

February 17, 2004

We are pleased to release the Final Report from our study of one-to-one laptop computing at Piscataquis Community High School (PCHS). The study was conducted by the Mitchell Institute as part of a Great Maine Schools Project grant funded by the Bill and Melinda Gates Foundation. It describes to the experience of students, teachers, administrators, and parents at one Maine high school in the first two years of a one-to-one computing program.

The clearest areas in which PCHS's laptop program has had a positive impact are in improving computer skills, increasing access to educational resources, boosting student motivation and interest in school, and enhancing interaction among students and teachers. Most students and teachers believe that laptops have improved the quality of work and student achievement. There is evidence that the laptop program has contributed to some improvements across the spectrum of PCHS students, and has led to the greatest improvements for at-risk and low-achieving students. The laptop program has helped to prepare all students for more rigorous, higher-level learning. The program appears to have very few negative aspects, none of them major issues.

For the Final Report, we reviewed administrative data provided by PCHS, Maine Educational Assessment (MEA) scores provided by the Maine Department of Education, and interview data collected at PCHS. These data reinforce the findings of our earlier Interim Report. **New information in this report includes:**

- ◆ The daily student attendance rate at PCHS increased from 91% before the laptop program to 98% in both of the last two years. In interviews, teachers and administrators noted that students tend to spend more time in school since they received laptops.
- ◆ Office referrals for disciplinary reasons declined by 45% during the first year of the laptop program, while total student enrollment remained comparable.
- ◆ The impact of the laptop program on MEA scores is unclear at this early stage. During the first year of the laptop program, the average MEA scores for 11th graders at PCHS improved in writing, stayed the same in science and social studies, and declined slightly in reading and math. A different cohort of students participates in MEAs each year, and this study did not examine whether MEAs assess the types of skills that laptops enhance most.
- ◆ Teachers interviewed note that, cognitively, laptops have leveled the playing field for students with different learning styles and achievement levels. Some average students have been inspired to become high-achievers, and many of the students who were not well behaved in class before have gotten more focused on their schoolwork, teachers say.
- ◆ Several teachers mentioned in interviews that laptops have provided a way for students to have social contact with those who they otherwise would not, or that laptops have given shy students a better way to express their views and get involved in school.
- ◆ Most of the students interviewed mentioned that they write more now that they have laptops, both because they prefer typing to handwriting and because access to spelling and grammar check gives them more confidence.
- ◆ In nearly all the student interviews, students volunteered that their grades have improved with laptops. One student said that having a laptop "makes me more consistent at getting my homework in." Others mentioned more resources for research and more chances to revise assignments as benefits of laptops that have helped them to improve their grades.