

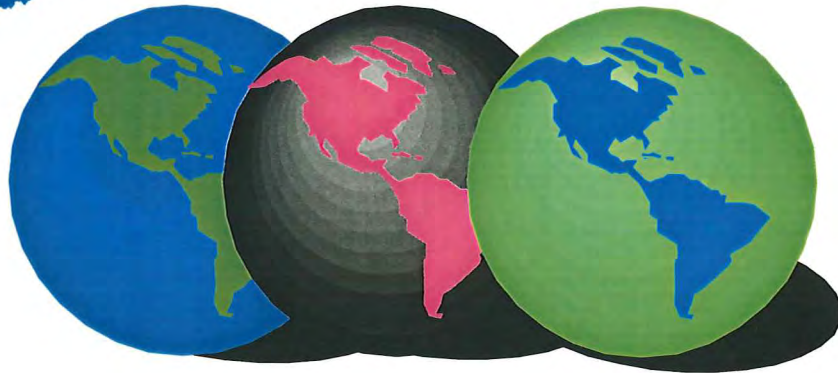
# MAINE STATE LEGISLATURE

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# The Learning State:



## Maine Schooling in the 21st Century

A draft report of the Select Panel  
on Revisioning in Maine  
October 12, 2005

**DRAFT**

**FOR**

**STATE BOARD OF EDUCATION RECEIPT**

**SELECT PANEL REPORT**

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## **PREFACE**

The Select Panel on Revisioning Education in Maine was convened by the State Board of Education pursuant to the statutory requirement under Title 20-A, 405(T), which asks the State Board of Education to develop plans "that include goals and policies for the education of children in kindergarten and grades one to twelve and that promotes services for preschool children." The members of the Panel (see Appendix A) were carefully selected on the basis of a variety of criteria: statewide representation reflective of demography and geography, people outside the traditional educational stakeholder groups, but with known interest and dedication to public education in Maine, creative, "out-of-the-box" thinkers, and individuals respected throughout the State for their proven leadership. The Panel met from the winter into the fall of 2005.

The central focus of The Select Panel's deliberations and recommendations is the improvement of student learning. The Maine Learning Results commits the State to high standards for ALL students. The Panel believes that fundamental, structural changes in a variety of areas—governance, quality of teaching and learning, time, technology, and societal attitudes--are essential to creating a learning environment that is fair for ALL students and maximizes the potential for ALL students to achieve these high standards.

This Report consciously does not address the Maine Learning Results (MLR) directly, albeit, they are central to our purpose of improving student learning. A statutory mandated review of the MLR is currently underway under the direction of the Department of Education, and its course is clear. The Select Panel is aware of its efforts, and we continue to support its goals, Guiding Principles, and high standards for all students. Further, the Panel encourages the

review to address the issue of accountability by providing authority for the State to intervene in supportive as well as appropriate directive ways in schools and districts that fail to make progress in providing desirable outcomes for students. As the expectations for student achievement increase to include all students—the great promise of the Maine learning Results—the Panel believes that it is imperative that capacity exists at all levels of the educational establishment—from the classroom to the State Department of Education—to ensure that each student, no matter what town he or she lives in, can be assured of an education that responds to the challenges that the student’s future will surely bring.

## **EXECUTIVE SUMMARY**

Maine's schools are not ready for the 21<sup>st</sup> century. In order for Maine people to flourish in the radically transformed landscape of this new century, dramatic change must occur in Maine's schools.

The data is clear. Maine has one of the most expensive public school systems in the nation, and yet our results measured by multiple indices are flat through recent years. We have strengths, which we must build upon, and we have weaknesses that we must address. The Select Panel Report addresses some of the root, structural changes that will be necessary to create a system that is nimble in adjusting to rapid change to insure that young people have the best learning environment possible. The Panel's central purpose throughout its work and the focus of this report are the improvement of student learning.

Change needs to occur in the **Governance and Political Organization** of the system. Several of these changes will free-up dollars that can be used to enhance learning in other ways. The Report recommends:

- reducing the number of SAUs to 35 from the current 286;
- recognizing the significant increase in school construction costs per square foot per student when schools are much smaller than 350-450 students in size, and taking appropriate action to limit these costs;
- establishing local advisory boards to serve schools within expanded SAUs;
- providing alternative educational opportunities for all students who need to approach education from different, but equally rigorous, perspectives;
- expanding of the current opportunities for school choice;
- clearly defining school board responsibilities; and
- creating a single State collective bargaining agreement for all teachers.

**The Quality of Teaching and Student Learning** is dependent in large measure on the quality of instruction and leadership in the schools. The Select Panel recommends:

- establishing compensation levels necessary to attract well qualified teachers and pay schedules based more clearly on multiple credible indicators of performance;
- creating an incentive program for difficult to fill fields;
- amending federal and state rules to allow people to collect social security and Maine State Retirement;
- requiring a Masters or National Certification within 10 years of entry into the profession; and
- establishing an annual leadership-training program with an emphasis on preparing school leaders as change agents.

All across the State educators report that there is insufficient **Time** to satisfy the learning needs of many students. The Panel recommends:

- at twenty percent (20%) increase in school time, with half of that or 10% for professional development;
- an increased focus on core academic subjects as defined by the MLR;
- a flexibility within this framework to adjust to the varying needs of students; and
- a differentiated contract process including full-year contracts for teachers to respond to varied student needs.

**Technology** will be a major driver of change in the future. Today's students must understand and master technology. The Panel recommends:

- each student from grade 5-12 on should have an individual wireless computer to take home from school;
- teacher training to integrate technology into daily lesson work must be advanced; and



- an aggressive support system to enable teachers to remain current with rapidly changing new technologies.

To sustain this kind of dramatic change in the State's level of commitment to education, there must be a fundamental shift in the culture of Maine in regard to education. **Societal Attitudes** must support increased attention to education, especially postsecondary education, echoing the Compact for Higher Education, like never before in our history. All segments of our society, but most especially, government, educators, parents and students must accept responsibility for effecting this change. The Panel recommends:

- a public information campaign to underscore the importance of educational achievement;
- the establishment of a safe mutual fund education account for each child born in Maine;
- half tuition (including the mutual fund accrualment and other financial aid received) for two years of post-secondary education for students with financial need computed at the Community College average. The half-tuition award will continue for students seeking teacher certification who commit to teach for three years in a Maine school;
- the elimination of tracking as critical to the attainment of the MLR by all students; and

This agenda represents a beginning for Maine to move its educational system into the 21<sup>st</sup> century to serve today's and tomorrow's students.

## **INTRODUCTION**

Our schools are not ready for the 21<sup>st</sup> century. If our schools are not ready for the challenges and opportunities ahead, then our children cannot be. If our children are not ready, then they—and we—are destined to fall further behind.

A generation ago personal computers and fax machines were an oddity, cell phones did not exist, AIDS was virtually unknown and “global warming” was not part of our vocabulary. International affairs were dominated by the Cold War; China, still engulfed in Mao’s Cultural Revolution, had neither automobiles nor bathrooms; we knew India only for her poverty; and the idea of 9/11 was unfathomable. Deoxyribonucleic Acid (DNA) was largely a laboratory curiosity, and various medical advances from transplant surgery to anti-cholesterol drugs were unavailable. Although the U.S. led the world in higher education access, still only a minority of its citizens went on to college. Maine still depended on a manufacturing and resource based economy. In short, the reality of the revolution in biotechnology, information technology and the emergence of a global market economy still lay ahead.

The changes we have witnessed in the last 30 years will probably be dwarfed by the changes our children will face over the next 30 years. No one can precisely predict what those changes might be. Will they mean that almost any job can be filled any place on the globe? Will they mean that almost everyone will require continuing education and training beyond high school? Will a cascade of discoveries in biology, genetics, and nanotechnology transform societies, cultures, and life itself? Will a global economy coupled with chemical and biological tools of war necessitate new forms of governance, citizenship, and divisions of world resources and power? We cannot really know.

But, we do know that the certainty of rapid and unparalleled change, driven by increasingly powerful discoveries in science and technology and upheavals in social and political structures, will pose immense challenges for what we understand as school and schooling as well as for the students who emerge from those schools. The evidence around us would suggest that models we have inherited from the past will be inadequate for the challenges we face. Maine's schools are the eighth most expensive in the nation with declining student numbers; too many young people are not meeting reasonable standards of competence. Maine's record for college going is beginning to lag other countries. The State still ties school schedules to an agricultural economy and very local agendas. Maine does not support teachers to reasonable expectations of professional development. Maine does not learn from the many things in education that we are doing well, and it has not yet learned how to make necessary fundamental changes to our education system.

We also know that while the world around us has changed rapidly, the world of schools has changed alarmingly little. Created on an agrarian calendar for an industrial society, the schools we know are suited for a different time and a different culture.

We can build on the strengths we have in Maine. For example, the "Guiding Principles" that Maine adopted as part of its Learning Results define well the broad skills and capacities that will be indispensable for this new world (see Appendix B). But, we will need to be far more resourceful, bold, and creative if we are to fulfill those worthy ambitions for schools and schooling in Maine. This Report of the Select Panel on Revisioning Education in Maine is a first important step in reinventing schooling for the 21<sup>st</sup> Century. The implementation of this Report, as well as further ideas, proposals, and actions will need to follow.

## **VISION: A GLIMPSE OF THE FUTURE:**

ALL Maine students need to leave the educational system ready to compete with their counterparts across the globe for their place in the rapidly evolving global economy. The economic future of the whole state depends on their ability to do so. New high school graduates go on to post-secondary education and find rewarding work locally in the global economy. As a result, the median income in Maine rises to the midpoint of the New England states, the number of good paying jobs increases and poverty in Maine decreases.

Maine's PK-12 education system is organized in fewer, more cost effective districts with school and class sizes that meet the national norms for cost and student learning effectiveness. Students have more choices in schools and in alternative educational opportunities.

Schools attract well-qualified teachers. Teachers have contracts of differentiated length, including full-year contracts, compensation is competitive in the market, and it is based more clearly on multiple, credible measures of performance. Many teachers have appropriate master's degrees and/or are nationally certified. They participate regularly in leadership seminars. Education outcomes improve, reflecting increased teacher capacity in content and pedagogy.

The school year is significantly longer allowing more time for academics and for teacher development. Time is more flexible and oriented to the needs of children and teachers.

Students and teachers integrate technology into their learning, teaching, and lives. All students access technology in and out of the classroom and are creative in their use of it.

The entire statewide community supports and understands the importance of quality education, not only for the students and their future, but also for the community's own economic and social health. Young people enter school ready to learn and high school graduates are

supported in postsecondary education. Education is the primary driver of Maine's successful participation in the 21<sup>st</sup> century. (See Appendix C for vignettes exemplifying this vision).

## **WHAT THE DATA TELLS US:**

### **WHY FUNDAMENTAL CHANGE IS NECESSARY NOW**

Maine is not a wealthy state. It has been generous to education and must continue to be so in the future, but it must seek more efficient ways to deliver high-quality education with improved student learning. As a matter of fundamental fairness that focus on quality cannot be compromised, and the data below suggests that while we have real strengths, we need to pay careful attention in the future means of raising performance for ALL students to world-class standards.

#### **Structural Change: Governance and Political Organization**

Maine's educational structure and governance is complex to say the least. There are 286 School Administrative Units (SAU) with six different types of administrative systems:

- School administrative districts or SADs;
- Municipal units otherwise know as cities and towns;
- Unions;
- Community school districts or CSDs;
- Agents – towns under school agent supervision; and
- Education in the Unorganized Territories (EUT).

These school units oversee 689 separate public schools responsible for approximately 204,000 students. As Philip Trostel and Catherine Reilly point out in their recent study, this means that the average school in 2000-2001 had 290 students in comparison to the national

average of 506. They also note that there were 734 students on average per district compared to a national average of 3,177. Maine's K-12 public school system has one (1) FTE educator per 6.2 students--second lowest among the 50 states, and our administrator to student ratio places us among the lowest as well. In 2000-2001 Maine had one administrator per 393 students; the national average was one per 816. Maine has one principal and one assistant principal for every 230 students; nationally the ratio was one principal and assistant principal for every 333 students. Trostel and Reilly examined data on operating costs per student in Maine's school districts from 1998-99 to 2002-03. These data suggest that the unrealized economies of scale in Maine's public education system are \$270 million per year (almost 20% of the total cost). In other words, public education in Maine costs roughly \$270 million more than it would if all school districts were operated at the cost-minimizing enrollment size. Geographic considerations and transformation costs would mean that Maine would not realize a complete saving of \$270,000,000, but the Trostel and Reilly study gives a sense of the magnitude of resources that could be captured and redirected to other student learning needs identified in this report.

We simply must address the cumbersome inefficiency that diverts resources from student learning. This is particularly true when we recognize that the per capita income of Maine citizens is \$30,566, which places us 24th in the nation while Maine is 8<sup>th</sup> in the nation in per student subsidy.

### **Data: Structural Change: The Quality of Student Learning**

Maine is in a strong position to foster significant change. We have clear strengths; yet, there is a growing body of data that suggests we must improve by building on our strengths and address our weaknesses in order to enhance student learning and prepare young people for the

21<sup>st</sup> century.

**Student Performance**

The national comparative data on student performance nationally as measured by the National Assessment of Educational Performance (NAEP) has been comparatively strong for Maine. The results on a scale of 0-500 with most state scores in the low 200's by grade for mathematics and reading for three years of available data are:

	2003		2000		1996	
<b>Grade 4</b>	<b>State</b>	<b>National</b>	<b>State</b>	<b>National</b>	<b>State</b>	<b>National</b>
Mathematics	238	234	230	224	232	222

	2003		2002		1998	
<b>Grade 4</b>	<b>State</b>	<b>National</b>	<b>State</b>	<b>National</b>	<b>State</b>	<b>National</b>
Reading	224	216	225	217	225	213

	2003		2000		1996	
<b>Grade 8</b>	<b>State</b>	<b>National</b>	<b>State</b>	<b>National</b>	<b>State</b>	<b>National</b>
Mathematics	282	276	281	272	284	271

	2003		2002		1998	
<b>Grade 8</b>	<b>State</b>	<b>National</b>	<b>State</b>	<b>National</b>	<b>State</b>	<b>National</b>
Reading	268	261	270	263	271	261

While the Panel takes note of some stagnation in results and recognizes that our student population is relatively homogenous (absent significant numbers of minorities), nevertheless, our State's performance on the NAEP exams is an indication of strength and should give us confidence as we move forward.



The results of the Maine Educational Assessments (MEA) continue to cause concern. The data on the “Does not meet” and “Partially meets” standards are as follows for the last three available years in math and reading:

11TH GRADE

	2003-2004		2002-2003		2001-2002	
	Math	Reading	Math	Reading	Math	Reading
Partially Meets	41%	43%	40%	43%	43%	39%
Does Not Meet	34%	9%	41%	10%	38%	8%

8TH GRADE

	2003-2004		2002-2003		2001-2002	
	Math	Reading	Math	Reading	Math	Reading
Partially Meets	46%	50%	50%	43%	39%	44%
Does Not Meet	32%	13%	32%	12%	40%	12%

4TH GRADE

	2003-2004		2002-2003		2001-2002	
	Math	Reading	Math	Reading	Math	Reading
Partially Meets	48%	42%	43%	40%	49%	42%
Does Not Meet	20%	7%	28%	11%	29%	10%

Clearly, in spite of some progress, the panel is troubled that such a large portion of Maine’s students continues to score in these unacceptable categories. This is especially important since Maine has mandated by law that ALL students meet the high standards of the Maine Learning Results.

Another disturbing indicator is the number of students who enter the University and

Community College systems requiring remedial work before they can begin to accumulate credit toward a degree. In 2002, 28% of U.S. freshman entering postsecondary education were recorded as taking at least one remedial course (42% at public two-year institutions, 20% at public four-year institutions, and 12% at private four-year institutions.) In Maine, the Department of Education reports that approximately 50% of students entering the community college system and the University of Maine System must take remedial work in literacy.

### **Global Comparisons of Student Performance**

What all of us must recognize, however, is that in this global economy where national boundaries are far less meaningful than in the past, we must pay attention to the performance of Maine children in comparison to other nations. According to the Trends in International Mathematics and Science (TIMSS) Study, the United States fares poorly in this international comparative context. Although above the average, the U.S. has slipped to 20<sup>th</sup> out of 45 nations in eighth grade mathematics. In the Program for International Student Assessment (PISA) of 15 year olds in industrial nations, the U.S. scored 24 out of 29 countries in mathematical literacy. Many of the countries achieving ahead of the U.S.A. have longer school years and provide greater time for professional development for teachers.

### **Teachers**

Teacher quality is an area of historic strength, but there is a need for improvement in the future. For example, 6,196 teachers in Maine have a Master's Degree. The number of teachers who have achieved National Certification is on the rise and has reached almost 73. We are moving in the right direction, and we should continue to build on this base. Professor David

Silvernail’s MEPRI study of high performing schools showed a distinctive positive correlation between faculty with advanced work and student achievement.

The correlation between teacher preparation and student performance is corroborated in national research on student performance. Ronald Ferguson’s 1991 study “*Paying for Public Education: New Evidence on How and Why Money Matters*” concluded:

“What the evidence suggests most strongly is that teacher quality matters and should be a major focus of efforts to upgrade the quality of schooling. Skilled teachers are the most critical of all schooling inputs.”

A 1997 study by the National Commission on Teaching and America’s Future found that 43% of student gains in mathematics from grade three to grade five were the result of teacher quality.

Teacher compensation must be a major focus area for successful recruitment and retention of quality teachers in the future. Yet, the extent of local responsibility for school funding means that economically struggling communities, where education offers a ladder out of poverty, are often unable to afford to hire the most experienced and qualified teachers. The most recent data on average faculty salaries shows that Maine stands 35th in the nation--down from 28 a few years ago. The ranking among New England states is as follows:

State	Average Salary	Rank
<b>National Average</b>	\$45,726	
Maine	\$38,864	35 <sup>th</sup>
Connecticut	\$57,337	2 <sup>nd</sup>
Massachusetts	\$53,076	7 <sup>th</sup>
Rhode Island	\$52,261	9 <sup>th</sup>
New Hampshire	\$42,689	25 <sup>th</sup>
Vermont	\$42,007	27 <sup>th</sup>

Related to this data is the disturbing fact that Maine is ranked 47<sup>th</sup> in the nation in beginning teacher salaries. There is also a great deal of disparity in compensation across the

state. Last year starting salaries ranged from \$20,750 to \$33,000. The range for a B.A. teacher at the top of the salary schedule was from \$32,050 to \$57,150. After ten years of teaching with a Bachelor's degree the range is \$28,750 to \$48,850. These disparities do not speak well for equity and fairness for both teachers and students.

Further, the teaching force is aging. The average age is 44. The number of retirements in the coming years will be significant. That makes it critical for Maine's teacher compensation to be sufficient to attract high quality educators to the teaching force.

### **Data: Structural Change: Time**

The most telling data on time is the international comparison of student time in the classroom (see Appendix D). For example,

- “U.S. eighth grade students instructional time is both longer and more compressed because it takes place within a school year of approximately 180 days as compared to 188 in Germany and 220 in Japan.” (U.S. – 143 hours, Germany - 114 hours, Japan - 117 hours in mathematics).
- For science: the U.S. – 140 hours, Germany - 136 hours and Japan – 90 hours. (1996) *Pursuing Excellence*. Office of Educational Research and Improvement, U.S. Department of Education.

There is also a correlation between high performing countries and the length of instructional time. In a study done in 1999 based on the TIMSS data, the high performing countries of Japan, Korea, and Singapore reported an average number of instructional days of 200 a year at both 4<sup>th</sup> and 8<sup>th</sup> grades. (Michael Martin, et. al., *The School Contexts for Learning and Instruction*). Indeed, all the countries that performed better than the U.S., except for Hong Kong, Singapore, and Belgium had longer school years ranging from 188 days to 225 days. Only two (2) of the thirteen nations in the TIMSS math and science study had fewer days in

schools than Americans. On average, students in participating countries had 193 school days compared to only 180 in America.

It was also clear that students outside the U.S. spent more time out of school doing studies. In Singapore, 59% of eighth graders spent more than three hours on homework, while only 22% of Americans reported that they did

Similarly, on the national stage, Maine has among the shortest school years of any state. Only eight states have 175 days (Maine's minimum) or fewer as the minimum for student instruction. Thirty-two states have 180 or more.

### **Data: Technology**

In 2004 The Great Maine Schools Project studied Piscataquis Community High School, which had provided students grades 9-12 with a one-to-one computing beginning in 2002. The results were quite positive in a number of realms as follows:

- Computer Skills and Access to Resources:
  - 52% of students reported that their computer skills advanced;
  - The majority of students used the computer for daily work, homework and e-mailing students and teachers;
  - 96% of teachers reported that their programs were enhanced;
  - 74% of parents reported that their child had greater access to educational resources.
- Student Motivation and Interest:
  - 79% of students indicated they were more motivated to do their school work;
  - Daily attendance improved by 7 points;
  - Teachers and parents report improved student engagement.
- Quality of Work and Student Achievement

- 71% of students agree that laptops improved the quality of their school work;
  - 64% of teachers report improvement in the quality of student work;
  - 42% of parents agree that the quality of their child’s work has improved.
- Classroom Practice:
    - Near majorities of teachers and students report they rely less on textbooks;
    - A majority of students report that they “explore a topic more on their own,” “write more than one page,” and “present their work in class;”

Finally, in the Piscataquis Community High School study, 86% of teachers report that they can provide more personalized instruction, about half of the teachers report increased rigor, and most importantly, a majority of teachers reported that at-risk and low-achieving students performed better.

In another school, a Career and Technology Education (CTE) center in central Maine, there were dramatic reductions in discipline issues (a half-dozen a year) as compared with the schools that send these students to the CTE center, and approximately 55% of graduates who matriculated to post-secondary school. Approximately 80% of students graduating from this school were employed in the regional area in their secondary school concentration.

**Data: Societal Attitudes Toward Learning**

Societies with greater numbers of college graduates tend to assign a greater value to post secondary education. Maine is at the bottom of the New England states in that regard in part because of a relative lack of jobs that require college degrees and in part because fewer Maine students persist in college.. The most recent data is as follows:

<b>State</b>	<b>Percent with Bachelor's Degree or Higher</b>
Massachusetts	37.6%
New Hampshire	34.0%
Connecticut	33.5%
Vermont	31.3%
Rhode Island	27.6%
United States	27.2%
Maine	23.7%

It is no coincidence that equally important and related data shows Maine as second to last in the number of secondary school graduates who enter postsecondary education.

<b>State</b>	<b>Percent High School Graduates Who Enroll in a Degree-granting Institution</b>
Maine	50%
Connecticut	63%
Massachusetts	65%
New Hampshire	58%
Rhode Island	54%
Vermont	45%

The data on return on educational investment for individuals and for Maine is astounding. It is estimated that the annual average salary of a high school graduate will be \$27,915; the figure for a person with an Associate's degree is \$35, 958; and the person with a Bachelor's degree earns \$51,206. These figures underscore the importance of postsecondary education to the quality of individual lives and the future economic viability of the State.

## **RECOMMENDATIONS**

### **Structural Reform: Governance and Political Organization**

Maine cannot afford the educational infrastructure currently in place. As noted, there are 286 SAUs administered by 152 superintendents and 45% more principals per student than the national average. Maine has 33% more educational employees than the national average. Maine has twice the number of school district officials per student than the average. Common sense tells us that administrative costs do not rise in proportion to increases in students, but are clearly more closely related to the number of administrative units—not their size. All of this suggests that we have an enormously cumbersome and inefficient system, the product of historical circumstance and geographic limitations of an earlier time. Maine does not have a rational system designed to streamline the effective delivery of services to improve student learning. There is an enormous cost to taxpayers that drains resources from the classrooms where they could positively impact student learning. The structures simply must change if we are to move forward.

The Select Panel believes that the recommendations that follow will begin to capture significant savings that can be redirected to classrooms across Maine to fund many of the changes for improved student learning advanced in this Report.

### **Goals for Government/Political Organization**

- 1. Create an efficient educational system—one with a more streamlined structure but still allowing for local voice and connection;**
- 2. Bring administrator-to-student ratios more in line with national averages;  
and**



**3. Take a hard look at school size and reduce cost per square foot per student in school construction.**

1. STATE LEVEL:

- A. Consistent with much of existing state law, SAU school boards will have responsibility for educational policy, the school district budget, and the employment of the Superintendent. Other governance and personnel matters will be within the purview of the Superintendent. In addition to the Superintendent and School Board for each school administrative unit (SAU), a “Local Advisory Board” will be established to work with community or neighborhood schools to ensure local input and voice in these expanded districts.
- B. In order to ensure greater equity across the state and to reduce the enormous amount of duplicative time, energy, and resources spent in contract negotiations with significant costs, there will be one state collective bargaining agreement for all teachers and school personnel in Maine. It will be negotiated by a team composed of representatives from DOE, the state’s superintendents and school boards, with teacher representatives from across the State. Unfair compensation inequities across the state can best be addressed by a single contract.

2. DISTRICT LEVEL: The number of SAUs will be reduced dramatically from the current 286 to coincide roughly and fairly with the thirty-five Senate Districts in the state, resulting in districts of roughly equal size, but still smaller than the largest district in the state currently.

3. SCHOOL LEVEL:

- A. The state will move as rapidly as possible over time to minimum standards for school size—c.a. 350 students for schools that are not secondary schools and 450 students for high schools. Recent state and national studies show that per student per square foot construction costs for schools smaller than this skyrocket (See Appendix D). Exceptions should be made for isolated small schools and geographic areas where bus rides would be excessive. National and state studies show that there is not consistent correlation between school size and student performance, but some research supports learning environments structured in the size range recommended above as desirable for student achievement. In addition, "schools within schools" and other personalizing strategies should be established to ensure that each student has a sustainable relationship with a group of teachers—where students are known as individuals. The point is to move from tiny schools to small learning communities across the state.
- B. All SAUs should be organized so that they provide adequate alternative educational programs to assist students in meeting the Maine Learning Results.

4. SCHOOL AND STUDENT LEVEL: The current "school choice" option administered

through "superintendent agreements" will be administered by the DOE and requests to attend another school will not be unreasonably denied by either the sending district or the receiving district as long as space is available. Students who move to a school outside their SAU will be funded at the state tuition rate by the sending district. Funding for special education students is the responsibility of the State. Students would have unfettered choice between public schools within their districts, with the parents responsible for arranging any additional transportation that might be necessary.

### **Structural Reform: Quality for Teaching and Student Learning**

As noted earlier, the research shows conclusively that the single most important variable in determining student performance is the quality and effectiveness of the teacher. This is more important than ever because of the high standards of the Maine Learning Results and the state's commitment that ALL students will achieve them. Leadership is also documented in the literature as critical to high performing schools. Hence, The Select Panel makes recommendations in these two areas forcefully.

Maine students have benefited from a high quality teaching force over the years. However, there are a large number of "baby boomer" retirements on the horizon, and we need to be sure that we have the best-qualified teachers possible in Maine schools. This is a challenge in a rural state with varying local resources. The Panel believes that the teaching profession must undergo a significant transformation in Maine that moves aggressively to professionalize the practice and the contexts that surround teaching.

### **Goals for Quality of Teaching and Learning**

- 1. Teaching must be conducted in an environment of both individual and shared accountability for results;**
- 2. Teachers must demonstrate individual responsibility for continual career development and enhancement of skills;**
- 3. The structure by which compensation for teachers is determined must reflect**

**both the need to differentiate roles within the profession and the market forces of the broader economy;**

- 4. The process by which teachers are supported in the early years of their career, must include extensive mentoring and coaching; and**
- 5. The practice of teaching must be influenced by and evaluated on the basis of research.**

The Panel believes that the realization of these goals will encourage more of the best young people to consider careers in public education and remain in the profession.

### **Policy Recommendation for the Quality of Teaching and Learning**

1. The level of compensation for Maine teachers is a major impediment to attracting and retaining superior teachers. Of equal concern is a compensation structure that treats all teachers the same rather than rewarding teachers on the basis of performance as measured in part by student learning and the nature of responsibilities. A successful effort to address current inappropriate compensation structures will require fundamental attitudinal and organizational changes. The needed resources required by these changes will in large measure come from using current education resources more effectively and from savings generated by changes recommended elsewhere in this Report.
  - A. Within eight years, beginning teacher compensation levels will attract well-qualified teachers, and pay schedules will be more clearly aligned with performance. A "Maine Performance Based Program" must be developed that depends heavily on student learning and a credible, transparent evaluation system. The program should allow high performing teachers to advance financially at a faster pace than is currently the case. Two to five pilot systems should be operative within three years. Differences in pay should reflect not only success in improving student performance but also different responsibilities (teacher leader, e.g.) as defined by a career ladder model such as the Milken Model (See Appendix E).
  - B. To attract and retain teachers in difficult to fill fields (math, science, foreign language, special education, etc.), Maine needs to develop a financial incentive program and consider differential pay in order to make these fields competitive with other opportunities. In addition, Maine should consider the creation of a pilot Math/Science Teacher Corps and a Foreign Language Teacher Corps to serve schools throughout Maine in developing curriculum and pedagogical best practice, delivering instruction through distance learning and working in the schools in a direct way. If evaluations show this approach effective and efficient, similar teacher corps should be developed in other difficult to fill fields.

2. In order to attract good candidates who are interested in making mid-career changes to the educational ranks, retirement system statutes must change to allow new teachers entering the profession to collect both Social Security, if they are eligible, and Maine State Retirement benefits.

A challenge in the future will be to continually grow the capacity of educators to meet the rapidly changing demands of the 21st century. To that end, the Panel recommends that all teachers must achieve a Master's degree in pedagogy or content discipline within 10 years of entering the profession or achieve National Certification. The cost (computed at the University of Maine System (UMS) rate) for courses taken for the Master's will be borne 25 percent by the educator with the balance borne equally by the School Administrative Unit (SAU) and the State. The State will assume the costs associated with achieving National Certification.

Next to teacher capacity, the quality of leadership is a constant factor for high performing schools. Particularly important is the capacity of leaders to serve as change agents in the school environment. The Select Panel recommends that:

- The DOE and the UMS offer annual leadership training institutes for teachers and administrators. The Institutes will focus on the skills of change agency, strategic planning, and the necessary background in organizational, human resource and financial management to meet the challenges of the future. Each Institute cohort will gather periodically in the year subsequent to the summer program to do follow-up work on real leadership issues facing schools in Maine. Educational administrators (principals and superintendents) must participate in the Institute every five years as a condition of recertification.

### **Structural Change: Time**

Many of Maine's students need more time to learn. Some students need less. Time must be restructured to be more flexible to address variable student needs and to allow greater emphasis on core academic subjects. It is more than a decade since the release of the national study, "*Prisoners of Time*." That document called for a revolution in the way in which time

functions as a variable in the educational arena. Simply put, it asserted that student learning and teacher needs should determine how time is structured rather than time or schedule dictating the limits in which student and teacher needs must fit.

This Report identifies time, both the amount of time and the flexibility of its use, as one of the basic structural variables that must be addressed for effective education in the 21st century. The changes recommended are fundamental and they respond to what we know from research about student learning. All recognize that schools are asked to accomplish much more than they did even 10 or 20 years ago, let alone a century or more past. Research tells us that good, solid teaching requires reflection and continuous learning. And, we know that children learn in different ways and at different rates. The Panel's recommendations are designed to address these realities for teaching and learning in the 21st century.

### **Goals for Time**

- 1. Increase time for learning and teacher preparation, reflection, collaboration and professional development;**
- 2. Increase focus within that learning time on core subjects for students; and**
- 3. Increase flexibility for when and where students learn.**

The panel recommends the following policy changes in this area:

1. Many students and teachers need more time to accomplish the expanded goals of public schools. In order to deal with this time crunch while at the same time recognizing that this recommendation advances "outside parameters" within which flexibility to address student needs must be the final arbiter of school time, the Select Panel recommends a general increase of 20% in school time, half of which is for professional development for all educators. This should be phased in over a reasonable period of time. In addition, the Panel recommends:
  - A. The norm for the student's school day should allow for variability dictated by individual student needs and should be primarily dedicated to core academic subjects connected to the Maine learning results. In addition, each day should include up to one hour for teacher reflection, collaboration and embedded professional development.

- B. The school year should expand over time until it reaches the point where there is sufficient time for all students to meet the Maine Learning Results. The calendar should include additional time for professional development for teachers and administrators.
  - C. Teacher contracts will be up to a full year with the option for differentiated contract lengths to correspond with student needs, teacher responsibilities, and appropriate vacation time.
2. The school day and year must gain more flexibility. For example, Maine needs to move toward the abandonment of rigid adherence to grade spans and seat time. Students should be able to progress through the Maine Learning Results at different paces. Some students will need a longer day; others will need a shorter day. Some students will need a longer year; others will find 175 days or less to be sufficient. Some will need enrichment programs and/or early college. Others will need tutorial support. The point is student learning needs should determine the time structures.

### **Technology**

Technology is already arguably the principal driver of economic progress in the 21st century. It will become more so.

Maine made a significant step into the world of technology and learning with the laptop program for middle school children three years ago. Initial research shows that this has had a significant positive impact on our middle schools. Students are more engaged and responsible for their own learning. Efforts have been made to extend the initiative to high school students with very uneven success. Properly configured and fully integrated into student learning, technology can change what we mean by school and schooling. Not only can it transform the classroom, but also it opens up the possibility of greater student independence in learning away from the traditional confines of the school, online, in “virtual” learning situations. If Maine and its citizens are to be competitive in the 21<sup>st</sup> century global economy, then ALL students must be prepared for the world of technology. Recent research demonstrates that all students benefit from the use of technology to improve learning—and that this benefit is most keenly realized by students who are not thriving in their traditional school settings.

The Select Panel is fully convinced that failure to fully integrate technology into the framework of 21st century education will condemn our young people to lives of compromised quality. It is important to emphasize that “fully integrate” means moving well beyond the “down the hall once a week” concept of technology as an adjunct to learning to the use of technology as an integral part of every day learning.

### **Goals for Technology:**

- 1. Increase student access to technology;**
- 2. Integrate technology into teaching and learning; and**
- 3. Increase teacher training in the use of technology—and do so on an ongoing basis to ensure we maintain expertise in the face of rapid change.**

The Select Panel makes the following recommendation in the area of technology:

1. Beginning in grade 5 each student must have an individual wireless computer he/she may take home everyday and have for use at home during vacations.
2. All teachers must receive continuous training on the use of the computer and other new, emerging technologies in schools and on different models of effective integration into the daily work in the classroom. This training should be an integral part of teacher preparation, certification, and recertification. In order to support this important initiative, the State must provide effective professional development.

### **Societal Attitudes Toward Learning: The Case for Postsecondary Education**

The challenges and opportunities before Maine at this juncture are so significant and foundational that a successful response will require a concerted and collegial effort by all the stakeholders--policymakers, state and local administrators, the Legislature, the Governor's Office, parents, teachers, and students. For effective engagement of these diverse groups there must be a shift that recognizes now more than ever that the key to quality individual lives and a

robust Maine economy is a profoundly transformed educational system. The measures recommended in this report point the initial direction of that effort. The political will needed to enact such a transformation must come from Maine's people. That will cannot be driven by politicians alone rather it must be summoned by leaders capable of showing our citizens a realistic vision of a successful future for our children and a path to that vision.

Maine has the lowest percentage of citizens with baccalaureate degrees of any state in New England. That distinction cannot stand. The days when a high school diploma was the key to successful employment with a reasonable income are long past. We simply must graduate high school students ready for college. Then they will have a choice--one that makes a huge difference. It is the \$1,000,000 choice--the estimated average earning difference over a lifetime between a holder of a high school diploma and the recipient of a college degree. We must take bold steps at this time to ensure that all Maine youth who wish to pursue postsecondary degrees an opportunity to do so. The Select Panel views this as a must for young people to have a chance to lead productive, successful lives. To aim to have all graduates be "college ready" but fail to make it possible for as many of the qualified students who wish to attend postsecondary programs is a wasteful exercise in rhetoric. We must act at this time to provide the support necessary for students to pursue their educations beyond high school. This is consistent with the goals of the Compact for Higher Education in Maine, whose goals and objectives have the full endorsement of the Select Panel (See Appendix F).

To achieve this higher level expectation for all of Maine's children, there must be a broad and pervasive change in societal attitudes to support and value the notion that education is fundamentally important, achievement in school is respected and honored, and that each child will progress to the highest educational level of which they are capable.



### **Goals for Shift in Societal Attitudes Towards Learning:**

- 1. Create a shared commitment among students, parents, educators, community members and policymakers to graduate every student ready for college, work, and citizenship;**
- 2. Make the necessary changes in structures and practices in our schools to ensure that all students graduate with this level of readiness; and**
- 3. Address the affordability gap—both perceptual and real.**

The Select Panel’s recommendations are designed to “jump start” this cultural change.

1. Emulating some of the successful strategies of the smoking cessation campaign in Maine and the nation, the state will develop a carefully constructed multimedia public information program that underlines the importance of educational achievement and the assumption that postsecondary education is the norm.
2. The State of Maine will open a safe mutual fund education account with an initial contribution of \$200 for every child born in Maine, redeemable as a Maine resident for payment for postsecondary education leading to an Associate’s or Bachelor’s degree.
3. All graduates of an accredited secondary school who are admitted to a postsecondary institution that offers an Associate's or Bachelor's degree will receive half tuition for two years computed at the average tuition of the Community College System if they demonstrate financial need. The total financial aid package will include the return on the mutual fund investment when appropriate as well as other forms of financial aid received by the candidate.
4. Eradicate “tracking” of students and mandate a curriculum for all students that include four years of math, science, English, and social studies (history, economics, psychology, sociology, etc.).

## **CONCLUSION**

This report ends where it began: Our schools are not ready for the 21<sup>st</sup> century. The world our young people will inhabit will be dramatically different from the current one. While we cannot discern what it will be in detail, this much is clear; it will be a world where new knowledge and skills are essential to a satisfying, productive life. Failure to provide Maine's young people with the essential skills and knowledge for the 21<sup>st</sup> century destines them—and us—to fail. In other words, it will be a world where education is more important than at any time in our history—more important than when we enacted the G.I. Bill or when we mobilized to respond to Sputnik! We literally cannot afford to fail at this task.

The Select Panel believes the recommendations we bring forth address some of the major foundational issues necessary to improving student learning in the 21<sup>st</sup> century. The whole focus of the changes we advance is the improvement of student learning for ALL students – that is the central driving force of this work. Implementation of these recommendations will be positively transformative for student learning.

Maine must continue to be generous in support of education, but it must also be more efficient in spending the taxpayer's money. We can no longer continue to support an irrational, inefficient infrastructure, which draws resources from direct impact on improving student learning. Change of this nature is difficult, but the Select Panel believes its recommendations in this area are crucial to the learning of Maine's students in the 21<sup>st</sup> century. Savings realized through the changes advanced in this area can be funneled directly to support other initiatives in this Report designed to improve student learning.

The single most important factor in student learning is the quality of the teacher. The

Select Panel makes fundamental recommendations about compensation, contract length, and professional development. To be successful in the 21<sup>st</sup> century our children need the best teachers possible. The Panel's recommendations seek to "professionalize" teachers, pay them adequately based on performance, and support their continued learning. The Panel believes it is past time for teachers to join the other professions, e.g., physicians and lawyers, where performance matters, where a calendar year commitment is the norm, and where respect is expected.

We must be smart and flexible about how we manage student time. We must recognize that 175 instructional days are not sufficient for many students. An agrarian calendar developed when much less was expected of public schools no longer suffices. Student learning should drive student and faculty time, requiring an abandonment of rigid schedules developed exclusively around grade spans.

While the Select Panel cannot define the future in detail, this Report is based on the fact that technology in multiple forms will be a part of the landscape Maine students will live and work in. The Select Panel urges Maine to be robust in its implementation of technology as a fundamental reality of student learning for ALL youth. The Panel's recommendations put us on the path to achieve that goal, but Maine will continually need to refine and adjust its approach to this area.

Finally, to repeat, the Select Panel believes that a successful response to the challenge of improving student learning for ALL Maine students will require a shift in societal attitudes. Maine must build on its exemplary tradition of support for public schools by becoming a "Learning State," which values education as the *sine qua non* of productive and rewarding citizenship in the global community. The Panel's recommendations are designed to jump start

this cultural transformation by ensuring that students begin schools “ready to learn” and leave high school “college ready” with the means to pursue post-secondary education.

The Select Panel’s recommendations are foundational and transformational. They are interrelated. For example, the structural governance and organizational changes will generate significant resources to support many of the initiatives recommended for teachers and technology. Taken together the Panel believes that its recommendations will place Maine in a position to improve student learning dramatically and make Maine schools—and Maine people-- ready for the 21<sup>st</sup> century.

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## APPENDIX A

### SELECT PANEL ON REVISIONING EDUCATION IN MAINE

#### MEMBERS

Sandra Bernstein  
Superintendent, SAD 27

Angus King  
Former Governor of Maine

Weston Bonney  
Retired Bank CEO  
Member, State Board

Seymour Papert  
Professor  
Emeritus, MIT

Yellow Light Breen  
Vice President & Counsel  
Bangor Savings Bank

Pam Plumb  
Former Mayor of Portland

Jim Carignan  
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Bates College  
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Susan Gendron  
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2003 Superintendent of the Year

Sherry Gould  
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Nokomis High School  
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Robert Woodbury  
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University of Maine System  
Chair of the Maine Community  
Foundation

Jean Gulliver  
Former Chair and Member  
State Board

#### IN SUPPORT

**Anita Bernhardt, Distinguished Educator, Department of Education**  
**Patrick Phillips, Deputy Commissioner, Department of Education**  
**Rhonda Casey, Clerk, State Board**

## **APPENDIX B**

(Excerpted from the Maine Learning Results Document)

### Guiding Principles

The building blocks for successful and fulfilled adulthood in the 21<sup>st</sup> century

Designed and Created by  
Sarah Simmonds  
Maine Department of Education

**Each Maine student must leave school as:**

**1. *A CLEAR AND EFFECTIVE COMMUNICATOR***

1. uses oral, written, visual, artistic, and technological modes of expression;
2. reads, listens to and interprets messages from multiple sources; and
3. uses English and at least one other language.

**2. *A SELF-DIRECTED AND LIFE-LONG LEARNER***

1. creates career and education plans that reflect personal goals, interests and skills, and available resources;
2. demonstrates the capacity to undertake independent study; and
3. finds and uses information from libraries, electronic data bases, and other resources.

**3. *A CREATIVE AND PRACTICAL PROBLEM SOLVER***

1. observes situations objectively to clearly and accurately define problems;
2. frames questions and designs data collection and analysis strategies from all disciplines to answer those questions;
3. identifies patterns, trends, and relationships that apply to solutions to problems; and
4. generates a variety of solutions, builds a case for the best response, and critically evaluates its effectiveness of this response.

**4. *A RESPONSIBLE AND INVOLVED CITIZEN***

1. recognizes the power of personal participation to affect the community and demonstrates participation skills;



2. understands the importance of accepting responsibility for personal decisions and actions;
3. knows the means of achieving personal and community health and well-being; and
4. recognizes and understands the diverse nature of society.

5. ***A COLLABORATIVE AND QUALITY WORKER***

1. knows the structure and functions of the labor market;
2. assesses individual interests, aptitudes, skills, and values in relation to demands of the workplace; and
3. demonstrates reliability, flexibility, and concern for quality.

6. ***AN INTEGRATIVE AND INFORMED THINKER***

1. applies knowledge and skills in and across English language arts, visual and performing arts, foreign languages, health and physical education, mathematics, science, social studies, and career preparation; and
2. comprehends relationships among different modes of thought and methods associated with the traditional disciplines

## **APPENDIX C**

### **Vignettes of the Future Vision**

In order to provide greater understanding of the spectrum of existing and possible classroom settings that can and should be developed better to serve a greater portion of the student body of Maine the following vignettes provide examples of changes in and alternatives to traditional high schools that:

- Create on site support for programs that allow students in traditional high school programs to access real world applications of the knowledge and skills they are learning and to ensure that students in applied learning settings with meaningful links to important theoretical knowledge and skills.
- Connect our schools from grade 5-12 on to online resources that meet the individual learning needs required to meet and exceed the standards of the MLR using schedules that are flexible and overcoming obstacles related to geographic isolation or local financial pressures.
- Create school settings that step outside of school walls and provide highly engaging, motivating settings for the acquisition of meaningful content.

### **Linking Career and Technical Education Centers and Traditional High Schools:**

Students from a variety of academic backgrounds sit in pairs puzzling over solutions to CAD designs problems in Lewiston Regional Technical Center. It makes no difference whether they are honors students seeking applied pre-engineering experiences or students from local high schools seeking real life contexts for traditional school learning, they are all busy trying to apply advanced mathematical understanding to a two-dimensional problem to produce a three dimensional piece of plastic that will be their solution.

### **Access to Technology for Advanced and Remedial Instruction:**

A senior in a small community in northern Maine sits at her computer at 10:30 on a Wednesday morning. She is just completing the morning session of her online course in physics before she leaves for her local high school for the rest of her academic programming. This online option provides her with access to learning that her local community could not otherwise provide due to limited enrollments. Two hundred miles away in southern Maine another student leaves an ATM room where he has just finished his morning class in Japanese. The course is offered by an instructor at a central Maine high school. At Lewiston Regional Technical Center a student sits down to a computer terminal to work on developing basic competency in algebra, a course he previously failed. Unlike more traditional classes the program adjusts itself to the student's knowledge base, focusing only on those skills the student does not have. He can take the course before heading to the culinary arts center where he is assisting in the preparation of a luncheon for visiting Department of Education representatives and members from the Museum of Science in Boston.

### **New Conceptions of Secondary Learning:**

A high school student collects samples of water from a small pond in California. She takes the samples back to a laboratory where she analyzes the results and sorts through the information. Her demonstration of learning will be to communicate her understanding of the local industrial impacts on the aquifer. One hundred students in Portland, Maine collaborate with their teachers to identify community projects they will participate in during the first year of an expeditionary learning project. Their learning projects will connect them to individuals and resources globally.

As we advocate for all students to receive instruction focused on rigorous standards and insist that they demonstrate their proficiency it becomes clear that the opportunities we offer to students must be increasingly flexible to achieve this result. These vignettes challenge our current common assumptions about school structures and suggest that:

- school leaders must reach beyond thinking about individualization of instruction within classrooms to thinking about new contexts for delivery of instruction
- technology will be an external driver, providing schools with a range of options to offer greater flexibility
- learning must be more meaningful and authentic. Students of the future, and their parents, will demand a greater hand in designing experiences that have greater personal meaning and are connected to authentic societal issues. Howe and Strauss make note of this trend in their book, *Millennials Rising*, on the generation of students just beginning to graduate from our schools. Wilhelm's research on adolescent males further reminds us that our success with this group rests on our willingness to structure learning experiences with greater application and more meaningful relationship to life experiences.
- timelines for learning will be more flexible and learning will be connected to resources and individuals throughout the globe.

Each of the vignettes above exists in a school in Maine or elsewhere in the United States. Today, being a part of these learning situations makes students a part of exceptional learning experiences. As we strive to assist all students in achieving high standards for learning, our schools will be pressed to rethink our understanding of school structures to make exceptional learning contexts such as these the norm available to all students.

## APPENDIX D

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# StateNotes

## Scheduling/Length of School Year

### Number of Instructional Days/Hours in the School Year

By Jeffrey Tomlinson

Updated July 2004

The minimum number of instructional days refers to the actual number of days that pupils have contact with a teacher. It does not include teacher inservice or professional development days.

#### Summary

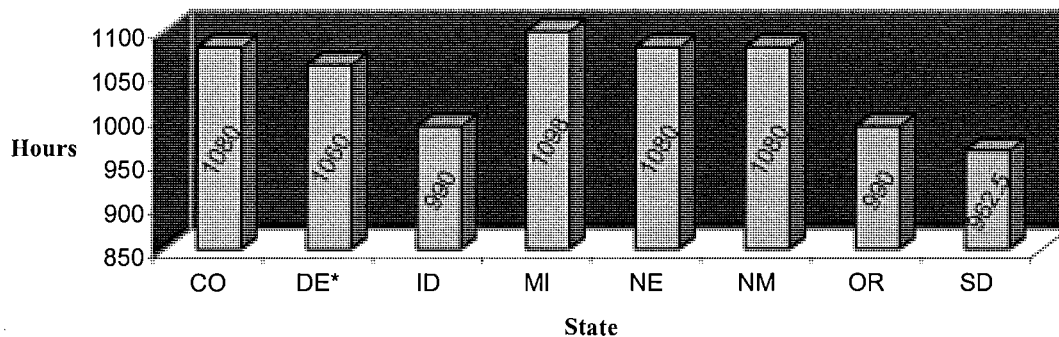
Changes to the minimum instructional days have occurred slowly since 1980, with a total of 14 states having increased the minimum number of school days, 9 states reducing the minimum number of teacher-pupil contact days and a number of states opting to permit districts to measure classroom contact time in either hours or days.

Since the close of state legislative sessions in 2000, three states – South Carolina, Louisiana, and Arizona – have enacted laws to increase the minimum number of instructional days in the school year.

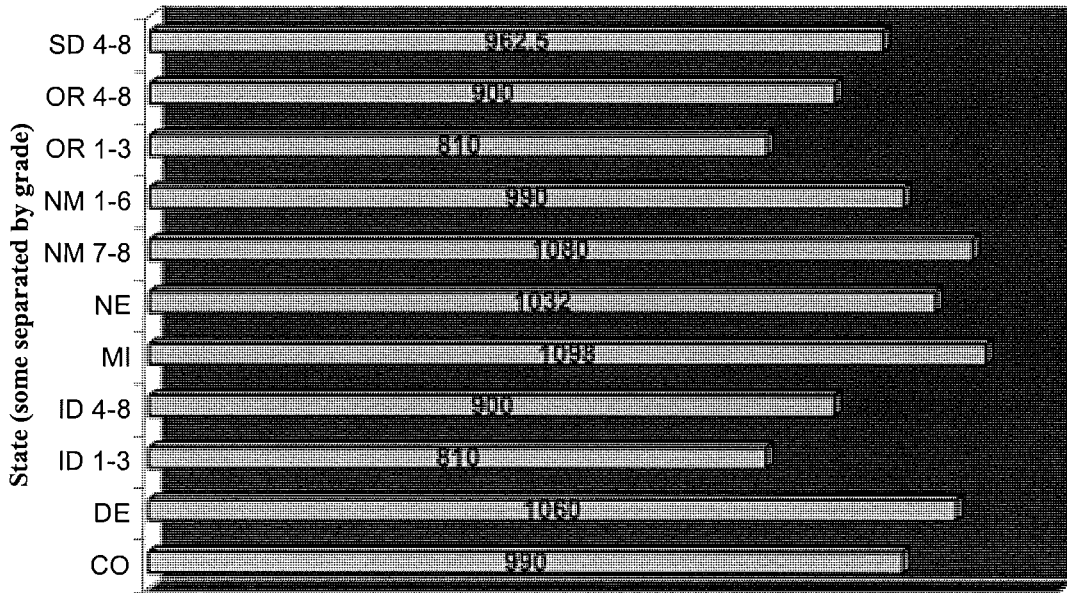
While states vary widely on the minimum number of instructional days, a majority of states (30) set the bar at 180, two mandate 181 days and above, three range from 179 to 176 days, five set it at 175 days, two from 174 to 171 days, and one of the commonwealths has established under 170 days. A total of 8 states (Colorado, Delaware, Idaho, Michigan, Nebraska, New Mexico, Oregon, South Dakota) require a minimum number of instructional hours. Minnesota is the only state without a minimum of either, leaving the decision up to individual school districts.

Only a few states have laws requiring schools to start on a certain date, most often leaving it to the discretion of local education agencies.

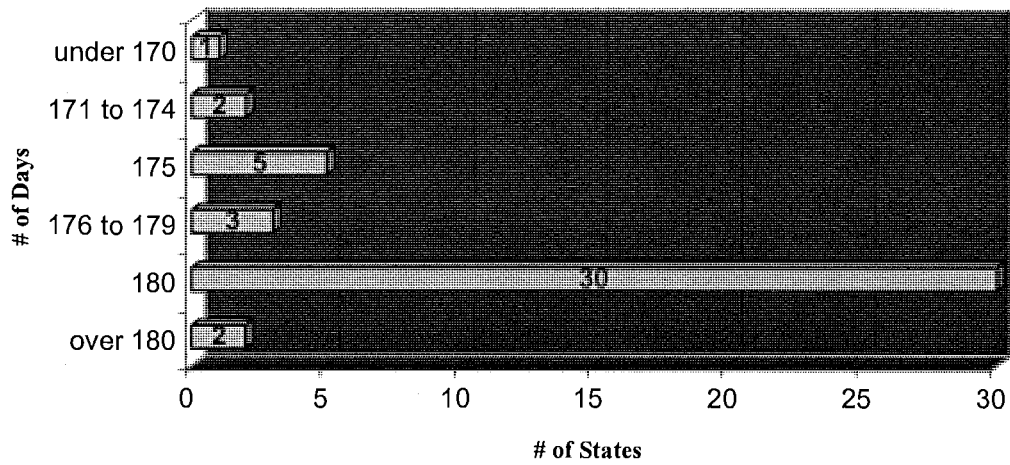
States Setting Minimum Instruction in Hours Only  
(Secondary)



**States Setting Minimum Instruction in Hours Only  
(Elementary)**



**States and Territories Setting Minimum Instruction in Days Only**



**Note:** LEA option refers to the Local Education Agency (district).

STATE	MINIMUM NUMBER OF PUPIL/TEACHER CONTACT DAYS/HOURS	CITATION	WHEN SCHOOL BEGINS
AL	175 <sup>1</sup> days	ALA. CODE § 16.13.231	LEA option
AK	180 days	ALASKA STAT. § 14.03.030	LEA option
AZ	180 days or equivalent number of minutes of instruction per school year based on a different number of days approved by the district governing board	ARIZ. REV. STAT. § 15-341.01	LEA option
AR	178 days	Arkansas Standards for Accreditation 10.01.1	LEA option
CA	180 days	CAL. EDUC. CODE § 46200(a)	LEA option
CO	1080 hours – Secondary 990 – Elementary 900 – Full-day Kindergarten 450 – Half-day Kindergarten	COLO. REV. STAT. § 22-32-109 (N)	LEA option
CT	180 (900 hours)	CONN. GEN. STAT. § 10-16	LEA option
DE	440 hours – Kindergarten 1060 hours – Grades 1-11 1032 hours – Grade 12	DEL. CODE ANN. 14. 10 § 1049(1)	LEA option
DC	180 days	D.C. MUN. REGS. tit. 5, § 305.6	LEA option
FL	180 days	Fla. Stat. 1003.02 (1)(g)	LEA option
GA	180 days	GA. CODE ANN. § 20-2-168 (C)(1)	LEA option
HI	180 days <sup>2</sup>	According to Hawaii teachers' contracts, the teacher work year is no more than 190 days, and 10 of those days are non-instructional	LEA option
ID	450 hours – Kindergarten 810 hours – Grades 1-3 900 hours – Grades 4-8 990 hours – Grades 9-12	IDAHO CODE § 33-512	LEA option
IL	176 days	105 ILCS 5/10-19	LEA option
IN	180 days	IND. CODE § 20-10.1-2-1	LEA option
IA	180 days	IOWA CODE § 279.10 (1)	9/1 or later
KS	186 days (465 hours) – Kindergarten 186 days (1116 hours) – Grades 1-11 181 days (1086 hours) – Grade 12	KAN. STAT. ANN. § 72-1106	LEA option
KY	175 days	KY. REV. STAT. ANN. § 158.070	LEA option
LA	177 days (360 minutes/day)	LA. REV. STAT. ANN § 154.1	LEA option
ME	175 days	ME. REV. STAT. ANN. tit. 20-A, § 4801	LEA option
MD	180 days (1080 hours)	MD. CODE ANN., EDUC § 7-103	LEA option
MA	180 days <sup>3</sup>	MASS. REGS. CODE tit. 603 § 27.03	LEA option
MI	1098 hours <sup>4</sup>	MICH. STAT. ANN. § 380.1284	LEA option
MN	LEA option as of 1996-97 school year Districts are expected to set school year length necessary for students to meet state and local graduation requirements	MINN. STAT. § 120A.41	After 9/1
MS	180 days	MISS. CODE ANN. § 37-13-63	LEA option
MO	174 days (1044 hours) <sup>5</sup>	MO. REV. STAT. § 160.011	LEA option
MT	180 days	MONT. CODE ANN. § 20-1-301	LEA option

STATE	MINIMUM NUMBER OF PUPIL/TEACHER CONTACT DAYS/HOURS	CITATION	WHEN SCHOOL BEGINS
	720 hours – Grades 1-3 1,080 hours – Grades 4-12		
NE	400 hours – Kindergarten 1032 hours – Grades 1-8 1080 hours – Secondary	NEB. REV. STAT. § 79-101	LEA option
NV	180 days <sup>6</sup>	NEV. REV. STAT. 388.090	LEA option
NH	180 days	N.H. Rev. § Stat. Ann. 189:1	LEA option
NJ	180 days	N.J. REV. STAT. § 18A:7F-9	LEA option
NM	450 hours – Half-day Kindergarten 990 hours – Full-day Kindergarten 990 hours – Grades 1-6 1080 hours – Grades 7-12	N.M. STAT. ANN. § 22-2-8.1	LEA option
NY	180 days	N.Y. EDUC LAW § 3604.7	LEA option
NC	180 days minimum (1,000 hours) <sup>7</sup>	N.C. GEN. STAT. § 115C-84.2	Not before 8/25
ND	173 days	N.D. CENT. CODE §15.1-06-04	LEA option
OH	182 days	OHIO REV. CODE ANN. § 3313.48	LEA option
OK	180 days	OKLA. STAT. §70-1-109	LEA option
OR	405 hours – Kindergarten 810 hours – Grades 1-3 900 hours – Grades 4-8 990 hours – Grades 9-12	OR. ADMIN. R. 581-022-1620	LEA option
PA	180 days <sup>8</sup> 450 hours – Kindergarten 900 hours – Grades 1-6 990 hours – Grades 7-12	Education PA. CODE § 11.3	LEA option
PR	160 days <sup>9</sup>	P.R. LAWS ANN. § 77, 79	LEA option
RI	180 days	R.I. Gen. Laws § 16-2-2	LEA option
SC	180 days	S.C. CODE ANN. § 59-1-420	LEA option
SD	962.5 hours – Grades 4-12 <sup>10</sup>	S.D. CODIFIED LAWS § 13-26-1	LEA option <sup>11</sup>
TN	180 days	TENN. CODE ANN. § 49-6-3004	LEA option
TX	180 days	TEX. EDUC. CODE ANN. § 25.081	May not begin instruction for students for a school year before the week in which 8/21 falls
UT	180 days 450 hours – Kindergarten 810 hours – Grade 1 990 hours – Grades 2-12	UTAH ADMIN. CODE R277-419-1	LEA option
VT	175 days	VT. STAT. ANN. EDUCATION 16 § 1071	Regional option
VA	180 days 540 hours – Kindergarten 990 hours – Grades 1-12	VA. CODE ANN. § 22.1-98	After Labor Day
WA	180 days 450 hours – Kindergarten 1000 hours – Grades 1-12	WASH. REV. CODE § 28A.150.220	LEA option
WV	180 days	W. VA. CODE §18-5-45	8/26 or later
WI	180 days 437 hours – Kindergarten 1050 hours – Grades 1-6	WIS. STAT. § 121.02	LEA option



STATE	MINIMUM NUMBER OF PUPIL/TEACHER CONTACT DAYS/HOURS	CITATION	WHEN SCHOOL BEGINS
	1137 hours – Grades 7-12		
WY	175 days	WYO. STAT. ANN. § 21-4-301	LEA option

*Notes:*

- (1) In 1995, Alabama repealed legislation enacted in 1994, which would have phased in 180 days of instruction and 10 professional development days by the 2004-05 school year.
- (2) As reported by Greg Knudsen, Communications Director for the Hawaii Department of Education via e-mail on July 15, 2004. Contact him at [Greg\\_Knudsen@notes.k12.hi.us](mailto:Greg_Knudsen@notes.k12.hi.us).
- (3) In Massachusetts, effective in the 1997-98 school year, elementary school students must receive a minimum of 900 hours, secondary students 990 hours and kindergarten students 425 hours of "structured learning time."
- (4) In Michigan, changes made by the 2003 legislature replaced the 180-day requirement with 1,098 hours of annual instructional time – required to receive full state funding. (Previous state law, statute 380.1284, established that the minimum instructional year in hours for 2003-04 school year was 1,122, with incremental increases in successive years, finally reaching 1,140 in the 2006-07 school year and every successive year. The scheduled increase in days/hours will not go into effect if the percentage growth in the basic foundation allowance in a state fiscal year, as compared to the preceding year, is less than the percentage increase in the average consumer price index.) MICH. COMP. LAWS ANN. § 380.1284.
- (5) In Missouri, the length of the school day may vary from 3-7 hours, giving districts the flexibility to schedule release time for inservice training.
- (6) The Nevada state superintendent of public instruction may authorize a reduction in the required minimum number of school days per year up to 15 days. The reduction may be allowed only if the new schedule provides for an equivalent or greater number of minutes of instruction than is provided in the 180-day school year.
- (7) North Carolina school boards must adopt a school calendar consisting of 220 days. A minimum of 180 are for instruction (with a maximum of 200 instructional days), 10 are annual vacation leave, some are holidays (the same as those designated for state employees), and the remaining days are at the principal's discretion (while working with the school improvement team).
- (8) In Pennsylvania, school districts wishing to fulfill minimum instructional requirements using hours instead of days must obtain approval from the Secretary of Education.
- (9) The minimum of 160 days comes from a calculation of the minimum requirements of two separate laws. The first, P.R. LAWS ANN. § 77, which states "the school year shall in no case exceed ten months" and "in no case be less than eight months" and the second P.R. LAWS ANN. § 79 which states "the school month shall consist of twenty days of actual teaching."
- (10) In South Dakota, each local school board sets the number of days in a school term, the length of a school day and the number of school days in a school week. The local school board or governing body establishes the number of hours in the school term for kindergarten programs. The board of education promulgates rules setting the minimum number of hours in the school term for grades 1-3.
- (11) In South Dakota, the state board of education sets the minimum number of hours for grades 1-3. Also, if a school board schedules the opening day of classes before Labor Day, voters may file a petition to have the school board decision referred to the voters in the district. The petition must be signed by 5% of the school

district's registered voters and the referendum must be approved by a majority of voters. S.D. CODIFIED LAWS § 13-26-9

*Jeffrey Tomlinson produced this ECS StateNote, while serving an internship in the ECS Information Clearinghouse.*

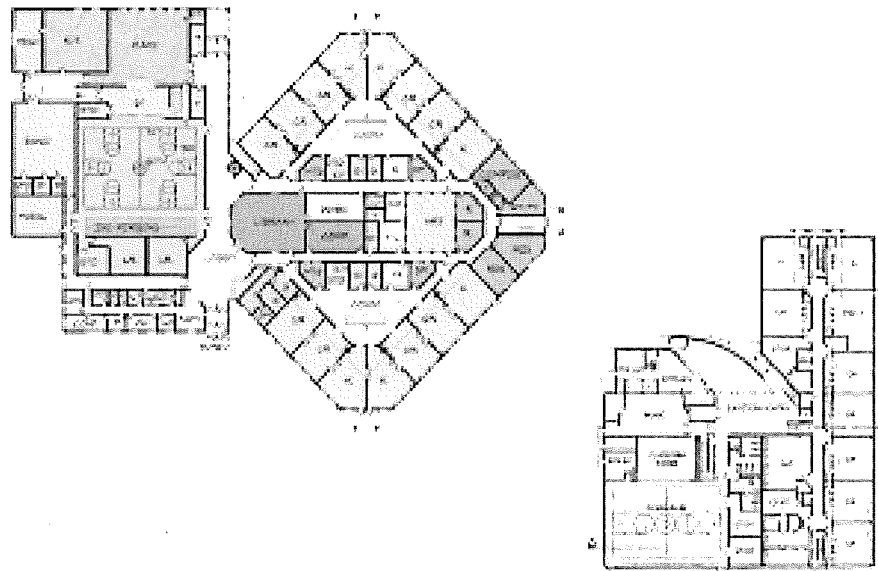
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## ***Helping State Leaders Shape Education Policy***

*APPENDIX E*

AN ANALYSIS OF  
CONSTRUCTION OF SMALL  
SCHOOLS VS. LARGER  
SCHOOLS



**PREPARED BY AN  
AD HOC COMMITTEE  
OFFICE OF SCHOOL FACILITIES SERVICES**

SCOTT BROWN, AIA, DIRECTOR OF SCHOOL FACILITIES

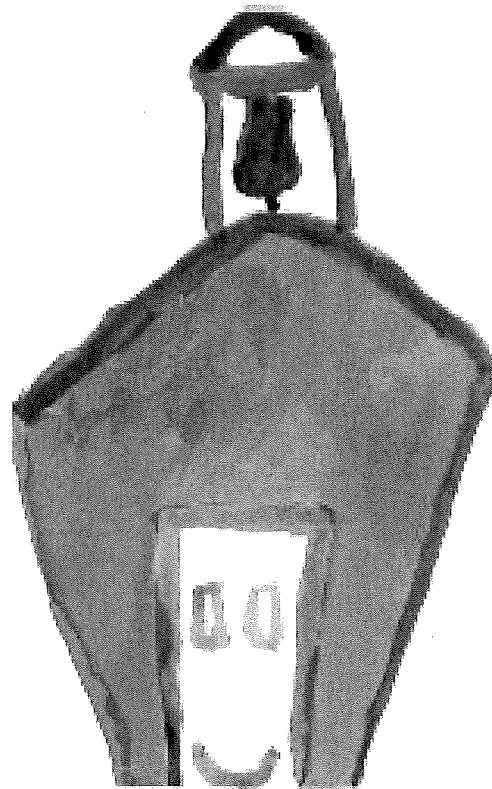
PAUL JOHNSON, DOE CONSULTANT

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DAN CEOL, AIA, HARRIMAN ASSOCIATES

LYNDON KECK, AIA, HDT ARCHITECTS

# A BRIEF STUDY OF SQUARE FOOTAGE PER STUDENT & OPERATIONAL COSTS



**PRESENTED TO THE  
STATE OF MAINE  
STATE BOARD OF EDUCATION**

JULY 2005

*Title page drawing by Mark Brown*

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## **INTRODUCTION**

The Chairperson of the State Board of Education's Construction Committee, Ellie Multer, requested that Scott Brown, Director of the Division of School Facilities, put together a small group to look at the relationship between school enrollments and the efficiency of a building in terms of square feet per student. She further requested that the group consider whether there is a savings associated with the construction of a larger consolidated school as compared to two or more smaller schools.

The Division Director, two architects, and two consultants met and assembled the information contained in this brief report. Paul Johnson, Consultant, researched national data on school sizes and enrollments. He also plotted recently constructed schools in Maine.

Dan Cecil, an architect from Harriman Associates, had recently conducted a study for a school system in which he compared the costs of building and operating a consolidated school compared to building and operating two smaller schools in the same school district.

Lyndon Keck, an architect from the Portland Design Team, plotted school projects that compared student enrollments with square feet per student.

The results of these efforts follow, and they are analyzed in the Executive Summary.

## **EXECUTIVE SUMMARY**

The ad hoc committee came to the following conclusions after reviewing the information presented in this report.

- From the Dan Cecil study a consolidated school can serve the same student population and offer the same curriculum with less square footage and thus a reduced cost. This primarily is the result of space duplications in the two-school scenario.
- The Dan Cecil study also compared operating costs between the two options. There were significant savings in both operational and personnel costs. When projected over a 40-year life cycle, the savings per student approached \$3,500.00.
- From the Lyndon Keck study it is evident that as a school grows smaller in terms of enrollment, the square feet per student increases. This translates into a greater cost per student for smaller school units.
- The Department of Education data confirms from both the national and a state-wide basis that both the Cecil analysis and the Keck analysis hold true.

With limited State resources available for capital construction, encouraging consolidation in order to build larger schools is in the best interest of the state's expenditure for capital construction projects.

## **HARRIMAN ASSOCIATES' NARRATIVE**

### ***Litchfield, New Hampshire, Elementary Schools Study Goals***

The school department wanted to know if there was any difference in construction costs and operations and maintenance costs in building two smaller elementary schools vs. one larger school of the same total student population. The total population involved consisted of 1000 students, grades 1-5, and 40 Pre-kindergarten students. Both options were for new school buildings. The result of the study would direct which option they would take to referendum in March of 2006. The district wanted to bring to the voters the most cost effective, long-term solution. The building committee responsible for managing the study was chaired by a school board member and consisted of 16 people including additional school board members, two selectmen, a budget committee member, parents, elementary school administrators, teachers and staff, and the Superintendent and Business Manager. The study was conducted over a five-month period.

### ***Space Allocation Workbooks***

The school department, elementary school administrators, and the architect created space allocation workbooks for both the two school and the one-school scenarios to determine how large each building would be. The architects conducted a full programming process, interviewing all teachers, staff, and administrators to catalog their educational programs and determine their space requirements. There were several rounds of review of the workbooks with the stakeholders and the building committee to insure that the square footages required were as efficient and comprehensive as possible. The building committee mandated that in either scenario, the students would receive the same level of educational programs with the same student/teacher ratio.

### ***The Two School Scenario***

In this scenario, one school would house 640 students grades Pre-K through 3, and the second school would house 400 students, grades 4 and 5. These schools would be on separate sites owned by the school department within the Town.

### ***The One School Scenario***

In this scenario, one consolidated school was planned to house all 1040 students, grades Pre-K through 5. In the attached study data, one can see that the single school housed the same number of students in 23,058 square feet less space. The program offerings were identical as mandated by the building committee.



### *Total Project Cost Savings*

**On the construction side of the equation, the reduction of square footage resulted in a reduction of total project costs of \$3,458,700, assuming \$150/square foot. This is money that would have been bonded over 20 years, greatly increasing the actual savings. If the \$/square foot number was higher than \$150, then the savings would be correspondingly higher.**

### *Annual Operations Savings*

The architects reviewed the school district's actual operations budgets for their existing school in the following categories - oil, power, water, sewer, gas, data, phone, trash pickup, and snow removal. The district is currently spending about \$1.84/square foot/year for these operations costs. For the one school scenario this represents an annual savings of \$42,426.

### *Annual Personnel Savings*

To catalog any differences in staffing resulting from consolidating two schools, the school administrators conducted a detailed exercise to verify staff requirements room-by-room and program-by-program in each scenario. They looked at administration, teaching and staff positions and found reductions in each for the one school scenario. The annual personnel savings were \$117,456.

### *Summary of Total Savings for the One School Scenario*

These potential savings have to be reviewed in the context of the 40-year life of the school building to fully appreciate their magnitude:

- **Total Project Cost Savings – The \$3,458,700 initial total project cost savings would roughly double in value over the course of the 20-year bond depending on the interest rates.**
- Annual Operations Savings – Assuming that these annual savings would remain constant over the 40-year life cycle of the school, the total savings would be approximately \$1,697,000. It is likely, however, that these operations savings would increase every year due to inflation, resulting in even greater overall savings.
- Annual Personnel Savings – Likewise at current salary and bonus levels, the personnel savings over the 40-year life cycle of the school would be approximately \$4,698,200. It is also likely that these personnel savings would increase every year due to inflation, resulting in even greater overall savings.

### *Cost/Student Savings*

Another benchmark used to compare school construction projects is the cost per student. In this study the district would save \$3,479/student in the first year by going to a one-school scenario.

### ***Area Reduction/Student***

The single school option saves the school district 22.1 square feet/student. This is reflected in the operations costs above.

### ***Summary of Where the Area Reductions Occurred***

In the attached chart, the architects cataloged the actual differences in the space allocation workbooks for the two schools vs. one-school scenarios. There were no savings in the number of regular and Pre-K, art and music classrooms because the mandated student/teacher ratios applied to all schemes. Either way you need a total of 50 classrooms plus 2 art and 2 music rooms for 1040 students. There were minor reductions in the special education and library spaces required.

The big savings came in the 'core spaces' of the gymnasiums, administrative spaces, cafeterias, kitchens, and custodial spaces. The two-school scenario requires two gyms and the one school scenario requires only one gym for the same number of students. There are similar reductions in the other core spaces. A kitchen, for example, has to be a certain size to serve 400 students but it can handle many more meals per day before needing to add additional equipment and square footage. The area of the 1040 student kitchen grew by only 143% over the area of the 400-student kitchen, although the student population grew by 260%.

### ***Conclusion***

The space allocation workbooks for the three buildings were assembled objectively in an actual programming process leading to a referendum. Likewise, the operations and personnel costs were based on the school department's actual numbers. Therefore, it is likely that these types of area and cost reductions would be replicated in any school consolidation project with a constant number of students involved for both the one and the two school options.

## Litchfield, New Hampshire, Elementary School Comparison

Project No. 04147

May 17, 2005 - Rev. June 16, 2005

A.	<u>Two School Scenario</u>		
	New Pre K - Grade 3:		
	(600 students + 40 pre K)	88,942 sf	
	New grades 4-5		
	(400 students)	<u>66,780 sf</u>	
	Total	155,722 sf	
B.	<u>One School Scenario</u>		
	New Pre K - Grade 5:		
	(1000 students + 40 pre K)	<u>132,664 sf</u>	
	Difference	23,058 sf	net reduction from building one consolidated school
C.	Total project cost savings: 23,058 sf x \$150/sf = \$3,458,700		
D.	Annual operations savings: 23,058 sf x \$1.84/sf/yr = \$42,426.72 (Oil, power, water, sewer, gas, data, phone, trash pickup, snow removal)		
E.	Personnel savings - Annual salaries and benefits		
	2 schools	\$1,926,912.90	
	1 school	<u>1,809,456.79</u>	
		\$ 117,456.11	net savings in personnel costs
F.	Therefore, the approximate net savings for one consolidated school for the first year is:		
	Total project budget	\$ 3,458,700.00	
	Operations savings/year	42,427.00	
	Personnel savings/year	<u>117,456.00</u>	
	Total	\$ 3,618,583.00	
	Note that the operations and personnel savings would continue every year for the 40 year life of the building.		
G.	Cost/student savings:		
	\$3,618,583/1040 students =	\$ 3,479	per student
H.	Area reduction/student:		
	Two school scenario:		
	155,722 sf / 1040 students =	149.7 sf/student	
	One consolidated school scenario:		
	132,664 sf / 1040 students =	<u>127.6 sf/student</u>	
	Difference	22.1 sf/student	

### Litchfield, New Hampshire, Elementary School Comparison

Project No. 04147

May 17, 2005

Typical Rooms	Two Schools		One School	Reduction for One School
	400 students	640 students	1040 students	
Regular classrooms	18 x 900	30 x 900	48 x 900	0
Pre-K	n/a	2 x 1,000	2 x 1,000	0
Art	1 x 1,050	1 x 1,050	2 x 1,050	0
Music	1 x 1,000	1 x 1,000	2 x 1,000	0
Library	1 x 2,850	1 x 3,450	1 x 5,950	-350
Special education	1 x 4,395	1 x 5,625	1 x 9,665	-355
Gym/PE/storage	1 x 8,845	1 x 9,120	1 x 10,950	-7,015
Admin/Guidance				
Nurse/Faculty	1 x 5,535	1 x 5,785	1 x 7,325	-3,995
Cafeteria	1 x 3,000	1 x 3,200	1 x 4,860	-1,340
Kitchen	1 x 1,650	1 x 1,800	1 x 2,370	-1,080
Custodial/storage	1 x 2,325	1 x 2,400	1 x 2,450	-2,275
				-16,410 sf
				(1.4)
				-22,974 sf

## **PORTLAND DESIGN TEAM NARRATIVE**

### ***Small Schools vs. Large Schools Square Footage Analysis:***

PDT Architects has designed over twenty-three elementary schools in the last eighteen years in the State of Maine. School sizes have ranged from 150 students to 950 students. These schools have included traditional K-6, K-5, K-2 and K-3 primary schools, as well as 3-5 and 4-5 intermediate elementary schools.

PDT has noticed a consistent pattern over the years showing that smaller schools require more square feet per student than larger schools. This intuitively makes sense because as school populations get smaller, many areas of the school do not get proportionately smaller in keeping with the reduced population. Obvious examples are hallway widths and handicap toilets that have minimum width requirements as mandated by building codes. Kitchens, boiler rooms, principal's offices, resource rooms and Special Education rooms do not fall on the same direct proportional sliding scale as the number of classrooms a building might have based on differing school populations.

This study focused on three school studies that have been prepared over the last fifteen years for clients that specifically compared building programs for small schools versus larger consolidated schools.

The first of those studies was a study prepared for the Scarborough Primary School that addressed K-3 populations and was done in 1990.

The second study was a study for K-5 elementary schools for Old Town, Maine in 2001. This study compared two elementary schools at 275 students each versus one consolidated school at 550 students.

The third study was done for the Augusta School Department in 2005. It looked at comparing three elementary schools, each at 363 students, versus four elementary schools with populations that range between 245 students to 460 students.

**Finding #1:**  
**(see Table One)**

The Scarborough Primary School Study found that building a single consolidated school for 630 students resulted in a building that had 25 s.f. per student less than if three smaller schools were built.

The Old Town Study found that building one consolidated school of 550 students versus two schools at 275 resulted in a savings of 15.5 s.f. per student.

The Augusta Elementary School Study found that building three schools, each at 363 students, resulted in a savings of 12 s.f. per student versus smaller schools with a population of between 245 and 313 students.

**Finding #2:**

**(see Table Two)**

PDT took the data from the three independent school studies mentioned above and added two additional schools, one for a 950 pupil K-3 primary school which was built at 94 s.f. per student and another for a 200 pupil K-1 primary school which required 175 s.f. per student. This resulted in a study “population” involving fourteen schools with a broad range of populations from 200 students to 950 students. These schools were plotted as number of students against s.f. per student.

The resulting curve shows quite dramatically that schools smaller than 500 students start to require more than 125 s.f. per student.

Schools smaller than 375 students require 130 s.f. per student.

Schools with 250 students require approximately 140 s.f. per student and schools with 200 or fewer students require more than 150 s.f. per student.

The major conclusion from this plotting shows that efficiency, in terms of square feet per student, falls off dramatically at about 250 students. It clearly shows that a school with 500 or more students can have individual spaces that meet minimum space requirements and still be built within 125 s.f. per student.

**Conclusion:**

This study only looked at elementary schools.

Both Table One and Table Two resulted in data that shows that larger schools require less square footage per student than smaller schools.

It appears that schools with population of 450-500 are the point at which smaller schools require more space per student.

Elementary schools smaller than 250 students require dramatically more space per student with 200 pupil schools needing 150 s.f. or more.

# TABLE ONE

## Small vs. Large School Study

June 1, 2005

### 1 Old Town Study

School Name		# Students	SF/Student	Average SF/Student	Additional Required SF
One Consolidated School K-5		550	125 sf	125 sf	
Two Schools	K-2	275	131 sf	140.5 sf	15.5
	3-5	275	150 sf		

### 2 Scarborough Primary Schools

Three Schools					
SPB	K-2	270	128 sf	150 sf	25
SPH	K-2	180	150 sf		
S8C	K-2	180	172 sf		
One School	K-2	630	125 sf		

### 3 Augusta Elementary Schools

Farrington	K-6	460	125 sf	125 sf	
Gilbert	K-6	313	144 sf	142 sf	12
Hussey	K-6	245	135 sf		
Lincoln	K-6	251	147 sf		
Three Schools @ 363	K-5	363	130 sf	130 sf	



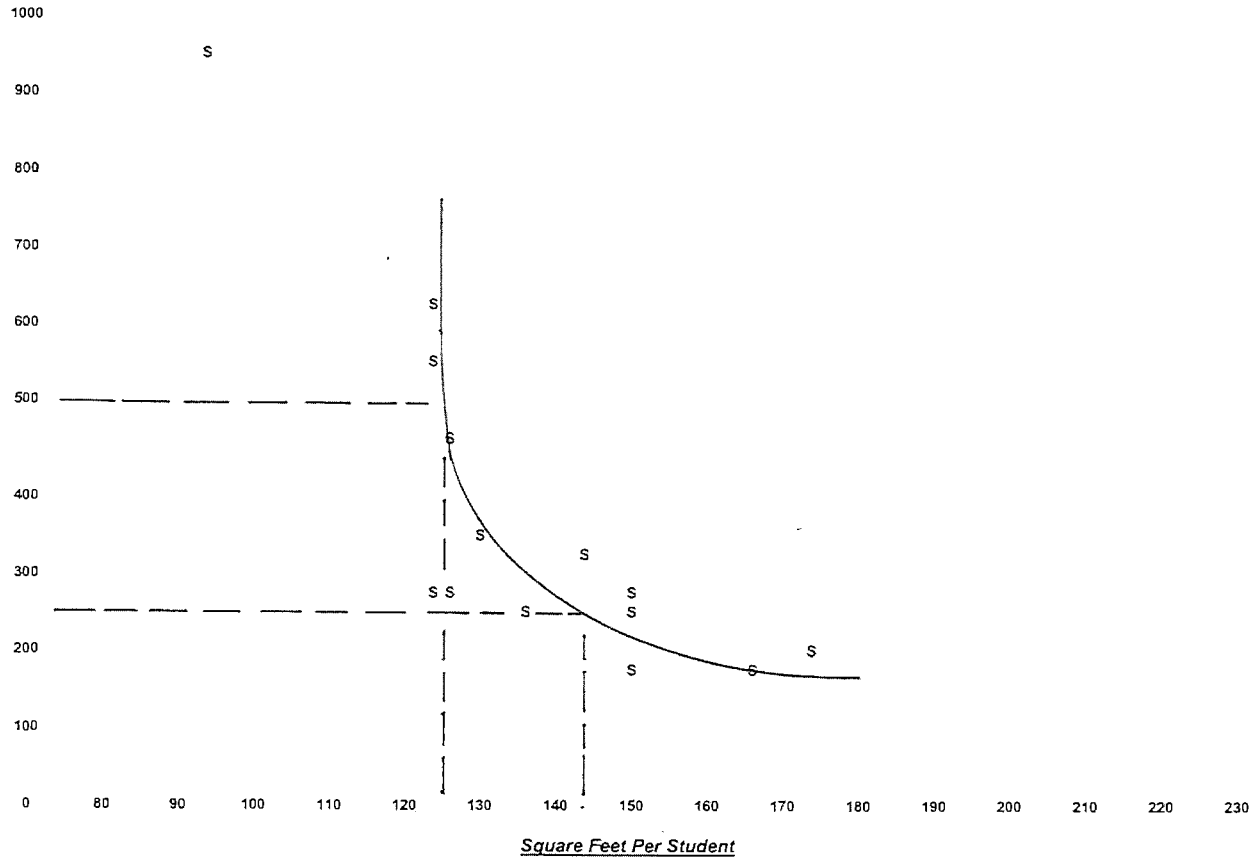
TABLE 2

*School Size Plotted Against Population*

14 PDT ELEMENTARY SCHOOLS

PDT Architects  
June 16 2005

# of Students



## DEPARTMENT OF EDUCATION NARRATIVE

### **How Recently Built Maine Schools Compare in Number of Students Per School and Square Feet Per Student With Recently Built Schools Nationwide.**

The first three charts, one each for elementary, middle, and high schools, show recently built Maine schools with information on the schools' enrollments and square footage per student. The charts also plot the same information using the median for small and large schools recently built nationwide. The national information comes from the February 2004 issue of "School Planning & Management" and is based on the construction of 281 elementary, 111 middle, and 101 high schools.

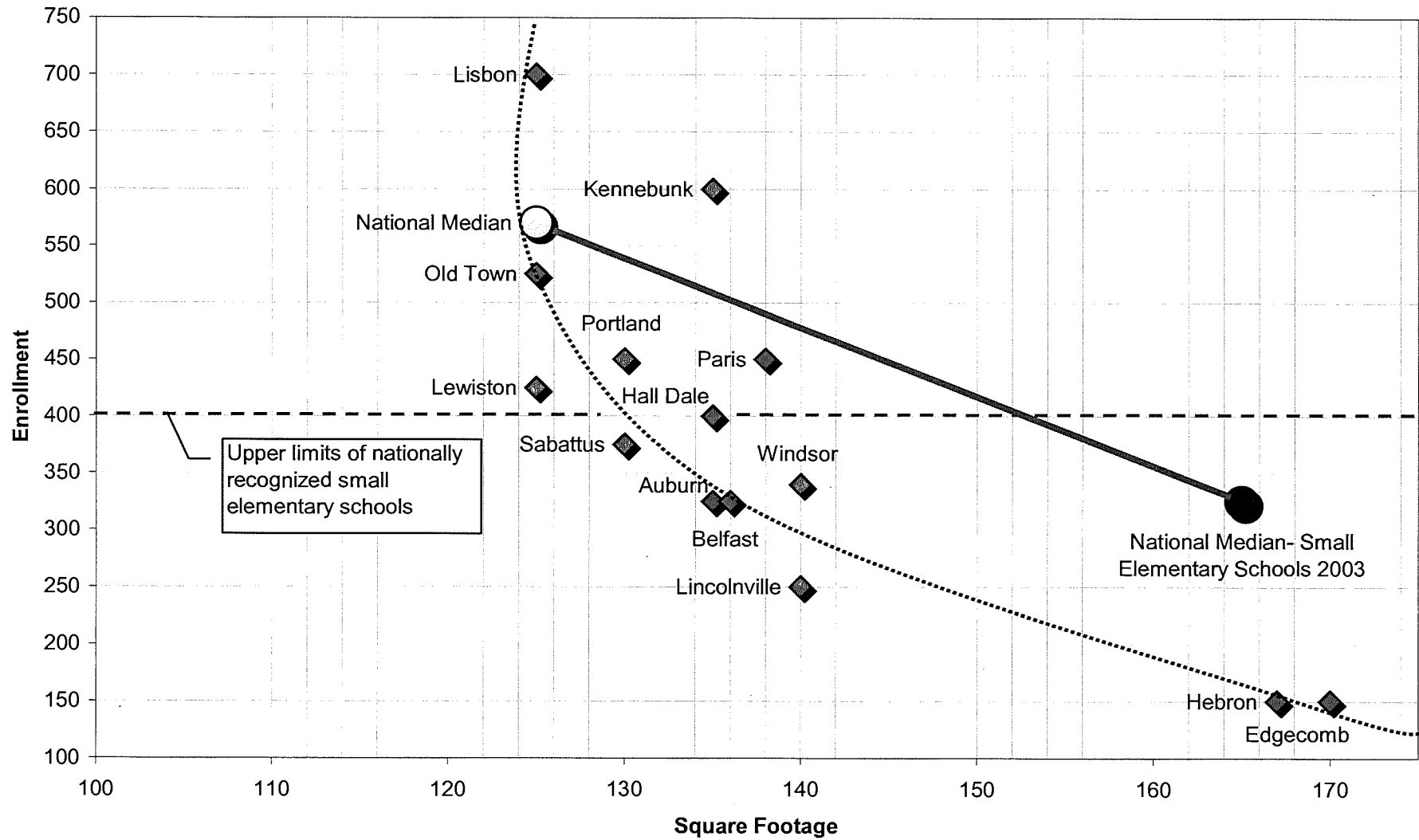
The national information shows that in all three levels smaller schools use more square footage per pupil than larger schools, and the smaller the school the more dramatic the difference.

The Maine information also shows that smaller schools use more square footage than larger schools and that Maine's new schools in general use less square footage per student than their national counterparts. This is surprising because Maine builds smaller schools than the national average so one would assume that their square feet per student would be above national average; but it's not.

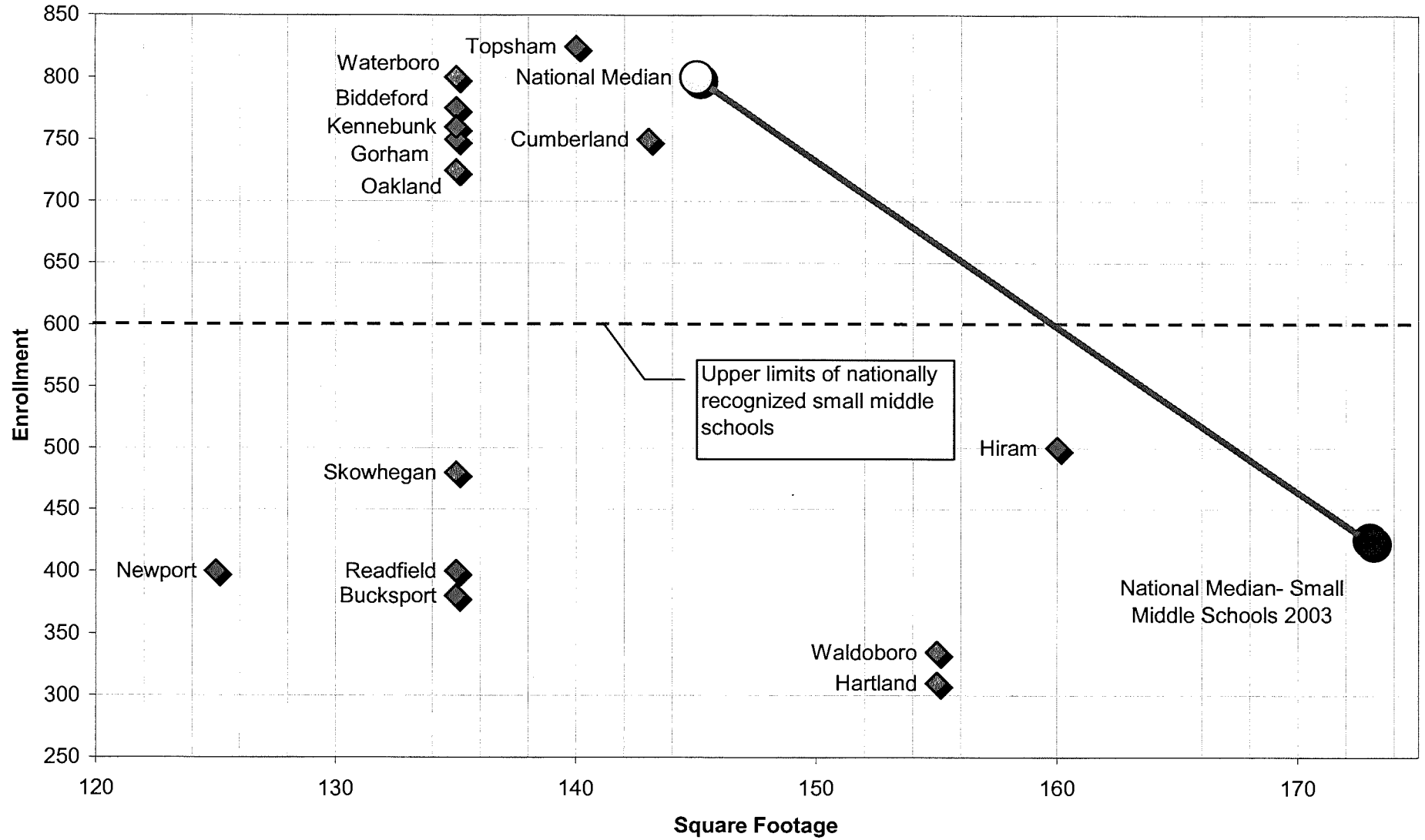
The high school chart is not as strong as the elementary and middle school charts because Maine has not built many high schools in the last few years, and therefore, does not have as much current data as the elementary and middle school charts.

The fourth chart entitled "Does School Size Matter?" identifies high, middle, and elementary schools and their size in terms of school population and square footage based upon national medians. This again reinforces the point that as school populations decrease, the square footage per student increases; thus the cost per student also increases.

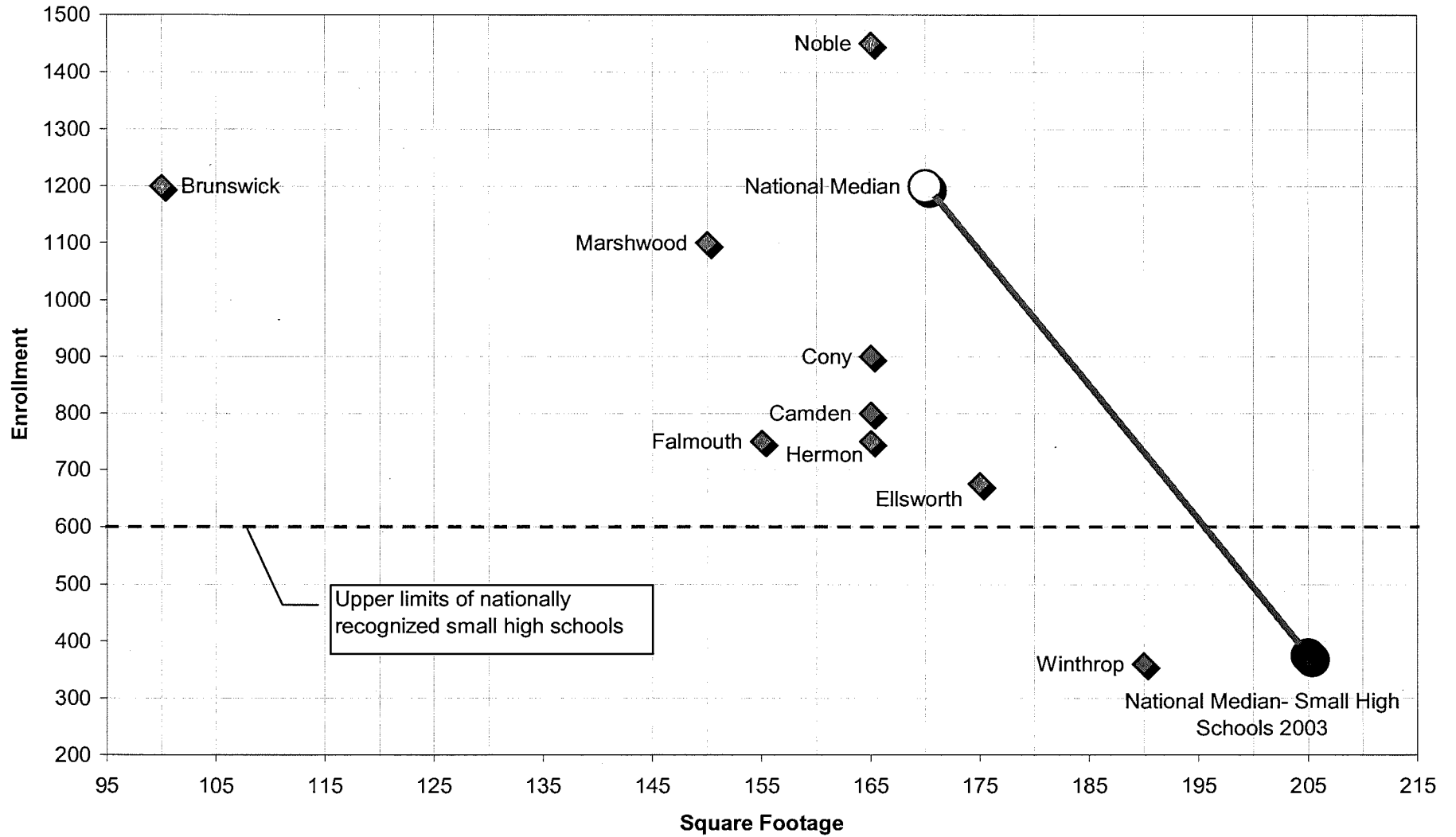
### Elementary Enrollments & Square Footage New Construction 2000-2004



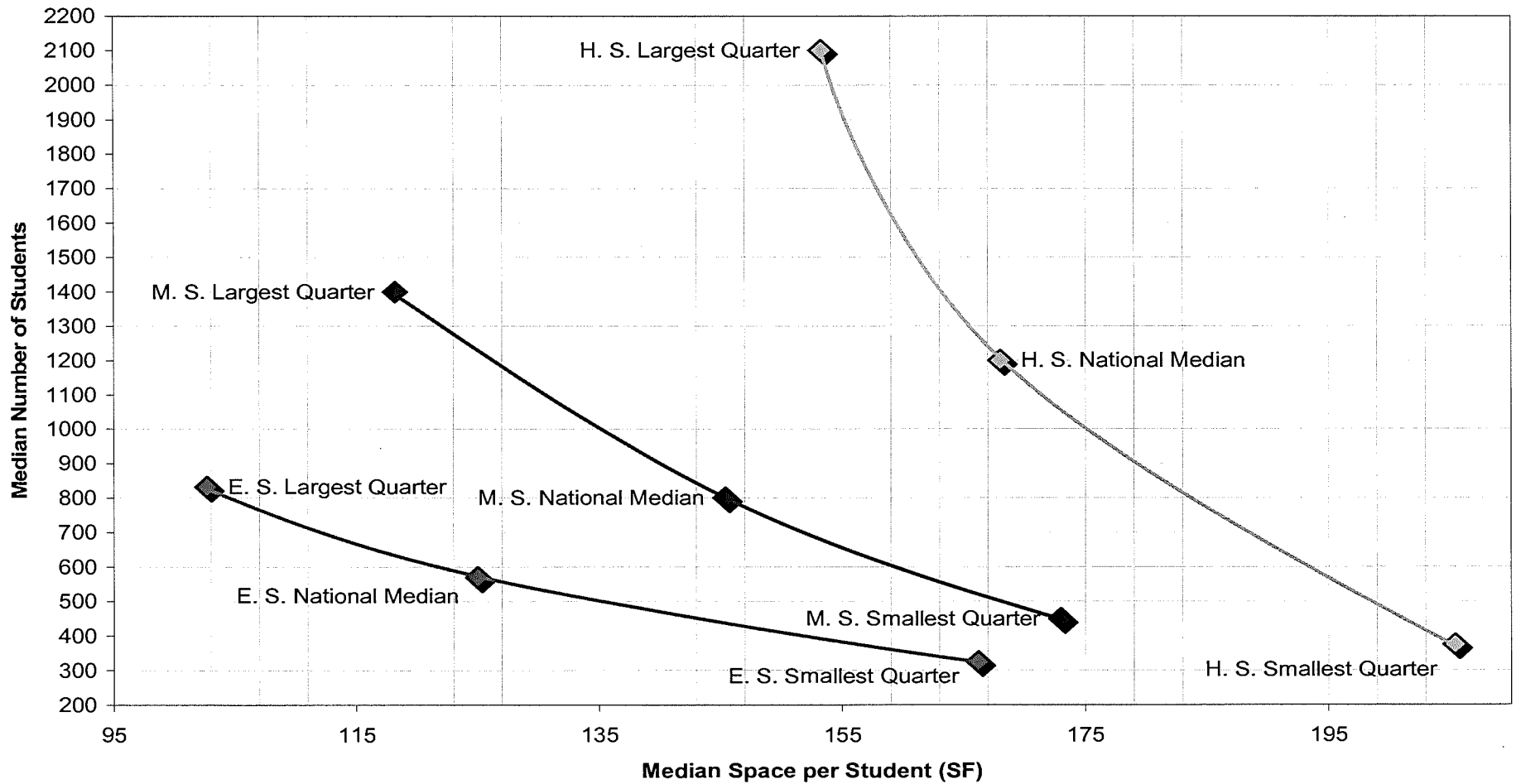
### Middle School Enrollments & Square Footage New Construction 1999-2004



### High School Enrollments & Square Footage New Construction 1996-2004



### Does School Size Matter? National Analysis\*



\*Extracted from School Planning and Management, February 2004

## ***APPENDIX F***

Excerpted from <http://www.mff.org/tap>

### **Research Support for the Teacher Advancement Program (TAP) of the Milken Family Foundation**

#### **TAP Principle #1: Multiple Career Paths**

- In the management field, Barrier (1996) finds a positive relationship between employee motivation and their ability to advance within their career. The consensus in this research is that employees who have opportunities for career advancement are motivated to improve the quality of their work.
- A review of educational research on career ladder programs suggests that career advancement programs must choose fiscal and work opportunity incentives to create a total package that appeals to teachers; further, career paths should focus on job enlargement with opportunities such as long term professional growth, teacher involvement in school decisions, involvement of senior teachers in induction of new teachers and the development of relatively permanent promotions to encourage career planning by teachers (Murphy and Hart, 1986).
- Further, research indicates that a successful career path program must have the following characteristics (Hawley, 1985):
  - The economic rewards for high performance must be significant;
  - Teachers should continuously demonstrate high performance in order to retain their advanced level of status and pay;
  - The standards by which teachers are measured should be clear;
  - Assessment must be viewed by the teachers as being fair;
  - Evaluation and feedback should be frequent;
  - Differences in compensation should lead to differences in roles and responsibilities; and
  - Teachers should be involved in the design and implementation of the plan.
- Work by Elmore (2000) on the concept of distributed leadership suggests that successful leadership is characterized by collective responsibility and sharing of knowledge and roles.

- A challenge of this paradigm shift is how to construct an orderly system for people to conduct their business that incorporates a new way of thinking about and doing their job.
- Further, these activities need to be put into a context and structure that leads to large-scale reform, rather than reinforcing what currently exists.
- These challenges guided us to develop a school structure that creates a change in how individuals within the school interact. And with this paradigm shift are incentives, both financial and in terms of professional support, that encourage a change in the traditional context of schooling



## ***APPENDIX G***

Excerpted Maine Compact for Higher Education *Greater Expectations, College as a Right and Responsibility for all Maine People. College for ME. May 2004.*

### **Executive Summary:**

**Fifty years ago**, about one-half of the jobs in Maine were in the manufacturing sector. A Maine resident with a high school diploma could earn a decent living at a paper mill or a textile factory. Good on-the-job training was often available. No college was needed. But, those jobs have all but disappeared.

The new jobs of the Knowledge Economy—office jobs, education and health care jobs and technology jobs—require problem-solving and interpersonal skills. What manufacturing jobs remain will likely be in “high-performance” workplaces where the latest technology takes care of rote, manual tasks, and frontline workers are responsible for making critical decisions on the shop floor. These jobs increasingly require college degrees.

Yet six of every 10 Maine ninth-graders will veer off the road to college—and off the road to the American Dream. With every child who fails to earn a college degree, another bit of Maine’s economic future is lost. And that’s not all. People who graduate from college not only get better jobs, earn more money, and pay more taxes than those with high school diplomas. They’re also more likely to vote, more likely to do volunteer work, more likely to serve on civic boards, and better prepared to understand the increasingly complex fiscal, educational and environmental questions facing local communities from Jackman to York.

For a half century, America has viewed completing high school as the minimum education accomplishment. Today, Maine faces the opportunity—and the imperative—to raise this bar. Maine’s future requires that we make college attainment as ubiquitous as high school attainment is today. The Compact’s Action Plan includes five strategies to begin moving Maine toward that goal:

#### **1. Create *Maine’s Promise Scholarship Program* to ensure that no Maine student is denied a college education for financial reasons.**

The **Maine’s Promise Scholarship Program** will eliminate *all* unmet need and *all* student loans for students from low-income households who go to college in Maine. Under this initiative, eligible students will still receive any available form of public and private merit-based and need-based financial aid (including tuition waivers, grants, scholarships, and Federal Work-Study). The **Maine’s Promise Scholarship Program** will fully cover any educational costs that remain after accounting for these other sources of student aid. And the scholarship program will be available to fill this “gap” for four consecutive years as long as students continue to meet the eligibility requirements.

**2. Create the *Maine Early College Initiative* to encourage students to continue their education beyond high school.**

The **Maine Early College Initiative** will enable every Maine high school to develop a program offering students a spectrum of early college experiences. These early college experiences may range from Advanced Placement (AP) classes to single courses at a local community college or university to opportunities to graduate from high school with significant college credit—in some cases, a full year of credit or even an associate degree.

**3. Introduce the *Maine College Transition Initiative* to help adults earn degrees.**

The **Maine College Transition Initiative** will establish high-quality, cost-effective, and accessible pathways to postsecondary education for adults. The initiative is designed to ensure that adults who are committed to earning a college degree, but have not completed high school or are academically under prepared for college work, get the support they need to earn high school diplomas and succeed in college. The **Maine College Transition Initiative** will help adults who are studying to earn high school diplomas to transition to college. It will provide preparatory support to adults who have a high school diploma but are not academically prepared to take college courses. And it will provide counseling, mentoring and support services to enable these adults to successfully transition to college and earn degrees.

**4. Establish the *College for ME Employer Initiative* to help employers support the education of their workforce.**

The **College for ME Employer Initiative** will provide Maine's public and private employers with technical assistance, training and statewide recognition for forward-looking workforce education policies. The Compact will also advocate a simple state tax credit that reimburses employers for 50% of what they pay to help employees pursue college degree programs. The **College for ME Employer Initiative** will provide Maine employers with information, training and technical assistance delivered regionally and on site. This technical assistance could include help conducting audits of existing practices, setting five-year goals, increasing employee participation in tuition assistance programs and connecting increased educational attainment to workplace advancement.

**5. Launch a comprehensive *College for ME Campaign* to change public perceptions of higher education and behaviors toward going to college.**

The **College for ME Campaign** will use various media and partnerships to raise awareness of college opportunities, to change prevailing attitudes about the value of college education and ultimately to increase the number of Maine people earning college degrees. **College for ME** messages will reach across Maine through television, radio, newspaper and the Internet. **College for ME** will be visible in schools, communities, and businesses throughout the state. In time, **College for ME** will create a shared vision of college as the **Right and Responsibility** of all Maine residents.