

Department of Legislative Services  
Maryland General Assembly  
2001 Session

FISCAL NOTE

House Bill 1440 (Delegate Rudolph)  
Ways and Means

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Education - Public Schools - Student Population

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This bill requires local boards of education, to the extent feasible, to establish new public schools that serve a maximum of 400 students in elementary schools, 600 students in middle schools, and 800 students in secondary schools. The State Superintendent of Schools must encourage local school systems to establish these smaller public schools.

The bill takes effect July 1, 2001.

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Fiscal Summary

**State Effect:** Potential increase in State costs for individual public school construction projects. While total State funding for public school construction projects would not be affected, the overall number of projects funded in a fiscal year would be reduced.

**Local Effect:** Potential increase in local school expenditures for operating and constructing smaller public schools. **This bill imposes a mandate on a unit of local government.**

**Small Business Effect:** None.

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Analysis

**Current Law:** Local boards of education establish public schools to meet the needs of the community. Student enrollment at each public school is decided at the local level.

**Background:** The size of public schools varies considerably across the State and within school districts. **Exhibit 1** (attached) shows the number of public schools in Maryland

according to school size. Only about 25% of public schools in Maryland meet the maximum student enrollment criteria established in this bill. Approximately 73% of public elementary schools, 78% of public middle schools, and 87% of public high schools in Maryland have a student enrollment exceeding the bill's maximum enrollment criteria.

Most elementary schools in Maryland enroll 400 to 800 students. About 221 elementary schools in the State have 400 or fewer students and 29 elementary schools have over 800 students. All elementary schools in Kent County have enrollment below 400 students. Calvert and Caroline counties have no elementary schools with less than 400 students. Ten local school systems have elementary schools with over 800 students and four school systems (Baltimore City and Harford, Prince George's and Wicomico counties) have elementary schools with over 1,000 students.

The majority of middle schools in Maryland enroll 601 to 1,000 students. However, at least one-half of middle schools in six local school systems enroll 600 or fewer students. These school systems include Caroline, Cecil, Garrett, Kent, Queen Anne's, and Somerset counties. Nine local school systems have middle schools with over 1,000 students. In Harford County, six of the school system's eight middle schools have over 1,000 students enrolled.

Most public high schools in Maryland enroll 1,000 to 2,000 students. Five local school systems (Anne Arundel, Baltimore City, Carroll, Montgomery, and Prince George's) have high schools with over 2,000 students and Prince George's County has one high school with over 3,000 students. There are 22 public high schools with an enrollment below 800 students, many of which are located in rural counties. For example, the two high schools in Somerset County have less than 500 students. In Worcester County, two of the three high schools have less than 500 students with the other high school enrolling over 1,200 students.

There are also several combined schools in the State. For example, Allegany County operates three schools with enrollment from kindergarten through grade 12.

### *Nationwide Perspective*

According to a report by the Education Commission of the States, students from smaller schools have better attendance rates, and when students move from large schools to smaller ones their attendance improves. Smaller schools also have lower dropout rates and fewer discipline problems. While there is no agreement about what school size is ideal, many researchers have concluded that no school should serve more than 1,000 students and that elementary schools should not exceed 300 to 400 students. The following are several findings from academic research on school size:

- behavioral problems are much greater in larger schools and that any benefit of a larger school size is canceled out by the difficulties of maintaining an orderly learning environment;
- smaller schools tend to have less incidents of violence and vandalism;
- students from smaller schools tend to have a closer connection with adults thereby making these students less likely to “fall through the cracks;”
- a larger school size does not translate into more extracurricular participation among students and students from smaller schools are more likely to be involved in extracurricular activities and hold positions of responsibilities in those activities; and
- large schools are more expensive to operate because their sheer size requires more administrative support.

**State Fiscal Effect:** Potential increase in State costs for constructing smaller public schools. In addition, State costs would increase if local school systems could not or were discouraged from constructing additions to existing public schools. Constructing an addition to an existing public school to accommodate additional students is significantly less expensive than building a new public school.

#### *School Construction Costs*

Under current regulations, the State share for school construction projects is based on the maximum per pupil square foot allowance, the average building cost per square foot, a contingency fee, and the State/local cost share amount. The per square foot cost allowance for building and site work adopted by the Interagency Committee on School Construction totals \$136.64 for fiscal 2002. The estimated contingency fee is set at 2.5%.

#### *Public Elementary Schools*

Pursuant to this bill, if a school system needed to construct new public schools serving 1,200 elementary school students, three facilities would have to be constructed instead of two. This would increase State school construction costs for a particular project by \$850,000 to \$1.2 million. Additional costs could be realized for site-work and land acquisition. **Exhibit 2** shows the potential increase in State school construction costs for a typical elementary school due to the school size limit.

**Exhibit 2**  
**Potential Increase in State Costs From the School Size Limit**  
**Public Elementary Schools**

	<b>Elementary School I</b>	<b>Elementary School II</b>
Students	600	400
Sq. Ft. Allowance – Current	95 sq. ft.	105 sq. ft.
Total Area	57,000 sq. ft.	42,000 sq. ft.
Cost per Sq. Ft.	\$136.64	\$136.64
Total Costs* – Current	\$8.0 million	\$5.9 million
50% State Share	\$4.0 million (x) 2 \$8.0 million	\$2.85 million (x) 3 \$8.85 million
<b>Increased State Costs</b>		<b>\$850,000</b>
75% State Share	\$6 million (x) 2 \$12.0 million	\$4.4 million (x) 3 \$13.2 million
<b>Increased State Costs</b>		<b>\$1.2 million</b>
*includes 2.5% contingency fee.		

*Public High Schools*

Pursuant to this bill, if a school system needed to construct new public schools serving 1,600 high school students, two facilities would have to be constructed. This would increase State school construction costs by \$600,000 to \$800,000. Additional costs could be realized for site-work and land acquisition. **Exhibit 3** shows the potential increase in State school construction costs for a typical high school due to the school size limit.

**Exhibit 3**  
**Potential Increase in State Costs From the School Size Limit**  
**Public High Schools**

	<b>High School I</b>	<b>High School II</b>
Students	1,600	800
Sq. Ft. Allowance – Current	125 sq. ft.	130 sq. ft.
Total Area	200,000 sq. ft.	104,000 sq. ft.
Cost per Sq. Ft.	\$136.64	\$136.64
Total Costs* – Current	\$28.0 million	\$14.5 million
50% State Share	\$14.0 million	\$7.3 million (x) 2 \$14.6 million
<b>Increased State Costs</b>		<b>\$600,000</b>
75% State Share	\$21.0 million	\$10.9 million (x) 2 \$21.8 million
<b>Increased State Costs</b>		<b>\$800,000</b>
*includes 2.5% contingency fee.		

**Local Fiscal Effect:** Local school systems could incur additional costs for constructing and operating smaller public schools. In addition, local school systems could realize a potential increase in operational costs associated with establishing multiple smaller schools instead of a larger one.

According to the Interagency Committee on Public School Construction, energy and utility costs are approximately \$1 per year per square foot and maintenance costs are also approximately \$1 per year per square foot. For example, constructing three elementary schools to serve 1,200 students instead of two would require an additional 12,000 square feet of area resulting in an additional \$24,000 in utility and maintenance costs. Constructing two high schools to serve 1,600 students instead of one would require an additional 8,000 square feet of area resulting in an additional \$16,000 in utility and maintenance costs.

Local school systems would also have added costs to equip the additional public schools. These costs include kitchen equipment, cafeteria tables and chairs, computers, art and

music supplies, media center materials, physical education equipment, office supplies, and storage units.

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### **Additional Information**

**Prior Introductions:** None.

**Cross File:** None.

**Information Source(s):** Maryland State Department of Education, Interagency Committee on Public School Construction, Department of Legislative Services

**Fiscal Note History:** First Reader – March 19, 2001  
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**Exhibit 1**  
**School Size at Maryland Public Schools**  
**1999-2000 School Year**

<u>County</u>	<u>Elementary Schools</u>			<u>Middle Schools</u>			<u>Secondary Schools</u>				<u>Other Public Schools</u>	<u>Total Public Schools</u>
	<u>0 to 400 Students</u>	<u>401 to 800 Students</u>	<u>Over 800 Students</u>	<u>0 to 600 Students</u>	<u>601 to 1,000 Students</u>	<u>Over 1,000 Students</u>	<u>0 to 800 Students</u>	<u>801 to 1,000 Students</u>	<u>1,001 to 2,000 Students</u>	<u>Over 2,000 Students</u>		
Allegany	12	1	0	1	2	0	2	2	0	0	6	26
Anne Arundel	27	49	0	1	12	5	0	0	9	3	9	115
Baltimore City	48	56	3	8	11	6	2	2	10	2	36	184
Baltimore	18	81	1	2	14	10	1	1	18	0	14	160
Calvert	0	12	0	0	5	0	0	0	3	0	3	23
Caroline	0	5	0	1	1	0	1	0	1	0	0	9
Carroll	1	19	1	3	3	2	0	0	4	1	3	37
Cecil	7	10	0	3	3	0	1	4	0	0	2	30
Charles	3	14	2	1	5	1	0	0	5	0	1	32
Dorchester	3	3	0	1	1	0	1	1	0	0	2	12
Frederick	6	21	4	2	7	2	1	2	6	0	2	53
Garrett	8	1	0	1	1	0	1	1	0	0	3	16
Harford	4	20	7	0	2	6	1	0	7	0	3	50
Howard	6	29	2	7	9	0	1	2	8	0	1	65
Kent	4	0	0	3	0	0	0	1	0	0	0	8
Montgomery	22	101	1	5	24	6	1	0	20	2	9	191
Prince George's	13	106	6	4	20	2	1	1	10	9	15	187
Queen Anne's	2	5	0	2	1	0	0	2	0	0	0	12
St. Mary's	6	10	0	0	4	0	0	0	3	0	2	25
Somerset	4	1	0	2	0	0	2	0	0	0	1	10
Talbot	4	2	0	0	1	0	1	0	1	0	0	9
Washington	14	12	0	1	6	0	2	3	1	0	6	45
Wicomico	8	4	2	2	3	0	1	0	3	0	2	25
Worcester	1	4	0	0	2	0	2	0	1	0	3	13
<b>Total</b>	<b>221</b>	<b>566</b>	<b>29</b>	<b>50</b>	<b>137</b>	<b>40</b>	<b>22</b>	<b>22</b>	<b>110</b>	<b>17</b>	<b>123</b>	<b>1,337</b>

Note: Other public schools includes combined, vocational-technical, evening, and alternative schools.

Source: Maryland State Department of Education (Grade Organization Maryland Public Schools - September 30, 1999)

Prepared by the Department of Legislative Services, March 2001