Status Report

The Study of Higher Performing and Efficient Maine Schools

An Examination of Strategies and Practices of Selected Maine Schools

Overview

At the request of the state legislature, the Maine Education Policy Research Institute (MEPRI) at University of Southern Maine (USM) is conducting a study of public schools that have been identified as both higher performing and efficient. Over the past two years, MEPRI has developed a set of metrics for identifying schools whose students are beating the odds by performing significantly better on state assessments than is predicted from student and community characteristics. The goal of the study is to identify the strategies and practices that these schools are using to support all learners.

Higher Performing schools qualify with the following characteristics:

- three-year average composite scores on state assessments that are at least 1/3 standard deviation above State average, and above predicted scores based on student demographics and prior performance;

- two-year average percent Meeting Proficiency and percent Partially Meeting Proficiency above the State average; and

- in the case of high schools, a graduation rate above the State average.

Efficient schools are defined as demonstrating:

- a "return on spending quotient" (defined as the school percentage of students at or above the "Meets" proficiency level divided by the school per-pupil operating expenditure) above the State average and above what would be predicted based on pupil characteristics.

The efficiency criterion identifies schools that are not spending disproportionately more than other schools for the higher performing student outcomes achieved.

In selecting schools for the research study, consideration was also given to the following characteristics:

- level of success in educating economically disadvantaged students,

- school size,

- student poverty levels, and

- geographic distribution, with deliberate inclusion of rural as well as non-rural areas.

In addition to higher performing, efficient schools, the study will include a small number of "typical" comparison schools that are obtaining average student performance with per-pupil expenditures that are similar to the higher performing, efficient schools. Comparison schools will assist researchers in

determining the distinguishing attributes that have helped higher performing schools to excel. All districts participating in the study will be provided with individualized findings from researcher data collection and compilation.

Research Plan

The inquiry in Maine schools will be guided by over forty years of research in effective schools. In prior national and international studies, higher performing schools have been consistently shown to have the following key characteristics:

- High standards and high expectations are held for all.

- Leadership is effective and collaborative.

- Curricula and instruction engages students in a wide range of meaningful learning experiences, in which teachers guide and facilitate student learning and multiple types of interventions and adjustments are made to meet student needs.

- Assessment data is examined, shared, and used in the school, and student mastery of competencies is assessed with a range of formative and summative assessments that are rigorous and valid.

- Professional learning is effective and primarily focused on improving student learning.

- Community members, the school committee, and district leadership are engaged in improving student learning.

- School culture fosters strong, respectful, and equitable relationships for all.

- Resource use is equitable and effectively supports student learning.

The study is intended to investigate whether these characteristics accurately portray successful Maine schools. More importantly, the study will employ case studies to describe how these characteristics are manifested in the working practices, programs, and strategies of higher performing and efficient schools in Maine.

Site Visits
In each site visit, a two to three-member team of experienced educators will interview and observe teachers, students, staff, parents, and administration. The team will also conduct analyses of relevant documents (e.g., curriculum, course schedules, assessments, student projects, etc.). It is anticipated that surveys will also be collected from the schools. Research staff will also prepare a profile, gathered from state sources, of each school's demographic, staffing, student performance and financial data. After each site visit, the research team will compile a school-level report describing significant strategies, characteristics and practices of the school, and this report will be shared with the individual school and district.

Report of Findings
At the completion of the case studies, researchers will conduct a cross-case analysis and prepare a final report with findings for the Joint Committee on Education and Cultural Affairs of the Maine Legislature. Additionally, schools and districts will receive practical and relevant information about effective practices to encourage evidence-based reflection and discussion as well as strengthen and improve educational outcomes for all, including economically disadvantaged students. State legislators will also gain knowledge and support from this data and evidence-based research to further the dialogue and

promote critical policy change.

Status Report

To date several steps toward implementing this study have been completed. These include:

1. The identification of sample schools.

2. The compilation and analysis of sample descriptive statistics (Attachment A).

3. The development of school site visit draft protocols.

4. The submission of the proposed study to the USM Institutional Review Board for approval (Human subjects protection).

5. The identification of two schools for field testing procedures and protocols.

Descriptive Statistics for Higher Performing (HP) & Higher Performing More
Efficient (HPE) Schools Sample

Table 1: Higher Performing and More Efficient Maine Public Schools

School Level	Schools Evaluated	Higher Performing (HP)	Higher Performing and More Efficient (HPE)
K-8 School	95	16 (16.8%)	10 (10.5%)
Grade School (K-5)	229	67 (27.8%)	54 (23.6%)
Middle School (6-8)	93	22 (23.2%)	17 (17.9%)
High School (9-12)	105	14 (13.3%)	9 (8.6%)

Table 2: Higher Performing and More Efficient Maine Public Schools by Superintendent Region

	K-8 School		Grade School (K-5)		Middle School (6-8)		High School (9-12)	
	HP	HPE	HP	HPE	HP	HPE	HP	HPE
Total	**16**	**10**	**67**	**54**	**22**	**17**	**14**	**9**
Aroostook	1	1	3	3			1	
Penquis	2		13	12	8	7	2	1
Washington	4	4						
Hancock	2		1	1	1	1		
Mid-coast	4	2	9	4	2		1	
Western Maine	3	3	4	4	1	1		
Cumberland			16	11	8	7	7	6
Kennebec			9	8			1	1
York			12	11	2	1	2	1

Descriptive Statistics for Higher Performing (HP) & Higher Performing More Efficient (HPE) Schools Sample

**Table 3. Descriptive Statistics Higher Performing and More Efficient
Maine Public K-8 Schools**

N=	HP 16 Average (Range)	HPE 10 Average (Range)	State 95 Average (Range)
Average Enrollment	180 (42 – 422)	168 (42 – 393)	175 (23-505)
Free and Reduced Lunch	40.5% (24.1% - 67.0%)	47.6% (25.4% - 67.0%)	46.9% (11.5% - 77.8%)
Cum. MEA Scale Score Grade 8	851 (848 -855)	851 (848 – 854)	846 (834 – 855)
Percent Meets or Exceeds Grade 8	74.4% (67.0% - 89.0%)	73.5% (67.0% - 89.0%)	63.6% (24.0% - 89.0%)
Percent Partially Meets or Greater Grade 8	91.7% (84.0% - 99.0%)	91.8% (85.0% - 99.0%)	84.8% (59.0% - 99.0%)
Cum. MEA Scale Score Grade 4	449 (447 – 456)	450 (449 – 456)	445 (435 – 456)
Percent Meets or Exceeds Grade 4	77.1% (66.0% - 90.0%)	78.8% (71.0% - 90.0%)	61.5% (13.0% - 94.0%)
Percent Partially Meets or Greater Grade 4	95.4% (88.0% - 100.0%)	95.0% (88.0% - 100.0%)	88.0% (50.0%-100.0%)
Per Pupil Expenditure	$8,696 ($6,777 - $12,411)	$7,584 ($6,777 - $8,674)	$8,607 ($5,508-$18,354)

Descriptive Statistics for Higher Performing (HP) & Higher Performing More Efficient (HPE) Schools Sample

Table 4. Descriptive Statistics Higher Performing and More Efficient Maine Public Elementary Schools

N=	HP 67 Average (Range)	HPE 54 Average (Range)	State 229 Average (Range)
Average Enrollment	234 (12 – 679)	254 (51 – 679)	248 (12 – 855)
Free and Reduced Lunch	34.8% (2.9% - 68.9%)	36.2% (2.9% - 68.9%)	46.7% (2.9% - 97.6%)
Cum. MEA Scale Score Grade 4	449 (446 – 455)	449 (446 – 455)	445 (428 – 455)
Percent Meets or Exceeds Grade 4	76.5% (63.0% - 100.0%)	76.0% (65.0% - 93.0%)	62.7% (19.0% - 100.0%)
Percent Partially Meets or Greater Grade 4	95.0% (89.0% - 10.0%)	94.8% (89.0% - 100.0%)	89.6% (45.0% - 100.0%)
Per Pupil Expenditure	$8,025 ($4,966 - $20,024)	$7,123 ($4,966 - $10,489)	$7,347 ($3,770 - $20,024)

Table 5. Descriptive Statistics Higher Performing and More Efficient Maine Public Middle Schools

N=	HP 22 Average (Range)	HPE 17 Average (Range)	State 93 Average (Range)
Average Enrollment	427 (142 – 817)	468 (267 – 817)	376 (75 – 902)
Free and Reduced Lunch	24.8% (3.5% - 56.2%)	24.3% (3.5% - 56.2%)	39.8% (3.5% - 71.0%)
Cum. MEA Scale Score Grade 8	852 (848 -858)	851 (848 – 857)	846 (839 – 858)
Percent Meets or Exceeds Grade 8	74.1% (65.0% - 86.0%)	73.7% (65.0% - 85.0%)	60.8% (41.0% - 86.0%)
Percent Partially Meets or Greater Grade 8	89.8% (84.0% - 96.0%)	89.8% (84.0% - 95.0%)	83.1% (65.0% - 96.0%)
Per Pupil Expenditure	$8,120 ($6,392 - $10,864)	$7,500 ($6,392 - $8,689)	$7,973 ($3,630 - $10,864)

Descriptive Statistics for Higher Performing (HP) & Higher Performing More Efficient (HPE) Schools Sample

Table 6. Descriptive Statistics Higher Performing and More Efficient
Maine Public High Schools

N=	HP 14 Average (Range)	HPE 9 Average (Range)	State 105 Average (Range)
Average Enrollment	582 (92 – 1044)	687 (262 – 1044)	536 (86 – 1,409)
Free and Reduced Lunch	20.0% (3.3% - 49.2%)	15.2% (3.3% - 44.8%)	43.8% (3.3% - 77.2%)
Graduation Rate	93.0% (90.0% - 98.0%)	93.3% (90.0% - 98.0%)	83.3% (66.0% - 98.0%)
Cum. SAT Scale Score Grade 11	1146 (1142 -1152)	1147 (1142 – 1152)	1140 (1133 – 1152)
Percent Meets or Exceeds Grade 11	60.6% (48.0% - 80.0%)	63.5% (50.0% - 80.0%)	40.7% (20.0% - 80.0%)
Percent Partially Meets or Greater Grade 11	83.8% (76.0% - 92.0%)	85.1% (77.0% - 92.0%)	70.0% (48.0% - 92.0%)
Per Pupil Expenditure	$9,726 ($6,908 - $16,324)	$8,588 ($6,908 - $10,351)	$8,754 ($6,350 - $16,324)