

Arkansas Statewide Educational Facilities Assessment – 2004

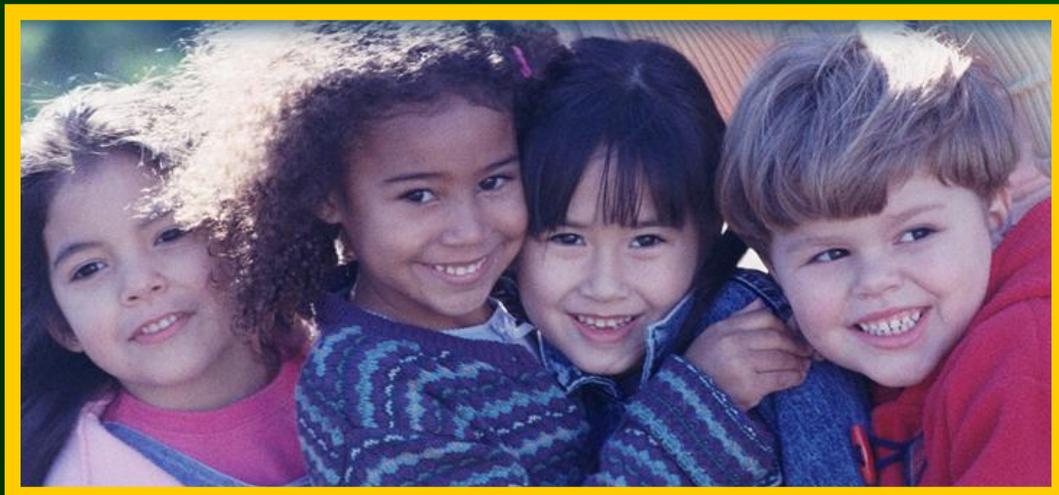
Executive Summary

Final Report to the Joint Committee
on Educational Facilities

November 30, 2004



Task Force
to Joint Committee
on Educational Facilities





Executive Summary

Background

On November 21, 2002, the Arkansas Supreme Court affirmed in the Lake View School case (*Lake View School District No.25 of Phillips County, Arkansas et al, vs. Governor Mike Huckabee, et al.*) that educational facilities serving the public school system in Arkansas were inadequate, unequal, and in violation of the state constitutional guarantee of a free, adequate, efficient, and substantially equal public education for the children of Arkansas. The court has charged the Governor and the Arkansas General Assembly with the responsibility of correcting these defects in public policy. To meet these ends, the Arkansas General Assembly, in Regular Session of the 84th General Assembly of 2003, has established a joint legislative committee under Act 1181 of 2003, AN ACT TO CREATE THE JOINT COMMITTEE ON EDUCATIONAL FACILITIES; AND FOR OTHER PURPOSES, to serve the General Assembly in exercising its responsibilities relative to the provision of adequate and substantially equal educational facilities for the State of Arkansas.

The Joint Committee was charged by law to deliver the following eight (8) mandates to the legislature, as cited in Act 1181, in sufficient time to support the legislative agenda of the 85th General Assembly.

- Mandate I: Review the opinion of the Arkansas Supreme Court in the matter of Lake View School District No. 25 of Phillips county, Arkansas et al. vs. Governor Mike Huckabee, et al. issued on November 21, 2002, and use the opinion and other legal precedent cited by the court in the committee's deliberations.
- Mandate II: Recommend what constitutes an adequate school facility, including all necessary components, for:
 - A. Elementary Education
 - B. Middle School Education
 - C. High School Education
- Mandate III: Recommend a method of providing substantially equal facilities and equipment for all schools in Arkansas as necessary to ensure equal opportunity for an adequate education.
- Mandate IV: Establish a process to conduct a review and assessment of all school facilities in the state to determine which are in compliance with the recommendations of subdivision (f)(2) of this subsection.
- Mandate V: Recommend policies and criteria for use in determining renovation, replacement, or discontinuation of inadequate buildings and facilities based upon statewide adequacy standards and other requirements necessary to ensure adequate and substantially equal school buildings and facilities.
- Mandate VI: Recommend the cost of an adequate school facility in Arkansas
- Mandate VII: Recommend a method of funding the cost of adequate and substantially equal school facilities.
- Mandate VIII: Recommend a system or method to assess, evaluate, and monitor the school facilities across the state to ensure that adequate facilities and substantially equal facilities are, and will continue to be provided for Arkansas' school children.

In order to fully understand the adequacy of the existing schools, and what aspects may require renovation, maintenance and/or replacement, a Task Force was established to implement a comprehensive evaluation of all K-12 public educational facilities in the State of Arkansas. The evaluation included a three-step process: pre-assessment, assessment, and data entry.

Starting April 2004, pre-assessment teams visited each school building, walking through all of the instructional spaces, and collected information regarding educational suitability as well as baseline facility information. This paved the way for the facility assessment allowing teams to be more efficient as they moved throughout a school district.

During the "Building Condition Assessment" which began on June 2004, professional assessment teams assessed physical building systems incorporating civil, structural, architectural, mechanical, plumbing, and electrical disciplines in accordance with statewide construction standards for educational facilities. All building construction characteristics were entered into a centralized database that inventoried accurate and up-to-date facility data for each school building within the State. All building deficiencies and major repair items were also entered into the facilities database which allowed the Program Manager to prepare a school-by-school listing of required system repairs (and their associated costs) and prioritize those repairs.



The Arkansas Department of Education, Division of Public Schools Academic Facilities is charged with overseeing the design and construction of school facilities in the State of Arkansas. The Arkansas School Facility Manual has been developed to provide consistent, clear information for school districts and design professionals as a new generation of school facilities is being created for Arkansas. These standards and guidelines are the culmination of a review of standards, accepted procedures, statutory requirements, and the experience of experts and authorities throughout the United States and establish a uniform level of quality in new educational facilities and substantial renovations to existing buildings.

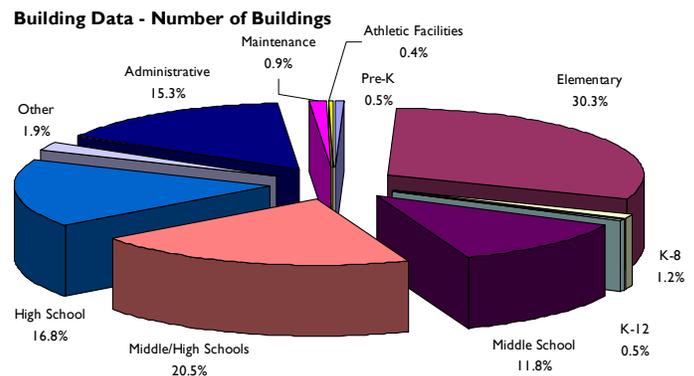
- Activate the Arkansas Division of Public Schools Academic Facilities to be included within the Arkansas Department of Education.
- Establish a State Educational Facilities Oversight Committee.
- The State of Arkansas establishes an ongoing uniform process for collecting, inventorying, and updating facility information.
- Adopt statewide educational facility standards and guidelines.
- Develop a State program for school facility construction.
- Review and Update the Arkansas School Facility Manual on an annual basis.
- The Division of Public School Academic Facilities must report annually on the state of condition of educational facilities statewide.
- The Division of Public School Academic Facilities must provide an annual report and forecast of ongoing facilities projects.
- Maintain a public access website.

Building Data

There are 6,569 permanent buildings with a total of 85.3 million square feet. There are also 803 temporary buildings which are often portable buildings that maybe used as classrooms or support space.

Facility Information (Permanent and Temporary)

School/Facility Type	# of Schools	# of Buildings	Sq Ft
Pre-K	10	31	324,424
Elementary	585	1,991	28,500,353
K-8	17	76	851,865
K-12	5	36	397,637
Middle School	202	773	15,984,856
Middle/High Schools	191	1,345	13,075,714
High School	143	1,101	19,670,656
Other	52	124	1,374,277
Administrative	331	1,007	4,408,855
Maintenance	25	60	521,613
Athletic Facilities	10	25	235,696
Total	1,571	6,569	85,345,946
School Only Area	1,205	5,477	80,179,782
Temporary Buildings		803	915,013





Facility Condition



The public educational facility needs in Arkansas are composed of three major variables:

Facility Condition is the state of repair of the building infrastructure. Facility condition takes into consideration all of the building systems from roofs and windows to electrical and mechanical systems.

Educational Suitability is based on having adequate space to support the educational program.

Enrollment Growth addresses the projected school enrollment for the next five and ten years.

The facility condition cost includes the cost of bringing all schools to current codes and standards. This is a process that will likely require ten or more years to accomplish.

Nearly all schools in Arkansas were constructed prior to current building codes and standards. Over half of the schools are 40 years or older. Since that time, there have been new codes and standards published for virtually every building system ranging from air quality and air conditioning to technology and fire and safety.

Although there is a cost associated with rectifying every building according to current codes and standards, this does not mean that all schools need massive and immediate repairs and renovations. Rather, this provides an understanding of the effort it would take to bring all facilities up to the same standard.

At the same time, the facility condition information does provide:

- comparative analysis of building conditions
- approximate cost to address the facility conditions of all buildings in the State of Arkansas
- understanding of which buildings are in the worse conditions that might be slated for more immediate focus



Facility Condition Index [FCI] is an index that compares the cost to repair the facility conditions to the cost of replacing the facility with same amount of square footage. The index is on a scale of 0-100 percent. The higher the percentage, the closer to the cost to renovate the building is to the cost to replace the building. The lower percentage indicates the better the condition of the building. The higher the percentage indicates the poorer the condition.

The cost for new construction is typically based on a cost per square foot model. For the purposes of the study, the cost was based on an average of \$101.62 per square foot. Through the involvement of the Format & Values Committee, which was composed of industry experts in school construction in Arkansas, cost estimates were developed using RS Means, a highly recognized national estimating system, as well as a regional Arkansas index developed to address costs by region of the State.

Statewide Facility Condition Index (FCI)

FCI	Buildings
<10%	2,660
10-19%	798
20-29%	749
30-39%	569
40-49%	424
50-59%	218
60-69%	144
70-79%	76
80-89%	51
90-100%	33
>100	44
Total	5,766

The table and graph to the right demonstrates that 4,207 buildings have an FCI of less than 30 percent. Even though these buildings still have facility needs, they would be considered to be in relatively better condition. On the other end of the spectrum, approximately 566 buildings have an FCI of 50% or greater, which would suggest these buildings are in need of major renovation or replacement.



Educational Suitability



A second major component of facility needs is having adequate space to support the educational program. Space requirements in education have changed significantly over the past forty years. Listed below are just a few changes in education that have resulted in the need for additional space.

- Inclusion of special education students who require smaller class sizes and specialized facilities for the physically impaired
- Kindergarten & Pre-Kindergarten programs
- Greater numbers of students with limited English proficiency
- Addition of computers and other technology
- Class size reduction [compared to 40 years ago]
- Cafeterias and gymnasiums
- Gifted and Talented programs
- Code requirements such as ADA restrooms, size of stairwells, corridors, air quality, etc.

To determine educational suitability, the space requirements for comprehensive elementary, middle, high, and combination schools were identified. The spaces were determined based on the curriculum and class size guidelines of the State of Arkansas. The standards and guidelines were developed to provide an adequate educational program for all schools.

The types of spaces included program areas such as classrooms, science labs, art and music, computer lab, cafeteria, gymnasium, media centers, and workforce education. Provisions for administration, guidance, special education, tutorial areas and other program support areas were included. Square footage was provided for corridors and building services. Examples are listed on the following page.

The size of spaces was based on the number of students to be accommodated and program pedagogy. For example, in a classroom, students may be engaged in lecture, projects learning, small group interaction, and individualized education. At times, the instruction will be teacher-directed; at other times, it may involve students working with technology.

While developing the space requirements it was determined that there was a significant difference in the amount of space required based on size of enrollment and the type of school. The lower the enrollment, the more square footage per student was required. This may result, for example, when a regulation gym is required to be a certain size regardless of the enrollment of the school. In addition, smaller schools may still require items such as separate media centers and science labs where the efficiency of space is not realized.

Schools within Student Guidelines

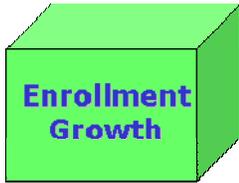
		# of School Campuses				
		% Guidelines	Elementary Schools	Middle Schools	High Schools	Total
Below Guidelines	<50		24	10	16	101
	50-59		15	5	2	22
	60-69		35	10	8	53
	70-79		71	9	18	98
	80-89		86	15	14	115
	90-99		84	18	27	129
Above Guidelines	100 - 109		64	22	41	127
	110-119		53	28	44	125
	120-129		27	21	32	80
	130-139		15	5	32	52
	140-149		16	7	14	37
	150+		59	31	56	147

Note: Total excludes new schools with no enrollment

Excludes Other/Alternative Schools

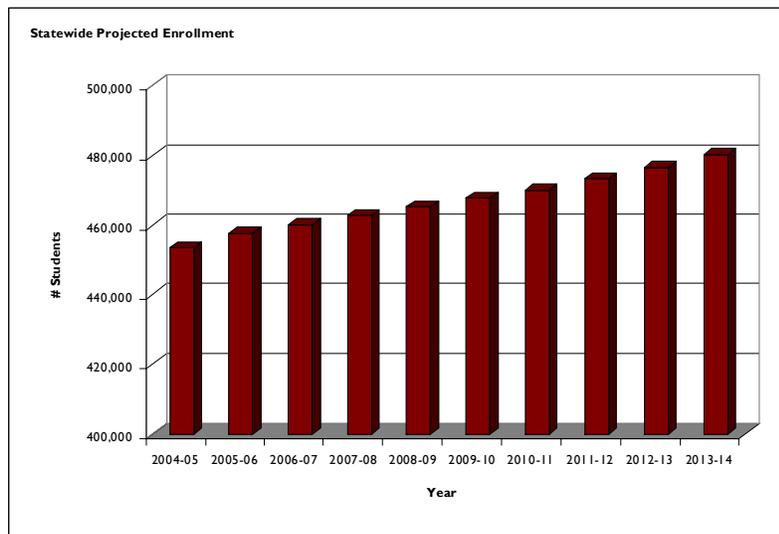


Projected Enrollment

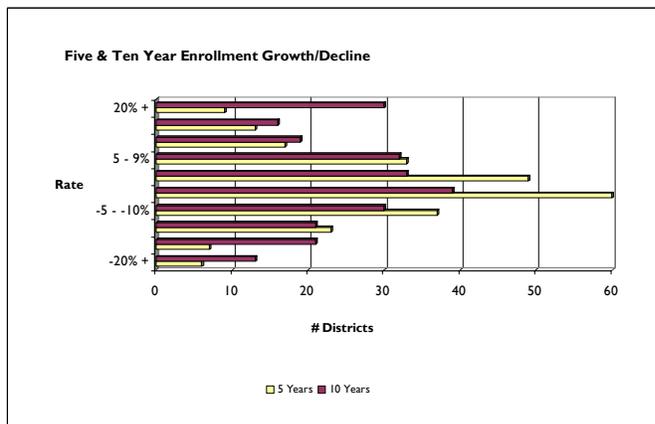


As part of the Statewide School Facilities Assessment, enrollment projections for every district in the State for the next ten years were developed. Projections took into consideration historical enrollments and retention rates as part of the Cohort Survival Method of projecting student population. Additional data such as building permits issued by statistical area and births by county were analyzed and incorporated into the projection system.

At the statewide level, it appears that total enrollment will continue to increase, but at a slightly faster rate than that of the last ten years. However, there is likely to be a wide variation in enrollment by grade level as well as by region of the State. Obviously, some districts are likely to grow while other districts will level off or decrease due to population aging and other economic variables.



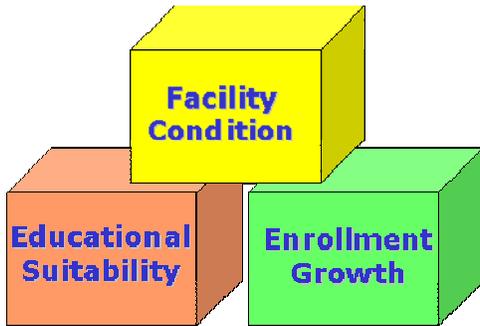
Based on the preceding projections, the following table indicates and compares the number of school districts with the corresponding percentage of growth or decline for the next five and ten years. The majority of districts fall into the -5% to +4% range over the first five years while the number of districts increasing and decreasing is greater by the tenth year. In general terms, larger aggregates yield more accurate forecasts, and short-term forecasts will be more accurate than long-term forecasts.



Projected Growth or Decline	# Districts Within 5 Years	# Districts Within 10 Years
20% +	9	30
15 - 19%	13	16
10 - 14%	17	19
5 - 9%	33	32
0 - 4%	49	33
0 - -4%	60	39
-5 - -10%	37	30
-11 - -15%	23	21
-16 - -20%	7	21
-20% +	6	13



Cost Summary



The overall costs are based on facility condition, educational suitability and enrollment growth as discussed on the previous pages of this report. For the purpose of determining values and costs, certain assumptions were utilized as follows.

1. All buildings would be brought up to proposed building system standards where facilities were in need of renovation.
2. Current state guidelines for student/teacher ratios were maintained.
3. Cost estimates were based on current cost models and state of condition at time of assessment and do not include escalation.
4. The number of current school buildings and school districts would remain the same. Consideration for any future consolidation was not included.
5. Alternative uses of facilities for the purpose of generating income, reducing operating expenses, or reducing capital expenditures were not estimated or incorporated.
6. Additional space for growing districts was accounted for, but no credit was taken for declining districts.
7. Additional square footage for schools that do not meet proposed educational suitability standards was added, but no credit was taken for schools that exceeded space standards.
8. Temporary buildings were not included in total available square footage.

Facility Condition Costs

Facility Condition Costs include current deficiencies plus year zero life cycle costs. Facility condition costs are further divided into four priorities with Priorities 1 & 2 considered more immediate. It should be noted that an assessment is an assessment at a particular point in time. It does not directly translate into a building program or a scope of work. The actual program is likely to include:

- Building Replacements
- System Replacements
- System Repairs

Building Condition Cost by Type of School

Type	Building Condition Cost
Schools	
Pre-K	\$ 11,585,771
Elementary Schools	\$ 848,296,655
K-8 Schools	\$ 19,523,032
K-12 Schools	\$ 13,435,031
Middle Schools	\$ 442,037,222
Middle/High Schools	\$ 343,763,441
High Schools	\$ 484,651,305
Other/Alternative Schools	\$ 42,672,803
Total Schools	\$ 2,205,965,261
Other District Facilities	
Admin., Maintenance, Athletic	\$ 72,235,196
Total	\$ 2,278,200,457

Building Condition Cost by Priority

Type	Priority 1	Priority 2	Priority 3	Priority 4
Schools				
Pre-K	\$ 428,263	\$ 8,085,465	\$ 500,712	\$ 2,537,307
Elementary Schools	\$ 35,113,732	\$ 603,621,196	\$ 38,064,187	\$ 175,484,558
K-8 Schools	\$ 631,671	\$ 13,989,201	\$ 254,177	\$ 4,590,650
K-12 Schools	\$ 880,340	\$ 8,621,808	\$ 1,471,934	\$ 2,421,494
Middle Schools	\$ 18,709,559	\$ 331,087,645	\$ 27,651,268	\$ 63,290,604
Middle/High Schools	\$ 9,169,400	\$ 242,680,044	\$ 15,725,420	\$ 75,179,025
High Schools	\$ 17,915,353	\$ 370,053,260	\$ 22,282,468	\$ 72,976,935
Other/Alternative Schools	\$ 2,032,269	\$ 30,099,837	\$ 2,191,327	\$ 8,224,152
Total Schools	\$ 84,880,587	\$ 1,608,238,456	\$ 108,141,493	\$ 404,704,725
Other District Facilities				
Admin., Maintenance, Athletic	\$ 1,786,402	\$ 65,777,142	\$ 2,497,495	\$ 2,174,157
Grand Total	\$ 86,666,989	\$ 1,674,015,598	\$ 110,638,988	\$ 406,878,882

Combined Total \$ 2,278,200,457



Educational Suitability Costs

The educational suitability costs are based on bringing up all school square footages up to space standards. Approximately 43% schools are below the guidelines. In some cases, the issue can be addressed by transferring students from one school to another, thus, creating a more efficient system. Further analysis is imperative to determine where and if this is a possibility. The following chart indicates educational suitability cost by school type.

Total Suitability Cost by School Type

School Type	Total Cost
Pre-K	\$ 1,641,258
Elementary Schools	\$ 314,098,509
K-8 Schools	\$ 9,369,475
K-12 Schools	\$ 1,644,561
Middle Schools	\$ 112,618,417
Middle/High Schools	\$ 57,046,596
High Schools	\$ 89,343,865
Total	\$ 585,762,681

*Does not include Other/Alternative Schools

Enrollment Growth Costs

Over half of the districts are projected to increase in enrollment. These districts are expected to add 27,013 projected students over the next five years and 21,174 over the following ten years, for a total of 48,187 estimated students.

Some districts will be able to absorb the growth within their existing schools. In other cases, additions or new schools will have to be constructed. Preliminary estimates indicate that up to 25% of projected growth could be absorbed into existing schools.

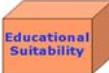
Enrollment Growth Costs

	Additional Students	Cost
1-5 Years ['04-'08]	27,594	\$ 368,260,775
6-10 Years ['09-'13]	18,817	\$ 266,535,073
Total	46,411	\$ 634,795,848



Cost Summary

The chart below compares and summarizes current and projected costs for all school facilities in the State organized by condition, suitability and growth. School facilities are a long-term investment. As buildings age, systems need to be repaired or replaced. Future life cycle models have been developed to project future expenditures five years out. In addition, enrollment growth costs have been projected five years into the future so that the total cost can be compared today [current costs] and the cost five years from now [projected costs]. It should be made clear, to address all of the needs identified would likely require an implementation schedule of ten or more years.

	Current Costs		Projected 5 Years	
	Schools Only	All Buildings	Schools Only	All Buildings
 Condition: Current	\$ 2,205,965,261	\$ 2,278,200,457	\$ 2,205,965,261	\$ 2,278,200,457
Yr 1-5 Life Cycle	N/A	N/A	\$ 1,199,764,344	\$ 1,272,006,267
 Suitability	\$ 585,762,681	\$ 585,762,681	\$ 585,762,681	\$ 585,762,681
 Growth	N/A	N/A	\$ 368,260,775	\$ 368,260,775
 Total	\$ 2,791,727,942	\$ 2,863,963,138	\$ 4,359,753,061	\$ 4,504,230,180

- * All costs in 2004 Dollars
- * Does not include land purchase and off site development costs
- * Does not include efficiency opportunities [i.e. improved use of existing building]

Depending upon the appropriate solution for individual buildings, schools, or school districts, the program that is ultimately established for new construction, renovation and building replacements could significantly impact the scope of work and the overall costs. The Task Force has taken a relatively conservative approach based on the assumptions listed above. Significant changes in state law and policies, including approval of more efficient methods of project delivery, could achieve reduction in costs. Theoretically, credits for declining enrollment could be applied to negate some growth costs. If efficiency were to improve, space utilization factors could improve, and facility repair, suitability, and even growth costs could be substantially less.