



**State Strategies and Practices for Educational Technology:
Volume I—Examining the Enhancing Education
Through Technology Program**



State Strategies and Practices for Educational Technology: Volume I—Examining the Enhancing Education Through Technology Program

U.S. Department of Education
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Preface to Volume I

This is the first volume of *State Strategies and Practices for Educational Technology* by the National Educational Technology Trends Study (NETTS). NETTS is a federally sponsored evaluation of the Enhancing Education Through Technology (EETT) program, a program authorized by Title II, Part D, of the *Elementary and Secondary Education Act of 1965 (ESEA)*, which was reauthorized as the *No Child Left Behind Act of 2001 (NCLB)*.

Volume I, *Examining the Enhancing Education Through Technology Program*, describes state-level educational technology policies, focusing on the implementation of state-level Enhancing Education Through Technology (EETT) programs in the first years of operation. The report draws on survey data from both state educational technology directors and district-based educational technology coordinators that were collected by NETTS.

Executive Summary

Introduction

The recent proliferation of information and communication technologies, including desktop and laptop computers, handheld devices, cell phones, portable video players, and the Internet, has transformed the world in which we live. In just a decade or two, the ways in which people shop, bank, work, and communicate have changed sufficiently to suggest to many that children growing up today will require a new and more demanding intellectual skill set to thrive in adulthood than their parents did. As a result, many experts recommend that students' educational experiences be reformed to better prepare students for their future. These efforts have renewed emphasis on developing mathematics, science, engineering and technology proficiency among our nation's youths.

As information and communication technologies place increased demands on workers and families, they also have the power to enhance and extend formal and informal educational opportunities. Educational technologies, when used properly and in coordination with a variety of school reforms, have been shown to enrich learning environments and enhance students' conceptual understanding. Indeed, educational systems across the country have embraced the potential of technologies to improve schooling. In the past 10 years, all levels of government have invested significant resources to support the integration of school-based technologies in teaching and learning practices. The ratio of students per instructional computer has consistently dropped over the years, as computers and related software have become increasingly available to teachers and students. And after several years of federal, state, and local investment in information technology, a majority of teachers in public schools consider particular technologies essential to their teaching.

The federal government has played an important role in modernizing schools and their technical capacity, administering several programs to improve telecommunications and Internet access, purchase hardware and educational software, provide technology-related professional development and other technology supports, and fund the research and development of innovative uses of technology for educational purposes. The Enhancing Education Through Technology program (EETT) is among the largest of such programs at the U.S. Department of Education. The EETT program, authorized by Title II, Part D, of the *Elementary and Secondary Education Act of 1965 (ESEA)*, as amended by the *No Child Left Behind Act of 2001 (NCLB)*, provides formula grants to states for promoting the use of educational technology to improve student achievement. States, in turn, provide formula and competitive grant awards to districts within their state. Through the activities that EETT supports, the program explicitly recognizes that the presence of computers and network connections in schools, though necessary, is insufficient to meet the program's primary goal: improved student achievement. EETT is designed to improve the capacity of high-poverty schools to improve student academic achievement through the use of educational technologies, and it is the focus of this report.

About This Report

This report discusses the role of the EETT program, the state priorities and programs that EETT supports, and the relationship between state educational technology program activities and the overarching goals and purposes of the *No Child Left Behind Act of 2001*. Chapter 1 of this report describes state educational technology policies and related programs, including the role of the EETT program in state efforts. Chapter 2 presents individual state profiles that present data summarized in Chapter 1.¹

This report is part of the U.S. Department of Education's National Educational Technology Trends Study (NETTS), a multiyear evaluation that documents the implementation of the EETT program. The report draws primarily on data from NETTS surveys of state educational technology directors and district technology coordinators that were gathered in 2004 and 2005² and case study data gathered by NETTS in six states in 2004.³ The survey results reported below focus on administrators' perceptions of needs and strategies as opposed to providing direct evidence of needs or strategies, unless otherwise noted. The state survey asked state educational technology directors about state priorities for educational technology and administration of the EETT grant program. The district survey asked district technology coordinators about current and past activities supported by the EETT program and other general educational technology activities in their districts. State case study data are used to illustrate themes raised by state survey data.

These data describe the EETT program in its first and second years of operation. It should be recognized that some states were still completing their educational technology plans and getting their EETT implementation procedures in place during this time. In addition, these data and other NETTS data sources do not address the relationships between educational technology use and student academic achievement. Evaluation of the impact of educational technology on academic achievement is beyond the scope of this study.

Key Findings: State Educational Technology Policies and Practices

- **Forty-two states reported having technology standards for students in place by fall of 2004.**

Of the 42 states that had student technology standards, 18 reported having "stand-alone" standards, and 16 reported embedding technology standards with other academic content standards. The remaining eight states reported having both stand-alone technology standards and integrated standards. The second goal of the legislation authorizing EETT is to assist students in becoming technologically literate by the end of eighth grade. Eighteen states reported that student technology literacy was a specific priority for their EETT grants in

¹ While the EETT program requires LEAs to provide equitable services to private school students and teachers, this report does not address the participation of private school students and teachers.

² The NETTS project collected survey data from state technology coordinators in the 50 states and the District of Columbia (D.C.) and Puerto Rico in 2004 and from 916 district technology coordinators sampled to represent the 50 states, D.C., Puerto Rico, and nondistrict entities receiving EETT funding as lead entities in 2005. Data were gathered on states' and districts' EETT programs and on their technology practices more generally.

³ Case study data were collected from Kansas, Massachusetts, Ohio, Texas, Washington, and West Virginia.

fiscal year (FY) 2003. Thirteen states reported requiring a student technology literacy component in their competitive grant applications.

- **Two states reported that they used statewide assessments of students' proficiency with technology.**

Assessments required and collected at the state level allow a common framework for evaluation of state standards across a state and increase the probability that results can be compared across districts. Although only two states reported using statewide assessments, there is reason to think that several more states will soon assess student technology proficiency. Eleven states reported plans to assess student technology skills.

More students may have their technology proficiency evaluated than state statistics suggest. An additional 13 states reported that districts assessed student progress toward technology proficiency.⁴ More than a third of states (35 percent) described themselves as “not yet decided” with respect to whether they would assess students' technology literacy in years to come.

- **Many states have put in place minimum standards for teachers' use of technology, and five states reporting using statewide assessments of teachers' technology proficiency in FY 2004.**

More than half of the states (27) reported on the NETTS survey that they had technology standards for teachers in order to specify the knowledge and skills that teachers need to use technology for administrative or instructional purposes. Five states formally assessed teachers' technology skills at the state level. Five other states that do not assess the technology skills of teachers reported that they were planning to do so.

- **Just over half of states reported the provision of activities related to online education, with 26 states reporting that they provided online courses, tutorials, software, and other academic content and resources in core subject areas.**

State educational technology directors were also asked about state policies related to technology-enhanced assessment, which has the potential to improve traditional paper-and-pencil assessments. Sixteen states reported offering Internet- or computer-based assessments of students' academic achievement. Five states made electronic networks and other distance learning a priority for EETT competitive grants in FY 2003.

Key Findings: State Administration of the EETT Program

Formula Grants

- **In school year 2003–04, states awarded more than 13,000 formula grants to local authorities.**

Formula grants to districts differ greatly in size, but this variation is attributable to large differences in the numbers of high-need students served. States award EETT formula grants to districts on the basis of the district's proportionate share of funding under Title I, Part A,

⁴ No data regarding whether districts do in fact assess student technology proficiency are available. Future NETTS reports will address this issue.

for the same fiscal year. In FY 2003, formula grants to districts ranged from \$1 to \$20,980,099, with an average amount of \$21,275.

- **Formula grants of \$5,000 or less account for just 4 percent of total formula funds but 39 percent of the number of formula grants.**

Despite concern about the number of formula grants that would be too small to support meaningful activity, analyses revealed that only 4 percent of EETT formula grant funds were distributed to local education agencies in amounts less than \$5,000. Although this represents a small percent of total funds, grants in amounts less than \$5,000 account for 39 percent of all formula grants. Administration of small formula grants, therefore, is likely to take more time and effort than the amount of funds distributed might otherwise suggest.

Competitive Grants

- **In school year 2003–04, states made more than 1,600 competitive grant awards, with award sizes averaging about \$154,000. On average, states awarded 33 competitive grants, but the range for the number of competitive awards in a state was from five to 102 grants.**

The range in competitive award sizes was considerable, ranging from \$1,000 to more than \$6 million. Competitive grants to districts or partnerships in FY 2003 ranged from \$1,000 to \$6,655,600, with an average amount of \$154,261. States could only award competitive grants to districts and partnerships that were also eligible for formula grants. The numbers and ranges of competitive grants varied widely across states, suggesting different philosophies about whether to spread competitive grant funds widely or concentrating them in fewer, larger awards. State average competitive grant amounts ranged from \$2,603 to \$854,919. Eleven states awarded competitive grants to all the districts that applied. In contrast, 17 states awarded grants to fewer than half of the districts that applied. Among the factors likely to affect the number and range of competitive awards in states are the total number of EETT-eligible districts in a state, the total amount of EETT funds available, and pressure to distribute funds to a majority of districts in “local control” states. In addition, some state leaders appear convinced that sizable awards are necessary to effect change in districts.

- **Many eligible districts did not apply for competitive funds in FY 2003.**

The proportion of non-applying eligible districts varied by state. In 20 states, 20 percent or fewer of eligible districts applied. Data suggest that technology directors in some districts did not know that they were eligible or did not expect to get funds if they applied. In addition, some district technology coordinators reported that they did not have the resources to apply.

- **In their EETT competitive grant programs, almost half of the states gave priority to grant applications from partnerships.**

Given the overwhelming costs and challenges of establishing an adequate technological infrastructure in education, all levels of government, public-private partnerships, and local communities can provide critical input, leadership, and financial support for educational technology. The majority of states emphasized the promotion of roles for multiple stakeholders in making their EETT grants. A quarter gave priority to applications that emphasized parent and family involvement.

- **Officials in 38 states said they gave priority to teacher professional development in their competitive grant programs.**

Recognizing the importance of professional development if technology is to be used effectively in schools, *ESEA* requires local recipients of EETT funds to allocate at least 25 percent of those funds for professional development in the integration of technology into instruction.⁵ Given the level of state grants awarded under EETT, an estimated \$600 million supported teacher professional development on technology integration over the five-year lifespan of the program. States appear to have embraced the professional development aspect of the EETT program. Officials in 28 states used part of their federal EETT set-aside funds to support research and development activities on professional development for technology integration.

Conclusions

The EETT program is the U.S. Department of Education's only program dedicated to the integration of educational technology in high-poverty elementary and secondary schools across the country, and it continues a tradition of federal support for educational technology. The design of EETT set forth in Title II, Part D, of *ESEA*, attempts to balance the strengths and weaknesses associated with both formula and competitive grant mechanisms. NETTS case study data highlight the value of incorporating both the formula and competitive elements. Formula grants allocate funds directly to those districts serving the highest-need populations; competitive grants, on the other hand, give states leverage in promoting their particular priorities among high-need districts. Formula grants ensure that districts receive some portion of funding in proportion to objective, need-based standards, but states have no influence on where the formula funds go or how they are spent. On the other hand, states have a stronger role with respect to the half of the EETT program that consists of competitive grants. For the first time in FY 2006, state EETT officials will have an opportunity to award all funds through competitive provisions due to the decrease of funding available to the program at the federal level. Of interest in future reports will be the degree to which states embrace this opportunity and the ways it appears to influence program operation.

States are required to evaluate their EETT programs and may use a portion of the state-level funds available to them through EETT. However, survey and case study data suggest that states

⁵ Districts where technology-related professional development is already being provided or deemed unnecessary may request a waiver from their state education agencies.

may not have adequate funding to design and implement rigorous evaluations. Results from case studies suggest that some states have attempted to leverage state funds by requiring data collection with common instruments across the state or encouraging districts to contribute funds to a common pool for what amounts to the funding of statewide evaluations by local grantees, but these efforts may not be sufficient to link EETT investments with student academic achievement, the program's primary goal. Indeed, evaluations that can adequately isolate the effects of educational technology on student academic achievement require complex designs. The measures and methods that would be necessary to estimate the independent effects of technology, instruction, students' prior achievement, and other likely contributors to student performance are likely beyond the human and financial capacities available to many states.

In an effort to establish links between the EETT program and student academic achievement and to build state capacity to conduct rigorous evaluations of educational technologies, nine states received additional funding from the Department to conduct rigorous, high-quality state evaluations of educational technology under the Evaluating State Educational Technology Programs (ESETP). Awards to states amounted to more than \$1 million per state over a three-year period, which is considerably higher than the median amount of allowable state-level funding available through the EETT program, again suggesting that high-quality evaluations cost much more than most states can afford through the EETT program.

Data reported in this document were collected in FY 2002 and FY 2003, the first two years of EETT program operation. In the first years of the program, states reported emphasizing professional development, technology integration, and student achievement, in keeping with the intentions of *ESEA*. As NETTS data collections move to the district and school levels, NETTS will examine the quality of the activities funded through EETT and their alignment with the goal of raising student achievement. In addition, NETTS will conduct a second state survey in winter 2006-07 to collect information about program policies and practices as the EETT program continues to evolve. The survey will concentrate in greater depth on how the EETT program works in coordination with other federal and state educational technology programs as well as state programmatic activities, such as professional development, technology integration, and evaluation. The survey will update information on administrative practices of the EETT program, including the size and number of grant awards, and it will support examination of trends in the implementation of the EETT program from its inception in FY 2002 through FY 2006. Additional district and teacher surveys are also planned for the spring of 2007.

CHAPTER 1: STATE EETT POLICIES AND RELATED PROGRAMS

Introduction

The proliferation of information and communication technologies in the recent past, including desktop and laptop computers, handheld devices, cell phones, portable video players, and the Internet, has transformed the world in which we live (Friedman, 2005). In just a decade or two, the ways in which people shop, bank, work, and communicate have changed sufficiently to suggest to many that children growing up today will require a new and more demanding intellectual skill set than their parents did in order to thrive in adulthood. As a result, many experts recommend that students' educational experiences be reformed to better prepare them for their future (Kozma, 2005; Bransford, Brown, and Cocking, 1999; Murnane and Levy, 1996; Bailey and Berryman, 1992; Partnership for 21st Century Skills, n.d.): "Students need to leave school with a deeper understanding of school subjects, particularly science, mathematics, and technology, and with the skills needed to respond to an unbounded but uncertain 21st century—skills to use their knowledge to think critically, to collaborate, to communicate, to solve problems, to create, and to continue to learn" (Kozma, 2005 p. 1). Federal policy has also renewed attention on the importance of mathematics, science, engineering and technology, both in the work place and in educational settings, as evidenced by the American Competitiveness Initiative and the analysis provided by the National Academy of Sciences report, *Rising Above the Gathering Storm* (National Academy of Sciences [NAS], 2006).

As information and communication technologies place increased demands on workers and families, they also have the power to enhance and extend formal and informal educational opportunities. Educational technologies, when used properly and in coordination with a variety of school reforms, have been shown to enrich learning environments and enhance students' conceptual understanding (Kulik 2003; Yeager, 2005; Gollub, Bertental, Labor, and Curtis, 2002; Roschelle, Pea, Hoadley, Gordin, and Means, 2000), and educational systems across the country have embraced the potential of technologies to improve schooling. The ratio of students per instructional computer has consistently dropped over the years, as computers and related software have become increasingly available to teachers and students (*Education Week*, 2006). After several years of federal, state, and local investment in information technology, a majority of teachers in public schools consider particular technologies essential to their teaching. As early as school year 2000–01, more than 50 percent of surveyed teachers reported that the following technologies were "essential to their work": teacher computer work stations with access to electronic mail, Internet access in their classrooms, telephones in their classrooms, and encyclopedias and other reference works on CD-ROM (National Center for Education Statistics [NCES], 2005).

The federal government has played an important role in modernizing schools and their technical capacity. Over the last decade, the U.S. Department of Education has funded several programs to improve telecommunications and Internet access in the nation's schools, purchase hardware and educational software, provide technology-related professional development and other technology supports, and fund the research and development of innovative uses of technology for educational purposes. The U.S. Department of Education's Enhancing Education Through Technology program (EETT) is designed to improve the capacity of high-poverty schools to improve student academic achievement through the use of educational technologies, and it is the focus of this report.

About This Report

This report is part of the U.S. Department of Education's National Educational Technology Trends Study (NETTS). It describes state strategies and practices with regard to educational technology, focusing specifically on the role of the EETT program and discusses the relationships of state and local technology program activities to the overarching goals of the *Elementary and Secondary Education Act of 1965 (ESEA)*, which is more commonly known as the *No Child Left Behind Act of 2001 (NCLB)*. The report is organized in two parts. Chapter 1 describes the EETT program as it existed in its first few years of operation, although funding data are presented for subsequent years as well. Following an overview of the EETT program in the context of other federal educational technology programs, Chapter 1 reports findings related to state policies that support access to technology, technical support, and instructional uses of technology in public K–12 schools.⁶ Chapter 1 also examines the prevalence of state standards for student and teacher use of technology and the role that EETT plays in supporting technology-related teacher professional development and student technology literacy. Chapter 2 provides individual state profiles of selected data summarized in Chapter 1.

The report draws on data from several sources, including survey data gathered for NETTS from state educational technology directors in 2004 and district technology coordinators in 2005. The NETTS project collected survey data from state technology coordinators in the 50 states, the District of Columbia (D.C.), and Puerto Rico in 2004 and from 916 district technology coordinators sampled to represent the 50 states, D.C., Puerto Rico, and nondistrict entities receiving EETT funding as lead entities in 2005. Data were gathered on states' and districts' EETT programs and on their technology practices more generally. Kansas, Massachusetts, Ohio, Texas, Washington, and West Virginia served as case studies for state-level practices. Case study analyses included extant documents and interviews with state staff.

Although this report highlights data related to the first few years of the EETT program, NETTS is a multiyear evaluation that will document the implementation of the EETT program from fiscal year (FY) 2002 to FY 2006. Future NETTS reports will describe local educational technology priorities and programs and the specific technologies that support America's schools. They will describe the technology-related professional development that teachers receive, the uses that teachers and students make of technology, and the things that support and stand in the way of the integration of technology in teaching and learning. NETTS reports do not address the relationships between educational technology use and student academic achievement. Measurement of the impact of educational technology on academic achievement is beyond the scope of the evaluation.

⁶ While the EETT program requires districts to provide equitable services to private school students and teachers, the report does not address the participation of private school students and teachers.

Overview of the Enhancing Education Through Technology (EETT) Program

The Enhancing Education Through Technology program (Title II, Part D, of *ESEA*) is the Department's only program dedicated to the integration of educational technology in K-12 schools. EETT explicitly supports the broad goals of *ESEA* through the use of technology in schools. The primary goal of the program is to improve student academic achievement in elementary and secondary schools through the use of educational technology.

Section 2402 of the Title II legislation also details two additional goals for EETT:

- To assist every student in crossing the digital divide by ensuring that every student is technologically literate by the time the student finishes the eighth grade, regardless of the student's race, ethnicity, gender, family income, geographic location, or disability.
- To encourage the effective integration of technology resources and systems with teacher training and curriculum development to establish research-based instructional methods that can be widely implemented as best practices by state education agencies and local education agencies.

The program supports the three EETT goals with a set of eight activities, called "purposes" in *ESEA* (Exhibit 1).

Exhibit 1. Purposes of the Enhancing Education Through Technology Program

- To provide assistance to states and localities for the implementation and support of a comprehensive system that effectively uses technology in elementary schools and secondary schools to improve student academic achievement.
- To encourage the establishment or expansion of initiatives, including initiatives involving public-private partnerships, designed to increase access to technology, particularly in schools served by high-need local education agencies.
- To assist states and localities in the acquisition, development, interconnection, implementation, improvement, and maintenance of an effective educational technology infrastructure in a manner that expands access to technology for students (particularly for disadvantaged students) and teachers.
- To promote initiatives that provide school teachers, principals, and administrators with the capacity to integrate technology effectively into curricula and instruction that are aligned with challenging state academic content and student academic achievement standards, through such means as high-quality professional development programs.
- To enhance the ongoing professional development of teachers, principals, and administrators by providing constant access to training and updated research in teaching and learning through electronic means.
- To support the development and utilization of electronic networks and other innovative methods, such as distance learning, of delivering specialized or rigorous academic courses and curricula for students in areas that would not otherwise have access to such courses and curricula, particularly in geographically isolated regions.
- To support the rigorous evaluation of programs funded under this part, particularly regarding the impact of such programs on student academic achievement, and ensure that timely information on the results of such evaluations is widely accessible through electronic means.
- To support local efforts using technology to promote parent and family involvement in education and communication among students, parents, teachers, principals, and administrators.

Federal Financial Support for Educational Technology

It is difficult to determine what percentage of the nation's total investment in K–12 educational technology (including contributions from all levels of government, foundations, and the private sector) comes from the federal government. One of the most recent estimates suggests that total K–12 public school spending on educational technology by local, state, and federal governments in school year 2003–04 was \$7.87 billion (Quality Education Data [QED], 2004). On the basis of this estimate, the direct federal contribution may have been as high as 43 percent, with the EETT program contributing \$692 million (9 percent) and a second program, the Schools and Libraries Program of the Universal Service Fund, which funds telecommunications and Internet access for schools and libraries, contributing \$2.7 billion (34 percent) during school year 2003–04.⁷ Although these estimates are sizable, they may not capture the full federal investment in educational technology. Funds from programs designed for other purposes, such as Part A of Title I or Reading First, also may be used to fund educational technologies and are likely to represent a significant source of such expenditures for many schools, especially those serving large numbers of low-income students (Schneiderman, 2005). More recent data show declines in federal funding for educational technology. In the aggregate, federal funding for K–12 educational technology rose from FY 1998 through FY 2003. Consistent with other federal discretionary spending, EETT appropriations dropped for the first time in FY 2004, with further declines in FY 2005 and FY 2006.

EETT and Related Programs at the U.S. Department of Education

EETT is distinctive among the educational technology programs at the U.S. Department of Education because it is the largest program dedicated to the provision of comprehensive support for the use of technology to improve student academic achievement in high-poverty districts. In FY 2006, three smaller programs at the Department of Education—Star Schools, Ready to Learn Television, and Ready to Teach—also provided funding to states explicitly for educational technology. These three programs are described briefly below.

- The Star Schools program (<http://www.ed.gov/programs/starschools/index.html>) supports improved mathematics, science, and foreign language instruction to underserved populations through telecommunications partnerships. The program enables these partnerships to integrate audio and visual media in instruction and provides support for purchasing equipment, planning instruction, and obtaining technical assistance.
- Ready-to-Learn Television (<http://www.ed.gov/programs/rtlrv/index.html>) focuses on the academic achievement of preschool and elementary school students through developing educational video programming and supplemental materials, designing publicly available digital programs for parents, and facilitating the distribution of these programs.
- Ready to Teach (<http://www.ed.gov/programs/readyteach/index.html>) distributes multiyear grants to nonprofit organizations to support national implementation of a

⁷ Because no comprehensive estimates of state and local educational technology funding are available for FY 2005, it is not possible to determine what percentage of educational technology funds came from the federal government more recently than FY 2004.

telecommunications-based demonstration project designed to enhance instruction in core curriculum areas.

These programs are smaller in scope and scale than the EETT program, focusing on specific technologies or particular types of support.

The EETT program is the successor to an earlier federal educational technology program, the Technology Literacy Challenge Fund (TLCF). Launched in FY 1997, TLCF was the first federal program to provide direct financial assistance to states and districts nationwide for the integration of technology into school curricula in order to both improve classroom instruction and enable students to become technologically literate. Like TLCF, EETT distributes funds to each of the 50 states, the District of Columbia, American Samoa, Guam, the U.S. Virgin Islands, the Northern Mariana Islands, and Puerto Rico in proportion to the share of funds each received that year under Part A of Title I of the *ESEA*, except that no state may receive less than .5 of 1 percent of the amount available for all states. There are, however, significant structural differences between EETT and TLCF. Under TLCF, states awarded all program funds to school districts through a competitive process. In contrast, EETT requires states to split funds evenly between competitive grants and formula grants to districts, based on Title I, Part A, allocations, after reserving up to 5 percent of the EETT award for state-level activities. Congress included in the Department's FY 2006 appropriations legislation language overriding the statutory provision that states use 50 percent of the amount available for subgrants for competitive awards and 50 percent for formula subgrants. States are permitted to use up to 100 percent of their FY 2006 EETT allocations for competitive subgrants to eligible local entities. A state education agency may not award more than 50 percent of its FY 2006 subgrant funds by formula.

Although the Schools and Libraries Program of the Universal Service Fund (commonly called the E-rate program) is not administered through the U.S. Department of Education, it merits mention here as the largest single federal program related to educational technology. The E-rate program is administered by the Universal Service Administrative Company (USAC) under the direction of the Federal Communications Commission (FCC) and provides discounts to assist most schools and libraries in the United States to obtain affordable telecommunications and Internet access. E-rate funds go to service providers, not to the schools themselves. In addition, the program covers only three categories of service—telecommunication services, Internet access, and internal network connections—leaving schools and districts to fund many other components of a robust technical infrastructure. Classroom computers and instructional software, for example, cannot be funded through E-rate. Recipient schools and libraries are responsible for providing additional resources, such as the end-user equipment (computers, telephones, and the like), software, professional development, and other elements that are necessary to realize the objectives of connectivity. Therefore, the EETT and E-rate programs fund complementary components, with EETT supporting many services that E-rate does not.

Individual state profiles in the second part of this report shows federal appropriations of TLCF together with EETT, E-rate, and other funds for educational technology from FY 1997 until FY 2005.⁸ In FY 2006, the federal government provided approximately \$2.6 billion for

⁸ For more information about other federal funding for educational technology included in the individual state profiles, which present funding information for many programs that have been discontinued or are currently continuation grants only, please refer to Exhibit A-1 in Appendix A.

direct federal assistance to states, local school districts, and other entities to aid in the acquisition and use of educational technologies (Exhibit 2).⁹

Exhibit 2. Federal Educational Technology Funding, FY 1998–2006

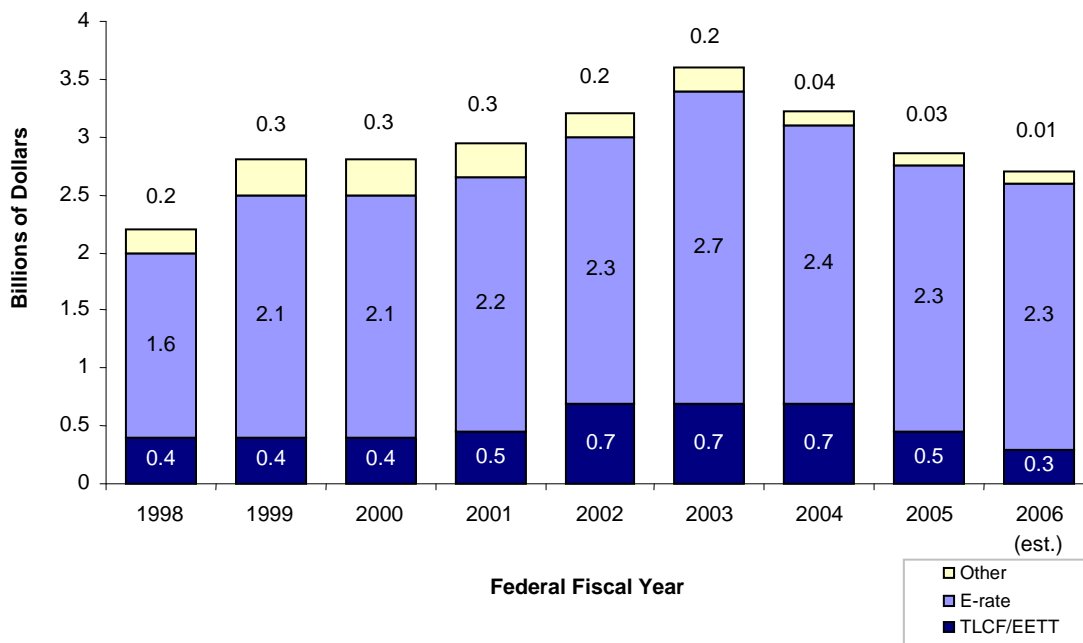


Exhibit reads: Federal educational technology funding increased from approximately \$2.2 billion in FY 1998 to about \$3.6 billion in FY 2003. Funding has decreased annually since FY 2004. Sources: U.S. Department of Education and Universal Service Administrative Company (USAC).

EETT Program Funding Trends

EETT program funding trends roughly track federal educational technology funding trends overall. In the five years that the EETT program has been funded, it has awarded an estimated \$2.7 billion to states and localities to support the integration of educational technology in elementary and secondary instruction. When the EETT program was launched in FY 2002, the first year’s funding was just over \$700 million. Program funding has declined in each subsequent year, with the most significant decline to date occurring in FY 2006. After a cut of less than 1 percent in FY 2003 and another cut of less than 1 percent in FY 2004, which reflected across-the-board budget cuts on all of the Department’s programs, appropriation levels fell by 28 percent in FY 2005 to \$496 million (U.S. Department of Education, 2006). In FY 2006,

⁹ This sum is based on E-rate awards for its funding year 2005, July 1, 2005 through June 30, 2006, which corresponds roughly to federal FY 2006. The Universal Service Administrative Company distributes about \$2.25 billion each year to schools and libraries across the nation under E-rate. No recent estimates are available for the proportion of funds that specifically goes to schools, as opposed to libraries. One study of E-rate funding found that 84 percent of funds went to public schools in the first two years of the program (Puma, Chaplin, and Pape, 2000). Total E-rate funding for FY 2006 is estimated at \$2.25 billion, although only a portion of this is likely to go directly to schools. Final commitments will be available at <http://www.sl.universalservice.org/funding/previous.asp> in July 2006 after funding year 2005 has ended.

appropriations for EETT were nearly halved from the previous year's funding level to \$272 million (U.S. Department of Education, 2006).

Estimates of federal funds available for FY 2005 and FY 2006 show decreases in EETT support to states, with the average award declining by \$3.6 million in FY 2005 to \$9.3 million (Exhibit 3). Average awards declined again in FY 2006 to \$5.1 million, for a total average decrease of \$7.8 million, 6 percent of FY 2004 funding levels. In any given year of the program, no state receives less than .5 of 1 percent of the total program funds available for state grants. In FY 2005, 16 states received the minimum EETT award.¹⁰ The minimum state award amount in FY 2006 is expected to decrease by more than \$1 million, from \$2.4 million in FY 2005 to \$1.3 million in FY 2006. The largest awards to states declined from a high of \$93 million in FY 2004 to an estimated low of \$35 million in FY 2006.

Exhibit 3. Range of EETT Awards to States, FY 2002–2006

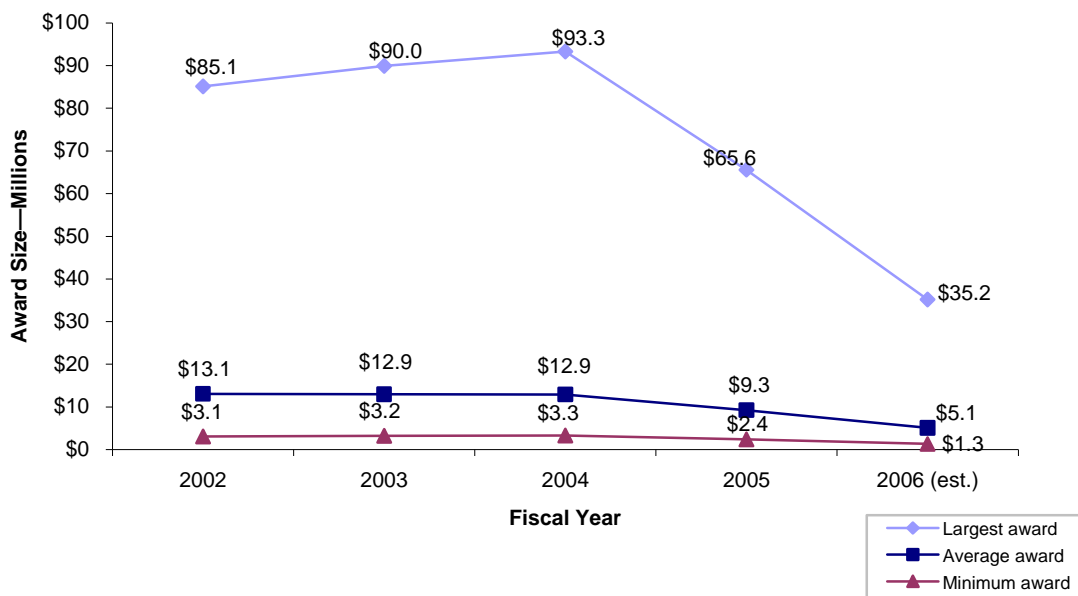


Exhibit reads: Although EETT funding has declined since the program's inception in FY 2002, program awards to the states were relatively stable until FY 2005, when a noticeable decline in funding occurred. This sharp decline continued in FY 2006. Source: U.S. Department of Education.

Note: FY 2006 numbers are estimated because EETT is a "forward funded" program. Funds become available on July 1 of the fiscal year for which they are appropriated and remain available for federal obligation for a period of 18 months and remain available for state and local obligation for a period of 27 months. In this case, funds were not made available to states until July 1, 2006.

¹⁰ The 16 states that received the minimum EETT award in FY 2005 are Alaska, Delaware, District of Columbia, Hawaii, Idaho, Iowa, Maine, Montana, Nebraska, New Hampshire, North Dakota, Rhode Island, South Dakota, Utah, Vermont, and Wyoming.

The remainder of this part of the report focuses on state-level EETT programs and priorities. It is divided into four sections: instructional uses of technology, state standards for technology use, technology-related teacher professional development, and state administration of the EETT program.

Instructional Uses of Technology in K–12 Schools

“Technology integration” is a common term in the educational technology community that represents the multiple ways that technology can be used to support educational goals and activities. Integration of technology into classroom instruction may include either teacher or student use of computers. Technology integration often also refers to administrative uses of technology to develop curriculum, communicate with educational stakeholders, and analyze data related to student academic achievement. One of the goals of the EETT program is “to encourage the effective integration of technology resources and systems,” and the enabling legislation allows states to develop their own definitions of effective integration. Although particular definitions may differ somewhat, definitions typically mention accessibility of technology and frequency of classroom use; definitions sometimes mention specific practices (Exhibit 4).

Exhibit 4. Examples of “Technology Integration” Defined

- Curriculum integration with the use of technology involves the infusion of technology as a tool to enhance the learning in a content area or multidisciplinary setting. Technology enables students to learn in ways not previously possible. Effective integration of technology is achieved when students are able to select technology tools to help them obtain information in a timely manner, analyze and synthesize the information, and present it professionally. The technology should become an integral part of how the classroom functions—as accessible as all other classroom tools (ISTE, 2002).
- Technology integration is the use of technology resources—computers, digital cameras, CD-ROMs, software applications, the Internet, etc.—in daily classroom practices, and in the management of a school. Technology integration is achieved when the use of technology is routine and transparent. Technology integration is achieved when a child or a teacher doesn’t stop to think that he or she is using a computer or researching via the Internet (George Lucas Foundation, 2004).
- Technology integration is the incorporation of technology resources and technology-based practices into daily routines, work and management of schools. Technology resources are computers and specialized software, network-based communication systems, and other equipment and infrastructure. Practices include collaborative work and communication, Internet-based research, remote access to instrumentation, network-based transmission and retrieval of data, and other methods.... [I]t is important that the integration be routine, seamless, and both efficient and effective in supporting school goals and purposes (National Center for Education Statistics (NCES), 2002).
- Integrating technology is not about technology—it is primarily about content and effective instructional practices. Technology involves the tools with which we deliver content and implement practices in better ways. Its focus must be on curriculum and learning. Integration is defined not by the amount or type of technology used, but by how and why it is used (Earle, 2002).

Examining how practitioners interpret “technology integration” offers insight into how technology is likely to be used in schools. One survey of a sample of principals concluded that there was no common understanding of the term. The range of specific practices that principals cited as evidence of technology integration in their schools included:

- using an integrated learning system in a subject;
- allowing, encouraging, or requiring students to use word processing and presentation software in reports and displays;
- requiring papers to be done on a word processor;
- using presentation software and projection technology for teacher presentations; and
- using computers for online testing and analysis of test results (Northwest Educational Technology Consortium, 2005, p. 1).

It should be noted that the practices cited by principals do not suggest any profound modifications to curriculum or instruction. The responses of principals cited above suggest that school leaders need guidance in developing the capacity to distinguish between uses of technology for its own sake and uses of technology that add value in terms of student learning.

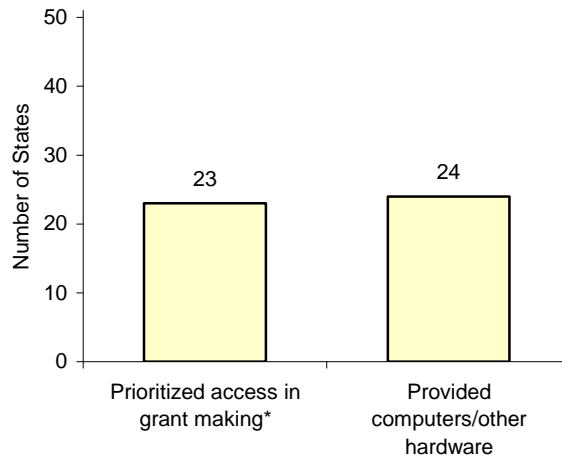
States reveal the emphasis they place on technology integration in their EETT programs both by explicitly encouraging applications in this area in requests for proposals and in their evaluations of local EETT activities. Technology integration was cited as a priority in making competitive grants in FY 2003 by 31 states. However, the variety of interpretations of “technology integration” referenced above complicate the generalization of findings across states, since definitions of the term have implications for how status should be measured. Twenty-three states report using adequate yearly progress (AYP) to evaluate their competitive grants, explicitly focusing the integration of technology on student academic achievement. In addition, state-required evaluation measures for competitive grants included teacher use of technology in the classroom in 40 states and student use of technology in 22 states. Teacher use of technology in the classroom was the most frequently cited measure used to evaluate either formula or competitive EETT grant programs in FY 2003. Twenty-two states used a measure of teacher use of technology in the classroom for formula grants. A related concept of teacher knowledge, skills, and comfort with using technology was also frequently cited. Thirty-nine states used a measure related to teacher knowledge, skills, and comfort level with technology to evaluate competitive grants, and an additional 20 states used it to evaluate formula grants. It seems fair to say that states put considerable emphasis on this goal of the legislation. It is less clear, however, what kinds of programs and activities this emphasis results in at the district, school, and classroom levels, largely because the concept of technology integration itself is so open to multiple interpretations.

Access to Technology

In order for teachers and students to use school technologies, they must have access to a functioning technical infrastructure. The percentage of schools connected to the Internet is now approaching 100 percent, up from 35 percent in 1994 (NCES, 2002). However, available hardware does not always meet teachers’ needs. District technology coordinators reported on the NETTS survey that more than 30 percent of students were in schools where insufficient hardware presents a substantial barrier to teachers’ technology use, and almost 40 percent were

in schools where dated hardware is a major barrier.¹¹ In making EETT competitive grants in FY 2003, 36 states either prioritized student access to technology or provided computers, personal digital assistants (PDAs) or other instructional hardware. Data from state educational technology directors reveal that almost half of the states gave priority to student access to technology in making competitive grants to local education agencies in FY 2003 (Exhibit 5). Some states made specific requirements for the amounts of money grantees should reserve for hardware and software purchases to ensure that districts could implement specific projects.

Exhibit 5. Number of States That Reported Prioritizing Student Access to Technology in Making Grants or That Provided Computers or Other Instructional Hardware in FY 2003



* Data are missing for one state.

Exhibit reads: Twenty-three states prioritized student access to technology, and 24 provided computers, PDAs, or other instructional hardware. Eleven of these states did both. Source: NETTS state survey.

Supporting Teachers' Technical and Instructional Needs

Schools and districts across the country have developed several different models for providing technology-related support to teachers. The technology is sometimes maintained by a teacher, often with release time, or a full-time, school-based “technology coordinator” may be employed. Sometimes schools share a person through their district. The responsibilities of these individuals also vary and may include keeping servers and back-end software up and running, troubleshooting computers in classrooms, researching technology-based resources for the curriculum, and teaching students and teachers technology-related skills. However, district technology directors reported the need for additional technology support. They reported that in school year 2003–04, more than 35 percent of students were in schools where the lack of district-level support specialists presented a major barrier to the integration of technology into

¹¹ District technology coordinators were asked if “insufficient hardware” presented a barrier to use, but the term was not defined.

curriculum, and 50 percent of students were in schools where the absence of school-level specialists slowed integration. Further, district staff reported that almost 30 percent of students were in schools where the lack of trained technical staff for product and service acquisition, installation, and equipment maintenance presented barriers to the use of educational technologies. Technology directors in 43 percent of districts reported plans to hire school-level technology coordinators during school year 2004–05, and 64 percent had plans to hire district-level technology coordinators to increase technology integration in their schools.

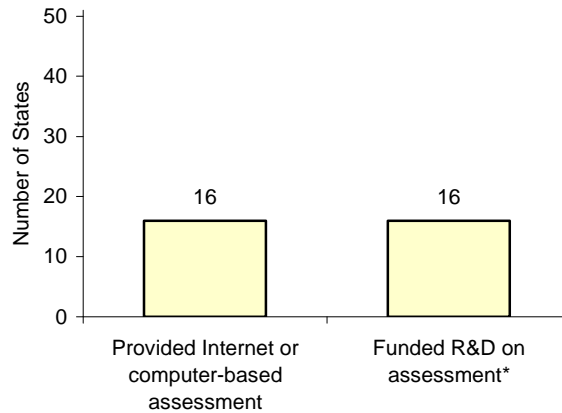
Online Learning

Distance education that uses the Internet (often called “online learning” or “e-learning”) is the modern embodiment of correspondence courses of the 1800s, the first instances of distance education. Although online learning practices are relatively new, a growing research base is emerging about their effectiveness. Evidence to date convincingly demonstrates that, when used appropriately, electronically delivered education—‘e-learning’—can improve how students learn, can improve what students learn, and can deliver high-quality learning opportunities (Cavanaugh et al., 2004; Cavanaugh, 2001; Bernard et al., 2004; Sitzmann et al., 2006). On the NETTS state survey, just over half of the states reported activity in the e-learning domain, with 26 states reporting that they provided online courses, tutorial software, and other academic content and resources in core subject areas. However, these initiatives did not appear to be supported by EETT funds in FY 2003. Five states identified electronic networks and other distance learning as a priority for their EETT competitive grant programs in FY 2003.

Technology-Enhanced Assessment

Technology has the potential to improve traditional paper and pencil assessments in several ways (Pellegrino, Chudowsky, and Glaser, 2001). Through simulations and technology-enhanced portfolios for project-based learning, educators have an opportunity to assess students’ ability to apply knowledge and solve problems in more realistic settings. Technology-based assessments can also be embedded in computer-based curriculum to allow frequent, formative feedback to students and teachers, ultimately allowing more individualized curriculum than might otherwise be possible in traditional classroom settings. Twenty-six states reported either offering technology-based academic assessment or funding research and development activities that supported student assessment in FY 2003. Georgia, Idaho, Minnesota, North Carolina, Texas, West Virginia, and Wyoming reported having online testing programs. State educational technology directors in 16 states reported supplementing teachers’ assessment efforts by offering Internet- or computer-based assessment of student academic achievement (Exhibit 6). Officials in 16 states reported that they invested some of their EETT state-level funds in research and development activities to support student assessment. Six of these states reported conducting both types of activities.

Exhibit 6. Number of States That Provided Internet- or Computer-Based Assessment and That Funded R&D on Assessment in FY 2003



* Data are missing for one state.

Exhibit reads: Of the 26 states that either provided Internet- or computer-based assessments or used EETT state-level funds to support research and development on assessment, 16 provided Internet- or computer-based assessments and 16 funded research and development on assessment. Six of these states do both. Source: NETTS state survey.

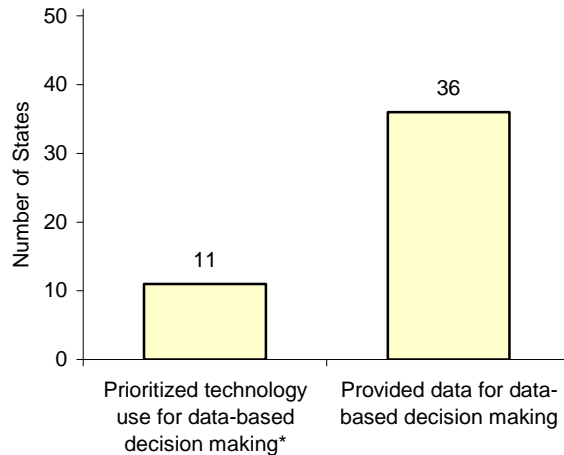
Technology for Accountability, Evaluation and Planning

States are increasingly using technology for accountability purposes, including districts reporting to states and states reporting to the federal government, and for evaluation and planning of state and district programs (*Education Week*, 2006). States' EETT set-aside funds "may be used for developing performance measurement systems to evaluate the effectiveness of programs supported with Ed Tech funds" (U.S. Department of Education, 2002). A set of practices called "data-driven decision making" often relies on these performance measurement systems. "Data-driven decision making" is a popular term used to describe the integration of various data streams on a common platform designed to inform administrative and instructional decisions at multiple levels of the education system. "Integrated data systems that bring together student information collected at the classroom, school, district, and state levels in ways that can inform instructional decisions are considered one of today's most promising trends in education" (Means, 2005). Current efforts by the Data Quality Campaign to encourage states to strengthen the collection, availability, and use of data for educational improvement suggest that data systems should include elements such as student course-taking information, program participation information, grades and achievement test data, and grade-to-grade progression data.

Eleven states gave priority in their FY 2003 granting process to the use of technology in managing, collecting, and analyzing data to improve teaching; 36 states provided data to administrators and teachers for decision making (Exhibit 7). Nearly 80 percent of states either prioritized technology use in managing, collecting, and analyzing data in their granting process or provided data to administrators and teachers. The types of information provided and state supports for using the information well are not known. States may interpret the online availability of school-level achievement test data as using technology to support practitioners'

decision making. Independent reviews of state data systems suggest that few of them are in a form that readily supports school-level decision making (Wayman, Stringfield, and Yakimowski, 2004).

Exhibit 7. Number of States That Prioritized Technology Use in Managing, Collecting, and Analyzing Data or That Provided Data for Instructional Improvement in FY 2003



** Data are missing for one state.*

Exhibit reads: In making EETT competitive grants, 40 states either prioritized technology use in managing, collecting, and analyzing data for instructional improvement or provided data for data-driven decision making. Of these states, 11 states prioritized technology use to work with data, 36 states provided data for data-driven decision making, and seven did both. Source: NETTS state survey.

District technology staff reported that they too were working to support data-driven decision making in their schools. According to district technology coordinators' reports, about 60 percent of students were in schools where building-level staff could access student data management systems. They further reported that between 55 percent and 80 percent of students were in districts where technology coordinators reported that they had offered or planned to offer professional development on using data to tailor tasks to student ability, track student achievement, and improve schools through data-driven decision-making techniques.

Exhibit 8 indicates which states report providing data to local staff and on the provision of online courses and materials to teachers and students.

Exhibit 8. State Uses of Technology for Data-Driven Decision Making and Online Learning

State Name	State provides data to local staff for decision-making		State provides online courses, materials, or software			
	Yes	Plans to Do*	For Teachers		For Students	
			Yes	Plans to Do*	Yes	Plans to Do*
Alabama	X		X		X	
Alaska	X					
Arizona	X		X		X	
Arkansas	X		X		X	
California	X					
Colorado	X		X		X	
Connecticut						
Delaware	X					
District of Columbia		X		X	X	
Florida	X				X	
Georgia	X		X		X	
Hawaii	X		X		X	
Idaho	X			X	X	
Illinois	X				X	
Indiana	X			X		X
Iowa	X		X		X	
Kansas						X
Kentucky	X		X		X	
Louisiana	X		X		X	
Maine		X				
Maryland	X		X		X	
Massachusetts		X		X		X
Michigan	X			X	X	
Minnesota						
Mississippi	X			X	X	
Missouri	X					
Montana	X					
Nebraska	X			X		X
Nevada		X				
New Hampshire			X			
New Jersey		X	X			
New Mexico		X	X		X	
New York		X			X	
North Carolina	X			X	X	
North Dakota	X		X		X	
Ohio	X		X			
Oklahoma	X		X		X	
Oregon	X			X		
Pennsylvania			X			
Puerto Rico				X	X	
Rhode Island	X					
South Carolina	X		X			
South Dakota	X		X		X	
Tennessee			X			
Texas	X		X			X
Utah	X		X		X	
Vermont		X				
Virginia	X		X		X	
Washington	X		X		X	
West Virginia	X		X		X	
Wisconsin	X					
Wyoming						
Total Number of States	36	8	25	10	27	5

Source: NETTS state survey.

*Respondents were asked if they were “completing plans” or “beginning plans” at the time of the survey. “Plans to Do” in this table indicates whether a state reported either beginning or completing plans to do particular activities.

State Standards for Technology Use

Student Standards

Student technology standards can be useful to teachers, who can use them as a framework for planning technology-based activities and lessons. Student standards also provide the basis for developing assessments of student technology competency—an important tool for states that intend to meet the EETT goal that all students acquire technology literacy by eighth grade. As an example of the kinds of skills typically emphasized in student technology standards, the National Educational Technology Standards (NETS) of the International Society for Technology in Education (ISTE) highlight six broad categories:

- Basic operations and concepts
- Social, ethical, and human issues
- Student use of technology productivity tools
- Student use of technology communication tools
- Student use of technology research tools
- Student use of technology for solving problems and making informed decisions (ISTE, 2000)

State definitions of student technology literacy are often explicitly tied to student technology standards.¹² The core academic standards, technology standards, and definitions of student technology literacy in the six case study states provide an example (Exhibit 9). In one of the states (Texas), student technology literacy is tied to mastery of both the core academic and technology standards.

¹² Status of technology standards and assessments of technical proficiency as of the fall of 2004 are reported on a state-by-state basis for both students and teachers in Exhibit 13.

Exhibit 9. Standards and Technology Literacy Definitions in FY 2004 in Case Study States

	Core Academic Standards (Students)	Technology Standards (Students)	Definition of Technology Literacy
Kansas	Kansas Curriculum Standards	Embedded in core academic standards	State relies on local definitions
Massachusetts	Massachusetts Curriculum Frameworks	Massachusetts Recommended Pre-K–12 Instructional Technology Standards	Meeting the Massachusetts Recommended Pre-K–12 Instructional Technology Standards
Ohio	Ohio Academic Content Standards	Stand-alone and embedded in core academic content standards	Meeting technology standards (i.e., the K–8 Benchmarks and Indicators)
Texas	Texas Essential Knowledge and Skills (TEKS)	Stand-alone and embedded in TEKS	Meeting technology standards and TEKS standards
Washington	Essential Academic Learning Requirements	Has adopted NETS (stand-alone)	State relies on local definitions
West Virginia	West Virginia Content Standards	Stand-alone and embedded in core content standards	Responsible use of appropriate technology to communicate, solve problems, and access, manage, integrate, evaluate, and create information to improve learning in all subject areas and to acquire lifelong knowledge and skills in the 21st century.

Source: NETTS case study data.

A large majority of states (42) reported having or expecting to have technology standards for students in place by fall 2004 (Exhibit 10). This number has increased from 35 in 2001 (*Education Week*, 2001). These standards can take a variety of forms. Of those states that had student technology standards, 19 reported having “stand-alone” standards, and 16 reported embedding technology standards with other academic content standards. The remaining eight states reported having both stand-alone technology standards and integrated standards.

Student technology literacy falls under the primary EETT program goal of improving student academic achievement. While many states have technology standards for students, most states did not report explicitly linking EETT funds to student technology literacy in FY 2003. Eighteen states reported that student technology literacy was a priority for their EETT grants overall, and 13 states reported requiring a focus on student technology literacy specifically for their competitive grant applications. States also reflect an emphasis on student technology literacy by including indicators of student technology proficiency specifically in their evaluations of the EETT activities. Eighteen states reported using student knowledge, skill, and comfort levels with technology in their evaluations of EETT activities in FY 2003.

Exhibit 10. States with Technology Standards for Students in FY 2003

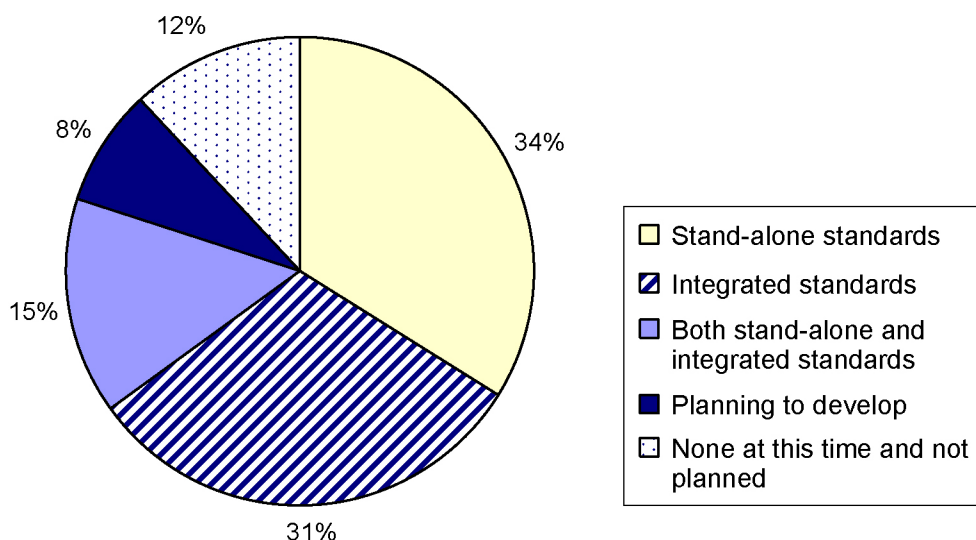


Exhibit reads: The vast majority of states had technology standards for students in place by FY 2003. Source: NETTS state survey.

Statewide assessments of student technology proficiency were not as common as the standards themselves. Statewide assessments have the advantage of encouraging consistent interpretations of standards across a state and facilitate the comparison of districts and the easy aggregation of data within a state. Two states, Hawaii and North Carolina, reported that they assessed students' proficiency with technology in FY 2003 (Exhibit 11).¹³ Some states may be postponing measurement of students' technology literacy while they work on developing technology literacy assessments. Indeed, many states reported either planning to assess student technology proficiency in the future or relying on districts to do such assessments. Eleven states reported plans to assess student technology skills, and another 13 states reported that their districts assess student progress toward technology proficiency. A large portion (35 percent) of states, however, described themselves as "not yet decided" with respect to whether they will assess students' technology literacy.

¹³ These findings are inconsistent with earlier reports by *Education Week*, which found that three states (New York, North Carolina, and Utah) had assessments for students' technology literacy based on state standards (*Education Week*, 2003). In New York, the inconsistency is most likely due to differences in terminology and methodology. New York reported "not currently, but planning to do so" on the NETTS survey, but on the New York State Education Department Web site, there is a technology education test that assesses student technology skills. Utah answered "not yet decided" on the NETTS survey regarding whether it assesses technology standards for students. However, according to its Web site, teachers were asked for opinions of how students were mastering technology skills.

Exhibit 11. Assessing Technology Standards for Students in FY 2003

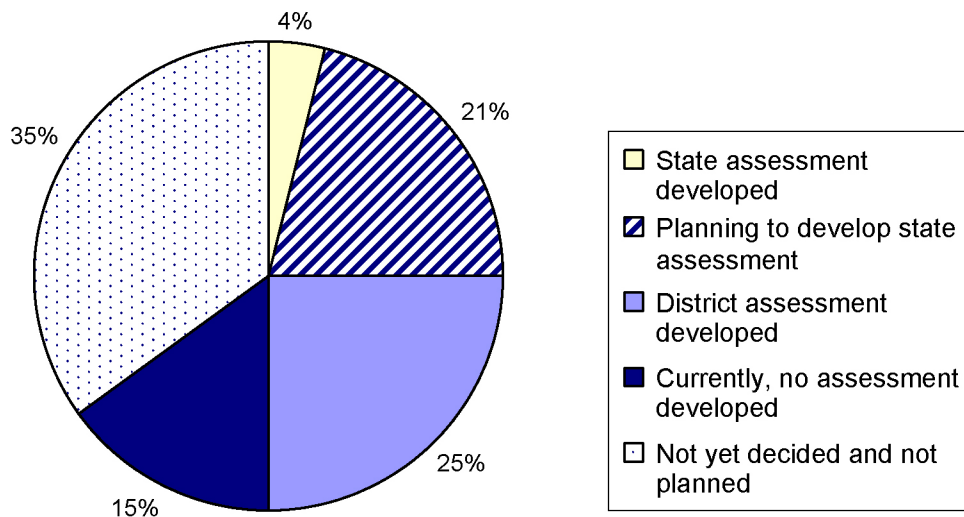


Exhibit reads: Despite the prevalence of student technology standards, most states did not assess student technology skills. Many states either were planning to do so in the future or relied on district assessment practices. Source: NETTS state survey.

Teacher Standards

States have demonstrated a commitment to encouraging teacher capacity to use technology for teaching and learning by putting in place standards for teacher technology proficiency and requiring or providing technology training for pre- and in-service teachers. Recognizing the need for all teachers to have some capacity to use technology for administrative or instructional purposes, many states have put in place minimum standards for teachers' use of technology. Technology standards for teachers articulate what teachers should know and be able to do with technology. They typically suggest that teachers have some basic familiarity with computers and use computers and the Internet for research and communication. Standards may further specify ways that teachers should be prepared to integrate technology into the classroom. For example, the National Educational Technology Standards indicate that teachers should know how to:¹⁴

- Demonstrate a sound understanding of technology operations and concepts.
- Plan and design effective learning environments and experiences supported by technology.
- Implement curriculum plans that include methods and strategies for applying technology to maximize student learning.

¹⁴ ISTE has developed National Educational Technology Standards for both students and teachers. Although the standards are not part of federal policy, many states have adopted or adapted them.

- Apply technology to facilitate a variety of effective assessment and evaluation strategies.
- Use technology to enhance their productivity and professional practice.
- Understand the social, ethical, legal, and human issues surrounding the use of technology in PK–12 schools and apply that understanding in practice. (ISTE, 2000)

More than half of the states (27) reported on the NETTS state survey that they had technology standards for teachers in place. A number of states have created indicators for their teacher technology standards (Exhibit 12). These indicators describe the characteristics of proficient performance on the standards.

Exhibit 12. State Indicators for Teacher Technology Standards

Standard: Demonstrate a sound understanding of technology operations and concepts
<ul style="list-style-type: none"> • Use basic computer operations such as editing, file management, printing, e-mail, multi-tasking, and networking (Nebraska) • Use the network to create new teaching and learning practices, i.e. publishing or preparing Web pages to post student or parent resources (Connecticut) • Use Internet applications such as Telnet, Web browsers, File Transfer Protocol, listservs, newsgroups, etc (Nebraska)
Standard: Plan and design effective learning environments and experiences supported by technology
<ul style="list-style-type: none"> • Assess students’ learning and instructional needs to identify the appropriate technology for instruction (Maryland) • Analyze and evaluate the effectiveness of educational software tools on students learning (Florida) • Design student learning activities that integrate computers and technology for a variety of student grouping strategies and for diverse student populations (Illinois)

Exhibit continued on next page.

Exhibit continued from previous page.

<p>Standard: Implement curriculum plans that include methods and strategies for applying technology to maximize student learning</p> <ul style="list-style-type: none"> • Present technology-enhanced lessons that lead students to analyze, synthesize and evaluate relevant problems (Georgia) • Integrate the Nebraska Student Essential Learnings in Technology into curriculum plans to assist with student achievement of standards (Nebraska) • Apply best teaching, learning, and assessment practices, such as utilizing instructional technology to promote interdisciplinary approaches, using technology to support cooperative and collaborative learning strategies, etc. (Nebraska)
<p>Standard: Apply technology to facilitate a variety of effective assessment and evaluation strategies.</p> <ul style="list-style-type: none"> • Use multiple methods of electronic evaluation, such as online assessment, evaluation of students portfolios, etc. (Nebraska) • Use technology to analyze class performance and compare to a larger set of students locally, statewide, or nationally (Nebraska) • Collect and use data related to teaching and learning to make decisions and build knowledge (Connecticut)
<p>Standard: Use technology to enhance their productivity and professional practice.</p> <ul style="list-style-type: none"> • Create a professional development plan that includes resources to support the use of technology in lifelong learning. (Maryland) • Use computers and other learning technology to support problem solving, data collection, information management, communications, presentations, and decision-making (Illinois) • Develop and publish digital content and provide students with opportunities to gather and share digital information through intranets and/or the Internet (Florida)
<p>Standard: Understand the social, ethical, legal, and human issues surrounding the use of technology in PK–12 schools and apply that understanding in practice.</p> <ul style="list-style-type: none"> • Establish classroom policies and procedures that ensure compliance with copyright law, Fair Use guidelines, security, privacy and student online protection (Maryland) • Teach legal and ethical uses of technology (Florida) • Select technology resources and print materials that reflect a diverse world (Nebraska)
<p>Note: Examples of indicators were taken from the following states: Connecticut (Connecticut State Department of Education, 2001); Florida (Educational Technology Clearinghouse, 2003); Georgia (Georgia Professional Standards Commission, N.D.) Illinois (Illinois State Board of Education, 2002); Michigan (Michigan Department of Education, 2002) Maryland (Maryland State Department of Education, 2002); Nebraska (Nebraska Department of Education, 2001).</p>

Although requirements for teacher technology competency are relatively common state policies, only 10 percent of states reported assessing teacher technology competencies in FY 2003, which represented about 18 percent of the states that had technology standards for teachers in place. Five states (Arizona, California, Georgia, Illinois, and Pennsylvania) reported formally assessing teachers' technology skills. Five other states (District of Columbia, Hawaii, Mississippi, New Mexico, and Rhode Island) that did not assess the technology skills of teachers in FY 2003 reported that they were planning to do so (Exhibit 13). As mentioned earlier, state assessments have the advantage of encouraging consistent interpretations of standards across a state and increase the probability that results across districts can be compared within a state.

However, many more states (30 percent) relied on their districts to assess teacher technology skills according to state policy. Sixteen states indicated that their districts assessed teacher technology integration progress according to state standards, although it is not known to what extent districts were consistently meeting state expectations for assessing teacher technology skills. Thus, 50 percent of states were assessing or planning to assess teacher technology skill or were relying on districts to do so.

Exhibit 13. Assessment of Teacher Technology Skills in FY 2003

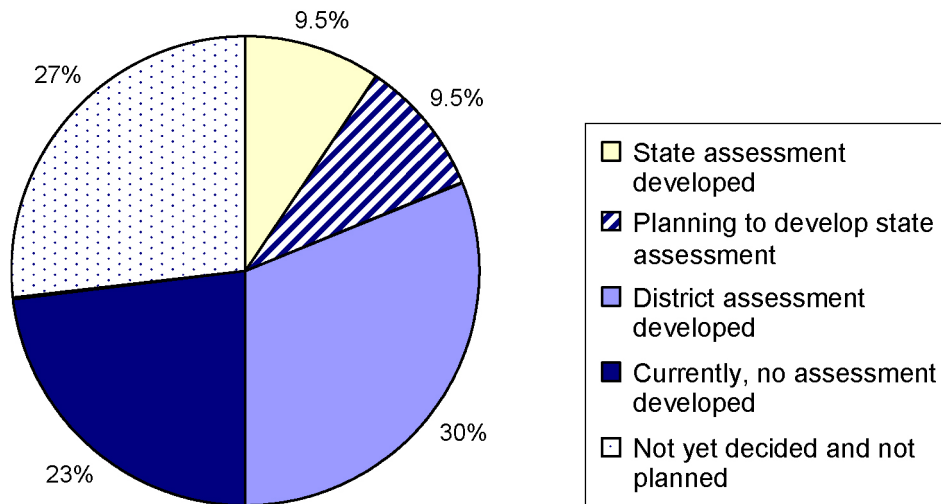


Exhibit reads: There were mechanisms in place or planned to assess teacher technology skills in 50 percent of the states, including district-based efforts.
 Source: NETTS state survey.

The states with technology standards and technology assessments for teachers and students are shown in Exhibit 14.

**Exhibit 14. Status of Technology Standards and Assessments for Teachers and Students in
FY 2003**

State	Teachers			Students		
	State has minimum technology standards	State formally assesses technology skills	State plans to assess technology skills	State has minimum technology standards	State formally assesses technology skills	State plans to assess technology skills
Alabama				X		
Alaska	X			X		
Arizona	X	X		X		X
Arkansas	X			X		
California	X	X				
Colorado	X			X		
Connecticut	X			X		
Delaware						
District of Columbia	X		X	X		X
Florida	X			X		
Georgia	X	X		X		X
Hawaii			X	X	X	
Idaho				X		
Illinois		X		X		X
Indiana						
Iowa						
Kansas				X		
Kentucky	X			X		
Louisiana	X			X		
Maine						
Maryland	X			X		
Massachusetts	X			X		
Michigan	X			X		
Minnesota						
Mississippi	X		X			X
Missouri	X			X		
Montana				X		
Nebraska	X			X		
Nevada				X		
New Hampshire	X			X		
New Jersey	X			X		X
New Mexico			X	X		X
New York				X		
North Carolina	X			X	X	
North Dakota	X			X		
Ohio				X		
Oklahoma				X		
Oregon						
Pennsylvania		X		X		
Puerto Rico						
Rhode Island	X		X	X		X
South Carolina	X			X		
South Dakota				X		X
Tennessee				X		
Texas	X			X		
Utah				X		X
Vermont	X			X		
Virginia	X			X		
Washington						
West Virginia	X			X		X
Wisconsin				X		
Wyoming				X		
Total Number of States	27	5	5	42	2	11

Source: NETTS state survey.

Technology-Related Teacher Professional Development

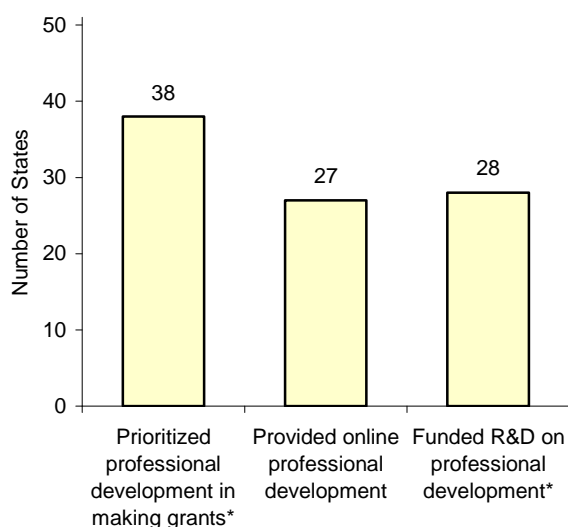
In-service professional development to develop teachers' capacity to use technology effectively takes a variety of forms, including workshops, face-to-face and online courses, conferences, and training sessions. Less frequently, teachers participate in study groups, peer observation, and coaching, which are more likely to integrate lessons learned from professional development into teaching (NCES, 2005).

Because funds generated locally through bonds or taxes frequently have legal restrictions requiring them to be spent for hardware and connectivity purchases only, federal and state funds supporting professional development on the use of technology resources fill a critical gap (Zhao and Conway, 2001). Recognizing the importance of teacher professional development on the use of technology in teaching and learning, Title II, Part D of *ESEA* requires local recipients of EETT funds to allocate at least 25 percent of EETT funds for professional development in the integration of technology into instruction.¹⁵ Given the level of state grants awarded under EETT, an estimated \$600 million supported teacher professional development on technology integration over the five-year lifespan of the program.

States appear to have embraced the professional development aspect of the EETT program. Officials in 38 states said they gave priority to teacher professional development in their competitive grant programs (Exhibit 15). Officials in 27 states reported that they offered online professional development for teachers to help them integrate technology into core subject areas. Officials in 28 states used part of their federal EETT state-level funds to support research and development activities on professional development for technology integration.

¹⁵ Districts where technology-related professional development is already being provided or deemed unnecessary may request a waiver from their state education agencies.

Exhibit 15. Number of States That Gave Priority to Professional Development in Making Grants, Provided Online Professional Development, and Funded R&D on Professional Development in FY 2003



* Data are missing for one state.

Exhibit reads: In making EETT competitive grants, 38 states gave priority to professional development. Twenty-seven states provided online teacher professional development, and 28 states used EETT state-level funds to support research and development on professional development. Source: NETTS state survey.

The findings from two NETTS case study states, Texas and West Virginia, provide examples of the ways states are approaching teacher professional development. In Texas, the state education agency has used EETT funds to provide technical assistance to districts on the implementation of the School Technology and Readiness (STaR) Chart. The Texas STaR Chart is part of the Texas Education Agency’s long-range technology planning process. It focuses on four key themes: teaching and learning, educator preparation and development, administration and support services, and technology infrastructure. It was designed to help schools and districts assess their progress toward state and local goals. The CEO Forum on Education and Technology, in partnership with ISTE, has subsequently developed a more generic STaR Chart for use in K–12 schools. West Virginia has received federal, foundation, and commercial company funds to support the state’s diverse educational technology projects. However, state officials reported that because of recently enacted cuts in the state budget for educational technology, EETT is essential to funding school-building professional development coaches, called technology integration specialists (TIS), who provide and coordinate appropriate professional development activities for all teachers and administrators in the schools. Each TIS receives 40 days of professional development to develop the ability to assist effectively teachers with integration of technology into the curriculum in order to improve student achievement. Officials said they doubt that the program would operate without EETT funds because EETT is currently the only source of funds that can be used for the TIS position at the school level.

In addition to adopting technology standards, many states either have in place or are planning for state-level policies that require teacher participation in technology-related course work or other professional development activities. These requirements are designed to ensure that teachers pursue opportunities to learn about technology applications at various points in their careers. Most states (43) require teachers to take technology-related course work in order to get or renew teaching certificates. More than 70 percent of the states reported having or planning to have certification requirements that include technology knowledge or skill, and nearly half of the states were requiring or planning to require veteran teachers to participate in technology-related course work or related professional development before they were granted recertification (Exhibit 16). State requirements for technology-related course work are reported on a state-by-state basis in Exhibit 17.

Exhibit 16. Number and Percentage of States With Technology Requirements for Teacher Certification and Education in FY 2003

Technology-Related Course Work Required for:	Stage of Process		
	Implemented	Plans to Do*	No Plans
Certification	29 (56%)	8 (15%)	15 (29%)
Recertification	14 (27%)	11 (21%)	27 (52%)
Continuing Education	18 (35%)	9 (17%)	25 (48%)

Source: NETTS state survey.

Exhibit reads: More than 70 percent of the states reported having or planning to have certification requirements that include technology knowledge or skill. Nearly half of the states were requiring or planning to require veteran teachers to participate in technology-related course work or related professional development before they were granted recertification.

*Respondents were asked if they were “completing plans” or “beginning plans” at the time of the survey. “Plans to do” in this table indicates whether a state reported either beginning or completing plans to do particular activities.

Exhibit 17. State Requirements for Technology-Related Course Work in FY 2003

State Name	State requires technology-related coursework for:					
	Teacher certification		Teacher recertification		Teacher continuing education	
	Yes	Plans to Do*	Yes	Plans to Do*	Yes	Plans to Do*
Alabama	X			X	X	
Alaska						
Arizona						
Arkansas			X		X	
California	X					
Colorado						
Connecticut	X		X		X	
Delaware		X		X		X
District of Columbia		X		X		X
Florida	X		X		X	
Georgia	X		X			X
Hawaii		X		X		X
Idaho						
Illinois	X		X		X	
Indiana					X	
Iowa	X					
Kansas	X					
Kentucky	X					
Louisiana		X		X		X
Maine	X			X		X
Maryland						
Massachusetts		X		X		X
Michigan	X					
Minnesota						
Mississippi	X					
Missouri	X		X			
Montana						
Nebraska		X	X		X	
Nevada						
New Hampshire	X		X		X	
New Jersey	X				X	
New Mexico		X		X		X
New York	X		X		X	
North Carolina	X					
North Dakota	X					
Ohio						
Oklahoma	X					
Oregon	X					
Pennsylvania	X		X		X	
Puerto Rico	X		X		X	
Rhode Island		X		X		X
South Carolina					X	
South Dakota	X					
Tennessee						
Texas	X			X	X	
Utah	X					
Vermont	X			X		
Virginia	X		X		X	
Washington			X		X	
West Virginia	X		X		X	
Wisconsin	X					
Wyoming					X	
Total Number of States	29	8	14	11	18	9

Source: NETTS state survey.

*Respondents were asked if they were "completing plans" or "beginning plans" at the time of the survey. "Plans to Do" in this table indicates whether a state reported either beginning or completing plans to do particular activities.

State-Level Administration of the EETT Program¹⁶

The federal government distributes EETT program funds to states on the basis of their Title I, Part A, allocations. To receive EETT funds from the federal government, states are required to develop a long-range strategic educational technology plan and submit it to the Department of Education. Plans must include, among other things:

- Goals for using technology to improve student academic achievement and information on the way these goals align with state academic content and student academic achievement standards.
- Instructional and management strategies for improving student academic achievement through the effective use of technology in classrooms.
- Process and accountability measures for evaluating the extent to which funded activities are effective.

States use their EETT allocation as follows:

- *Conduct state-level activities to support program implementation with the aid of a small set-aside.* States may keep up to 5 percent of their total funds for state-level activities, including administrative activities, technical assistance, and evaluations. No more than 60 percent of the state-level funds may be used for administrative expenses.
- *Distribute a portion of EETT program funds by formula to all eligible local education agencies that apply.* States distribute 50 percent of the remaining EETT funds to all eligible LEAs that apply. Generally, LEAs must use a quarter of these funds for teacher professional development on the use of technology, unless their state waives this requirement for selected districts that have already provided sufficient technology-related professional development to teachers.
- *Distribute a portion of EETT program funds by competition to eligible local entities.* States distribute the remaining 50 percent to LEAs or local partnerships that include at least one high-need LEA, based on Title I, Part A, eligibility, through a state-managed competitive process. States may give priority to school districts that received a formula allocation considered insufficient to carry out the purposes of the EETT program effectively. As with formula funds, LEAs must use a quarter of the competitive funds for teacher professional development on the use of technology, unless their state waives this requirement.

States subsequently distribute these funds to school districts through both entitlement (formula) and competitive awards, targeting “high-need districts” in the process.

The availability of formula and competitive grants seems to accomplish two important goals. EETT formula grants are provided to districts, partnerships, or consortia with the highest

¹⁶ Detailed information about individual EETT awards is presented in the state profiles and at the end of this section of the report.

numbers or percentages of students from families with incomes below the poverty line. Competitive grants can be more effectively targeted to a subset of these districts and other local entities based on the strength of their grant applications. States have a much greater opportunity to channel competitive funds to particular purposes. They can also concentrate competitive funds in selected districts to a much greater extent than they can with formula funds. However, some states reported that winners of competitive awards are somewhat predictable; large urban districts can often afford grant writers to help improve the quality of applications.

Determining Local EETT Eligibility

High-need districts must meet two specific criteria: they have the highest numbers or percentages of children from families with incomes below the poverty line in the state, and they either have demonstrated technology need or contain one or more schools with demonstrated academic need [*ESEA* Sec. 2403(3)]. The legislation requires that states use federal census data to determine the percentage of children from families living in poverty. The U.S. Census Bureau provides data at the school district level through the Small Area Income and Poverty Estimates (SAIPE) program. SAIPE provides estimates between census data collections, which happen every 10 years, with a model that uses the Current Population Survey data, IRS tax return data, annual population estimates, and other data. Although better than outdated census data, these estimates are likely to be less robust for districts in areas with rapidly changing demographics and economic conditions, a concern expressed by three case study states.

Whereas *ESEA* and federal guidance define how the economic need of school districts is determined, states have more discretion in how they implement the concepts of districts' academic and technical needs. Among the districts that serve concentrations of poor students, states select those demonstrating either academic or technology need for funding. To target districts that have academic need, some states consider the district proportions of students with limited English proficiency or identify low-performing schools. Sufficient data are not available from the first NETTS state survey to indicate whether states used other data sources or standards to help determine academic need. States reported using a mixture of objective and subjective data that compared a district with state and local standards to determine a school district's technology need (Exhibit 18). The most common methods were through a local needs assessment or self-reported need, which were used by 33 states. Thirty-one states reported using the results of a state-administered technology inventory for determining technology need. Several states also indicated that they used information about local financial supports for technology to determine school district need. Only two states (North Dakota and Michigan) used none of the methods included on the NETTS state survey.

Exhibit 18. State Determination of District Technology Needs in FY 2003

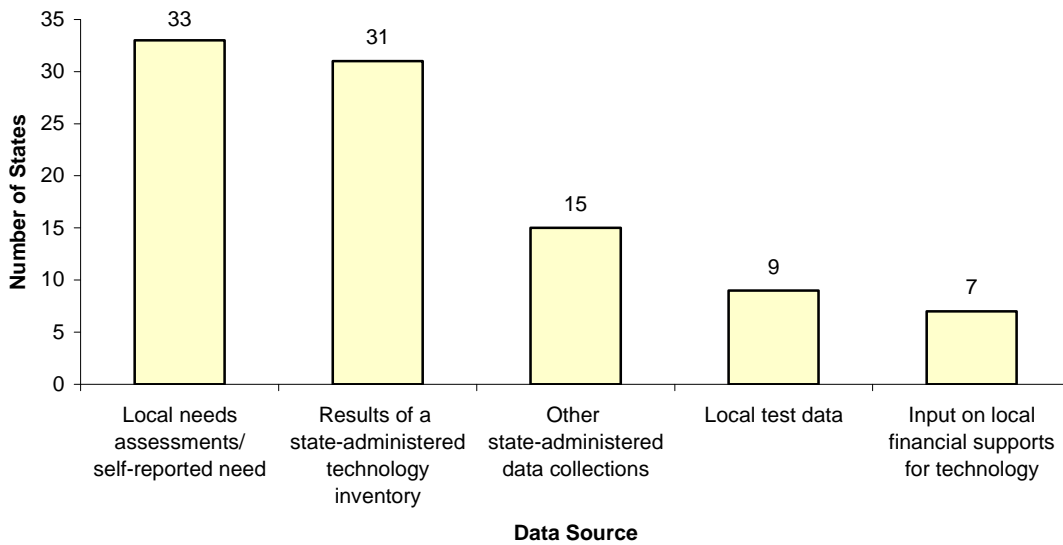


Exhibit reads: States sometimes used multiple means of determining technology need. Local needs assessments and the results of state-administered technology inventories were the most common methods for determining a school district’s need for assistance in acquiring or using technology. Source: NETTS state survey data.

Exhibit 19 illustrates how case study states defined economic, academic, and technology needs. A state’s decisions about how it will define each of these three categories shape which districts are eligible for EETT funding. There is considerable variation in state approaches to these categories, even across the six case study states.

Exhibit 19. Determination of Economic, Academic, and Technology Needs for EETT Eligibility in Case Study States in FY 2004

Economic Need	Academic Need	Technology Need
Title I eligibility Census Bureau data	Schools with large numbers of students with limited English proficiency Low-performing schools	State-administered technology inventory Other state-administered data collections Local test data Local needs assessments/self-reported need Input on local financial supports for technology

Exhibit reads: States used a variety of eligibility criteria in categories stipulated by *ESEA*: economic need, academic need, and technology need. Source: NETTS state survey.

In addition to meeting various need-based criteria, districts must prepare new or updated long-range strategic educational technology plans consistent with their respective states' current educational technology plans to be eligible for either formula or competitive EETT program funds. As defined in the legislation, key components of local plans parallel those at the state level, with additional requirements sometimes dictated by states. However, only 29 states reported requiring local EETT applications to have technology plans that provided for the sharing and dissemination of educational technology initiatives across the state.

Although the EETT legislation has specific requirements for state distribution of funds (guidelines such as eligibility, professional development requirements, and evaluation), states also have flexibility to design their program applications and award processes within the context of their identified needs. Survey results suggest that applying for formula and competitive grants are separate processes in 47 states. Only five states (Iowa, Puerto Rico, South Carolina, West Virginia, and Hawaii) reported offering the option for a consolidated application. Iowa and Puerto Rico required a consolidated formula and competitive application; the other states allowed a consolidated application but did not require one. Five states (Connecticut, Delaware, Hawaii, Iowa, and South Carolina) allowed multiyear applications for both formula and competitive grants. Many more states (29) awarded multiyear competitive grants. No state gave multiyear awards for formula grants only.

Formula Grant Awards

Federal EETT guidelines specify how states can allocate formula funds. Specifically, states may retain up to 5 percent for state-level activities and must subgrant 50 percent of the remaining EETT funds to school districts in the form of formula subgrants. States award formula subgrants to school districts according to the districts' proportionate shares of Title I, Part A, funds for that year. ESEA stipulates no minimum award size for school districts.¹⁷

School districts must apply to their states to receive funding. Twenty-four states reported that 100 percent of the eligible school districts within their states had applied for formula funds in FY 2003. In other states, however, many eligible districts did not apply for formula awards. The percentage of districts not applying for awards ranged from 38 percent in California and Connecticut to just 1 percent in six other states. Every eligible district that applied for and wanted an allocation of formula funds received funding; however, some districts chose not to receive an allocation for various reasons.

The size of formula awards to local school districts varies greatly from state to state (Exhibit 20). States reported awarding \$273 million in formula grants in FY 2003 to 12,823 districts. The average formula award across the nation in FY 2003 was \$21,275. State average formula awards varied from \$4,127 (Iowa) to \$219,825 (Hawaii). The average maximum award across the states in FY 2003 was just over \$1.8 million. New York awarded the largest single formula grant in the country in FY 2003 (\$20,980,099). In 12 states, districts received formula awards greater than \$1 million.

¹⁷ According to *ESEA*, school districts receiving formula funds "too insufficient to be effective" should be given priority in competitive competitions. What size of grants is "insufficient" is left to the states to determine.

Exhibit 20. Formula Grants to School Districts in FY 2003

	Number of States	Smallest	Largest	Mean
Number of formula grants awarded within a state	51	6	1,146	255
Largest formula award to a school district	51	\$99,879	\$20,980,099	\$1,818,404
Smallest formula award to a school district	52	\$1	\$60,000	\$2,896

Exhibit reads: Individual formula awards in FY 2003 ranged from \$1 to more than \$20 million across the country. The average number of awards per state was 255. Source: NETTS state survey.

Some policymakers have expressed concern that the EETT formula grant mechanism results in spreading funding for educational technology too thinly, such that the maximum number of districts get funding but that individual award amounts are often too small to support significant accomplishments. In fact, many states do make relatively modest awards to LEAs, but these awards make up a small proportion of available funding. In FY 2003, the average minimum EETT formula award in a state was about \$2,900. New Jersey awarded the smallest formula grant (\$1). Eighteen states had districts that received formula awards less than \$100 in FY 2003. Forty states had minimum formula awards that were less than \$1,000. Despite the fact that some very small grants were awarded in most states, only 4 percent of EETT formula grant funds were distributed to local education agencies in amounts less than \$5,000. Although this represents a small percentage of total funds, grants in amounts less than \$5,000 account for 39 percent of all formula grants. Administration of small formula grants, therefore, is likely to take more time and effort than the amount of funds distributed might otherwise suggest.

However, rural districts that have few students or low population density may still choose to apply for small EETT grants to exercise their Rural Education Achievement Program (REAP)-Flex authority. Under REAP-Flex, a district can use any or all of its EETT formula funds with other formula funds it receives from Title II, Part A (Improving Teacher Quality), Title IV, Part A (Safe and Drug-Free Schools and Communities), and Title V, Part A (Innovative Programs) of ESEA for district activities for any of these programs, and any activities under Title I, Part A (Improving the Academic Achievement of the Disadvantaged), Title II (Language Instruction for Limited English Proficient and Immigrant Students), and Title IV, Part B (21st-Century Community Learning Centers) of *ESEA*.

Competitive Grant Awards

As with formula grants, states must subgrant the remaining 50 percent of their EETT awards to eligible entities through a competitive process. The EETT program allows states considerable flexibility in determining priorities for EETT competitive awards, and states can give preference to competitive applications based on state-level priorities. States can target money to eligible partnerships, as well as to those districts that did not receive formula grants sufficient to accomplish the purposes of EETT.

State Targeting Provisions

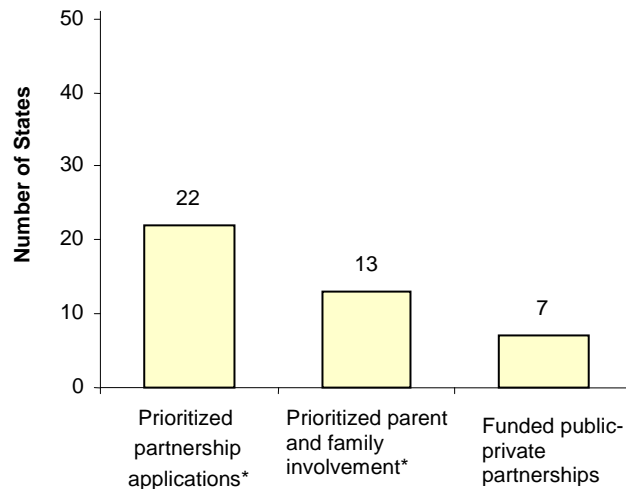
The EETT legislation specifies that school districts may apply for competitive funds as part of an eligible local partnership. Only a school district can serve as the fiscal agent in an eligible

local partnership. An eligible local partnership is defined as consisting of at least one high-need school district and at least one of the following entities:

- A school district that can demonstrate effective technology integration resulting in improved classroom instruction;
- A higher education institution in compliance with the reporting requirements of section 207(f) of the *Higher Education Act of 1965*;
- A for-profit business or organization that specializes in technology products or the application of technology in instruction; or
- A public or private nonprofit organization with expertise in using educational technology in instruction.

Given the overwhelming costs and challenges of establishing an adequate technological infrastructure in education, all levels of government, public-private partnerships, and local communities can provide critical input, leadership, and financial support for educational technology. Almost half of the states (22) prioritized partnership applications, and seven states provided direct funds to public-private partnerships (Exhibit 21). Thirteen states (25 percent) gave priority to parent and family involvement in their grants.

Exhibit 21. Number of States That Prioritized Partnership Applications and Parent and Family Involvement in Grant Making and That Funded Public-Private Partnerships in FY 2003



* Data are missing for one state.

Exhibit reads: In making competitive grants, 22 states gave priority to partnership applications, and 13 states gave priority to parent and family involvement. Seven states provided funds to public-private partnerships. Source: NETTS state survey.

A second form of targeting expressly required in the EETT legislation is prioritizing LEAs receiving “insufficient” formula grant awards in allocating competitive awards. Twenty-four states reported giving priority in their competitive grants programs to school districts considered to have received insufficient formula grant awards. Exhibit 22 presents the number of states

using each of six specified criteria for determining which school districts received insufficient formula grant awards.

Exhibit 22. Criteria for Determining Insufficient Formula Grant Award in FY 2003

Definition	Number of States
District received less than a certain amount in formula funds	8
District received less than a certain amount per student in formula funds	0
District was determined to be "high need" as defined in federal guidelines	12
District received a formula grant that was less than the minimum allocation received under the previous educational technology program(TLCF)	1
District need based on a technology-based metric, such as higher student-to-computer ratio than the state average	3
District served a high number of English as a second language learners or other special populations not specifically poverty-related	0
Other	9

Exhibit reads: Of the 24 states that gave priority to competitive grant applications from districts that received an insufficient formula grant award, half coupled the priority with other "high need" criteria defined in federal guidelines. Source: NETTS state survey.

Eight states reported defining an insufficient formula grant award as less than a certain amount, with amounts considered insufficient ranging from less than \$5,000 (Arizona and Wisconsin) to less than \$46,000 (Virginia). One state (Maryland) reported that school districts did not receive adequate funding if their grants were less than the minimum allocation under the previous TLCF program. Three states (Alabama, New York, and Oregon) used technology-based metrics to determine whether funding was adequate. Among the nine states that reported having other criteria for defining an insufficient formula grant award, seven indicated some process for distributing competitive funds to high-need school districts that received small formula grants.

Case study states reported a variety of means of reviewing, prioritizing, and awarding competitive funds (Exhibit 23). All but one of the six NETTS case study states used review panels for the competitive grant process, and in most cases, these panels consisted of external education specialists. Many states indicated that they were moving toward more multiyear grants, with applications and reviews necessary for renewal from one year to the next. They believed that multiyear grants would help produce more and longer-lasting change.

Exhibit 23. Competitive Grant and Application Review Process in Case Study States in FY 2004

State	Reviewers	Priority or Preference Bonuses	Award Cycle
Kansas	Review panel hired from professional research organization	Preference points given to schools in need of improvement, lowest income levels, and geographic location	16 months, March 1–June 30
Massachusetts	Review panel consisting of external education and educational technology specialists	High-need school districts	One program, 12 months; one program, 24 months
Ohio	Review panel consisting of educators from applicant districts (no self-review)	None	12 months, July 1–June 30
Texas	Review panel consisting of educators and others from across the state	Technology Applications Readiness Grants for Empowering Texas (TARGET): Objective scoring with some subjectivity for proposals from applicants lacking a grant writer on staff Technology Immersion Project (TIP): Total of 20 possible for emphasis on five areas of instructional enhancement	Target 1: 18 months, January 1–June 30; Target 2: 24 months TIP: 18 to 22 months, Aug. 16–June 30 possible
Washington	State office	None	24 months, July 1–June 30
West Virginia	Review panel consisting of external education and educational technology specialists	Highest need and applicants that also commit to using formula funds for state program	17 months, May 1–Sept. 30

Source: NETTS case study data.

Competitive Grant Award Amounts

A smaller percentage of eligible school districts applied for competitive funds than for formula funds. Many eligible districts did not apply for competitive awards in FY 2003. Fifty percent or more of eligible districts applied for competitive grants in FY 2003 in only six of 45 states (13 percent). In 20 states, 20 percent of districts or fewer applied for competitive funds. About one quarter of district survey respondents indicated that they did not apply for competitive funds because they did not think that they were eligible. About 18 percent of district technology coordinators reported not knowing that competitive funds were available, 17 percent reported not having the resources to apply, and 17 percent reported not expecting to receive the funds. Only 4 percent of districts reported having funds left over from a previous year as a reason for not applying.

For districts that did apply for competitive grants, the likelihood of receiving an award varied markedly across states. In 11 states, all school districts that applied for a competitive grant received funds. Twelve states awarded competitive grants to more than 90 percent of the school districts that applied. In three states (Vermont, Maryland, and Florida), a combination of a high application rate and a high acceptance rate resulted in the award of competitive grants to more than 50 percent of all eligible school districts. At the other end of the spectrum, 17 states granted competitive funds to fewer than half of the school districts that applied for them.

Among the states that reported holding competitive grant award competitions during FY 2003, the number of competitive awards ranged from five in Delaware, Colorado, and Utah, representing 16, 3, and 7 percent of districts in the respective states, to 102 in Ohio,¹⁸ which includes 12 percent of its school districts (Exhibit 24). The median percentage of districts in a state receiving competitive awards in FY 2003 was 10 percent. Because the number and proportion of districts that received awards, and the size of the competitive awards were determined by individual states, the average size of competitive awards varied considerably across states. Average competitive awards to school districts ranged from \$2,603 in South Dakota to \$854,919 in Texas. Each state distributed, on average, \$154,261 to each school district receiving a competitive award. The median average competitive award was \$161,849. Five states (California, Colorado, Illinois, Michigan, and Puerto Rico) distributed individual competitive awards that exceeded \$1 million.¹⁹

Exhibit 24. Competitive Grants to School Districts across States in FY 2003

	Smallest	Mean	Largest
Number of competitive grants awarded within a state	5	33	102
Largest competitive award in a state	\$15,649	\$648,705	\$6,655,600
Average competitive award in a state	\$2,603	\$154,261	\$854,919
Smallest competitive award in a state	\$1,000	\$440,743	\$500,000

Exhibit reads: Individual competitive awards in FY 2003 ranged from \$1,000 to more than \$6.6 million across the country. The number of awards ranged from 5 to 102; the average number of awards per state was 33. Source: NETTS state survey.

The range in competitive award sizes was considerable. The smallest competitive award given to a school district was \$1,000 in South Dakota, which did not make any competitive grants larger than \$15,649. The largest competitive award to any one school district was \$6,655,600, awarded in California. The average competitive award decreased from \$236,172 in FY 2002 to \$154,261 in FY 2003. However, the average number of districts awarded competitive funds in each state increased from 25 to 33, indicating that funding was spread over more districts. Several factors are likely to have an affect on the number of awards and range of

¹⁸ New York did not award any competitive grants during this period. Eleven states awarded eight or fewer competitive grants.

¹⁹ Puerto Rico is a “unity school district,” and as such, Puerto Rico acts as both a state education agency (SEA) and an LEA. As a result, Puerto Rico has the authority to distribute funds to schools by competition, although it does not make formula awards.

awards in any particular state. In addition to direct influences, such as the total number of EETT-eligible districts and the total amount of available EETT funds, some state leaders, particularly those in strong “local control” states, may feel more pressure than others to distribute funds to a majority of districts. In some other states, leaders appear convinced that sizable awards are necessary to effect change in districts.

Grade and Subject Priorities for Competitive Grant Awards

The primary goal of EETT is to support the use of technology in ways that enhance student achievement, especially in schools serving high-need students. Student achievement was cited as a priority for EETT competitive grant programs in FY 2003 by 30 states. States were also asked whether they targeted specific academic areas and grade levels in their competitive grant competitions. States were permitted to identify multiple academic and grade-level priorities. Twenty-four states indicated that they targeted specific instructional content targets, and among these English or language arts and mathematics were the most common foci, consistent with the emphasis of the reauthorization of *ESEA* (Exhibit 25). Fifteen states required competitive grants to focus on English or language arts, and 14 required a focus on mathematics. Although less than a majority of states, these numbers were considerably higher than that for the next most commonly required academic focus (sciences, required by seven states).

Exhibit 25. Instructional Content Priorities for EETT Competitive Grant Applications in FY 2003

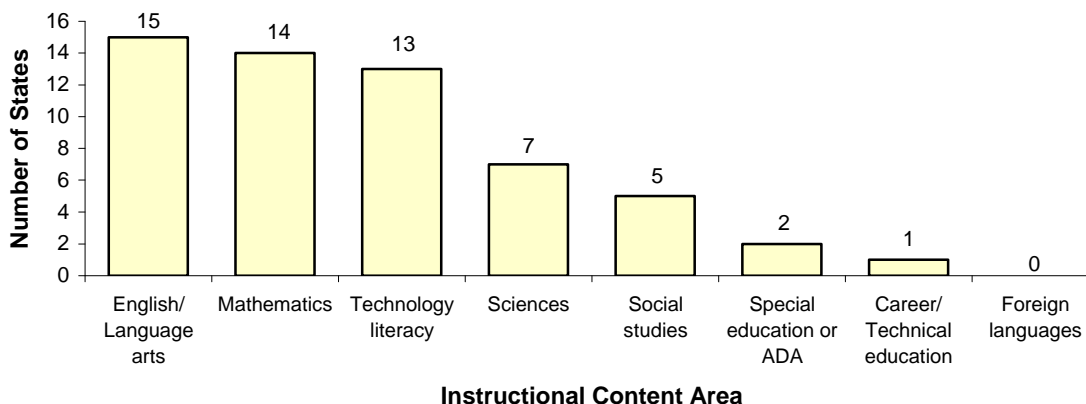


Exhibit reads: The most common academic priorities states required for EETT grants were English or language arts and mathematics, in keeping with the overall goals of *NCLB*.
 Source: NETTS state survey.

Only nine states required a grade-level priority in their EETT competitive grant proposals. Seven states prioritized elementary and middle grades which seems logical in the early years of *NCLB*. Two states required grade-level priorities but did not identify which grade levels they prioritized.

Experience in the case study states indicates that states have interacting foci and targeting provisions (Exhibit 26). Case study data suggest that a variety of state-level priorities can come together within an individual grant competition. States can target specific grades, subjects, and activities through a single request for proposals.

Exhibit 26. State Approach to Multiple Priorities for EETT Competitive Awards in FY 2004

State	School/Grade Level	Disciplinary Focus	Improvement Focus	Purchases
Kansas	4–5	Math, reading, science	Curriculum and instruction	Mandatory equipment, software, peripherals up to \$20,000 per classroom
	8	Student technology literacy	Leadership skills	Professional development and training for students
Massachusetts	K–12	Core academic subjects	Assessment	Hardware and software, professional development
Ohio	K–8	Math, English or language arts	Curriculum and instruction	Software, professional development
Texas	K–12	General	Curriculum and instruction	Professional development
	6–8	Core academic subjects	Assessment (through technology immersion)	Professional development
Washington	6–8	Math	Assessment	Professional development, hardware
West Virginia	K–12	Core academic subjects	Assessment	Professional development

Exhibit reads: While states appear to have multiple foci and targeting provisions, the experience of case study states suggests that states may use multiple priorities to target programs on particular activities in particular academic disciplines for specific grades. Source: NETTS case study data.

State-Level Funds

The EETT program allows states to set aside up to 5 percent of their EETT allocations for state-level activities and for program administration. States may use up to 60 percent of the set aside for administrative purposes, and the remaining 40 percent may be used for state-level activities. This is consistent with similar provisions in other programs sponsored by the U.S. Department of Education. The EETT legislation requires states to provide technical assistance to applicants, especially to those applicants serving the highest numbers or percentages of children in poverty or with the greatest need for technical assistance in developing an application for a competitive grant. State educational technology directors report that states used the 5 percent set-asides to accomplish a range of tasks, including general administrative overhead, research and development, technical assistance, and evaluation. Uses for the funds vary, but most states appeared to be meeting the requirement for technical assistance (Exhibit 27). More than half of the states used their state-level funds to accomplish multiple objectives.

Exhibit 27. Common Uses for 5 Percent EETT State-Level Funds in FY 2003

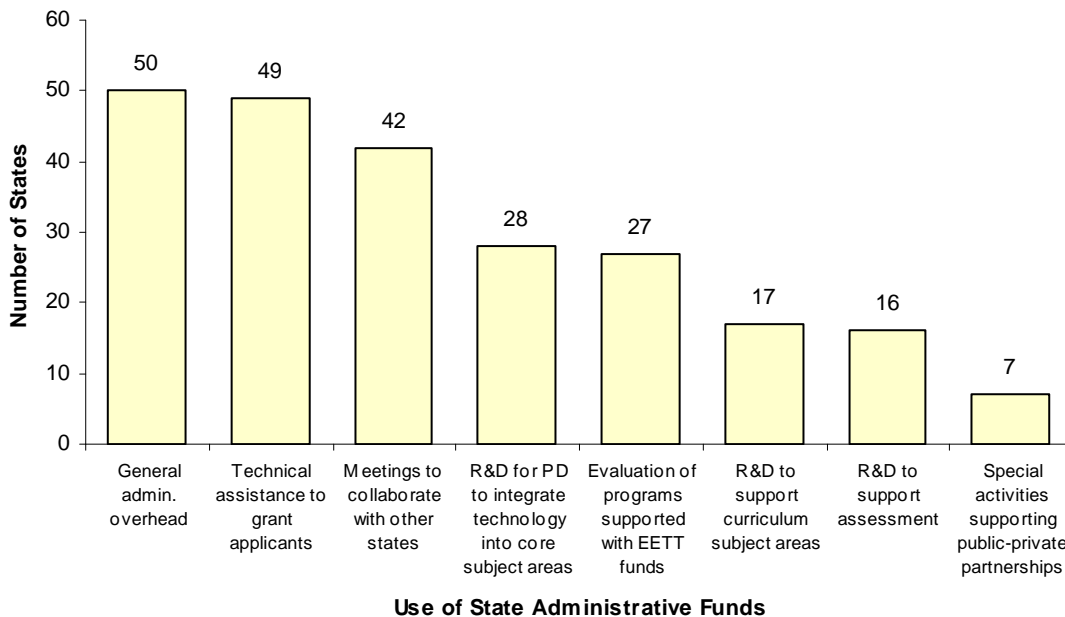


Exhibit reads: More than half of the states used state-level funds for general administrative overhead, technical assistance to grant applicants, meetings to collaborate with other states, research and development, and evaluation of programs supported with EETT funds. Source: NETTS state survey.

Note: R&D refers to research and development. PD refers to professional development.

State directors noted the challenge associated with administering the program and conducting an adequate evaluation of the effectiveness of the program within the constraints of the state-level funds.

State Evaluation Practices

The federal legislation requires recipients of EETT funds—both states and school districts—to evaluate the effectiveness of their programs. There are many reasons to encourage sound evaluation practices, most of which fall within three general categories: accountability and oversight, program and organizational improvement, and assessment of merit and worth (Henry, 2005). Focusing on accountability and oversight allows program officials to monitor program activities and determine whether these activities are in compliance with expectations and standards. This type of evaluation is often the simplest, and therefore least expensive, compared with other evaluation types. Evaluations that focus on program and organizational improvement are sometimes called “formative evaluations.” In this type of evaluation, the purpose is to collect data while a program is still in development in order to provide information to refine program implementation. In contrast, the ultimate purpose of summative evaluations, which assess the merit and worth of a program, is to inform discussions about the value of a program and may ultimately influence program funding decisions. Because of the methodological rigor necessary to accurately estimate the impacts of a program, these evaluations are typically the most technically complex and expensive to conduct.

The EETT legislation states that one purpose of the program is “to support the rigorous evaluation of programs funded under this part, particularly regarding the impact of such programs on student academic achievement, and ensure that timely information on the results of such evaluations is widely accessible through electronic means.” The Department of Education requires that state education plans include accountability measures for how states will evaluate their programs. Federal guidance requires states to:

...develop a process and accountability measures that the State will use to evaluate the extent to which activities funded under the program are effective in integrating technology into curricula and instruction. These accountability measures should evaluate the impact that Ed Tech activities have had on student achievement. The legislation expressly authorizes States to use funds that are set aside for State-level activities to develop performance measurement systems to determine the effectiveness of educational technology programs supported with Ed Tech funds. (See *ESEA* Section 2415(5).) As part of its monitoring and evaluation of the program, the Department intends to examine the progress that SEAs [State Education Agencies] have made in integrating technology into curricula and instruction and in meeting their goals for using technology to improve student academic achievement. (U.S. Department of Education, 2002)

Neither the legislation nor Department guidance requires any particular staffing arrangement, methodology, or reporting for EETT evaluations. As reported by officials in case study states, the limited guidance available from the federal government regarding evaluation has caused some anxiety among state staff.²⁰ States were concerned that they would be held accountable for data that they had not collected or that they would be asked to conduct types of evaluations that they did not feel they could afford. States may also be concerned about having sufficient evaluation expertise. Only seven states reported having access to evaluators on staff, and nine states reported that they did not have access to evaluation expertise. Thirty-three states reported that they had access to external evaluators from universities (14) or private organizations (19).

The survey data and experiences in the case study states suggest that many states may not have adequate funding to design and implement rigorous evaluations (Exhibit 28). As a result, it is not surprising that most states do not create state-level EETT evaluation reports. Only 18 states reported producing state-level evaluation reports for either competitive or formula grants. All 18 reported evaluation data for their competitive programs; only eight included data about formula grants. No states produced state-level evaluation reports that addressed only the formula part of the program. Of the 18 states that reported producing state-level evaluation reports, 12 included data from local evaluation activities.

During fiscal years 2003 through 2005, nine states,²¹ including Texas and West Virginia, received additional funds from Evaluating State Educational Technology Programs (ESETP) to support rigorous, high-quality state evaluations of educational technology. In fiscal year 2004, each state recipient was awarded funds exceeding \$500,000 per year, about three times as large

²⁰ Subsequent to the case study interviews, the U.S. Department of Education held an Evaluation Institute for state technology directors and other staff implementing EETT to provide technical assistance in conducting rigorous state evaluations.

²¹ States with ESETP awards are: Arkansas, Iowa, Maine, North Carolina, Pennsylvania, Tennessee, Texas, West Virginia, and Wisconsin. West Virginia received two ESETP awards.

as the median allowable state-level set-aside of EETT funds²² that can be committed to evaluations. This suggests that the resources required to perform these rigorous, high-quality evaluations of competitive EETT grants cost much more than most states can afford.

Evaluations that can adequately isolate the effects of educational technology on student academic achievement are complex and, as already mentioned, likely to be beyond the human and financial capacities available to many states. The measures and methods that would be necessary to estimate the independent effects of technology, instruction, students' prior achievement, and other likely contributors to student performance are complicated. Three of the six NETTS case study states were focusing on increased use of classroom technology in their evaluations, one was focusing on teachers' assessments of their own technology integration skills, and two were including student achievement data in their evaluation information.

Exhibit 28. Challenges in Evaluation and Accountability in Case Study States

The six case study states varied in their understanding of legislative requirements for evaluation under EETT, and all noted that they could not conduct high-quality evaluations with the resources made available to them. In addition, all six states were concerned that they would be held accountable, retroactively, for data they did not currently collect. States would like clearer guidance concerning what data will be required as part of the EETT reporting and accountability process, and they would also like clearer definitions for accountability measures, such as "technology literate."

All six case study states, even Texas and Ohio with their relatively large amounts of funding, indicated they needed more funds for administration of the program, particularly for evaluation. Several states either were not doing statewide evaluations beyond data collections already in place or were funding descriptive surveys and relying on self-reported data from teachers. Washington used all of its set-aside for personnel and general administration and, like Texas, funded its evaluation by using a portion of funds awarded to districts. Texas also received a separate federal grant from the U.S. Department of Education's Evaluating State Educational Technology Programs (ESETP) to conduct a more robust evaluation of program impacts.

Like Texas, West Virginia was one of nine states to receive an ESETP award. As a result, the state focused its state-level set-aside on personnel and technical assistance. However, state officials in West Virginia reported that newly emerging budget concerns in the state threatened the stability of the West Virginia educational technology office and its ability to continue to deliver relatively high levels of technical assistance and conduct impact evaluations.

Source: NETTS case study data.

For the most part, states gave their local grant recipients flexibility in terms of how they evaluated their EETT activities. A majority of states required local evaluations of school districts' EETT grants whether they received either formula or competitive awards, but some states required evaluations only from school districts that received competitive awards. In fact, states have much more leverage legally over local evaluation of competitive grants, compared with formula grants. Whereas states can require that competitive grant recipients set aside a certain portion of their funds for evaluation activities, they cannot make similar requirements of

²² In fiscal year 2004, this amount was \$165,215.

formula funds, which are allocated by formula and used at the discretion of local education authorities. State requirements for the use of specific data collection instruments (which would permit aggregation of data to the state level) were fairly common for competitive grants (22 states). Eleven states required competitive grant recipients to set aside a certain proportion of their funds for evaluation (Exhibit 29). States were also more likely to stipulate the use of specific outcome measures in evaluations of competitive grants.

Exhibit 29. State Requirements for Competitive Grant Evaluations in FY 2003

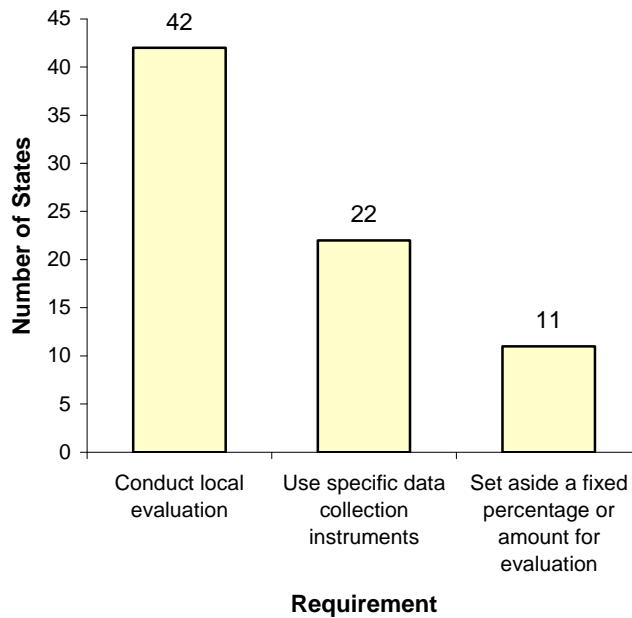


Exhibit reads: States often required local evaluations as a component of competitive awards, but they were less likely to require the allocation of a specific portion of funds or use of specific data collection instruments. Source: NETTS state survey.

A large proportion of states reported using or requiring local entities to use adequate yearly progress (AYP) in their evaluations of EETT grants (23 for competitive grants and 22 for formula grants). In fact, the most commonly used student metric for the evaluation of EETT was AYP, as defined under state accountability systems (Exhibit 30). Some states also used measures of student access to technology, student use of technology, and student knowledge, skill, or comfort level with technology.

Exhibit 30. Frequency of Student Measures Used to Evaluate Local EETT Projects in FY 2003

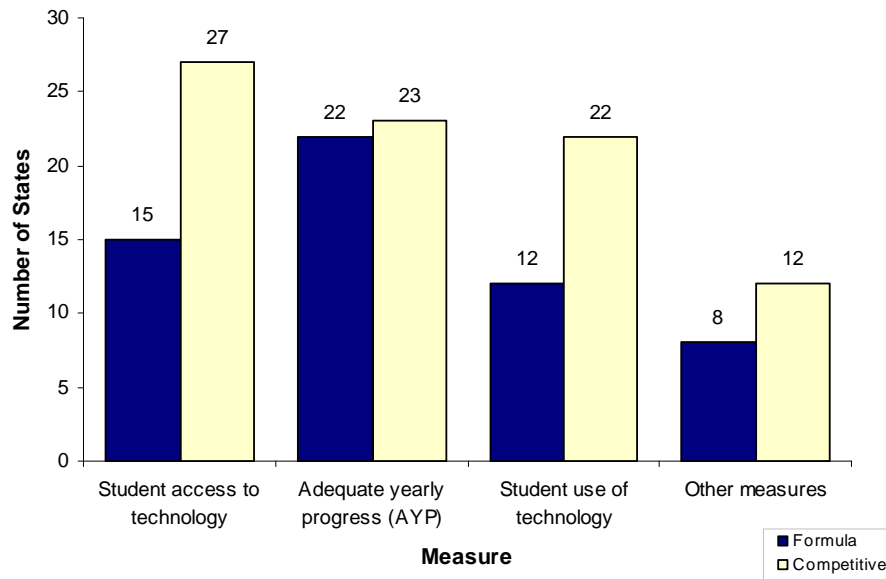


Exhibit reads: Many states required multiple student measures to evaluate EETT projects, although student measures were used more often for competitive awards than for formula awards. Source: NETTS state survey.

Although the proportion of states emphasizing student achievement in their evaluations is substantial, it is not markedly higher than the proportions of states requiring other kinds of student outcome measures, (such as student access to technology), and none require grantees to document the relationships between student achievement and technology programs.

The fiscal allocations, methods, and outcomes for evaluations as targeted by EETT staff in the six evaluation case study states are shown in Exhibit 31.

Exhibit 31. Case Study States' Evaluation of Competitive Grants in FY 2004

State	Annual Fiscal Allocation for Statewide Evaluation	Entities Conducting Evaluation	Evaluation and Measurement Methods	Targeted Outcomes
Kansas	\$69,190—paid for by subgrantees	Regional education resource center	Program 1: Attendance and discipline records, teacher-assigned grades, classroom observations Program 2: Teacher and student surveys	Improved attendance, reduced discipline instances, improved student performance
Massachusetts	\$45,000	University	Online assessment tool in the Virtual Education Space	Increased use of technology in the classroom
		State staff	Site visits conducted following online assessment. All projects must present at annual technology conference.	
Ohio	\$109,367	Private research and evaluation firm	Achievement records, surveys, classroom observations	Improved student achievement in mathematics and English or language arts
Texas ^a	Subgrantees must evaluate local projects; state program is evaluated through ESETP funds (award amount: \$649,000).	Varies with subgrantee	Varies with subgrantee	Varies with subgrantee; improved scores on Teacher STaR Chart (self-assessment tool)
Washington	\$200,000	University	Teacher logs (surveys) and case study site visits	Increased use of technology in the classroom; use of more types of technology in the classroom
West Virginia ^a	ESETP funds (award amount: \$471,000)	Private consultant	Mentor logs, surveys (regular and random), software usage logs	Increased use of technology in the math classroom

^a Texas and West Virginia are recipients of Evaluating State Educational Technology Programs (ESETP) awards and have additional funds beyond their state-level set-aside to use for statewide evaluation.

Exhibit reads: Case study states varied considerably in their approach to evaluating EETT competitive grants. Source: NETTS case study data.

Conclusions

EETT is one of the few federal programs dedicated to the direct support of educational technology in high-poverty elementary and secondary schools. The program has provided two very different types of awards: formula and competitive. The incorporation of formula grants and competitive grants was intended to balance the benefits and limitations of each type of grant. Preliminary evidence from case study states suggests that the program has been successful in balancing the distribution of grants.²³ Both features appear to be useful to states, although because of limits in funding in FY 2006, states will be able to award all funds through competitive means in the future.

Formula grants were expected to improve the extent to which educational technology funds go to districts serving high-need students, because all districts were guaranteed funds if they had sufficient numbers or proportions of students in poverty. Formula funds are particularly important to small district, rural districts, and poor districts, because they may not have the same resources as large urban districts, such as professional grant writers and other similar advantages. Indeed, officials in case study states reported that formula funds were awarded to districts that otherwise might not have won competitive grants. However, states have relatively little influence on where the formula funds go or how they are spent.

Competitive grants offer states an opportunity to target particular state needs and require particular programmatic features, such as evaluation. In this arena states are emphasizing professional development, technology integration, and student achievement, in keeping with the intentions of the EETT legislation. However, many eligible districts across the country did not apply for competitive awards in the early years of the program. In FY 2003, the proportion of eligible districts not applying varied considerably by state. There are many explanations for a district's choice not to apply, including concern about the level of effort required for proposal preparation and districts' satisfaction with their existing technology infrastructure and integration practices. Consolidating the formula and competitive grant application processes, as a few states do, may encourage more competitive grant applications. It also seems likely to increase the degree of articulation between uses made of the formula and competitive funds in districts and schools that receive both.

The primary goal of the EETT program is "to improve student academic achievement through the use of technology in elementary and secondary schools." States are required to evaluate their EETT programs and may use a portion of the state-level funds available to them through EETT. However, survey and case study data suggest that states may not have adequate funding to design and implement rigorous evaluations, particularly those that address the relationship between EETT program activities and student academic achievement. Results from case studies suggest that some states have attempted to leverage state funds by requiring data collection with common instruments across the state or encouraging districts to contribute funds to a common pool for what amounts to the funding of statewide evaluations by local grantees. However, these efforts are not enough to link EETT investments to student academic achievement. Indeed, evaluations that can adequately isolate the effects of educational technology on student academic achievement require complex designs. The measures and methods that would be necessary to estimate the independent effects of technology, instruction,

²³ Future NETTS reports will examine more closely how effectively funds are targeted to high-poverty districts.

students' prior achievement, and other likely contributors to student performance are likely beyond the human and financial capacities available to many states.

In an effort to establish links between the EETT program and improved student academic achievement and to build state capacity to conduct rigorous evaluations of educational technologies, nine states received additional funding from the Department to conduct rigorous, high-quality state evaluations of educational technology under the Evaluating State Educational Technology Programs (ESETP). Awards to states amounted to more than \$1 million per state over a three-year period, which is considerably higher than the median amount of allowable state-level funding available through the EETT program, again suggesting that high-quality evaluations cost much more than most states can afford through the EETT program.

Student technology literacy by the eighth grade is also a key goal of the EETT program. Although most states have technology standards in place for students, few reported measuring students' technology skills in school year 2003–04. This modest attention to assessment of standards may be attributable partly to federal reticence about guidance regarding how technology proficiency is to be defined or measured. In all six NETTS case study states, officials expressed uncertainty about how to adequately promote and assess student technology literacy. Some states had a working definition of the term, but all the case study states expressed concern about what the federal government expects in terms of accountability and assessment of technology literacy. In the absence of stronger federal guidance concerning the importance of having technology skill assessments in place and the requirements for a valid and reliable assessment system, states may have few incentives to invest significant resources in this area.

Most of the data used in this report describe the EETT program in its first and second years of operation (FY 2002 and FY 2003). It should be recognized that some states were still completing their educational technology plans and getting their EETT implementation procedures in place during this time. An additional state survey is planned for winter 2006 to collect information about trends in program policies and practices from FY 2002 through FY 2006. It will focus on state programmatic activities, such as professional development, technology integration, and evaluation, and it will update the record of administrative practices for the EETT program.

**CHAPTER 2: INDIVIDUAL STATE PROFILES OF
EDUCATIONAL TECHNOLOGY POLICIES**

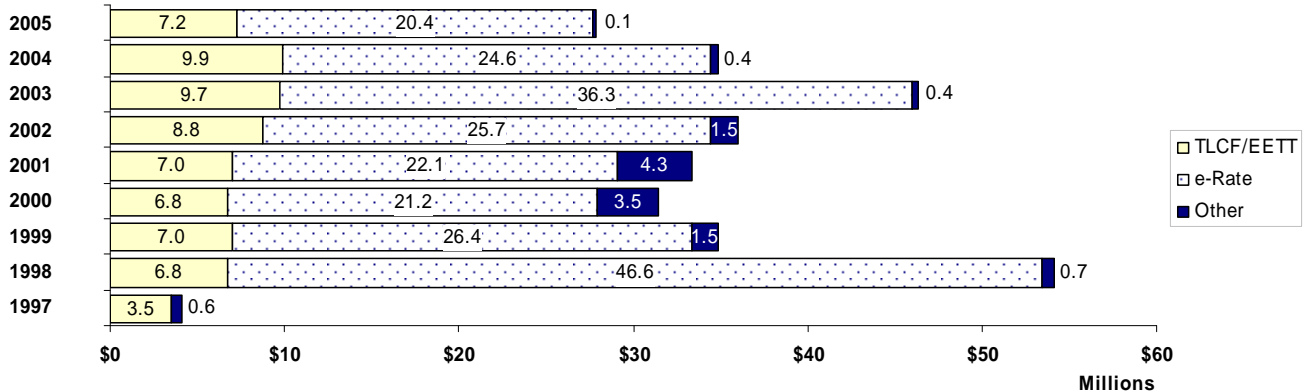
Alabama Educational Technology Policies

LONG-RANGE STRATEGIC EDUCATIONAL TECHNOLOGY PLAN

Title: *Alabama Technology Plan for K-12 Education*

URL: <http://www.alsde.edu/html/sections/documents.asp?section=61&sort=10&footer=sections>

SELECTED FEDERAL EDUCATIONAL TECHNOLOGY FUNDING



STATE EDUCATIONAL TECHNOLOGY POLICIES AND PROGRAMS

Required technology-related course work for:

Teacher certification	Yes
Teacher recertification	Plans to do
Teacher continuing education	Yes

Data provided to local staff for decision-making: Yes

	<u>For Teachers</u>	<u>For Students</u>
Minimum technology standards	No	Yes
Formal assessment of proficiency on standards (state level)	No	No
Online courses, materials or software	Yes	Yes

State EETT competitive grant priorities

Special priorities:

Student academic achievement in core subject areas	Professional development
Student technology literacy	Technology integration into the classroom
State learning standards	Evaluation of EETT program impact
Student access to technology	<i>Content priorities:</i>
Parent and family involvement	Technology literacy

State EETT definition of "high-need" LEA (2003)

Academic need: N/A

Technology need: Yes

High-technology-need LEAs were determined by results of a state-administered technology inventory and local needs assessments or self-reported need.

EDUCATIONAL TECHNOLOGY CONTACT AND WEB SITE

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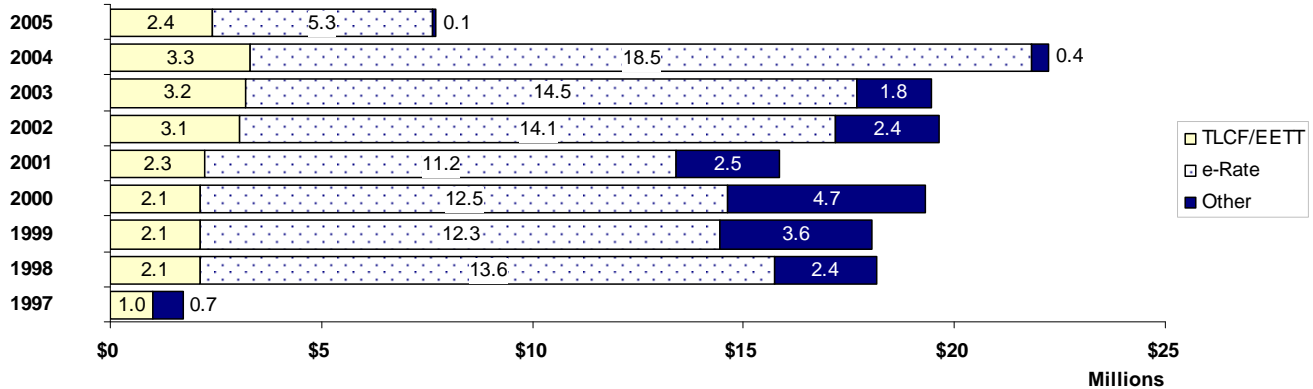
Alaska Educational Technology Policies

LONG-RANGE STRATEGIC EDUCATIONAL TECHNOLOGY PLAN

Title: *Alaska Educational Technology Plan*

URL: <http://www.eed.state.ak.us/edtech/pdf/EducationalTechnologyPlan.pdf>

SELECTED FEDERAL EDUCATIONAL TECHNOLOGY FUNDING



STATE EDUCATIONAL TECHNOLOGY POLICIES AND PROGRAMS

Required technology-related course work for:

Teacher certification	No
Teacher recertification	No
Teacher continuing education	No

Data provided to local staff for decision-making: Yes

	<u>For Teachers</u>	<u>For Students</u>
Minimum technology standards	Yes	Yes
Formal assessment of proficiency on standards (state level)	No	No
Online courses, materials or software	No	No

State EETT competitive grant priorities

Special priorities:

- Student academic achievement in core subject areas
- Professional development

State EETT definition of “high-need” LEA (2003)

Academic need: N/A

Technology need: N/A

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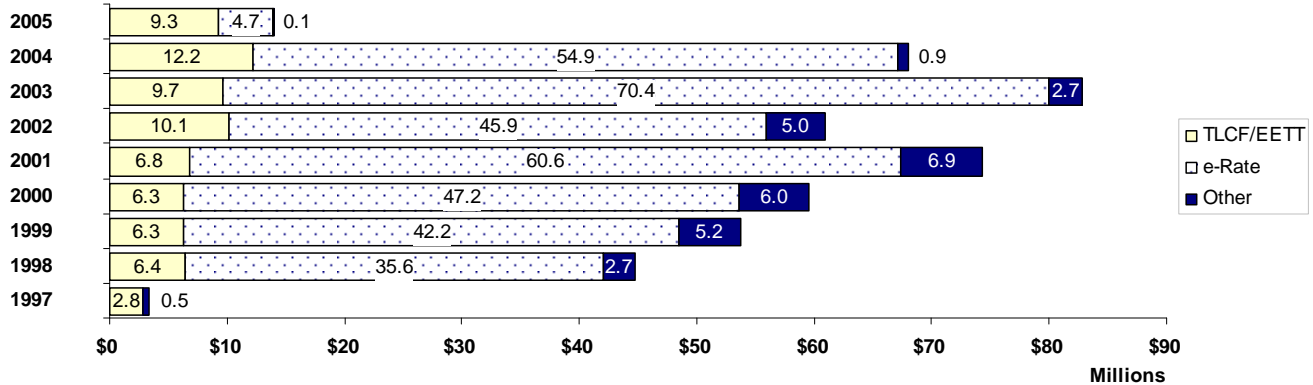
Arizona Educational Technology Policies

LONG-RANGE STRATEGIC EDUCATIONAL TECHNOLOGY PLAN

Title: *Arizona Educational Technology Plan*

URL: <http://www.ade.az.gov/technology/AZTechPlan05.pdf>

SELECTED FEDERAL EDUCATIONAL TECHNOLOGY FUNDING



STATE EDUCATIONAL TECHNOLOGY POLICIES AND PROGRAMS

Required technology-related course work for:

Teacher certification	No
Teacher recertification	No
Teacher continuing education	No

Data provided to local staff for decision-making: Yes

	<u>For Teachers</u>	<u>For Students</u>
Minimum technology standards	Yes	Yes
Formal assessment of proficiency on standards (state level)	Yes	Plans to do
Online courses, materials or software	Yes	Yes

State EETT competitive grant priorities

None

State EETT definition of “high-need” LEA (2003)

Academic need: N/A

Technology need: Yes

High-technology-need LEAs were determined by results of state-administered data collections (not including a state-administered technology inventory), local needs assessments or self-reported need, and input on local financial supports for technology.

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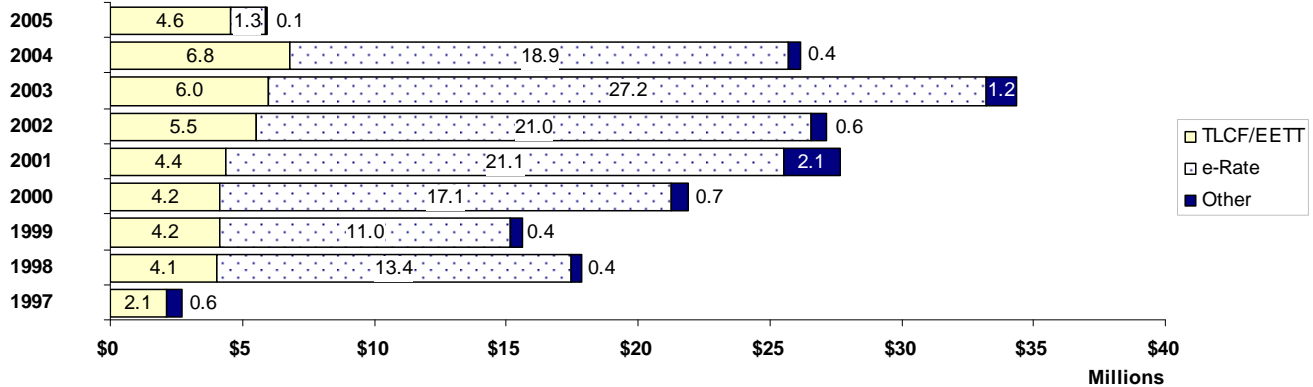
Arkansas Educational Technology Policies

LONG-RANGE STRATEGIC EDUCATIONAL TECHNOLOGY PLAN

Title: *Arkansas Education Technology Plan*

URL: http://arkedu.state.ar.us/technology/pdf/technology_plan.pdf

SELECTED FEDERAL EDUCATIONAL TECHNOLOGY FUNDING



STATE EDUCATIONAL TECHNOLOGY POLICIES AND PROGRAMS

Required technology-related course work for:

Teacher certification	No
Teacher recertification	Yes
Teacher continuing education	Yes

Data provided to local staff for decision-making: Yes

	<u>For Teachers</u>	<u>For Students</u>
Minimum technology standards	Yes	Yes
Formal assessment of proficiency on standards (state level)	No	No
Online courses, materials or software	Yes	Yes

State EETT competitive grant priorities

None

State EETT definition of “high-need” LEA (2003)

Academic need: N/A

Technology need: Yes

High-technology-need LEAs were determined by results of a state-administered technology inventory.

EDUCATIONAL TECHNOLOGY CONTACT AND WEB SITE

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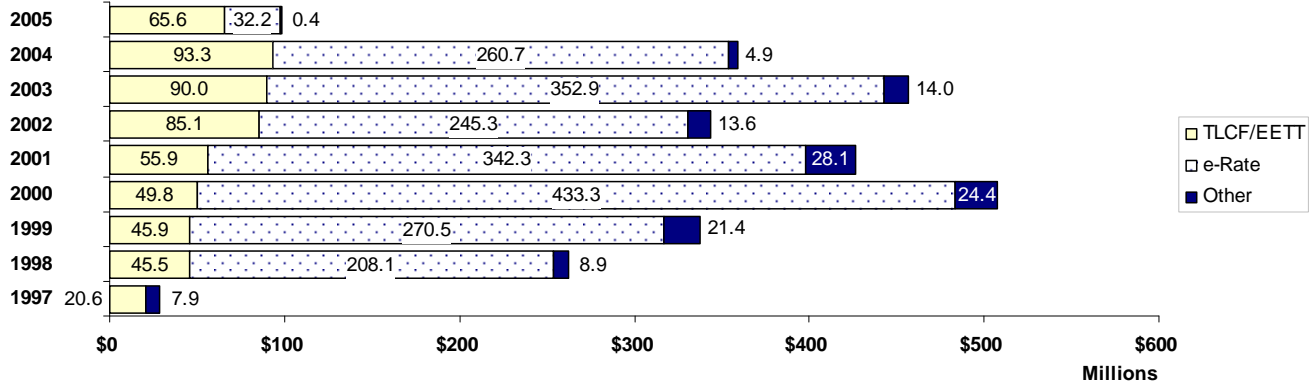
California Educational Technology Policies

LONG-RANGE STRATEGIC EDUCATIONAL TECHNOLOGY PLAN

Title: *The California Master Plan for Educational Technology*

URL: N/A

SELECTED FEDERAL EDUCATIONAL TECHNOLOGY FUNDING



STATE EDUCATIONAL TECHNOLOGY POLICIES AND PROGRAMS

Required technology-related course work for:

Teacher certification	Yes
Teacher recertification	No
Teacher continuing education	No

Data provided to local staff for decision-making: Yes

	<u>For Teachers</u>	<u>For Students</u>
Minimum technology standards	Yes	No
Formal assessment of proficiency on standards (state level)	Yes	No
Online courses, materials or software	No	No

State EETT competitive grant priorities

Grade-level priorities:

6th–8th grades

State EETT definition of “high-need” LEA (2003)

Academic need: N/A

Technology need: Yes

High-technology-need LEAs were determined by results of a state-administered technology inventory.

EDUCATIONAL TECHNOLOGY CONTACT AND WEB SITE

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 Web site: <http://www.cde.ca.gov/ls/et/>

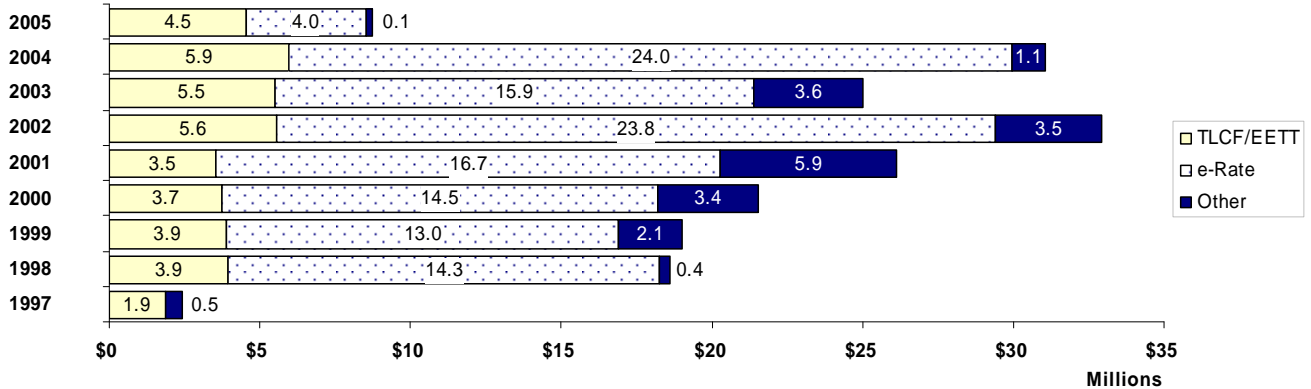
Colorado Educational Technology Policies

LONG-RANGE STRATEGIC EDUCATIONAL TECHNOLOGY PLAN

Title: *Colorado Plan for Educational Technology and Information Literacy*

URL: <http://www.cde.state.co.us/edtech/download/state-plan.pdf>

SELECTED FEDERAL EDUCATIONAL TECHNOLOGY FUNDING



STATE EDUCATIONAL TECHNOLOGY POLICIES AND PROGRAMS

Required technology-related course work for:

Teacher certification	No
Teacher recertification	No
Teacher continuing education	No

Data provided to local staff for decision-making: Yes

	<u>For Teachers</u>	<u>For Students</u>
Minimum technology standards	Yes	Yes
Formal assessment of proficiency on standards (state level)	No	No
Online courses, materials or software	Yes	Yes

State EETT competitive grant priorities

None

State EETT definition of "high-need" LEA (2003)

Academic need: N/A

Technology need: Yes

High-technology-need LEAs were determined by local needs assessments or self-reported need.

EDUCATIONAL TECHNOLOGY CONTACT AND WEB SITE

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 Colorado Department of Education
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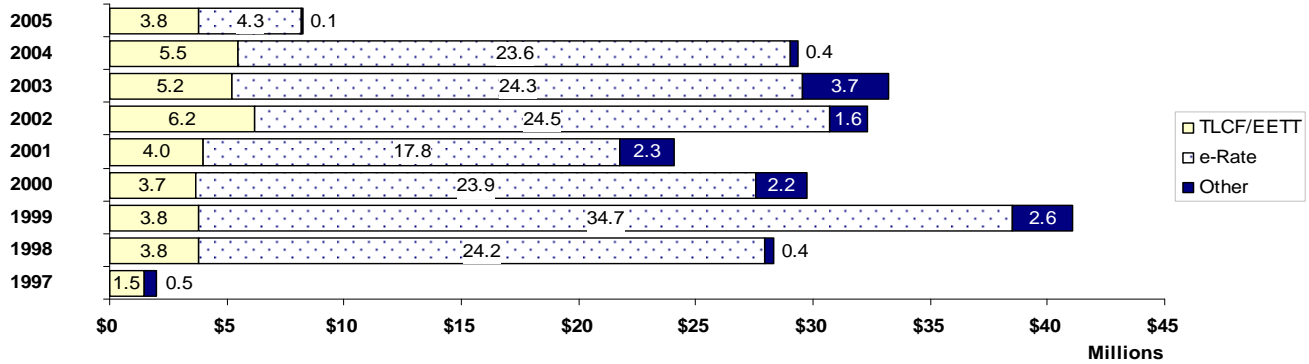
Connecticut Educational Technology Policies

LONG-RANGE STRATEGIC EDUCATIONAL TECHNOLOGY PLAN

Title: *Connecticut Commission for Educational Technology Long Range Plan*

URL: <http://www.state.ct.us/sde/dtl/technology/CET-2002-StrategicPlan.doc>

SELECTED FEDERAL EDUCATIONAL TECHNOLOGY FUNDING



STATE EDUCATIONAL TECHNOLOGY POLICIES AND PROGRAMS

Required technology-related course work for:

Teacher certification	Yes
Teacher recertification	Yes
Teacher continuing education	Yes

Data provided to local staff for decision-making

No

Minimum technology standards

For Teachers

For Students

Formal assessment of proficiency on standards (state level)

Yes

Yes

No

No

Online courses, materials or software

No

No

State EETT competitive grant priorities

Special priorities:

- Student academic achievement in core subject areas
- Student technology literacy
- State learning standards
- Student access to technology

- Parent and family involvement
- Professional development
- Technology integration into the classroom
- Evaluation of EETT program impact
- Technology to manage, collect, and analyze data to enhance teaching and school reform

State EETT definition of "high-need" LEA (2003)

Academic need: N/A

Technology need: Yes

High-technology-need LEAs were determined by results of a state-administered technology inventory and local needs assessment or self-reported need.

EDUCATIONAL TECHNOLOGY CONTACT AND WEB SITE

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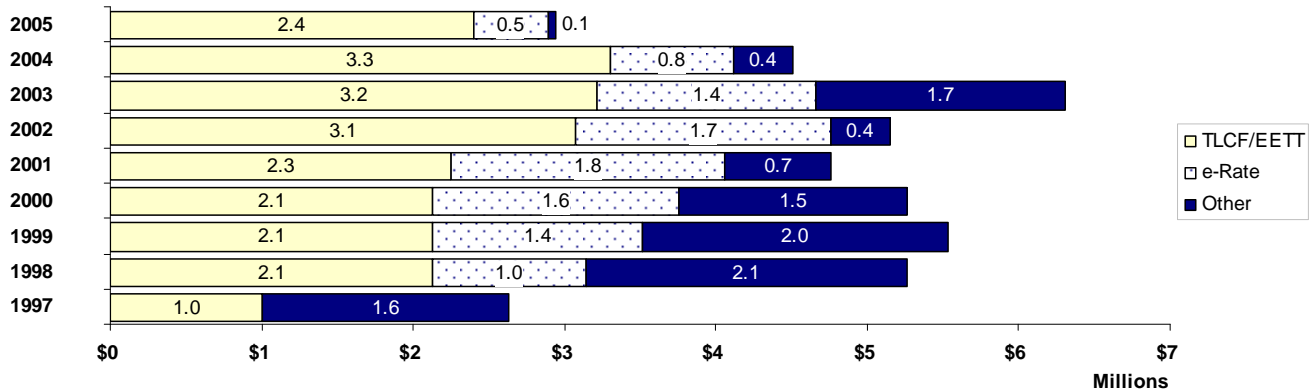
Delaware Educational Technology Policies

LONG-RANGE STRATEGIC EDUCATIONAL TECHNOLOGY PLAN

Title: *Delaware Center for Educational Technology Strategic & Action Plans*

URL: <http://www.dcet.k12.de.us/admin/strategic03.pdf>

SELECTED FEDERAL EDUCATIONAL TECHNOLOGY FUNDING



STATE EDUCATIONAL TECHNOLOGY POLICIES AND PROGRAMS

Required technology-related course work for:

Teacher certification	Plans to do
Teacher recertification	Plans to do
Teacher continuing education	Plans to do

Data provided to local staff for decision-making: Yes

	<u>For Teachers</u>	<u>For Students</u>
Minimum technology standards	No	No
Formal assessment of proficiency on standards (state level)	No	No
Online courses, materials or software	No	No

State EETT competitive grant priorities

Special priorities:

- Student academic achievement in core subject areas
- State learning standards
- Student access to technology
- Professional development
- Technology integration into the classroom
- Evaluation of EETT program impact

Technology linkages, resources, and services to improve academic achievement

Content priorities:

- English or language arts
- Information literacy

Grade-level priorities:

- 6th–8th grades

State EETT definition of “high-need” LEA (2003)

Academic need: N/A

Technology need: Yes

High-technology-need LEAs were determined by local needs assessments or self-reported need.

EDUCATIONAL TECHNOLOGY CONTACT AND WEB SITE

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Delaware Center for Educational Technology	E-mail: dallen@doe.k12.de.us
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Dover, DE 19904	

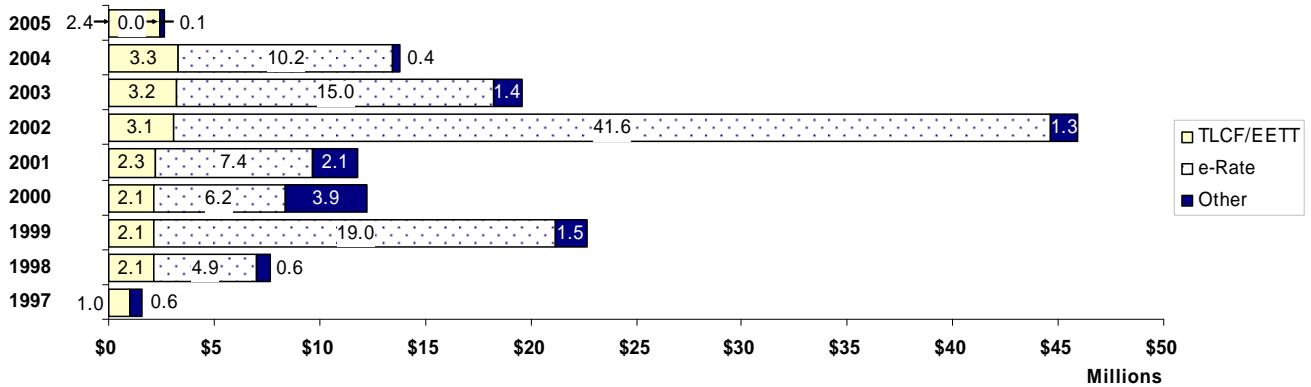
District of Columbia Educational Technology Policies

LONG-RANGE STRATEGIC EDUCATIONAL TECHNOLOGY PLAN

Title: *Beyond 2001—Thinking Children*

URL: <http://www.k12.dc.us/dcps/frontpagepdfs/FinalPlan2K1.pdf>

SELECTED FEDERAL EDUCATIONAL TECHNOLOGY FUNDING



STATE EDUCATIONAL TECHNOLOGY POLICIES AND PROGRAMS

Required technology-related course work for:

Teacher certification	Plans to do
Teacher recertification	Plans to do
Teacher continuing education	Plans to do

Data provided to local staff for decision-making: Plans to do

	<u>For Teachers</u>	<u>For Students</u>
Minimum technology standards	Yes	Yes
Formal assessment of proficiency on standards (state level)	Plans to do	Plans to do
Online courses, materials or software	Plans to do	Yes

State EETT competitive grant priorities

None

State EETT definition of “high-need” LEA (2003)

Academic need: N/A

Technology need: Yes

High-technology-need LEAs were determined by local needs assessments or self-reported need.

EDUCATIONAL TECHNOLOGY CONTACT AND WEB SITE

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Washington, DC 20002	

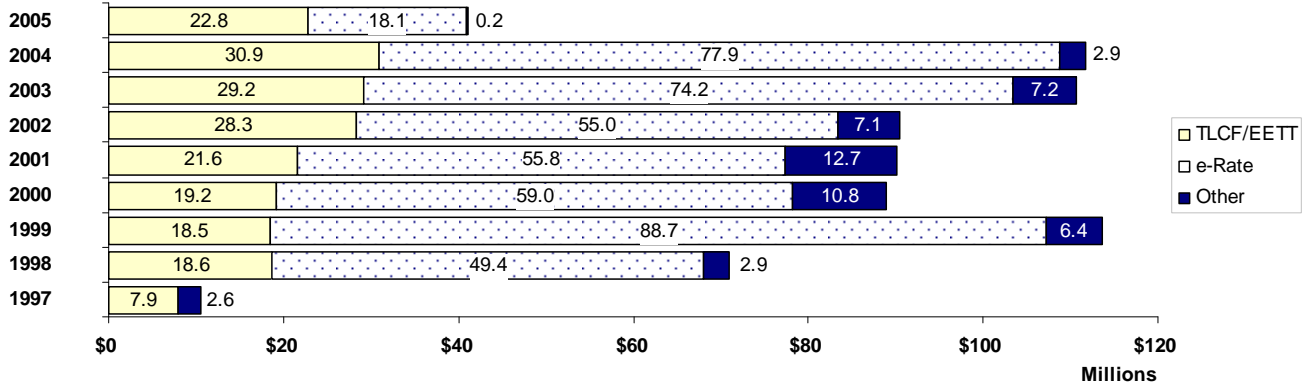
Florida Educational Technology Policies

LONG-RANGE STRATEGIC EDUCATIONAL TECHNOLOGY PLAN

Title: *Florida Educational Technology Plan*

URL: <http://www.doe.firn.edu/edtech/it/eett/objectives.html>

SELECTED FEDERAL EDUCATIONAL TECHNOLOGY FUNDING



STATE EDUCATIONAL TECHNOLOGY POLICIES AND PROGRAMS

Required technology-related course work for:

Teacher certification	Yes
Teacher recertification	Yes
Teacher continuing education	Yes

Data provided to local staff for decision-making: Yes

	<u>For Teachers</u>	<u>For Students</u>
Minimum technology standards	Yes	Yes
Formal assessment of proficiency on standards (state level)	No	No
Online courses, materials or software	No	Yes

State EETT competitive grant priorities

Special priorities:

- State learning standards
- Professional development
- Technology integration into the classroom
- Evaluation of EETT program impact

Content priorities:

- Reading skills

State EETT definition of “high-need” LEA (2003)

Academic need: N/A

Technology need: Yes

High-technology-need LEAs were determined by results of a state-administered technology inventory and local needs assessments or self-reported need.

EDUCATIONAL TECHNOLOGY CONTACT AND WEB SITE

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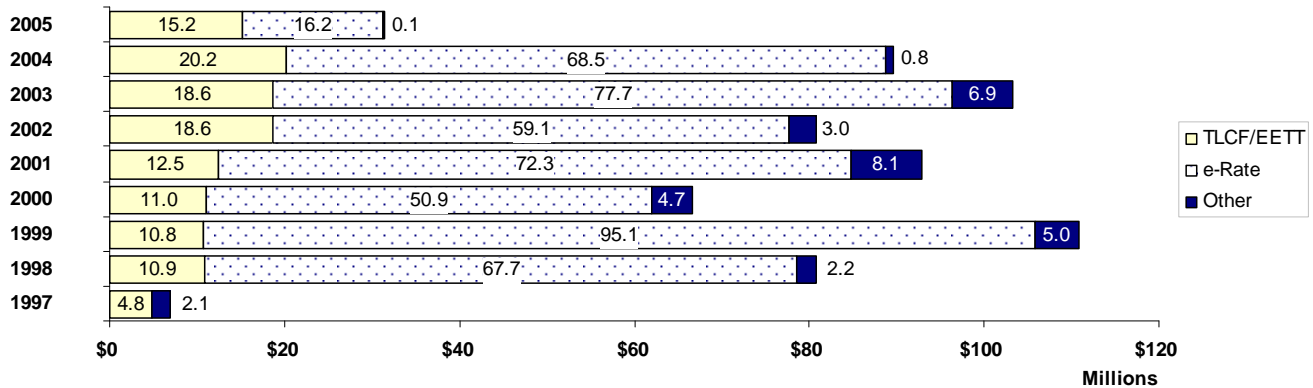
Georgia Educational Technology Policies

LONG-RANGE STRATEGIC EDUCATIONAL TECHNOLOGY PLAN

Title: *The State of Georgia K-12 Technology Plan*

URL: <http://techservices.doe.k12.ga.us/edtech/techplan.pdf>

SELECTED FEDERAL EDUCATIONAL TECHNOLOGY FUNDING



STATE EDUCATIONAL TECHNOLOGY POLICIES AND PROGRAMS

Required technology-related course work for:

Teacher certification	Yes
Teacher recertification	Yes
Teacher continuing education	Plans to do

Data provided to local staff for decision-making: Yes

	<u>For Teachers</u>	<u>For Students</u>
Minimum technology standards	Yes	Yes
Formal assessment of proficiency on standards (state level)	Yes	Plans to do
Online courses, materials or software	Yes	Yes

State EETT competitive grant priorities

Special priorities:

- Student academic achievement in core subject areas
- State learning standards
- Professional development
- Technology integration into the classroom
- Evaluation of EETT program impact

Content priorities:

- Mathematics

State EETT definition of “high-need” LEA (2003)

Academic need: N/A

Technology need: Yes

High-technology-need LEAs were determined by results of a state-administered technology inventory.

EDUCATIONAL TECHNOLOGY CONTACT AND WEB SITE

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1966 Twin Towers East	Web site: http://techservices.doe.k12.ga.us/edtech
205 Jesse Hill Jr. Drive	
Atlanta, GA 30334	

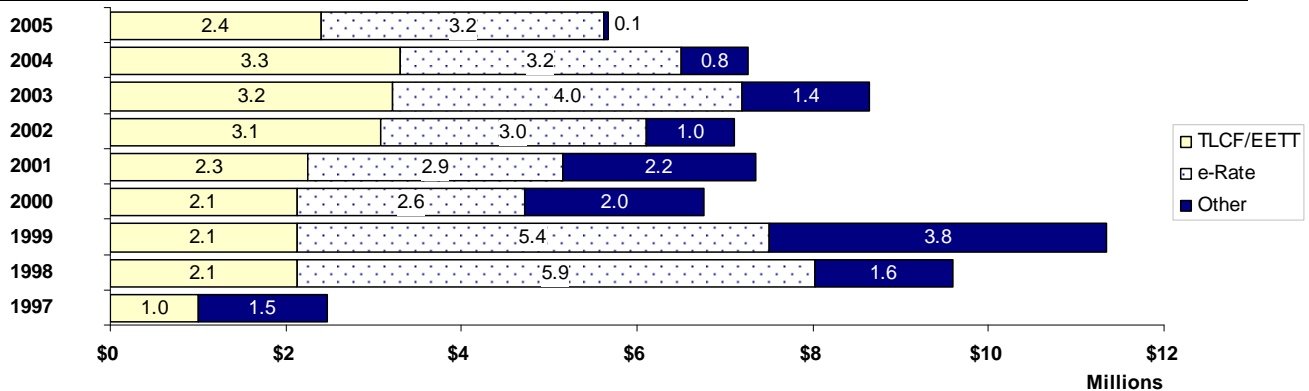
Hawaii Educational Technology Policies

LONG-RANGE STRATEGIC EDUCATIONAL TECHNOLOGY PLAN

Title: *Hawaii Department of Education Educational Technology Plan*

URL: http://165.248.2.49/ociss/files/state_edtech_plan_110_downloads_44.pdf

SELECTED FEDERAL EDUCATIONAL TECHNOLOGY FUNDING



STATE EDUCATIONAL TECHNOLOGY POLICIES AND PROGRAMS

Required technology-related course work for:

Teacher certification	Plans to do
Teacher recertification	Plans to do
Teacher continuing education	Plans to do

Data provided to local staff for decision-making: Yes

	<u>For Teachers</u>	<u>For Students</u>
Minimum technology standards	No	Yes
Formal assessment of proficiency on standards (state level)	Plans to do	Yes
Online courses, materials or software	Yes	Yes

State EETT competitive grant priorities

Special priorities:

Student academic achievement in core subject areas	Electronic networks and other methods of distance learning to reach students who otherwise would not have access to school curriculum
Student technology literacy	Technology linkages, resources, and services to improve academic achievement
State learning standards	Technology to manage, collect, and analyze data to enhance teaching and school reform
Student access to technology	
Professional development	
Technology integration into the classroom	

State EETT definition of “high-need” LEA (2002)

Academic need: N/A

Technology need: Yes

High-technology-need LEAs were determined by results of a state-administered technology inventory, other state-administered data collections, and local needs assessments or self-reported need.

EDUCATIONAL TECHNOLOGY CONTACT AND WEB SITE

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475 22nd Avenue, Room 211	Web site: http://doe.k12.hi.us/technology/index.htm
Honolulu, HI 96816	

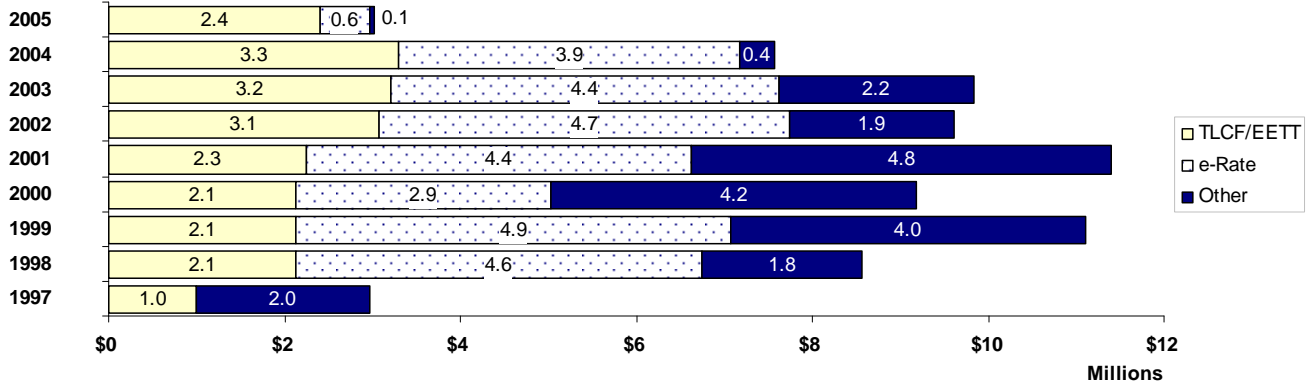
Idaho Educational Technology Policies

LONG-RANGE STRATEGIC EDUCATIONAL TECHNOLOGY PLAN

Title: *Connections 2004*

URL: <http://www.sde.state.id.us/bots/documents/04StTechPlan0316.pdf>

SELECTED FEDERAL EDUCATIONAL TECHNOLOGY FUNDING



STATE EDUCATIONAL TECHNOLOGY POLICIES AND PROGRAMS

Required technology-related course work for:

Teacher certification	No
Teacher recertification	No
Teacher continuing education	No

Data provided to local staff for decision-making: Yes

	<u>For Teachers</u>	<u>For Students</u>
Minimum technology standards	No	Yes
Formal assessment of proficiency on standards (state level)	No	No
Online courses, materials or software	Plans to do	Yes

State EETT competitive grant priorities

None

State EETT definition of “high-need” LEA (2003)

Academic need: N/A

Technology need: Yes

High-technology-need LEAs were determined by results of a state-administered technology inventory.

EDUCATIONAL TECHNOLOGY CONTACT AND WEB SITE

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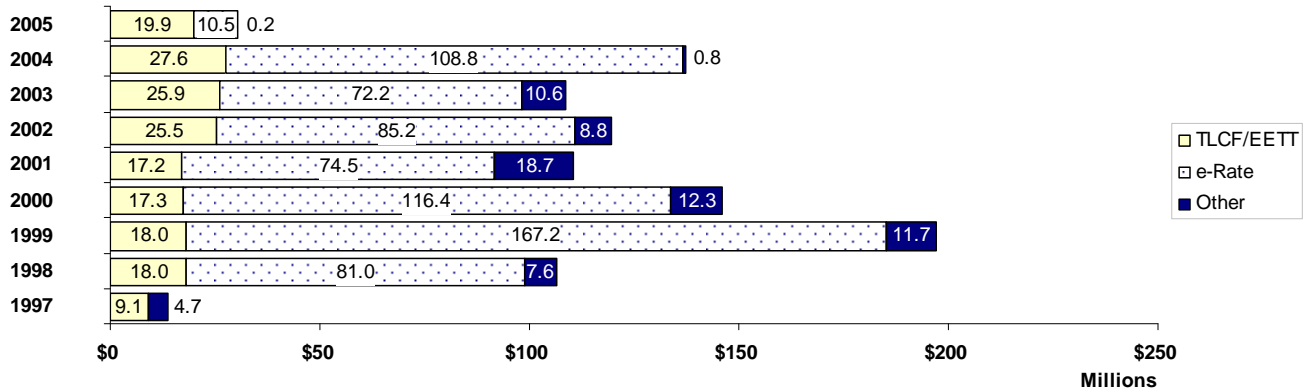
Illinois Educational Technology Policies

LONG-RANGE STRATEGIC EDUCATIONAL TECHNOLOGY PLAN

Title: *State of Illinois Five-Year Technology Plan*

URL: http://www.isbe.state.il.us/curriculum/elearning/pdf/tech_plan.pdf

SELECTED FEDERAL EDUCATIONAL TECHNOLOGY FUNDING



STATE EDUCATIONAL TECHNOLOGY POLICIES AND PROGRAMS

Required technology-related course work for:

Teacher certification	Yes
Teacher recertification	Yes
Teacher continuing education	Yes

Data provided to local staff for decision-making: Yes

	<u>For Teachers</u>	<u>For Students</u>
Minimum technology standards	No	Yes
Formal assessment of proficiency on standards (state level)	Yes	Plans to do
Online courses, materials or software	No	Yes

State EETT competitive grant priorities

Special priorities:

- Student academic achievement in core subject areas
- Student access to technology
- Professional development
- Technology integration into the classroom
- Evaluation of EETT program impact
- Technology linkages, resources, and services to improve academic achievement

Technology to manage, collect, and analyze data to enhance teaching and school reform

Content priorities:

- English or language arts
- Mathematics

School-type priorities:

- Schools that showed initiative in the application process
- Private schools within the area covered by the grant

State EETT definition of "high-need" LEA (2003)

Academic need: N/A

Technology need: Yes

High-technology-need LEAs were determined by the results of a state-administered technology inventory, local test data, local needs assessments or self-reported need, and input on local financial supports for technology.

EDUCATIONAL TECHNOLOGY CONTACT AND WEB SITE

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 E-mail: gbequett@isbe.net
 Web site:
<http://www.isbe.state.il.us/curriculum/elearning/default.htm>

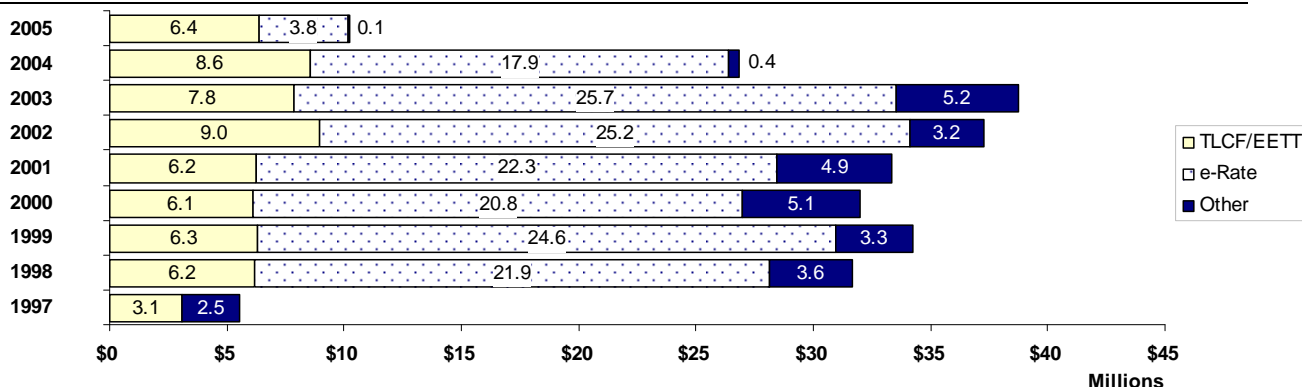
Indiana Educational Technology Policies

LONG-RANGE STRATEGIC EDUCATIONAL TECHNOLOGY PLAN

Title: *Indiana's K-12 Plan for Technology*

URL: <http://www.doe.state.in.us/olr/techplan/welcome.html>

SELECTED FEDERAL EDUCATIONAL TECHNOLOGY FUNDING



STATE EDUCATIONAL TECHNOLOGY POLICIES AND PROGRAMS

Required technology-related course work for:

Teacher certification	No
Teacher recertification	No
Teacher continuing education	Yes

Data provided to local staff for decision-making: Yes

	For Teachers	For Students
Minimum technology standards	No	No
Formal assessment of proficiency on standards (state level)	No	No
Online courses, materials or software	Plans to do	Plans to do

State EETT competitive grant priorities

Special priorities:

- Student academic achievement in core subject areas
- State learning standards
- Parent and family involvement
- Professional development
- Evaluation of EETT program impact
- Technology linkages, resources, and services to improve academic achievement

Content priorities:

- English or language arts
- Mathematics
- Sciences

School-type priorities:

- Schools with a large number of LEP students

State EETT definition of "high-need" LEA (2003)

Academic need: N/A

Technology need: N/A

EDUCATIONAL TECHNOLOGY CONTACT AND WEB SITE

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Room 229 State House	Web site: http://www.doe.state.in.us/olr
Indianapolis, IN 46204	

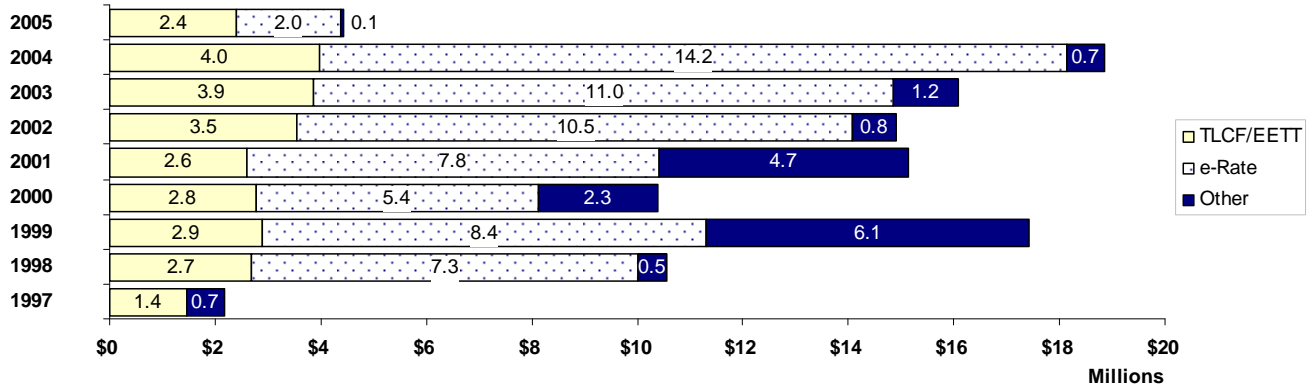
Iowa Educational Technology Policies

LONG-RANGE STRATEGIC EDUCATIONAL TECHNOLOGY PLAN

Title: N/A

URL: N/A

SELECTED FEDERAL EDUCATIONAL TECHNOLOGY FUNDING



STATE EDUCATIONAL TECHNOLOGY POLICIES AND PROGRAMS

Required technology-related course work for:

Teacher certification	Yes
Teacher recertification	No
Teacher continuing education	No

Data provided to local staff for decision-making: Yes

	For Teachers	For Students
Minimum technology standards	No	No
Formal assessment of proficiency on standards (state level)	No	No
Online courses, materials or software	Yes	Yes

State EETT competitive grant priorities

Special priorities:

- Student academic achievement in core subject areas
- Professional development
- Evaluation of EETT program impact

Content priorities:

- English/language arts
- Mathematics

State EETT definition of “high-need” LEA (2003)

Academic need: N/A

Technology need: Yes

High-technology-need LEAs were determined by local test data.

EDUCATIONAL TECHNOLOGY CONTACT AND WEB SITE

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Grimes State Office Building	Web site:
Bureau of Instructional Services	http://www.state.ia.us/educate/ecese/is/eett/index.html
Des Moines, IA 50319-0146	

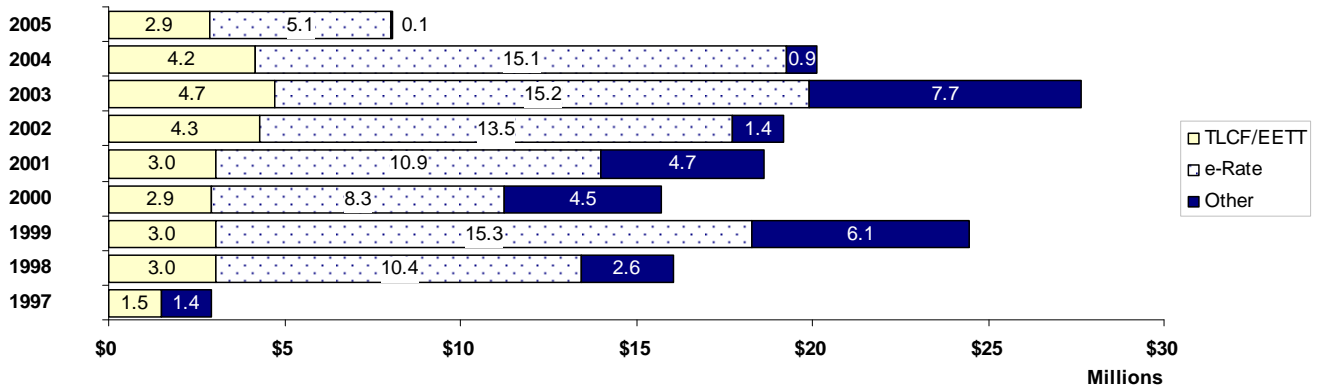
Kansas Educational Technology Policies

LONG-RANGE STRATEGIC EDUCATIONAL TECHNOLOGY PLAN

Title: *Kansas State Department of Education Technology Plan 2002–2006*

URL: <http://www.taken.org/techplan.html>

SELECTED FEDERAL EDUCATIONAL TECHNOLOGY FUNDING



STATE EDUCATIONAL TECHNOLOGY POLICIES AND PROGRAMS

Required technology-related course work for:

Teacher certification	Yes
Teacher recertification	No
Teacher continuing education	No

Data provided to local staff for decision-making: No

	<u>For Teachers</u>	<u>For Students</u>
Minimum technology standards	No	Yes
Formal assessment of proficiency on standards (state level)	No	No
Online courses, materials or software	No	Plans to do

State EETT competitive grant priorities

Special priorities:

- Student academic achievement in core subject areas
- Student access to technology
- Professional development
- Technology integration into the classroom
- Evaluation of EETT program impact

Content priorities:

- English or language arts
- Mathematics
- Sciences
- Technology literacy

Grade-level priorities:

- 4th–8th grade

School-type priorities:

- Schools that showed initiative in the application process

State EETT definition of “high-need” LEA (2003)

Academic need: N/A

Technology need: Yes

High-technology-need LEAs were determined by local needs assessments or self-reported need.

EDUCATIONAL TECHNOLOGY CONTACT AND WEB SITE

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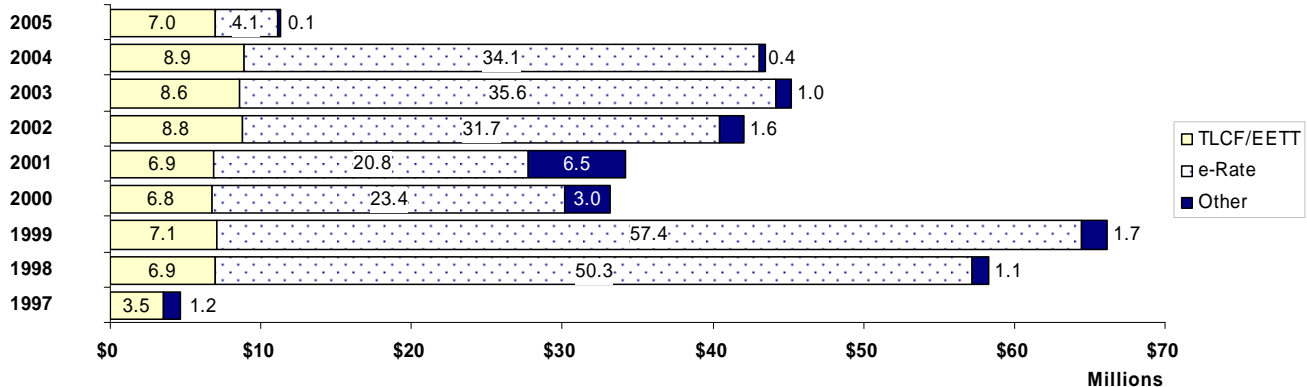
Kentucky Educational Technology Policies

LONG-RANGE STRATEGIC EDUCATIONAL TECHNOLOGY PLAN

Title: *Master Plan for Education Technology*

URL: <http://www.kentuckyschools.net/KDE/Administrative+Resources/Technology/Master+Plan/2001-2006+Master+Plan+Update+.htm>

SELECTED FEDERAL EDUCATIONAL TECHNOLOGY FUNDING



STATE EDUCATIONAL TECHNOLOGY POLICIES AND PROGRAMS

Required technology-related course work for:

Teacher certification	Yes
Teacher recertification	No
Teacher continuing education	No

Data provided to local staff for decision-making

Yes

Minimum technology standards

For Teachers

For Students

Formal assessment of proficiency on standards (state level)

Yes

Yes

No

No

Online courses, materials or software

Yes

Yes

State EETT competitive grant priorities

Special priorities:

Student academic achievement in core subject areas

Student technology literacy

Student access to technology

Professional development

State learning standards

Parent and family involvement

School-type priorities:

Schools that provided matching local and other program funds to the competitive funds to implement professional development

Technology integration into the classroom

Technology linkages, resources, and services to improve academic achievement

Technology to manage, collect, and analyze data to enhance teaching and school reform

Schools that demonstrated an ability to sustain the program should competitive funds be discontinued

State EETT definition of "high-need" LEA (2003)

Academic need: N/A

Technology need: Yes

High-technology-need LEAs were determined by results of a state-administered technology inventory, other state-administered data collections, and local needs assessments or self-reported need.

EDUCATIONAL TECHNOLOGY CONTACT AND WEB SITE

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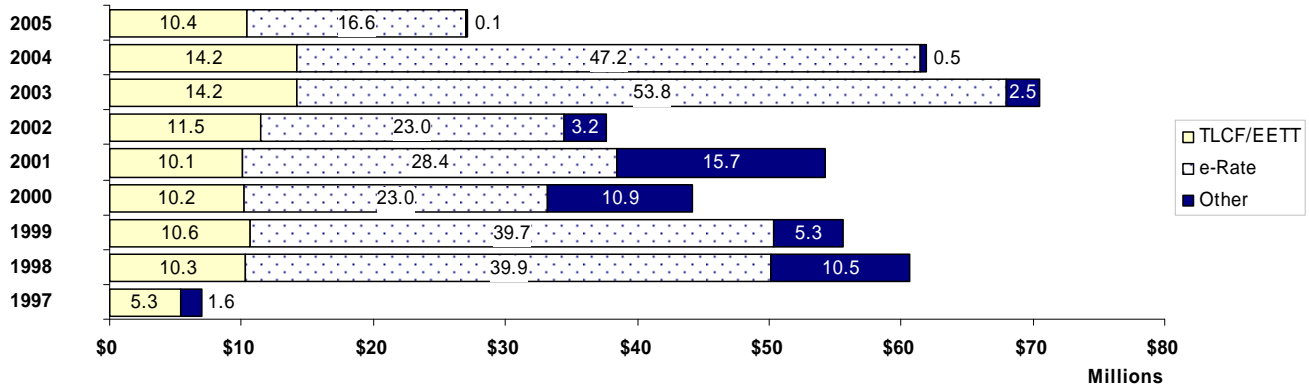
Louisiana Educational Technology Policies

LONG-RANGE STRATEGIC EDUCATIONAL TECHNOLOGY PLAN

Title: *Louisiana State Technology Plan*

URL: <http://www.doe.state.la.us/lde/uploads/719.pdf>

SELECTED FEDERAL EDUCATIONAL TECHNOLOGY FUNDING



STATE EDUCATIONAL TECHNOLOGY POLICIES AND PROGRAMS

Required technology-related course work for:

Teacher certification	Plans to do
Teacher recertification	Plans to do
Teacher continuing education	Plans to do

Data provided to local staff for decision-making

Yes

Minimum technology standards

For Teachers

For Students

Formal assessment of proficiency on standards (state level)

Yes

Yes

No

No

Online courses, materials or software

Yes

Yes

State EETT competitive grant priorities

Special priorities:

Student academic achievement in core subject areas

Student access to technology

Professional development

Evaluation of EETT program impact

State learning standards

Content priorities:

Parent and family involvement

English or language arts

Technology integration into the classroom

Sciences

Technology linkages, resources, and services to improve academic achievement

Mathematics

Social studies

Student technology literacy

Technology literacy

State EETT definition of "high-need" LEA (2003)

Academic need: N/A

Technology need: Yes

High-technology-need LEAs were determined by results of a state-administered technology inventory, other state-administered data collections, local test data, local needs assessments or self-reported need, and input on local financial supports for technology.

EDUCATIONAL TECHNOLOGY CONTACT AND WEB SITE

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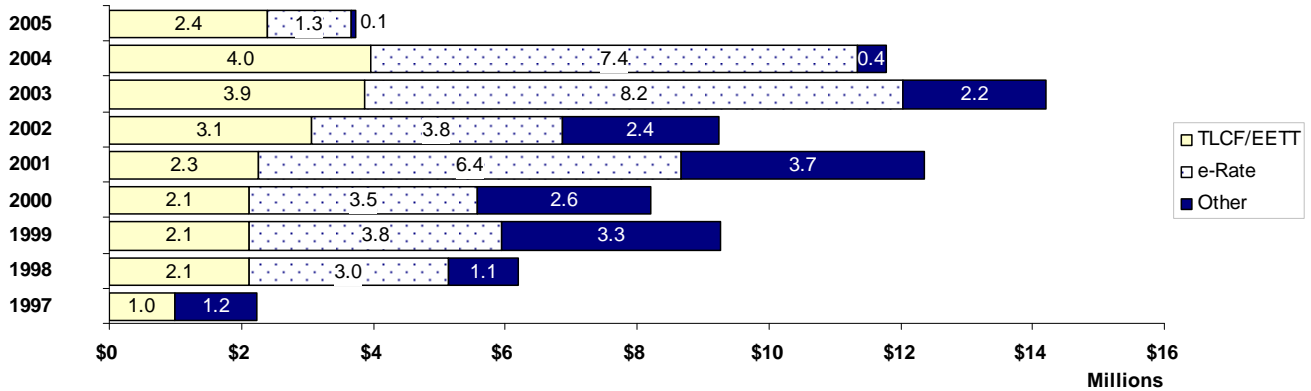
Maine Educational Technology Policies

LONG-RANGE STRATEGIC EDUCATIONAL TECHNOLOGY PLAN

Title: *Maine Department of Education State Technology Plan*

URL: <http://www.state.me.us/education/g2000/techplan.pdf>

SELECTED FEDERAL EDUCATIONAL TECHNOLOGY FUNDING



STATE EDUCATIONAL TECHNOLOGY POLICIES AND PROGRAMS

Required technology-related course work for:

Teacher certification	Yes
Teacher recertification	Plans to do
Teacher continuing education	Plans to do

Data provided to local staff for decision-making: Plans to do

	<u>For Teachers</u>	<u>For Students</u>
Minimum technology standards	No	No
Formal assessment of proficiency on standards (state level)	No	No
Online courses, materials or software	No	No

State EETT competitive grant priorities

Special priorities:

- Student academic achievement in core subject areas
- State learning standards
- Student access to technology
- Professional development
- Technology integration into the classroom
- Evaluation of EETT program impact

State EETT definition of "high-need" LEA (2003)

Academic need: N/A

Technology need: Yes

High-technology-need LEAs were determined by state-administered data collections (not including a state-administered technology inventory), local test data, local needs assessments or self-reported need, and input on local financial supports for technology.

EDUCATIONAL TECHNOLOGY CONTACT AND WEB SITE

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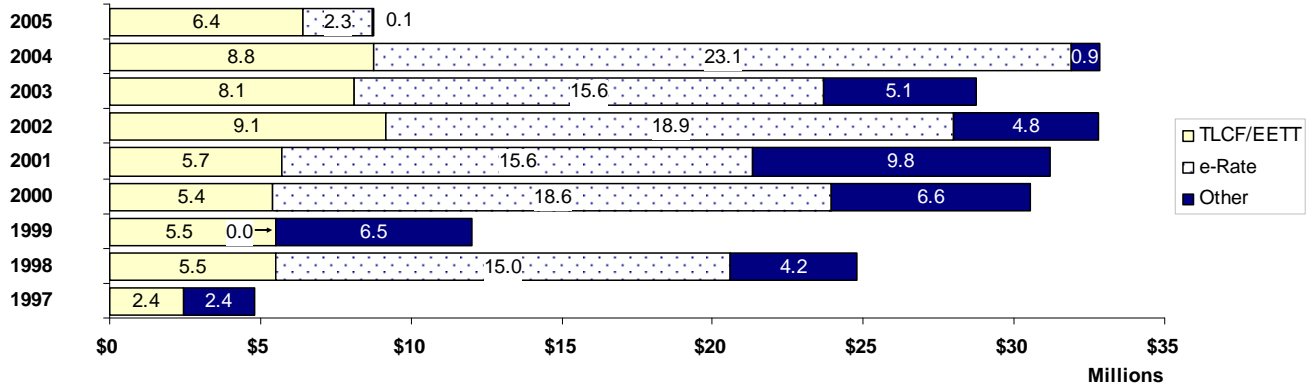
Maryland Educational Technology Policies

LONG-RANGE STRATEGIC EDUCATIONAL TECHNOLOGY PLAN

Title: *Maryland Plan for Technology in Education*

URL: http://www.msde.state.md.us/technology/md_tech_plan.html

SELECTED FEDERAL EDUCATIONAL TECHNOLOGY FUNDING



STATE EDUCATIONAL TECHNOLOGY POLICIES AND PROGRAMS

Required technology-related course work for:

Teacher certification	No
Teacher recertification	No
Teacher continuing education	No

Data provided to local staff for decision-making: Yes

	<u>For Teachers</u>	<u>For Students</u>
Minimum technology standards	Yes	Yes
Formal assessment of proficiency on standards (state level)	No	No
Online courses, materials or software	Yes	Yes

State EETT competitive grant priorities

Special priorities:

- Professional development
- Evaluation of EETT program impact

State EETT definition of "high-need" LEA (2003)

Academic need: N/A

Technology need: Yes

High-technology-need LEAs were determined by results of a state-administered technology inventory and local needs assessments or self-reported need.

EDUCATIONAL TECHNOLOGY CONTACT AND WEB SITE

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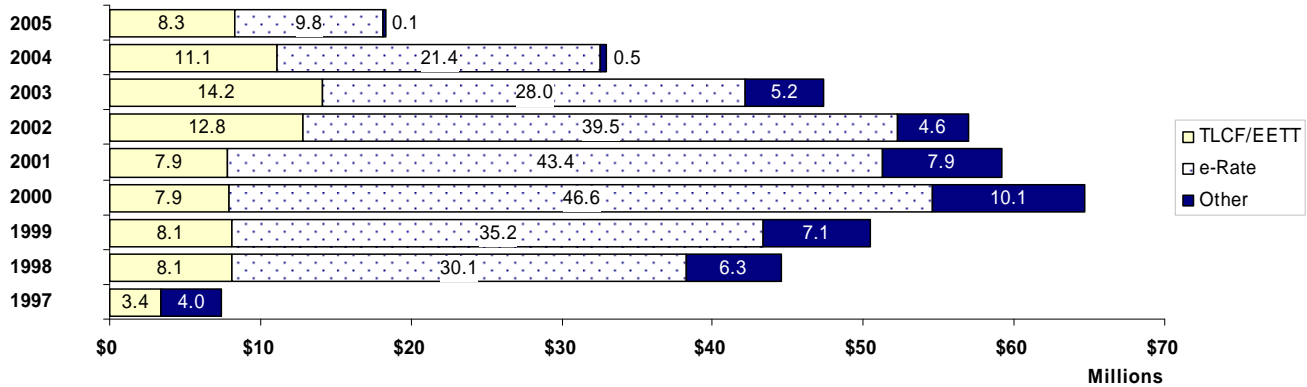
Massachusetts Educational Technology Policies

LONG-RANGE STRATEGIC EDUCATIONAL TECHNOLOGY PLAN

Title: *Massachusetts Technology Plan*

URL: http://www.doe.mass.edu/edtech/tplan03_06.html

SELECTED FEDERAL EDUCATIONAL TECHNOLOGY FUNDING



STATE EDUCATIONAL TECHNOLOGY POLICIES AND PROGRAMS

Required technology-related course work for:

Teacher certification

Plans to do

Teacher recertification

Plans to do

Teacher continuing education

Plans to do

Data provided to local staff for decision-making

Plans to do

Minimum technology standards

For Teachers

For Students

Formal assessment of proficiency on standards (state level)

Yes

Yes

No

No

Online courses, materials or software

Plans to do

Plans to do

State EETT competitive grant priorities

Special priorities:

Student academic achievement in core subject areas

Technology linkages, resources, and services to improve academic achievement

State learning standards

Technology to manage, collect, and analyze data to enhance teaching and school reform

Technology integration into the classroom

Evaluation of EETT program impact

Content-level priorities:

Student technology literacy

English or language arts

Professional development

Sciences

Electronic networks and other methods of distance

Social studies

learning to reach students who otherwise would not have access to school curriculum

Mathematics

Special education or adaptive education

State EETT definition of "high-need" LEA (2003)

Academic need: N/A

Technology need: Yes

High-technology-need LEAs were determined by results of a state-administered technology inventory.

EDUCATIONAL TECHNOLOGY CONTACT AND WEB SITE

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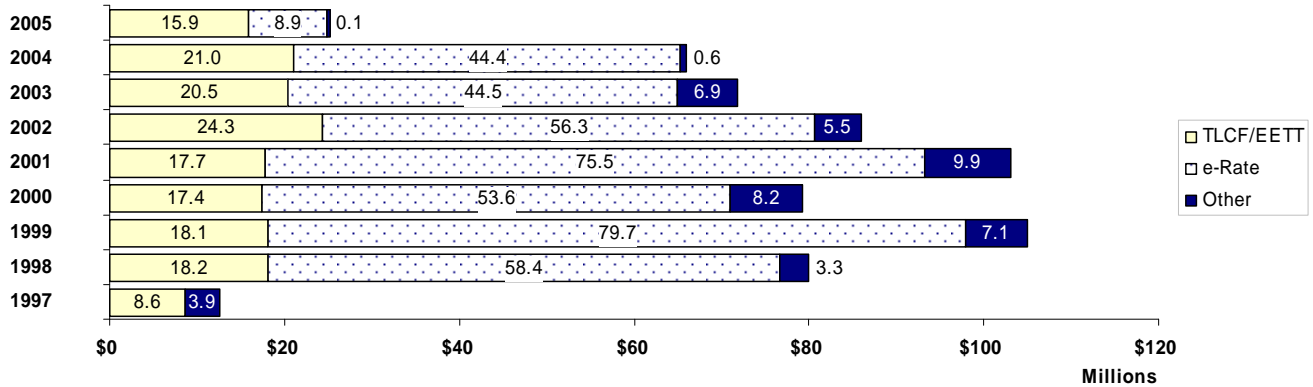
Michigan Educational Technology Policies

LONG-RANGE STRATEGIC EDUCATIONAL TECHNOLOGY PLAN

Title: *Michigan's State Technology Plan*

URL: http://www.michigan.gov/documents/State_Tech_Plan_Update_2004_final_117274_7.pdf

SELECTED FEDERAL EDUCATIONAL TECHNOLOGY FUNDING



STATE EDUCATIONAL TECHNOLOGY POLICIES AND PROGRAMS

Required technology-related course work for:

Teacher certification	Yes
Teacher recertification	No
Teacher continuing education	No

Data provided to local staff for decision-making: Yes

	<u>For Teachers</u>	<u>For Students</u>
Minimum technology standards	Yes	Yes
Formal assessment of proficiency on standards (state level)	No	No
Online courses, materials or software	Plans to do	Yes

State EETT competitive grant priorities

Special priorities:

- Student access to technology
- Technology integration into the classroom
- Electronic networks and other methods of distance learning to reach students who otherwise would not have access to school curriculum
- Technology to improve academic achievement

Content priorities:

- English or language arts
- Mathematics

Grade-level priorities:

- 5th–7th grade

School-type priorities:

- Schools that showed initiative in application process
- Schools participating in E-rate

State EETT definition of “high-need” LEA (2003)

Academic need: N/A

Technology need: Yes

High-technology-need LEAs were determined by other state-administered data collections (not including a state-administered technology inventory) and local needs assessments or self-reported need.

EDUCATIONAL TECHNOLOGY CONTACT AND WEB SITE

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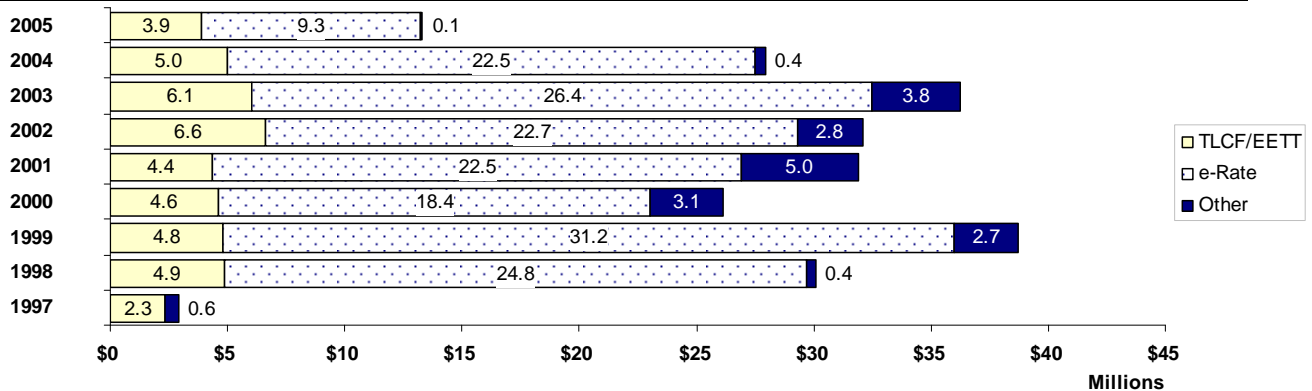
Minnesota Educational Technology Policies

LONG-RANGE STRATEGIC EDUCATIONAL TECHNOLOGY PLAN

Title: *Minnesota Digital Learning Plan and the Minnesota State Plan for Pre-K Through 12 Education*

URL: <http://www.digitalllearning.state.mn.us/vertical/Sites/{D858130B-1C19-4FC5-BDBF-5DE4B6F86E26}/uploads/{030DAAD7-2859-4D4C-B8B7-97135C6CC94D}.PDF>

SELECTED FEDERAL EDUCATIONAL TECHNOLOGY FUNDING



STATE EDUCATIONAL TECHNOLOGY POLICIES AND PROGRAMS

Required technology-related course work for:

Teacher certification	No
Teacher recertification	No
Teacher continuing education	No

Data provided to local staff for decision-making: No

	<u>For Teachers</u>	<u>For Students</u>
Minimum technology standards	No	No
Formal assessment of proficiency on standards (state level)	No	No
Online courses, materials or software	No	No

State EETT competitive grant priorities

Special priorities:

- Professional development
- Technology integration into the classroom
- Evaluation of EETT program impact
- Technology linkages, resources, and services to improve academic achievement
- Technology to manage, collect, and analyze data to enhance teaching and school reform

State EETT definition of “high-need” LEA (2003)

Academic need: N/A

Technology need: Yes

High-technology-need LEAs were determined by local needs assessments or self-reported need.

EDUCATIONAL TECHNOLOGY CONTACT AND WEB SITE

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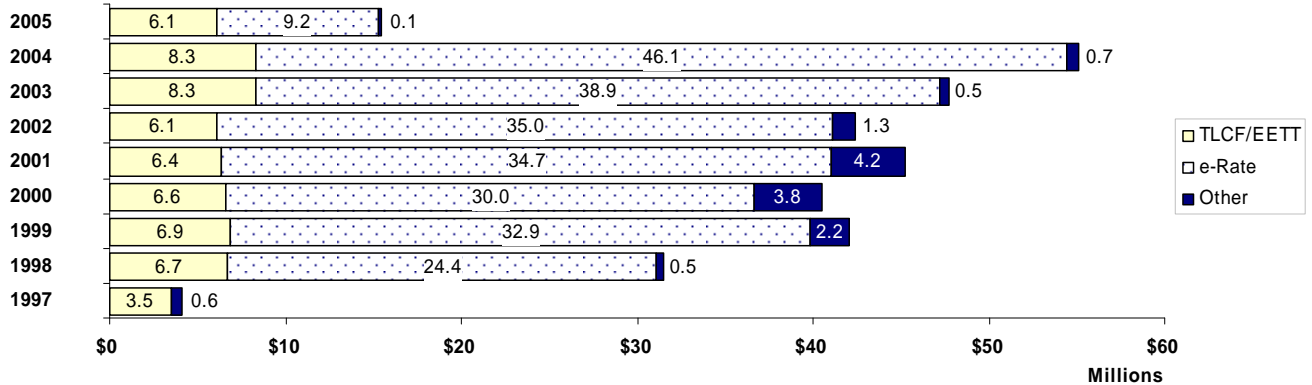
Mississippi Educational Technology Policies

LONG-RANGE STRATEGIC EDUCATIONAL TECHNOLOGY PLAN

Title: *Mississippi Department of Education Plan for Educational Technology*

URL: <http://www.mde.k12.ms.us/oet/stateplan/index.html>

SELECTED FEDERAL EDUCATIONAL TECHNOLOGY FUNDING



STATE EDUCATIONAL TECHNOLOGY POLICIES AND PROGRAMS

Required technology-related course work for:

Teacher certification	Yes
Teacher recertification	No
Teacher continuing education	No

Data provided to local staff for decision-making: Yes

	<u>For Teachers</u>	<u>For Students</u>
Minimum technology standards	Yes	No
Formal assessment of proficiency on standards (state level)	Plans to do	Plans to do
Online courses, materials or software	Plans to do	Yes

State EETT competitive grant priorities

None

State EETT definition of “high-need” LEA (2003)

Academic need: N/A

Technology need: Yes

High-technology-need LEAs were determined by results of a state-administered technology inventory.

EDUCATIONAL TECHNOLOGY CONTACT AND WEB SITE

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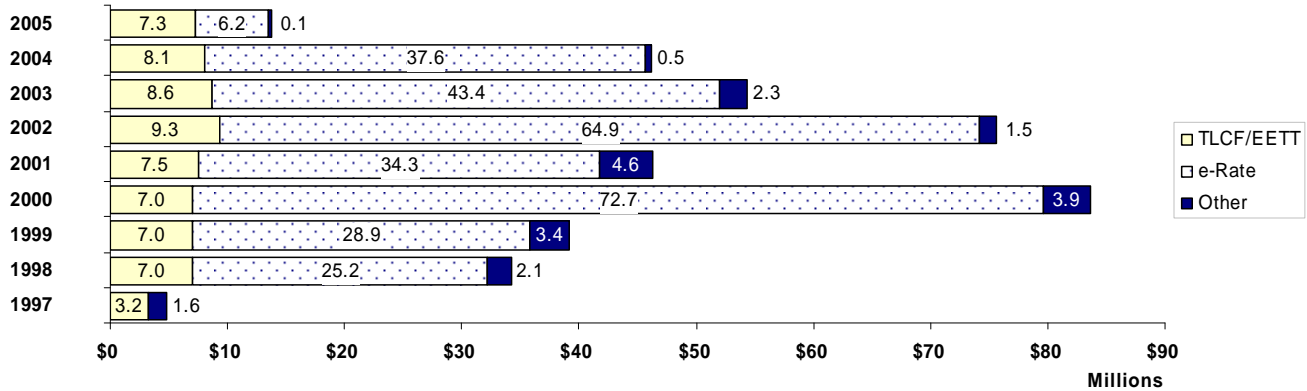
Missouri Educational Technology Policies

LONG-RANGE STRATEGIC EDUCATIONAL TECHNOLOGY PLAN

Title: *Missouri Department of Elementary and Secondary Education Technology Strategic Plan*

URL: <http://dese.mo.gov/divimprove/instrtech/techplan/02-06statetechplan.pdf>

SELECTED FEDERAL EDUCATIONAL TECHNOLOGY FUNDING



STATE EDUCATIONAL TECHNOLOGY POLICIES AND PROGRAMS

Required technology-related course work for:

Teacher certification	Yes
Teacher recertification	Yes
Teacher continuing education	No

Data provided to local staff for decision-making: Yes

	For Teachers	For Students
Minimum technology standards	Yes	Yes
Formal assessment of proficiency on standards (state level)	No	No
Online courses, materials or software	No	No

State EETT competitive grant priorities

Special priorities:

- Student academic achievement in core subject areas
- Student technology literacy
- Student access to technology
- State learning standards
- Technology integration into the classroom
- Professional development
- Technology integration into the classroom
- The state eMINTS program

Technology linkages, resources, and services to improve academic achievement

Content priorities:

- English or language arts
- Mathematics
- Sciences
- Social studies
- Technology literacy

Grade-level priorities:

3rd–6th grades

State EETT definition of “high-need” LEA (2003)

Academic need: N/A

Technology need: Yes

High-technology-need LEAs were determined by results of a state-administered technology inventory and local needs assessments or self-reported need.

EDUCATIONAL TECHNOLOGY CONTACT AND WEB SITE

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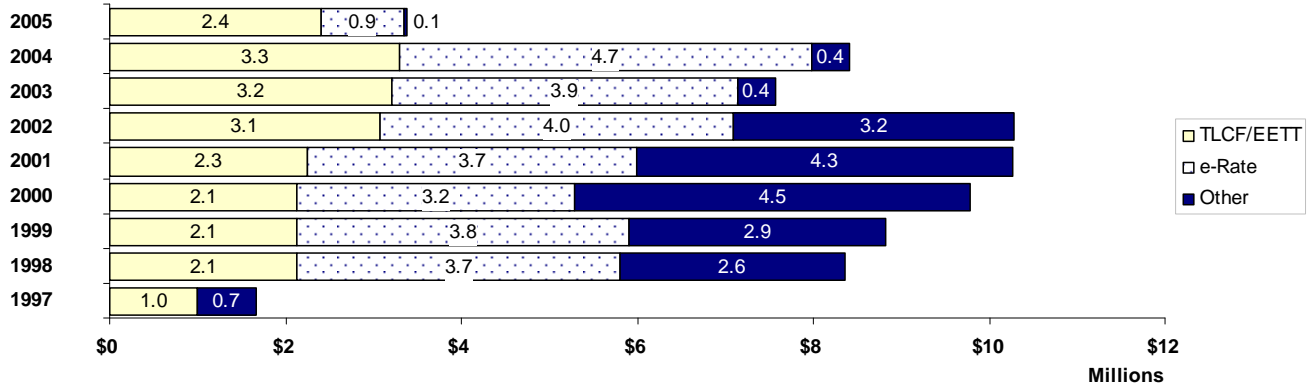
Montana Educational Technology Policies

LONG-RANGE STRATEGIC EDUCATIONAL TECHNOLOGY PLAN

Title: *Montana Office of Public Instruction ESEA Title II, Part D "EdTech" Technology Plan*

URL: <http://www.opi.state.mt.us/PDF/EdTech/02OPIEdTechPlan.pdf>

SELECTED FEDERAL EDUCATIONAL TECHNOLOGY FUNDING



STATE EDUCATIONAL TECHNOLOGY POLICIES AND PROGRAMS

Required technology-related course work for:

Teacher certification	No
Teacher recertification	No
Teacher continuing education	No

Data provided to local staff for decision-making: Yes

	<u>For Teachers</u>	<u>For Students</u>
Minimum technology standards	No	Yes
Formal assessment of proficiency on standards (state level)	No	No
Online courses, materials or software	No	No

State EETT competitive grant priorities

Special priorities:

Professional development

State EETT definition of "high-need" LEA (2003)

Academic need: N/A

Technology need: Yes

High-technology-need LEAs were determined by local needs assessments or self-reported need.

EDUCATIONAL TECHNOLOGY CONTACT AND WEB SITE

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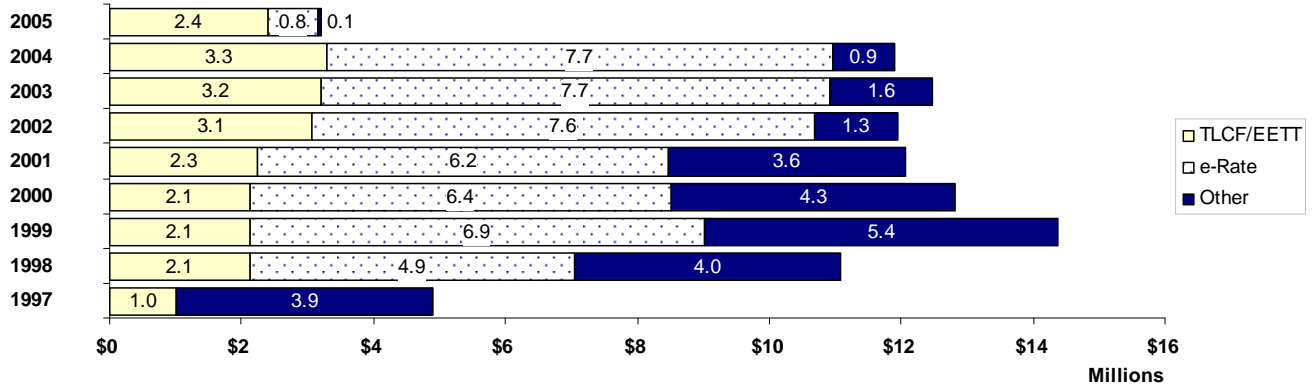
Nebraska Educational Technology Policies

LONG-RANGE STRATEGIC EDUCATIONAL TECHNOLOGY PLAN

Title: *Nebraska PreK-12 Technology Plan*

URL: <http://www.nde.state.ne.us/TEHCEN/downloads/statetechplan%201-27-03.pdf>

SELECTED FEDERAL EDUCATIONAL TECHNOLOGY FUNDING



STATE EDUCATIONAL TECHNOLOGY POLICIES AND PROGRAMS

Required technology-related course work for:

Teacher certification	Plans to do
Teacher recertification	Yes
Teacher continuing education	Yes

Data provided to local staff for decision-making: Yes

	<u>For Teachers</u>	<u>For Students</u>
Minimum technology standards	Yes	Yes
Formal assessment of proficiency on standards (state level)	No	No
Online courses, materials or software	Plans to do	Plans to do

State EETT competitive grant priorities

None

State EETT definition of “high-need” LEA (2003)

Academic need: N/A

Technology need: Not addressed

High-technology-need LEAs were determined by results of a state-administered technology inventory and local needs assessments or self-reported need.

EDUCATIONAL TECHNOLOGY CONTACT AND WEB SITE

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Web site: <http://www.nde.state.ne.us/TEHCEN>

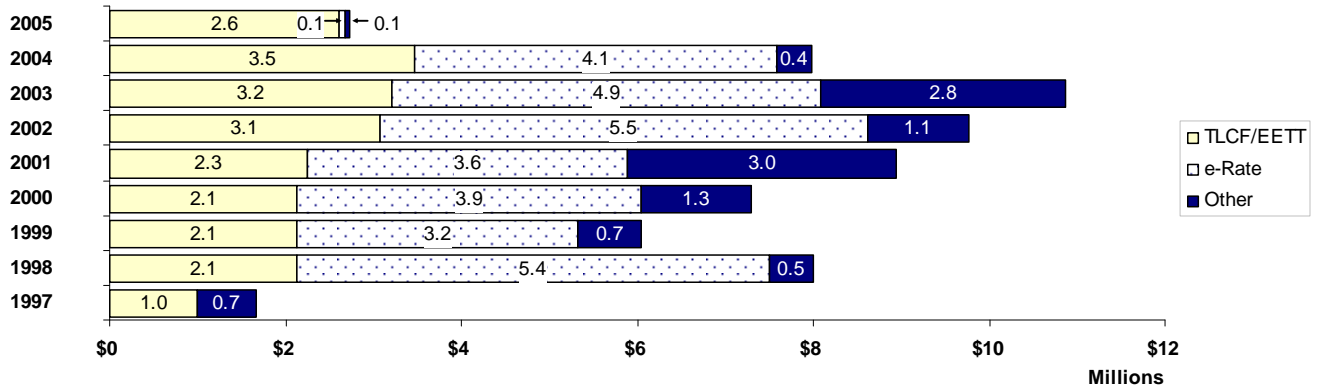
Nevada Educational Technology Policies

LONG-RANGE STRATEGIC EDUCATIONAL TECHNOLOGY PLAN

Title: *Nevada State Educational Technology Plan*

URL: <http://www.doe.nv.gov/techinn.html>

SELECTED FEDERAL EDUCATIONAL TECHNOLOGY FUNDING



STATE EDUCATIONAL TECHNOLOGY POLICIES AND PROGRAMS

Required technology-related course work for:

Teacher certification	No
Teacher recertification	No
Teacher continuing education	No

Data provided to local staff for decision-making: Plans to do

	<u>For Teachers</u>	<u>For Students</u>
Minimum technology standards	No	Yes
Formal assessment of proficiency on standards (state level)	No	No
Online courses, materials or software	No	No

State EETT competitive grant priorities

Special priorities:

Professional development

State EETT definition of “high-need” LEA (2003)

Academic need: N/A

Technology need: Yes

High-technology-need LEAs were determined by results of a state-administered technology inventory and local needs assessments or self-reported need.

EDUCATIONAL TECHNOLOGY CONTACT AND WEB SITE

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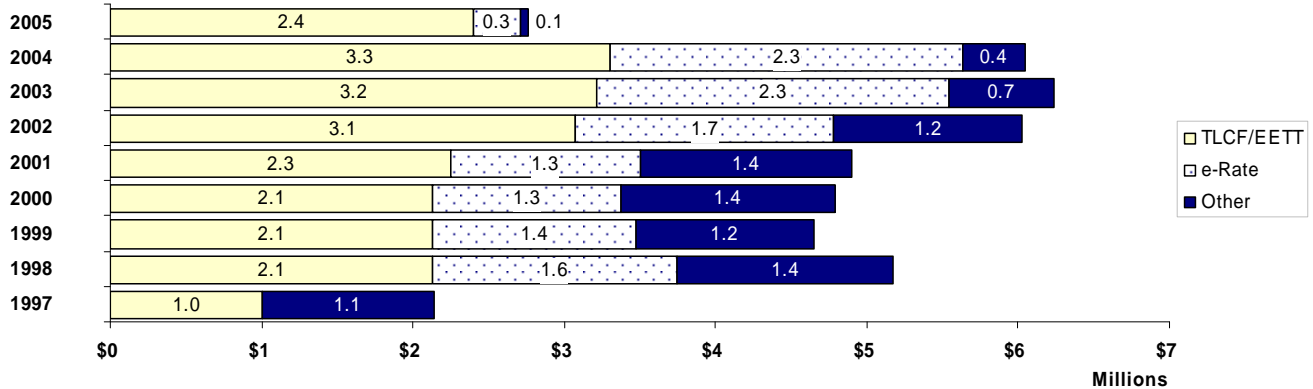
New Hampshire Educational Technology Policies

LONG-RANGE STRATEGIC EDUCATIONAL TECHNOLOGY PLAN

Title: *State of New Hampshire Educational Technology Plan*

URL: <http://nheon.org/oet/stateplan/nhtp2002.htm>

SELECTED FEDERAL EDUCATIONAL TECHNOLOGY FUNDING



STATE EDUCATIONAL TECHNOLOGY POLICIES AND PROGRAMS

Required technology-related course work for:

Teacher certification	Yes
Teacher recertification	Yes
Teacher continuing education	Yes

Data provided to local staff for decision-making: No

	<u>For Teachers</u>	<u>For Students</u>
Minimum technology standards	Yes	Yes
Formal assessment of proficiency on standards (state level)	No	No
Online courses, materials or software	Yes	No

State EETT competitive grant priorities

Special priorities:

- Professional development
- Technology integration into the classroom
- Bonus payments to teachers prepared to act as technology leaders to assist other teachers
- Technology linkages, resources, and services to improve academic achievement
- Technology to manage, collect, and analyze data to enhance teaching and school reform

State EETT definition of "high-need" LEA (2003)

Academic need: N/A

Technology need: Yes

High-technology-need LEAs were determined by results of a state-administered technology inventory, other state-administered data collections, local needs assessments or self-reported need, and input on local financial supports for technology.

EDUCATIONAL TECHNOLOGY CONTACT AND WEB SITE

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New Hampshire Department of Education	E-mail: chiggins@ed.state.nh.us
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Concord, NH 03301	

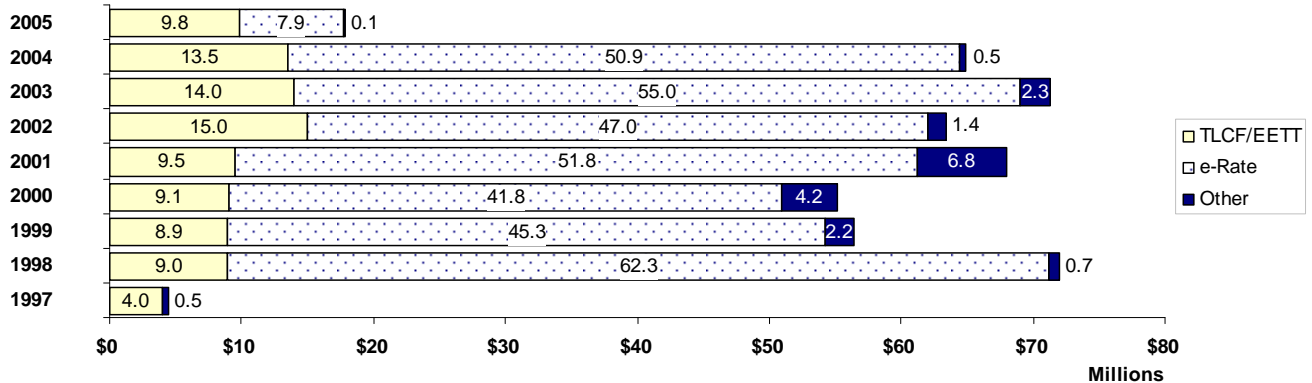
New Jersey Educational Technology Policies

LONG-RANGE STRATEGIC EDUCATIONAL TECHNOLOGY PLAN

Title: *The Education Technology Plan for New Jersey*

URL: http://www.nj.gov/njded/techno/state_plan.htm

SELECTED FEDERAL EDUCATIONAL TECHNOLOGY FUNDING



STATE EDUCATIONAL TECHNOLOGY POLICIES AND PROGRAMS

Required technology-related course work for:

Teacher certification	Yes
Teacher recertification	No
Teacher continuing education	Yes

Data provided to local staff for decision-making: Plans to do

	<u>For Teachers</u>	<u>For Students</u>
Minimum technology standards	Yes	Yes
Formal assessment of proficiency on standards (state level)	No	Plans to do
Online courses, materials or software	Yes	No

State EETT competitive grant priorities

Special priorities:

- Student academic achievement in core subject areas
- Student access to technology
- Parent and family involvement
- Professional development

- Technology integration into the classroom
- Evaluation of EETT program impact
- Technology linkages, resources, and services to improve academic achievement

Content priorities:

- English or language arts

State EETT definition of "high-need" LEA (2003)

Academic need: N/A

Technology need: Yes

High-technology-need LEAs were determined by state-administered data collections (not including a state-administered technology inventory) and local test data.

EDUCATIONAL TECHNOLOGY CONTACT AND WEB SITE

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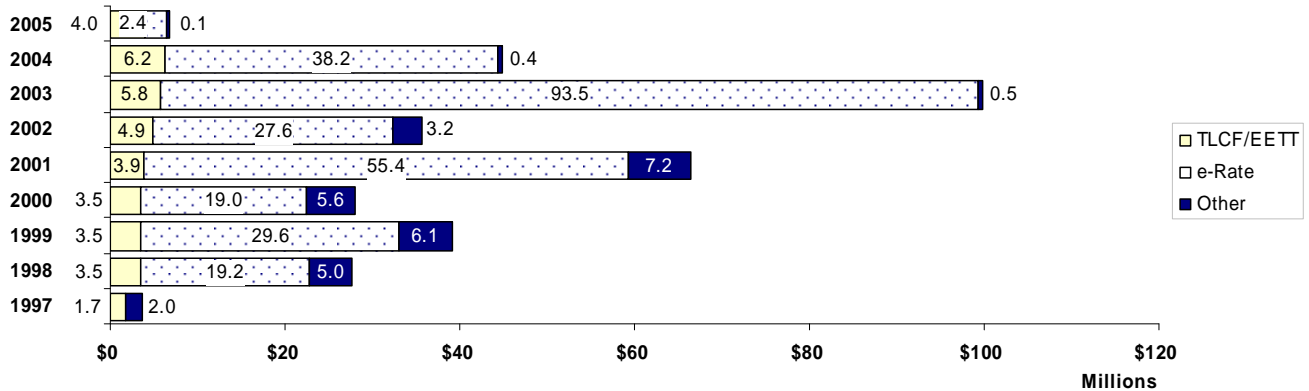
New Mexico Educational Technology Policies

LONG-RANGE STRATEGIC EDUCATIONAL TECHNOLOGY PLAN

Title: *Strategic Planning for Education in New Mexico—Technology*

URL: http://www.sde.state.nm.us/nmcte/nmcte_home.html

SELECTED FEDERAL EDUCATIONAL TECHNOLOGY FUNDING



STATE EDUCATIONAL TECHNOLOGY POLICIES AND PROGRAMS

Required technology-related course work for:

Teacher certification	Plans to do
Teacher recertification	Plans to do
Teacher continuing education	Plans to do

Data provided to local staff for decision-making: Plans to do

	<u>For Teachers</u>	<u>For Students</u>
Minimum technology standards	No	Yes
Formal assessment of proficiency on standards (state level)	Plans to do	Plans to do
Online courses, materials or software	Yes	Yes

State EETT competitive grant priorities

None

State EETT definition of “high-need” LEA (2003)

Academic need: N/A

Technology need: Yes

High-technology-need LEAs were determined by results of a state-administered technology inventory.

EDUCATIONAL TECHNOLOGY CONTACT AND WEB SITE

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Web site: <http://www.nmlites.org/index.html>

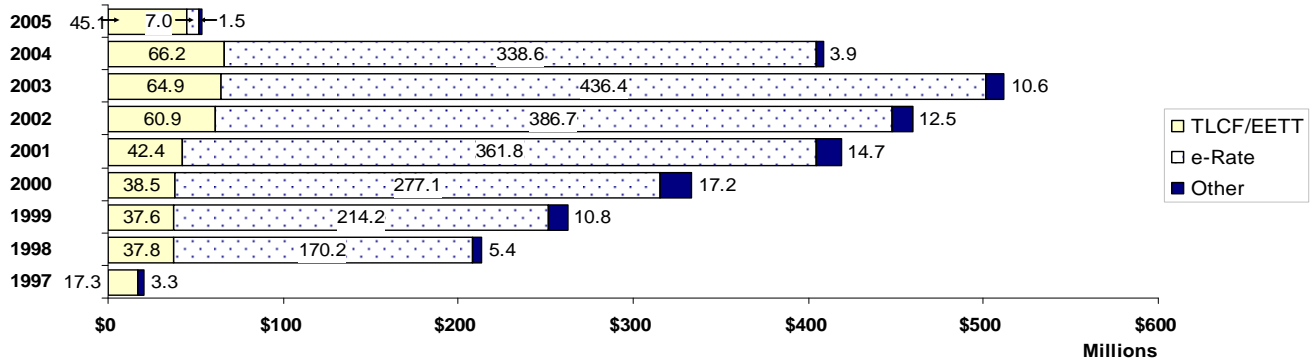
New York Educational Technology Policies

LONG-RANGE STRATEGIC EDUCATIONAL TECHNOLOGY PLAN

Title: *New York State Technology Framework*

URL: www.emsc.nysed.gov/deputy/Documents/technology/tech-plan-2-03.html

SELECTED FEDERAL EDUCATIONAL TECHNOLOGY FUNDING



STATE EDUCATIONAL TECHNOLOGY POLICIES AND PROGRAMS

Required technology-related course work for:		
Teacher certification	Yes	
Teacher recertification	Yes	
Teacher continuing education	Yes	
Data provided to local staff for decision-making	Plans to do	
	<u>For Teachers</u>	<u>For Students</u>
Minimum technology standards	No	Yes
Formal assessment of proficiency on standards (state level)	No	No
Online courses, materials or software	No	Yes

State EETT competitive grant priorities

Special priorities:

- Student academic achievement in core subject areas
- Student technology literacy
- Student access to technology
- State learning standards
- Technology integration into the classroom
- Professional development
- Evaluation of EETT program impact
- Technology linkages, resources, and services to improve academic achievement

Content priorities:

- English language/arts (especially early reading literacy)
- Mathematics
- Technology literacy

School-type priorities:

- Schools with a large number of LEP students
- Schools that have been identified as in need of improvement

State EETT definition of "high-need" LEA (2002)

Academic need: N/A

Technology need: Yes

High-technology-need LEAs were determined by results of a state-administered technology inventory.

EDUCATIONAL TECHNOLOGY CONTACT AND WEB SITE

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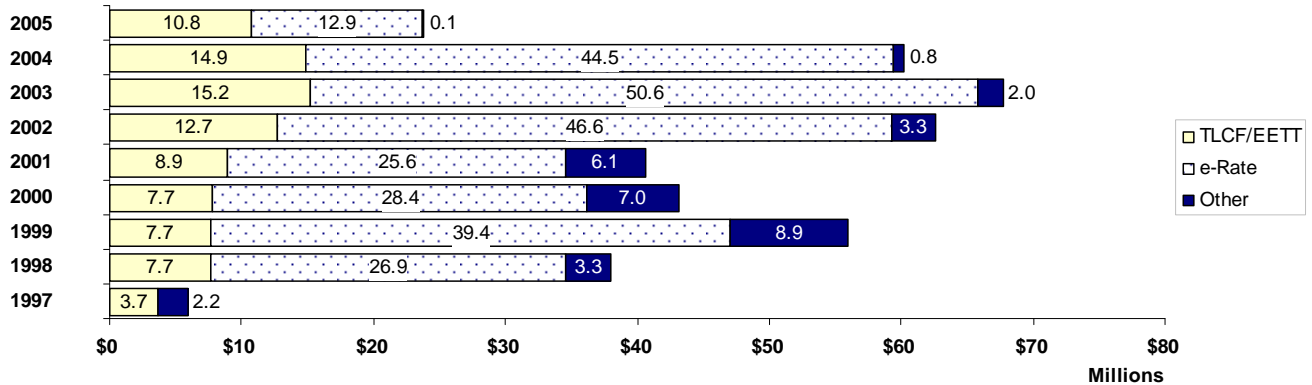
North Carolina Educational Technology Policies

LONG-RANGE STRATEGIC EDUCATIONAL TECHNOLOGY PLAN

Title: *North Carolina Educational Technology Plan*

URL: <http://tps.dpi.state.nc.us/Tech2000rev/techplan.html>

SELECTED FEDERAL EDUCATIONAL TECHNOLOGY FUNDING



STATE EDUCATIONAL TECHNOLOGY POLICIES AND PROGRAMS

Required technology-related course work for:

Teacher certification	Yes
Teacher recertification	No
Teacher continuing education	No

Data provided to local staff for decision-making: Yes

	<u>For Teachers</u>	<u>For Students</u>
Minimum technology standards	Yes	Yes
Formal assessment of proficiency on standards (state level)	No	Yes
Online courses, materials or software	Plans to do	Yes

State EETT competitive grant priorities

Special priorities:

Student academic achievement in core subject areas	Electronic networks and other methods of distance learning to reach students who otherwise would not have access to school curriculum
Student access to technology	Technology linkages, resources, and services to improve academic achievement
Parent and family involvement	Technology to manage, collect, and analyze data to enhance teaching and school reform
Professional development	
Technology integration into the classroom	
Technology personnel	
Evaluation of EETT program impact	

State EETT definition of "high-need" LEA (2003)

Academic need: N/A

Technology need: Yes

High-technology-need LEAs were determined by results of a state-administered technology inventory.

EDUCATIONAL TECHNOLOGY CONTACT AND WEB SITE

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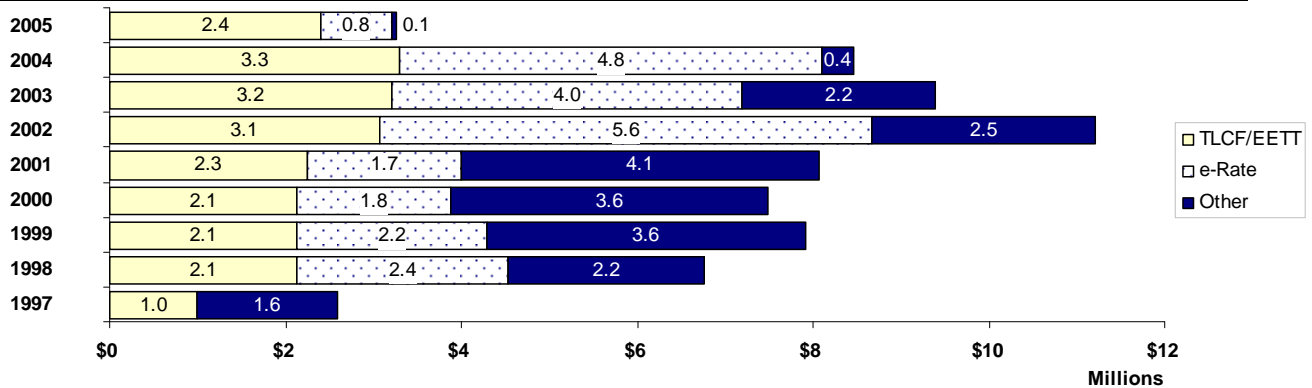
North Dakota Educational Technology Policies

LONG-RANGE STRATEGIC EDUCATIONAL TECHNOLOGY PLAN

Title: *North Dakota Educational Technology Plan*

URL: <http://www.state.nd.us/itd/etc/docs/03-05-state-tech-plan-final-with-cover.pdf>

SELECTED FEDERAL EDUCATIONAL TECHNOLOGY FUNDING



STATE EDUCATIONAL TECHNOLOGY POLICIES AND PROGRAMS

Required technology-related course work for:

Teacher certification	Yes
Teacher recertification	No
Teacher continuing education	No

Data provided to local staff for decision-making: Yes

	<u>For Teachers</u>	<u>For Students</u>
Minimum technology standards	Yes	Yes
Formal assessment of proficiency on standards (state level)	No	No
Online courses, materials or software	Yes	Yes

State EETT competitive grant priorities

None

State EETT definition of “high-need” LEA (2003)

Academic need: N/A

Technology need: Yes

The state decided that a definition of technology need was not necessary.

EDUCATIONAL TECHNOLOGY CONTACT AND WEB SITE

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 North Dakota Department of Public Instruction
 600 E. Boulevard Ave., Dept. 201
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 Fax: 701-328-4770
 E-mail: ckalash@state.nd.us
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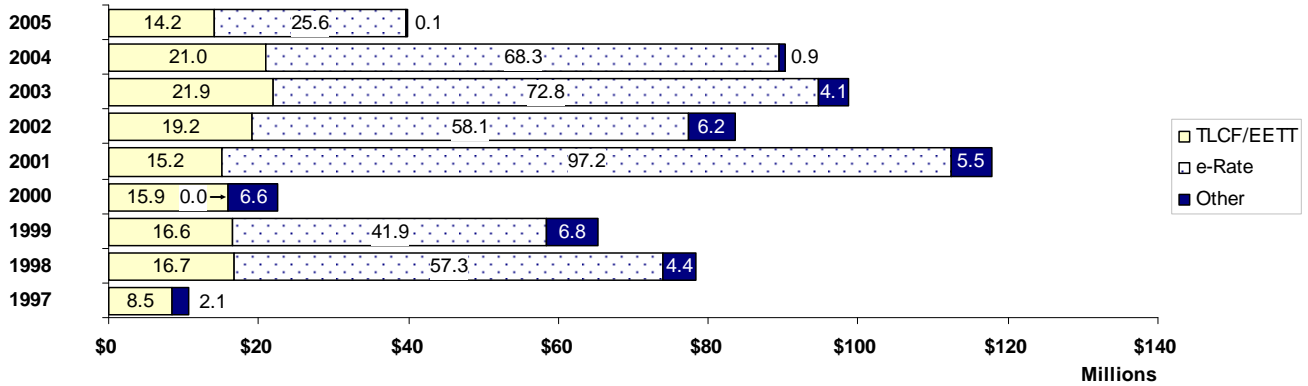
Ohio Educational Technology Policies

LONG-RANGE STRATEGIC EDUCATIONAL TECHNOLOGY PLAN

Title: *Ohio Educational Technology Plan*

URL: http://www.ode.state.oh.us/centers/state_tech_plan_matrix.pdf

SELECTED FEDERAL EDUCATIONAL TECHNOLOGY FUNDING



STATE EDUCATIONAL TECHNOLOGY POLICIES AND PROGRAMS

Required technology-related course work for:

Teacher certification	No
Teacher recertification	No
Teacher continuing education	No

Data provided to local staff for decision-making

Yes

Minimum technology standards

For Teachers

For Students

Formal assessment of proficiency on standards (state level)

No

Yes

No

No

Online courses, materials or software

Yes

No

State EETT competitive grant priorities

Content priorities:

- English or language arts
- Mathematics
- Technology literacy

Grade-level priorities:

- K-8th grade

School-type priorities:

- Schools that showed initiative in the grant application process

State EETT definition of "high-need" LEA (2003)

Academic need: N/A

Technology need: Yes

High-technology-need LEAs were determined according to local needs assessments or self-reported need.

EDUCATIONAL TECHNOLOGY CONTACT AND WEB SITE

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Coordinator

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2323 W. Fifth Avenue, Suite 100

Web site: <http://www.osn.state.oh.us/go/eett/index.jsp>

Columbus, OH 43204

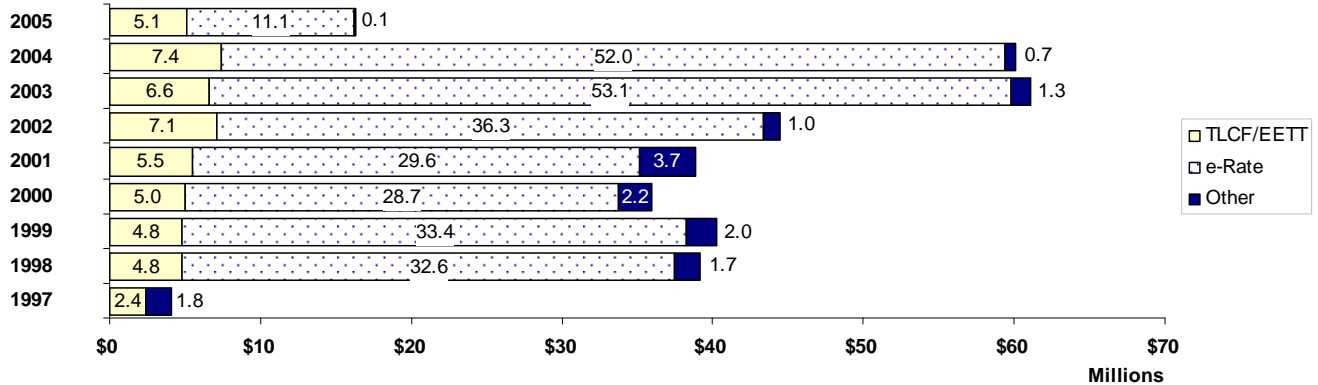
Oklahoma Educational Technology Policies

LONG-RANGE STRATEGIC EDUCATIONAL TECHNOLOGY PLAN

Title: *Oklahoma Instructional Technology Plan*

URL: <http://title3.sde.state.ok.us/technology/stateTechPlan.htm>

SELECTED FEDERAL EDUCATIONAL TECHNOLOGY FUNDING



STATE EDUCATIONAL TECHNOLOGY POLICIES AND PROGRAMS

Required technology-related course work for:

Teacher certification	Yes
Teacher recertification	No
Teacher continuing education	No

Data provided to local staff for decision-making: Yes

	<u>For Teachers</u>	<u>For Students</u>
Minimum technology standards	No	Yes
Formal assessment of proficiency on standards (state level)	No	No
Online courses, materials or software	Yes	Yes

State EETT competitive grant priorities

Special priorities:

- Student academic achievement in core subject areas
- State learning standards
- Student access to technology
- Professional development

State EETT definition of “high-need” LEA (2003)

Academic need: N/A

Technology need: Yes

High-technology-need LEAs were determined by results of a state-administered technology inventory and other state-administered data collections.

EDUCATIONAL TECHNOLOGY CONTACT AND WEB SITE

Phil Applegate Executive Director, Instructional Technology/Telecommunications Oklahoma State Dept. of Education 2500 North Lincoln Boulevard Oklahoma City, OK 73105-4599	Telephone: 405-521-3994 Fax: N/A E-mail: Phil_Applegate@sde.state.ok.us Web site: http://title3.sde.state.ok.us/technology
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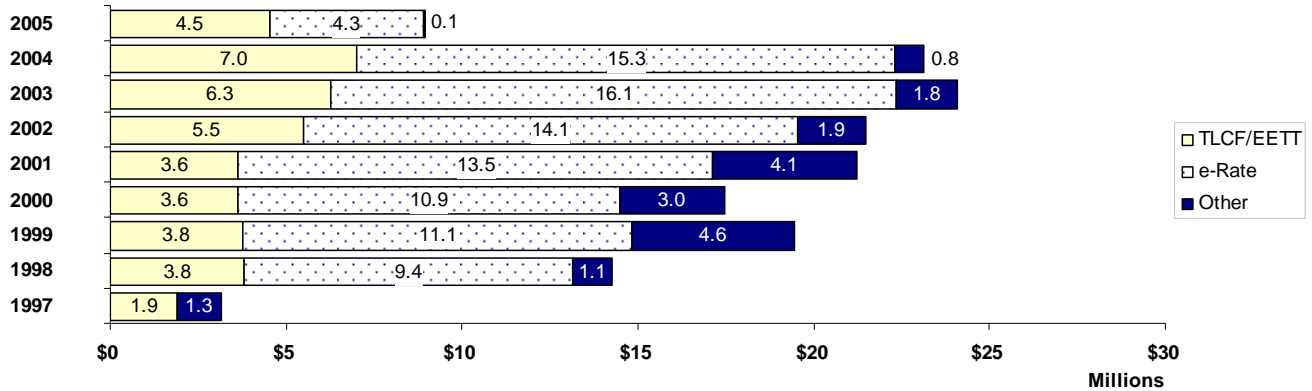
Oregon Educational Technology Policies

LONG-RANGE STRATEGIC EDUCATIONAL TECHNOLOGY PLAN

Title: *Oregon Department of Education Strategic Technology Plan*

URL: http://www.ode.state.or.us/services/budget/03_05/pdfs/strategictechplan200103.pdf

SELECTED FEDERAL EDUCATIONAL TECHNOLOGY FUNDING



STATE EDUCATIONAL TECHNOLOGY POLICIES AND PROGRAMS

Required technology-related course work for:

Teacher certification	Yes
Teacher recertification	No
Teacher continuing education	No

Data provided to local staff for decision-making: Yes

	<u>For Teachers</u>	<u>For Students</u>
Minimum technology standards	No	No
Formal assessment of proficiency on standards (state level)	No	No
Online courses, materials or software	Plans to do	No

State EETT competitive grant priorities

Special priorities:

- Student academic achievement in core subject areas
- Student technology literacy
- Student access to technology
- Professional development
- Technology integration into the classroom
- Evaluation of EETT program impact

Content priorities:

- Technology literacy

State EETT definition of “high-need” LEA (2003)

Academic need: N/A

Technology need: Yes

High-technology-need LEAs were determined by results of a state-administered technology inventory.

EDUCATIONAL TECHNOLOGY CONTACT AND WEB SITE

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Oregon Department of Education	E-mail: carla.wade@state.or.us
255 Capitol Street, NE	Web site: http://www.ode.state.or.us/search/results/?id=160
Salem, OR 97310	

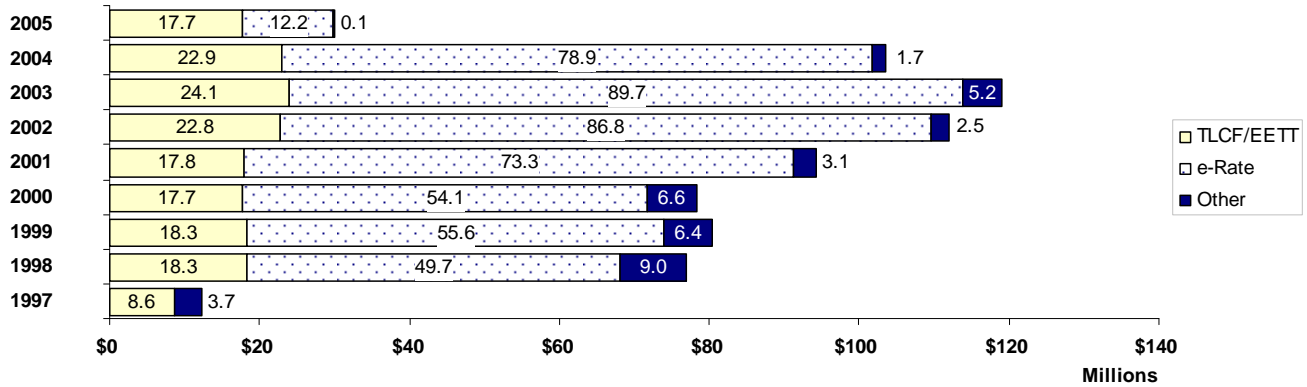
Pennsylvania Educational Technology Policies

LONG-RANGE STRATEGIC EDUCATIONAL TECHNOLOGY PLAN

Title: *Pennsylvania State Education Technology Plan*

URL: www.pde.state.pa.us/ed_tech/lib/ed_tech/PASateTechnologyPlan2002.pdf

SELECTED FEDERAL EDUCATIONAL TECHNOLOGY FUNDING



STATE EDUCATIONAL TECHNOLOGY POLICIES AND PROGRAMS

Required technology-related course work for:

Teacher certification	Yes
Teacher recertification	Yes
Teacher continuing education	Yes

Data provided to local staff for decision-making

No	
<u>For Teachers</u>	<u>For Students</u>

Minimum technology standards

No	Yes
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Formal assessment of proficiency on standards (state level)

Yes	No
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Online courses, materials or software

Yes	No
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State EETT competitive grant priorities

Special priorities:

- Student academic achievement in core subject areas
- Student technology literacy
- State learning standards
- Student access to technology
- Parent and family involvement
- Professional development
- Technology integration into the classroom
- Evaluation of EETT program impact
- Technology linkages, resources, and services to improve academic achievement

State EETT definition of "high-need" LEA (2003)

Academic need: N/A

Technology need: Yes

High-technology-need LEAs were determined by results of a state-administered technology inventory.

EDUCATIONAL TECHNOLOGY CONTACT AND WEB SITE

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333 Market St., 2nd Floor
Harrisburg, PA 17126-0333

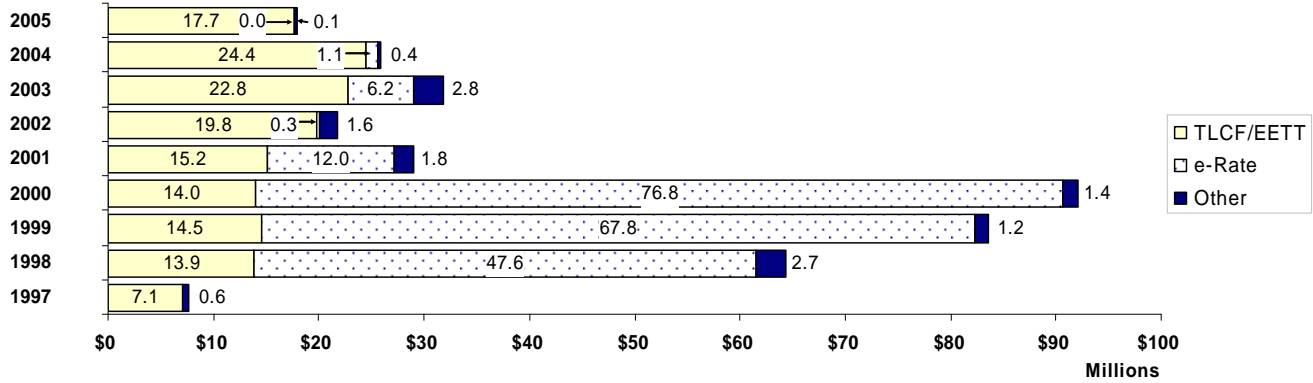
Telephone: 717-214-7128
Fax: 717-785-5424
E-mail: kbrautigam@state.pa.us
Web site: http://www.pde.state.pa.us/ed_tech/site/default.asp

Puerto Rico Educational Technology Policies

LONG-RANGE STRATEGIC EDUCATIONAL TECHNOLOGY PLAN

Title: *Puerto Rico Department of Education Technology Plan*
 URL: N/A

SELECTED FEDERAL EDUCATIONAL TECHNOLOGY FUNDING



STATE EDUCATIONAL TECHNOLOGY POLICIES AND PROGRAMS

Required technology-related course work for:

Teacher certification	Yes
Teacher recertification	Yes
Teacher continuing education	Yes

Data provided to local staff for decision-making: No

	<u>For Teachers</u>	<u>For Students</u>
Minimum technology standards	No	No
Formal assessment of proficiency on standards (state level)	No	No
Online courses, materials or software	Plans to do	Yes

State EETT competitive grant priorities

Special priorities:

- Student academic achievement in core subject areas
- Professional development
- Technology integration into the classroom

Content priorities:

- English/language arts
- Mathematics
- Sciences
- Social studies

State EETT definition of “high-need” LEA (2003)

Academic need: N/A

Technology need: Yes

High-technology-need LEAs were determined by local needs assessments or self-reported need.

EDUCATIONAL TECHNOLOGY CONTACT AND WEB SITE

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Federal Affairs Office	Web site:
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San Juan, PR 00919-0759	

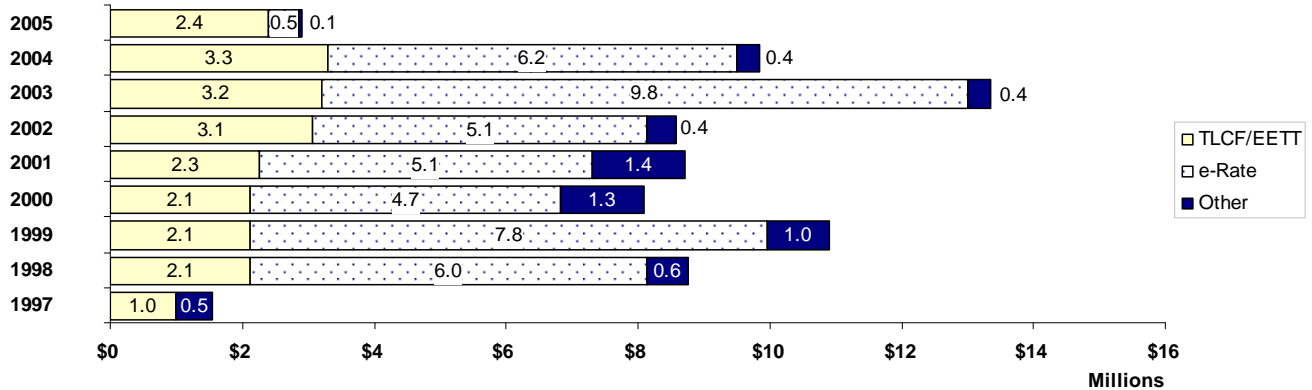
Rhode Island Educational Technology Policies

LONG-RANGE STRATEGIC EDUCATIONAL TECHNOLOGY PLAN

Title: *RIDE Statewide Technology Audit*

URL: N/A

SELECTED FEDERAL EDUCATIONAL TECHNOLOGY FUNDING



STATE EDUCATIONAL TECHNOLOGY POLICIES AND PROGRAMS

Required technology-related course work for:

Teacher certification	Plans to do
Teacher recertification	Plans to do
Teacher continuing education	Plans to do

Data provided to local staff for decision-making

Yes

	<u>For Teachers</u>	<u>For Students</u>
Minimum technology standards	Yes	Yes
Formal assessment of proficiency on standards (state level)	Plans to do	Plans to do
Online courses, materials or software	No	No

State EETT competitive grant priorities

Special priorities:

- Student academic achievement in core subject areas
- Student technology literacy
- State learning standards
- Student access to technology
- Professional development

Technology integration into the classroom
 Technology to manage, collect, and analyze data to enhance teaching and school reform

Content priorities:

English or language arts

Grade-level priorities:

K-3rd grade

State EETT definition of "high-need" LEA (2003)

Academic need: N/A

Technology need: Yes

High-technology-need LEAs were determined by results of state-administered data collections (not including a state-administered technology inventory), local test data, local needs assessments/self-reported need, and input on local financial supports for technology.

EDUCATIONAL TECHNOLOGY CONTACT AND WEB SITE

William Fiske	Telephone: 401-222-4600
Rhode Island Department of Education	Fax: 401-222-4600
255 Westminster Street	E-mail: fiske@ride.ri.net
Providence, RI 02903	Web site: http://www.ridoe.net/tech_in_schools/Default.htm

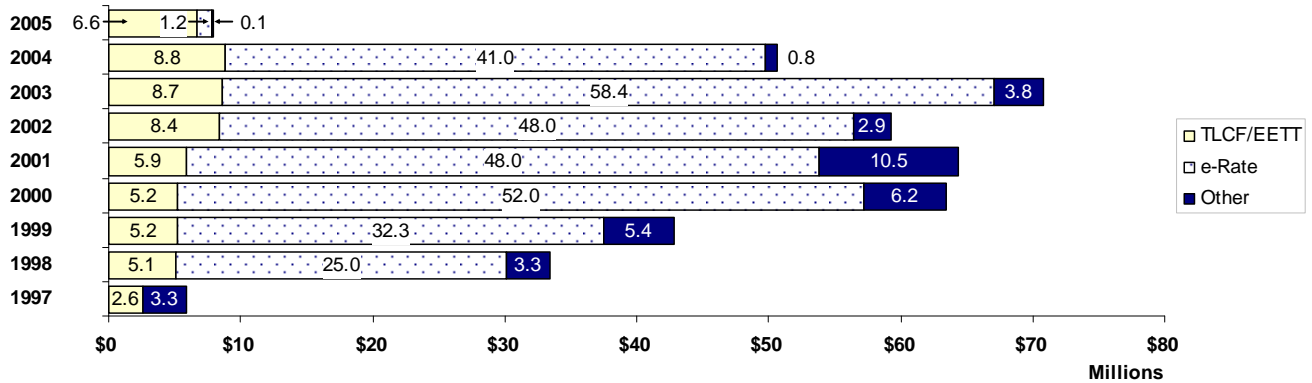
South Carolina Educational Technology Policies

LONG-RANGE STRATEGIC EDUCATIONAL TECHNOLOGY PLAN

Title: *South Carolina State Technology Plan, 2003-08, Realizing the Dream*

URL: http://www.myscschools.com/offices/tech/techplan/sctp2003_08/documents/SCTechPlan.pdf

SELECTED FEDERAL EDUCATIONAL TECHNOLOGY FUNDING



STATE EDUCATIONAL TECHNOLOGY POLICIES AND PROGRAMS

Required technology-related course work for:

Teacher certification	No
Teacher recertification	No
Teacher continuing education	Yes

Data provided to local staff for decision-making

Yes	<u>For Teachers</u>	<u>For Students</u>
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Minimum technology standards

Yes	Yes
-----	-----

Formal assessment of proficiency on standards (state level)

No	No
----	----

Online courses, materials or software

Yes	No
-----	----

State EETT competitive grant priorities

Special priorities:

Student academic achievement in core subject areas

Bonus payments to teachers prepared to act as technology leaders to assist other teachers

State learning standards

Content priorities:

Student access to technology

English or language arts

Parent and family involvement

Mathematics

Professional development

Sciences

Technology integration into the classroom

Social studies

Evaluation of EETT program impact

Technology literacy

State EETT definition of "high-need" LEA (2003)

Academic need: N/A

Technology need: Yes

High-technology-need LEAs were determined by results of a state-administered technology inventory, results of other state-administered data collections, local test data, and local needs assessments or self-reported need.

EDUCATIONAL TECHNOLOGY CONTACT AND WEB SITE

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 South Carolina Department of Education
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 E-mail: dappleby@ed.sc.gov
 Web site: <http://www.myscschools.com/offices/tech/>

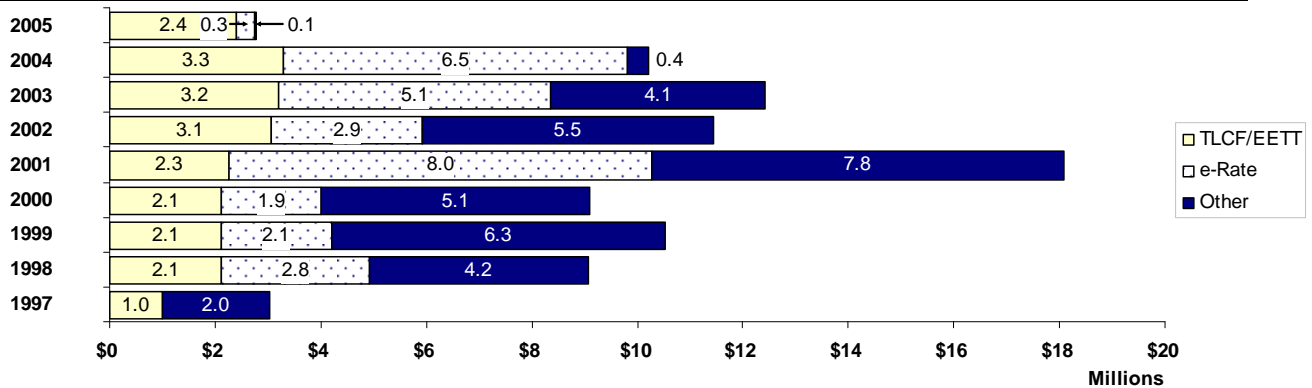
South Dakota Educational Technology Policies

LONG-RANGE STRATEGIC EDUCATIONAL TECHNOLOGY PLAN

Title: *South Dakota Department of Education State Technology Plan*

URL: <http://doe.sd.gov/octa/ddn4learning/index.asp>

SELECTED FEDERAL EDUCATIONAL TECHNOLOGY FUNDING



STATE EDUCATIONAL TECHNOLOGY POLICIES AND PROGRAMS

Required technology-related course work for:

Teacher certification	Yes
Teacher recertification	No
Teacher continuing education	No

Data provided to local staff for decision-making: Yes

	<u>For Teachers</u>	<u>For Students</u>
Minimum technology standards	No	Yes
Formal assessment of proficiency on standards (state level)	No	Plans to do
Online courses, materials or software	Yes	Yes

State EETT competitive grant priorities

Special priorities:

- Student technology literacy
- Professional development
- Technology integration into the classroom

State EETT definition of “high-need” LEA (2003)

Academic need: N/A

Technology need: Yes

High-technology-need LEAs were determined by local needs assessments or self-reported need.

EDUCATIONAL TECHNOLOGY CONTACT AND WEB SITE

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South Dakota Department of Education	E-mail: wade.pogany@state.sd.us
700 Governors Drive	Web site: http://doe.sd.gov/octa/index.asp
Pierre, SD 57501	

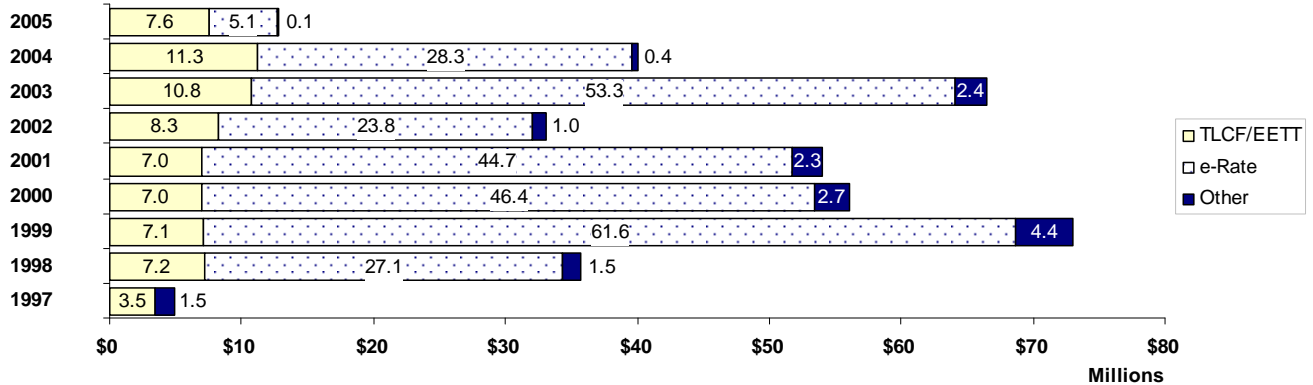
Tennessee Educational Technology Policies

LONG-RANGE STRATEGIC EDUCATIONAL TECHNOLOGY PLAN

Title: *Tennessee Educational Technology Plan 2003-2006*

URL: <http://tennessee.gov/education/acct-tp-2003-2006.pdf>

SELECTED FEDERAL EDUCATIONAL TECHNOLOGY FUNDING



STATE EDUCATIONAL TECHNOLOGY POLICIES AND PROGRAMS

Required technology-related course work for:

Teacher certification	No
Teacher recertification	No
Teacher continuing education	No

Data provided to local staff for decision-making: No

	<u>For Teachers</u>	<u>For Students</u>
Minimum technology standards	No	Yes
Formal assessment of proficiency on standards (state level)	No	No
Online courses, materials or software	Yes	No

State EETT competitive grant priorities

N/A

State EETT definition of “high-need” LEA (2003)

Academic need: N/A

Technology need: Yes

High-technology-need LEAs were determined by results of a state-administered technology inventory, local test data, and local needs assessments or self-reported need.

EDUCATIONAL TECHNOLOGY CONTACT AND WEB SITE

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 Director of Integrated Technology
 Tennessee Department of Education
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 E-mail: Jill.Balthrop@state.tn.us
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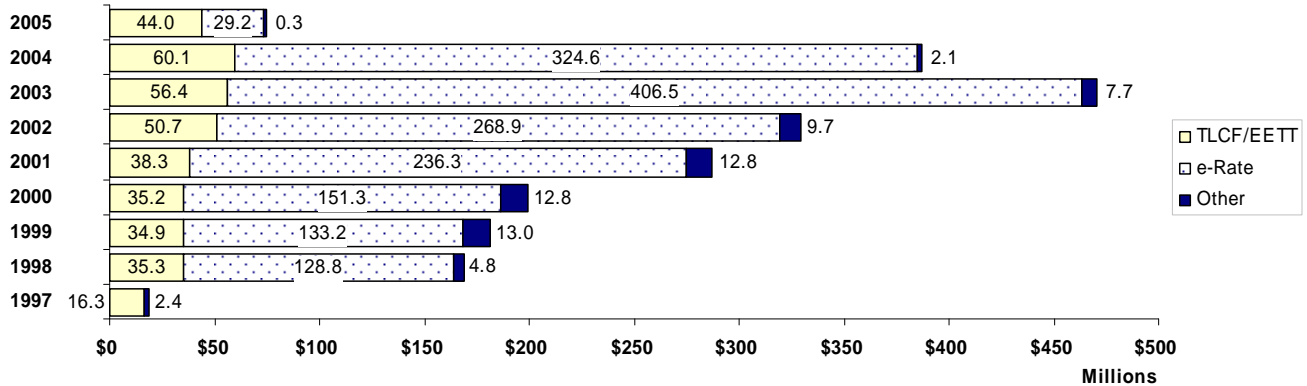
Texas Educational Technology Policies

LONG-RANGE STRATEGIC EDUCATIONAL TECHNOLOGY PLAN

Title: *Long-Range Plan for Technology*

URL: http://www.tea.state.tx.us/technology/lrpt/lrpt_lrpt.html

SELECTED FEDERAL EDUCATIONAL TECHNOLOGY FUNDING



STATE EDUCATIONAL TECHNOLOGY POLICIES AND PROGRAMS

Required technology-related course work for:

Teacher certification	Yes
Teacher recertification	Plans to do
Teacher continuing education	Yes

Data provided to local staff for decision-making

Yes	
<u>For Teachers</u>	<u>For Students</u>

Minimum technology standards

Yes	Yes
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Formal assessment of proficiency on standards (state level)

No	No
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Online courses, materials or software

Yes	Plans to do
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State EETT competitive grant priorities

Special priorities:

- Student technology literacy
- Parent and family involvement
- Professional development
- Technology integration into the classroom
- Evaluation of EETT program impact
- TARGET: Technology Applications Readiness Grants for Empowering Texas teachers and students

School-type priorities:

- Specific grade levels or specific populations on campuses
- Mentoring networks that demonstrated the full understanding of their roles and responsibilities to the high-need campuses
- Applications that leveraged existing resources
- Partnerships

State EETT definition of "high-need" LEA (2003)

Academic need: N/A

Technology need: Yes

High-technology-need LEAs were determined by results of state-administered data collections (not including a state-administered technology inventory), local needs assessments or self-reported need, and completion of the Texas School Technology and Readiness (STaR) Chart for each campus participating in the project.

EDUCATIONAL TECHNOLOGY CONTACT AND WEB SITE

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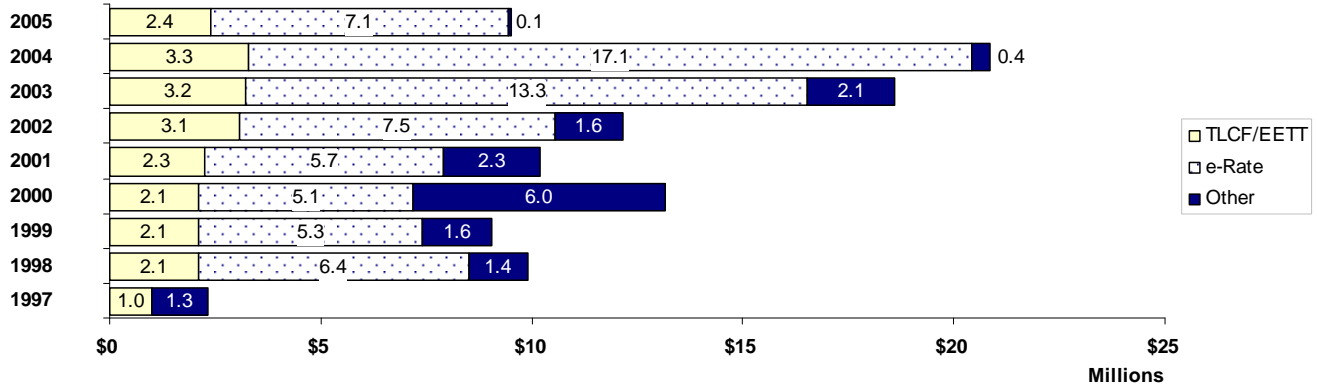
Utah Educational Technology Policies

LONG-RANGE STRATEGIC EDUCATIONAL TECHNOLOGY PLAN

Title: *Utah Public Education Technology Plan*

URL: <http://205.125.10.10/plan/usoedraft.pdf>

SELECTED FEDERAL EDUCATIONAL TECHNOLOGY FUNDING



STATE EDUCATIONAL TECHNOLOGY POLICIES AND PROGRAMS

Required technology-related course work for:

Teacher certification	Yes
Teacher recertification	No
Teacher continuing education	No

Data provided to local staff for decision-making: Yes

	<u>For Teachers</u>	<u>For Students</u>
Minimum technology standards	No	Yes
Formal assessment of proficiency on standards (state level)	No	Plans to do
Online courses, materials or software	Yes	Yes

State EETT competitive grant priorities

Special priorities:

- Student technology literacy
- State learning standards
- Professional development
- Evaluation of EETT program impact

State EETT definition of “high-need” LEA (2003)

Academic need: N/A

Technology need: Yes

High-technology-need LEAs were determined by results of a state-administered technology inventory.

EDUCATIONAL TECHNOLOGY CONTACT AND WEB SITE

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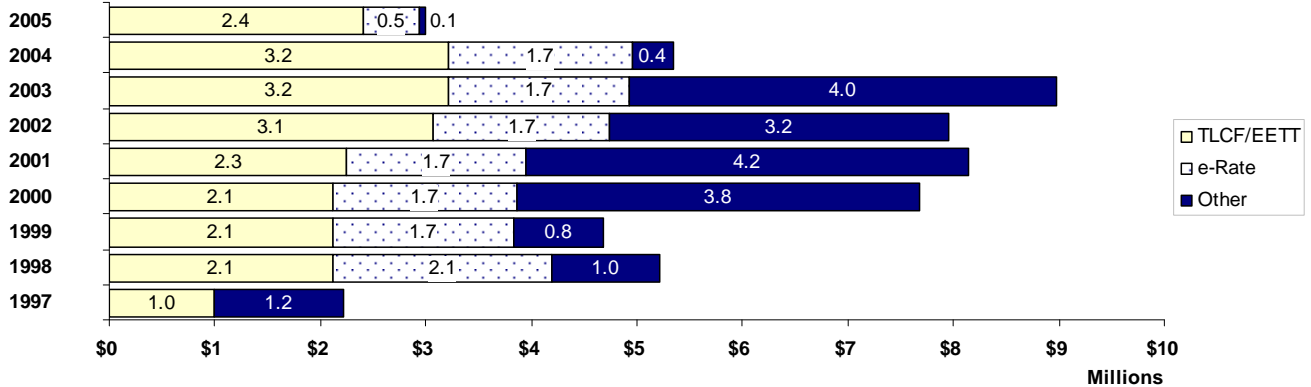
Vermont Educational Technology Policies

LONG-RANGE STRATEGIC EDUCATIONAL TECHNOLOGY PLAN

Title: *Vermont Educational Technology Plan*

URL: http://www.state.vt.us/educ/new/pdfdoc/pgm_edtech/state_edtech_plan_04-07.pdf

SELECTED FEDERAL EDUCATIONAL TECHNOLOGY FUNDING



STATE EDUCATIONAL TECHNOLOGY POLICIES AND PROGRAMS

Required technology-related course work for:

Teacher certification	Yes
Teacher recertification	Plans to do
Teacher continuing education	No

Data provided to local staff for decision-making: Plans to do

	<u>For Teachers</u>	<u>For Students</u>
Minimum technology standards	Yes	Yes
Formal assessment of proficiency on standards (state level)	No	No
Online courses, materials or software	No	No

State EETT competitive grant priorities

None

State EETT definition of "high-need" LEA (2003)

Academic need: N/A

Technology need: Yes

High-technology-need LEAs were determined by results of a state-administered technology inventory and local financial information.

EDUCATIONAL TECHNOLOGY CONTACT AND WEB SITE

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Educational Technology Coordinator	Fax: 802-828-3140
Vermont Dept. of Education	E-mail: billromond@education.state.vt.us
120 State Street	Web site:
Montpelier, VT 05620	http://www.state.vt.us/educ/new/html/pgm_edtech.html

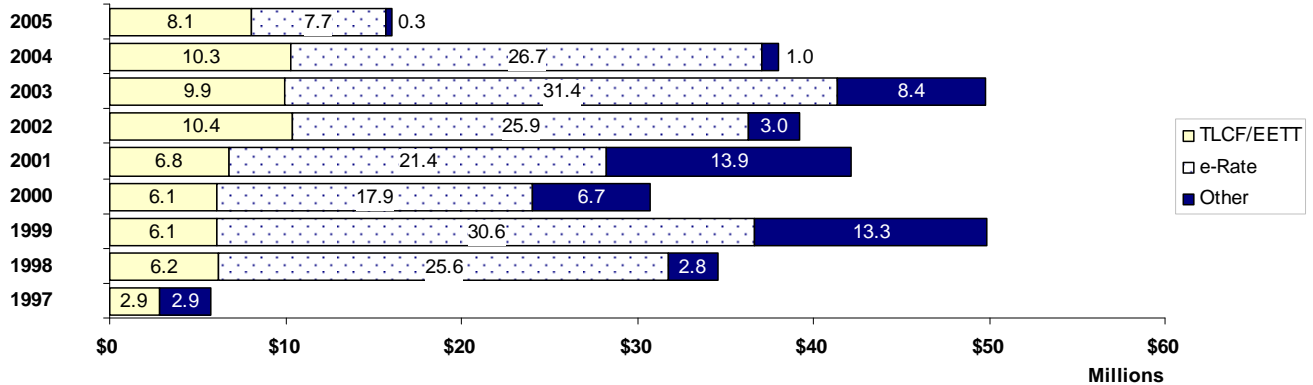
Virginia Educational Technology Policies

LONG-RANGE STRATEGIC EDUCATIONAL TECHNOLOGY PLAN

Title: *Educational Technology Plan for Virginia: 2003-2009*

URL: www.pen.k12.va.us/VDOE/Technology/plan2003-09.pdf

SELECTED FEDERAL EDUCATIONAL TECHNOLOGY FUNDING



STATE EDUCATIONAL TECHNOLOGY POLICIES AND PROGRAMS

Required technology-related course work for:

Teacher certification	Yes
Teacher recertification	Yes
Teacher continuing education	Yes

Data provided to local staff for decision-making: Yes

	<u>For Teachers</u>	<u>For Students</u>
Minimum technology standards	Yes	Yes
Formal assessment of proficiency on standards (state level)	No	No
Online courses, materials or software	Yes	Yes

State EETT competitive grant priorities

Special priorities:

- Professional development
- Technology integration into the classroom
- Evaluation of EETT program impact

State EETT definition of “high-need” LEA (2003)

Academic need: N/A

Technology need: Yes

High-technology-need LEAs were determined by results of a state-administered technology inventory, other state-administered data collections, and local needs assessments or self-reported need.

EDUCATIONAL TECHNOLOGY CONTACT AND WEB SITE

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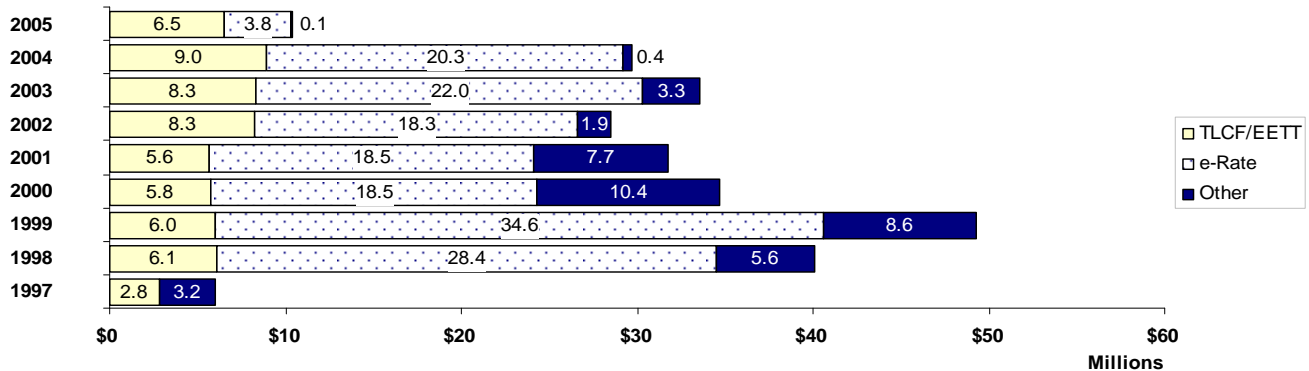
Washington Educational Technology Policies

LONG-RANGE STRATEGIC EDUCATIONAL TECHNOLOGY PLAN

Title: *Washington State Educational Technology Plan*

URL: www.k12.wa.us/edtech/EdTechPlan.htm

SELECTED FEDERAL EDUCATIONAL TECHNOLOGY FUNDING



STATE EDUCATIONAL TECHNOLOGY POLICIES AND PROGRAMS

Required technology-related course work for:

Teacher certification	No
Teacher recertification	Yes
Teacher continuing education	Yes

Data provided to local staff for decision-making: Yes

	For Teachers	For Students
Minimum technology standards	No	No
Formal assessment of proficiency on standards (state level)	No	No
Online courses, materials or software	Yes	Yes

State EETT competitive grant priorities

Special priorities:

- Student academic achievement in core subject areas
- State learning standards
- Technology integration into the classroom
- Bonus payments to teachers prepared to act as technology leaders to assist other teachers
- Technology linkages, resources, and services to improve academic achievement
- Student technology literacy
- Student access to technology

- Technology to manage, collect, and analyze data to enhance teaching and school reform
- Parent and family involvement
- Professional development
- Evaluation of EETT program impact

Content priorities:

- Mathematics, technology literacy, & special education or adaptive education

Grade-level priorities:

- 6th–8th grades

State EETT definition of “high-need” LEA (2003)

Academic need: N/A

Technology need: Yes

High-technology-need LEAs were determined by results of a state-administered technology inventory, results of other state-administered data collections, local test data, local needs assessments/self-reported need, and input on local financial supports for technology.

EDUCATIONAL TECHNOLOGY CONTACT AND WEB SITE

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 E-mail: dsmall@ospi.k12.wa.us
 Web site: <http://www.k12.wa.us/edtech>

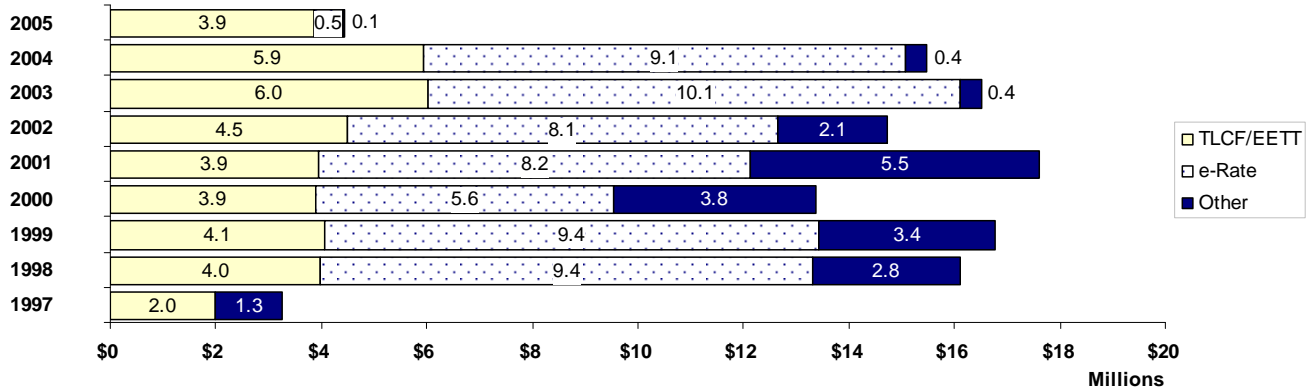
West Virginia Educational Technology Policies

LONG-RANGE STRATEGIC EDUCATIONAL TECHNOLOGY PLAN

Title: *West Virginia Educational Technology Plan*

URL: <http://access.k12.wv.us/techplan/stateplan.htm>

SELECTED FEDERAL EDUCATIONAL TECHNOLOGY FUNDING



STATE EDUCATIONAL TECHNOLOGY POLICIES AND PROGRAMS

Required technology-related course work for:

Teacher certification	Yes
Teacher recertification	Yes
Teacher continuing education	Yes

Data provided to local staff for decision-making

Yes

Minimum technology standards

For Teachers

For Students

Formal assessment of proficiency on standards (state level)

Yes

Yes

No

Plans to do

Online courses, materials or software

Yes

Yes

State EETT competitive grant priorities

Special priorities:

Student academic achievement in core subject areas

Student technology literacy

State learning standards

Student access to technology

Parent and family involvement

Professional development

Technology integration into the classroom

Evaluation of EETT program impact

LEA-level technology integration specialists

who train teachers to integrate technology into the classroom

State EETT definition of "high-need" LEA (2003)

Academic need: N/A

Technology need: Yes

High-technology-need LEAs were determined by local needs assessments or self-reported need.

EDUCATIONAL TECHNOLOGY CONTACT AND WEB SITE

Brenda Williams

Telephone: 304-558-7880

Executive Director

Fax: N/A

West Virginia Department of Education

E-mail: brendaw@access.k12.wv.us

1900 Kanawha Blvd.

Web site: <http://access.k12.wv.us>

East Building 6, Room 346

Charleston, WV 25305

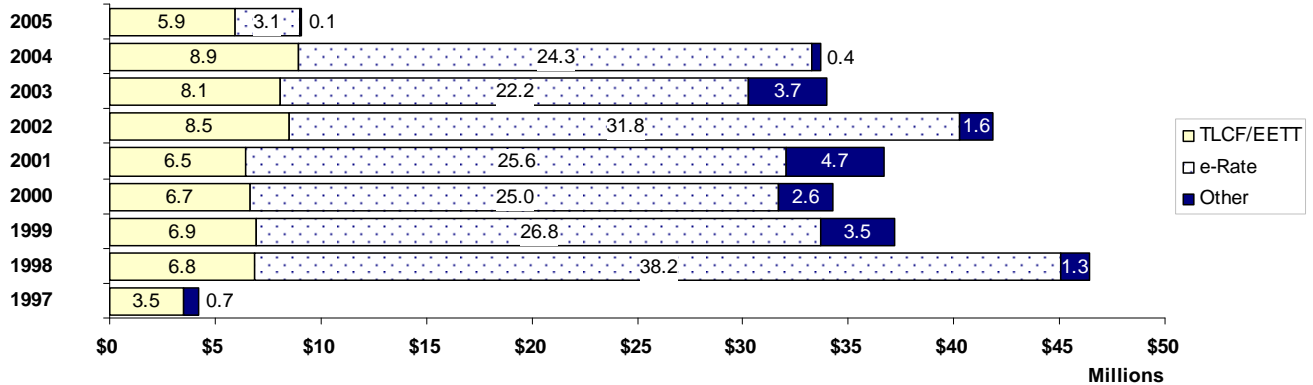
Wisconsin Educational Technology Policies

LONG-RANGE STRATEGIC EDUCATIONAL TECHNOLOGY PLAN

Title: *Wisconsin Educational Information & Technology Plan PK-12*

URL: www.dpi.state.wi.us/dpi/dltcl/imt/k12_tech.html

SELECTED FEDERAL EDUCATIONAL TECHNOLOGY FUNDING



STATE EDUCATIONAL TECHNOLOGY POLICIES AND PROGRAMS

Required technology-related course work for:

Teacher certification	Yes
Teacher recertification	No
Teacher continuing education	No

Data provided to local staff for decision-making: Yes

	<u>For Teachers</u>	<u>For Students</u>
Minimum technology standards	No	Yes
Formal assessment of proficiency on standards (state level)	No	No
Online courses, materials or software	No	No

State EETT competitive grant priorities

Special priorities:

- Student academic achievement in core subject areas
- State learning standards
- Professional development
- Technology integration into the classroom

State EETT definition of “high-need” LEA (2003)

Academic need: N/A

Technology need: Yes

High-technology-need LEAs were determined by results of a state-administered technology inventory and local needs assessments or self-reported need.

EDUCATIONAL TECHNOLOGY CONTACT AND WEB SITE

Robert Roy	Telephone: 608-261-6332
Education Consultant, Instructional Technology	Fax: 608-267-1052
Wisconsin Department of Public Instruction	E-mail: robert.roy@dpi.state.wi.us
125 Webster Street, PO Box 7841	Web site:
Madison, WI 53707	http://www.dpi.state.wi.us/dpi/dltcl/imt/index.html

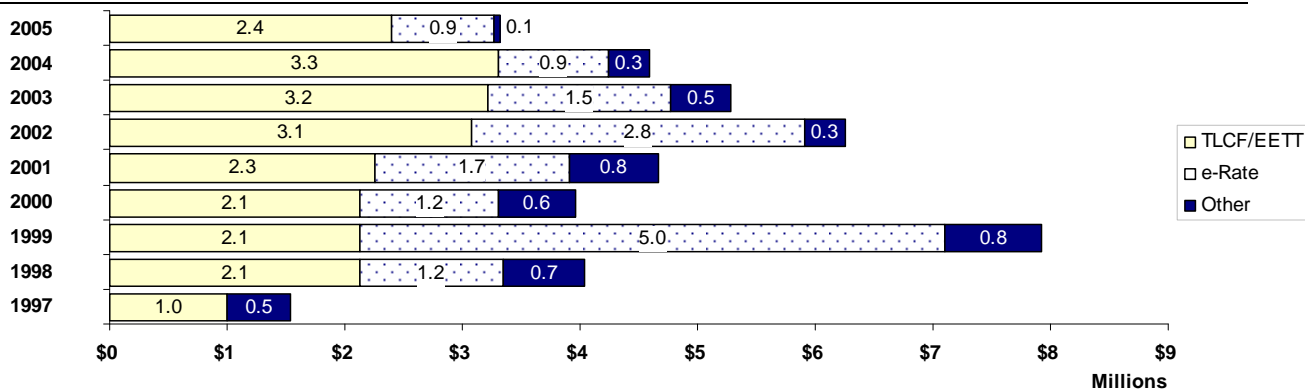
Wyoming Educational Technology Policies

LONG-RANGE STRATEGIC EDUCATIONAL TECHNOLOGY PLAN

Title: *Wyoming Education Technology Plan*

URL: http://www.k12.wy.us/ep/ctde/pubs/WyTech_Plan.pdf

SELECTED FEDERAL EDUCATIONAL TECHNOLOGY FUNDING



STATE EDUCATIONAL TECHNOLOGY POLICIES AND PROGRAMS

Required technology-related course work for:

Teacher certification	No
Teacher recertification	No
Teacher continuing education	Yes

Data provided to local staff for decision-making

No

Minimum technology standards

For Teachers

For Students

Formal assessment of proficiency on standards (state level)

No

Yes

No

No

Online courses, materials or software

No

No

State EETT competitive grant priorities

Special priorities:

Student academic achievement in core subject areas

Student access to technology

Professional development

A statewide network that includes a compressed-video system. LEAs were encouraged to distribute classes (share limited resources) with other LEAs via the state network.

Additional points were added to applications that outlined use of the Educational Portal for Staff Development.

State EETT definition of "high-need" LEA (2003)

Academic need: N/A

Technology need: Not addressed

High-technology-need LEAs were determined by results of a state-administered technology inventory; results of other state-administered data collections; and information gathered from LEA technology directors, school improvement state conferences, and LEA site visits.

EDUCATIONAL TECHNOLOGY CONTACT AND WEB SITE

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 Wyoming Department of Education
 2300 Capitol Ave., 2nd Floor
 Cheyenne, WY 82002

Telephone: 307-777-6220
 Fax: 307-777-6234
 E-mail: cmitch@educ.state.wy.us
 Web site: <http://www.k12.wy.us/>

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**APPENDIX A:
REPORT METHODOLOGY**

Data Sources

This report presents data from numerous sources, including surveys of state and district technology coordinators, interviews with state technology directors, and administrative records from federal and state educational technology programs. Each of these is described in greater detail below, including information about the data, its collection, and analysis as presented in this report.

NETTS Survey of State Educational Technology Directors

In fall 2004, the U.S. Department of Education (the Department) identified educational technology administrators in the 50 states, the District of Columbia, and Puerto Rico as respondents for the National Educational Technology Trends Study (NETTS) state survey. EETT recipients not included in the sample were the Bureau of Indian Affairs, Guam, the Virgin Islands, American Samoa, and the Commonwealth of Northern Mariana Islands. These entities were excluded because of their limited funding. Specifically, the Department allocates three-quarters of 1 percent of the total funds made available each year under the EETT program to the secretary of the interior for programs in schools operated or funded by the Bureau of Indian Affairs and a total of .5 percent of the funds to the aforementioned territories.

EETT implementation data for FY 2003 grants and data on technology use more generally were collected using both electronic and paper versions of the NETTS state survey. The 49-item survey addressed a variety of topics, including state educational technology policy contexts, the subgrant application process, state priorities for subgrant competitions, administration of the EETT program, and EETT monitoring and evaluation.

To initially engage respondents, the Department mailed a notification letter to each of the state educational technology directors. The letter explained the purpose of the survey and provided directions on how to access and complete the online survey. Subsequently, an e-mail was sent to each state educational technology director that presented the same information contained in the letters. Respondents were tracked, and non-respondents were contacted.

During the entire survey administration period, evaluation team staff were available to educational technology administrators via e-mail and phone to answer questions and address concerns. Follow-up e-mails and calls to the state administrators served as personal reminders and provided them with an opportunity to discuss any issues. Staff at the Department also made reminder phone calls to the nonrespondent state administrators to ask them to respond to the survey. Survey data were collected from November 2004 to February 2005.

Responses were received from all states, for a 100 percent response rate. Data from returned paper surveys were entered into the online survey database, which included the surveys completed electronically. These data were imported from the online database to SAS, which was used for the analysis. A series of descriptive statistics and were calculated and used for this report.

NETTS Survey of District Technology Coordinators

The sampling frame for the survey of district technology coordinators included regular public school districts in all 50 states, the District of Columbia, and Puerto Rico, plus nondistrict entities receiving EETT funding as lead entities. Districts composed exclusively of charter schools, special education schools, and “voc-tech” schools were excluded from the study. Primary stratification incorporated the following factors: district entity status (district vs. nondistrict entity), EETT program status (did or did not receive competitive funds), poverty, size, urban or rural location, and whether the

target grade or subject area is covered by the national educational technology intervention experimental study being conducted by the U.S. Department of Education.

States were asked to provide lists of appropriate respondents for each entity (district or nondistrict recipient of EETT funds) in their state-specific portion of the sampling frame. This information was supplemented with information from the Common Core of Data (CCD), Web searches, and phone calls.²⁴ The sampling frame included the 60 largest urban districts (which were selected with certainty), 12,423 other districts that had received EETT funds, another 2,239 districts that had not received EETT funds, and 70 nondistrict entities that had received EETT funding (also selected with certainty). A subset of 1,039 entities from this frame were sampled by using stratified sampling with probabilities proportional to a measure of size. Districts that did not receive EETT funding were sampled in proportion to their student populations. The remaining districts (the vast majority) were selected in proportion to their EETT funding. Sample sizes by strata were designed to meet prespecified precision thresholds established by the U.S. Department of Education.

District coordinators were given three response formats for the district survey: a Web-based version, a hard-copy version, and a phone version. Respondents were strongly encouraged to use the Web-based version to reduce costs for data entry and help ensure more accurate and consistent data. The hard-copy survey was made available only after respondents had sufficient time to make use of the Web-based version, and the phone version was used only near the end of the data collection process.

Survey data were collected from March to June 2005. It began with an e-mail notification to respondents requesting their participation in the online survey. District coordinators were mailed personalized incentive checks of \$40.25. During the survey window, nonrespondents were contacted by mail and phone. Approximately 1,800 calls were made to 420 districts, resulting in 294 completed telephone surveys (70 percent).²⁶ Only 10 districts declined to respond, so the final response rate was 99 percent overall. Item response rates (i.e., by question) averaged 97 percent, with a minimum of 73 percent. Item response rates exceeded 90 percent for all but three of the 54 questions.

After being cleaned and checked, data were weighted to represent students nationally and analyzed by using tabular analyses and descriptive statistics.

State Case Studies

Six states were targeted for qualitative data collection. Candidate states were identified to be nationally representative by region, number of school districts, enrollment levels, overall educational technology ranking, levels of connectivity, and EETT funding levels. Overlap between candidate NETTS case study states, states receiving Evaluating State Educational Technology Program (ESETP) grants, and states of policy interest to the Department were considered in the final selection of states.

Two-person interview teams used semistructured interviews to obtain qualitative data from state educational technology directors and others involved in technology planning and budgeting in the six states. Chief education officers also were interviewed. Evaluators drafted case study reports and summaries and participated in debriefings. These data and documents gathered before and during site visits were the subjects of cross-case analyses. Data were coded and queried by using qualitative data analysis software (ATLAS.ti). Analysts identified themes and examined similarities and differences across sites.

²⁴ Data were initially collected with the 2001–02 CCD, and additional districts were added when states indicated that they had received EETT funding and were found in more recent CCD data or via Web searches.

²⁵ About 70 percent of respondents had cashed the incentive checks by October 2005.

²⁶ There were an average of 4.29 calls per district overall, ranging from 1 to 14, with a mean of 5.99 for the districts that did not complete a survey.

Administrative Data

Existing published research and data from a wide variety of sources, including academic papers, legislation, published news articles, government and trade group reports, state government Web sites, and market research reports, were compiled to identify and assemble state comparative information from FY 1997 through FY 2003. The report also relies on published and unpublished data from the 2003 survey of state educational technology directors by the State Educational Technology Directors Association (SETDA). Data about EETT formula and competitive subgrants to local education agencies for fiscal years 2002 and 2003 were obtained from the Department's Web site for FY 2002 and from the NETTS state survey for FY 2003. Individual state educational technology contacts and Web sites were obtained through each state's department of education Web site and through the Department. Data on individual states' federal educational technology funding were extracted from publicly available national data sources, as specified in Exhibit A-1. In all, more than 100 data elements were assembled for each state, the District of Columbia, and Puerto Rico.

To help ensure the quality of data provided in this report, data were double entered for a sample of states to calculate accuracy rates. Discrepancies in data entry were resolved, and the process was repeated until accuracy rates from a sample of states exceeded 99 percent. In addition, each state educational technology director was provided with an opportunity to add, review, or correct information presented for his or her respective state prior to publication. Though the majority (88 percent) of state educational technology directors provided such feedback,²⁷ there were nonetheless instances where discrepancies in the data could not be resolved or where data were not provided at all. Where this was the case, "N/A" in the state profiles indicates that data on a specific field were not available (i.e., missing).

Elements for Individual State Profiles

The profiles that appear in the individual state profiles provide detailed information about educational technology on a state-by-state basis. For each state, the District of Columbia, and Puerto Rico, data allow readers to review detailed composites on a state-by-state basis, offering a more complete picture of educational technology trends and indicators for states.

In each of the 52 profiles that appear in Chapter 2, more than 100 individual data elements were compiled from a wide variety of sources for the nine FY periods from 1997 to 2005. Each profile is organized into four sections, which are detailed below. Data elements address a range of topics, including information about state educational technology plans, trends in federal funding of educational technology, subgrant awards for two years of the EETT program, and trends in educational technology access and integration.

Long-Range Strategic Educational Technology Plan

Under EETT, each state is required to develop a long-range strategic educational technology plan, the minimum content of which is set forth in federal legislation (Title II, Part D, of *NCLB*). This section of the profile includes the title of each state's plan and the location of that plan on the World Wide Web, if available.

²⁷ Six states did not respond to requests for feedback on their draft state profiles.

Selected Federal Educational Technology Funding

The federal government operates a number of programs that provide states with direct support for their efforts to integrate technology into K–12 education, including primarily EETT and its predecessor program, the Technology Literacy Challenge Fund (TLCF), and E-rate.^{28, 29} This section of each state profile provides graphical and tabular information on the levels of federal support for selected federal educational technology programs in the state for each fiscal year from 1997 to 2005. The following programs are included in the “Other” federal funding category³⁰:

- Technology Innovation Challenge Grants (discontinued after FY 2001)
- Star Schools³¹
- Preparing Tomorrow’s Teachers to Use Technology grants (discontinued after FY 2003)
- Community Technology Centers grants (discontinued after FY 2005)
- Learning Anytime Anywhere Partnership grants (discontinued after FY 2001)
- Assistive Technology Funding (discontinued after FY 2004)
- Technology-related Migrant Education Funding (discontinued after FY 2001)

State Educational Technology Policies and Programs

The state profiles provide information about the state’s technology standards, requirements, and initiatives. Individual state poverty, academic need, and technology need requirements for districts, also called local education agencies (LEAs), are provided in the profile, in addition to requirements for strategic targeting provisions.

Educational Technology Contact and Web Site

Many states maintain an office and staff dedicated to coordinating educational technology strategies and programs, as well as a Web site that provides more detailed information about a particular state’s plans and activities with educational technology. Most of these sites also include information about state-specific special projects and initiatives. In this section of the profile, contact information for the individual responsible for coordinating educational technology activities in each state is provided.

²⁸ TLCF is considered the predecessor program to EETT because it shares some of the same requirements and program elements and TLCF was phased out as EETT was beginning operation.

²⁹ Note that historical E-rate funding estimates are frequently updated. All E-rate data presented in this report were retrieved June 10, 2004, from <http://www.sl.universalservice.org/funding>.

³⁰ State-by-state funding for Ready to Learn Television and Ready to Teach, two new federal programs that appropriated funds beginning in 2005 and referenced in *State EETT Policies and Related Programs*, have not been included in the state profiles.

³¹ State-by-state funding for the Star Schools Program has not been included in the state profiles.

Exhibit A-1. Selected Federal Educational Technology Funding

State Profile Data Element	Primary Source(s)
TLCF funding (1997–2001)	U.S. Department of Education (2000). Progress report on educational technology: State-by-state profiles. Retrieved Feb. 5, 2004, from http://www.ed.gov/about/offices/list/os/technology/reports/statebystateprogress-12-2000.pdf . U.S. Department of Education, Office of Educational Technology. TLCF FY1997-2001 grant allocations. Retrieved Feb. 5, 2004, from http://www.ed.gov/Technology/tlcf_allocations.html .
EETT funding (2002–2003)	U.S. Department of Education. Grant award database. Retrieved Feb. 5, 2004, from http://wdcrobcol02.ed.gov/CFAPPS/grantaward/start.cfm
E-rate funding (1998–2003)	Universal Service Administrative Company (USAC), Schools and Libraries Division (SLD). Automated search of commitments. Retrieved June 10, 2004, from http://www.sl.universalservice.org/funding .
Other Federal Funding	
Technology Innovation Challenge Grants funding (1997–2003)	U.S. Department of Education (2000). Progress report on educational technology: State-by-state profiles. Retrieved Feb. 5, 2004, from http://www.ed.gov/about/offices/list/os/technology/reports/statebystateprogress-12-2000.pdf . U.S. Department of Education. Grant award database. Retrieved Feb. 5, 2004, from http://wdcrobcol02.ed.gov/CFAPPS/grantaward/start.cfm .
Preparing Tomorrow's Teachers to Use Technology (PT3) grants (1999–2003)	U.S. Department of Education (2000). Progress report on educational technology: State-by-state profiles. Retrieved Feb. 5, 2004, from http://www.ed.gov/about/offices/list/os/technology/reports/statebystateprogress-12-2000.pdf . U.S. Department of Education. Grant award database. Retrieved Feb. 5, 2004, from http://wdcrobcol02.ed.gov/CFAPPS/grantaward/start.cfm .
Community Technology Centers (CTC) grants (1999–2003)	U.S. Department of Education (2000). Progress report on educational technology: State-by-state profiles. Retrieved Feb. 5, 2004, from http://www.ed.gov/about/offices/list/os/technology/reports/statebystateprogress-12-2000.pdf . U.S. Department of Education, Office of Vocational and Adult Education. FY 2001 CTC grant recipients. Retrieved Feb. 5, 2004, from http://www.ed.gov/programs/comtechcenters/recipients.html . U.S. Department of Education, Office of Vocational and Adult Education. CTC grants FY 1999–2002. Retrieved Feb. 5, 2004, from http://www.ed.gov/programs/comtechcenters/grants_fy99-02.html . U.S. Department of Education. Grant award database. Retrieved Feb. 5, 2004, from http://wdcrobcol02.ed.gov/CFAPPS/grantaward/start.cfm .
Learning Anytime Anywhere Partnerships (LAAP) grants (1999–2001)	U.S. Department of Education (2000). Progress report on educational technology: State-by-state profiles. Retrieved Feb. 5, 2004, from http://www.ed.gov/about/offices/list/os/technology/reports/statebystateprogress-12-2000.pdf . U.S. Department of Education, Office of Postsecondary Education. Learning Anytime Anywhere Partnerships (LAAP): Project abstracts-FY 2001 awards. Retrieved June 11, 2004 from http://www.ed.gov/programs/fipselaap/laap2001.html .
Assistive Technology Funding (1997–2003)	U.S. Department of Education (2000). Progress report on educational technology: State-by-state profiles. Retrieved Feb. 5, 2004, from http://www.ed.gov/about/offices/list/os/technology/reports/statebystateprogress-12-2000.pdf . U.S. Department of Education. Grant award database. Retrieved Feb. 5, 2004, from http://wdcrobcol02.ed.gov/CFAPPS/grantaward/start.cfm .
Migrant Ed-Coordination Program/Tech Grants (1997–2001)	U.S. Department of Education (2000). Progress report on educational technology: State-by-state profiles. Retrieved Feb. 5, 2004, from http://www.ed.gov/about/offices/list/os/technology/reports/statebystateprogress-12-2000.pdf . U.S. Department of Education. Grant award database. Retrieved Feb. 5, 2004, from http://wdcrobcol02.ed.gov/CFAPPS/grantaward/start.cfm .



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