



# Profiles in Success: Maine Public Schools



*Augusta, ME* – “This has delivered the highest impact for the lowest cost of any government program I’ve ever seen. The computer is the defining tool of the 21<sup>st</sup> century; the digital device that more than any other single thing holds the key to good jobs.”

—Angus King, Governor of Maine

Throughout his term in office, Maine Governor Angus King has been a tireless champion of education. In his 2001 State of the State address, King shared his vision that “Maine people will be among the best-educated in the world.” Adding that he would like his state to be known as “the most technologically capable society on Earth,” King supported the creation of the Maine Learning Technology Initiative. Supported by the largest purchase of wireless iBook systems by any school district or state to date, Maine’s initiative will ensure one-to-one computer access for all middle school students and teachers in the entire state.

“My central vision was, if we were the most digitally literate society on Earth, that had to have a positive result in terms of opportunity and income,” says King. “The second consideration was equity. We have a lot of well-to-do suburbs, and several very poor, rural areas, with a great disparity of income. So the computers would provide the equity tool . . . and opportunity and equity are great motivators.”

## **Task Force Creates Plan**

Accordingly, Maine’s lawmakers created a task force that included educators, legislators, and citizens from across the state to review the initiative. The task force devised a practical, phased plan to make cost-efficient, durable machines available to seventh- and eighth-grade students and teachers.

The Maine Department of Education issued a Request for Proposal and selected Apple through a competitive bid process to provide iBook computers for every seventh- and eighth-grade pupil and teacher by the beginning of the 2003–04 school year. Private donations and funding from the Maine School and Library Network are helping to support the laptop program.

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—Crystal Priest,  
District Technology Coordinator

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## Nine Schools Pilot Program

Nine schools across Maine took early delivery of the iBook systems. The demonstration schools are an eclectic mix of large and small, urban and rural, affluent and economically challenged. Yet all report a dramatic change in the learning model, and a level of student involvement never seen before.

Take the case of tiny, rural Pembroke Elementary School. Thirty miles from the nearest grocery store, in a community where the changing economy has sent the unemployment rate sky-high, Pembroke's 120 students enjoy few of the advantages of their more urban contemporaries. Yet, says Principal Paula Smith, the arrival of the iBook computers presented exciting academic opportunities for virtually every middle school student at Pembroke.

"We're a low-performing school in some academic areas," Smith says. "But what I've seen since we got the laptops has been just amazing. We could easily graph the increase in student involvement and how students are using their free time. We don't hear 'Can I listen to my CD player?' anymore. Now it's 'Can I use my iBook to learn something new?'"

## A New Learning Model

Pembroke teacher Debbie Jamieson says the laptop initiative has completely changed the teaching and learning dynamic in her classes. In place of traditional math or social studies lessons, she combines the two with a lively stock market game, in which students research and "buy" stocks using a prespecified amount of investment funds. She proudly adds that one of her students recently placed fourth in a statewide version of the game; notable in that it was the first time Pembroke students had competed in the contest.

Wireless access to the Internet also provides unlimited access to a wealth of educational resources. Jamieson says that although students live in a town where the closest store or bank is 30 miles away, the world's most exotic locales are instantly accessible through a "virtual field trip" online.

She adds that the entire tenor of her classroom has shifted since the laptops arrived. "There's been a huge improvement in the kids' self-esteem. They feel like 'I have this tool, and I can find this material,' which is really empowering for them. The discipline issues have gone down dramatically, and the conversation in the classroom has become much more academic—the kids are showing each other where to find information for their presentations, and they're really collaborating," Jamieson says.

## One Community Couldn't Wait

The prospect of one-to-one computing for all students was so attractive to another rural community, Guilford, Maine, that local leaders helped fund a preliminary purchase of iBook systems for Piscataquis Community Middle School even before the larger Maine initiative was underway. In the three years since the school has had its laptops in place, District Technology Coordinator Crystal Priest says the educational opportunities (as well as the results in the classroom) have been remarkable.

"This is a tool that absolutely breaks down the four walls of the classroom and allows us to go anywhere in the world," Priest notes. "We're not limited to the 2,000 volumes in our library or whether we can get a bus for a field trip to the nearest museum—the students can get online anytime and check out the Louvre.

## Challenges

- Enable one-to-one computer access for middle school students and teachers statewide
- Ensure curriculum and technology training for teachers and school administrators
- Equip students from diverse economic backgrounds with the knowledge and skills needed for future careers

## Solution

- Create Maine Learning Technology Initiative to advance Maine's classrooms into a 21<sup>st</sup> century level of education
- Select Apple to provide iBook computers, wireless networks, servers, bundled software, technical support, maintenance, and teacher training for 36,000 seventh- and eighth-grade students and teachers
- Provide additional funds through \$1 million grant from Gates Foundation, private donations, and the Maine School and Library Network

## Benefits

- Eliminate the digital divide
- Spark unprecedented level of student engagement
- Make computers ubiquitous tools in the classroom

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The iBook computers spark higher-order thinking skills, collaborative learning, and self-paced learning. As a result, attendance is improving, grades are going up, discipline problems are going down, and the kids are engaged, animated, and talking.”

Priest receives enthusiastic corroboration from her students. Eighth-grader Sierra Reed says she and her classmates are excited by the new laptops. “We all love our computers—they make things so much easier,” says Reed. “Also, we can concentrate more on what we’re writing, knowing we can fix our spelling at the end if we need to. We all have so much more time to get our work done now.

“I like class a lot better,” Reed continues. “The computers make it easier to do our reports and a lot of us use slide shows to tell the class what we did. I definitely see many benefits to having the laptops. I learn something new every day—and my favorite thing is coming home and not thinking about the hours of homework to come because everything is already all typed up!”

## Professional Development Is Priority

Key to the laptop initiative’s success is the ongoing training the participating teachers receive. All pilot site teachers met regularly for curriculum planning and training in the supporting technologies. Also, these schools open their doors for visits from other districts one day each week. During these gatherings, the sites share students’ and teachers’ experiences and highlight the various ways the laptops are enhancing learning.

In addition, Apple is delivering professional development in collaboration with the Maine-based Center for Educational Services. Guided by Maine’s Department of Education, Apple and the Center are offering curriculum integration training addressing the goals of Maine Learning Results and based on needs assessments completed by middle school educators. Financial support is being delivered by private donors and foundations, in the form of a \$1 million grant.

## Unprecedented Student Engagement

While Maine’s Learning Technology Initiative is still in its early stages, almost all participating schools, administrators, teachers, and community members are giving the program high marks. Long-term, says Smith, all of Maine’s iBook-enabled schools will assess students’ academic performance in the traditional areas: reading comprehension, written and verbal communication, math skills, and so on. But Smith also adds that every school that distributes laptops to its students will see an immediate, unprecedented benefit.

“In the 32 years I’ve been in education, I don’t think I’ve seen any one thing have such a dramatic, positive effect on the students, in such a short amount of time,” Smith says. “Now the kids are feeling equal to other schools and other students in the state and they’re really excited about learning. I talked to an eighth grader the other day and he said, ‘You know, I used to come to school thinking the day was far too long, but there just aren’t enough hours anymore.’”

Governor King echoes Smith’s experiences. “The results of this program have gone way beyond what I had even hoped for,” says King. “We’ve seen improvements in so many areas, such as attendance and discipline. But the key word here is engagement—the way the kids are engaged in learning as their teachers have never seen them before. Any teacher will tell you: If the kids are engaged, that’s 90 percent of the battle.”



### Advice to Other Districts.

- Start with a manageable number of schools participating in the program
- Ensure funding for after-purchase training, maintenance, and support
- Enlist community support for initiative, whenever possible, through open houses, presentations by students, training for parents, families, and so on

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