

## The 1999 Survey

In 1999, public school districts in the United States put \$17.963 billion worth of construction in place (see **Table 1**). That is a 16 percent increase over what was spent just a year earlier, when school construction reached its previous high of \$15.5 billion.

*School Planning & Management's* fifth annual school construction report has been compiled in partnership with School Construction Alert, a reporting service of Dun & Bradstreet's Market Data Retrieval division.

School Construction Alert gathered raw information for this report from survey forms and telephone calls to every school district in the United States. Information on individual projects is gathered over a three- or four-year period as each project progresses from planned construction to completion. For this report, detailed information was com-

piled on projects completed in 1999, those expected to be completed in 2000 and those projected to start in 2000. The raw material was analyzed and compiled by region, by school level and by type of construction activity.

## The National Scene

Public school districts in the United States reported completing total construction projects worth almost \$18 billion in 1999. Approximately 45 percent of the construction dollars were spent on entirely new schools. Another one-third of the construction dollars went into additions to existing schools. The other 22 percent (almost \$4 billion) went into renovation projects – fixing up and modernizing existing buildings.

During most of the last two decades, the majority of school construction dollars have been spent on upgrading and adding to existing buildings.

During the last three years, that trend reversed and new buildings took half of the construction dollars. Now it appears that more money, once again, will be spent on existing structures.

Why the change? The likely reason is that for

the last several years, the emphasis on construction has been at the elementary school level, where districts often prefer to establish new, smaller schools closer to communities where children are growing up. When it comes to the secondary schools – and especially high schools – the emphasis often is on making the existing building large enough to house all of the high-school-age children in a district. With school population now growing at the secondary level, the need to enlarge high schools and to modernize them is once again causing most construction dollars to go into existing buildings rather than new ones.

Looking to the current year, public school districts report they will complete almost \$21.5 billion worth of construction during calendar year 2000, with approximately \$9.7 billion of that going into entirely new schools, and the balance into additions (\$6.38 billion) and modernization (\$5.4 billion) — about 45 percent of the dollars continue to go into new buildings.

How about work that will be starting in the year 2000? School districts report that they will be starting work on \$22.8 billion worth of construction, including just slightly more than \$10 billion on entirely new schools, almost \$8 billion on additions and \$4.8 billion on renovations. (Most work started during 2000 will be completed over the next three years.)

**TABLE 1**  
**School Construction in the U.S.**

	1999 Completions	2000 Projected Completions	2000 Starts
New Schools	\$8,166,606,862	\$9,695,899,921	\$10,556,017,053
Additions	\$5,849,604,888	\$6,382,123,997	\$7,486,177,634
Renovations	\$3,947,435,349	\$5,404,942,053	\$4,758,870,383
Total	\$17,963,647,099	\$21,482,965,971	\$22,801,065,070

**TABLE 2**  
**School Construction Completed in 1999**  
(\$000's)

	New	Addition	Renovation	Total	% Of Spending for			reg % of nation
					New	For Addition	Renovation	
1	\$625,125	\$417,360	\$400,333	\$1,442,818	43.3%	28.9%	27.7%	8.0%
2	\$896,548	\$1,242,284	\$1,013,006	\$3,151,839	28.4%	39.4%	32.1%	17.5%
3	\$436,506	\$148,961	\$229,437	\$814,905	53.6%	18.3%	28.2%	4.5%
4	\$960,880	\$462,180	\$243,788	\$1,666,848	57.6%	27.7%	14.6%	9.3%
5	\$871,948	\$420,053	\$180,056	\$1,472,058	59.2%	28.5%	12.2%	8.2%
6	\$795,777	\$704,694	\$443,406	\$1,943,877	40.9%	36.3%	22.8%	10.8%
7	\$631,865	\$528,631	\$381,901	\$1,542,397	41.0%	34.3%	24.8%	8.6%
8	\$149,978	\$347,720	\$269,524	\$767,222	19.5%	45.3%	35.1%	4.3%
9	\$1,069,468	\$568,422	\$150,305	\$1,788,196	59.8%	31.8%	8.4%	10.0%
10	\$295,812	\$206,694	\$139,147	\$641,653	46.1%	32.2%	21.7%	3.6%
11	\$1,039,628	\$588,348	\$235,221	\$1,863,197	55.8%	31.6%	12.6%	10.4%
12	\$393,072	\$214,257	\$261,310	\$868,638	45.3%	24.7%	30.1%	4.8%
<b>NATL</b>	<b>\$8,166,607</b>	<b>\$5,849,605</b>	<b>\$3,947,435</b>	<b>\$17,963,647</b>	<b>45.5%</b>	<b>32.6%</b>	<b>22.0%</b>	<b>100.0%</b>

**To Read This Table:** Public schools in Region 1 (New England) completed new buildings worth more than \$625 million in 1999. They also put in place \$417 million in additions to existing buildings and spent \$400 million on renovations. School Districts in Region 1 completed almost \$1.5 billion of school construction in 1999 with 43.3% of those dollars spent on new buildings, the balance on adding to and upgrading existing buildings. Region 1 accounted for 8% of all school construction dollars spent in the United States in 1999.

## Regional Construction

To analyze construction activity better, and to provide a more manageable understanding of the amount of construction and how any single district's neighbors are spending their funds, School Planning & Management divides the nation into 12 regions (see map, page 19). An effort was made to develop regions with compatible school and construction patterns to make comparisons more meaningful.

**Table 2** details school construction completed in 1999, both nationally and by region. It shows that of the 12 regions of the U.S., eight completed more than \$1 billion worth of construction last year. Region 2 (New York, New Jersey and Pennsylvania) alone reported \$3.15 billion worth of total construction. Region 6

## ANALYSIS BY REGION

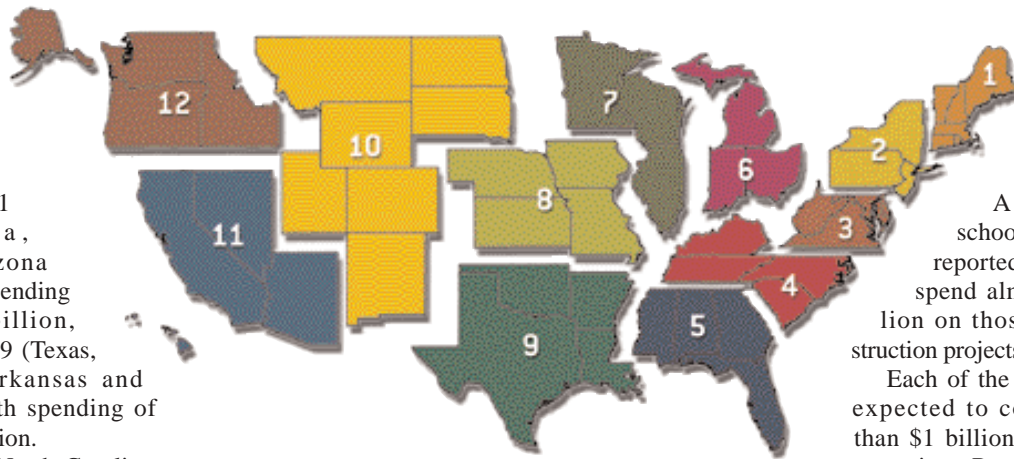
(Michigan, Ohio and Indiana) spent almost \$2 billion. That region was followed closely by Region 11 (California, Nevada, Arizona and Hawaii), spending almost \$1.9 billion, and by Region 9 (Texas, Oklahoma, Arkansas and Louisiana), with spending of almost \$1.8 billion.

Region 4, (North Carolina, South Carolina, Kentucky and Tennessee), spending \$1.7 billion, and Region 7 (Wisconsin, Illinois and Minnesota), with \$1.5 billion, were the next strongest regions in terms of overall spending. Close behind them were Region 5 (Florida, Georgia, Alabama and Mississippi) and Region 1 (New England), both at over \$1.4 billion.

It is important to remember that there is not necessarily a direct correlation between the amount of school construction work being done and the dollars spent. Costs of construction, for example, are far higher in New England and in Region 6 than in Regions 4 and 5. So data concerning cost per sq. ft. and type of construction must be factored in when one tries to correlate the amount of construction going on with the dollars being spent.

What is also interesting is the way different areas spend their construction dollars. For example, in construction completed in 1999, school districts in Region 8 reported they spent less than 20 percent of their dollars on new construction; 80 percent went to existing buildings. Region 2, while it spent almost \$1 billion total on new construction, put less than three of every 10 dollars into new buildings, the rest into expanding and upgrading existing ones.

By contrast, Regions 3, 4 and 5, along with Regions 9 and 11, put more than half of their construction money into new buildings. Regions 4, 5, 9 and 11 form the southern rim of the United



For a more detailed look at the 12 regions, turn to page 27

States, where population is growing faster than anywhere else, and where new communities are demanding new schools. In the more northern parts of the United States, modest population growth, along with population shift, creates a demand for some new buildings. Often the age and condition of older buildings demand that they be replaced, but in many more established communities, the decision is made to maintain and enlarge existing buildings, in order to provide space for new students and new programs.

A similar pattern exists with con-

struction projects expected to be completed during the current calendar year (see Table 3).

Altogether, school districts have reported that they will spend almost \$21.5 billion on those school construction projects.

Each of the nine regions is expected to complete more than \$1 billion worth of construction. Region 2, at \$3.3 billion, will spend the most.

Regions 9, 11, 6 and 5 all expect to spend more than \$2 billion on construction completed in the first year of the new millennium. Three of those regions are in the fast-growing south, southwest and west. Each of those regions reports that 60 percent of their construction dollars are going into new buildings. Thus, Regions 5, 9 and 11 all expect to spend more than \$1 billion on new construction alone. By contrast, Region 2 will spend more than any other, but not on new buildings. Its emphasis is on additions (\$1.4 billion) and renovations (\$1.1 billion).

TABLE 3  
School Construction Expected to be completed in 2000  
(\$000's)

					% Of Spending for			% region of nation
	New	Addition	Renovation	Total	New	Addition	Renovation	
1	\$501,929	\$505,416	\$550,436	\$1,557,782	32.2%	32.4%	35.3%	7.3%
2	\$818,808	\$1,359,093	\$1,134,942	\$3,312,843	24.7%	41.0%	34.3%	15.4%
3	\$409,591	\$139,687	\$164,499	\$713,777	57.4%	19.6%	23.0%	3.3%
4	\$860,996	\$304,413	\$226,717	\$1,392,126	61.8%	21.9%	16.3%	6.5%
5	\$1,372,259	\$456,535	\$290,567	\$2,119,361	64.7%	21.5%	13.7%	9.9%
6	\$846,702	\$746,202	\$667,024	\$2,259,927	37.5%	33.0%	29.5%	10.5%
7	\$587,339	\$798,252	\$531,318	\$1,916,909	30.6%	41.6%	27.7%	8.9%
8	\$274,978	\$381,020	\$189,929	\$845,927	32.5%	45.0%	22.5%	3.9%
9	\$1,698,407	\$761,116	\$419,189	\$2,878,712	59.0%	26.4%	14.6%	13.4%
10	\$255,734	\$166,612	\$294,948	\$717,294	35.7%	23.2%	41.1%	3.3%
11	\$1,638,207	\$519,673	\$441,907	\$2,599,787	63.0%	20.0%	17.0%	12.1%
12	\$430,949	\$244,105	\$493,466	\$1,168,520	36.9%	20.9%	42.2%	5.4%
NATL	\$9,695,899	\$6,382,124	\$5,404,942	\$21,482,965	45.1%	29.7%	25.2%	100.0%

**To Read This Table:** In 2000, public schools in Region 1 (New England) are expecting to complete new buildings worth slightly more than \$500 million. They also expect to complete additions worth \$505 million and renovations valued at \$550 million. Total spending in Region 1 is projected at \$1.558 billion, with 32.2% of the dollars for new buildings, the balance for additions and renovations. New England is projected to account for 7.3% of all school construction dollars spent in the nation.



Although only a little more than 90 percent of the new middle schools and high schools planning construction this year stated their plans include libraries, it is likely that the other seven to nine percent of the schools are combining their libraries and their media centers.

(Detailed information on each region, its spending patterns, its cost per sq. ft. and where school districts are putting their money, can be found in the tables on pages 27 through 34.)

### Looking to the Future

**Table 4** looks at construction expected to start this calendar year, which will be completed, in most cases, over the next three years. School districts have indicated that they expect to start almost \$23 billion worth of construction during the 2000 calendar year. About 44 percent of the money is earmarked for new school construction, with the balance going for additions and renovations.

While school districts in Region 2 expect to undertake the most total construction this year, only slightly more than one of five dollars will go into new buildings. Additions will claim 44 percent of Region 2's construction money.

By contrast, Region 9 also expects to begin more than \$3 billion worth of work this year, and will put 63 percent of its dollars into new schools. Region 11, also starting more than \$3 billion worth of work, will put almost half of its dollars towards the building of new schools.

While school districts are not always very accurate in predicting their construction projects, the evidence is clear that school construction is going to continue at an extremely high level for at least the next three or four years. Some projects may get delayed; others may be put aside entirely, but it is evident from this set of data that school districts looking ahead to the future see the need for more construction, and will be asking their public to support it in order to serve their children.

### How About Those Buildings?

In **Tables 1, 2, 3** and **4** we have been looking at school construction across the nation and how various regions are spending their money. **Table 5** looks at the construction of entirely new school buildings scheduled to be completed during calendar year 2000, and examines them in terms of cost per student, space per student, cost per sq. ft. and overall size of individual school buildings.

Why do we choose to examine the construction of entirely new schools? Because wherever a new elementary, middle or high school is being constructed, it bears certain similarities to schools of the same type anywhere else in the nation. Thus, all elementary schools will have classrooms, office space, library, cafeteria and physical education space. All high schools are likely to have science rooms. Comparing your new school project with national medians can give you an idea of where you stand and how your schools stack up against schools being built elsewhere.

In later tables (see **Tables 9-1 through 9-12**) the data about new schools are shown for individual regions, making it possible for you to compare even more closely the schools that you are building with those being built by your neighbors.

**Table 5** shows national medians for new elementary, middle and high schools, low

TABLE 4  
**School Construction Starting in 2000**  
(\$000's)

	New	Addition	Renovation	Total	% Of Spending for			% region is of nation
					New	For Addition	Renovation	
1	\$688,412	\$553,197	\$479,642	\$1,721,251	40.0%	32.1%	27.9%	7.5%
2	\$768,022	\$1,591,926	\$1,239,155	\$3,599,103	21.3%	44.2%	34.4%	15.8%
3	\$456,409	\$206,312	\$154,676	\$817,397	55.8%	25.2%	18.9%	3.6%
4	\$831,213	\$618,440	\$385,729	\$1,835,381	45.3%	33.7%	21.0%	8.0%
5	\$1,176,987	\$575,587	\$279,981	\$2,032,555	57.9%	28.3%	13.8%	8.9%
6	\$1,315,889	\$811,887	\$328,772	\$2,456,548	53.6%	33.0%	13.4%	10.8%
7	\$648,785	\$380,385	\$574,168	\$1,603,338	40.5%	23.7%	35.8%	7.0%
8	\$259,425	\$501,703	\$96,366	\$857,493	30.3%	58.5%	11.2%	3.8%
9	\$1,963,474	\$887,109	\$241,159	\$3,091,742	63.5%	28.7%	7.8%	13.6%
10	\$379,100	\$166,311	\$154,566	\$699,977	54.2%	23.8%	22.1%	3.1%
11	\$1,538,574	\$872,954	\$690,744	\$3,102,273	49.6%	28.1%	22.3%	13.6%
12	\$529,727	\$320,367	\$133,914	\$984,007	53.8%	32.6%	13.6%	4.3%
NATL	\$10,556,017	\$7,486,178	\$4,758,872	\$22,801,065	44.1%	35.0%	20.9%	100.0%

**To Read This Table:** In the year 2000, school districts in Region 1 expect to start construction on new buildings worth more than \$688 million. They will also start work on \$553 million in additions to existing buildings and renovations valued at \$479 million. Altogether School districts in Region 1 predict they will start \$1.7 billion worth of school construction in 2000, with 40% of the dollars devoted to new schools, the balance to additions and renovations. Region 1's spending is about 7.5% of all school construction spending projected to start in 2000.

and high quartiles and the highest 10 percent. The national median is found by lining up all new elementary schools, examined from bottom to top in terms of each variable studied, finding the middle (median) number and recording it for that particular variable. The use of medians, rather than averages, helps to eliminate, or at least minimize, the effect of faulty information.

By the same token, it must be understood that there is no magic in these numbers. They are based on (often-estimated) information, provided by school authorities and/or architects. They are indicators, rather than arbitrators. The fact that the median new elementary school being completed this year will cost \$102.27 per sq. ft. for construction does not mean that you spent too much if your school cost more or that you spent too little if your school cost less.

There were 316 elementary schools, 138 middle schools and 104 high schools providing data for this survey. The median among elementary schools means that 158 projects cost less than \$102.27 per sq. ft. and 158 cost more. 79 projects (the low 25 percent) spent less than \$90 per sq. ft. and, at the other end, 79 districts spent more than \$131 per sq. ft.

As noted, among elementary schools expected to be completed this year, the median cost is \$102.27 per sq. ft. The median middle school is expected to cost about \$108 per sq. ft. and the median high school, \$105. One quarter of all new elementary schools being completed this year are expected to cost \$90 per sq. ft. or less. That is the low 25 percent. On the other end of the scale, one of four school districts completing an elementary school in 2000 expects to spend over \$131 per sq. ft. (the high 25 percent).

One in 10 elementary schools is reported to cost upwards of \$193 per sq. ft. (It is likely that some of the higher figures presented are total project costs

including site purchase and preparation, furniture and furnishings and all fees and contingencies. The median figures are costs of construction alone.)

Your view of your district and those with which it compares itself, where your school district is located, the costs of labor and materials in your area and the support spaces you include in your new elementary schools, will determine if you should compare your district's cost with those of median schools, or with higher or low spending districts.

Among middle schools, the median cost is \$108.33 per sq. ft., but one-quarter of middle schools cost \$92.50 per sq. ft. or less. At the other end of the scale, 25 percent of the middle schools are expected to cost \$132 or more per sq. ft.

The high school picture is very much the same. The median is \$105 per sq. ft., but one-quarter of the new high schools will cost less than \$86 per sq. ft. and one-quarter will cost more than \$131.

Of course, cost per sq. ft. is only one measure. How much space per student is provided and how much the school will cost on a per-student basis are other important measures. Table 5 shows that information by school type for the median, the low quarter, the high quarter and the high 10 percent. Thus, the median elementary school cost \$12,313 per student and provides 112 sq. ft. for each student. The table also shows the overall size, number of students and cost of the actual schools being constructed. Thus, the median elementary school being completed this year is expected to accommodate 650 students, and encompass 73,000 sq. ft. It will cost \$7,818,000.

The median high school will cost \$17,000 per pupil and provide 162 sq. ft. per student. Total cost will be \$18.9 million and the school is being constructed for 1,000 students. It is interesting to note that the median high school being reported this year costs less per student, and provides less space per student

than the median high school completed in 1999. The reason appears to be that these schools are being built for 1,000 students, whereas last year's median high school was for just 865 students. Because they serve more students, the cost per unit actually goes down. This makes a great deal of sense when one realizes that a four-station gymnasium, for example, will encompass just about the same number of square feet whether it serves a student body of 865 or a student body of 1,000.

This suggests one more caveat when using these numbers to compare cost per student and space per student — some districts build a school for 500 students, but open with only 400. If they report the number of students for which they are ultimately building, the cost and amount of space per student will be lower than if they report only the number of students who will immediately occupy the building. Once again, the

TABLE 5  
Profile of New Schools Currently Underway  
(School Construction Ending 2000)

			Sq. Ft./	No.	Building Size	Building Cost
	\$/Sq. Ft.	\$/Student	Student	Students	(Sq. Ft.)	(\$000's)
<b>National Medians</b>						
Elementary	\$102.27	\$12,313	112.0	650	73,000	\$7,818
Middle	\$108.33	\$15,667	140.0	750	101,800	\$12,000
High	\$105.00	\$17,000	162.0	1,000	175,000	\$18,900
<b>2nd Quartile</b>						
Elementary	\$90.00	\$9,625	100.0	500	60,000	\$6,000
Middle	\$92.50	\$11,670	122.5	575	80,000	\$8,000
High	\$86.39	\$13,750	138.8	750	120,000	\$12,948
<b>High Quartile</b>						
Elementary	\$131.25	\$17,322	131.6	800	90,000	\$10,200
Middle	\$132.01	\$20,417	167.1	900	137,000	\$16,000
High	\$131.58	\$26,008	209.4	1,500	245,700	\$30,000
<b>Top 10 Percent</b>						
Elementary	\$193.55	\$25,148	177.7	900	106,000	\$15,600
Middle	\$184.21	\$25,571	214.0	1,191	172,000	\$20,000
High	\$168.16	\$34,250	258.5	2,100	350,000	\$38,000

**To Read This Table:** The national median cost per square foot for construction of an elementary school being completed in 2000 is \$102.27. Cost per student is \$12,313 and the median school provides 112 sq. ft. per student. One quarter of all school districts (the Low 25%) is spending \$90 per sq. ft. or less while one quarter of all districts spends \$131.25 per sq. ft. or more. One in ten school districts estimated their cost per square foot for a new elementary school at over \$193.

**Base:** 316 Elementary Schools; 138 Middle Schools; 104 High Schools

numbers presented are indicators, not absolutes or arbiters of correctness.

### Where the Money is Spent

**Table 6** reflects how money was spent, broken down by building type. It shows, for a three year period, not only the percentage of dollars spent on elementary, middle and high schools (along with district buildings), but also whether that money was spent on new construction, additions or renovations. For example, in 1999, 37.7 percent of all the construction dollars spent on completed buildings went into elementary schools. Middle schools accounted for 20.5 percent, and high schools 38.2 percent. Among elementary schools, almost half of the dollars went towards new buildings (\$3.1 billion out of \$6.8 billion).

In 1999, \$2 billion out of \$3.7 billion was used to construct new middle schools. This is perhaps an encouraging trend, since middle schools are a relatively new building type (as opposed to junior high schools). Apparently school districts are deciding that it is not enough to turn old high schools or old junior highs into poor middle schools, but are instead investing in new buildings designed to fit the program.

Among high schools, just \$2.9 billion out of \$6.9 billion went to new construction. This confirms the belief that, at least in 1999, school districts preferred to provide more space in their existing high schools and were more willing to upgrade those existing high schools than to build new ones.

Among projects expected to be completed in this calendar year, \$8.1 billion will go into elementary schools (again,

TABLE 6  
School Construction: Where the Money Goes, by Building Type  
( '\$000's)

1999 Completions	Elementary	Middle	High	District	Total
New	\$3,148,715	\$2,013,536	\$2,948,206	\$56,150	\$8,166,607
Additions	\$2,316,512	\$993,867	\$2,251,060	\$288,166	\$5,849,605
Renovation	\$1,310,468	\$681,030	\$1,655,410	\$300,528	\$3,947,436
Total	\$6,775,695	\$3,688,433	\$6,854,676	\$644,844	\$17,963,648
% of Year's Dollars	37.7%	20.5%	38.2%	3.6%	100.0%
2000 Projected Completions	Elementary	Middle	High	District	Total
New	\$3,616,930	\$2,478,127	\$3,555,016	\$45,827	\$9,695,900
Additions	\$2,535,293	\$1,045,591	\$2,598,707	\$202,533	\$6,382,124
Renovation	\$1,953,459	\$1,249,417	\$1,874,003	\$328,062	\$5,404,941
Total	\$8,105,682	\$4,773,135	\$8,027,727	\$576,422	\$21,482,966
% of Year's Dollars	37.7%	22.2%	37.4%	2.7%	100.00%
2000 Starts	Elementary	Middle	High	District	Total
New	\$3,749,024	\$2,316,635	\$4,441,759	\$48,600	\$10,556,018
Additions	\$3,284,595	\$1,449,881	\$2,674,044	\$77,659	\$7,486,179
Renovation	\$1,679,430	\$998,271	\$1,761,013	\$320,156	\$4,758,870
Total	\$8,713,048	\$4,764,786	\$8,876,815	\$446,415	\$22,801,064
% of Year's Dollars	38.2%	20.9%	38.9%	2.0%	
Total	Elementary	Middle	High	District	Total
New	\$10,514,669	\$6,808,298	\$10,944,981	\$150,577	\$28,418,525
Additions	\$8,136,400	\$3,489,339	\$7,523,811	\$568,358	\$19,717,908
Renovation	\$4,943,357	\$2,928,718	\$5,290,426	\$948,746	\$14,111,247
Total	\$23,594,425	\$13,226,354	\$23,759,218	\$1,667,681	\$62,247,678
% of Year's Dollars	37.9%	21.2%	38.2%	2.7%	100.0%

**To Read This Table:** Of the \$8.166 billion spent on new buildings in 1999, \$3.148 billion went into elementary schools, \$2.013 billion was spent on middle schools and \$2.948 billion on high schools. Another \$56 million was spent on district buildings encompassing multiple grades, special programs or administrative functions.

37.7 percent of the total construction dollars), 22.2 percent goes into middle schools and 37.4 into high schools. Of the three building types, only among middle schools will more than half the dollars go into new construction this year.

Looking to the future, school districts state that they will start \$8.7 billion worth of work on elementary schools during 2000, accounting for 38 percent of all the construction dollars. High schools, with \$8.9 billion of construction expected to get underway, will account for 38.9 percent of all the construction dollars. Interestingly, this year it appears that more than half of the construction dollars earmarked for middle schools and high schools will go into new buildings.

It should be noted that these are projections. There is a history of evidence that the desire to build entirely new schools, particularly at the high school

level, often resolves itself into an addition when costs are compared and projects rethought.

### What Is in a New School Building?

Earlier in this article it was noted that one can compare entirely new schools by building type. That is, an elementary school is an elementary school, and presumably, one serving 500 students in California should provide the same facilities as one for the same number of students in Minnesota, New York or Florida. Actually, that is not quite true. What is considered a complete elementary school in one district may not be acceptable in another. Some states dictate what facilities will be in an elementary school, while others support whatever the local populace decides to provide.

**Table 7** looks at the facilities that new schools started in the year 2000 are expect-

ing to provide. For example, not surprisingly, every new elementary school will have classrooms. The fact that only 83 percent say they will have libraries may be a question of semantics, since 35 percent say they will have media centers. The likelihood is that every new elementary school will have a library/media center.

How about computer labs? A few years ago it was assumed that if a district built a new elementary school it would install a computer lab. But today that is not so common. Less than two out of three elementary schools reporting said that they will have a specific room set aside as a computer lab. Instead, it appears, elementary schools are determining to put more of their computers into their classrooms and library, making it less necessary to set aside a room for the specific purpose of being a computer lab.

TABLE 7  
**What New Schools Starting in  
 2000 Will Provide**

(% of school additions that contain facility, by grade level)

Core Facilities	Elementary	Middle/JHS	High School
Classrooms	100.0%	100.0%	100.0%
Library	83.6%	91.2%	92.7%
Media Center	35.6%	83.8%	89.0%
Computer Lab	64.4%	95.7%	95.0%
Science Lab	4.5%	92.7%	97.5%
Music	70.1%	79.4%	82.9%
Arts/Crafts	90.9%	67.6%	70.7%
Gymnasium	83.1%	100.0%	97.5%
Multipurpose Room	31.1%	25.0%	19.5%
Stage	20.3%	60.3%	78.0%
Auditorium/Theater	9.6%	45.6%	71.9%
Special ed/resource	79.6%	79.4%	78.0%
Home Arts	1.1%	17.6%	58.5%
Industrial Tech.	0.6%	10.3%	41.4%
Vocational Shops	0.6%	3.0%	32.9%
Photo Lab	0.0%	3.0%	12.2%
TV/Radio Studio	0.0%	1.4%	7.3%
<b>Support Facilities</b>			
Offices	100.0%	100.0%	100.0%
Infirmary/Clinic	98.9%	100.0%	98.7%
Cafeteria	94.9%	98.5%	97.5%
Kitchen	93.8%	97.1%	98.7%
Lockers	19.2%	98.5%	97.5%
<b>Technology Support</b>			
LANs	85.3%	100.0%	100.0%
Fiber Optics/Cable	92.7%	98.5%	100.0%
Phone Lines in Class	6.8%	13.3%	28.0%
Technology Lab	0.6%	11.7%	52.5%
Language Lab	1.1%	7.3%	26.8%
Televised PA	0.6%	1.4%	3.6%
WANs	22.6%	30.9%	52.5%
<b>Athletic Support</b>			
Locker Rooms	15.3%	89.7%	97.5%
Bleachers	18.6%	91.2%	90.2%
Track	0.0%	1.4%	18.2%
Field House	0.0%	0.0%	6.1%
Fitness Center	0.0%	3.0%	12.2%
Tennis	0.0%	1.4%	13.4%
Pool	0.0%	0.0%	1.2%
Stadium	0.0%	0.0%	2.5%
Athletic fields/playground	97.8%	75.1%	78.0%
<b>Other facilities</b>			
Day Care/nursery	24.3%	3.0%	1.2%
Elevators	4.0%	3.0%	15.9%
Portables	1.7%	1.4%	2.5%
Security equipment	98.9%	98.6%	98.9%



*Ten years ago, most schools would not have been thinking seriously about security equipment. Yes, there would be locks on the doors and alarm systems, but not much else. Today, virtually every school being planned will have a security system in place the day that it opens.*

As with the library and media center, there probably is a semantic difference that causes 17 percent of elementary schools to say that they will not have gymnasiums. They will have multipurpose rooms for their physical education activity. Likewise, 95 percent of the elementary schools report cafeterias. One can assume that the other schools use their multipurpose rooms for that purpose.

Office space, of course, is found in every elementary school, but whether it is just the principal's office or whether it provides adequate space for the work of various specialists such as psychologists, guidance counselors, social workers and others is not clear.

How about technology? Almost seven out of eight elementary schools say that they will have Local Area Networks for their computers and better than nine out of 10 will have fiber optic cable. Wide Area Networks are not so popular, but 22.6 percent of the responding elementary schools expect to have them. Middle schools, too, are moving to technology. Every middle school being planned for 2000, about which information was obtained, indicated that it will have Local Area Networks and almost all will have fiber optics and cable. Better than three out of 10 will have Wide Area Networks. All high schools will also have Local Area Networks and fiber optic cable. More than half will have a Wide Area Network. Obviously, technology is becoming a teaching tool in more and more of our secondary schools and our elementary schools, too.

Most of the responses concerning the other facilities turned out the way one would expect. Almost half of middle schools have auditoriums or theaters. Less than 10 percent of elementary schools also have that kind of facility. Science labs are in virtually every middle school and high school but in relatively few elementary schools.

TABLE 8  
**What Additions Starting  
 in 1999 Will Provide**

(% of school additions that contain facility, by grade level)

Core Facilities	Elementary	Middle/JHS	High School
Classrooms	84.5%	71.7%	63.3%
Library	4.2%	6.5%	5.8%
Media Center	5.3%	0.0%	2.5%
Computer Lab	2.8%	2.2%	4.2%
Science Lab	1.4%	2.2%	9.2%
Music	2.8%	13.0%	6.7%
Arts/Crafts	2.9%	4.4%	7.5%
Gymnasium	8.5%	10.9%	25.0%
Multipurpose Room	7.7%	4.3%	2.5%
Stage	2.1%	8.7%	12.5%
Auditorium/Theater	1.8%	8.7%	13.3%
Special ed/resource	3.2%	4.3%	0.8%
Home Arts	0.0%	2.2%	1.7%
Industrial Tech.	0.0%	2.2%	2.5%
Vocational Shops	0.0%	2.2%	4.2%
<b>Support Facilities</b>			
Offices	4.9%	4.3%	7.5%
Infirmiry/Clinic	1.4%	2.2%	1.7%
Cafeteria	5.3%	10.9%	7.5%
Kitchen	7.0%	8.7%	5.0%
Lockers	2.5%	10.9%	18.3%
<b>Technology Support</b>			
LANs	7.7%	6.5%	9.2%
Fiber Optics/Cable	9.2%	8.7%	10.8%
Technology Lab	0.4%	0.0%	2.5%
Language Lab	0.0%	0.0%	0.8%
WANs	2.5%	4.3%	4.2%
<b>Athletic Support</b>			
Locker Rooms	1.8%	10.9%	19.2%
Bleachers	2.8%	8.7%	17.5%
Track	0.4%	0.0%	2.5%
Field House	0.0%	0.0%	1.7%
Fitness Center	0.0%	2.2%	1.7%
Pool	0.0%	2.2%	4.2%
Athletic fields/playground	2.1%	6.5%	3.3%
<b>Building upgrades</b>			
ADA Compliance	92.3%	93.5%	85.8%
Alarm systems	94.0%	93.5%	87.5%
Bathrooms	35.6%	30.4%	46.7%
Controls	66.2%	56.5%	59.2%
Electric overhaul	96.1%	95.7%	91.7%
HVAC	87.3%	82.6%	74.2%
Lighting	95.8%	95.7%	90.8%
Plumbing	78.5%	73.9%	70.0%
Security equipment	89.4%	87.0%	86.7%
Windows	94.7%	95.7%	87.5%

Looking to the bottom of the table, there are four very interesting lines. For example, almost one in four elementary schools say that they will have daycare or nursery facilities. Elevators are in only four percent of the elementary schools and three percent of the middle schools, indicating that most of these will be one-story buildings. Almost 16 percent of the high schools will have two or more stories, necessitating elevators.

Less than two percent of the elementary schools and middle schools say that they will include portables as part of their new school buildings. Slightly more of the high schools expect to have portables in use when they open.

Ten years ago, most schools would not have been thinking seriously about security equipment. Yes, there would be locks on the doors and alarm systems, but not much else. Today, virtually every school being planned will have a security system in place the day that it opens.

**Table 7**, with its detailing of the facilities that will be in new schools, may not provide any surprises, but at the very least, it can be a useful checklist when districts are planning their new schools.

**Table 8** looks at the facilities that will be included in additions to existing schools being started this year. For example, it is not surprising that almost 85 percent of elementary schools will be adding new classrooms. Judging by the figures, this will be the major thrust of most additions to elementary schools being worked on this year. Seven out of 10 reporting middle and junior high schools will also add classrooms, but 13 percent will add music facilities and almost 11 percent will add to their physical education space. Cafeteria additions, and more lockers and locker rooms, will also show up in more than one out of 10 projects.

Among high schools, only 63 percent of the projects report that they will add classrooms. One-quarter will be adding to their physical education facilities with gymnasium space and additional locker rooms, bleachers and lockers. Performance programs will also be enhanced. Ten percent of the projects will involve adding fiber optics and cable to the existing buildings.

## 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 whether that money in your area is more likely to go into 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 square feet per student for elementary schools, middle schools and high schools. Also shown is the median project size including overall cost, number of students accommodated and size of the building.

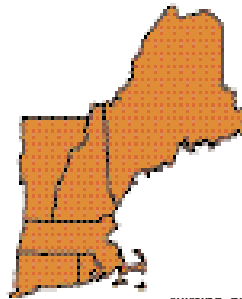
School construction in the United States is going ahead everywhere. The purpose of this report is to provide you with data that can help you understand not only what your own district needs but also what others are doing and how much their projects cost. With this information you will have the data necessary 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.

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## REGION 1

### Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, and Vermont

Construction Activity (\$000's)



Region 1, consisting of the six New England states, completed more than \$1 billion worth of construction in 1999, as had been expected. Indications are that construction completed in 2000 will be projected at more than \$1.5 billion. Region 1 divides its dollars fairly evenly between existing buildings (38 percent), additions to

existing structures. Viewed by grade level, more money is going into elementary schools than any other building type, but overall, secondary schools take more than 50 percent of the construction dollars. It is interesting that, among schools expected to be completed this year, more money goes to middle schools than any other building type. On the other hand, among projects expected to start this year, middle schools drop way down.

When considering the large percentage of its dollars going into middle schools, it is useful to note that the median new middle school in New England, designed to house 775 students, will cost \$131.76 per sq. ft. (putting it in the top quartile nationally). The same school will provide 170 sq. ft. per student, also well above the national median.

Overall, it does appear that new schools in New England tend to provide more space per pupil, and cost more per student, than schools in most other areas of the country.

Based on total dollars and average costs, indications are that New England completed about 40 new schools in 1999 and will put another 35 on-line in 2000. As many as 47 new buildings are projected to be started in 2000.

#### HOW MUCH IS BEING SPENT?

	New Schools	Additions	Renovations	Total
Completions in 1999	\$625,125	\$417,360	\$400,333	\$1,442,818
Completions in 2000	\$501,919	\$505,416	\$550,436	\$1,557,771
Starting in 2000	\$688,412	\$553,197	\$479,642	\$1,721,251
Total Activity	\$1,815,456	\$1,475,973	\$1,430,411	\$4,721,840
% of Total	38.45%	31.26%	30.29%	

#### WHERE IS THE MONEY GOING?

	Total	Elementary	Middle	High	District
Completions in 1999	\$1,442,818	39.4%	22.7%	36.8%	1.1%
Completions in 2000	\$1,557,771	33.3%	35.7%	28.2%	2.8%
Starting in 2000	\$1,721,251	46.0%	11.5%	42.1%	0.3%
Total Activity	\$4,721,840	39.8%	22.9%	35.9%	1.4%

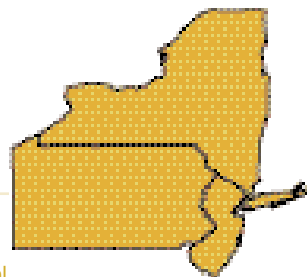
#### NEW SCHOOLS ONLY

	Cost/ sq. ft.	Cost/ student	Sq. ft./ student	Median Cost (\$000's)	Median # Students	Median Size (Sq. ft.)
Elementary	\$125.40	\$18,369	146.5	\$10,000	550	66,270
Middle/JHS	\$131.76	\$20,667	170.0	\$15,500	775	131,000
High School	\$159.57	\$31,111	166.7	\$30,000	1,033	174,333

## REGION 2

### New Jersey, New York, Pennsylvania

Construction Activity (\$000's)



Region 2 is made up of three large northeastern states – New York, New Jersey and Pennsylvania. Although they are not the states usually mentioned in the same breath with the words "population growth,"

they are growing, they have a lot of school buildings that are aging, and costs of construction tend to be among the highest in the nation. With this combination, it is, perhaps, not surprising that more dollars are being spent on school construction in Region 2 than in any other region of the nation.

Region 2 spends three out of four construction dollars on additions to and renovations of its existing buildings. Less than 25 percent of the spending is for construction of new schools, and that percentage appears to be declining. Viewed by grade level, the bulk of the money has been going into elementary schools, but that percentage is falling. Middle schools are the main focus this year, with high schools the emphasis of the future.

When they do build new schools, Region 2 districts spend a lot and provide a lot in terms of dollars, size and space per pupil. That may be why, when faced with the choice of building new and upgrading or expanding existing structures, they tend to put their money into the solid, older buildings.

Based on total dollars and average costs, indications are that these three large Middle Atlantic States completed about 50 new school buildings in 1999 and will put another 40 to 45 on-line in 2000. About 35 new buildings are projected to be started in 2000.

#### HOW MUCH IS BEING SPENT?

	New Schools	Additions	Renovations	Total
Completions in 1999	\$896,548	\$1,242,284	\$1,013,006	\$3,151,838
Completions in 2000	\$818,808	\$1,359,093	\$1,134,942	\$3,312,843
Starting in 2000	\$768,022	\$1,591,926	\$1,239,155	\$3,599,103
Total Activity	\$2,483,378	\$4,193,303	\$3,387,103	\$10,063,784
% of Total	24.68%	41.67%	33.66%	

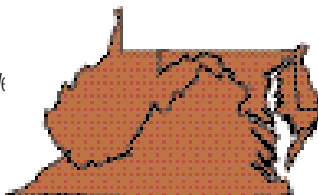
#### WHERE IS THE MONEY GOING?

	Total	Elementary	Middle	High	District
Completions in 1999	\$3,151,838	45.8%	19.5%	32.3%	2.5%
Completions in 2000	\$3,312,843	33.3%	35.7%	28.2%	3.0%
Starting in 2000	\$3,599,103	34.3%	23.1%	42.6%	0.0%
Total Activity	\$10,063,784	37.6%	26.1%	34.6%	1.8%

#### NEW SCHOOLS ONLY

	Cost/ sq. ft.	Cost/ student	Sq. ft./ student	Median Cost (\$000's)	Median # Students	Median Size (Sq. ft.)
Elementary	\$161.11	\$24,950	128.3	\$16,000	655	88,000
Middle/JHS	\$133.81	\$34,944	163.1	\$18,485	815	140,000
High School	\$145.35	\$33,244	183.0	\$25,000	800	125,000

Region 3, including Maryland, Virginia, West Virginia, Delaware and the District of Columbia, completed almost \$815 million worth of construction in 1999. They are projecting a slight fall-off among projects to be completed in 2000, but a recovery to the \$800-million level for projects getting underway in 2000.



Region 3 spends more than half of its construction dollars on entirely new buildings. Over the three years covered in this study, about 21 percent of its money will be for adding space and slightly more (23 percent) for renovating. Viewed by grade level, the emphasis in 1999, as expected, was definitely on middle schools, but the bulk of spending now seems to have shifted. Fifty-two percent of the dollars being spent on construction completed in 2000 will be going to high school buildings. In terms of planning for the future, high schools will claim almost 40 percent of the dollars being spent on projects starting in 2000.

Median Region 3 districts will spend almost \$8.7 million on each new elementary school completed in 2000, which will house about 710 students. Both of these figures are close to national medians. Its high schools, however, tend to be much larger than the majority of high schools, with a median enrollment of 2,000 and a cost of \$33 million.

Based on total dollars and average costs, indications are that this region completed about 34 new schools in 1999 and will put another 26 on-line in 2000. About 30 new buildings are projected to be started in 2000.

Region 4 includes North Carolina, South Carolina, and Tennessee. It has been one of the nation in terms of school construction, accounting for about 10 percent of the spending. Nearly \$1.67 billion worth of work was completed in 1999, and almost as much is expected in 2000. This slight drop-off appears to be short-lived, as over \$1.8 billion worth of construction is slated to start this year.



Region 4 spends more than half of its construction dollars on entirely new buildings, and another 28 percent on additions, leaving only 17 percent of the construction dollars for modernizing and renovating existing school buildings. Obviously this is a region under tremendous growth pressure.

Viewed by grade level, Region 4 seems to be concentrating on providing space for elementary school students. Until this year, more than half the region's dollars were spent at this level. It appears that attention is now beginning to shift towards the secondary grades, especially the high schools.

Median Region 4 districts spend very close to the national medians in terms of cost per square foot, space per student and cost per student.

Based on total dollars and average costs, indications are that this four-state region completed about 95 new schools in 1999. In 2000, the projected slow-down will result in a drop to about 80 new buildings. At this moment, it appears that about the same number of new buildings will be started in 2000. Some of the difference in numbers can be attributed to the shift from relatively small elementary schools to larger secondary structures.

## REGION 3

### District of Columbia, Delaware, Maryland, Virginia, and West Virginia

Construction Activity (\$000's)

#### HOW MUCH IS BEING SPENT?

	New Schools	Additions	Renovations	Total
Completions in 1999	\$436,506	\$148,961	\$229,437	\$814,904
Completions in 2000	\$409,591	\$139,687	\$164,499	\$713,777
Starting in 2000	\$456,409	\$206,312	\$154,676	\$817,397
Total Activity	\$1,302,506	\$494,960	\$548,612	\$2,346,078
% of Total	55.52%	21.10%	23.38%	

#### WHERE IS THE MONEY GOING?

	Total	Elementary	Middle	High	District
Completions in 1999	\$814,904	33.5%	42.3%	22.3%	1.9%
Completions in 2000	\$713,777	31.7%	14.9%	52.1%	1.4%
Starting in 2000	\$817,397	29.5%	29.1%	39.3%	2.1%
Total Activity	\$2,346,078	31.6%	29.4%	37.3%	1.8%

#### NEW SCHOOLS ONLY

	Cost/ sq. ft.	Cost/ student	Sq. ft./ student	Median Cost (\$000's)	Median # Students	Median Size (Sq. ft.)
Elementary	\$106.91	\$13,137	109.6	\$8,657	710	80,500
Middle/JHS	\$112.94	\$14,667	116.3	\$13,645	900	97,500
High School	\$116.79	\$17,510	154.0	\$33,000	2,000	276,000

## REGION 4

### Kentucky, North Carolina, South Carolina, and Tennessee

Construction Activity (\$000's)

#### HOW MUCH IS BEING SPENT?

	New Schools	Additions	Renovations	Total
Completions in 1999	\$960,880	\$462,180	\$243,788	\$1,666,848
Completions in 2000	\$860,996	\$304,413	\$226,717	\$1,392,126
Starting in 2000	\$831,213	\$618,440	\$385,729	\$1,835,382
Total Activity	\$2,653,089	\$1,385,033	\$856,234	\$4,894,356
% of Total	54.21%	28.30%	17.49%	

#### WHERE IS THE MONEY GOING?

	Total	Elementary	Middle	High	District
Completions in 1999	\$1,666,848	44.9%	22.3%	31.0%	1.7%
Completions in 2000	\$1,392,126	41.1%	22.1%	35.1%	1.7%
Starting in 2000	\$1,835,382	40.2%	21.8%	36.5%	1.5%
Total Activity	\$4,894,356	42.1%	22.1%	34.2%	1.6%

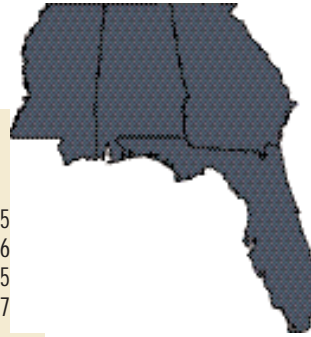
#### NEW SCHOOLS ONLY

	Cost/ sq. ft.	Cost/ student	Sq. ft./ student	Median Cost (\$000's)	Median # Students	Median Size (Sq. ft.)
Elementary	\$106.25	\$13,793	122.2	\$8,000	600	74,000
Middle/JHS	\$109.09	\$15,504	136.9	\$10,000	700	92,000
High School	\$106.67	\$15,500	145.8	\$17,250	1,150	167,500

## REGION 5

### Alabama, Florida, Georgia, and Mississippi

Construction Activity (\$000's)



#### HOW MUCH IS BEING SPENT?

	New Schools	Additions	Renovations	Total
Completions in 1999	\$871,948	\$420,053	\$180,056	\$1,472,05
Completions in 2000	\$1,372,259	\$456,535	\$290,567	\$2,119,36
Starting in 2000	\$1,176,987	\$575,587	\$279,981	\$2,032,55
Total Activity	\$3,421,194	\$1,452,175	\$750,604	\$5,623,97
% of Total	60.83%	25.82%	13.35%	

#### WHERE IS THE MONEY GOING?

	Total	Elementary	Middle	High	District
Completions in 1999	\$1,472,057	44.9%	21.2%	26.5%	7.4%
Completions in 2000	\$2,119,361	36.5%	24.7%	34.8%	4.0%
Starting in 2000	\$2,032,555	33.1%	28.2%	34.9%	3.9%
Total Activity	\$5,623,973	37.5%	25.0%	32.7%	4.9%

#### NEW SCHOOLS ONLY

	Cost/ sq. ft.	Cost/ student	Sq. ft./ student	Median Cost (\$000's)	Median # Students	Median Size (Sq. ft.)
Elementary	\$85.71	\$9,742	112.0	\$8,000	788	90,000
Middle/JHS	\$80.31	\$10,909	142.4	\$8,297	700	105,000
High School	\$85.89	\$14,667	161.5	\$17,000	1,000	170,000

Region 5 is the southeast corner of our nation and includes Georgia, Florida, Alabama and Mississippi. Over the last decade Florida and Georgia have been the scenes of the greatest amount of school construction in the nation.

These two states and their neighbors appeared to take a deep breath during the last two years. Not anymore. While they completed less than \$1.5 billion in 1999, school districts in Region 5 are projecting \$2.1 billion worth of construction to be completed in 2000 and another \$2 billion to start.

Region 5 spends 60 percent of its construction dollars on new buildings. This is a smaller percentage than in the past and probably reflects both a turn to secondary schools and a need to start investing in the many school buildings that were built in the region 25 and 30 years ago.

Median Region 5 districts spend well below the national medians in terms of cost per square foot. The elementary schools provide 112 sq. ft. per pupil, right at the national median. The buildings tend to be relatively large, housing an average of almost 800 students.

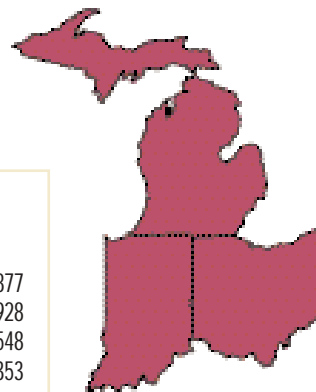
Based on total dollars and average costs, indications are that this four-state region completed about 96 new schools in 1999 and will put another 130, mostly elementary and middle schools, on-line in 2000. About 100 new buildings are projected to be started in 2000, when the emphasis shifts sharply to the upper grades.

Based on total dollars and average costs, indications are that this four-state region completed about 96 new schools in 1999 and will put another 130, mostly elementary and middle schools, on-line in 2000. About 100 new buildings are projected to be started in 2000, when the emphasis shifts sharply to the upper grades.

## REGION 6

### Indiana, Ohio, and Michigan

Construction Activity (\$000's)



#### HOW MUCH IS BEING SPENT?

	New Schools	Additions	Renovations	Total
Completions in 1999	\$795,777	\$704,694	\$443,406	\$1,943,877
Completions in 2000	\$846,702	\$746,202	\$667,024	\$2,259,928
Starting in 2000	\$1,315,889	\$811,887	\$328,772	\$2,456,548
Total Activity	\$2,958,368	\$2,262,783	\$1,439,202	\$6,660,353
% of Total	44.42%	33.97%	21.61%	

#### WHERE IS THE MONEY GOING?

	Total	Elementary	Middle	High	District
Completions in 1999	\$1,943,877	27.6%	17.4%	47.4%	7.6%
Completions in 2000	\$2,259,928	36.7%	27.6%	33.9%	1.8%
Starting in 2000	\$2,456,548	47.1%	11.0%	37.3%	4.6%
Total Activity	\$6,660,353	37.9%	18.5%	39.1%	4.5%

#### NEW SCHOOLS ONLY

	Cost/ sq. ft.	Cost/ student	Sq. ft./ student	Median Cost (\$000's)	Median # Students	Median Size (Sq. ft.)
Elementary	\$109.30	\$16,620	122.3	\$9,973	575	80,500
Middle/JHS	\$120.88	\$19,643	164.7	\$14,000	750	124,000
High School	\$127.47	\$25,850	188.7	\$23,900	1,250	233,000

Region 6 includes three large industrial states — Michigan, Indiana and Ohio — in what might be called the upper mid-east. Not too many years ago, it appeared that anybody who lived there was trying to find a job and raise a family somewhere else.

That's no longer true, judging from the amount of money being spent on schools. With \$1.9 billion worth of work completed in 1999, and almost \$2.3 billion scheduled for completion this year, Region 6 is one of the nation's school building giants. School districts are expecting to start another \$2.5 billion of work this year.

Region 6 spends about 44 percent of its construction dollars on new buildings, but it also spends a lot of money renovating and upgrading. It also splits its spending evenly among elementary schools and high schools. High schools, being larger and more expensive, get almost 40 percent of the dollars.

Median Region 6 districts spend above the national medians in terms of cost per square foot and dollars per student. Schools tend to be big and quite expensive.

Based on total dollars and average costs, indications are that this region has been building between 50 and 65 new school buildings a year. A shift seems to be coming, though, as the region puts more than half its money, starting in 2000, into new buildings. As many as 90 may be on the drawing boards.

## REGION 7 Illinois, Minnesota, and Wisconsin

Construction Activity (\$000's)



Region 7 is made up of three mid-western states – Illinois, Wisconsin and Minnesota – that have been major school builders over the last several years. That construction activity slowed for a short while, but may now be picking up steam again, or at least maintaining its previous level.

### HOW MUCH IS BEING SPENT?

	New Schools	Additions	Renovations	Total
Completions in 1999	\$631,865	\$528,631	\$381,901	\$1,542,397
Completions in 2000	\$587,339	\$798,252	\$531,318	\$1,916,909
Starting in 2000	\$648,785	\$380,385	\$574,168	\$1,603,338
Total Activity	\$1,867,989	\$1,707,268	\$1,487,387	\$5,062,644
% of Total	36.90%	33.72%	29.38%	

### WHERE IS THE MONEY GOING?

	Total	Elementary	Middle	High	District
Completions in 1999	\$1,542,397	36.0%	16.7%	44.0%	3.2%
Completions in 2000	\$1,916,909	34.8%	19.1%	42.5%	3.7%
Starting in 2000	\$1,603,338	24.8%	24.7%	45.6%	4.9%
Total Activity	\$5,062,644	32.0%	20.1%	43.9%	3.9%

### NEW SCHOOLS ONLY

	Cost/ sq. ft.	Cost/ student	Sq. ft./ student	Median Cost (\$000's)	Median # Students	Median Size (Sq. ft.)
Elementary	\$102.94	\$16,403	112.5	\$6,950	503	73,500
Middle/JHS	\$110.29	\$17,391	160.0	\$10,000	575	100,000
High School	\$103.10	\$24,775	147.6	\$23,950	1,050	229,500

Region 7 school districts report completing slightly more than \$1.5 billion in school construction in 1999, with dollars nearly evenly split among new school buildings and additions to existing buildings. Renovation projects account for about 25 percent of the construction dollar.

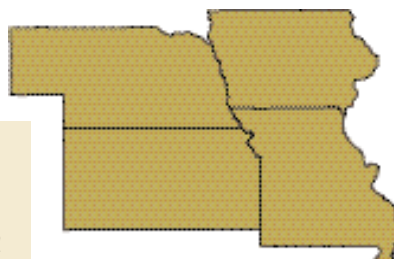
Projects expected to be completed in 2000 total close to \$2 billion. Starting in 2000, there appears to be a slight fall-off again (to \$1.6 billion). It is interesting that, despite the lower total, the amount of money being put into rehabilitation of existing buildings is rising.

Median Region 7 districts are quite close to the national medians in terms of cost per square foot for their new school buildings, spending per pupil and space per pupil.

Based on total dollars and average costs, indications are that this region is building about 55 new school buildings a year, most of them elementary schools.

## REGION 8 Iowa, Kansas, Missouri, and Nebraska

Construction Activity (\$000's)



Region 8 is made up of Missouri, Iowa, Kansas and Nebraska.

It is characterized by many small school districts and relatively few large, urban areas. That may be why its school construction, while steady, has never risen to the volume of some of the other regions of the nation. That, however, could be changing.

### HOW MUCH IS BEING SPENT?

	New Schools	Additions	Renovations	Total
Completions in 1999	\$149,978	\$347,720	\$269,524	\$767,222
Completions in 2000	\$274,978	\$381,020	\$189,929	\$845,927
Starting in 2000	\$259,425	\$501,703	\$96,366	\$857,494
Total Activity	\$684,381	\$1,230,443	\$555,819	\$2,470,643
% of Total	27.70%	49.80%	22.50%	

### WHERE IS THE MONEY GOING?

	Total	Elementary	Middle	High	District
Completions in 1999	\$767,222	35.1%	18.5%	45.1%	1.3%
Completions in 2000	\$845,927	28.5%	22.2%	43.1%	6.2%
Starting in 2000	\$857,494	49.9%	21.9%	24.1%	4.1%
Total Activity	\$2,470,643	38.0%	20.9%	37.1%	3.9%

### NEW SCHOOLS ONLY

	Cost/ sq. ft.	Cost/ student	Sq. ft./ student	Median Cost (\$000's)	Median # Students	Median Size (Sq. ft.)
Elementary	\$95.87	\$15,371	151.4	\$5,590	375	59,250
Middle/JHS	\$97.56	\$20,000	162.5	\$7,800	400	80,000
High School	\$90.60	\$15,721	190.8	\$10,600	400	117,000

Region 8 school districts completed more than \$760 million in construction last year and expect to complete \$845 million this year. This is a huge increase over previous years, but is not unexpected. As reported a year ago, school districts in the region were projecting a great increase in activity in 1999. That is what occurred. With \$857 million destined for school projects getting underway this year, Region 8 is becoming a major school construction area.

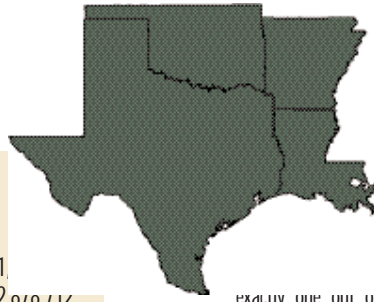
Median Region 8 districts spend less per square foot and per pupil than do median districts nationally. Their buildings tend to be rather small, averaging fewer than 400 students at the secondary level. If they can provide small schools at a relatively low cost, they may have a lesson for the rest of America.

Based on total dollars and average costs, indications are that this region completed about 25 new buildings in 1999, but expects as many as 40 to come on-line this year and an equal number to start.

## REGION 9

### Arkansas, Louisiana, Oklahoma, and Texas

Construction Activity (\$000's)



Region 9 includes Texas and three states contiguous to it – Arkansas, Louisiana and Oklahoma. Over the last decade, Texas has been one of the fastest-growing and fastest-building states. Its construction spending has remained at a steadily high level.

#### HOW MUCH IS BEING SPENT?

	New Schools	Additions	Renovations	Total
Completions in 1999	\$1,069,468	\$568,422	\$150,305	\$1,788,195
Completions in 2000	\$1,698,407	\$761,116	\$419,189	\$2,878,712
Starting in 2000	\$1,963,474	\$887,109	\$241,159	\$3,091,742
Total Activity	\$4,731,349	\$2,216,647	\$810,653	\$7,758,649
% of Total	60.98%	28.57%	10.45%	

#### WHERE IS THE MONEY GOING?

	Total	Elementary	Middle	High	District
Completions in 1999	\$1,788,195	36.3%	17.7%	42.1%	3.9%
Completions in 2000	\$2,878,712	41.5%	18.2%	40.1%	0.2%
Starting in 2000	\$3,091,742	32.1%	24.0%	42.8%	1.2%
Total Activity	\$7,758,649	36.6%	20.4%	41.6%	1.5%

#### NEW SCHOOLS ONLY

	Cost/ sq. ft.	Cost/ student	Sq. ft./ student	Median Cost (\$000's)	Median # Students	Median Size (Sq. ft.)
Elementary	\$95.71	\$9,763	100.0	\$6,700	650	70,000
Middle/JHS	\$95.56	\$14,465	137.8	\$12,000	858	110,000
High School	\$92.94	\$12,568	137.0	\$16,888	1,050	182,230

Region 9 spent exactly one out of every 10 school construction dollars put in place nationally in 1999. In 2000, it expects to be the scene of 13 percent of all school construction spending, and its expectations for work to begin in 2000 also total better than 13 percent of the entire nation's spending. Only Region 2 will be spending consistently more over the next year or so.

School districts in Region 9 need space to house an increasing school population. Thus the major portion of their construction dollars goes to new buildings (61 percent) and additional space in existing buildings (29 percent). In the current years, relatively little is being spent on renovating existing structures.

For the last several years, more than 40 percent of the construction dollars have been going into high school projects. The trend continues with planned construction starting in 2000. Elementary schools get almost as much as high schools, leaving middle schools with relatively little funding.

Region 9 opens a lot of new schools. Indications are that this region completed about 105 new schools in 1999 and will put another 150 or more on-line in 2000. About 160 new buildings are projected to be started during the current year.

## REGION 10

### Colorado, Montana, North Dakota, South Dakota, Utah, and Wyoming

Construction Activity (\$000's)



#### HOW MUCH IS BEING SPENT?

	New Schools	Additions	Renovations	Total
Completions in 1999	\$295,812	\$206,694	\$139,147	\$641,653
Completions in 2000	\$255,734	\$166,612	\$294,948	\$717,294
Starting in 2000	\$379,100	\$166,311	\$154,566	\$699,977
Total Activity	\$930,646	\$539,617	\$588,661	\$2,058,924
% of Total	45.20%	26.21%	28.59%	

#### WHERE IS THE MONEY GOING?

	Total	Elementary	Middle	High	District
Completions in 1999	\$641,653	30.6%	23.5%	43.2%	2.7%
Completions in 2000	\$717,294	31.6%	17.2%	44.3%	6.9%
Starting in 2000	\$699,977	19.4%	30.5%	48.4%	1.8%
Total Activity	\$2,058,924	27.1%	23.7%	45.4%	3.9%

#### NEW SCHOOLS ONLY

	Cost/ sq. ft.	Cost/ student	Sq. ft./ student	Median Cost (\$000's)	Median # Students	Median Size (Sq. ft.)
Elementary	\$89.76	\$9,909	108.2	\$5,725	600	67,500
Middle/JHS	\$92.21	\$15,714	139.5	\$11,000	834	127,000
High School	\$98.45	\$17,560	167.1	\$16,100	850	157,750

Region 10 is made up of states including Colorado, New Mexico, North Dakota, South Dakota, Utah and Wyoming. It has lots of open space and a low population density. Over the last decade, school construction activity has been relatively low, a pattern that seems to be continuing.

Region 10 school districts report completing less than \$650 million worth of construction in 1999, making it the lowest-spending region in the nation. For 2000, Region 10 districts are projecting a total of \$717 million in completed construction, slightly ahead of last year's pace. Construction starting in 2000 is projected to approach \$700 million again, so it may be that this wide-open region is beginning to face its schoolhouse needs.

The bulk of the money being spent now, and expected to be spent over the next several years, is at the high school level, with close to half the dollars committed to these projects. Elementary schools get just 27 percent and middle schools almost 24 percent.

Based on total dollars and average costs, indications are that school districts in this region completed about 32 new schools in 1999 and will put another 28 on-line in 2000. About 35 new buildings are said to be on the drawing boards to start in 2000.

## REGION 11 Arizona, California, Hawaii, and Nevada

Construction Activity (\$000's)



Region 11 includes Arizona, California, Nevada and Hawaii. Over the last decade, all but Hawaii have been among the fastest-growing and fastest-building states in the nation. The region regularly ranks

### HOW MUCH IS BEING SPENT?

	New Schools	Additions	Renovations	Total
Completions in 1999	\$1,039,628	\$588,348	\$235,221	\$1,863,19
Completions in 2000	\$1,638,207	\$519,673	\$441,907	\$2,599,78
Starting in 2000	\$1,538,574	\$872,954	\$690,744	\$3,102,272
Total Activity	\$4,216,409	\$1,980,975	\$1,367,872	\$7,565,256
% of Total	55.73%	26.19%	18.08%	

among the highest in the nation for overall construction activity.

### WHERE IS THE MONEY GOING?

	Total	Elementary	Middle	High	District
Completions in 1999	\$1,863,197	31.0%	18.0%	47.9%	3.1%
Completions in 2000	\$2,599,787	35.3%	24.0%	39.9%	0.8%
Starting in 2000	\$3,102,272	51.5%	15.8%	31.6%	1.1%
Total Activity	\$7,565,256	40.9%	19.2%	38.5%	1.5%

In 1999, almost \$1.9 billion worth of construction was completed in Region 11, making it the third-ranking region in terms of overall spending. Better than half the money went into construction of new buildings. In 2000, construction is expected to reach \$2.6 billion, and projects scheduled to start this year total more than \$3 billion. The bulk of the money is still going towards new buildings, but the percentage may be coming down, with funds being shifted towards additions to existing structures.

### NEW SCHOOLS ONLY

	Cost/ sq. ft.	Cost/ student	Sq. ft./ student	Median Cost (\$000's)	Median # Students	Median Size (Sq. ft.)
Elementary	\$146.30	\$12,313	84.3	\$8,000	700	59,000
Middle/JHS	\$131.82	\$14,000	106.7	\$14,500	900	80,000
High School	\$120.79	\$14,647	132.9	\$25,000	1,600	176,000

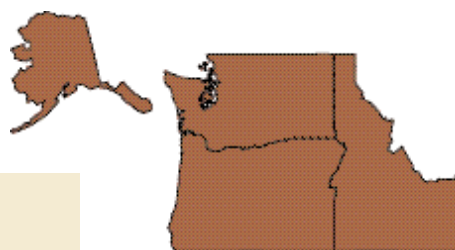
High schools are getting a large share of the money being spent, particularly in projects completed in 1999. However, overall, elementary school construction projects account for 41 percent of the construction dollars reported, middle schools for 19 percent and high schools for 39 percent.

Region 11 ranks high in dollars spent per square foot of construction, but low in terms of space provided per student.

Indications are that this region completed about 69 new schools in 1999 and will put another 100 on-line in 2000. About 120 new buildings are projected to be started in 2000.

## REGION 12 Alaska, Idaho, Oregon, and Washington

Construction Activity (\$000's)



Region 12 comprises the four states of the Pacific

### HOW MUCH IS BEING SPENT?

	New Schools	Additions	Renovations	Total
Completions in 1999	\$393,072	\$214,257	\$261,310	\$868,639
Completions in 2000	\$430,949	\$244,105	\$493,466	\$1,168,520
Starting in 2000	\$529,727	\$320,367	\$133,914	\$984,008
Total Activity	\$1,353,748	\$778,729	\$888,690	\$3,021,167
% of Total	44.81%	25.78%	29.42%	

Northwest — Idaho, Oregon, Washington and Alaska. Its construction activity has increased over the years and its construction total is expected to be more than \$1 billion for the first time this year.

### WHERE IS THE MONEY GOING?

	Total	Elementary	Middle	High	District
Completions in 1999	\$868,639	34.5%	20.0%	39.9%	5.6%
Completions in 2000	\$1,168,520	35.4%	24.6%	33.4%	6.6%
Starting in 2000	\$984,008	33.4%	23.0%	42.6%	1.1%
Total Activity	\$3,021,167	34.5%	22.8%	38.3%	4.5%

In 1999 Region 12 school districts completed construction projects worth \$869 million. Projections indicate another \$1.17 billion worth of construction completions in 2000. Construction projects valued at almost \$1 billion are expected to get underway before the current year is out.

### NEW SCHOOLS ONLY

	Cost/ sq. ft.	Cost/ student	Sq. ft./ student	Median Cost (\$000's)	Median # Students	Median Size (Sq. ft.)
Elementary	\$126.71	\$13,900	108.3	\$8,019	575	54,340
Middle/JHS	\$152.23	\$19,342	129.6	\$14,100	725	99,500
High School	\$162.00	\$33,647	180.0	\$21,000	500	122,700

Region 12 has been spending more than half its money on adding to and renovating existing buildings, but for projects to start in 2000 there seems to be a change, with more than half the construction dollars scheduled to be used to build new schools. The same pattern was observed a year ago, but so far it has not shown up in completions. The emphasis seems to be shifting from elementary school projects to high schools, as the student population moves through the grades.

Schools in Region 12 spend above the national median in terms of construction (costs per square foot). Based on total dollars and average costs, indications are that this four-state region completed about 28 new schools in 1999, and will put another 42 on-line in 2000. Another 42 new buildings are projected to be started in 2000.