



## Support the Nation's Competitiveness through 21<sup>st</sup> Century Learning: School Technology Mission Critical to STEM & NCLB Education Goals

**MESSAGE:** Educational technologies are critical to meeting the central goals of the No Child Left Behind Act (NCLB) – improving student achievement and ensuring all teachers are highly qualified – and to equipping today's students with the technology skills and knowledge necessary to prepare them for the world beyond the classroom.

Educational technologies are mission critical educational tools necessary to:

- meet the goals and requirements of NCLB, including in the areas of testing/accountability, teacher quality, and student achievement;
- increase student interest and achievement in science, technology, engineering and mathematics (STEM) education; and
- ensure all students are prepared with the technology literacy, communications, problem solving and life-long learning skills needed to compete in the 21<sup>st</sup> Century.

Educational technologies address NCLB and enhance teaching, learning and our competitiveness by providing:

- Access to courses – including rigorous math, science and foreign language courses – often only available through online learning, especially in rural and high-poverty schools.
- Real-time, computer-based or online assessment that accurately gauge student learning to help teachers target instruction and facilitate accountability.
- One-on-one remediation for low-performing students through engaging instructional software that adapts to support the individual learning needs and pace of each student.
- Management and reporting of educational data to track adequate yearly progress, ensure accountability, inform decision-making and enable parental involvement.
- Expanded opportunities to build teacher skills and develop interactive professional communities through web-based training that ensure all teachers are highly qualified.

Robust and targeted federal support is needed to address these needs and advance technology integration into teaching, learning, assessment and educational administration.

**BACKGROUND:** The U.S. Congress is engaged in a prolonged, multi-faceted effort to address shortcomings in our educational system through targeted federal legislation and related funding. Among the most significant of these efforts are the 2001 No Child Left Behind Act and pending initiatives focused on the nation's competitiveness through improvement of STEM education.

*No Child Left Behind.* NCLB's major legacies include: (1) raising academic expectations of students through proficiency in core-curricular subjects; (2) improving teacher quality by requiring that all teachers are credentialed and possess subject knowledge in the courses they teach; (3) implementing state and school district collection and management of student data to ascertain academic progress; and (4) establishing the benchmark of student technology literacy by the 8<sup>th</sup> grade. Most recognize that these goals can only be achieved through modernizing educational practice and upgrading infrastructure through technology. Continuing federal leadership and support of educational technology is critical to ensure that all communities can attain NCLB's goals.

NCLB is due for reauthorization in 2007. Congress has introduced a number of amendments, but no formal action has yet been taken by either the Bush Administration or key Congressional Committees. A series of Congressional hearings in 2006 and 2007 is likely before legislation is advanced, while reauthorization could spill over into 2009.

*STEM Education.* The Bush Administration and Congress have introduced multiple proposals (including the PACE Act) aimed at improving STEM education as a means to improving America's competitiveness in terms of educational and economic success. While information and communication technologies are largely responsible for the so-called "flattening of the world," the proposed STEM initiatives make scant mention of technology and e-learning, ignoring completely technology's increasingly essential role in delivering science and math courses, improving student technology literacy, and inculcating related 21<sup>st</sup> century skills. In short, these initiatives leave out the "T" in STEM.

Congressional action on STEM initiatives is likely in 2006, although their impact will depend ultimately on the availability of federal funding. It remains unclear in K-12 education the degree to which new legislation will be needed, as opposed to expansion of existing programs.

## CONGRESSIONAL RECOMMENDATIONS:

### NCLB

- Maintain the existence of a targeted education technology program such as the current Title II-D Enhancing Education Through Technology (EETT) grant program.
- Renew the existing NCLB goal of ensuring all students are technology literate by the 8<sup>th</sup> grade and strengthen state accountability in collecting data to determine progress towards reaching that goal.
- Emphasize technology and e-learning as critical uses of funds to achieve goals and requirements throughout all NCLB programs.
- Strengthen teacher quality definitions to emphasize the ability to use technology in the areas of instruction, curriculum, and data-driven decision making.

### STEM

- Target investments in technology and e-learning as critical uses of funds to achieve student access to, engagement in, and achievement in STEM courses.
- Target equal attention to the "T" in STEM to ensure students have the technology literacy and related 21<sup>st</sup> century skills needed to be competitive.
- Target e-learning and other educational uses of technology as a component of a federal R&D initiative.

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## **Support the Enhancing Education Through Technology Program**

### **Restore Funding to \$496 million FY 05 Level**

#### **Message**

Technology is critical in our schools to both meet the goals of the No Child Left Behind Act and ensure students are prepared to compete in the 21<sup>st</sup> Century. America cannot create a competitive workforce if its schools don't have technology-proficient educators, well-equipped classrooms, sufficiently supported administrative structures and a curriculum that recognizes the role technology plays in all disciplines. A robust and targeted federal investment is needed to address these needs and goals, and the Enhancing Education Through Technology (EETT) program (Title II part D of NCLB) is an integral component of this national support. Restored funding for the EETT program to a minimum of \$496 million, its FY 05 funding level, is necessary to meet educational goals and needs.

#### **EETT and NCLB**

Congress authorized EETT within NCLB to provide school districts, particularly those serving low income students, with the resources necessary to integrate technology into learning. Congress supported EETT because it recognized that technology has an important role to play in achieving key NCLB goals -- raising student achievement, ensuring high quality teaching, and increasing parental involvement -- among others.

Specifically, EETT undergirds NCLB's goals by supporting:

- professional development to ensure teachers are highly qualified by both providing online training as well as enhancing their skills to integrate digital resources into the classroom,
- implementation of effective and appropriate educational software and digital content for use in curriculum, instruction, and classroom/school administration,
- computer-assisted and online testing, as well as data-driven decision making systems, that allow for more immediate, relevant and meaningful assessment of student skills,
- technology-based strategies to improve parental involvement, including through improved communication with teachers and access to student assignments and grades.

EETT allocates funds by formula to states. The states in turn reallocate 50% of the funds to local districts by Title I formula and 50% competitively. While districts must reserve a minimum of 25% of all EETT funds for professional development, recent studies indicate that most EETT recipients use far more than 25% of their EETT funds to train teachers to use technology and integrate it into their curricula. In fact, EETT recipients committed more than \$159 million in EETT funds towards professional development during the 2004-05 school year alone. Moreover, even though EETT recipients are afforded broad discretion in their use of EETT funds, surveys show that they target EETT dollars towards improving student achievement in reading and math, engaging in data driven decision making, and launching online assessment programs.

#### **EETT and Competitiveness**

Aside from its importance to achieving NCLB goals, EETT is critical to the nation's future workforce competitiveness. EETT provides all students, especially those who lack access to technology at home, with opportunities to gain the critical technology skills and knowledge that are prerequisites for obtaining jobs in this global, information-technology rich marketplace. These skills include technology literacy, communication, problem solving and the ability for self-directed learning as necessary to improve one's abilities over time as employment needs evolve. A 2003 US Department of Commerce report credits US industry's massive investments

in information technology between 1989-2001 with “producing positive and probably lasting changes in the nation’s economic potential.” Unfortunately, the same study indicates that, of the 55 industries surveyed, Education Services ranked dead last in the intensity of its use of IT equipment per worker. America’s students must not be short-changed in a global economy that is increasingly replete with and dependent upon information technology. Our nation’s future depends on it!

### **EETT Funding History**

While authorized in NCLB at \$1 billion per year, EETT has never received more than \$700 million in annual funding. In the past two years, it has sustained major cuts, culminating in FY06’s 45% reduction, which left the program with only \$272 million. In its FY07 Budget, the Administration proposes to eliminate all funding for the EETT program – the second year in a row that it has sought to eliminate EETT entirely. These cuts have already seriously eroded state and district efforts to both ensure our competitiveness and effectively implement NCLB; a complete elimination of EETT would be devastating.

Districts rely on EETT funds as a core means for providing a competitive 21<sup>st</sup> Century learning environment. In 14 states (AZ, CA, DE, IL, LA, MD, MI, MN, MO, NH, OK, VT, WA, and WI), EETT is the sole source of education technology funding for local schools, and in the majority of states it is the primary source.

States and districts will be unable to replace EETT dollars with other federal funds. For example:

- **Title I:** These dollars cannot be used for technology purchases that cover all students (including local data systems), because they are strictly targeted to high-poverty school districts, are focused at the K-6 level, and carry a significant number of mandates.
- **Teacher Quality (Title IIA):** While this program receives significant funding each year (nearly \$3 billion), it has not received an increase since its inception. This leaves little additional funds to compensate for the eliminated EETT funds. Additionally, technology purchased through this program can only be used by teachers, not students.

### **Recommendation to Congress**

Restore funding for the EETT program to a minimum of its FY05 funding level of \$496 million, in order to meet the goals of NCLB and ensure students and teachers are prepared to compete in the 21<sup>st</sup> Century.

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## Support the E-Rate Program

**Message:** *The E-Rate is a vital program that must be preserved as Congress overhauls current telecommunications law. Since 1998, E-Rate has been the driving force behind ensuring that nearly all students and teachers – regardless of their socioeconomic circumstances – gain access to online resources. For the E-Rate to continue, it is critical that: 1) E-Rate remain an application-based program and part of universal service; 2) E-Rate funds flow without interruption; and 3) E-Rate not be subject to unreasonable new laws or regulations.*

**Background:** The E-Rate is a part of universal service, a support mechanism that was created in 1934 to ensure that rural consumers had affordable phone service. The E-Rate program, authorized under the Telecommunications Act of 1996, represents an extension of universal service. It provides public and private schools and libraries with discounts of 20%-90% for telecommunications services, Internet access and internal connections. Since its inception in 1998, it has played a major role in increasing public school classroom Internet connections from 14% in 1998 to 93% in 2003. The E-Rate has also helped low-income, minority and rural students gain near equal access in their classrooms to their peers around the country. Demand for the program remains strong as discount requests frequently exceed E-Rate's \$2.25 billion annual cap.

**Anti Deficiency Act Legislation:** Between August and December of 2004, the Universal Service Administrative Company (USAC) was forced to temporarily shut-down the program because it believed that it was about to run afoul of the federal Anti Deficiency Act (ADA). Under the ADA, federal agencies must have sufficient cash on hand to cover all program obligations. USAC collects E-Rate funds quarterly, and so not all E-Rate dollars are available when USAC sends out annual funding commitment letters to applicants. Thus, while the E-Rate account is never in the red, USAC and the FCC determined that such letters constituted obligations under the ADA. As a result, USAC stopped sending the letters, causing some districts turned off their service and many others to endure major funding delays.

In the past two Congressional sessions, Congress has passed and the President has signed legislation to temporarily exempt E-Rate and all of universal service from the ADA. The last ADA exemption expires on December 31, 2006 and, without the enactment of an additional temporary exemption or a permanent exemption, the E-Rate could face another shut-down.

Senator Olympia Snowe (R-ME) has introduced legislation, **S. 241**, that would make permanent the ADA exemption for E-Rate and all of universal service. Senate Commerce Committee Chair Stevens (R-AK) and Ranking Member Inouye (D-HI) have signed on as original cosponsors and 44 other Senators have already agreed to sponsor it. Representatives Barbara Cubin (R-WY) and Charles Gonzalez (D-TX) have introduced a companion bill in the House (**HR 2533**) and more than 100 other Representatives have cosponsored it. ISTE, CoSN and SIIA support both bills.

**Telecommunications Act Rewrite:** The E-Rate also faces continuing challenges to its very existence as Congress begins to rewrite the Telecommunications Act of 1996, which legally established the E-Rate. Media and Congressional attention to instances of waste, fraud, abuse, have overshadowed the program's accomplishments and efforts by the FCC and USAC to remedy these problems. For example, the FCC has already implemented a major rule change that bars applicants from receiving internal connections funding more than twice every five years.

Despite new FCC rules and USAC procedures, some in Congress believe that the E-Rate should be eliminated and may use the rewrite of telecommunications laws as a vehicle to end or cripple it. House Commerce Committee Chairman Joe Barton (R-TX) is drafting E-Rate Reform legislation that may impose onerous new burdens on E-Rate applicants. Additionally, Senator Jim DeMint (R-SC) has introduced legislation (**S. 2113**) that would terminate E-Rate after three years.

Senator Conrad Burns' (R-MT) has introduced legislation (**S. 2256**) that would establish a permanent exemption from the ADA for E-Rate, mandate that the FCC sanction applicants and providers who knowingly and repeatedly violate significant program rules, and require that the FCC establish performance measures for the program. ISTE and CoSN support

instituting a system of graduated sanctions for those applicants and vendors who knowingly and repeatedly violate important program rules. They also support new E-Rate performance measures that measure the program's success based on the availability of adequate connection speed and bandwidth to student and teacher desktop computing devices or the wireless hubs that serve them.

Finally, some carriers have proposed to remove E-Rate from universal service funding altogether and pay for it through federal taxes. This would subject the E-Rate's funds to the appropriations process. ISTE and CoSN believe that E-Rate should remain a part of universal service.

**Formula Grant Proposal:** Last year, the FCC launched a major public rulemaking on universal service and the E-Rate program. In that rulemaking, the FCC proposed changing the program from an application based program to a formula grant program and allowing E-Rate funds to be used for non-telecommunications services. ISTE and CoSN oppose this proposal because it would not only imperil the E-Rate's stable funding stream but also could severely undermine the program's mission to serve low-income and rural populations, the ability of local entities to make decisions on services, and the Commission's own efforts to deter waste, fraud and abuse.

## **Recommendations to Congress**

1. ***Reauthorize the E-Rate and maintain its inclusion in the universal service fund.***
  2. ***Permanently exempt the E-Rate program from the Anti-Deficiency Act.***
  3. ***Oppose all efforts to transform the E-Rate into a formula grant program***
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