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Preliminary Implementation of Maine's Proficiency-Based Diploma Program

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MAINE EDUCATION POLICY RESEARCH INSTITUTE

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TABLE OF CONTENTS

Table of Contents

Executive Summary

In 2012, the Maine Legislature passed into law LD1422, *An Act To Prepare Maine People for the Future Economy.* The cornerstone of the law was the requirement that Maine transition to a standards-based educational system in which graduation from a Maine high school would be based on students demonstrating proficiency in meeting standards. The Maine Department of Education was charged with assisting school districts in their transitions by developing standards-based system tools and by providing technical assistance to school districts.

The Joint Standing Committee on Education and Cultural Affairs of the Maine Legislature requested that the Maine Education Policy Research Institute (MEPRI) undertake a study designed to compile data on the preliminary development, costs, and impacts of standards-based school programs and to report back to the committee in 2013 on the progress Maine schools and school districts were making in transitioning to the new education system. To that end, MEPRI researchers and analysts have conducted a study of a select sample of Maine schools and school districts.

Analysis of the case study data from the nine sample schools revealed that the schools were using a variety of strategies as they began to make their transition to a proficiency-based diploma system. The data also revealed varying levels of progress in developing the different components of the system. It was clear from schools in this study that Maine educators and leaders were working diligently to embrace and implement the core elements of LD 1422, including the development of a standards-based education system and a proficiency-based diploma program. The initial work of this reform appeared to require significant understanding of the need for change in a school if it did not already have strong student engagement and a positive school climate. Building this type of educational environment is requiring "paradigm shifts" around beliefs about student learning, teacher role, collaboration, and even the structure of many traditional elements of American public schooling. Once beyond the initial stages of changing belief structures, moral imperatives and school culture, the logistics of rolling out a curriculum with "student choice" and "multiple pathways" is proving very complex and difficult within existing structures of traditional public school teacher certifications, student achievement reporting, school grade configurations, daily scheduling, existing learning management technology, limited external or community supplemental resources, and current levels of personnel capacity.

It was evident from the analysis that creating a proficiency-based diploma program is going to be very difficult if it is not supported with the pillars of necessary resources addressing the many challenges school districts face in transitioning to the new education system. Further, there is a significant policy issue that needs to be discussed, debated, and resolved, and that is the role of the State in defining consistent content and proficiency standards. If present practice is continued, it is highly likely that the end result will be as many different proficiency programs as there are school districts across Maine. If Maine's school districts were able to create common standards for learning and a system by which students had increased voice and multiple methods for meeting these standards, it would produce a transformative change in the learning experiences of many of Maine's school children.

Context

In 2012, the Maine Legislature passed into law LD1422, *An Act To Prepare Maine People for the Future Economy.* The cornerstone of the law was the requirement that Maine transition to a standards-based educational system in which graduation from a Maine high school would be based on students demonstrating proficiency in meeting standards. The system was to include standards in all the content areas of the state learning standards and guiding principles as well as multiple types of assessments and ways for students to demonstrate proficiency. In addition, the Maine Department of Education was charged with assisting school districts in their transitions by developing standards-based system tools and by providing technical assistance to school districts.

> The cornerstone of LD 1422 - *An Act To Prepare Maine People for the Future Economy* is the transition to a Standards-Based Educational System in which graduation from a Maine high school is based on students demonstrating proficiency.

In supporting passage of this law, the Joint Standing Committee on Education and Cultural Affairs of the legislature requested that the Maine Education Policy Research Institute (MEPRI) undertake a study designed to compile data on the preliminary development, costs, and impacts of standards-based school programs and to report back to the committee in spring 2013 on the progress Maine schools and school districts were making in transitioning to the new education system. MEPRI is a nonpartisan research institute funded jointly by the Maine State Legislature and the University of Maine System, with a mandate to collect and analyze education information and perform targeted education research for the Legislature.

This is a report of the information MEPRI at the University of Southern Maine has collected and analyzed at the present time on the implementation of Maine's new standards-based education system. It provides a brief overview of standards-based programs, followed by a description of the conceptual framework and methodology MEPRI researchers and analysts used in compiling and analyzing information on a sample of Maine schools and districts. Findings from this initial analysis are presented along with a series of summary observations and recommendations.

MAINE LEGISLATION

LD1422 was signed into law May 21, 2012, and became part of the Title 20-A: Part 3: Elementary and Secondary Education statute. A copy of the complete statute appears in Appendix A, but some of the most relevant sections to this study are excerpted here.

First, proficiency based diploma standards are defined. The statute states:

> ***§4722-A. Proficiency-based diploma standards***
>
> *Beginning January 1, 2017, a diploma indicating graduation from a secondary school must be based on student demonstration of proficiency as described in this section. The commissioner may permit a school administrative unit to award diplomas under this section prior to January 1, 2017 if the commissioner finds that the unit's plan for awarding diplomas meets the criteria for proficiency-based graduation under this section.*
>
> ***1. Requirements for award of diploma.*** *In order to receive a diploma indicating graduation from secondary school, a student must:*
>
> *A. Demonstrate that the student engaged in educational experiences relating to English language arts, mathematics and science and technology in each year of the student's secondary schooling;*
>
> *B. Demonstrate proficiency in meeting state standards in all content areas of the system of learning results established under section 6209;*
>
> *C. Demonstrate proficiency in each of the guiding principles set forth in department rules governing implementation of the system of learning results established pursuant to section 6209; and*
>
> *D. Meet any other requirements specified by the governing body of the school administrative unit attended by the student.*
>
> ***2. Method of gaining and demonstrating proficiency.*** *Students must be allowed to gain proficiency through multiple pathways, as described in section 4703, and must be allowed to demonstrate proficiency by presenting multiple types of evidence, including but not limited to teacher-designed or student-designed assessments, portfolios, performance, exhibitions and projects.*

The statute also provides language describing the time line for implementation of the new diploma program:

> ***4. Grants; contingent extension of full implementation.*** *During the period of transition to proficiency-based graduation in accordance with this section, the department, if funds are available, shall make annual transition grants to each school administrative unit equal to 1/10 of 1% of the school administrative unit's total cost of education calculated under section 15688, subsection 1 to be used in the manner determined by the school administrative unit to fund the costs of the transition not otherwise subsidized by the State. The date for implementation of the awarding of diplomas based on student demonstration of proficiency as described in this section is extended one year for each year for which transition grants are not made available to a school administrative unit or for which levels of general purpose aid for local schools fall below school year 2012- 2013 levels.*

An important section of paragraph 4 is the provision that the timeline for full implementation of the statute is…" *extended one year for each year transition grants are not available*"… to school districts. Because no transition grants were available in FY2013, the new deadline for full implementation is January 1, 2018.

In addition, the statute outlines the role of the Maine Department of Education in assisting school districts in making the transition to the new education system:

> ***Sec. 9. Development of standards-based system tools.*** *The Department of Education shall coordinate the development of standards, assessments and assessment criteria needed to enable school administrative units to implement a standards-based system of education.*
>
> *1. The Department of Education shall convene a working group to develop standards, assessments and assessment criteria for determining student proficiency in the guiding principles as outlined in department rule that are required for secondary school graduation beginning January 1, 2017. The working group must include representatives from school administrative units currently developing those standards, assessments and assessment criteria. The working group shall develop draft standards, assessments and assessment criteria for review not later than July 1, 2013.*
>
> *2. The Department of Education shall maintain a publicly accessible website to serve as a resource for schools implementing standards-based education systems. The website must:*
>
> *A. Include information about the experience of school administrative units that are engaged in*

transforming their schools to standards-based systems, including schools involved in the Maine Cohort for Customized Learning and the League of Innovative Schools of the New England Secondary School Consortium;

B. Include a repository of model materials, including but not limited to report cards and transcripts, assessment methodologies and assessment criteria for all content areas of the system of learning results;

C. Be designed to facilitate communication among educators and administrators on the transformation of schools to standards-based education systems; and

D. Provide information for school administrative units seeking to create regional capacity to implement standards-based education systems, including information about applying for a grant from the Fund for the Efficient Delivery of Educational Services established pursuant to the Maine Revised Statutes, Title 20-A, section 2651 and information about school administrative units that are currently engaging in regional cooperation in delivering education.

***Sec. 10. Development of technical assistance plan**. The Department of Education shall develop a technical assistance plan that includes a timeline with implementation dates for the resources and initiatives the department will provide to enable school administrative units to transition to a standards-based education system. The technical assistance plan must include but is not limited to the standards-based system tools described in section 9, other resources related to model policies and best practices, professional development and training and other initiatives that the department determines will be necessary for school administrative units to transform their schools to a standards-based education system. The technical assistance plan must be presented to the joint standing committee of the Legislature having jurisdiction over education matters for review by March 1, 2013. The joint standing committee may introduce a bill to the First Regular Session of the 126th Legislature related to the department's activities described in this section and section 9.*

In essence, LD 1422 defined a new education system for Maine, one in which standards of learning were to be defined and proficiency levels established. Additionally, it was to provide students multiple pathways to acquire and demonstrate proficiency. In order to assist school districts in their conversion to the new education system, school districts were to receive transition grants and technical assistance from

the Maine Department of Education. Initially, the transition to the new education was to be completed by January 1, 2017, but a provision in the law that tied implementation of the new system to the availability of transition grants has now moved the implementation completion date to at least January 1, 2018.

HISTORICAL BACKGROUND

Although Maine has only recently passed legislation designed to create the new education system, the so-called "standards-based education reform" has a long developmental history. Today, the reform movement goes by many names, including standards-based education, proficiency-based programs, learner-centered education, and competency-based accountability, but at its core the reform is designed to accomplish similar outcomes. As described in a 2012 RAND report authored by Hamilton, Stecher and Yuan,

> Standards-based accountability (SBA) has been a primary driver of education policy in the United States for several decades. Although definitions of SBA vary, it typically includes standards that indicate what students are expected to know and be able to do, measures of student attainment of the standards, targets for performance on those measures, and a set of consequences for schools or educations based on performance. (p. 149)

> *"...Reforms failed to produce widespread improvement, in part because they lacked coherence and failed to communicate a common understanding of which content and skills were expected to be taught"* (Massell, 1994).

Roots of the reform can be traced to the minimum competency movement of the 1970s, the publication of *A Nation at Risk in 1983,* the 1994 Goals 2000: Educate America Act, and in 2002, the bipartisan passage of the No Child Left Behind (NCLB) law. Hamilton, Stecher and Yuan describe the history in these terms:

> Both federal and state governments in the U.S. played an important role in shaping SBA during the decades prior to NCLB's enactment. Although interest in measuring educational outcomes had been growing throughout the 1960s and 1970s, and several states began adopting elements of SBA in the 1970s, many researchers and historians view as a seminal event the publication of *A Nation at Risk* (National Commission on

Excellence in Education) in 1983. That document, which used strong and colourful language to deplore the state of American education, led to policy debates about how to raise expectations for both student and teacher performance, and emphasised the need to monitor student achievement in a systematic way (Wixson, Dutro, & Athan, 2003).

States and districts responded to this policy environment by undertaking a variety of curricular and structural reforms, including raising graduation requirements, offering more advanced courses, and adopting new textbooks or other curricular materials that were intended to improve the quality of instruction. Analyses of the changes that occurred during this time suggest that these reforms failed to produce widespread improvement, in part because they lacked coherence and failed to communicate a common understanding of which content and skills were expected to be taught (Massell, 1994). This concern for coherence and for clear communication of expectations contributed to the growing interest in reforming education through system-wide standards. The idea of "systemic reform" was articulated by Smith and O'Day (1991), who described a broad-based approach to reform that included standards for what students were expected to learn; the alignment of other components of the education system, such as assessment and teacher training, to these standards; and a restructured governance approach that emphasised the role of states and national organisations in the standard-setting process but that delegated authority for decisions about how to meet the standards to local districts and schools. This call for a more systemic approach to improving student achievement provided an impetus for districts, states, the federal government and several professional education organisations to engage in efforts to promote SBA.

States played a particularly important role in the evolution of SBA prior to NCLB. In the 1970s, states began developing minimum-competency examinations in response to growing concerns about low-achieving students. Then in the 1980s and early 1990s, states such as California, Kentucky, Maryland, Massachusetts, North Carolina and Texas began to implement SBA using their own funds. Later, the 1994 Goals 2000: Educate America Act (PL 103-227) funded state efforts to develop standards, and almost all states embarked on developing standards if they had not begun this task already (Armour-Garb, 2007). By the early 2000s, every state in the U.S. had adopted a system of standards and

> assessments and was using this system as an accountability mechanism to promote school improvement, though less than one-half of these systems were in full compliance with the federal standards and testing requirements at the time. Much of the recent SBA activity can be attributed directly to NCLB which has required each state to establish a system of SBA that includes standards, assessments and annual targets for performance, but departed from earlier federal initiatives by imposing stricter requirements for testing (e.g., a requirement that all students in grades 3 to 8 be tested annually) and for the creation of proficiency-based cut scores (p 150-151).

Maine's developments have paralleled reforms in other states and at the federal level and have cumulated in passage of LD 1422 and the mandate for all school districts to implement proficiency-based diploma programs.

DOCUMENTING IMPLEMENTATION OF LD 1422 IN MAINE

It is important to recognize that implementing a proficiency-based diploma program represents a sea change in the way schools provide K-12 education in Maine. At first blush, implementing the program seems rational, reasonable and appropriate. The current education system has not produced high levels of academic performance for all students, and the gaps in achievement between groups of students have not been closed. In the past, many reforms have been advocated and tried by some systems and practitioners. But student performance statewide has not significantly improved, and the gaps in achievement remain.

Recently, more and more policy makers and educators nationwide, as well as here in Maine, have advocated for standards-based reforms or proficiency-based reforms as a solution to lagging student performance. But like most reforms, the path to implementation is not clear, and desired outcomes are not assured. There is no surefire path that will ensure effective implementation of the reform, and there is no certainty that the goals are achievable. As the saying goes, "the devil is in the detail," and it is clear that the complexity of creating a proficiency-based diploma program and the shift required in beliefs, practices and education structures suggest that a more accurate way to characterize implementation of this reform is that there are "many devils in the many details."

To their credit, the Joint Standing Committee on Education and Cultural Affairs recognized many of the difficulties school districts would encounter in transitioning to the new system and charged the Maine Department of Education with providing school district assistance in making the transition. Thus, with passage of the statute the Maine Department of Education (MDOE) began providing resources and

technical assistance to school districts. The MDOE established the **Center for Best Practice,** and with financial assistance from the Nellie Mae Education Foundation, the department established a website and has populated it on an ongoing basis with resources, case studies, video clips of best practices, and a wide variety of other materials related to implementing proficiency-based systems. Recently, the MDOE published a set of definitions related to various components of a proficiency-based diploma program. The website for the Center for Best Practices may be found at: <www.maine.gov/doe/cbp/index.html>.

Given the complexity of the reform, the Joint Standing Committee on Education and Cultural Affairs also concluded that it was particularly important to monitor the development of proficiency-based diploma systems across Maine school districts and to receive preliminary reports on implementation of the reform. To that end, MEPRI researchers and analysts have conducted a preliminary study of implementation of the reform in a select sample of Maine schools and school districts. The goal of the study has been to learn from this sample of schools, and to provide policy makers and educators alike information that may inform future policy and practice.

Study Methodology

SAMPLE SELECTION

Several methodological steps were taken in designing and executing this study. First, a sample of schools was selected for inclusion in the study. Although all Maine school districts must make the transition to the new system by 2018, some have already begun the process. In fact, anecdotal evidence suggests many school districts all across the state have begun the process, but limited resources precluded a study of all these school districts. Thus, a sample of schools was selected based on five primary criteria:

1. Representative of different size schools, in terms of student enrollment;
2. Representative of different grade configurations K-12;
3. Geographically representative of Maine schools;
4. Representative of schools that were just beginning implementation and those who had been implementing proficiency-based reforms for longer periods of time; and
5. Agreed to participate in the case studies by providing the MEPRI research team access for site visits, interviews, observations, and by providing appropriate documents.

Once an initial list of schools were identified that met criteria 1-4, school district superintendents and school principals were contacted. Each administrator was provided an overview of the study and asked for their participation in the study. A second list of alternative schools was identified in case a school in the initial sample chose not to participate. But it was not needed. All the schools in the initial sample agreed to participate in the study. The schools that have participated in the preliminary study, along with some basic demographics of each school, appear in Table 1.

During the selection process, an important clarification was made with the schools that chose to participate in the study. **This study was not intended to evaluate the schools, school staffs, or the progress they were making in developing proficiency-based diploma programs. It was intended to document their work and identify any obstacles they were encountering during their development process.** Evaluation of these reform efforts and the outcomes achieved should not occur until sometime in the future.

Table 1: Sample Schools for Case Studies				
School	*Grade Level*	*Size*	*Location*	*Length of Reforms*
1. Carrie Ricker School	3-5	200	Litchfield	2 years
2. Primary School	PK-4	270	Mid-State	3 years
3. Edward Little HS	9-12	950	Auburn	2 years
4. Gray-New Gloucester MS	5-8	550	Gray	4 years
5. Hall-Dale High School	9-12	345	Farmingdale	3 years
6. Mt. View Elementary School	K-5	260	Thorndike	1 years
7. Oak Hill MS	6-8	345	Sabattus	2 years
8. Poland Regional HS	9-12	525	Poland	10+ years
9. Searsport District MS	6-8	150	Searsport	4 years

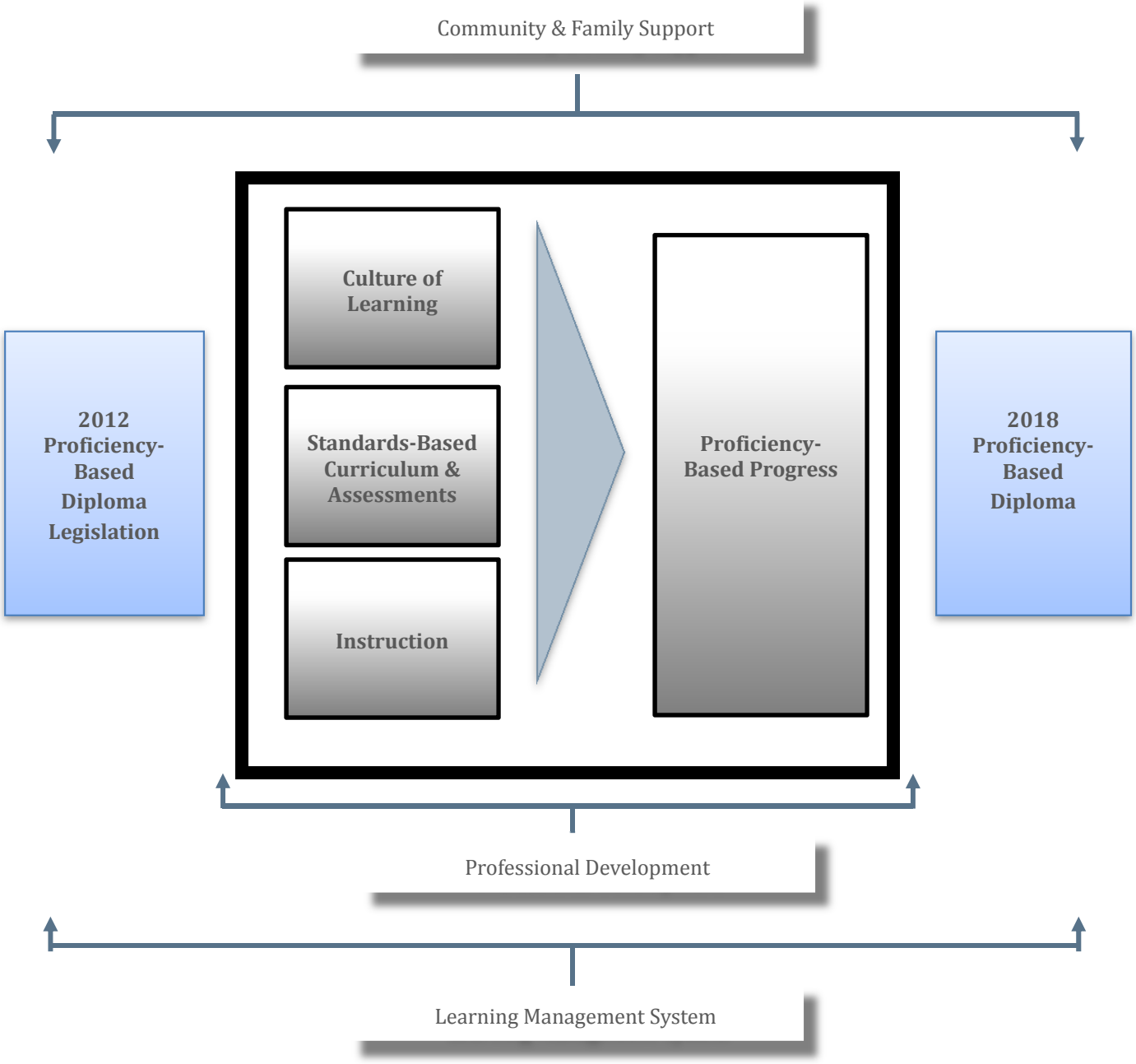
DEVELOPING A FRAMEWORK

A second task in planning the study was to develop a framework for examining the schools. After extensively searching the literature, the MEPRI research team discovered that, while there are many conceptual pieces describing what a standards-based or proficiency-based education system should look like, there are few conceptual models describing the components of this type of system. Furthermore, there is very little empirical evidence on the effectiveness of these systems. Consequently, there is virtually no empirical research to guide the development and implementation of standards-based or proficiency-based systems, which has resulted in school districts having little historical information and no clear evidence to guide them in developing the new diploma systems.

In the absence of evidence or models, the MEPRI research team decided it was important to develop a heuristic working model to guide their inquiries and case studies. This working model appears in Figure 1 on the next page. It is based, to the extent possible, on the existing literature.

It is important to take note of a key feature in the working model. The standards-based reform is depicted as a system, consisting of several components. And as a system, the model reflects the notion that transitioning involves systems changes. Attending to making significant changes in all the components in the system is paramount for creating a sea change like the new one proposed in LD 1422.

Figure 1: Working Conceptual Model Proficiency-Based Diploma System



SURVEY

A third task, and one directly related to the development of the working model, was the development of a survey to be used in collecting baseline information from the schools prior to the visits by the research teams. The survey was designed with three purposes in mind. One purpose was to provide the research teams a guide for conducting the case study in each school. A second purpose was to determine the potential value of the survey as a tool schools could use in their own self-assessments of the progress of their work. A third purpose, if the survey did prove useful for self-assessments, was to possibly use it to monitor and document progress of schools statewide as they developed and implemented the new diploma systems. A copy of the survey used in the study appears in Appendix B.

The survey was completed by the principal in each school prior to the research team visit. In addition, the survey was administered to a small number of education leaders in non-sample schools, in order to determine if the sample schools were representative of other Maine schools. A total of 32 surveys were completed. An initial analysis of the survey responses of the two groups, the sample schools and other schools, indicated that the groups of schools were very similar in terms of their state of implementation of the new education system.

CASE STUDIES

Fourth, a protocol was developed to guide data collection and the school visits by the research teams. Using the protocol MEPRI research teams had used in an earlier study of Maine's higher performing, more efficient schools as a template, the research team in this study worked with each school to customize site visit procedures. Typically, these protocols included interviews, focus group meetings, observations of classrooms and meetings, and the review of key documents. Interviews and focus groups were conducted with district administrators, school administrators, teachers, school professional staff, educational technicians, school board members, local business leaders, parents and students. A total of approximately 165 interviews and focus groups and 105 classroom observations were conducted during the 9 two-day case study site visits.

A total of approximately 165 interviews and focus groups as well as 105 classroom observations were conducted during the 9 two-day case study site visits.

Study Findings

As reflected in the literature, analysis of the case study data revealed that the schools were using a variety of strategies as they began to make their transition to a proficiency-based diploma system. The data also revealed varying levels of progress in developing the different components of the system.

CULTURE OF CHANGE

By definition, reforming a system means change, and change may often cause significant levels of disequilibrium. This can be particularly true for educational reforms, where parents and communities are concerned with how the reform will affect their children, and school staffs are concerned about what the change means for their practices. Thus, it is important that stakeholders understand the need for the reform and the nature of the reform. Table 2 reports leaders' assessment of the culture for change in their communities and school.

Table 2. Culture & Context for Change – Community

Belief	Strongly agree	Agree	Somewhat agree	Somewhat disagree	Disagree
Our school community supports the need for change.	**4.8%**	**47.6%**	**38.1%**	**9.5%**	**0.0%**
There is community support for change to standards-based education.	**23.8%**	**52.4%**	**19.0%**	**4.8%**	**0.0%**
Our school staff supports the need for change.	**35.0%**	**35.0%**	**30.0%**	**0.0%**	**0.0%**

There appears to be considerable support for change in the study schools and their communities. If one adds the “Strongly Agree” and “Agree” responses together, then the school leaders reported that they believed a slight majority of their communities supported the need for change, while 7 out of 10 school staff supported the need for change. In addition, leaders reported that over 75% of the community supported the change to standards-based education.

Developing ***public awareness and investment*** in the school's change was often mentioned by the schools as a critical and challenging part of the process to begin implementation of standards-based education. Many schools in this study decided to begin this work because of a felt need for school

improvement, initiated either from district and/or school leadership or the local community. One district leader said, "When we really start looking at the data, seeing the number of kids that aren't reaching proficiency, seeing the number of kids that we're essentially failing as schools, no one can find that acceptable. We really have to engage in a process to make it better." Another superintendent spent her first year in the district creating a foundation for change by identifying "burning platforms" using student data (NECAP and MHSA scores, graduation rates, dropout rates, course failure rates, district CIPS status, and MIYHS {student survey of drug use, sexual activity, suicidal thoughts, bullying, etc.} survey results). She said reviewing this data helped develop a common understanding of why the schools in the district needed to change: "I call that first year the 'seed planting time.'" And, as seen in Table 2, 70% of school leaders "agree" or "strongly agree" that their school's staff supported this need for change.

Many of the leaders also reported that they had made progress in translating this community support into shared visions for their schools. As seen in Table 3 above, approximately one-half of school leaders reported that they had "substantially" or "thoroughly" developed shared visions and systemic goals for standards-based education. One superintendent described the first eighteen months of the district's work as phase one, which included mission/vision development with staff, students, and community members. The leadership goal was to complete phase two within the next year by using a recently formed Strategic Planning Committee to unpack mission/vision and establish timelines that will lead to a formal strategic long-term implementation plan that will "clearly articulate the goals and objectives of the proficiency-based learning model and figure out how we're going to measure them" as well as establish a plan to engage the community in further discussion and create feedback loops. In some cases, this led to the official school board approval of the ***district-level vision,*** mission, goals or plans that explicitly began the process of implementing standards-based education.

Schools used various opportunities to keep parents aware of changes:

- *joining staff book groups,*
- *informational Parent Nights to answer questions and showcase student work,*
- *Community Forums held to inform the public, and*
- *support students as clear, effective communicators of the practices and changes in their classrooms.*

Table 3. Vision & Goals for Standards-Based Education					
Practice/Policy	Not Initiated	Beginning development	Partially developed	Substantially developed	Thoroughly established
Developed a shared school - and community vision for standards-based education (standards-based education).	**4.8%**	**19.0%**	**28.6%**	**23.8%**	**23.8%**
Written a common vision/mission statement for standards-based education.	**14.3%**	**28.6%**	**9.5%**	**19.0%**	**23.8%**
Defined explicit learning and systemic goals for standards-based education.	**0.0%**	**30.0%**	**20.0%**	**40.0%**	**10.0%**

One district's work dovetailed into the organization of a process called “Future Search," where a group of stakeholders--teachers, administrators, students, parents, community members-- created a brand new mission and vision statement that was approved by the local School Board. As an educator said, "*It is critical to keep parents in that conversation*." A teacher said, "Our school needs to be better about communicating about all things, not just the problems. To many parents and community members, school is a negative thing, and we need to have better outreach to change that." A principal said, "Balancing information roll-out with parents and community [is challenging.] Too much information...and parents expect you to have it done tomorrow, but too little information makes it harder for them to understand and support." Many school and teacher leaders indicated that students were the best advocates: "Kids can really talk about what they are learning." One school that had been implementing standards-based education for over three years had organized visits and tours for parents and school board members; a school board member in this district said, "Seeing the results in person was huge."

Thus, there was evidence from this study that Maine schools were making progress in creating a culture supportive of change and a change to a standards-based system. At the same time, some schools were still in the early stages of creating this supportive culture and early in their transition phases, but anecdotal evidence from school districts deeper into the transition work suggested that developing this culture for change was critically important to acceptance of changes to be made during all implementation phases.

CULTURE OF LEARNING

A second key component in implementing a standards-based education system is the creation of a culture of learning in the schools and community at large. At its core, a proficiency-based diploma program is premised on the belief that all children may achieve proficiency. Table 4 reports evidence supporting this belief in the study schools and communities. As the evidence indicates, there is broad support among the community and school staff for the belief that all children can learn. But everyone does not universally hold the belief.

Table 4. Proficiency-Based Culture & Context for Change

Belief	*Strongly agree*	*Agree*	*Somewhat agree*	*Somewhat disagree*	*Disagree*
Our school staff believes that all children have the capacity to achieve at high levels, with some exceptions and accommodations governed by special education needs.	**28.6%**	**52.4%**	**19.0%**	**0.0%**	**0.0%**
Our school staff believes that all standards apply to all students, with some exceptions and accommodations governed by special education needs.	**23.8%**	**47.6%**	**28.6%**	**0.0%**	**0.0%**
Our community believes that all students can learn.	**33.3%**	**38.1%**	**23.8%**	**4.8%**	**0.0%**

It was evident in this study that most schools began this journey to standards-based education through the general lens of ***improving school climate***. Various school reform models that were followed by schools in this study (Re-Inventing Schools Coalition, Mass Customized Learning, Coalition of Essential Schools) emphasize a cultural shift to increase student engagement, enhance student voice and ownership, and create a more positive, student-centered school environment. As seen in Table 5 below, many of the schools started their improvement work by establishing common standards of behavior, and all schools in this study had initiated these practices.

Table 5. School Culture & Behavioral Standards					
Practice/Policy	Not Initiated	Beginning development	Partially developed	Substantially developed	Thoroughly established
Developed/Identified behavior (“non-cognitive, “work ethic, or habits of practice) standards.	**0.0%**	**14.3%**	**38.1%**	**33.3%**	**14.3%**

One student said the school wide rules and expectations within the "Code of Cooperation is a way to make this a better school." A first-year teacher said, "I love customized learning. It's great for structure and managing behavior. I see a significant decrease in [behavioral] issues." In one school, all classes had established "Standard Operating Procedures" as guidelines for classroom behavior and work habit expectations, a "Parking Lot" for recording student feedback as well as Learning Targets and a vision collaboratively created with each class of students all posted visibly throughout the rooms. One teacher said, "It's about creating that culture for learning...We do a lot of work developing norms for the classroom, and so it's their rules that they have to follow."

Numerous people from various schools' communities heralded this initial work to improve school culture and create a common language around the learning environment as "invigorating" and "significant." However, there was a growing concern, especially in schools at least a few years into implementation, about how to incorporate work habits or respect for due dates into a system that emphasized students working at their own pace and student choice. Theoretically, models of the learning culture described students being more responsible because they cared more about school and the work in which they were engaging. Students in many schools did say one aspect of these changes that they liked was "having more choice about your assignments and books." But, parents, students and teachers all said that building this intrinsic motivation was difficult, especially in young adults--many of whom arguably have not yet developed this responsibility or way of organizing their learning. One parent indicated that they created their own deadlines for completing work at home since there were none at school, and the lack of deadlines had caused her son to do less homework and fall behind in his progress through the standards. A student said, "It's better because you can go faster, but it can be bad too because it's easier to fall behind when you don't have to hand anything in at any certain time before the end of the quarter."

Translating the initial step to invigorate a culture of change into building a culture of learning within schools and communities proved to be a fundamental stage of this transformational endeavor. It

was also a step that clearly had to remain significant in the schools, regardless of their implementation level, since it so thoroughly connected to other critical aspects of transitioning to a standards-based education system. This was clearly common, on-going work for Maine schools embarking on this journey.

Standards used by Maine schools:

- *Common Core Standards in Math and English Language Arts.*
- *Maine Learning Results.*
- *Nationally recognized subject area standards, i.e. National Science Education Standards.*
- *Unique local standards developed with support from private consultants and/or external experts.*
- *Adaptations of national standards, such as Maine Cohort for Customized Learning's Power Standards.*

STANDARDS-BASED CURRICULUM AND ASSESSMENTS

While it was evident that case study schools were spending considerable time building a strong culture of learning, particularly those schools early in their transition work, many schools were also engaging in coinciding work that aligned curricula, learning activities, learning pathways and assessments with this more student-centered learning environment and content area standards. Again, the specific practices undertaken by certain schools varied. Some schools in initial phases of implementing standards-based education were just beginning to align assignments and lessons with standards. While schools further along in implementation appeared to be delving into expanding "anytime, anywhere" learning opportunities with community collaborations and independent projects. However, even the exact standards being referenced varied by school.

So, as seen in survey results in Table 6 on the next page, aligning standards with curriculum and assessments was a common endeavor for schools: all schools had initiated the process of identifying or developing common grade-level or learning-level standards; and more than half of schools had

"substantially" or "thoroughly" established these standards.

Again in Table 6, all schools had initiated the process of identifying or developing common standards for core skills across the content areas as well. And, over 95% of school leaders indicated that their schools had created a curriculum map and learning pathway options aligned with standards. Anecdotal evidence also suggested that benchmarks and correlating standards from these curriculum documents were often integrated into learning materials given to students or rubrics used to assess student work.

Table 6. Defining Common Content & Performance Standards

Practice	Not Initiated	Beginning Development	Partially Developed	Substantially Developed	Thoroughly Established	Unsure
Developed/Identified common standards across the same courses and/or grade levels taught by different teachers.	**0.0%**	**9.5%**	**38.1%**	**33.3%**	**19.0%**	**0.0%**
Developed/Identified cross-curricular content knowledge standards common across subject areas.	**9.5%**	**19.0%**	**42.9%**	**23.8%**	**0.0%**	**4.8%**
Developed/Identified common, cross-curricular standards for core skills (reading, writing, numeracy, higher order thinking).	**0.0%**	**23.8%**	**42.9%**	**28.6%**	**4.8%**	**0.0%**
Created curriculum scope and sequence options aligned with standards.	**4.8%**	**4.8%**	**57.1%**	**19.0%**	**14.3%**	**0.0%**

One teacher explained the importance of standards being directly involved in guiding student learning: “Key components of standards-based education are identification of standards...and using those standards to design rubrics which drive the grading...teachers can describe clearly to students what they’re meeting and not meeting.” Many schools identified the importance of "transparency," which often encompassed a mutual "unpacking standards" practice in many classrooms, where teachers and students

at various ages would review the standard together and translate it into "student friendly" language.

As mentioned in the previous section of this report, holding students accountable for completing work in a timely fashion or developing good work habits were challenges seen by many of the schools that had been implementing proficiency-based progression models for at least a few years. As seen in Table 7 below, several schools had begun work on standards surrounding "habits of mind" or related aspects of the Maine Learning Results' Guiding Principles. A few of these schools were reporting students' achievement in these standards on report cards or transcripts although they often did not count towards the total GPA.

Table 7. Defining Common Content & Performance Standards

Practice	Not Initiated	Beginning Development	Partially Developed	Substantially Developed	Thoroughly Established
Developed/Identified behavior ("non-cognitive, "work ethic, or habits of practice) standards.	**0.0**	**14.3**	**38.1**	**33.3**	**14.3**
Developed standards and/or levels of proficiency for the Guiding Principles.	**9.5**	**14.3**	**38.1**	**33.3**	**4.8**

Many schools indicated that this work to align standards to curriculum and assessments was being done district-wide, providing a common set of standards and benchmarks throughout the district. However, there was very little indication that this work resulted in standards, benchmarks or curriculum tools that were shared or common with other districts, other than work among some members of the Maine Cohort for Customized Learning. For the most part, the end result of how standards were worded, clustered or associated with grade-level benchmarks was not systemic or common outside of districts. This appeared to result in potentially very different expectations of student learning at certain levels across districts.

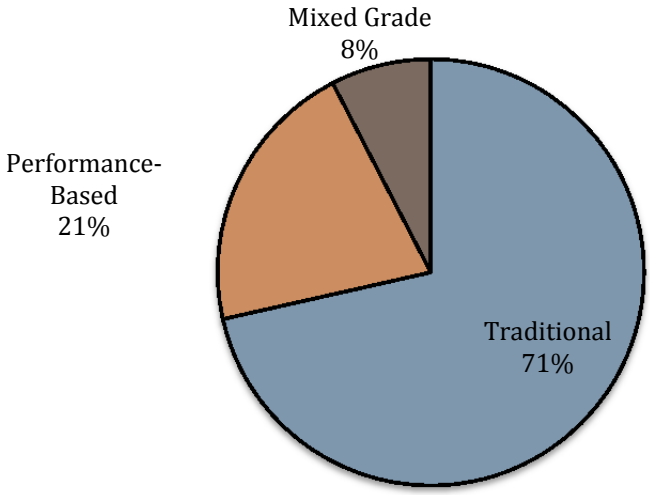
INSTRUCTION

There was significant support for instructional changes from students, educators and school leaders. One student said, "Standards-based is better because you have the option to go faster." However,

apparent changes in instruction were not systemically evident in practice at most of the schools in our study, regardless of implementation level. Even when teachers indicated they had changed the instructional design of their classrooms, many aspects of ***traditional instruction practices*** appeared to remain.

Figure 2 below indicated that 71% of classroom observations (n=105) reflected a traditional grouping of students: single grade level in elementary and middle schools and mostly single grade level in high schools with the usual exceptions for ability grouped mathematics or Advanced Placement courses. Only 21% of observations identified classrooms where students were grouped based on performance or moved fluidly in and out of the classroom based on ability level or level of proficiency.

Figure 2. Student Grouping - Classroom Observations



As seen in Table 8 below, only 36% of classroom observations conducted by researchers in case study schools reflected students demonstrating a standards-based instructional practice of allowing students to move at their own pace through individual assignments as they completed or met proficiency in an assignment. Other "student-centered" learning practices, such as student "voice and choice" in learning topics, providing multiple measures or "multiple pathways" for demonstrating proficiency and "anytime, anywhere" learning opportunities within the classroom setting were even less frequently observed.

Table 8. Student Learning Practices - Classroom Observations		
Students Working at Their Own Pace	Student Choice or Multiple Measures for Demonstrating Proficiency	Anytime, Anywhere Learning Activities
36.2 %	**9.5 %**	**5.7 %**

Ultimately, many of these learning opportunities would actually be offered outside of the traditional classroom setting (therefore, not seen in a classroom observation). But, according to school leaders, only a couple of schools (usually high schools) in this study were engaging in the exploration of these practices with external collaboration or activities. As seen in Table 9 below, a large majority of schools indicated that they were in the "beginning" or "partially" developed stage of implementing proficiency-based or student-centered learning opportunities.

Table 9. Instructional Practices - Leadership Survey					
Practice/Policy	Not Initiated	Beginning development	Partially developed	Substantially developed	Thoroughly established
Adapted instructional practices based on research analysis, standards and student performance.	**9.5%**	**4.3%**	**57.1%**	**19.0%**	**0.0%**
Provides multiple pathways and multiple opportunities for students to demonstrate proficiency of standards.	**9.5%**	**14.3%**	**52.4%**	**14.3%**	**4.8%**
Provides opportunities for “anytime, anywhere” learning.	**4.8%**	**52.4%**	**38.1%**	**4.8%**	**0.0%**

Various schools mentioned the transformation of school structures, learning pathways and student grouping methods as an important element of standards-based education reform. One superintendent said, "...not just the academic standards, but the habits of mind and the structures have to be in place in a school." A teacher said, "The structure really needs to change in order for the model to be

fully implemented." However, it appeared that many schools and districts had not yet changed the more traditional structures of their schools, and even classroom instruction appeared to maintain more traditional practices and methods.

> *"[Standards-based education] is understanding your education, as opposed to just doing what your teacher told you to do...It's the opportunity to learn at your highest potential because it's really in your own hands." -- Student*

Teachers and leaders in schools three or more years into their implementation of a standards-based education system were clearly concerned that these reforms had not yet led to an apparent improvement or transformation in instruction. A literacy specialist said, "There was a need for change. We wanted to improve instruction. But the reality of this focus is not addressing that. We are actually focused on management. We are not improving the practices of bad teachers." A teacher said, "Instruction is taking a backseat. That is so backwards to what we are trying to do." The biggest instructional concern of teachers in the initial phases of implementation was the need for increased planning and preparation if students were moving at their own pace, thereby potentially requiring a different lesson plan for each student. A teacher in the initial phase of implementation said, "I tried Learning Plans, formative assessments, and set deadlines but found it difficult to manage and felt overwhelmed. So, I went back to whole class instruction." Therefore, it seemed that a barrier to full implementation of a standards-based education system for schools at all stages was a lack of systemic structural support and transformation within instructional practices.

Some schools were trying to address this need by redefining the ***teacher role***. Many schools were adapting the previously mentioned method of providing unique lessons not at every student's pace but at three levels: below teacher pace, at teacher pace and beyond teacher pace. However, there was inconsistency among our case study schools in how "*teacher pace*" was defined. Many elementary and middle schools indicated that teachers should be able to teach one grade-level above and one grade-level below the traditional grades. One teacher-leader expressed concern about the capacity of teachers to know that content, "In elementary and middle schools you don't have people teaching math because they love

math or are even proficient in math." As seen in Table 6 in the previous section of this report, over 95% of school leaders indicated that their school had at least begun to develop a scope and sequence curricula with learning levels that guided each grade level and could assist teachers in this work.

In the work to find a manageable balance between student pace and teacher pace, one teacher indicated, "We very quickly learned that switching the system didn't mean we lost whole class instruction." Students at schools four or more years into implementation indicated that whole class instruction still occurred, although not often. One student said, "Students move at their own pace with little whole class instruction from teacher. Teachers give instruction and intervention on an as-needed basis." Another student described a common lesson: "Teachers stand in front of the room and then give you a matrix that will help you learn." In fact, teachers in some schools had described their role not as an educator but as a "learning facilitator."

Students and families had mixed feelings about this change of the educator's role. Several accelerated students expressed enthusiasm for the opportunity to move more quickly through the curriculum. One student said, "It is understanding your education as opposed to just doing what your teacher told you to do...It's the opportunity to learn at your highest potential because it's really in your own hands." Another student said, "When you're trying to go forward, in the last system, you had no opportunity to go forward. In this system you can go forward. It's going to be a little more complex because, yes, you won't always have teacher instruction, you have to learn these things on your own...If I can't learn it on my own, then I can wait until teacher pace catches up to me." Some teachers admitted that the reality of this grouping was that they spent "more time and energy providing instructional support for the middle and lower students than on the upper strata of students."

Many teachers and leaders indicated that the theoretical model of instruction they had envisioned included a significant amount of ***direct instruction.*** But, in reality, managing so many different levels of learning and so many student needs did not allow teachers to interact directly with all students as much. Parents and students also expressed concern about the loss of personalized human interaction when alternative methods of instruction were used. One parent said, "There is a lot of computer work for students." One student responded to an online math program: "I want a teacher to teach me, not a computer to compute me." Another parent said, "Social interaction [with teachers] is gone. There is no relationship with the teacher. Better learning comes from face-to-face instruction." A math specialist said, "A cost is instruction. People are not improving instruction. People are using worksheets. We fell into that so quickly." A curriculum coordinator said, "Direct instruction is still critical." Many

teachers and leaders indicated that when the model was working to its potential at the systemic level, students would have the opportunity to interact with many "teachers" both within school and outside of school. However, at this point, when much of the work is being implemented within the school or within one classroom all of the instruction falls on the classroom teacher, and it is too overwhelming. One teacher said, "We just want to get better at our practice...but I feel I go forward then I fall way back. Then I feel overwhelmed and default to whole class instruction. I feel badly about that."

Improved instruction was evidently an implicit goal for many schools engaged in the work to implement standards-based education. However, it appeared that management and logistics were more of the focus in reality. There were also still some philosophical disagreements about the role of a teacher and where the teacher's work as a content expert, instructor, and student advocate fit into the model. Many school leaders, especially those leaders of schools beyond the initial phases of implementation, were working diligently to return to an explicit focus of improving instruction, but this work was only beginning to shift at the time of our case study visits.

PROFICIENCY-BASED PROGRESS

As stated in the Maine statute LD 1422, a required characteristic of a standards-based education system is the inclusion of Proficiency-Based Diploma standards. This requirement was incorporated into formal or informal goals of all the schools in our study to develop a proficiency-based system of progress throughout the school system, grades K-12. Most schools ***defined proficiency-based learning*** as "requiring students to demonstrate proficiency in a standard before moving on." However, "moving on" was defined in various ways, including:

- Students were not allowed to engage in the subsequent lesson or unit until they had earned a proficient grade on the current assignment, often providing targeted assistance with the current assignment until mastery was demonstrated,
- Students continued at "teacher pace" through the curriculum regardless of proficiency levels, but were identified for pullout or outside-of-school interventions until all past standards had been met,
- Students were required to demonstrate proficiency to earn course credit or move to the next grade level,
- (Most commonly in high schools) students progressed to the next course or grade level if they

met Carnegie Unit requirements and passed the required number of courses,

- (Most commonly in elementary and middle schools) students progressed through traditional grade levels and entered the high school regardless of proficiency levels, but their course placement in high school and level of required interventions was determined by the standards students had or had not met.

Identifying which standards and how often students had to demonstrate proficiency in a standard was also varied by school. Some schools had selected key standards that were required for progress while more minor standards may be addressed in the curriculum but lack of proficiency did not prevent a student from progressing. A school leader said, "Teachers are revising their curriculum using the Common Core standards and having discussions about Power Standards, the most essential content. Too many standards is an unrealistic, inauthentic expectation of students." It was also commonly agreed that some standards should be demonstrated multiple times. In fact, the Maine statute requires "*multiple pathways*" for students to demonstrate proficiency. However, again, schools interpreted this in various ways:

- Providing unlimited opportunities for students to re-do assignments required for demonstrating proficiency,
- A trending system of grading to allow students to demonstrate improvement over time,
- An averaged grade of a teacher-determined number of attempts on required assignments, or
- Allowing various degrees of student choice on the method or format of demonstrating proficiency on a required standard.

So, while school leaders indicated, in Table 10 following, that a large majority of schools had initiated the process of developing various aspects of a proficiency-based learning system, the logistical definition of this system varied among schools and even between some schools within the same district.

As mentioned in a previous section of this report, many educators in this study identified "transparency" of proficiency levels and their correlating standards as a positive impact of standards-based education. In Table 10, which appears on the next page, school leaders indicated that over 90% of schools had begun the development of formative assessments and over 85% of schools had begun the development of summative assessments that reflect student proficiency levels. In fact, one school even identified their focus as "collaboration with students and transparency in learning." A teacher leader said, "There’s a transparency in making it very clear to students about what they’re learning and how they’re

going to be assessed." Formative and summative assessment rubrics were also often written in "student language" to identify levels of proficiency in a way that students could understand. For the most part, students agreed that they could identify the specific standard they needed to demonstrate or revise to exhibit mastery.

Table 10. Proficiency-Based Progression Policies & Practices - Leadership Survey

Policy/Practice	Not Initiated	Beginning development	Partially developed	Substantially developed	Thoroughly established
A system of advancement that is based on student demonstration of proficiency or above on required standards.	**20.0%**	**25.0%**	**45.0%**	**0.0%**	**10.0%**
Criteria for graduation and/or certification based on student demonstration of proficiency or above on required standards.	**25.0%**	**25.0%**	**25.0%**	**10.0%**	**5.0%**
Created/Identified formative assessments that show student proficiency levels in standards.	**9.5%**	**14.3%**	**52.4%**	**23.8%**	**0.0%**
Created/Identified summative assessments that determine student proficiency levels in standards.	**14.3%**	**9.5%**	**47.6%**	**28.6%**	**0.0%**
Defined benchmarks of proficiency at key intellectual development stages.	**0.0%**	**28.6%**	**47.6%**	**23.8%**	**0.0%**

However, schools were still working to make these proficiency levels clearer and more consistent. As one student said, "All I know is that a 4 is the best and 1 is the worst." Schools had various definitions for the proficiency levels, especially for exceeding proficiency (often identified as a "4"). Some schools described this level as "teaching someone else" or "going beyond the material taught" or "taking it into real life." But students indicated that it was difficult to know how to do this. One high school student said,

"Isn't teaching a different set of skills all together? I've never been taught how to teach someone else, but that is the only way I can earn a 4. The teacher never watches me teach other people, so how does she know if I can do it well?" Another student said, "No one really gets 4s. No one really knows how to get 4s." Teachers also expressed uncertainty in how to describe a level beyond proficiency for some standards. A math teacher said, "I am not clear how to exceed proficiency in concrete standards." Despite these uncertainties surrounding the language and logistics of proficiency-based progress, it was evident that the development of a proficiency-based learning system had begun some very important conversations among students, educators as well as families and community members about students' progress through an educational system and the importance of being proficient in key learning areas.

A critical element of developing any proficiency-based progression system appeared to be a robust ***system of interventions*** for students unable to demonstrate proficiency in standards at a teacher pace. Educators, parents and students indicated that a similar system providing enrichment interventions for accelerated students was important as well. As Table 11 below shows, all schools in this study had at least begun development of "accessible intervention systems available with the school day."

Table 11 on the next page reflects that both remediation and acceleration interventions were in the process of being developed, but it was slightly more common for schools to have more fully developed interventions for students not meeting standards. Conversations with school staff and students also suggested that acceleration interventions were less consistent or effective in most schools in this study. One teacher explained, “The bulk of my instructional time in class is spent bringing the lower kids up to the standard than pushing the higher kids beyond the standard.” However, interventions for students struggling to meet standards or not demonstrating proficiency appeared to be a stronger characteristic of most schools in this study. The methods for providing this remedial intervention were varied.

Similar to the challenges of creating clear, consistent proficiency definitions, one of the most common challenges cited by teachers, school leaders, parents and students was the development of a clear, thorough method of ***grading and reporting*** students' progress and achievement on local standards. One district mandated that all levels would be using a common standards-based reporting system in some way. A teacher said, “We decided that if we’re going to do this, we’re not going to do it half-heartedly.” Most school staff believed that "using standards for grading and reporting is more descriptive. It allows parents to see more clearly where their student might be struggling." However, creating a report that was accepted and understood by parents, students and the community was not easy. One guidance counselor said, “We had the language of competent, advanced or distinguished on a transcript, and people asked

'But where's the A, B, Cs?'" Therefore, many of the schools in this study were piloting standards-based reporting with some classrooms and teachers or working within a dual system that reported both standards proficiency levels and traditional A-F grades.

Table 11. Learning Intervention Systems

Intervention Practice	Not Initiated	Beginning development	Partially developed	Substantially developed	Thoroughly established
Accessible intervention systems available within the school day.	**0.0%**	**5.0%**	**35.0%**	**35.0%**	**25.0%**
Accessible intervention systems available beyond the school day.	**21.1%**	**21.1%**	**31.6%**	**10.5%**	**10.5%**
Options for remediation, as needed, to help students meet standards in a timely manner	**5.0%**	**25.0%**	**35.0%**	**25.0%**	**10.0%**
Identified standards-based criteria and method of intervention for students not meeting standards.	**4.8%**	**23.8%**	**42.9%**	**28.6%**	**0.0%**
Options for acceleration to help students advance to the next level when they are ready.	**10.0%**	**30.0%**	**35.0%**	**25.0%**	**0.0%**
Identified standards-based criteria and method of acceleration for students exceeding standards.	**14.3%**	**14.3%**	**47.6%**	**14.3%**	**9.5%**

Grading and reporting student achievement was an especially challenging area for high schools, which had parents concerned that post-secondary institutions would not understand non-traditional transcripts, did not want to abolish class rankings or not be able to have a traditional GPA. Guidance counselors did indicate, "For students transferring in and out of [this school], translating transcripts was a challenge." Another guidance counselor said, "While we trust in the professionalism of our colleagues at the college level, we don't really know [if the grading system influences their decisions]. Are our kids

getting into college and getting scholarships? Yes. That's our barometer, but could there be confusion. Or any other places where our transcripts go. We don't hear from employers asking about our transcripts." One parent indicated that he had spoken to a branch of the military about alternative transcripts, and they had said they would review all materials submitted but a completed application needed to include a traditional, numerical GPA.

College and university admissions personnel also vary in their response to non-traditional transcripts. One admissions officer said, while various types of transcripts were accepted from alternative schools and systems across the world, the clarity and comparability of the transcript was critical. If the transcript was entirely unique or it was unclear in reflecting a student's work in a way that was comparable to other applicants, other aspects of the application packet (SAT scores, essay, teacher recommendations, school profile and reputation, etc.) would be weighted more heavily. Some teachers mentioned that they were eager to see a model proficiency-based transcript reportedly being developed by the New England Secondary School Consortium, Maine Department of Education and admissions personnel from higher education institutions.

Table 12. Standards-Based Reporting System

Characteristic	Not Initiated	Beginning development	Partially developed	Substantially developed	Thoroughly established
Developed student achievement reports that identify student proficiency levels on standards.	**19.0%**	**9.5%**	**57.1%**	**9.5%**	**4.8%**
Progression criteria and standards that are published and clear to all school, parent, and community stakeholders.	**15.0%**	**25.0%**	**45.0%**	**10. %**	**5.0%**

Philosophically, leaders and educators felt that a proficiency-based learning system was an important improvement in their schools and districts that would prepare students appropriately for work and college as well as meet the needs of all students. However, logistical structures, such as transportation, scheduling, and teacher certificates limited their ability to break down the walls of their schools' traditional classrooms and allow students to move fluidly at their individual pace of proficiency. In addition, pressures and external accountability systems that judged schools and teachers on failure and

graduation rates reduced their willingness to abruptly change their practices in fear that it may cause these rates to increase and their schools to appear to be failing or not improving. In this study, we certainly saw the practices of a proficiency-based system to be a significant challenge in fully implementing a standards-based education system.

PROFESSIONAL DEVELOPMENT

Creating a shared vision for change and building a culture of learning required community, family and student engagement as well as significant work with professional educators. School and district leaders clearly indicated that initially embracing this change incorporated important opportunities for school and district staff to understand key aspects and philosophies critical to building a culture of learning. A school leader said, "Changes in paradigm take time and energy." This was seen in some schools in their purposeful focus in professional development offerings and professional goals on work that supported the development of a standards-based education system.

Table 13. Standards-Based Professional Development Goals & Vision

Professional Practice	Not Initiated	Beginning development	Partially developed	Substantially developed	Thoroughly established
Developed short- and long-range professional development plans aligned with standards-based education vision and goals.	**19.0%**	**14.3%**	**33.3%**	**28.6%**	**4.8%**
Engaged professional staff in research review and data analysis relevant to standards-based education vision and goals.	**14.3%**	**19.0%**	**23.8%**	**33.3%**	**4.8%**
Provided opportunities for educators to collaborate around work related to standards-based education.	**0.0%**	**19.0%**	**42.9%**	**28.6%**	**9.5%**

Building a school-wide or district-wide ***vision and goals*** around this need for change was a common first step to embracing standards-based education, and as seen in Table 13 above, 81% of schools had at least begun to develop "professional development plans aligned with standards-based education vision and goals." Many schools had invested in philosophical and practical guidance from an

external source. One high school that opened in 1999 with a standards-based education system as its vision began their work with support from the Coalition of Essential Schools. Other schools in our study had engaged in at least the initial trainings by the Re-Inventing Schools Coalition; and some schools had become members of the Maine Cohort for Customized Learning. The philosophies, professional learning opportunities and methods from these organizations provided guidance in the initial work of these schools to develop their own vision and goals for change and implementation of standards-based education. As one curriculum coordinator said, "We joined MCCL because we believed in the power of that conversation."

Another aspect of developing a standards-based education system with proficiency-based diplomas that required significant professional development time was ***aligning standards to curricula and assessments***. One district leader said that standards-based education "required a whole re-vamping of curriculum and assessments." Developing and aligning standards appeared to be a larger focus for schools in the initial phases of implementation. A leader of a school in its second year of implementation said, "Much Professional Learning Community and professional development time is devoted to collaborative alignment and common assessment development." A teacher said, “Until this year, I didn’t feel like I could do [individualize learning for students] very well. Now that we have a curriculum to go by, we can do that more. It’s not perfect yet because we don’t have a pathway yet...so we just piece together from experience what we feel is appropriate at each level and then go from there.” Even for schools more deeply within implementation of standards-based education indicated that maintaining understanding and ownership of the standards and curriculum at a local level was important to teachers, “Our curriculum is dubbed a ‘living document’ so it’s changing. It can change at any time and it has...that can be a good thing.”

Common collaborative professional time was also necessary for further work to implement standards-based education and proficiency-based learning, including:

- Determining common benchmarks for proficiency at each learning level,
- Developing reporting and grading systems,
- Creating systemic policies that support proficiency-based learning,
- Educating and collaborating with parents and community, and
- Researching and analyzing best practices in instruction through the lens of proficiency-based learning.

As seen in Table 11 on page 30 above, 100% of survey respondents said that their schools "provided opportunities for educators to collaborate around work related to standards-based education." As one school leader said, "Faith and belief in the system is there. Teachers are learning how to do it, and they need time to work together to get there." A curriculum coordinator indicated that the district needed "time for teachers to collaborate on this work. And more efficient use of that time."

Conversations with school staffs revealed an apparent ***distinction in the professional learning needs among schools at various levels of implementation***. Schools just beginning this work found relevant opportunities and support networks among established organizations mentioned above, such as RISC, MCCL and the League of Innovative Schools. However, some schools that had been engaged in the work of standards-based education for at least four years and were embarking on work to develop a fluid proficiency-based system expressed that there was a lack of external professional learning opportunities within the state. Teachers in these schools were not aware of many professional development offerings relevant to their needs and believed most of these offering were for schools in the initial stages of implementation. One teacher said, "We've exhausted all the professional development opportunities out there. Now, we just rely on teaching ourselves or learning from each other." While there was some interest in traveling to other districts or other states who are farther along in implementation and had models of proficiency-based systems and/or standards-based reporting systems, most school leaders lamented that there was not enough financial support to do so. In fact, some school leaders in the Maine schools who have engaged in this work for at least four years expressed the need to turn down other schools requesting to visit them (one principal indicated that they had hosted "over thirty school visit groups this year") because it was beginning to distract the school from its own focus and work.

Schools provided **professional development** and training for educators in a variety of forms:

- *compensated summer/vacation work sessions,*
- *weekly early release/late arrival professional time,*
- *common collaborative professional time within the daily schedule, and*
- *teacher workshop days.*

However, the ***cost*** of this work is not insignificant. School and district leaders indicated that the costs of external professional training often included membership and/or training fees with supporting organizations. Some schools worked with salaried consulting school coaches visiting experts with various daily fees. Releasing teachers to attend trainings during contractual school days included costs of travel and substitute teachers or compensated time for trainings during vacations or summer. One superintendent estimated the total costs involved in standards-based education were at least approximately $60,000 per year; another district administrator said they had spent roughly $500,000 on professional development regarding standards-based education implementation.

School leaders and teachers clearly indicated that time and funding for professional learning opportunities were crucial in building a standards-based education system. One principal said,

"The only focus for this school must be standards-based education. It is a major initiative and takes all the resources."

Some schools had attempted to reduce costs by training only a select few educators, who then trained their colleagues as internal experts. This model had mixed results. In some schools it created a real division among those sent to the more dynamic, inspiring external training or "having that groundbreaking sit-down meeting" and those who still a few years later had received no training. In other schools, this model supported the delegation of leadership and collaboration among teachers. A teacher leader said, “It’s just part of the culture. We’re expected to [be leaders].”

Often, the lack of collaborative professional time (as indicated in the survey in Table 12 with less than half of schools having this practice "substantially developed" or "thoroughly established") train all staff, including new hires, each year was a barrier to building this culture of learning among adult professionals. A superintendent said, "Money. And it's not that I need money to pay my teachers more or my administrators more. I need money for professional development time. I need time with my teachers, and it's going to have to be paid time. There's no way I can force them to come in and do this work without being paid. So, when I say I need money, I really mean that I need more time with teachers for professional development."

Even with financial compensation, educators and leaders indicated that there was a human cost with the significant amount of time required to do this work of implementing standards-based education, especially in the first few years. One school's Health Coordinator was concerned about the demand standards-based education placed on teachers, "It's like asking someone to change their job while doing

their job." A veteran teacher said, "It makes for an exhausting profession." Another teacher agreed that the work made him "happier, but burnout is a real risk." One teacher admitted,

"I feel like I'm not allowed to rest because we are leading the state on this initiative."

A principal said, "Teachers are very excited about [standards-based education.] They see that it's good for kids, but...I'm afraid we're going to burn them out. My really dedicated teachers are saying that this is a lot, and I hear that. That's a reality...Once we get it figured out, I think it will be manageable."

It was evident that a significant investment in professional learning opportunities was necessary for schools to initiate this work to build a standards-based education system on the foundation of a positive school climate and culture of learning. As said in previous sections of this report, this reform is truly a "shift in paradigm," and requires important professional work to make this systemic change positive and effective for schools and their communities. There is also a large commitment of time required to develop key elements of this system, such as standards-aligned curriculum and assessments, as well as aspects of a proficiency-based diploma program, such as benchmarks, standards-based reports and the logistics of student progress through the system. Although, as we will discuss further in a later section of this report about recommendations, some of the local level professional tasks may be alleviate by collaboration or work that could be done externally. However, a significant investment of professional development time will be critical throughout schools' journeys to implement standards-based education.

LEARNING MANAGEMENT SYSTEM

Many schools said that having a fully developed, single learning management system would make their professional work more efficient and consistent. A key aspect of developing curricula, learning activities and assessments that are aligned with standards is having the professional time to create the learning tools, lesson plans and assessment documents. One "paradigm shift" that a standards-based education system entails is encouraging and supporting teachers as they move from individual responsibility for each document used in their classes to a more collective approach to educating students. School leaders believed that some teachers were not confident that collaboration with peers would be efficient and productive, and a few teachers indicated that they were reluctant to publicly share work that "was not perfect." School leaders also said that it was a challenge to get teachers to "open their doors" because they were not used to "receiving feedback from colleagues."

Teachers and leaders said that common work was critical, and consistency through providing

common assessments was important. However, most educators and leaders believed one-size-fits-all curriculum packages, software or textbooks were not the best resource for achieving this. A superintendent said, "Worksheets and packets don't really speak to meeting needs of students. Worksheets and packets are prescribed. A true customized approach must allow more options." At one school, teachers used common professional time to discuss current curriculum for their classes and identify cross-curricula intersection that allowed students to meet standards. For example, English, Social Studies and Science teachers were observed determining a common informational text that could be worked into all courses. Teachers indicated that it would be helpful to have common assessments, curriculum guides, lesson plans, assignments, and other learning resources in a well-organized, virtual location so that they could access it during individual time instead of using collaborative professional time to describe these common items. Both teachers and educational leaders stated that a working, accessible learning management system housing ***common learning materials and professional resources*** that teachers can personalize for their classrooms and students would alleviate a great deal of professional time and stress.

Table 14. Standards-Based Learning Management System - Leadership Survey

System Characteristic	Not Initiated	Beginning development	Partially developed	Substantially developed	Thoroughly established
A Learning Management System (LMS) that allows anytime access to learning targets and materials.	**45.0%**	**30.0%**	**25.0%**	**0.0%**	**0.0%**
A technology system that is used to support standards-based practices.	**15.0%**	**47.4%**	**26.3%**	**5.3%**	**5.3%**

The MCCL was reportedly working on such a virtual space with shared materials developed by member schools accessible to all other members. There are also various software and open source programs that can hold learning resources aligned with certain standards submitted by individual professionals. But, as seen above in Table 14, a significant percentage of schools had not even initiated a "learning management system that allows anytime access to learning targets and materials."

Teachers and district leaders also indicated in our conversations that it was critical to have these resources streamlined with other programs (such as those that track student data, record grades, etc.) so

that the inordinate amount of time to train teachers is not dedicated to using numerous, different learning management systems within one school or district. As a teacher explained, “It’s like an onion, with many layers, and it can be overwhelming. Once I get a handle on one thing, it seems like something else comes up." Many teachers and leaders agreed that a comprehensive learning management system that educators could access for learning resources as well as maintain student records would improve their efficiency and free crucial common professional time for other collaborative work.

This call for a supporting learning management system was especially true with regards to developing a proficiency-based system of student progress and reporting. In Table 15, school leaders indicated clearly that the development of an efficient system to coordinate schedules, manage student data, share learning materials and report student progress was needed. One school's Technology Integrator said, "Technology is a key, essential component in this initiative...[We need] one learning management system to handle all student data."

Table 15. Proficiency-Based Learning Management System

Structure or System	Not Initiated	Beginning Development	Partially Developed	Substantially Developed	Thoroughly Established
A system that allows students to advance that their own pace.	**25.0%**	**20.0%**	**45.0%**	**5.0%**	**0.0%**
A system for tracking student progress on specific learning goals.	**10.0%**	**30.0%**	**40.0%**	**15.0%**	**5.0%**

A comprehensive software program that can manage all student data does not seem to be available at this time. Therefore, although Table 15 reflects that 85% of schools were in the development stages of having a "system for tracking student progress on specific learning goals," most schools were using a hybrid of two programs or they had internal technology personnel who re-programmed an existing program to incorporate more standards-based data and school structures (such as daily schedules and student progression). Most schools in this study used student data and reporting programs such as PowerSchool, Infinite Campus, Abonte or AimsWeb. Schools collaborating with MCCL have just started incorporating the Educate program to keep records on standards. As one Technology Director explained, "Right now, the district is using two programs: Infinite Campus is used just for taking attendance now, and there's also Educate. Once students begin to access Educate, it's likely the district will need another

server." Numerous technology personnel and practitioners shared the impending need for “updated equipment,” an efficient technology system and a “faster network”. One Technology Integrator described their district's various transitions between systems and programs as inefficient because "too many switches between systems takes a lot of professional development time and energy, [and you] lose buy-in after too many changes." Many models of educational reform incorporate exciting opportunities for differentiated learning and engaging students by using technology. "Lots of computer-based interventions, pathways and differentiation options are out there, but our network is too slow and the equipment we are using--netbooks, iBooks and G4s--is below the level of many applications and software," lamented a Technology Integrator. Another Technology Director said their infrastructure "is not up-to-date, cannot support many apps and software, and it's too much money to purchase" a new network.

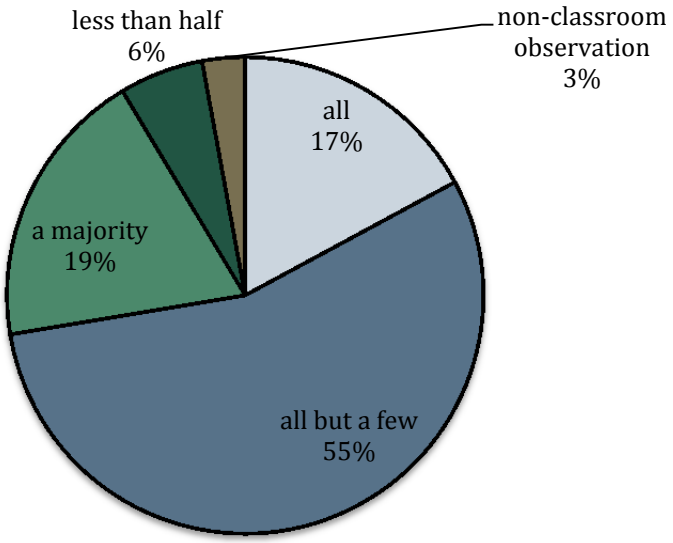
Teachers and school leaders believed their professional and instructional time could be used more efficiently if they or students were able to quickly pull high quality, shared learning materials and track student progress using technology. Schools expressed an interest in coordinating with local businesses, artisans, as well as regional vocational programs and colleges to provide students with multiple pathways for meeting standards, but a barrier to these attempts was the inability to schedule, track student progress or consistently report student achievement. Many school leaders and educators hoped that a more efficient, comprehensive learning management system would begin to ease some of these challenges.

IMPACTS

School leaders were also asked if they were seeing any positive impact of the transition to a standards-based system. As expected, it is very early in the process of transition, but one positive impact leaders reported was in student engagement.

"***Increased student engagement***" was the most commonly identified impact of standards-based education, with 76.1 % of survey respondents indicating that there was "some evidence" or "substantial evidence" of this impact since beginning implementation. One teacher said, "Students are owning [their learning] more and are less apt to fool around." A parent said, "Kids seem less likely to give up because they know they have to meet the standards." Figure 3 identifies researcher observations during two-day visits to case study schools reflected a solid level of student engagement (defined as apparent on-task behavior) in classroom observations, with 72% of observations reflecting "all" or "all but a few" of students engaged.

Figure 3. Student Engagement - Classroom Observations



A teacher leader said, "We do see a lot more positive faces and attitudes." School leaders cited increased student attendance, reduced negative behaviors and more attentive behavior during class time. This general environment of adherence to school and classroom rules, demonstration of respect for teachers and school leaders as well as classroom time being used for completing assignments and

engaging in learning materials was also seen in our observations of classrooms and non-classroom areas of case study schools

Table 16. Impact of Standards-Based on Student Learning Opportunities & Performance

Impact	Not evident	Some evidence	Substantial evidence	Very strong evidence	Unsure
Increased student engagement.	**9.5%**	**57.1%**	**19.0%**	**0.0%**	**14.3%**
Increased educator engagement.	**9.5%**	**52.4%**	**23.8%**	**9.5%**	**4.8%**
Improved student performance on standardized assessments.	**28.6%**	**28.6%**	**19.0%**	**0.0%**	**23.8%**
Improved student performance on local assessments.	**14.3%**	**38.1%**	**19.0%**	**0.0%**	**28.6%**
Higher post-secondary education aspirations.	**14.3%**	**14.3%**	**14.3%**	**0.0%**	**57.1%**
Higher rates of post-secondary enrollment.	**19.0%**	**14.3%**	**9.5%**	**0.0%**	**57.1%**
Increased college- and career-readiness.	**19.0%**	**14.3%**	**9.5%**	**0.0%**	**57.1**
Greater community investment in education.	**28.6%**	**28.6%**	**4.8%**	**4.8%**	**33.3%**
Increased involvement in local and world citizenship.	**19.0%**	**19.0%**	**9.5%**	**0.0%**	**52.4%**

SUMMARY OF COSTS

Throughout this report, where relevant and when information was available, we have incorporated information on costs associated with implementing a standards-based education system. Here, we address the question of cost more directly by pulling all this information, in addition to other cost considerations, into one section.

Most schools in this study found that standards-based education was a major undertaking and that it was all encompassing. Standards-based education was not just one focus area among several; it was *the*

focus for a school or district. As such, most administrators talked about the need to direct all core resources and related funding toward implementation. In many cases, at the beginning of their standards-based education initiatives, schools received additional funding support through grants provided by the Maine Department of Education or other organizations. After this initial short-term funding boost, many schools then channeled their available resources toward further implementation of standards-based education.

Interviews with district- and school-level administrators indicated that fiscal and time costs of standards-based education centered around four key areas: curriculum development, professional training and development, technology, and public relations.

Curriculum Development

Many schools in this study had a staff member who served as a curriculum coordinator, either at the school or district level. This person used his/her allotted professional time to develop curriculum resources, particularly standards documents aligned to certain grade levels or courses and assessments for the standards. Some schools used the curriculum resources provided through their membership in the Maine Cohort for Customized Learning. These membership costs reportedly ranged from $7,000 to $11,000 depending on student population size, and an additional $4 per student gave access to full use of the Educate software, including access to some assessments and curriculum resources that would not otherwise be available without this payment. At this time, Educate is not fully populated with vetted resources, but as teachers continue to use it, it could become a valuable repository of curriculum resources.

Professional Development

Building and district administrators felt strongly that time and funding for professional learning opportunities were key factors in building a standards-based education system. In 2009, RISC trainings cost one district $15,000 with matching funds from Maine Department of Education in the amount of $40,000 for one week of initial training. Some schools worked with school coaches who were paid approximately $50,000/year, and others contracted with outside experts to provide training at various costs. Releasing teachers to attend trainings during contractual school days added costs of travel and substitute teachers while trainings during vacations or summer required additional compensation for teachers in most cases. Funding for professional development wasn’t just about being able to attend an out-of-district training or about being able to bring in experts from the outside, in many cases it was about finding the time to work with teachers and for teachers to work with each other. When asked about their

needs or concerns related to standards-based education, administrators and teachers most often noted the need for time, and money to pay for time, to do the work. In a related vein, administrators and teachers noted the tremendous amount of personal time that many teachers were devoting to these efforts and they worried that this could eventually lead to burnout.

Technology

Most teachers, administrators and technology personnel spoke to the need for up-to-date technology and reliable Internet access – for instructional, learning and management purposes. Many study participants felt that this technology was essential to implementation of a standards-based education system. Technology and Internet access provided individualized learning opportunities for students, allowed teachers to create or access dynamic presentations of information, and nascent learning management systems were being set up in order to manage and document student achievement and progress. It is hard to imagine how standards-based education could achieve its full potential without access to such technology. Since schools had not been able to identify one learning management system that met both their needs and the reporting requirements of the State, many schools used two programs to manage their data, one for things like attendance a another for standards-based resource management and record-keeping. One school estimated the cost of the two programs together to be about $7,500. The ability to use one system for both of these purposes might reduce costs for the district both in terms of money and in terms of time and training for teachers.

Public Relations

Administrators, teachers, parents and school committee members all spoke to the importance of and the need to educate community members about standards-based education and to finding ways to communicate with each other throughout the process of implementation. Administrators noted that the amount of time they spent communicating and meeting with different constituencies was significant, and many schools had produced documents used to inform the public of the work going on in schools. The same conversations – about standards-based education, standards-based grading, colleges' acceptances of standards-based report cards, etc. – were taking place in many different districts across Maine. School personnel felt the burden, or cost, of these conversations and relationships between parents and community members and school personnel were, in some cases, stressed by this burden.

One final note about costs related to standards-based education deserves to be mentioned here: the cost of extending the school day or school year. Many educators and administrators felt that a number of students simply needed additional time, but that it was difficult to cover the costs of this. Several

schools had found ways to offer after school or early morning help sessions. One school offered a summer school program for elementary students who weren't meeting standards, at a cost of $65,000 plus transportation costs. They felt that this program was instrumental in their increased achievement scores. As standards-based education systems continue to develop the need for an extended day or year for some students may become even more apparent.

When considering implementation of a standards-based education system, it seems reasonable that schools should consider the resources they have available in each of the areas above. Without the dedicated resources in these areas, it seems likely that schools will struggle with implementation and implementation will proceed at a much slower pace.

Observations and Recommendations

OBSERVATIONS

The case study schools provided the MEPRI research teams with invaluable insights into the inspirations and challenges they are encountering in their journey to implement standards-based education and a proficiency-based diploma system. It is important to recognize that these schools, and we surmise schools all across the state, are in the early stages of transitioning to a standards-based system. We expected to find few, if any, fully developed components of the new system in the schools. Consequently, it was far too early to see the full range of impacts of the new system on student learning and performance. While each school was unique in many ways, several common themes were apparent. Below is are a summary of these common themes:

- These schools have invested a significant amount of time, expertise, and resources in beginning the transition to the new education system.
- Schools are at various level of implementation of the components of a standards-based system.
- Schools have taken various approaches to developing standards and proficiency levels.
- Although some changes in instructional practices were evident in classroom instruction, a majority of instruction practices remained unchanged.
- The work to date in the schools reinforces the importance for a systemic, strategic plan and timeline for implementation that included relevant professional development and training goals, methods for system evaluation and continued public relations with community stakeholders.
- Since beginning the transition to a standards-based education system, many schools reported a significant, positive shift in school culture and students' attitudes towards their learning.
- Many schools indicated that a robust system of interventions—both for remediation and enrichment—will be a key aspect of meeting all students needs, especially in a standards-based, proficiency-based system.
- Few steps had been taken in the schools to develop or adopt robust learning management systems to monitor and manage the data necessary accompanying the implementation of a standards-based system.

RECOMMENDATIONS

In light of the data collected from case study schools, review of literature and knowledge of the work in

Maine to support schools in their development of a standards-based education system, we offer the following policy recommendations:

- Discuss, debate, and resolve the issue of **multiple content and proficiency standards systems.**
- Facilitate the **development of regional consortia**, similar to the Maine Cohort for Customized Learning, to assist school districts in developing and implementing proficiency-based diploma programs.
- Facilitate opportunities for **differentiated professional development** that targets the varied needs of schools along the continuum of the level of implementation of a standards-based education, proficiency-based diploma system.
- Support the development of an efficient, comprehensive **learning management system** that allows schools to 1) access common learning resources, curriculum materials and relevant research, 2) document and utilize student assessment data and progress through proficiency levels, and 3) maintain required student information (i.e. attendance, special education materials, transcripts, etc.).

Conclusion

It was evident from schools in this study that Maine educators and leaders were working diligently to embrace and implement the core elements of LD 1422, including the development of a standards-based education system and a proficiency-based diploma program. The initial work of this reform appeared to require significant understanding of the need for change in a school if it did not already have strong student engagement and a positive school climate. Building this type of educational environment required "paradigm shifts" around beliefs about student learning, teacher role, collaboration, and even the structure of many traditional elements of American public schooling, such as schedules, grade configurations and report cards. Students, teachers and leaders who believed in the ability of this reform to improve their school felt empowered and felt they had a moral obligation to engage in this work.

However, it is very hard, time-consuming work, and the challenges are many. Simply finding the time, resources and energy to thoroughly train all professional staff in these initial, yet fundamental, trainings was a barrier for some schools in the ability to begin this work with all staff more immediately. Also, once beyond the initial stages of changing belief structures, moral imperatives and school culture, the logistics of rolling out a curriculum with "student choice" and "multiple pathways" proved very complex and difficult within existing structures of traditional public school teacher certifications, school

grade configurations, daily scheduling, existing learning management technology, limited external or community supplemental resources, and current levels of personnel capacity.

It was evident from the analysis that creating a proficiency-based diploma program is going to be very difficult if it is not supported with the pillars of necessary resources addressing the many challenges school districts face in transitioning to the new education system. Further, there is a significant policy issue that needs to be discussed, debated, and resolved, and that is the role of the State in defining consistent content and proficiency standards. If present practice is continued, it is highly likely that the end result will be as many different proficiency programs as there are school districts across Maine. If Maine's school districts were able to create common standards for learning and a system by which students had increased voice and multiple methods for meeting these standards, it would produce a transformative change in the learning experiences of many of Maine's school children.

References

Cover, A.Y. (2001). Is "adequacy" a more "political question" than "equality?": The effect of standards based education on judicial standards for education finance. *Cornell Journal of Law and Public Policy,* 11, 403-440.

The Colorado Coalition for Standards Based Education. (2008). Standards Based Education Self-Assessment Survey. Retrieved from <http://www.coloradoea.org/Libraries/Teaching_Learning_ARCHIVE/District_Level_Self-Assessment.sflb.ashx>

Craig, T. (2011). *Effects of standards-based report cards on student learning.* (Doctoral dissertation.) Northeastern University, Boston, MA.

Hill, H.C. (2001). Policy is not enough: Language and the interpretation of state standards. *American Education Research Journal*, 38, 289-318.

Goodman, J. (2012). Gold standards? State standards reform and student achievement. *Harvard University.*

Hamilton, L. S., Stecher, B.M. & Yuan, K. (2008). Standards-based reform in the United States: History, Research, and Future Directions. RAND Corporation.

Haynes, M. (2013). Strengthening high school teaching and learning in New Hampshire's competency-based system. Alliance for Excellent Education.

Jester, T. E. (2002). Healing the "Unhealthy Native": Encounters with Standards-Based Education in Rural Alaska. *Journal of American Indian Education*, 41(3), 1-21.

Kleiman, G.M. (2004). Myths and realities about technology in K-12 schools: Five years later. *Contemporary Issues in Technology and Teacher Education*, 4(2), 248-253.

Maine Department of Education. (2012). *Education evolving: Maine's plan for putting learners first.* Retrieved from <http://www.maine.gov/doe/plan/index.html>

Massell, D. (1994). National curriculum content standards: The challenges for subject matter associations. *The future of education:Perspectives on national standards in America*, 239-257.

Snyder, C. W. Jr. (2010). Standards and assessment in education. *Development*, 53(4), 540–546.

Sturgis, C., Patrick, S. & Pittenger, L. (2011). It's Not a Matter of Time: Highlights from the 2011 Competency-Based Learning Summit. *International Association for K-12 Online Learning.*

Wesselink, R., Biemans, H.J., Mulder, M., & van den Elsen, E.R. (2007). Competency-based VET as seen by Dutch researchers. *European journal of vocational training,* (40) 43-50.

Appendix A: LD 1422

An Act To Prepare Maine People for the Future Economy

Be it enacted by the People of the State of Maine as follows:

Sec. 1. 20-A MRSA §253, sub-§9 is enacted to read:

9. Transition to standards-based educational system. In order to facilitate the transformation of the public education system to one in which standards are used to guide curriculum and instruction and in which student advancement and graduation are based on student demonstration of proficiency in meeting educational standards, the commissioner may waive or alter any provision of this Title as specified in an approved plan for transitioning to proficiency-based graduation in accordance with section 4722-A as the provision pertains to requiring or prohibiting an action based on the age or grade level of a student. This authority applies to all age-based or grade-based requirements, except that the commissioner may not waive or alter:

A. Requirements imposed by federal law, or imposed by state law in order to comply with federal law, including but not limited to requirements relating to assessment and special education;

B. Compulsory attendance and eligibility to enroll standards; C. Provisions relating to public funding, including tuition rates;

D. Health-related provisions, if advised by health professionals not to alter the requirements; and

E. Provisions of this Title that are not administered by the commissioner, including but not limited to certain provisions relating to institutions of higher education.

The commissioner shall adopt rules to implement this subsection. Rules adopted pursuant to this subsection before July 1, 2013 are routine technical rules pursuant to Title 5, chapter 375, subchapter 2-A. Beginning July 1, 2013, rules adopted by the commissioner pursuant to this subsection are major substantive rules pursuant to Title 5, chapter 375, subchapter 2-A.

Sec. 2. 20-A MRSA §2902, sub-§3, as repealed and replaced by PL 1985, c. 797, §22, is amended to read:

3. Courses required by law. Provide instruction in elementary schools as specified in sections 4701, 4704, 4706 and 4711 and in secondary schools as specified in sections 4701, 4704, 4706, 4722, 4723 and 4724.

Sec. 3. 20-A MRSA §4502, sub-§1, as amended by PL 2001, c. 454, §12, is further amended to read:

1. General requirements. Elementary and secondary schools and school administrative units, including an educational program or school located in or operated by a juvenile correctional facility, shall meet all requirements of the system of learning results as established in section 6209 as well as other requirements of this Title and other statutory requirements applicable to the public schools and basic school approval standards. Each school administrative unit shall prepare and implement a comprehensive education plan that is aligned with the system of learning results, focused on the learning of all students and oriented to continuous improvement. The comprehensive education plan must include a plan for transitioning to

proficiency-based graduation in accordance with section 4722-A. This plan must also address all other plans required by the department.

Sec. 4. 20-A MRSA §4502, sub-§6, as repealed and replaced by PL 2001, c. 454, §15, is amended to read:

6. Annual report on comprehensive education plan. The superintendent shall make an annual report of progress on the comprehensive education plan, developed pursuant to subsection 1, to the citizens of the school administrative unit. The school board shall annually review and approve the plan. The superintendent shall certify progress on the plan to the commissioner on an annual basis and shall submit to the commissioner a copy of the minutes of the school board meeting at which the school board reviewed and approved the plan.

Sec. 5. 20-A MRSA §4502, sub-§8, as enacted by PL 2001, c. 454, §16, is amended to read:

8. Waivers. The commissioner may grant a school administrative unit a waiver of one or more school approval requirements upon receipt of an application from the school administrative unit that includes the basis for the waiver request and a plan to reduce reliance on waivers in subsequent years. Financial hardship is one criterion the commissioner must consider in determining whether to grant a waiver.

A. Financial hardship is one criterion the commissioner must consider in determining whether to grant a waiver.

B. A request to waive the requirement for a transition plan to proficiency-based graduation in accordance with section 4722-A by January 1, 2017 must include specific information about the reason for the waiver request and a date by which the proficiency-based graduation requirement will be met. Any waiver granted by the commissioner under this paragraph must require an annual report to the commissioner on the school administrative unit's progress toward meeting the requirements of section 4722-A. This paragraph is repealed July 1, 2020.

C. The commissioner shall provide a report to the joint standing committee of the Legislature having jurisdiction over education matters by February 1st annually on the number of waivers provided pursuant to paragraph B, including the reasons for the waivers granted. The commissioner shall promptly post the annual report submitted pursuant to this paragraph on the department's publicly accessible website.

This paragraph is repealed July 1, 2020.

Sec. 6. 20-A MRSA §4722, sub-§§7 and 8 are enacted to read:

7. Applicability of requirements; transition to proficiency-based diploma.

Except as provided in section 4722-A, this section applies to the granting of diplomas to secondary school students before January 1, 2017.

8. Repeal. This section is repealed July 1, 2020.

Sec. 7. 20-A MRSA §4722-A is enacted to read: §4722-A. Proficiency-based diploma standards

Beginning January 1, 2017, a diploma indicating graduation from a secondary school must be based on student demonstration of proficiency as described in this section. The commissioner may permit a school

administrative unit to award diplomas under this section prior to January 1, 2017 if the commissioner finds that the unit's plan for awarding diplomas meets the criteria for proficiency-based graduation under this section.

1. Requirements for award of diploma. In order to receive a diploma indicating graduation from secondary school, a student must:

A. Demonstrate that the student engaged in educational experiences relating to English language arts, mathematics and science and technology in each year of the student's secondary schooling;

B. Demonstrate proficiency in meeting state standards in all content areas of the system of learning results established under section 6209;

C. Demonstrate proficiency in each of the guiding principles set forth in department rules governing implementation of the system of learning results established pursuant to section 6209; and

D. Meet any other requirements specified by the governing body of the school administrative unit attended by the student.

2. Method of gaining and demonstrating proficiency. Students must be allowed to gain proficiency through multiple pathways, as described in section 4703, and must be allowed to demonstrate proficiency by presenting multiple types of evidence, including but not limited to teacher-designed or student-designed assessments, portfolios, performance, exhibitions and projects.

3. Exceptions. Notwithstanding subsection 1, a student may be awarded a diploma indicating graduation from a secondary school in the following circumstances.

A. A child with a disability, as defined in section 7001, subsection 1-B, who achieves proficiency as required in subsection 1, as specified by the goals and objectives of the child's individualized education plan, may be awarded a high school diploma.

B. A student who has satisfactorily completed the freshman year in an accredited degree-granting institution of higher education may be eligible to receive a high school diploma from the school the student last attended.

C. A student who experiences education disruption, as described in section 5001-A, subsection 4, paragraph F, who successfully demonstrates proficiency as required in subsection 1 as set forth in the student's school work recognition plan as defined in section 5161 must, with the approval of the commissioner, be awarded a Department of Education diploma as defined in section 5161.

D. A school administrative unit may award a high school diploma to a student who has met the standards set forth in a waiver request that was approved by the commissioner pursuant to section 4502, subsection 8.

E. A person may be awarded a high school diploma, including a posthumous award, if the person or a family member of the person applies to a secondary school and:

(1) The person:

(a) Attended a secondary school in the geographic area now served by the secondary school from which a diploma is requested; or

(b) Resides at the time of application for a diploma in the geographic area served by the secondary school from which a diploma is requested;

(2) The person did not graduate or receive a diploma from a secondary school because the person left secondary school to serve in the Armed Forces and served during the following periods:

(a) World War II, from December 7, 1941 to August 16, 1945;□(b) The Korean Conflict; or□(c) The Vietnam War era, from February 28, 1961 to May 7, 1975; and

(3) The person received an honorable discharge or a certificate of honorable service from the Armed Forces.

For the purposes of this paragraph, "Armed Forces" means the United States Army, Navy, Air Force, Marine Corps, Coast Guard and the Merchant Marines.

4. Grants; contingent extension of full implementation. During the period of transition to proficiency-based graduation in accordance with this section, the department, if funds are available, shall make annual transition grants to each school administrative unit equal to 1/10 of 1% of the school administrative unit's total cost of education calculated under section 15688, subsection 1 to be used in the manner determined by the school administrative unit to fund the costs of the transition not otherwise subsidized by the State. The date for implementation of the awarding of diplomas based on student demonstration of proficiency as described in this section is extended one year for each year for which transition grants are not made available to a school administrative unit of for which levels of general purpose aid for local schools fall below school year 2012- 2013 levels.

Sec. 8. 20-A MRSA §13016, sub-§2, as amended by PL 1991, c. 622, Pt. X, §8, is further amended to read:

2. Professional teacher certificates. A professional teacher certificate may be renewed for 5-year periods in accordance with state board rules, which must require, at a minimum, that the teacher complete at least 6 hours of professional or academic study, or in-service training designed to improve the performance of the teacher in the field for which the teacher holds an endorsement, or in a related subject area, or to improve the teacher's knowledge of, and skill in, standards-based education. Teachers who desire to qualify for a master teacher certificate must coordinate their continuing professional education with the requirements of an applicable teacher action plan.

Sec. 9. Development of standards-based system tools. The Department of Education shall coordinate the development of standards, assessments and assessment criteria needed to enable school administrative units to implement a standards-based system of education.

1. The Department of Education shall convene a working group to develop standards, assessments and assessment criteria for determining student proficiency in the guiding principles as outlined in department rule that are required for secondary school graduation beginning January 1, 2017. The working group must include representatives from school administrative units currently developing those standards, assessments and assessment criteria. The working group shall develop draft standards, assessments and

assessment criteria for review not later than July 1, 2013.

2. The Department of Education shall maintain a publicly accessible website to serve as a resource for schools implementing standards-based education systems. The website must:

A. Include information about the experience of school administrative units that are engaged in transforming their schools to standards-based systems, including schools involved in the Maine Cohort for Customized Learning and the League of Innovative Schools of the New England Secondary School Consortium;

B. Include a repository of model materials, including but not limited to report cards and transcripts, assessment methodologies and assessment criteria for all content areas of the system of learning results;

C. Be designed to facilitate communication among educators and administrators on the transformation of schools to standards-based education systems; and

D. Provide information for school administrative units seeking to create regional capacity to implement standards-based education systems, including information about applying for a grant from the Fund for the Efficient Delivery of Educational Services established pursuant to the Maine Revised Statutes, Title 20-A, section 2651 and information about school administrative units that are currently engaging in regional cooperation in delivering education.

Sec. 10. Development of technical assistance plan. The Department of Education shall develop a technical assistance plan that includes a timeline with implementation dates for the resources and initiatives the department will provide to enable school administrative units to transition to a standards-based education system. The technical assistance plan must include but is not limited to the standards-based system tools described in section 9, other resources related to model policies and best practices, professional development and training and other initiatives that the department determines will be necessary for school administrative units to transform their schools to a standards-based education system. The technical assistance plan must be presented to the joint standing committee of the Legislature having jurisdiction over education matters for review by March 1, 2013. The joint standing committee may introduce a bill to the First Regular Session of the 126th Legislature related to the department's activities described in this section and section 9.

Sec. 11. Amendment of age-based and grade-based statutory provisions.

The Department of Education shall submit a bill to the First Regular Session of the 126th Legislature to amend provisions of the Maine Revised Statutes, Title 20-A that unreasonably restrict the ability of school administrative units to advance or graduate students based on demonstrated proficiency in education standards. The bill may include an amendment to the rule making

Appendix B: Leadership Survey

Standards-Based Education in Maine

The following survey is part of a study commissioned by the Legislature to investigate the development, costs and impacts of implementing standards-based education under LD1422 in Maine. The survey should take about 10-15 minutes to complete. Thank you for taking the time to do so. All responses are confidential, and results will only be reported in the aggregate.

1. If you are a district-level employee, write in your district's name. If you are a school-level employee, write in your school's name:

2. Grade Levels Served:

Other (please specify)

3. Are you a school-based or district-based administrator or educator? What is your job title / role?

Your Job Title / Role:

4. Today's Date

Date MM / DD / YYYY

INSTRUCTIONS: Please select the description that best fits your school's current status in developing the corresponding component of Standards-Based Education. Components have been compiled from various sources as critical characteristics and actions for implementing Standards-Based Education.

Standards-Based Education in Maine

*5. How many years ago did your school/district begin the process of adopting Standards-Based Education practices and policies?

- ◯ less than one year ago
- ◯ one year ago
- ◯ two years ago
- ◯ three years ago
- ◯ four years ago
- ◯ five years ago
- ◯ six years ago
- ◯ seven years ago
- ◯ eight years ago
- ◯ nine years ago
- ◯ ten or more years ago

Standards-Based Education in Maine

6. In terms of the CULTURE AND CONTEXT FOR CHANGE:

	Strongly Agree	Agree	Somewhat Agree	Somewhat Disagree	Disagree	Strongly Disagree	Unsure
a. Our school staff believes that all children have the capacity to achieve at high levels, with some exceptions and accommodations governed by special education needs.	◯	◯	◯	◯	◯	◯	◯
b. Our school staff believes that all standards apply to all students, with some exceptions and accommodations governed by special education needs.	◯	◯	◯	◯	◯	◯	◯
c. Our community believes that all students can learn.	◯	◯	◯	◯	◯	◯	◯
d. Our school staff supports the need for change.	◯	◯	◯	◯	◯	◯	◯
e. Our school community supports the need for change.	◯	◯	◯	◯	◯	◯	◯
f. Our school staff believes students can make informed choices about their own education.	◯	◯	◯	◯	◯	◯	◯
g. There is community support for change to standards-based education.	◯	◯	◯	◯	◯	◯	◯
h. In general, there are high aspirations for post-secondary learning.	◯	◯	◯	◯	◯	◯	◯

Comments?

Standards-Based Education in Maine

7. In terms of establishing a VISION AND GOALS FOR STANDARDS-BASED EDUCATION, our school has:

	Not Initiated	Beginning Development	Partially Developed	Strongly Developed	Thoroughly Established	Unsure
a. Developed a shared school and community vision for standards-based education (SBE).	◯	◯	◯	◯	◯	◯
b. Written a common vision/mission statement for SBE.	◯	◯	◯	◯	◯	◯
c. Defined explicit learning and systemic goals for SBE.	◯	◯	◯	◯	◯	◯
d. Outlined specific methods for supporting logistical changes required by SBE.	◯	◯	◯	◯	◯	◯

Comments?

8. In terms of establishing STANDARDS-BASED PROFESSIONAL DEVELOPMENT, our school has:

	Not Initiated	Beginning Development	Partially Developed	Strongly Developed	Thoroughly Established	Unsure
a. Developed short- and long-range professional development plans aligned with SBE vision and goals.	◯	◯	◯	◯	◯	◯
b. Engaged professional staff in research review and data analysis relevant to SBE vision and goals.	◯	◯	◯	◯	◯	◯
c. Provided opportunities for educators to collaborate around work related to SBE.	◯	◯	◯	◯	◯	◯
d. Modified the teacher evaluation system to reflect SBE.	◯	◯	◯	◯	◯	◯

Comments?

Standards-Based Education in Maine

9. In terms of DEFINING COMMON CONTENT AND PERFORMANCE STANDARDS, our school has:

	Not Initiated	Beginning Development	Partially Developed	Strongly Developed	Thoroughly Established	Unsure
a. Developed/Identified common standards across the same courses and/or grade levels taught by different teachers.	◯	◯	◯	◯	◯	◯
b. Developed/Identified cross-curricular content knowledge standards common across subject areas.	◯	◯	◯	◯	◯	◯
c. Developed/Identified common, cross-curricular standards for core skills (reading, writing, numeracy, higher order thinking).	◯	◯	◯	◯	◯	◯
d. Developed/Identified behavior ("non-cognitive," work ethic, or habits of practice) standards.	◯	◯	◯	◯	◯	◯
e. Developed standards and/or levels of proficiency for the Guiding Principles.	◯	◯	◯	◯	◯	◯
f. Developed/identified a common language for a taxonomy of learning.	◯	◯	◯	◯	◯	◯
g. Defined benchmarks of proficiency at key intellectual development stages.	◯	◯	◯	◯	◯	◯

Comments?

Standards-Based Education in Maine

10. In terms of adopting STANDARDS-BASED STRATEGIES WITHIN CURRICULUM, INSTRUCTION, ASSESSMENT & REPORTING PRACTICES, our school has:

	Not Initiated	Beginning Development	Partially Developed	Strongly Developed	Thoroughly Established	Unsure
a. Created curriculum scope and sequence options aligned with standards.	◯	◯	◯	◯	◯	◯
b. Identified standards-based criteria and method of acceleration for students exceeding standards.	◯	◯	◯	◯	◯	◯
c. Identified standards-based criteria and method of intervention for students not meeting standards.	◯	◯	◯	◯	◯	◯
d. Adapted instructional practices based on research analysis, standards and student performance.	◯	◯	◯	◯	◯	◯
e. Created/Identified formative assessments that show student proficiency levels in standards.	◯	◯	◯	◯	◯	◯
f. Created/Identified summative assessments that determine student proficiency levels in standards.	◯	◯	◯	◯	◯	◯
g. Developed student achievement reports that identify student proficiency levels on standards.	◯	◯	◯	◯	◯	◯

Comments?

Standards-Based Education in Maine

11. In terms of providing STUDENT-CENTERED LEARNING OPPORTUNITIES, our school:

	Not Initiated	Beginning Development	Partially Developed	Strongly Developed	Thoroughly Established	Unsure
a. Provides multiple pathways and multiple opportunities for students to demonstrate proficiency of standards.	◯	◯	◯	◯	◯	◯
b. Provides students voice and choice in the demonstration of their learning.	◯	◯	◯	◯	◯	◯
c. Provides learning opportunities that extend beyond the traditional school building.	◯	◯	◯	◯	◯	◯
d. Provides learning a opportunities that extend beyond the traditional school dy .	◯	◯	◯	◯	◯	◯
e. Provides opportunities for "anytime, anywhere" learning.	◯	◯	◯	◯	◯	◯

Comments?

Standards-Based Education in Maine

12. In terms of SYSTEM-WIDE PROFICIENCY-BASED PROGRESSION POLICIES & PRACTICES, our school has established:

	Not Initiated	Beginning Development	Partially Developed	Strongly Developed	Thoroughly Established	Unsure
a. Accessible intervention systems available within the school dy.	◯	◯	◯	◯	◯	◯
b. Accessible intervention systems available beyond the school day.	◯	◯	◯	◯	◯	◯
c. Progression criteria and standards that are published and clear to all school, parent, and community stakeholders.	◯	◯	◯	◯	◯	◯
d. A system of advancement that is based on student demonstration of proficiency or above on required standards.	◯	◯	◯	◯	◯	◯
e. Criteria for graduation and/or certification based on student demonstration of proficiency or above on required standards.	◯	◯	◯	◯	◯	◯
f. A system that allows students to avance at their own pace.	◯	◯	◯	◯	◯	◯
g. Options for remediation, as needed, to help students meet standards in a timely manner.	◯	◯	◯	◯	◯	◯
h. Options for acceleration to help students advance to the next level when they are ready.	◯	◯	◯	◯	◯	◯
i. A system for tracking student progress on specific learning goals.	◯	◯	◯	◯	◯	◯
j. A Learning Management System (LMS) that allows anytime access to learning targets and materials.	◯	◯	◯	◯	◯	◯
k. A technology system that is used to support standards-based practices.	◯	◯	◯	◯	◯	◯

Comments?

Standards-Based Education in Maine

13. In terms of IMPACT OF SBE ON STUDENT LEARNING OPPORTUNITIES & PERFORMANCE, our school has seen evidence of:

	Not Evident	Some Evidence	Substantial Evidence	Very Strong Evidence	Unsure
a. Increased student engagement.	◯	◯	◯	◯	◯
b. Increased educator engagement.	◯	◯	◯	◯	◯
c. Improved s udent performance on standardized assessments.	◯	◯	◯	◯	◯
d. Improved student performance on local assessments.	◯	◯	◯	◯	◯
e. Higher post-secondary education aspirations.	◯	◯	◯	◯	◯
f. Higher rates of post-secondary enrollment.	◯	◯	◯	◯	◯
g. Increased college- and career-readiness.	◯	◯	◯	◯	◯
h. Greater community investment in education.	◯	◯	◯	◯	◯
i. Increased involvement in local and world citizenship.	◯	◯	◯	◯	◯

Comments?

14. What are the ***barriers***, if any, to successful implementation of standards-based education in your work? What ***supports and resources*** (time, money, expertise) are needed and would be helpful as your district/school implements SBE?

15. General Comments (re: standards-based education in Maine, this survey, etc.):

Thank you for participating in this survey! If you have any questions or would like further information, please contact our office, the Center for Education Policy, Applied Research and Evaluation at the University of Southern Maine (207.228.8117).