

# Small<sup>1</sup> School Study

## Introduction

Section 93 of Act 60, the Equal Educational Opportunity Act, provides almost \$1 million dollars in additional funds for schools with fewer than 100 students. Section 93 also requires the Commissioner of Education to study Vermont schools with an enrollment of fewer than 100 students and analyze their contribution to the strength and cohesiveness of small communities as well as their needs in the areas of: physical facilities; construction; transportation; capacity of surrounding schools; capacity for providing quality education to their students; and other unique education and economic challenges.

The Commissioner was asked to report to the Legislative Oversight Committee by January 15, 1998 on those small schools that, based on the above considerations, should continue to receive a small schools grant in some form. He was further directed to make recommendations for alternative physical arrangements for those small schools that should not continue to receive small school grants.

The Joint Oversight Committee in discussion with the Commissioner of Education asked that the study address five questions about small schools:

1. Where are the costs different from other schools, and what factors contribute to the differences?
2. How have communities with small schools maintained quality and kept schools cost effective?
3. What small schools have consolidated; why did they decide to consolidate; and how has it turned out?
4. What general recommendations would you make regarding future funding for small schools?
5. What should be done when small schools do not take steps to control costs?

## The Study Group and Design

A study group was established on the first of September. Participants were invited through an open invitation over the EEO listserv. 26 Vermonters (Appendix A) from diverse backgrounds and locations participated:

Role	#	Geographic Location			
		Northeast	Northwest	Southeast	Southwest
Local School Board	4		1	1	2
School Administrator	7	3	2	1	1
Teacher	2	1	1		
Parent/Community	5	2	3		
Higher Education	3	1	1	1	
Legislator	1			1	
State Board	1			1	

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<sup>1</sup>For purposes of this report a small school is one school with 100 or fewer students.

State Agencies	3	2	1		
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The study group used a six-step approach:

1. Review of national studies on small schools.
2. Review of how small schools are similar and different from other Vermont schools on key indicators reported on the *Vermont School Report*.
3. Presentations from three communities (Duxbury, Waterville & Belvidere) that had small schools and considered consolidation alternatives.
4. Identification of critical indicators (based on steps 1-3) that may differentiate small schools from large ones.
5. Data collection and analyses against the critical indicators.
6. Address the key questions articulated by the Legislative Oversight Committee.

### **Findings & Conclusion**

Fifty Vermont public schools (16% of all public schools) met the definition of “small” in the 1996-97 school year. The vast majority of these schools were K-6 local elementary schools. The following findings are based on an analysis of data from three primary sources:

- ▲ The Vermont School Report, a by-school profile of Vermont schools across 34 indicators (Appendix B)
- ▲ Small schools survey administered this Fall to the 50 small schools and a comparison group of 53 Vermont elementary schools with enrollments of 300 students or more (Appendix C).
- ▲ National and Vermont studies from a variety of sources (Appendix D)

#### The Cost of Operating Small Schools

Findings:

- ▲ Small schools in Vermont are more expensive to operate. On average, costs for districts with small schools are 6-12% higher than larger elementary school districts.
- ▲ In general, the smaller the school, the more it costs to operate. Schools of 50 or fewer students have average per pupil expenditures that are nearly 18% higher than the state average.
- ▲ The extra cost can be attributed to the smaller class sizes that exist in small schools. The average student-teacher ratio in small schools is 12.6:1, while larger elementary schools (300+ students) have a ratio of 15.3 students per classroom teacher.
- ▲ Enrollment changes in small schools from year to year are much more dramatic than in larger schools. One family with four students moving in (or out) of a school of 40 increases (or decreases) the size of the school by 10%. Those same four students in a school of 400 are hardly noticeable. These changes are most significant when calculating per pupil expenditures, as they will vary with the change in the student population. Under Act 60, small schools will be subject

to large shifts in block grant support. As a consequence, the local share property tax will vary greatly from year to year.

▲ While there are economies of scale in larger schools, there are also *dis*-economies of scale in the largest schools. While there is no absolute “right” size for a school, the smallest and the largest schools are the most expensive, both nationally and in Vermont.

### The Quality of Small Schools

Findings:

▲ Students in small Vermont schools do as well or better than students in larger schools even though the income and education levels in the communities with small schools are lower. This assertion is based on an analysis of Vermont’s Grade 4 New Standards reading/language arts and mathematics assessments. Parallel national studies found that small schools have a mediating effect on socioeconomic factors that typically relate to poorer student achievement.

▲ 74% of the principals from small schools report that most of their students (80-100%) were adequately prepared to make the transition to middle or high school compared with only 58% of principals from larger schools.

▲ In general, small school facilities are in as good or better shape than larger schools. 94% of the state’s small schools report significant repairs, refurbishing or renovation since 1980, compared to 89% of large schools. 57% of small schools report having quality workspaces for children compared to 44% in larger schools. Only 21% of small schools report severe space problems compared to 27% of larger schools.

▲ In general, small schools have more parents or other community members assisting with such jobs as food service, art, music, and library services. Only 31% of small schools reported no job-related volunteerism compared to 41% of larger schools.

▲ In many cases the small school is the only “place” for the community to come together. In 25% of the communities with small schools, no “services” such as grocery stores, restaurants, convenience stores and post offices existed. Every community with larger schools had at least some of these services.

### The Impact of Consolidating Small Schools

Findings:

▲ The issue of consolidation is very real for small Vermont schools. Fifteen of the forty-four small schools (34%) surveyed reported that there was or has been local pressure to consolidate. Only one larger school (3%) reported that consolidation was being considered or discussed.

▲ The most frequently mentioned driver of consolidation was community concern about the tax burden being too high. These concerns were often raised by persons on fixed incomes or persons who do not have a connection to the children in the school.

▲ Our impression is that small schools consolidate for a number of reasons. The final decision to consolidate or not goes well beyond educational issues and becomes a very profound and complex decision for a community. Our observation was that the best place to decide whether to

consolidate or not is in the local community and not in the legislature or at the Department of Education.

### **Conclusion**

Small schools in Vermont cost more to operate than larger schools but they are worth the investment because of the value they add to student learning and community cohesion.

### **Recommendations**

- 1.** Continue to provide additional funding for small schools. They are somewhat more expensive but add value to their community and do well by their students.
- 2.** If funds are available, provide additional funds using the same formula as in current law to small schools of up to 120 students, as this is the actual point where smaller schools are more expensive to operate than the average Vermont elementary school. We estimate that this will cost \$1.5 million, \$500,000 more than the current level of funding.
- 3.** Continue to collect and further analyze student performance data. If the pattern of higher than expected performance for disadvantaged students who are in small schools continues, consider more extensive financial support for small schools by weighting long term membership for the first 100 students or by providing a larger block grant to all schools for the first 100 students. We also recommend extending this study to include small high schools and K-12 schools. These schools are larger than those covered in this report. We believe such schools are more costly than larger high schools and may need special consideration in the future.
- 4.** Use the same school accountability mechanisms for small schools that apply to low performing schools under Act 60. These mechanisms provide the technical assistance and active community involvement necessary for a community to decide whether to maintain or close its small school.
- 5.** Act 60 has a number of cost control features that will affect both small and large schools. Let these work and do not have special circumstances for small schools. The equalization aspects of the Act 60 funding formula paired with the school quality standards will encourage communities to take a critical look at issues of cost and quality.
- 6.** Add a hold-harmless mechanism to the basic block grant which ensures that no school will be reduced more than 10% in the basic grant funds received in the prior year. This change is estimated to cost \$106,000 to implement.

## APPENDIX A

### PARTICIPANT LIST

<b>Name</b>	<b>Organization</b>
Bell, Mary	Principal, Albert Bridge School
Blackman, Jennifer	Belvidere School
Conley, Gail	Superintendent, Chittenden East SU
Crandell, Sally	Board - Plymouth
Devenger, Chip	Principial, East Haven River School
Drachman, Ruth	Board - Tinmouth
Dunne, Faith	Annenberg Institute/Brown University
Dunne, Matt	State Representative
Duval, John	Castleton State College
Ferrara, John	UVM, Dept. of Education
Fontaine, Doug	Board Chair - Tinmouth
Jamieson, Janet	Superintendent, Rutland SW SU
Kraft, Larry	Board Chair, Townshend
Lienau, Mark	Selectman - Norton
MacLean, Margaret	Principal, Peacham Elementary
Mahoney, Sue	Department of Education
McNamara, Bob	Department of Education
Marsters, David	Board - Lincoln
Newman, Jude	Principal, Doty Memorial School
Richardson, Bruce	UVM, Board - Hazen Union
Rider, Anne	State Board of Education
Schmidt, Fred	UVM Center for Rural Studies
Spaulding, Dick	Principal, Belvidere Elementary
Spencer, Leonard	Cabot - former Board member
Tuscany, Bonnie	VISMT Teacher Associate
Wood, Theresa	Board Chair, Waterbury-Duxbury
Yeiser, Rick	Board Chair - Worcester

The following Vermonters provided additional feedback or reviewed materials:

Cruise, Jim	UVM - Center for Rural Studies
Dunn, Bob	Principal, Jay-Westfield School/ Dept. of Ed.
Johnson, Kathy	VISMT, Worcester parent
Greenwood, Jim	State Senator

The following individuals, considered national leaders in small school

research, were contacted and provided important research materials:

Howley, Craig  
Sher, Jonathan  
Strange, Marty

ERIC Clearinghouse on Small & Rural Schools  
Consultant - Greensboro, North Carolina  
Annenberg Rural Challenge

**APPENDIX B**

**A PROFILE OF SMALL SCHOOLS COMPARED TO OTHER SCHOOLS  
BASED ON MOST RECENT VERMONT SCHOOL REPORT DATA**

<b>Category</b>	<b>Small Schools</b>	<b>Other Schools</b>	<b>Significant Difference<sup>2</sup></b>
Estimated % students who use the Internet as part of their instructional program	21.1	17.8	N
¢ Students per “all” computers	6.6	8.7	Y
¢ Students per “new generation” computers	14.1	14.8	N
¢ Internet access	36.6	18.2	Y
Average Class Size	15.7	19	Y
¢ Eligible for Free/Reduced Lunch	40.5	30.1	Y
Adjusted Gross Income	0.88	0.97	Y
¢ Poverty	11.3	13.9	Y
Property Value/Student	5,300	3,513	Y
¢ Special Ed eligible	10.9	10.1	N
Average Teacher Salaries	\$31,040	\$34,103	Y
¢ w/Education Level (HS<)	58.4	54.8	Y
¢ Local Revenues	76.9	67.1	Y
¢ State Revenues	20.3	29.1	Y
¢ Federal Revenues	2.8	3.8	N
Science 6 score	61.9	60.57	N
¢ at or above Math Concepts (4)	18.5	17.7	N
¢ at or above Math Skills (4)	54.6	50.9	N
¢ at or above Math Prob Solving (4)	26.1	22.1	N
¢ at or above Math Concepts (8)	30.3	30.1	N
¢ at or above Math Skills (8)	58.2	54.4	N
¢ at or above Math Prob Solving (8)	17.6	18.3	N

<sup>2</sup>T-tests for significant difference

## APPENDIX C

### SMALL SCHOOL SURVEY RESULTS (BASED ON RESPONSES FROM 44 SMALL SCHOOLS AND 33 LARGE SCHOOLS)

Questions	Small	Large
2) What community events are held at your school on a regular basis?		
a) Town Meeting	44%	58%
b) <i>Adult Organizations?</i>	44%	94%
c) <i>Scouts?</i>	37%	97%
d) <i>4-H?</i>	12%	55%
e) <i>Community Dances?</i>	28%	61%
f) Other?	81%	73%
g) Other?	44%	52%
h) None?	2%	0%
3) What community services are co-located at your school?		
a) Town Library?	7%	6%
b) Town Clerk?	7%	0%
c) Senior citizen center?	2%	0%
d) Child Care?	7%	21%
e) Meals on Wheels?	0%	0%
f) Health clinic?	0%	6%
g) Social Services?	2%	9%
h) Emergency shelter?	11%	21%
i) Other?	14%	30%
j) Other?	5%	15%
k) None?	57%	43%
4) What jobs, normally done by paid employees, do parent or community volunteers provide?		
a) Lunch/breakfast program?	16%	6%
b) Arts program?	21%	13%
c) Music program?	11%	6%
d) Custodial?	5%	0%
e) Librarian?	34%	16%
f) Computer Instruction?	18%	19%
g) Other?	43%	41%
h) Other?	7%	3%
i) None?	32%	41%
5) Please describe the degree of volunteerism from parents and community members in your school.		
Almost None	0%	0%
Infrequent (special events only, etc.)	14%	6%
Frequent in some classes.	47%	43%
Frequent in most classes.	30%	33%
Daily in most classes.	9%	18%

6) Please estimate the percentage of parents in each category who:		
avoid school always.	3%	4%
infrequently participate in any school activity.	9%	8%
participate in standard activities (i.e., parent conference, etc.).	45%	59%
are actively involved occasionally.	22%	18%
are actively involved on an ongoing basis.	21%	15%

8) What services do you have available in your town?		
a) Grocery store?	30%	88%
b) Laundromat?	50%	73%
c) Pharmacy?	50%	67%
d) Post Office?	68%	97%
e) Restaurant?	30%	88%
f) Gas Station?	55%	94%
g) Entertainment?	21%	82%
h) Convenience Store (mini-mart, etc.)	50%	85%
i) None	25%	0%

9a) When was your school building originally built?		
1800-1899	26%	13%
1900-1949	14%	16%
1950-1969	36%	39%
1970-1989	14%	16%
1990-Present	10%	16%

9b) When was the last time your school had significant repairs, refurbishing or renovation?		
1960-1979	5%	10%
1980-1989	25%	24%
1990-Present	74%	65%

10a) Please rank your impression of your school's quality of space. Does not meet health or safety standards.		
Does not meet health or safety standards.	5%	3%
Lacks handicapped access.	5%	0%
Space meets minimum requirements.	25%	28%
Quality basic workspaces.	57%	44%
Beyond basic classroom space (labs, project rooms, etc.)	9%	25%

10b) Please rank your impression of your school's quantity of space.		
Student use hallways & other illegal space for basic instruction.	2%	6%
Space is very tight.	18%	21%
Space meets PSA requirements.	36%	39%
Space gives "breathing room" beyond PSA.	39%	33%
More space than needed.	5%	0%

13) Estimate the time students in your school spend on the bus one-way.		
Typical bus ride:	19 min	23 min
Longest bus ride:	39 min	43 min

15) Please estimate the percentage of children in your school that have an adequate level

of preparedness as they make the transition to middle or high school.

0%-19%	0%	0%
20%-39%	0%	3%
40%-59%	0%	3%
60%-79%	26%	36%
80%-100%	74%	58%

## APPENDIX D

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