

Essential Programs and Services:

The Basis for a New Approach for Funding Maine's Public Schools

By David L. Silvernail

Weston L. Bonney



In this article, David Silvernail and Weston Bonney extend MPR's coverage of school funding reform by introducing a new approach called Essential Programs and Services (EPS). Traditional approaches to school funding evaluate education in terms of revenue—by taking whatever dollars are available and dividing them in such a way as to ensure there are equal education dollars behind each child. In contrast, the Essential Programs and Services model focuses first on student outcomes, and second, on the services and resources needed to achieve these outcomes. The EPS model then defines what is adequate in terms of resources and dollars to get the job done. The authors propose that adoption of such an approach may finally put to rest Maine's perennial arguments over what is a 'sufficient' funding level for Maine's schools. More importantly, it may ensure that all Maine students have equitable opportunities to achieve the American dream. 🐉

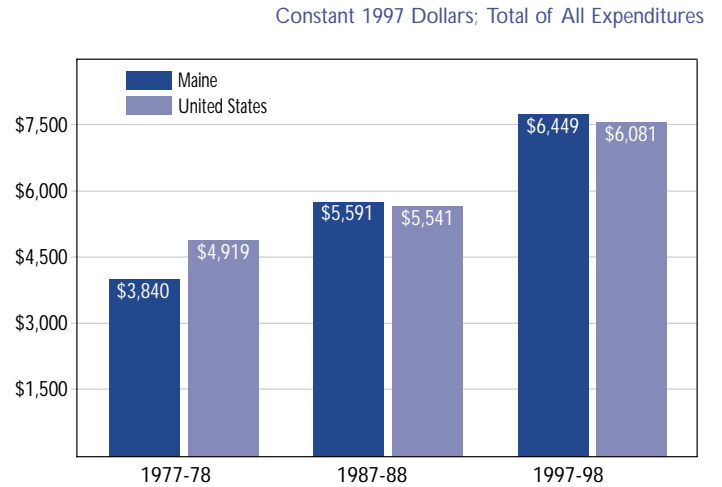
INTRODUCTION

Like most other states, Maine has struggled for many years to create a fairer school funding formula, one that generates and distributes funds in an equitable fashion to ensure success for all Maine's children, regardless of where they live and attend school. Clearly, Maine's citizens have made, and continue to make, significant investments in our public schools. According to the American Legislative Exchange Council (2000), Maine increased its per-pupil expenditures by approximately 68% in constant dollars over the twenty-year period from 1978 to 1998 (see Figure 1). As a result, Maine's per-pupil expenditure ranking among the fifty states improved from forty-second to thirteenth in just two decades.

However, not all school districts have benefited equally from this investment. Figure 2 reports the average per-pupil expenditures for the ten highest and ten lowest spending school districts for the past eight years. As the figure shows, the disparities are large. The ten highest-spending districts are spending approximately 2.5 times as much per pupil as the ten lowest-spending districts. Additionally, the data reveal the disparities in expenditures have remained fairly resistant to change. That is to say, in spite of the many changes that have been made in the funding formula during the last decade, the relative disparity gap has remained fairly stable, and the actual dollar gap has increased in constant dollars.

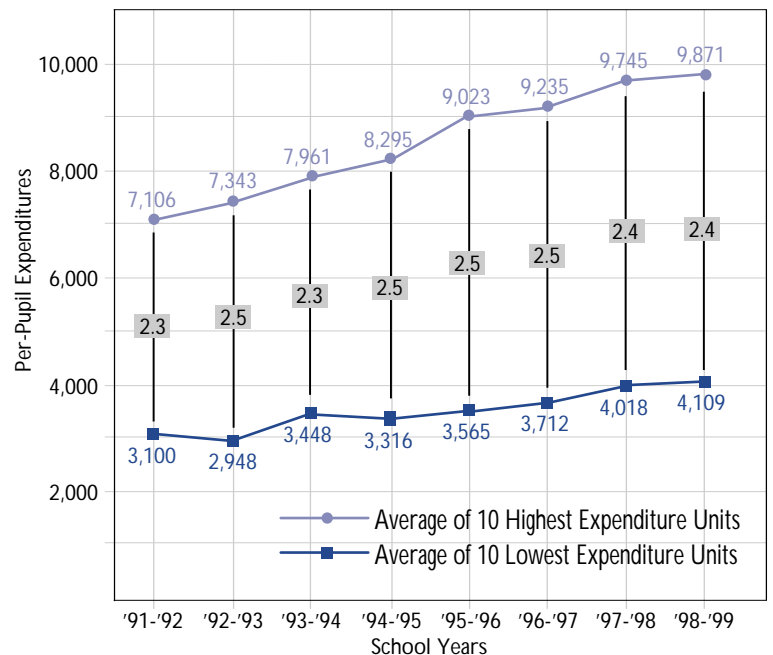
These disparities in per-pupil expenditures have, in turn, contributed to disparities in resources among Maine's school districts and, thus, the capacity of many districts to provide equitable educational opportunities. One only needs to visit schools across the state to see the differences in resources available to educate our children. And even though Maine ranks first on some national tests, not all our students are first. Approximately 60-70% of Maine's students score below the proficiency levels on these same national tests, and approximately one-third of our students do not meet standards in mathematics and science, for example, on our new revised state assessments, the Maine Educational Assessments (MEAs).

Figure 1:
Per-Pupil Expenditures 1977-1998



Source: American Legislative Exchange Council, April 2000

Figure 2:
Disparity in School District Average Per-Pupil Expenditures



Source: Maine Department of Education

It is evident that the old school funding approach is not working as well as we would like. Substantial disparities in expenditures exist across Maine's school districts, which have contributed significantly to differences in resources and educational opportunities. Fortunately, in the last three years, Maine's policymakers have embarked on a new course of action, a course which is designed to produce a new funding approach that holds great promise of producing the desired outcomes for all of Maine's students. The new approach is based on what is nationally known as an adequacy model, and is being used by states such as Wyoming, New Jersey, and Ohio in reforming their school funding formulas. In Maine, this adequacy model is called the Essential Programs and Services Model, which

are largely the result of reductions in state contributions for funding education in the 1990s, and the concomitant disparities among Maine communities in their ability to pay locally for education programs.

It is true that the funding reductions started in the 1990s forced local communities to foot more of the bill for funding local education. All districts were required by necessity to raise more funds locally "outside of the formula" (i.e., above the state set per-pupil guarantee) to merely maintain current program levels—or, in many cases, even to maintain reduced levels. Property-rich communities were less impacted by the reductions, and, in fact, continued to increase expenditures. As a result the disparities in per-pupil expenditures continued throughout the 1990s.

Many would also argue that the solution to this problem is simply increased state funding. The argument goes something like this: If the state increased its share of funding, then local communities will have to raise less; the pressure on local taxpayers will be more equalized. All communities, regardless of their tax base, will be able to raise their share of funds, and consequently, there will be greater equality

in per-pupil expenditures among communities.

However, more state funds alone will not solve this problem. We must find answers to three key questions: What ends are we striving to achieve? What is a sufficient amount of resources needed to achieve these ends? What is an equitable distribution of these resources?

First, what ends do we want to achieve? We want our children to be able to compete economically in the world, and to have rich, fulfilling lives. This is a very laudable goal, but we have never (until recently) explicitly defined the specific knowledge and skills necessary to achieve this goal. In the absence of clearly defined ends, "sufficient" funds have merely come to be defined as whatever funding amount is politically defensible in any given year. In essence, we backed into an answer to the second question. Whatever funding amounts were available in whatever economic cycle we found our-

In the absence of clearly defined ends, "sufficient" funds have merely come to be defined as whatever funding amount is politically defensible in any given year.

defines the amount of resources needed to provide equitable educational opportunities throughout the state. However, it is not a formula for deciding what portion of these resources should be provided by the state, and what portion by local communities. This distribution issue still needs to be addressed in the future—regardless of the funding model.

RATIONALE FOR AN ESSENTIAL PROGRAMS AND SERVICES MODEL

What is Maine's essential programs and services model, and why is it better than the current school funding model? To understand the potential of the new model, it is important to understand why the current funding formula is not working. There are several reasons for the continuing disparities in per-pupil expenditures. Many would argue that these disparities

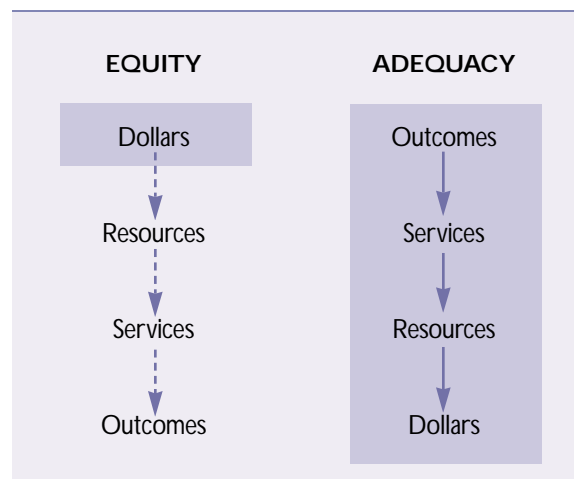
selves, and whatever political alliances we could craft between the political parties, and the legislative and administrative branches of our government, dictated what was deemed a sufficient level of funding.

Third, we have never clearly defined what we mean by an equitable distribution of resources. Instead, we have used multiple, and, in many cases, conflicting definitions. For some, equitable resources mean equal resources. For others, equity means parity, and parity at various levels, including parity with the top-spending districts. For still others, equity is defined in terms of community wealth and the ability-to-pay. Consequently, in virtually every legislative session we have tinkered with the distribution formula in the name of creating greater equity without ever having a clear consensus on what we mean by equity. In contrast, the new Essential Programs and Services Model provides sound, defensible answers to the question of how much is needed, and how it needs to be distributed, to ensure all children equitable opportunities to achieve desired ends. By itself, it does not guarantee that the resources will exist, but it does provide an educationally defensible argument for identifying what resources are needed, even in economically tough times, to ensure equitable opportunities.

Based on the concept of adequacy, the new model inverts the way we think about developing a school finance formula. As Guthrie and Rothstein (2000) say, "Old foundation and equity school finance concepts evaluate education in terms of revenue. New concepts of adequacy evaluate revenue in terms of education." Fox's (1998) graphic depiction of this difference appears in Figure 3. The left side describes the traditional model of developing a school funding formula; it takes whatever education dollars are available and devises ways of dividing these dollars equally, usually by developing a foundation rate or a per-pupil guarantee rate. These rates are equal for all children. In essence, equity is defined as equal education dollars behind each child. The assumption is that these dollars will be used to purchase equal resources and services, which in turn will be used to achieve equitable student outcomes. However, the evidence clearly shows this is not the case.

An adequacy model, as in Maine's essential programs and services model, reverses the process. It starts with outcomes. It first defines what we want as student outcomes in terms of our Learning Results standards, then identifies the services and resources needed to achieve these outcomes. Finally, it identifies the amount of money needed to achieve the outcomes. In so doing, it provides a sound, defensible argument for what amount of funds is needed to achieve desired goals. To put it in Maine's terms, it provides a rational, well-grounded case for what is needed so all Maine's children have equitable opportunities to achieve our Learning Results.

Figure 3:
Equity vs. Adequacy in School Finance Plans



Source: J. Fox, Office of Education Research and Improvement (1998)

An adequacy model has two other distinguishing characteristics. It is not a minimalist model, one that merely identifies the minimum amount of resources and dollars schools should have. Quite the contrary, an adequacy model defines what is the adequate (sufficient) amount of resources and dollars needed to get the job done—the amounts necessary to ensure all children are provided equitable opportunities to reach high levels of achievement, such as our new Learning Results.

**Figure 4:
Definition of Essential Programs**

The programs and courses Maine schools must offer all students so they may meet the Learning Results standards in the eight program areas of:

Career Preparation	Modern and Classical Languages
English Language Arts	Science and Technology
Health & Physical Education	Social Studies
Mathematics	Visual and Performing Arts

**Figure 5:
Definition of Essential Services**

Those resources and services required to ensure that each Maine student is offered an equitable opportunity to achieve the Learning Results standards contained in the eight essential programs. These resources and services are categorized into the following components:

<p>A. School Personnel</p> <ol style="list-style-type: none"> 1. Regular classroom and special subject teachers 2. Teacher assistants 3. Counseling/guidance staff 4. Library staff 5. Health staff 6. Administrative staff 7. Support/clerical staff 8. Substitute teachers <p>B. Supplies and Equipment</p> <p>C. Resources for Specialized Student Populations</p> <ol style="list-style-type: none"> 1. Special needs pupils 2. Limited English Proficiency (LEP) pupils 3. Disadvantaged youth 4. Primary (K-2) grade children 	<p>D. Specialized Services</p> <ol style="list-style-type: none"> 1. Professional development 2. Instructional leadership support 3. Student assessment 4. Technology 5. Co-curricular and extra-curricular student learning <p>E. District Services</p> <ol style="list-style-type: none"> 1. System administration 2. Maintenance of operations <p>F. School-Level Adjustments</p> <ol style="list-style-type: none"> 1. Vocational education 2. Teacher education attainment 3. Transportation 4. Small schools 5. Debt services
----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

Secondly, the model recognizes that what is considered an adequate amount of resources and dollars may vary depending upon circumstances. The ends are the same, but the means of getting to these ends may require different levels of resources and dollars. All children are valued equally, and all deserve equitable opportunities to achieve common ends, but not all children come to our schools from equal circumstances. Some come to us from resource-rich homes and communities, some from less affluent circumstances. Some come with special learning needs, and others from non-English language homes. And even when they come to us from comparable circumstances, the resources needed to provide a comprehensive, rigorous, and challenging curriculum for high-school-age students may be different from providing an equally challenging curriculum for younger children. Furthermore, local economic conditions may have an influence on dollar values. The same school funding dollars may purchase different amounts of resources and services in different parts of the state. The key is first to define outcomes and then to identify what it means to have adequate resources so all children have equitable opportunities regardless of their circumstances and where they live in the state.

DEVELOPMENT OF THE MAINE MODEL

Development of Maine's adequacy model, the Essential Programs and Services (EPS) model, officially began in earnest in 1997, when the Maine Legislature requested that the State Board of Education "...develop for the Legislature an implementation plan for funding essential programs and services...based on the criteria for student learning developed by the Task Force on Learning Results and established in Public Law 1995..." In reality, then, work on the model actually began in 1995 with passage of the Learning Results. The Learning Results defined our desired outcomes, the first step in the model. They defined what we want all Maine children to know and be able to do by the time they graduate from our public schools.

In 1997, the State Board of Education (SBE) initiated actions to complete the additional steps in the model. The SBE appointed a thirteen-member commit-

tee, representing various education constituencies and the business community, and charged this EPS committee to answer three questions:

1. What are the essential programs and services needed in each school?
2. What are adequate amounts of those programs and services?
3. What is the cost of these programs and services?

Using multiple sources of information and advice, including both state and national research, as well as expert opinion, the EPS committee deliberated for over a year before submitting a final report to the State Board of Education and the Joint Committee on Education and Cultural Affairs of the Maine Legislature.

Space limitation prohibits repeating the complete seventy-page report here, but copies of the entire report are available upon request.¹ What we want to report here are some of the key components of the EPS model. First, what are the essential programs and services? The answer to this question is fairly straightforward. If Maine children are to acquire knowledge and skills in the eight program areas of the Learning Results, then all schools should have these eight programs in their curriculum. Figure 4 lists these eight programs. The design and makeup of each program will vary greatly depending upon local circumstances, but all schools should have some type of program in each area adequate to ensure all students achieve the Learning Results standards.

The services are the resources needed to help all children master these eight areas; these are listed in Figure 5. Again, the exact configuration of these resources and services will depend upon local circumstances and needs, but the EPS committee concluded that resources are needed in each of these areas to ensure equitable opportunities for all children to achieve the Learning Results standards.

What are adequate amounts of these programs and services? As mentioned earlier, multiple sources of information were used by the committee in answer-

ing this question. For example, both national and state research on effective student-teacher ratios, and the national and state guidance, library, and nurse associations, were consulted in identifying the appropriate levels of school personnel needed in our schools. In addition, the committee consulted the levels of these resources found in high-performing Maine schools. Figure 6 reports the conclusions of the committee. These are the ratios recommended by the committee. So, for example, the committee recommends one teacher for every seventeen grades K-5 children; one for every sixteen grades 6-8 children; and one for every fifteen grades 9-12 children. Similarly, the ratio of guidance counselors should be one for every 350 elementary-age children and one for every 250 high-school-age students. The specific ratios found in a particular school may vary, depending upon local circumstances, but the total amount of personnel resources would be similar across the state.

Figure 6:
Recommended Levels of School Personnel

School Personnel	For Grades K-5 Students	For Grades 6-8 Students	For Grades 9-12 Students
1. Classroom teachers	1-17	1-16	1-15
2. Teacher assistants	1-100	1-100	1-250
3. Counseling/guidance staff	1-350	1-350	1-250
4. Library staff			
a. Librarians	1-800	1-800	1-800
b. Media assistants	1-500	1-500	1-500
5. Nurses	1-800	1-800	1-800
6. Administrators	1-305	1-305	1-315
7. Clerical staff	1-200	1-200	1-200

A second example from the EPS model deals with specialized student populations. One of the distinguishing features of an adequacy model is that the outcomes—and circumstances of children—define equity. Different children need different levels of assistance in achieving the common Learning Results standards,

so schools will need different levels of resources depending upon the makeup of their student population. Equity is defined as adequate resources behind each child, and, thus, an equitable distribution of resources will be dictated by the difference in student needs found in school districts.

In the case of Maine's EPS model, the committee chose to use a weighting system to account for these different levels of needs. According to Gold, Smith and Lawton (1995):

In a weighting system, weights are assigned in relation to the costs of educating the "regular" school pupil. The "regular" pupil is given a weight of one (1.0). Other pupil populations are given weights relative to the "regular" pupil weights of 1.0, to reflect the additional cost of educating those pupils. For example, if a particular category of student has a weight of 1.5, that implies that it costs 1.5 times as much to educate that student as it does the "regular" student (25).

to recognize that different children may need different levels of assistance to meet common goals.

The weighting for primary grade children is of particular note. The committee received considerable testimony and research evidence that investing additional resources in younger children pays off later in higher achievement and fewer specialized needs. Accordingly, the committee recommended a special weighting of 1.10 for primary grade children in a school. In essence, the committee recommended that local communities and the state invest an additional 10% above regular costs for specialized programs and services targeted for grades K-2 children to provide all early-age children a sound foundation for later learning.

Once the EPS committee had calculated the resource levels for each component of the essential services identified in Figure 5, the committee distributed draft copies of the entire report statewide, while also holding public meetings and discussions of the report. In early 1999, a final report was submitted to the Joint Committee on Education and Cultural Affairs of the Maine Legislature for their review and action.

Figure 7:
Weightings for Specialized Student Populations

1. Special Needs Children	2.10 weighting
2. Limited English Speaking (LEP) Pupils	1.15 weighting
3. Disadvantaged Youth (% free & reduced lunch)	1.02 weighting
4. Primary Grade Children (K-2 grades)	1.10 weighing

Figure 7 reports the specialized student populations and weights assigned by the committee. Thus, for example, the committee recommended a weight of 2.10 for each special needs child. This means that if the cost of the resources for educating a so-called "regular" child is \$5,000, then the cost for a special needs child would be \$10,500 ($\$5,000 \times 2.10$). Further, the cost for LEP children would be \$5,750 ($\$5,000 \times 1.15$); and the cost would be \$5,100 for each child who qualified for free or reduced-price lunches. Of course, exceptions would be needed (for example, for a child with multiple special needs), but the concept of a weighting system would be used in the EPS model

COST ESTIMATE OF THE EPS MODEL

The final step in developing the EPS model was determining the total cost of the model. The committee calculated a cost for each component of the model, and then converted this into a per-pupil cost figure. The committee cannot determine the exact total amount until all components of the model are approved by the legislature, additional cost information is available, and precise numbers of specialized student populations are determined. However, they did estimate the additional cost based on current statewide expenditure levels, which is approximately \$150 million. This figure represents approximately a 12 % increase over the current total level of state and local expenditures on education. It would be phased-in over a number of years, depending upon specific target dates for implementing components of the Learning Results and the availability of resources. The specific increase recommended for particular school districts would depend upon the number of pupils in the district, and the number of pupils who qualified for special weightings.

LOCAL CONTROL OF THE EPS MODEL

The committee has completed work on the steps for developing the EPS model, but before discussing several actions needed next in order to implement the new funding model, two important points must be made. First, in building the model, the committee has developed recommended resource levels. These recommendations may prove useful to local communities as they review and allocate school resources, but the recommendations are not meant to dictate specifically how resources are distributed and used at that local level. The committee believes local communities are in the best position to decide—based on local circumstances—how to use school resources and services to ensure that all children are acquiring the Learning Results. Thus, except in a very few specialized areas, local school systems would continue to receive its state portion of funds as it currently does (as a block grant) based on the EPS model. The number of pupils and their specialized needs would determine costs, but local school systems would determine how funds are distributed at the local level.

Second, the model provides a mechanism to ensure adequate resources behind each child so they achieve desired goals, but it does not limit the total amount of resources that may be deemed important by a local community for achieving other desired outcomes. In other words, it does not place an upper limit on the amount of resources a community may raise and use to achieve the educational outcomes they desire for their children. It merely ensures that all schools have sufficient resources so all children may achieve commonly defined goals; in our case, the Learning Results standards.

NEXT STEPS

The Essential Programs and Services model described above was reviewed by the Joint Committee on Education and Cultural Affairs during the 119th legislative session. The committee endorsed the concept and requested additional work on the model. This included a series of efficiency studies in the areas of school transportation, special education and vocation education, revisions in the state reporting

and data collection systems, and a study of best practices in Maine's schools. This work will be completed and available to members of the 120th legislative session as they take further actions on the EPS model. In addition, several other areas will need attention and action in the 120th session and beyond.

First, the total state and local distribution formula will need review and, possibly, revision. The EPS model identifies what resources are needed for achieving the Learning Results, and the projected cost of these resources. However, what portion of these total costs are to be borne by the state, and what portion by local communities, still needs to be determined.

Second, determining the exact cost of the EPS model is dependent upon acquiring more accurate data on current school resources, better cost accounting information, and the development of a cost updating process. There is some evidence that the cost of providing education programs and services varies across the state. More precise information is needed to determine how much of these cost variations are, in the words of Chambers (1999), actual cost differences beyond the control of local communities (e.g., fuel costs), and discretionary cost differences within the control of local communities (e.g., desire to hire more experienced teachers).

Third—and an area directly connected to the first two—is current tax policy. Even without an exact dollar figure for funding the proposed EPS model, developing the model has made it clear that it will cost more to achieve common ends (the Learning Results) for all of Maine's children. The current reliance on property tax to fund the local share of education, cou-



David L. Silvernail is director of the Center for Educational Policy, Applied Research and Evaluation (CEPARE) at the University of Southern Maine, and co-director of the Maine Education Policy Research Institute, a nonpartisan research institute funded jointly by the Maine State Legislature and the University of Maine System. He served as lead consultant to the State Board of Education Essential Programs and Services Committee.



Weston L. Bonney is a member of the Maine State Board of Education, and a former president of People's Heritage Financial Group. He was one of the founding members of the Maine Coalition for Excellence in Education. He chaired the State Board of Education Essential Programs and Services Committee.

pled with the large differences in property values across the state, leads to substantial tax burdens on many communities, and taxpayer inequities all across the state. The new EPS model addresses student equity in terms of adequate resources, but the model will never achieve its full potential without greater taxpayer equity.

CLOSING COMMENTS

We believe implementing the Learning Results is critical for providing all Maine's children equitable opportunities to achieve rich, fulfilling lives, wherever they choose to live in the state, nation, or world. Providing the funds needed in our schools for achieving this dream is just as critical. The

Essential Programs and Services model provides, for the first time in our history, a sound formula for ensuring the equitable distribution of adequate levels of resources so all Maine's children can succeed.

We also believe now is the time for action. Maine is fast approaching what Rebell (1998) describes as the democratic imperative. In his words:

American society sometimes lives up to the ideals of its democratic creed, but at other times it does not. A gap between the real and the ideal is usually tolerated by the body politic. This tolerance is, however, fragile, and at times it results in the eruption of a "democratic imperative" fueled by a moral passion for reform.

In the case of education reform:

This democratic imperative proclaims that the nation cannot permanently abide a situation in which large numbers of children are denied an adequate education, and in which those with the

greatest educational needs systematically receive the fewest educational resources.

We believe the Essential Programs and Services model provides the key for addressing Maine's democratic imperative, for helping all Maine's children have equitable opportunities to achieve the American dream. 🌊

ENDNOTE:

1. Copies of the full report, *Essential Programs & Services: Equity & Adequacy In Funding to Improve Learning for All Children*, are available from the Maine State Board of Education Office, Department of Education, 23 State House Station, Augusta, Maine 04333. Please direct inquiries to Ms. Rhonda Casey.

An electronic copy of the report is also available on the following website:
www.cepare.usm.maine.edu

REFERENCES:

1. American Legislative Exchange Council, Washington, D.C. "Report Card on American Education, A State-by-State Analysis, 1976-1999." April 2000.
2. Chambers, J. "Patterns of Variation in the Salaries of School Personnel: What Goes on Behind the Cost Index Numbers?" *Journal of Education Finance*. 25.2 (1999): 255-80.
3. Fox, J. In *Educational Adequacy: Building An Adequate School Finance System*. Denver: National Conference of State Legislatures, 1998.
4. Gold, S., Smith, D., & Lawton, S. *Public School Finance Programs of the United States and Canada 1993-94*. Albany: The Nelson A. Rockefeller Institute of Government, State University of New York, 1995.
5. Guthrie, J. & Rothstein, R. "A New Millennium and a Likely New Era of Education Finance." Paper presented at Economic Policy Institute conference on school funding. Alexandria, VA: March 2000.
6. Rebell, M. "Fiscal Equity Litigation and the Democratic Imperative," *Journal of Education Finance*, Vol. 24.1 (1998): 23-50.

