	Median Size (Sq. ft.)
Elementary	\$221.00	\$32,500	156.9	\$17,500	556	86,400
Middle/JHS	\$220.60	\$49,769	216.4	\$32,900	600	130,000
High School	\$217.65	\$36,995	178.3	\$43,500	914	220,000

Region 2 consists of New Jersey, New York and Pennsylvania, three large states with large cities and powerful suburbs. Costs in these three industrialized states are usually higher than in other parts of the nation.

In 2005, school districts in Region 2 put almost \$3.1 billion worth of construction in place — the first time that the region's spending has reached that level. Projections suggest that spending in 2006 will stay almost as high. Region 2 puts more money into existing buildings than new ones, but when it does build a new school, districts tend to spend well above the national median and to provide more space per student than the median. Interestingly, however, high schools in Region 2 tend to house fewer students than the national median.

Based on total dollars spent on new schools and average cost, indications are that about 40 new schools were completed in 2005, with a relatively even distribution among elementary, middle and high schools.

Approximately 40 percent of Region 2's districts either completed a construction project in 2005 or expect to complete or start a project this year.



Region 3 includes Delaware, the District of Columbia, Maryland, Virginia and West Virginia. Following three consecutive years of spending more than \$1 billion on construction put in place, school districts in this region did not quite reach that total in 2005. Indications are, however, that they may very well reach the \$1 billion mark again this year.

School districts in this region tend to spend close to the national median in terms of cost per student. Elementary and high schools in the region tend to be larger than the national median.

Based on total dollars spent on new schools and average costs, indications are that about 25 new schools were completed in 2005. Slightly more than half were elementary schools.

Just less than 60 percent of Region 3's districts either completed a construction project in 2005 or expect to complete or start a project in 2006.

Region 4 consists of Kentucky, North Carolina, South Carolina and Tennessee — four states that have been very active in terms of school construction for at least the last decade.

While the region has been very active and continues to be so, the total dollars spent on construction in 2005 was significantly less than expectations and less than had been spent in the previous five years. Projections for 2006 construction indicate that there may be a further falling off.

Almost 65 percent of the dollars spent in Region 4 are for new school buildings. Based on total dollars spent on new schools and average costs, indications are that about 60 new schools were completed in 2005. Half were elementary schools.

Almost 53 percent of Region 4's districts either completed a construction project in 2005 or expect to complete or start a project this year.

REGION 3 DC, DE, MD, VA, WV

Construction Activity

HOW MUCH IS BEING SPENT (\$000s)?

	New Schools	Additions	Renovations	Total
Completions in 2005	\$448,860	\$243,104	\$255,919	\$947,883
Completions in 2006	\$611,668	\$148,071	\$218,355	\$978,094
Starting in 2006	\$451,466	\$218,476	\$218,147	\$888,089
Total Activity	\$1,511,994	\$609,651	\$692,421	\$2,814,066
% of Total	53.7%	21.7%	24.6%	

WHERE IS THE MONEY GOING?

	Total (\$000s)	Elementary	Middle	High	District
Completions in 2005	\$947,883	42.5%	15.7%	41.0%	0.8%
Completions in 2006	\$978,094	30.8%	26.5%	42.7%	0.0%
Starting in 2006	\$888,089	54.9%	18.5%	24.6%	2.0%
Total Activity	\$2,814,066	42.4%	20.3%	36.4%	0.9%

NEW SCHOOLS ONLY

	Cost/ sq. ft.	Cost/student (\$000s)	Sq. ft./ student	Median Cost (\$000s)	Median # Students	Median Size (Sq. ft.)
Elementary	\$173.08	\$18,422	105.0	\$13,000	790	90,000
Middle/JHS	\$162.94	\$19,702	141.7	\$19,500	912	114,000
High School	\$158.10	\$27,188	190.6	\$36,000	1,300	237,500

REGION 4 KY, NC, SC, TN

Construction Activity

HOW MUCH IS BEING SPENT (\$000s)?

	New Schools	Additions	Renovations	Total
Completions in 2005	\$992,747	\$289,578	\$293,731	\$1,576,056
Completions in 2006	\$846,180	\$380,904	\$180,839	\$1,407,923
Starting in 2006	\$998,643	\$212,232	\$186,559	\$1,397,434
Total Activity	\$2,837,570	\$882,714	\$661,129	\$4,381,413
% of Total	64.8%	20.1%	15.1%	

WHERE IS THE MONEY GOING?

	Total (\$000s)	Elementary	Middle	High	District
Completions in 2005	\$1,576,056	32.2%	29.6%	38.1%	0.1%
Completions in 2006	\$1,407,923	26.5%	32.7%	40.6%	0.2%
Starting in 2006	\$1,397,434	34.0%	28.6%	37.0%	0.4%
Total Activity	\$4,381,413	30.9%	30.3%	38.6%	0.2%

NEW SCHOOLS ONLY

	Cost/ sq. ft.	Cost/student (\$000s)	Sq. ft./ student	Median Cost (\$000s)	Median # Students	Median Size (Sq. ft.)
Elementary	\$139.84	\$17,417	116.7	\$12,000	740	83,500
Middle/JHS	\$137.67	\$22,094	153.4	\$16,375	864	128,500
High School	\$142.94	\$23,917	171.0	\$28,250	1,250	222,500

2006 Construction Report



REGION 5 AL, FL, GA, MS

Construction Activity

HOW MUCH IS BEING SPENT (\$000s)?

	New Schools	Additions	Renovations	Total
Completions in 2005	\$1,304,111	\$551,408	\$183,622	\$2,039,141
Completions in 2006	\$1,488,473	\$389,580	\$191,294	\$2,069,347
Starting in 2006	\$1,215,337	\$402,037	\$420,945	\$2,038,319
Total Activity	\$4,007,921	\$1,343,025	\$795,861	\$6,146,807
% of Total	65.3%	21.8%	12.9%	

WHERE IS THE MONEY GOING?

	Total (\$000s)	Elementary	Middle	High	District
Completions in 2005	\$2,039,141	33.1%	25.2%	41.2%	0.5%
Completions in 2006	\$2,069,347	35.7%	29.3%	35.0%	0.0%
Starting in 2006	\$2,038,319	42.0%	15.3%	42.4%	0.3%
Total Activity	\$6,146,807	36.9%	23.3%	39.5%	0.3%

NEW SCHOOLS ONLY

	Cost/ sq. ft.	Cost/ student (\$000s)	Sq. ft./ student	Median Cost (\$000s)	Median # Students	Median Size (Sq. ft.)
Elementary	\$98.27	\$12,620	121.2	\$10,500	838	94,000
Middle/JHS	\$102.43	\$15,190	149.0	\$13,229	885	127,500
High School	\$124.32	\$19,419	164.3	\$27,000	1,500	185,000

REGION 6 IN, OH, MI

Construction Activity

HOW MUCH IS BEING SPENT (\$000s)?

	New Schools	Additions	Renovations	Total
Completions in 2005	\$1,078,345	\$398,077	\$469,431	\$1,945,853
Completions in 2006	\$800,766	\$557,993	\$241,517	\$1,600,276
Starting in 2006	\$1,074,758	\$263,604	\$309,061	\$1,647,423
Total Activity	\$2,953,869	\$1,219,674	\$1,020,009	\$5,193,552
% of Total	56.9%	23.5%	19.6%	

WHERE IS THE MONEY GOING?

	Total (\$000s)	Elementary	Middle	High	District
Completions in 2005	\$1,945,853	33.2%	26.6%	38.3%	1.9%
Completions in 2006	\$1,600,276	27.8%	33.9%	38.2%	0.1%
Starting in 2006	\$1,647,423	38.2%	19.7%	41.1%	1.0%
Total Activity	\$5,193,552	33.1%	26.6%	39.2%	1.1%

NEW SCHOOLS ONLY

	Cost/ sq. ft.	Cost/ student	Sq. ft./ student	Median Cost (\$000s)	Median # Students	Median Size (Sq. ft.)
Elementary	\$170.85	\$22,000	133.3	\$10,000	450	64,219
Middle/JHS	\$188.87	\$28,739	152.6	\$18,251	690	101,850
High School	\$173.15	\$29,551	170.3	\$30,500	1,025	172,500

There are four states in *Region 5*, Alabama, Florida, Georgia and Mississippi. School districts in Region 5 have been major builders for three decades. More than \$2 billion worth of construction was put in place in 2005 with \$1.3 billion of that for new schools. School districts in the region tend, in general, to spend two out of three school-construction dollars on new buildings.

Region 5 is blessed with relatively low construction costs. In terms of cost per sq. ft., the median school in Region 5, whether elementary, middle or high school, costs less per sq. ft. than 75 percent of the schools in the balance of the United States. The region's schools tend to be low cost but they also are large — exceeding national medians in terms of number of students and exceeding or equaling the median in terms of overall size.

Based on total dollars spent on new schools and average cost, indications are that approximately 90 new schools were put in place in 2005.

Slightly more than 50 percent of Region 5's districts either completed a construction project in 2005 or expect to complete or start a project in 2006.

The three states that make up *Region 6*, Indiana, Michigan and Ohio, have a tradition of investing in their schools, and 2005 was no exception. These three states put almost \$2 billion worth of construction in place in 2005, including almost \$1.1 billion for new school buildings and \$400 million for additions to existing buildings. Renovations accounted for close to \$500 million. Indications are that construction during the next year or two will continue at or close to this level.

School districts in Region 6 tend to spend more than the median in terms of cost per sq. ft. and cost per student, and they provide more space for each student than the national median. Because the number of students assigned to each school is somewhat below national medians, the buildings themselves also tend to be a little smaller.

Based on total dollars spent on new schools and average cost, indications are that about 70 new schools were completed in 2005.

Slightly more than 40 percent of Region 6's districts either completed a construction project in 2005 or expect to complete or start a project in 2006.



Illinois, Minnesota and Wisconsin form **Region 7**. School construction that has been declining in terms of total dollars for the last few years rebounded slightly in 2005 to \$1.46 billion. It appears, however, that the region may spend less than that in terms of completions this year and starts next year.

Based on total dollars spent on new schools and average cost, indications are that about 50 new schools were completed in Region 7 during 2005, with three out of five being elementary schools.

Less than one-quarter of Region 7's school districts report that they completed any construction in 2005 or will complete or start any in 2006.

Iowa, Kansas, Missouri and Nebraska are the four states that make up **Region 8**. In 2005, school districts in these four states combined to put \$962 million worth of construction in place. They report that they may spend less on completions in 2006, but they will start more than \$1 billion worth of work during the current year.

School districts in Region 8 tend to spend more than half of their dollars on adding to and renovating existing school buildings. Almost half of the region's funding goes to high schools.

Looking at the region's new schools, they tend to be small and to provide more space per student than their counterparts nationally, except at the high school level. Cost per student tends to be below the national median.

Based on total dollars spent on new schools and average cost, indications are that about 40 new schools were completed in 2005.

About 23 percent of Region 8's districts either completed a construction project in 2005 or expect to complete or start a project in 2006.

REGION 7 IL, MN, WI

Construction Activity

HOW MUCH IS BEING SPENT (\$000s)?

	New Schools	Additions	Renovations	Total
Completions in 2005	\$862,815	\$362,789	\$236,345	\$1,461,949
Completions in 2006	\$790,107	\$205,460	\$206,989	\$1,202,556
Starting in 2006	\$675,674	\$254,193	\$184,183	\$1,114,050
Total Activity	\$2,328,596	\$822,442	\$627,517	\$3,778,555
% of Total	61.6%	21.8%	16.6%	

WHERE IS THE MONEY GOING?

	Total (\$000s)	Elementary	Middle	High	District
Completions in 2005	\$1,461,949	29.0%	31.7%	39.2%	0.1%
Completions in 2006	\$1,202,556	42.7%	23.4%	33.6%	0.3%
Starting in 2006	\$1,114,050	35.0%	23.1%	41.6%	0.3%
Total Activity	\$3,778,555	35.2%	26.5%	38.1%	0.2%

NEW SCHOOLS ONLY

	Cost/ sq. ft.	Cost/ student	Sq. ft./ student	Median Cost (\$000s)	Median # Students	Median Size (Sq. ft.)
Elementary	\$129.63	\$15,833	123.4	\$9,500	700	81,375
Middle/JHS	\$178.29	\$25,152	135.2	\$21,400	925	107,000
High School	\$188.30	\$29,483	156.6	\$42,450	1,450	223,875

REGION 8 IA, KS, MO, NE

Construction Activity (\$000s)

HOW MUCH IS BEING SPENT (\$000s)?

	New Schools	Additions	Renovations	Total
Completions in 2005	\$451,547	\$273,402	\$237,402	\$962,351
Completions in 2006	\$490,482	\$204,627	\$179,838	\$874,947
Starting in 2006	\$414,551	\$214,833	\$389,284	\$1,018,668
Total Activity	\$1,356,580	\$692,862	\$806,524	\$2,855,966
% of Total	47.5%	24.3%	28.2%	

WHERE IS THE MONEY GOING?

	Total (\$000s)	Elementary	Middle	High	District
Completions in 2005	\$962,351	46.7%	17.7%	35.2%	0.4%
Completions in 2006	\$874,947	17.2%	25.1%	57.6%	0.1%
Starting in 2006	\$1,018,668	33.0%	20.2%	46.8%	0.0%
Total Activity	\$2,855,966	32.8%	20.8%	46.2%	0.2%

NEW SCHOOLS ONLY

	Cost/ sq. ft.	Cost/ student	Sq. ft./ student	Median Cost (\$000s)	Median # Students	Median Size (Sq. ft.)
Elementary	\$130.69	\$18,583	156.7	\$9,000	409	67,000
Middle/JHS	\$113.05	\$15,857	146.2	\$11,500	700	105,000
High School	\$123.58	\$17,642	141.7	\$14,775	800	115,000

2006 Construction Report



REGION 9 AR, LA, OK, TX

Construction Activity

HOW MUCH IS BEING SPENT (\$000)?

	New Schools	Additions	Renovations	Total
Completions in 2005	\$1,976,824	\$576,221	\$353,810	\$2,906,855
Completions in 2006	\$1,861,257	\$525,539	\$347,587	\$2,734,383
Starting in 2006	\$2,162,523	\$250,266	\$500,978	\$2,913,767
Total Activity	\$6,000,604	\$1,352,026	\$1,202,375	\$8,555,005
% of Total	70.1%	15.8%	14.1%	

WHERE IS THE MONEY GOING?

	Total (\$000s)	Elementary	Middle	High	District
Completions in 2005	\$2,906,855	37.0%	18.8%	43.1%	1.1%
Completions in 2006	\$2,734,383	31.3%	25.7%	42.4%	0.6%
Starting in 2006	\$2,913,767	35.1%	13.8%	50.9%	0.2%
Total Activity	\$8,555,005	34.5%	19.4%	45.5%	0.6%

NEW SCHOOLS ONLY

	Cost/ sq. ft.	Cost/ student	Sq. ft./ student	Median Cost (\$000s)	Median # Students	Median Size (Sq. ft.)
Elementary	\$151.90	\$17,143	114.4	\$12,022	713	85,879
Middle/JHS	\$133.10	\$20,000	150.0	\$17,548	1000	130,000
High School	\$143.22	\$20,619	167.1	\$26,500	1,425	180,500

Region 9 consists of Arkansas, Louisiana, Oklahoma and Texas. All of these states have been active in school construction, but Texas is the dominant one both in terms of activity and median costs and sizes.

Region 9 school districts put almost \$3 billion worth of school construction in place in 2005. The expectations are that it will reach or exceed \$3 billion in the next few years, especially if federal and other funds are made available to rebuild so much of what was devastated in Louisiana by Hurricane Katrina.

School districts in this region spend 70 percent of their dollars on new schools and split the other 30 percent relatively evenly between additions and renovations, meaning that 85 percent of the construction is designed to add new space.

Based on total dollars spent on new schools and average cost, indications are that about 120 new schools were completed in Region 9 in 2005 — slightly more than half of them for the elementary grades.

Despite the high spending, only 30 percent of the region's districts report that they completed any construction in 2005 or will complete or start any in 2006.

REGION 10 CO, MT, ND, NM, SD, UT, WY

Construction Activity

HOW MUCH IS BEING SPENT (\$000s)?

	New Schools	Additions	Renovations	Total
Completions in 2005	\$576,396	\$170,097	\$107,512	\$854,005
Completions in 2006	\$437,091	\$232,795	\$177,210	\$847,096
Starting in 2006	\$528,939	\$113,501	\$122,145	\$764,585
Total Activity	\$1,542,426	\$516,393	\$406,867	\$2,465,686
% of Total	62.6%	20.9%	16.5%	

WHERE IS THE MONEY GOING?

	Total (\$000s)	Elementary	Middle	High	District
Completions in 2005	\$854,005	54.5%	29.3%	13.2%	3.0%
Completions in 2006	\$847,096	37.8%	23.3%	38.6%	0.3%
Starting in 2006	\$764,585	47.6%	15.1%	37.1%	0.2%
Total Activity	\$2,465,686	46.6%	22.8%	29.4%	1.2%

NEW SCHOOLS ONLY

	Cost/ sq. ft.	Cost/ student	Sq. ft./ student	Median Cost (\$000s)	Median # Students	Median Size (Sq. ft.)
Elementary	\$125.99	\$14,365	101.2	\$7,750	650	62,000
Middle/JHS	\$137.68	\$19,000	143.3	\$9,500	500	72,000
High School	\$152.89	\$26,275	175.2	\$23,750	875	152,643

Region 10 consists of the Mountain states — Colorado, Montana, New Mexico, North Dakota, South Dakota, Utah and Wyoming. Spending in this region rose to \$854 million in 2005, its highest total ever. Indications are that 2006 will be a similar year although starts in 2006 may fall slightly.

Based on total dollars spent on new schools and average cost, indications are that about 64 new schools, most of them relatively small, were completed in 2005.

Just a little more than 20 percent of the region's 1,000+ school districts reported that they completed construction in 2005 or expect to complete or start any in 2006.



Arizona, California, Hawaii and Nevada are the states that make up **Region 11**. Region 11 was the highest spending region in the nation by a wide margin, almost half of a billion dollars more than was spent in Region 2, the second highest.

The volume of activity in this region should not be surprising since it includes the two fastest growing states in the union — Arizona and Nevada — along with the largest, California. It is also probably not surprising that 86 percent of the spending in 2005 was for new space, the bulk of it in entirely new schools.

School districts in Region 11 tend to have high sq.-ft. costs but they provide fewer sq. ft. per student and as a result, their schools, particularly the elementary and middle schools, tend to be smaller than the median in the nation. The reason so many of these schools provide minimum space, of course, is that they take advantage of the good weather in that part of the nation and have students move outdoors from class to class rather than creating indoor corridors.

Based on total dollars spent on new schools and average cost, indications are that about 160 new schools were completed in 2005.

Approximately 44 percent of the region's school districts either completed a construction project in 2005 or expect to complete or start a project in 2006.

Region 12 is made up of Alaska, Idaho, Oregon and Washington. In 2004, districts in these four states put just more than \$1 billion worth of construction in place. Last year, total construction spending fell to \$845 million, and it is expected to stay at that level in 2006.

Slightly more than half the dollars spent on construction in Region 12 go to new schools. Costs per sq. ft. in this region tend to be relatively high.

Based on total dollars spent on new schools and average cost, indications are that about 30 new schools were completed in 2005.

Slightly more than one-third of Region 12's school districts either completed a construction project in 2005 or expect to complete or start a project in 2006.

REGION 11 AZ, CA, HI, NV

Construction Activity

HOW MUCH IS BEING SPENT (\$000s)?

	New Schools	Additions	Renovations	Total
Completions in 2005	\$2,707,671	\$314,768	\$486,745	\$3,509,184
Completions in 2006	\$2,772,359	\$413,678	\$333,212	\$3,519,249
Starting in 2006	\$1,942,203	\$809,991	\$393,683	\$3,145,877
Total Activity	\$7,422,233	\$1,538,437	\$1,213,640	\$10,174,310
% of Total	73.0%	15.1%	11.9%	

WHERE IS THE MONEY GOING?

	Total (\$000s)	Elementary	Middle	High	District
Completions in 2005	\$3,509,184	39.6%	22.7%	37.4%	0.3%
Completions in 2006	\$3,519,249	32.2%	18.2%	49.6%	0.0%
Starting in 2006	\$3,145,877	26.7%	21.0%	51.9%	0.4%
Total Activity	\$10,174,310	33.0%	20.6%	46.1%	0.3%

NEW SCHOOLS ONLY

	Cost/ sq. ft.	Cost/ student	Sq. ft./ student	Median Cost (\$000s)	Median # Students	Median Size (Sq. ft.)
Elementary	\$202.89	\$14,583	86.8	\$9,250	600	53,586
Middle/JHS	\$237.08	\$22,355	110.9	\$32,378	1000	114,000
High School	\$218.27	\$25,688	120.5	\$36,927	1,667	203,640

REGION 12 AK, ID, OR, WA

Construction Activity

HOW MUCH IS BEING SPENT (\$000)?

	New Schools	Additions	Renovations	Total
Completions in 2005	\$467,639	\$212,193	\$164,831	\$844,663
Completions in 2006	\$394,843	\$240,928	\$169,024	\$804,795
Starting in 2006	\$462,990	\$142,968	\$112,130	\$718,088
Total Activity	\$1,325,472	\$596,089	\$445,985	\$2,367,546
% of Total	56.0%	25.2%	18.8%	

WHERE IS THE MONEY GOING?

	Total (\$000s)	Elementary	Middle	High	District
Completions in 2005	\$844,663	23.5%	17.4%	55.5%	3.6%
Completions in 2006	\$804,795	35.8%	25.1%	38.6%	0.5%
Starting in 2006	\$718,088	26.3%	20.5%	52.6%	0.6%
Total Activity	\$2,367,546	28.6%	20.9%	48.9%	1.6%

NEW SCHOOLS ONLY

	Cost/ sq. ft.	Cost/ student	Sq. ft./ student	Median Cost (\$000s)	Median # Students	Median Size (Sq. ft.)
Elementary	\$146.07	\$16,616	105.9	\$8,250	525	55,500
Middle/JHS	\$192.30	\$26,188	136.3	\$20,950	800	109,000
High School	\$194.17	\$25,000	150.8	\$32,500	1,100	165,885