

2002

Construction

Report

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School Planning & Management

by Paul Abramson

Construction Report

School construction valued at \$20.3 billion was completed during calendar year 2001, the second consecutive year that more than \$20 billion worth of school construction was put in place.

If projections of work scheduled to be completed in the current year hold up, 2002 will be the third year in a row during which school construction completed topped \$20 billion.

School construction has increased in the United States every year since 1983, when it bottomed out at \$4.7 billion. The year-to-year increase was relatively modest, but by 1990, annual construction had reached \$10 billion. It stayed close to that level until 1996, when more than \$12 billion worth of construction was put in place.

During the next three years, with the nation basking in good economic times, school construction rose rapidly, reaching \$15 billion in 1998 and almost \$18 billion in 1999. In calendar year 2000, it broke the \$20 billion mark for the first time, peaking just below \$21.2 billion, the highest construction total ever.

The \$20.34 billion recorded in 2001 makes this the second largest construction year in the history of our nation.

This is one of the key findings from SCHOOL PLANNING & MANAGEMENT'S Seventh Annual School Construction Report. The report has been compiled in partnership with School Construction Alert, a service of Dun & Bradstreet's Market Data Retrieval division.

School Construction Alert gathers information for this report from survey forms and telephone calls to every

dar year. Of this, \$10.4 billion (51.1 percent) went into the design and erection of entirely new schools; the balance was spent on enlarging (\$5.4 billion) and upgrading (\$4.6 billion) existing buildings.

This year (2002), school districts project completing \$20.4 billion worth of construction, slightly more than was completed last year, but still below the \$21.2 billion recorded in 2000. School construction may be on something of a plateau, but it is a very high plateau in terms of spending.

against the softening of the economy that took place during the last year. Obviously there was still enough need for facilities and enough support for the schools for that planning to go forward at a high level. Reports of major bond issues being proposed and passed come in from all over the United States, even as this is being written, so the demand certainly continues and, so far, public support does, too.

What planned construction for 2002 did not take into account were the events of September 11 and the fall-out from them. With billions of dollars being spent now on new security measures,

school district in the United States. Information is gathered on individual projects through 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.

SCHOOL PLANNING & MANAGEMENT takes the raw information from specific years and projects it, based on the number of districts responding to the survey and the point in their projects at which the information was collected. Districts are analyzed by region and by size, so that accurate projections can be made.

Based on the School Construction Alert surveys, this year's School Construction Report provides estimates on construction completed in the Year 2001, construction projected to be completed in 2002 and projects identified as starting in 2002.

The Big Picture

Public school districts in the United States (see Table 1) spent \$20,341,162,000 on construction projects completed during the 2001 calen-

dar year. Even if not yet reported, its scope has been determined and it is probably well underway. To estimate school construction in the future, the report also examines construction expected to start in 2002. Some of that construction could end during the current year, but the bulk of it will be reported again as completions in 2003, 2004 and even 2005.

Work expected to start in 2002 totals just under \$20.3 billion, an indication that construction remains a major thrust of our nation's schools.

Construction projects scheduled to start in 2002 were planned

with federal funding and attention shifted to defending the nation from further terrorism, and with the economic downturn perhaps accelerated, cutting jobs, income and the collection of taxes, schools may have to brace for interruptions to their construction plans. So far, it appears that construction will stay at the \$20 billion level, but the next few months will be critical in determining whether that level of support can be sustained.

Construction in 2001

We may not be sure what the future will bring, but we can be certain of

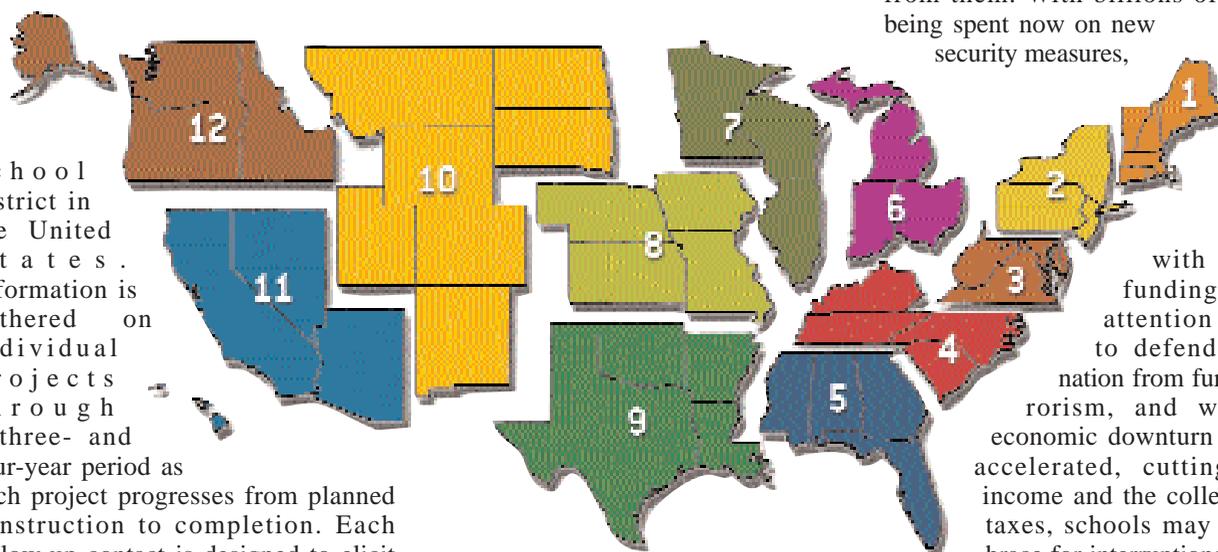


Table 1
School Construction in the U.S.
(\$000s)

	2001 Completions	2002 Projected Completions	2002 Starts
New Schools	\$10,403,831	\$11,253,746	\$10,129,822
Additions	\$5,358,499	\$5,513,687	\$5,286,003
Renovations	\$4,578,832	\$3,652,845	\$4,878,777
Total	\$20,341,162	\$20,420,278	\$20,294,602

TABLE 2
School Construction Completed in 2001
 (\$000s)

Region	New	Addition	Renovation	Total	% of Spending for			% of nation
					New	Addition	Renovation	
1	\$792,874	\$425,438	\$431,855	\$1,650,167	48.0%	25.8%	26.2%	8.1%
2	\$867,219	\$1,063,484	\$867,946	\$2,798,649	31.0%	38.0%	31.0%	13.8%
3	\$473,686	\$248,957	\$208,612	\$931,255	50.9%	26.7%	22.4%	4.6%
4	\$1,241,353	\$349,278	\$289,673	\$1,880,304	66.0%	18.6%	15.4%	9.2%
5	\$1,318,301	\$363,385	\$262,256	\$1,943,942	67.8%	18.7%	13.5%	9.6%
6	\$988,705	\$726,704	\$507,722	\$2,223,131	44.5%	32.7%	22.8%	10.9%
7	\$680,573	\$437,681	\$506,303	\$1,624,557	41.9%	26.9%	31.2%	8.0%
8	\$488,968	\$186,302	\$138,987	\$814,257	60.1%	22.9%	17.1%	4.0%
9	\$1,472,632	\$713,070	\$578,126	\$2,763,828	53.3%	25.8%	20.9%	13.6%
10	\$471,010	\$228,033	\$233,636	\$932,679	50.5%	24.4%	25.1%	4.6%
11	\$1,202,224	\$468,463	\$446,411	\$2,117,098	56.8%	22.1%	21.1%	10.4%
12	\$406,286	\$147,704	\$107,305	\$661,295	61.4%	22.3%	16.2%	3.3%
NATL	\$10,403,831	\$5,358,499	\$4,578,832	\$20,341,162	51.1%	26.3%	22.5%	100.0%

To read this table: Public schools in Region 1 (New England) completed new buildings worth more than \$792 million in 2001. They also put in place \$425 million in additions to existing buildings and spent \$431 million on renovations. School districts in Region 1 completed more than \$1.6 billion of school construction in 2001 with 48 percent of those dollars spent on new buildings, the balance on adding to and upgrading existing buildings. Region 1 accounted for 8.1 percent of all school construction dollars spent in the United States in 2001.

what has happened through the past year. As Table 2 shows, \$20.3 billion worth of construction was put in place in 2001, the second highest annual total. Of that total, \$10.4 billion was spent on entirely new school buildings. Another 26.3 percent (\$5.4 billion) went to providing additional space in existing schools. The remaining \$4.6 billion (just under 22.5 percent) was spent on upgrading existing structures, including ADA compliance, new heating and ventilating systems, roofs, windows and the like.

Better than three of every four construction dollars was spent on providing new space (new buildings and additions combined). Increasing numbers of students continues to be the main force behind the continuing construction, but demands for space to accommodate programs such as full-day kindergartens and pre-kindergarten, special needs programs and technology infusion are also increasing the amount of space needed.

While the demand for new space is obvious and relatively easy to show,

schools should not lose sight of their need to upgrade existing space. Little has been done through the last few years to eat into the huge backlog of deferred maintenance identified in a number of recent reports.

Table 2 shows the national construction picture. It also shows how much school districts in each of 12 regions of the nation (see definition of regions on page 22) spent on construction and how they spent it.

School districts in the three states comprising Region 2 (New York, New Jersey and Pennsylvania) spent more dollars on construction in 2001 than did school districts in any other region. That does not mean, necessarily, that they did more work than districts in other regions, only that more was spent. Costs of construction tend to be significantly higher in the northeast than in, say, Texas or Louisiana or most parts of Georgia. So price differentials must be taken into account when the amount of activity is considered.

There is also a difference in how money is spent. Districts in Region 2

spent relatively little on building new schools, just 31 cents out of each construction dollar. Almost exactly the same amount was spent on renovation of existing buildings. The largest share of Region 2's construction dollars last year (more than \$1 billion) was spent on adding to existing buildings.

While more school construction dollars were spent in Region 2 than anywhere else, the margin was not great. School districts in Region 9 (Texas, Oklahoma, Louisiana and Arkansas) spent almost as much and, because of the relative cost of construction, probably got more done. These districts certainly added more school space since they spent almost \$1.5 billion on new buildings and another \$713 million on additions. Less than 21 percent of Region 9's construction dollars are used on upgrading existing buildings.

The third highest spending region, Region 6, includes Ohio, Michigan and Indiana. School districts in these Great Lakes states spent better than \$2.2 billion on school construction in 2001, with just under \$1 billion of that going to new buildings.

School districts in Region 11 also accounted for more than \$2 billion in school construction last year, with almost 57 cents of every dollar being used to put up a new building. Region 11 encompasses Arizona, California, Nevada and Hawaii, including some of the fastest growing areas in the nation.

School districts in Regions 4 and 5 spent less in total dollars than districts in the four regions described above, but they were close to the \$2 billion mark in total spending and, because they put the highest percentage of their spending into new buildings, ranked second and third among the regions in terms of spending for new buildings, both well over \$1.2 billion. Region 4 includes North and South Carolina, Kentucky and Tennessee. Region 5 encompasses

TABLE 3
School Construction Expected To Be completed in 2002
(\$000s)

Region	New	Addition	Renovation	Total	% of Spending for			% of nation
					New	Addition	Renovation	
1	\$816,767	\$382,320	\$337,561	\$1,536,648	53.2%	21.9%	22.0%	7.5%
2	\$1,009,196	\$1,046,929	\$549,670	\$2,605,795	38.7%	40.2%	21.1%	12.8%
3	\$558,295	\$223,864	\$166,961	\$949,120	58.8%	23.6%	17.6%	4.6%
4	\$1,442,005	\$456,261	\$394,106	\$2,292,372	62.9%	19.9%	17.2%	11.2%
5	\$1,173,750	\$513,259	\$272,644	\$1,959,653	59.9%	26.2%	13.9%	9.6%
6	\$1,055,974	\$503,668	\$275,961	\$1,835,603	57.5%	27.4%	15.0%	9.0%
7	\$741,523	\$631,758	\$324,417	\$1,697,698	43.7%	37.2%	19.1%	8.3%
8	\$262,694	\$248,914	\$173,118	\$684,726	38.4%	36.4%	25.3%	3.4%
9	\$1,856,251	\$550,533	\$425,733	\$2,832,517	65.5%	19.4%	15.0%	13.9%
10	\$548,391	\$268,231	\$144,174	\$960,796	57.1%	27.9%	15.0%	4.7%
11	\$1,357,647	\$473,786	\$424,679	\$2,256,112	60.2%	21.0%	18.8%	11.0%
12	\$431,253	\$214,164	\$163,821	\$809,238	53.3%	26.5%	20.2%	4.0%
NATL	\$11,253,746	\$5,513,687	\$3,652,845	\$20,420,278	55.1%	27.0%	17.9%	100.0%

To read this table: In 2002, public schools in Region 1 (New England) are expecting to complete new buildings worth more than \$800 million. They also expect to complete additions worth \$382 million and renovations valued at \$337 million. Total spending in Region 1 is projected at \$1.537 billion, with 53.2 percent of the dollars for new buildings, the balance for additions and renovations. New England is projected to account for 7.5 percent of all school construction dollars spent in the nation.

calendar year. The total is almost identical to total construction in 2001, but the patterns are different. Better than 55 percent (\$11.3 billion) is destined for new buildings and less than 18 percent is to be spent on renovation of what exists.

In terms of a regional perspective, Region 2 is no longer the largest spending area, being supplanted by school districts in Region 9, where spending on completed school projects in 2002 is expected to exceed \$2.8 billion. Almost two out of three of those dollars are being spent on new buildings.

Region 2 will be the second highest spender, at \$2.6 billion, almost as much as it spent last year. Other regions over \$2 billion include Regions 4 and 11, with Regions 5 and 6 falling just under that number. Six regions will spend more than

Florida, Georgia, Alabama and Mississippi.

Region 1 (New England) and Region 7 (Minnesota, Wisconsin and Illinois) both put more than \$1.6 billion worth of construction in place in 2001. Districts in New England spent almost \$800 million on new buildings, while those in the Upper Midwest spread their dollars around relatively evenly among new buildings, additions and renovations.

Four regions spent less than \$1 billion on school construction last year. These included Region 3 (Maryland, Virginia, West Virginia, Delaware and the District of Columbia), where \$931 million was spent, the largest total ever for these states, and Region 10 (Colorado, Utah, North and South Dakota, Montana, Wyoming and New Mexico) also reached a new high.

What's Underway Now

Table 3 looks at construction projected to be completed during the current

\$1 billion completing new schools this year. Apparently, throughout the United States, projects to be completed in

TABLE 4
School Construction Project to Start in 2002
(\$000s)

Region	New	Addition	Renovation	Total	% of Spending for			% of nation
					New	Addition	Renovation	
1	\$861,600	\$425,833	\$445,272	\$1,732,705	49.7%	24.6%	25.7%	8.5%
2	\$951,190	\$966,864	\$824,269	\$2,742,323	34.7%	35.3%	30.1%	13.9%
3	\$700,506	\$78,404	\$166,936	\$945,846	74.1%	8.3%	17.6%	13.5%
4	\$1,334,968	\$470,716	\$460,089	\$2,265,773	58.9%	20.8%	20.3%	11.2%
5	\$1,045,503	\$552,429	\$454,730	\$2,052,662	50.9%	26.9%	22.2%	10.1%
6	\$918,306	\$473,095	\$437,975	\$1,829,376	50.2%	25.9%	23.9%	9.0%
7	\$751,525	\$423,594	\$329,360	\$1,504,479	50.0%	28.2%	21.9%	7.4%
8	\$244,462	\$236,038	\$288,493	\$768,993	31.8%	30.7%	37.5%	3.8%
9	\$1,422,911	\$654,836	\$725,737	\$2,803,484	50.8%	23.4%	25.9%	13.8%
10	\$509,859	\$174,506	\$153,978	\$838,343	60.8%	20.8%	18.4%	4.1%
11	\$1,040,113	\$593,959	\$373,283	\$2,007,355	51.8%	29.6%	18.6%	9.9%
12	\$348,879	\$235,729	\$218,655	\$803,263	43.4%	29.3%	27.2%	4.0%

NATL \$10,129,822 \$5,286,003 \$4,878,777 \$20,294,602 49.9% 26.0% 24.0% 100.0%

To read this table: In the year 2002, school districts in Region 1 (New England) expect to start construction on new buildings worth more than \$850 million. They will also start work on \$425 million in additions to existing buildings and renovations valued at \$445 million. Altogether, school districts in Region 1 predict they will start \$1.7 billion worth of school construction in 2002, with 49.7 percent of the dollars devoted to new schools, the balance to additions and renovations. Region 1's spending is about 8.5 percent of all school construction spending projected to start in 2002.



other hand, school construction is an economic engine. It is a very sound and popular way to create jobs while at the same time helping to guarantee the future strength of our nation. The need for new and repaired school space remains high. There is good reason to hope that the construction of that space will continue to have the support of the voters.

What Goes Into a School?

Table 5 provides a national profile of new schools currently 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 of the elementary schools being constructed in the nation today, half of them will cost \$113.30 per sq. ft. or more, and half cost \$113.30 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.

It is also important, in looking at these figures, to understand that only entirely new schools are included.

2002 will emphasize the opening of entirely new schools. This may just be a pause in planning or a statistical anomaly but for the last five years, school districts have been devoting a larger percentage of their construction money to renovation, often for the purpose of making it possible to introduce technology into their buildings. It may be that the basic work has now been completed — that virtually all school buildings have been made computer-friendly — and that, as a result, districts are able to turn their attention to getting more space rather than just upgrading the old.

Table 4 looks at construction projected to start in 2002. The total, \$20.3 billion, is significantly lower than the \$22.3 billion projected one year ago to start in 2001 and may be the first real sign that school construction is being affected by economics and events. Still, the total remains above \$20 billion.

It is interesting to note that in construction scheduled to start in 2002, districts seem to be back to a pattern of spending their dollars on both new buildings (less than 50 percent) and existing buildings.

Regions 9 and 2 once again expect to spend the most. Every region is expecting to start more than \$750 million worth of construction, the first time that has happened.

Construction scheduled to start in 2002 had to have been in the planning stages before the events of September 11, and it appears that those plans will be going forward. How the next phase of construction planning will fare when it is brought before the voters later this year is a question that will have to be watched.

The difficulty with school construction is that it results in increased taxes, and it is one of the few places where Americans have an opportunity to directly determine how much they will pay. On the

Table 5
Profile of New Schools Currently Underway

(School Construction Ending 2002)

National Medians	\$/Sq. Ft.	\$/Student	Sq. Ft./Student	No. Students	Building Size (Sq. Ft.)	Building Cost (\$000s)
Elementary	\$113.30	\$13,333	116.1	650	70,000	\$8,500
Middle	\$123.27	\$16,429	135.0	800	105,000	\$13,000
High	\$119.24	\$17,500	147.9	1,200	160,000	\$20,087
Low Quartile	\$/Sq. Ft.	\$/Student	Sq. Ft./Student	No. Students	Building Size (Sq. Ft.)	Building Cost (\$000s)
Elementary	\$92.30	\$10,000	100.0	500	56,117	\$6,250
Middle	\$100.00	\$13,333	120.0	650	84,000	\$9,500
High	\$98.33	\$12,774	122.2	750	98,388	\$11,000
High Quartile	\$/Sq. Ft.	\$/Student	Sq. Ft./Student	No. Students	Building Size (Sq. Ft.)	Building Cost (\$000s)
Elementary	\$147.70	\$17,333	123.5	775	90,000	\$11,132
Middle	\$161.24	\$21,053	143.9	1,000	140,000	\$19,000
High	\$159.49	\$25,000	176.9	1,600	236,000	\$37,748
Top 10 Percent	\$/Sq. Ft.	\$/Student	Sq. Ft./Student	No. Students	Building Size (Sq. Ft.)	Building Cost (\$000s)
Elementary	\$196.00	\$25,333	144.0	900	100,000	\$16,800
Middle	\$228.57	\$43,400	167.3	1,200	175,000	\$27,000
High	\$229.50	\$38,333	210.0	2,000	310,000	\$46,000

To read this table: The national median cost per square foot for construction of an elementary school currently underway is \$113.30. Cost per student is \$13,333 and the median school provides 116.1 square feet per student. One quarter of all school districts (the low 25 percent) is spending \$92.30 per square foot or less for its elementary school construction while one quarter of all districts spends \$147.70 per square foot or more. One in 10 school districts estimated the cost per square foot for a new elementary school at more than \$196.

Base: 335 Elementary Schools; 137 Middle Schools; 116 High Schools.

While new school construction is taking place all across the United States, a preponderance of the money spent on new schools is coming from southern and western states. If your district is building or planning to build, and you are in one of the higher spending areas of the nation, the national medians are likely to be below your costs.

Table 5 shows that the median elementary school in the United States cost \$113.30 per sq. ft. to build. Median spending was \$13,333 per pupil, and the median school provided 116.1 square feet for each student.

Looking at middle schools, the cost was \$123.27 per sq. ft. and \$16,429 per student. The median middle school provides almost 135 sq. ft. for each of the 800 students it houses. Note that, in finding medians, each variable is looked at separately, so that the school that cost \$123 per sq. ft. is not necessarily the same one that spends \$16,429 per student.

Moving on to the high schools, the cost of the median high school is \$119.24 per sq. ft. and \$17,500 is being spent per pupil. The median high school provides almost 148 sq. ft. for each of its students. This is slightly less space per student than has been reported in the last few years.

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 this year will cost \$92.30 per sq. ft. or less. One quarter of the elementary schools will provide just 100 sq. ft. per student or less.

If your district is in a high spending 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, for example, that 25 percent of the new elementary schools being constructed cost \$147.70 per sq. ft.; 75 percent cost less. One quarter of the elementary schools are providing more than 123 sq. ft. per

student. At the high school level, 25 percent of the new buildings will provide 177 sq. ft. per student or more.

Is your district in the top 10 percent of the nation? If so, you may be spending \$196 for each sq. ft. of your elementary schools and providing 144 square foot per student. Table 5 gives you an opportunity to compare your district with other districts around the country that you think have your aspirations and/or your ability to pay. It is meant as an indicator, not an arbitrator. There is no right or wrong in terms of spending or space, but there are guidelines shown that you may want to consider.

Where the Pressure Is Greatest

School districts — especially those that are growing rapidly — face multiple pressures for spending construction dollars. Which is more important, to build a new elementary school to relieve overcrowding, to remodel an existing junior high school so that a middle school program can be installed or to add to the high school to meet the crush of larger incoming classes? Should technology be increased across the board or only in some buildings? Can we afford to do everything at once? These are the kinds of questions school boards must answer as they plan their building programs.

Table 6 takes a look, in dollar terms, at how those questions were answered.

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

2001 Completions	Elementary	Middle	High	District	Total
New	\$3,481,044	\$2,875,384	\$3,834,465	\$212,938	\$10,403,831
Additions	\$1,544,434	\$996,445	\$2,485,454	\$332,167	\$5,358,500
Renovation	\$1,366,623	\$1,226,676	\$1,662,306	\$323,227	\$4,578,832
Total	\$6,392,101	\$5,098,505	\$7,982,225	\$868,332	\$20,341,163
% of Year's Dollars	31.4%	25.1%	39.2%	4.3%	100.00%
2002 Projected Completions	Elementary	Middle	High	District	Total
New	\$3,567,797	\$2,867,130	\$3,550,590	\$144,306	\$10,129,823
Additions	\$1,773,267	\$1,236,447	\$2,099,320	\$176,970	\$5,286,004
Renovation	\$1,659,262	\$1,063,646	\$2,005,044	\$150,826	\$4,878,778
Total	\$7,000,326	\$5,167,223	\$7,654,954	\$472,102	\$20,294,605
% of Year's Dollars	34.5%	25.5%	37.7%	2.3%	100.00%
2002 Starts	Elementary	Middle	High	District	Total
New	\$3,567,797	\$2,867,130	\$3,550,590	\$144,306	\$10,129,823
Additions	\$1,773,267	\$1,236,447	\$2,099,320	\$176,970	\$5,286,004
Renovation	\$1,659,262	\$1,063,646	\$2,005,044	\$150,826	\$4,878,778
Total	\$7,000,326	\$5,167,223	\$7,654,954	\$472,102	\$20,294,605
% of Year's Dollars	34.5%	25.5%	37.7%	2.3%	100.00%
Total	Elementary	Middle	High	District	Total
New	\$11,468,853	\$8,203,621	\$11,635,270	\$479,656	\$31,787,400
Additions	\$5,107,910	\$3,061,870	\$7,213,103	\$775,309	\$16,158,192
Renovation	\$4,361,906	\$3,033,495	\$5,016,192	\$698,862	\$13,110,455
Total	\$20,938,669	\$14,298,986	\$23,864,565	\$1,953,827	\$61,056,047
% of Year's Dollars	34.3%	23.4%	39.1%	3.2%	100.0%

To read this table: Of the \$10.403 billion spent on new buildings in 2001, \$3.481 billion went into elementary schools, \$2.875 billion was spent on middle schools and \$3.834 billion on high schools. Another \$212 million was spent on district buildings encompassing multiple grades, special programs or administrative functions.

It shows the school level at which construction took place and the type of construction that was undertaken.

Among school construction projects completed in 2001, 31.4 percent of the total dollars went into elementary schools, 39.2 percent into high schools and 25.1 percent into middle schools. A little more than four percent was either spread around the district in such a way that it could not be defined (perhaps rewiring all schools for technology) or for projects at the district level including administrative quarters, bus garages, maintenance centers, etc.



Table 6 not only shows the level at which construction dollars are spent, but the purpose. For example, of the \$6.4 billion spent last year on elementary schools, almost \$3.5 billion was for new buildings. That's about 55 percent. At the middle school level last year, 56 percent of the dollars were invested in new structures.

Less than half of high school spending was for new buildings, but 79 percent was for new space including new buildings and additions.

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. Table 7 records the percentage of new schools planned to start in 2002 that will have specific facilities.

All elementary schools will have classrooms and offices. It is probable that all will also have a library, whether it is called a library (83.4 percent) or a media center (36.9 percent). Likewise, whether called a gym (82 percent) or a multipurpose room (14.7 percent), there will be a space for physical education and for food service, even though only 89 percent report that they will specifically have a cafeteria.

What's to Be Added

Table 8 details information collected on additions to existing schools. While that will not be consistent — in each case what is needed may be totally different — some trends may be observed in the table.

Certainly classrooms are the major addition in most cases, but physical education space, performance space and science facilities are also being added. At the same time, it is obvious that, when a school is expanded, work is also being done on its infrastructure,

TABLE 7
What New Schools Starting in 2002 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	83.4%	89.1%	87.5%
Media Center	36.9%	85.9%	91.1%
Computer Lab	59.0%	95.3%	85.7%
Science Lab	4.1%	89.1%	91.1%
Music	78.3%	95.3%	85.7%
Arts/Crafts	91.7%	81.3%	73.2%
Gymnasium	82.0%	95.3%	89.3%
Multipurpose Room	14.7%	15.6%	21.4%
Stage	16.6%	46.9%	67.9%
Auditorium/Theater	10.6%	34.4%	62.5%
Special Ed/Resource	58.1%	59.4%	55.4%
Home Arts	1.8%	31.3%	53.6%
Industrial Tech.	0.0%	9.4%	35.7%
Vocational Shops	0.0%	3.1%	26.8%
Photo Lab	0.0%	0.0%	8.9%
TV/Radio Studio	0.0%	1.6%	3.6%
Support Facilities			
Offices	100.0%	100.0%	100.0%
Infirmary/Clinic	95.4%	98.4%	98.2%
Cafeteria	88.9%	98.4%	94.6%
Kitchen	87.1%	98.4%	92.9%
Lockers	19.8%	89.1%	94.6%
Technology Support			
LANs	87.1%	96.9%	98.2%
Fiber Optics/Cable	95.4%	98.4%	96.4%
Phone Lines in Class	15.7%	31.3%	25.0%
Technology Lab	0.5%	9.4%	39.3%
Language Lab	0.9%	4.7%	17.9%
Televised PA	0.5%	0.0%	1.8%
WANS	50.7%	59.4%	69.6%
Athletic Support			
Locker Rooms	12.9%	82.8%	92.9%
Bleachers	24.4%	84.4%	89.3%
Track	0.0%	6.3%	10.7%
Field House	0.0%	0.0%	7.1%
Fitness Center	1.4%	4.7%	12.5%
Tennis	0.5%	1.6%	12.5%
Pool	0.5%	0.0%	0.0%
Stadium	0.0%	0.0%	1.8%
Athletic Fields/Playground	8.3%	71.9%	85.7%
Other Facilities			
Day Care/Nursery	9.2%	0.0%	0.0%
Elevators	3.2%	6.3%	8.9%
Portables	0.5%	0.0%	0.0%
Security Equipment	99.5%	100.0%	100.0%

TABLE 8
What Additions Starting
in 2002 Will Provide

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

Core Facilities	Elementary	Middle/JHS	High School
Classrooms	68.6%	76.1%	59.8%
Library	7.8%	10.4%	7.1%
Media Center	5.4%	9.0%	8.9%
Computer Lab	3.0%	9.0%	8.0%
Science Lab	2.0%	7.5%	11.6%
Music	6.4%	9.0%	4.5%
Arts/Crafts	3.4%	6.0%	3.6%
Gymnasium	10.1%	22.4%	20.5%
Multipurpose Room	7.4%	1.5%	1.8%
Stage	1.0%	13.4%	15.2%
Auditorium/Theater	0.7%	13.4%	14.3%
Special Ed/Resource	4.7%	7.5%	0.9%
Home Arts	0.0%	1.5%	1.8%
Industrial Tech.	0.0%	1.5%	1.8%
Vocational Shops	0.0%	1.5%	2.7%
Support Facilities			
Offices	6.4%	16.4%	10.7%
Infirmiry/Clinic	0.7%	6.0%	0.9%
Cafeteria	8.1%	13.4%	7.1%
Kitchen	4.4%	13.4%	8.0%
Lockers	0.7%	14.9%	13.4%
Technology Support			
LANs	12.2%	22.4%	28.6%
Fiber Optics/Cable	26.0%	43.3%	57.1%
Technology Lab	0.3%	0.0%	1.8%
Language Lab	0.0%	0.0%	0.0%
WANs	4.7%	10.4%	15.2%
Athletic Support			
Locker Rooms	0.3%	14.9%	13.4%
Bleachers	1.4%	14.9%	12.5%
Track	0.0%	0.0%	4.5%
Field House	0.0%	0.0%	0.0%
Fitness Center	0.0%	0.0%	5.4%
Pool	0.0%	0.0%	0.0%
Athletic Fields/Playground	0.3%	3.0%	6.3%
Building Upgrades			
ADA Compliance	84.5%	95.5%	94.6%
Alarm Systems	84.8%	95.5%	94.6%
Bathrooms	25.0%	43.3%	46.4%
Controls	65.5%	74.6%	82.1%
Electric Overhaul	98.6%	97.0%	97.3%
HVAC	98.6%	97.0%	92.9%
Lighting	97.6%	97.0%	98.2%
Plumbing	44.6%	49.3%	64.3%
Security Equipment	78.4%	79.1%	90.2%
Windows	85.1%	94.0%	95.5%

whether it be adding fiber optics/cable, upgrading alarm systems or carrying out a complete electrical overhaul.

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 — 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.

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Region 1 Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island and Vermont

Construction Activity (\$000s)

Region 1, consisting of the six New England states, completed \$1.65 billion worth of construction in 2001. The prediction is that work to be completed in 2002 will total just more than \$1.5 billion, a slight drop. But work to be started in 2002 is projected at \$1.7 billion. Through the three years, school districts in New England will be involved in almost \$5 billion worth of construction. Slightly more than half those dollars will go into new school buildings.

School districts in this part of the nation tend to spend more per sq. ft. than the national median, a reflection of higher labor costs in the area and in the tendency to build solid, long-lasting buildings. They also provide more space per pupil.

About one-third of the construction dollars go into elementary school facilities but almost 50 percent is for high schools. Through the last three years, the evidence is that the concentration in the region has been on providing facilities at the high school level.

Based on total dollars spent on new schools and average cost, indications are that about 40 new buildings were put on line during the year 2001. About the same number will be completed in 2002 and just a few more (perhaps 45) new buildings will start construction this year.

How Much Is Being Spent?

	New Schools	Additions	Renovations	Total
Completions in 2001	\$792,874	\$425,438	\$431,855	\$1,650,167
Completions in 2002	\$816,767	\$382,320	\$337,561	\$1,536,648
Starting in 2002	\$861,600	\$425,833	\$445,272	\$1,732,705
Total Activity	\$2,471,241	\$1,233,591	\$1,214,688	\$4,919,520
% of Total	50.23%	25.08%	24.69%	

Where Is The Money Going?

	Total	Elementary	Middle	High	District
Completions in 2001	\$1,650,167	25.9%	22.0%	50.0%	2.2%
Completions in 2002	\$1,536,648	40.5%	13.7%	45.4%	0.4%
Starting in 2002	\$1,732,705	35.7%	19.9%	43.3%	1.0%
Total Activity	\$4,919,520	33.9%	18.7%	46.2%	1.2%

New Schools Only

	Cost/ sq. ft.	Cost/ student	Sq. ft./ student	Median Cost (\$000's)	Median # Students	Median Size (Sq. ft.)
Elementary	\$145.63	\$19,150	134.8	\$12,000	525	61,800
Middle/JHS	\$171.43	\$28,000	138.9	\$20,000	486	130,000
High School	\$173.07	\$29,716	160.0	\$42,750	1,060	225,000

Region 2 New Jersey, New York, Pennsylvania

Construction Activity (\$000s)

Region 2 is made up of three large northeastern states — New York, New Jersey and Pennsylvania. For the last several years, the total amount of construction in this region has been greater than in any other region of the nation.

In 2001, school districts in Region 2 put almost \$2.8 billion worth of construction in place, with the largest proportion of that money going into additions to existing schools. Construction projected to be completed in 2002 will total slightly less, \$2.6 billion. Work starting this year is expected to be at the \$2.7 billion level.

School districts in Region 2 spend more than \$140 per sq. ft. on construction at all levels. They also provide more space per student than districts in most regions. As a matter of fact, in terms of space per student, Region 2's median districts are above the 75th percentile nationally.

Based on total dollars spent on new schools and average cost, indications are that about 40 new buildings were put on line during the year 2001. Another 45 will be completed in 2002. Districts in the region indicate they will start work on 47 new buildings this year.

How Much Is Being Spent?

	New Schools	Additions	Renovations	Total
Completions in 2001	\$867,219	\$1,063,484	\$867,946	\$2,798,649
Completions in 2002	\$1,009,196	\$1,046,929	\$549,671	\$2,605,796
Starting in 2002	\$951,190	\$966,864	\$824,269	\$2,742,323
Total Activity	\$2,827,605	\$3,077,277	\$2,241,886	\$8,146,768
% of Total	34.71%	37.77%	27.52%	

Where Is The Money Going?

	Total	Elementary	Middle	High	District
Completions in 2001	\$2,798,649	27.0%	23.3%	43.1%	6.7%
Completions in 2002	\$2,605,796	35.1%	17.0%	45.8%	2.1%
Starting in 2002	\$2,742,323	36.3%	25.3%	36.6%	1.8%
Total Activity	\$8,146,768	32.7%	22.0%	41.8%	3.6%

New Schools Only

	Cost/ sq. ft.	Cost/ student	Sq. ft./ student	Median Cost (\$000's)	Median # Students	Median Size (Sq. ft.)
Elementary	\$145.53	\$19,375	125.9	\$12,900	725	90,500
Middle/JHS	\$140.35	\$23,529	147.7	\$22,000	900	140,000
High School	\$147.06	\$31,250	184.6	\$40,000	1,200	221,000

Region 3

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

Construction Activity (\$000s)

How Much Is Being Spent?

	New Schools	Additions	Renovations	Total
Completions in 2001	\$473,686	\$248,957	\$208,611	\$931,254
Completions in 2002	\$558,295	\$223,864	\$166,961	\$949,120
Starting in 2002	\$700,506	\$78,404	\$166,936	\$945,846
Total Activity	\$1,732,487	\$551,225	\$542,508	\$2,826,220
% of Total	61.30%	19.50%	19.20%	

Where Is the Money Going?

	Total	Elementary	Middle	High	District
Completions in 2001	\$931,254	31.9%	30.7%	36.0%	1.5%
Completions in 2002	\$949,120	35.6%	23.7%	38.7%	2.0%
Starting in 2002	\$945,846	48.2%	17.2%	32.5%	2.1%
Total Activity	\$2,826,220	38.6%	23.8%	35.7%	1.9%

New Schools Only

	Cost/ sq. ft.	Cost/ student	Sq. ft./ student	Median Cost (\$000's)	Median # Students	Median Size (Sq. ft.)
Elementary	\$136.76	\$15,300	112.8	\$11,120	790	83,000
Middle/JHS	\$130.40	\$18,414	136.9	\$15,067	895	124,000
High School	\$143.76	\$21,538	157.1	\$28,000	1,400	210,000

Region 3 includes Maryland, Virginia, West Virginia, Delaware and the District of Columbia. While construction has risen recently in this region, in no one year is as much as \$1 billion worth of construction expected to be put in place.

Districts in this region seem to be concentrating on the construction of new school buildings, with more than 60 percent of the dollars going in that direction. The emphasis is relatively evenly distributed between elementary buildings and high schools.

Region 3 districts spend slightly above the national median in terms of costs per sq. ft. They provide space, per student, at about the national median but their individual schools tend to be larger and planned for more students.

Based on total dollars spent on new schools and average cost, indications are that about 32 new buildings were put on line during the year 2001. Another 35 will be completed in 2002. Districts in the region indicate they will start work on 46 new buildings this year, most of them elementary schools.

Region 4

Kentucky, North Carolina, South Carolina and Tennessee

Construction Activity (\$000s)

How Much Is Being Spent?

	New Schools	Additions	Renovations	Total
Completions in 2001	\$1,241,353	\$349,278	\$289,673	\$1,880,304
Completions in 2002	\$1,442,005	\$456,261	\$394,106	\$2,292,372
Starting in 2002	\$1,334,968	\$470,716	\$460,089	\$2,265,773
Total Activity	\$4,018,326	\$1,276,255	\$1,143,868	\$6,438,449
% of Total	62.41%	19.82%	17.77%	

Where Is The Money Going?

	Total	Elementary	Middle	High	District
Completions in 2001	\$1,880,304	37.2%	29.2%	32.9%	0.7%
Completions in 2002	\$2,292,372	32.6%	12.0%	55.2%	0.3%
Starting in 2002	\$2,265,773	29.4%	31.9%	38.2%	0.5%
Total Activity	\$6,438,449	32.8%	24.0%	42.7%	0.5%

New Schools Only

	Cost/ sq. ft.	Cost/ student	Sq. ft./ student	Median Cost (\$000's)	Median # Students	Median Size (Sq. ft.)
Elementary	\$105.98	\$13,333	114.8	\$8,750	700	80,000
Middle/JHS	\$93.54	\$12,795	135.3	\$9,650	675	96,000
High School	\$90.78	\$17,050	170.8	\$20,500	1,200	197,500

Region 4 includes North Carolina, South Carolina, Kentucky and Tennessee. Through the last two decades, this region has been among the most active in school construction though the amount of money it spends is not quite as high as in some other regions because costs tend to be lower. For example, the median district in Region 4 pays less per sq. ft. for school construction than 75 percent of the school districts in the United States.

Nevertheless, districts in Region 4 spent almost \$1.9 billion on school projects completed in 2001 and expect to spend almost \$2.3 billion on projects completed in 2002 and about as much on construction starting in 2002.

School districts in Region 4 devote better than 60 percent of their construction dollars to new buildings, splitting the balance pretty evenly between addition and renovation projects. The emphasis appears to be on high schools.

Based on total dollars spent on new schools and average cost, indications are that about 100 new buildings were put on line during the year 2001. Another 110 will be completed in 2002. Districts in the region indicate they will start work on 120 new buildings this year.

Region 5 Alabama, Florida, Georgia and Mississippi

Construction Activity (\$000s)

Region 5 includes Georgia, Florida, Alabama and Mississippi. It has consistently been among the most active areas of the nation in providing school buildings.

In 2001, districts in these four states completed work totaling almost \$2 billion. They expect to finish up just about the same amount this year and to start slightly more than \$2 billion worth during the current year. About 59 percent of the funding is going into new schools.

School construction costs in this area of the nation tend to be low, with the median secondary school costing just \$100 per sq. ft., well below the national median. Schools, however, tend to be big with elementary schools, for example, constructed for 800 students and middle schools for 1,000.

Based on total dollars spent on new schools and average cost, indications are that about 115 new buildings were put on line during the year 2001. Another 110 will be completed in 2002. Districts in the region indicate they will start work on 95 new buildings this year.

How Much Is Being Spent?

	New Schools	Additions	Renovations	Total
Completions in 2001	\$1,318,301	\$363,385	\$262,256	\$1,943,942
Completions in 2002	\$1,173,750	\$513,259	\$272,644	\$1,959,653
Starting in 2002	\$1,045,503	\$552,429	\$454,730	\$2,052,662
Total Activity	\$3,537,554	\$1,429,073	\$989,630	\$5,956,257
% of Total	59.39%	23.99%	16.61%	

Where Is The Money Going?

	Total	Elementary	Middle	High	District
Completions in 2001	\$1,943,942	33.0%	21.4%	41.6%	4.0%
Completions in 2002	\$1,959,653	37.5%	22.9%	37.8%	1.8%
Starting in 2002	\$2,052,662	29.0%	25.5%	42.3%	3.3%
Total Activity	\$5,956,257	33.1%	23.3%	40.6%	3.0%

New Schools Only

	Cost/ sq. ft.	Cost/ student	Sq. ft./ student	Median Cost (\$000's)	Median # Students	Median Size (Sq. ft.)
Elementary	\$90.22	\$10,100	110.7	\$9,000	800	92,000
Middle/JHS	\$100.00	\$11,333	125.0	\$10,207	1,000	125,000
High School	\$100.00	\$12,201	120.5	\$14,000	1,225	133,000

Region 6 Indiana, Ohio and Michigan

Construction Activity (\$000s)

Region 6 includes three large states — Michigan, Ohio and Indiana — that annually are among the nation's big construction spenders. In 2001, districts in this region completed \$2.2 billion of construction. They expect to do somewhat less in 2002. Just \$1.8 billion is projected, and the same amount is projected to start in 2002. About 50 percent of the total dollars will be for new buildings.

School construction costs in Region 6 are well above the national median, a reflection of labor costs in the area. Since the amount of space provided for each student is just about at the national median, the cost per student tends to be high.

Region 6 school districts seem to spread their money relatively equally among elementary, middle and high schools.

Based on total dollars spent on new schools and average cost, indications are that about 65 new buildings were put on line during the year 2001. Another 75 are expected to be completed in 2002. Districts in the region indicate they will start work on 60 new buildings this year.

How Much Is Being Spent?

	New Schools	Additions	Renovations	Total
Completions in 2001	\$988,705	\$726,704	\$507,722	\$2,223,131
Completions in 2002	\$1,055,974	\$503,668	\$275,961	\$1,835,603
Starting in 2002	\$918,306	\$473,095	\$437,975	\$1,829,376
Total Activity	\$2,962,985	\$1,703,467	\$1,221,658	\$5,888,110
% of Total	50.32%	28.93%	20.75%	

Where Is The Money Going?

	Total	Elementary	Middle	High	District
Completions in 2001	\$2,223,131	30.2%	25.1%	40.1%	4.6%
Completions in 2002	\$1,835,603	36.8%	27.6%	28.5%	7.1%
Starting in 2002	\$1,829,376	28.0%	33.9%	37.2%	0.9%
Total Activity	\$5,888,110	31.6%	28.6%	35.6%	4.2%

New Schools Only

	Cost/ sq. ft.	Cost/ student	Sq. ft./ student	Median Cost (\$000's)	Median # Students	Median Size (Sq. ft.)
Elementary	\$135.16	\$15,727	116.4	\$9,600	600	65,000
Middle/JHS	\$149.44	\$20,619	138.7	\$19,129	900	122,000

Region 7 Illinois, Minnesota and Wisconsin

Construction Activity (\$000s)

How Much Is Being Spent?

	New Schools	Additions	Renovations	Total
Completions in 2001	\$680,572	\$437,681	\$506,303	\$1,624,556
Completions in 2002	\$741,523	\$631,758	\$324,417	\$1,697,698
Starting in 2002	\$751,525	\$423,594	\$329,360	\$1,504,479
Total Activity	\$2,173,620	\$1,493,033	\$1,160,080	\$4,826,733
% of Total	45.03%	30.93%	24.03%	

Where Is The Money Going?

	Total	Elementary	Middle	High	District
Completions in 2001	\$1,624,556	33.6%	21.2%	38.6%	6.6%
Completions in 2002	\$1,697,698	31.0%	25.1%	35.7%	8.2%
Starting in 2002	\$1,504,479	33.8%	22.3%	39.2%	4.6%
Total Activity	\$4,826,733	32.7%	22.9%	37.8%	6.5%

New Schools Only

	Cost/ sq. ft.	Cost/ student	Sq. ft./ student	Median Cost (\$000's)	Median # Students	Median Size (Sq. ft.)
Elementary	\$141.40	\$16,475	108.4	\$10,475	625	69,200
Middle/JHS	\$140.24	\$17,778	133.3	\$16,000	750	90,000
High School	\$110.99	\$19,360	167.3	\$21,000	950	165,000

Region 7 includes three midwestern states — Illinois, Minnesota and Wisconsin — that have been relatively steady school builders during the last decade. In a continuation of that trend, districts in this region report that they spent \$1.6 billion in 2001 and will spend just slightly more than that in 2002 in completing school construction projects. The expectation is that work valued at \$1.5 billion will start this year.

Region 7 districts, representing big cities and small rural communities, spend less than half their construction dollars on new buildings, with about one-third of the dollars going to elementary projects, slightly more to high schools. Middle schools get 23 percent of the funding.

This is a relatively high cost construction area, but high schools, for some reason, appear to cost considerably less per sq. ft. than do elementary and middle schools. That probably is a reflection of where the reporting schools are located, rather than anything else.

Based on total dollars spent on new schools and average cost, indications are that about 50 new buildings were put on line during the year 2001. Another 55 will be completed in 2002. Districts in the region indicate they will start work on another 50 new buildings this year. As stated above, Districts in Region 7 construct at a relatively even pace.

Region 8 Iowa, Kansas, Missouri and Nebraska

Construction Activity (\$000s)

How Much Is Being Spent?

	New Schools	Additions	Renovations	Total
Completions in 2001	\$488,968	\$186,302	\$138,987	\$814,257
Completions in 2002	\$262,694	\$248,914	\$173,118	\$684,726
Starting in 2002	\$244,462	\$236,038	\$288,493	\$768,993
Total Activity	\$996,124	\$671,254	\$600,598	\$2,267,976
% of Total	43.92%	29.60%	26.48%	

Where Is The Money Going?

	Total	Elementary	Middle	High	District
Completions in 2001	\$814,257	24.3%	19.4%	45.9%	10.4%
Completions in 2002	\$684,726	52.2%	21.0%	21.8%	5.0%
Starting in 2002	\$768,993	36.5%	24.2%	38.5%	0.7%
Total Activity	\$2,267,976	36.9%	21.5%	36.1%	5.5%

New Schools Only

	Cost/ sq. ft.	Cost/ student	Sq. ft./ student	Median Cost (\$000's)	Median # Students	Median Size (Sq. ft.)
Elementary	\$103.48	\$11,176	108.3	\$6,500	600	65,000
Middle/JHS	\$94.39	\$15,765	165.1	\$9,150	575	95,400
High School	\$91.67	\$12,222	133.3	\$11,000	900	120,000

Region 8 includes the states of Iowa, Kansas, Missouri and Nebraska. These states may be major players in the world of college athletics but they are pretty small when it comes to constructing public schools.

School construction put in place in 2001 totaled just more than \$800 million, and less than \$700 million is expected to be completed in 2002. About \$770 million worth of construction is projected to get underway this year.

Region 8 districts spread their money between new buildings (44 percent), additions (30 percent) and renovating existing buildings (26 percent) and also spend pretty evenly when it comes to school types, with 37 percent of the dollars invested in elementary schools and 36 percent in high schools. Construction costs appear to be low. Elementary and high schools are built small in terms of space per student. The large space provided for middle school students is probably a statistical anomaly since relatively few new middle schools were reported in the region.

Based on total dollars spent on new schools and average cost, indications are that about 50 new buildings were put on line during the year 2001. Another 30 will be completed in 2002. Districts in the region indicate they will start work on 30 new buildings this year.

Region 9 Arkansas, Louisiana, Oklahoma and Texas

Construction Activity (\$000s)

Region 9 includes the states of Arkansas, Louisiana, Oklahoma and Texas. Even when other areas of the nation were closing school buildings, districts in these states, particularly in Texas, were building. Region 9 has been one of the top regions in terms of dollars put into school construction, usually ranking in the top three or four. In 2001, the \$2.764 billion put in place was second only to Region 2. Construction expected to be completed in 2002 (\$2.8 billion) exceeds the construction plans of any other region of the nation.

With another \$2.8 billion expected to start this year, it is likely that this region will remain the biggest school construction spender for the time being.

With better than 56 percent of its spending going into new buildings, school districts in region 9 lead the nation in this category, too.

Based on total dollars spent on new schools and average cost, indications are that about 140 new buildings were put on line during the year 2001. Another 170 will be completed in 2002. Districts in the region indicate they will start work on 140 new buildings this year.

How Much Is Being Spent?

	New Schools	Additions	Renovations	Total
Completions in 2001	\$1,472,632	\$713,070	\$578,126	\$2,763,828
Completions in 2002	\$1,856,251	\$550,533	\$425,732	\$2,832,516
Starting in 2002	\$1,422,911	\$654,836	\$725,737	\$2,803,484
Total Activity	\$4,751,794	\$1,918,439	\$1,729,595	\$8,399,828
% of Total	56.57%	22.84%	20.59%	

Where Is The Money Going?

	Total	Elementary	Middle	High	District
Completions in 2001	\$2,763,828	37.1%	23.8%	35.7%	3.4%
Completions in 2002	\$2,832,516	35.3%	19.2%	42.4%	3.0%
Starting in 2002	\$2,803,484	38.0%	24.8%	33.4%	3.8%
Total Activity	\$8,399,828	36.8%	22.6%	37.2%	3.4%

New Schools Only

	Cost/ sq. ft.	Cost/ student	Sq. ft./ student	Median Cost (\$000's)	Median # Students	Median Size (Sq. ft.)
Elementary	\$100.00	\$11,582	104.7	\$7,200	600	70,000
Middle/JHS	\$111.63	\$16,477	136.1	\$12,212	900	108,055
High School	\$98.08	\$11,663	133.3	\$19,200	620	80,000

Region 10 Colorado, Montana, North Dakota, South Dakota, Utah, and Wyoming

Construction Activity (\$000s)

Region 10 includes seven states — Colorado, Montana, New Mexico, North Dakota, South Dakota, Utah and Wyoming — with relatively small populations and large areas.

Through the years, people in these states have appeared to be resistant to school construction, but that may have changed slightly. In 2001, more than \$930 million worth of construction was put in place, and slightly more is expected to be completed in 2002. Another \$830 million will be spent on projects starting this year. Perhaps the excitement of the Winter Olympics has stimulated interest in construction of all types.

Construction dollars are spread very evenly among elementary, middle and high schools. Construction costs in the region are quite low and high schools, in particular tend to be quite small.

Based on total dollars spent on new schools and average cost, indications are that about 50 new buildings were put on line during the year 2001. Another 55 will be completed in 2002. Districts in the region indicate they will start work on 45 new buildings this year.

How Much Is Being Spent?

	New Schools	Additions	Renovations	Total
Completions in 2001	\$471,009	\$228,033	\$233,636	\$932,678
Completions in 2002	\$548,391	\$268,231	\$144,174	\$960,796
Starting in 2002	\$509,859	\$174,506	\$153,978	\$838,343
Total Activity	\$1,529,259	\$670,770	\$531,788	\$2,731,817
% of Total	55.98%	24.55%	19.47%	

Where Is The Money Going?

	Total	Elementary	Middle	High	District
Completions in 2001	\$932,678	31.9%	33.1%	28.0%	7.0%
Completions in 2002	\$960,796	32.9%	24.9%	37.9%	4.3%
Starting in 2002	\$838,343	27.9%	27.4%	43.7%	1.0%
Total Activity	\$2,731,817	31.0%	28.5%	36.3%	4.2%

New Schools Only

	Cost/ sq. ft.	Cost/ student	Sq. ft./ student	Median Cost (\$000's)	Median # Students	Median Size (Sq. ft.)
Elementary	\$103.23	\$11,385	96.0	\$6,800	650	70,000
Middle/JHS	\$112.50	\$15,000	133.3	\$9,000	600	80,000
High School	\$98.33	\$13,333	166.7	\$17,590	600	82,000

Region 11 Arizona, California, Hawaii and Nevada

Construction Activity (\$000s)

How Much Is Being Spent?

	New Schools	Additions	Renovations	Total
Completions in 2001	\$1,202,224	\$468,463	\$446,411	\$2,117,098
Completions in 2002	\$1,357,647	\$473,786	\$424,679	\$2,256,112
Starting in 2002	\$1,040,113	\$593,959	\$373,283	\$2,007,355
Total Activity	\$3,599,984	\$1,536,208	\$1,244,373	\$6,380,565
% of Total	56.42%	24.08%	19.50%	

Where Is The Money Going?

	Total	Elementary	Middle	High	District
Completions in 2001	\$2,117,098	30.9%	26.7%	41.0%	1.5%
Completions in 2002	\$2,256,112	49.7%	19.1%	30.0%	1.2%
Starting in 2002	\$2,007,355	40.6%	23.3%	32.8%	3.3%
Total Activity	\$6,380,565	40.6%	22.9%	34.5%	2.0%

New Schools Only

	Cost/ sq. ft.	Cost/ student	Sq. ft./ student	Median Cost (\$000's)	Median # Students	Median Size (Sq. ft.)
Elementary	\$127.05	\$11,538	90.0	\$7,625	650	59,250
Middle/JHS	\$139.53	\$14,285	103.6	\$11,400	800	86,000
High School	\$124.44	\$13,500	100.5	\$15,000	1,400	144,000

Region 11 includes Arizona, California, Hawaii and Nevada, four growing states featuring relatively warm climates. That is important only because the amount of space districts in these states provide in their buildings is reduced by their ability to have children move from class to class by going outdoors, rather than by walking enclosed corridors. Thus, the total space of their buildings can be reduced while the usable space remains the same.

This is a rapidly constructing region with relatively high construction costs so it is not surprising that its total spending is among the highest in the nation. Region 11 districts put more than \$2.1 billion of construction in place last year and expect to complete almost \$2.3 billion this year. Work valued at just more than \$2 billion is expected to start.

As noted, schools in this area tend to provide less space per student than districts throughout the nation thus, even though square foot costs are high, spending per student is somewhat below the national medians.

Based on total dollars spent on new schools and average cost, indications are that about 110 new buildings were put on line during the year 2001. Another 150 will be completed in 2002. Districts in the region indicate they will start work on 105 new buildings this year.

Region 12 Alaska, Idaho, Oregon and Washington

Construction Activity (\$000s)

How Much Is Being Spent?

	New Schools	Additions	Renovations	Total
Completions in 2001	\$406,286	\$147,704	\$107,305	\$661,295
Completions in 2002	\$431,253	\$214,164	\$163,822	\$809,239
Starting in 2002	\$348,879	\$235,729	\$218,655	\$803,263
Total Activity	\$1,186,418	\$597,597	\$489,782	\$2,273,797
% of Total	52.18%	26.28%	21.54%	

Where Is The Money Going?

	Total	Elementary	Middle	High	District
Completions in 2001	\$661,295	27.5%	36.5%	27.8%	8.2%
Completions in 2002	\$809,239	24.0%	17.5%	54.2%	4.3%
Starting in 2002	\$803,263	31.8%	22.9%	41.1%	4.1%
Total Activity	\$2,273,797	27.8%	24.9%	41.9%	5.4%

New Schools Only

	Cost/ sq. ft.	Cost/ student	Sq. ft./ student	Median Cost (\$000's)	Median # Students	Median Size (Sq. ft.)
Elementary	\$141.95	\$16,500	113.4	\$7,040	500	49,304
Middle/JHS	\$169.51	\$21,384	117.6	\$13,900	500	52,500
High School	\$168.46	\$25,061	148.5	\$32,498	1,600	225,000

Region 12 includes Alaska, Idaho, Oregon and Washington. Districts in these states spent less than districts in any other region in 2001 (\$661 million) and expect to spend just more than \$800 million on construction completed this year. If everybody does what is projected, Region 12 will be the next-to-lowest spender in 2002. Work projected to start in 2002 will be at about the same level.

Region 12 school districts spend a larger percentage of their construction funds on middle schools and a lower percentage on elementary than in any other region. Almost 42 percent of the construction dollars go into high schools.

Costs are high in Region 12, which may be why space per student is relatively low. The high schools on which reports were obtained tended to be larger (1,600 students at the median) than those anywhere else in the nation. Apparently, the research on the value of creating smaller schools has not affected construction plans.

Based on total dollars spent on new schools and average cost, indications are that about 30 new buildings were put on line during the year 2001. Another 25 will be completed in 2002. Districts in the region indicate they will start work on 30 new buildings this year.

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