



National Trends: Enhancing Education Through Technology

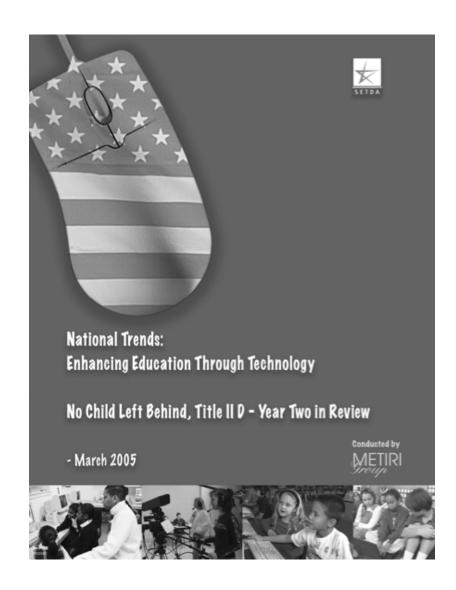
No Child Left Behind, Title II D - Year Two in Review

- March 2005

Conducted by METIRI Group



The State Educational Technology Directors Association (SETDA) was established in the fall of 2001 and is the principal association representing the state directors for educational technology. <a href="https://www.setda.org">www.setda.org</a> .
Metiri Group is a national consulting firm located in Los Angeles, California, that specializes in systems thinking, evaluation, and research related to educational technology. <a href="www.metiri.com">www.metiri.com</a> .
Copies of the report on survey findings can be accessed in PDF format at <a href="www.setda.org">www.setda.org</a> .



Commissioned by SETDA State Educational Technology Directors Association

Study Conducted and Report Produced by Metiri Group Cheryl Lemke, Phoumy Sayavong, and Crystal Martin

March 2005

### Message to the Reader

The No Child Left Behind, Title II, Part D, Enhancing Education Through Technology (NCLB II D) program requires that states and schools focus their use of technology on closing the achievement gap. While most states are currently in Round 3 (2004-2005) funding, this report provides insights into the program implementation for Round 2 and, where possible, documents trend data from Round 1 to Round 2.

For the last two years, SETDA has commissioned the Metiri Group to work with the Common Data Elements Task Force and the Data Collection Committee to conduct a national survey to answer questions about the implementation of NCLB II D.

The findings from SETDA's national survey provide states, local school districts, policymakers, and the U.S. Department of Education with insights into the following questions:

- 1. Is the Title II D program helping to close the achievement gap, leading to the attainment of NCLB II D goals?
- 2. How are grant recipients across the nation structuring programs to meet NCLB II D goals?
- 3. What administrative approaches by states are most effective in guiding and supporting LEAs toward NCLB goals?

SETDA expresses its sincere appreciation to the state technology directors who completed the survey.

The Common Data Elements Task Force:

Deborah Sutton (MO) Neah Lohr (WI) Brenda Williams (WV) John Merritt (WV) Dennis Kunces (ME) Mary Ann Wolf (SETDA) "Title II D funds have enabled districts in the state of Louisiana to make marked progress towards national and state technology goals."

"Ongoing, sustained Title II D funds are critical in order to maintain and continue this progress."

> —Janet Broussard, Louisiana Department of Education

# **Table of Contents**

ntroduction to the Study	1
xecutive Summary	3
n Overview: NCLB Title II D	8
tate Leadership and Technical Assistance for NCLB Title II D	10
indings	
Finding 1: Strategies Are in Place to Close the Achievement Gap Through Te	chnology .12
Finding 2: New Approaches to Professional Development	15
Finding 3: Doing More with Less through Collaborations and Partnerships	18
Finding 4: Title II D Formula Grants Sustain; Competitive Grants Innovate	21
Finding 5: Grappling with Evaluation and Research	23
Finding 6: Through Leadership, A Knowledge Base Is Emerging	26
Finding 7: In Many States, NCLB II D is the Only Source of Funding for Techn	nology 28
Oual Programs: Formula and Competitive	
Competitive Grants: Facts and Figures	29
Formula Grants: Facts and Figures	40

NCLB Title II, Part D funds are focused on increasing literacy and mathematics achievement and closing the digital divide.

Technology funding from the No Child Left Behind, Title II D program directly supports NCLB goals in three distinct ways:

- □ Closing the achievement gap by providing access to software, online resources, and virtual learning aligned to academic standards for instruction and learning
- Supporting the development of highly qualified teachers by providing online courses, communities of practice, and virtual communication that ensure flexibility and access
- Enhancing data systems to ensure that educators can utilize real-time data to inform sound instructional decisions and ensure that states meet AYP (Adequate Yearly Progress)

# Introduction to the Study

### No Child Left Behind, Title II Part D Program

The technology component of the No Child Left Behind program (NCLB II D) provides funding for technology to those schools across the nation serving high-need students.

The three primary goals of NCLB II D are:

- To improve the achievement of all students through the use of technology in elementary and secondary schools.
- To assist all students in crossing the digital divide by ensuring that they are technologically literate by the completion of eighth grade, regardless of their 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 educational agencies and local educational agencies.

### The Trends Report

The findings from this report represent survey data on the NCLB II D program for Round 2 (2003-2004) collected from a single respondent – in most cases the state technology director – in each of 49 states and the District of Columbia. The number of local education agencies (LEAs) represented by survey respondents is 15,478. In those 49 states and the District of Columbia, 13,982 districts are eligible for Title II D funds, representing 90% of LEAs.

Collectively, those survey respondents administer \$612,478,264 in NCLB Title II D funding annually, or 99% of the total funding for the 50 states and the District of Columbia (out of a total of \$619,124,333). Overall, 1,654 competitive grants and 12,933 formula grants were awarded in the 49 states and the District of Columbia in Round 2 (2003-2004).

Metiri Group has been commissioned for the past two years to conduct the state-by-state survey and write SETDA's National Trends report. The report is intended to inform national policymakers on the progress of state education agencies (SEAs) and local education agencies (LEAs) in achieving NCLB II D goals, as well as to seed SEAs and LEAs with current information on the strategies and tactics other states and school districts are using to get results.

### Methodology

Consistent with other federal programs, it is the responsibility of each state to collect, analyze, and report to the U.S. Department of Education its progress in meeting NCLB, Title II, Part D goals. The state survey is intended to be one of a suite of assessment tools developed to collect data on the implementation of the 2003-2004 Title II D program at the state level.

This report is based on an analysis of data collected through a state-level survey of state technology directors. The questions included in the state survey instrument were based on the policy sections of the Common Data Elements (CDE) framework and on Title II D requirements. Following several iterations of review and revision by the CDE Committee, Metiri Group produced an online version of the survey. That online survey was subsequently field tested by members of the CDE Task Force. Once finalized, SETDA requested that the 50 states and the District of Columbia complete the survey. Between October 15, 2004 and January 7, 2005, 49 state departments of education and the District of Columbia completed the survey.

#### SETDA Framework and Tools

This report provides information on states' implementation of Round 2 funding (2003-2004) in the context of the NCLB II D goals and purposes. The report is also developed using SETDA's framework for the effective use of technology in schools. SETDA commissioned the Metiri Group to work with the Common Data Elements (CDE) Task Force to develop both the framework and statistically reliable instruments for assessing national, state, and local progress in using technology to advance learning goals. The framework is based on a set of key questions to which indicators and data elements are aligned. A suite of statistically valid protocols and instruments is now available to the states. That suite of tools, correlated with student data, enables states to understand trends in their use of technology to improve learning. The Profiling Educational Technology Integration (PETI) tools can be accessed at <a href="http://www.setda.peti.org">http://www.setda.peti.org</a>.

### State Reports

lowa Kansas

SETDA is providing individual states with a comprehensive state profile based on the survey data. That profile, combined with information on state use of the PETI tools SETDA is offering (<a href="http://www.setda-peti.org">http://www.setda-peti.org</a>), has proven to be a rich source of data to inform a state's progress in meeting Title II D goals.

This year, 49 states plus the District of Columbia participated in the fall 2004 SETDA survey:

New York

North Carolina

Kentucky Alabama Alaska Louisiana Arizona Maine Arkansas Maryland California Massachusetts Colorado Michigan Connecticut Minnesota Delaware Mississippi District of Columbia Missouri Florida Montana Georgia Nebraska Hawaii Nevada Idaho New Hampshire Illinois New Jersev Indiana New Mexico

North Dakota Ohio Oregon Pennsylvania Rhode Island South Carolina South Dakota Tennessee Texas Utah Vermont Virginia Washington West Virginia Wisconsin Wyoming

## **Executive Summary**

The State Educational Technology Directors Association (SETDA) is pleased to present the findings of the second annual National Trends Report. SETDA commissioned the Metiri Group for a second consecutive year to conduct a national survey in the fall of 2004 on the second year implementation of the No Child Left Behind, Title II, Part D, Enhancing Education Through Technology (EETT) program and on general state policy trends in educational technology.

The findings in the 2005 report are based on surveys from 49 states and the District of Columbia, representing 15,478 LEAs and 99% of the federal dollars allocated across the United States in 2003-2004. Data from the first annual National Report for Round 1 serves as a baseline for trends and represented a similar population (46 states and the District of Columbia). In Round 2 the respondent states and the District of Columbia awarded 1,654 competitive grants and 12,933 formula grants together with the 5% of administrative support funds expended at the state level total \$612,478,264.

Seven major findings emerged from the data analysis:

### Finding 1: Strategies are in Place to Close the Achievement Gap Through Technology

State technology directors are reporting three critical uses of technology that advance NCLB goals and close the achievement gap. Those include:

- Access to software, web courses, virtual learning, and other technology-based learning solutions that are aligned to standards, strengthening basic skills and increasing academic achievement
- The informed use of digital tools, which, in the hands of a highly-qualified teachers, are used to broaden and strengthen learning and teaching through authenticity, real-world problem solving, critical thinking, communication, and production for students; as well as support the development of highly qualified teachers through online courses, communities of practice, and virtual communication
- Enhancement of data systems to ensure that educators have access to real-time information to inform sound instructional decisions and ensure that schools meet AYP (Adequate Yearly Progress)

Survey respondents indicate that NCLB grantees are making strides on all three fronts.

A project in Massachusetts is representative of the doors opening to learning through technology projects funded by the EETT program:

The Leadership Initiative for Teaching and Technology (LIFT2) program enables teams of middle and high school teachers of mathematics, the sciences, and technology/engineering to more effectively integrate information and communication technologies into their instructional practice and to more confidently deliver technology-rich curriculum content in their classrooms. Aligned with the Massachusetts Curriculum Frameworks, this two-year professional development program includes a unique combination of graduate level course work, curriculum-relevant industry workplace experiences, classroom/curriculum-focused professional development support, and ongoing collaboration with higher education faculty, business mentors, and industry colleagues.

Superintendents, principals, and their leadership staff communicate with industry and business leaders to discuss key trends that are driving the Massachusetts knowledge-based economy and the implication of these trends for student academic preparation. (LIFT2 Program, Massachusetts)

### Finding 2: A Focus on New Types of Professional Development

State technology directors are stepping up in a leadership role, providing guidance and leadership to ensure that the NCLB II D professional development is of the highest quality. They do so by tying awards to scoring criteria based on criteria for effective professional development, highlighting high quality professional development in action, and encouraging grantees to consider how technology can provide new forms of professional development opportunities. Preliminary findings indicate that the capacity of teachers to use technology effectively to advance teaching and learning is on the rise.

The following example from Pittsburgh exemplifies how EETT funds are being used to strengthen the quality of teaching. Pittsburgh has built a sustainable, ongoing model that is getting results:

Pittsburgh School District worked in collaboration with Duquesne University to prepare teachers to use technology effectively in the classroom. The project began in eight of the most technology-advanced schools with 100% staff buy in at each school. Teachers attended an intensive one-week summer course of professional development where mentors from Duquesne worked with them on how to harvest data and information from the Internet. The mentors then spent an entire year at the school working with teachers individually to advance and sustain effective technology use in classroom lessons. To sustain the project, four teachers attended Duquesne University to obtain credits to add an Instructional Technology certification to their teacher certificate and assume the role of mentors in the buildings the following year. There is a waiting list of schools wanting to be part of the project. (Project SUCCESS, Pittsburgh City School District)

## Finding 3: Doing More with Less through Collaborations and Partnerships

A number of collaborations and partnerships have been established as a result of the NCLB II D program, both within state agencies and among school districts, universities, and business and industry. At the state level, survey respondents are reporting increased levels of collaboration among curriculum, instruction, and technology units within their agencies. This is due in part to the emphasis within the federal law on accomplishing learning outcomes through the effective use of technology, flexibility across programs, and the consolidated planning process. Transfers across Title programs enable grantees to focus and consolidate federal funds on their school improvement priorities. While Round 1 resulted in a net gain for NCLB II D programs, Round 2 resulted in a very small net loss of under \$10,000. States noted that grantees have formed partnerships with other schools as well as community groups, businesses, and universities to leverage NCLB II D resources.

"Our EETT program is designed to enhance funding from other title programs by increasing collaboration and coordination with other offices, such as the office in charge of Title III, to assist with resources for LEP students to use technology. We also encourage partnerships with the community, such as the Workforce Investment Board (WIB) and libraries."

--Cathy Higgins, New Hampshire Department of Education

This program uses a cascading leadership model to link the high school with the EETT-C funded middle schools. This model effectively leverages funds to support an existing, successful, multi-disciplinary program that connects students to their community and to academic content standards through service learning. The high school program serves as an exemplar: mentee students from all participating sites receive technical training from EAST; communication/collaboration has increased; and established partnerships have embraced the program and now help support all sites.

(Environmental and Spatial Technology [EAST], Eureka City Schools, California)

### Finding 4: The Formula Grants Sustain; The Competitive Grants Innovate

The federal NCLB II D law requires that a minimum of 47.5% of each state's NCLB II D funds be allocated annually to formula grants, with the same requirement for competitive grants. With 88% of LEAs eligible to receive formula funds, the amounts for many of the 12,933 recipients are modest. In fact, over 45% of those eligible receive less than \$5,000 annually. As a result, state directors report that most recipients of formula funds use them to sustain existing programs and infrastructures – an important and valuable use of funds. By comparison, there are fewer competitive grants awarded (1,654) but their amounts are more substantive. State directors report that LEA grantees are using their competitive funds to innovate based on research and best practices. State directors indicate that this dual grant structure ensures equitable distribution of funds to schools serving large numbers of at-risk, high need students, and that it is serving to increase the effectiveness of technology use in the classroom. They also commented that the large number of grants on the formula side translates into a fairly large administrative effort on the part of LEAs.

"Having the dual funding structure has aided Oregon in making progress in infusing Educational Technology into the curriculum...Many of our smaller, high poverty districts would not receive adequate funding under the formula model to have a significant impact on changing classroom practice. The larger competitive grant awards allow them to purchase enough equipment and provide ongoing professional development that allows teachers to be successful in using the technologies."

--Carla Wade, Oregon Department of Education

The bottom line is that the formula grants are an expeditious method for allocating technology funds to high need schools, provided the grants are of a substantial size and provided the evaluation associated with these funds is focused on fidelity of implementation—not ferreting out the impact of the technology versus other aspects of the overall school improvement effort. Overall, the state directors report that, while the formula grants are valuable for sustaining existing technology programs, the competitive grants represent an important opportunity for school districts to innovatively close the achievement gap.

### Finding 5: Grappling with Evaluation and Research

State directors are making progress in the evaluation of NCLB II D programs. Increasing numbers of states are requiring grantees to dedicate funds to local evaluation, providing grantees with guidance in high quality evaluation, and asking for reports of program results to be evidenced by data. This is translating into higher quality evaluations from LEAs. Such local evaluations serve two functions: they provide program evaluation data for reporting purposes, and they provide important formative data for use by LEAs in continuous improvement of their NCLB II D programs. State directors report that most evaluation reports from grantees will provide them with important data on fidelity of program implementations and, in some cases, information on gain scores (correlated to the technology intervention). However, they are also finding that their districts do not currently have the capacity to conduct research studies that meet the rigor of scientifically based research (SBR). At this time, state directors are relying on the U.S. Department of Education's large-scale research studies on educational technology for SBR, with the caveat that some of their most advanced grantees are conducting smaller scale research that will inform practice.

### Finding 6: Through Leadership, A Knowledge Base Is Emerging

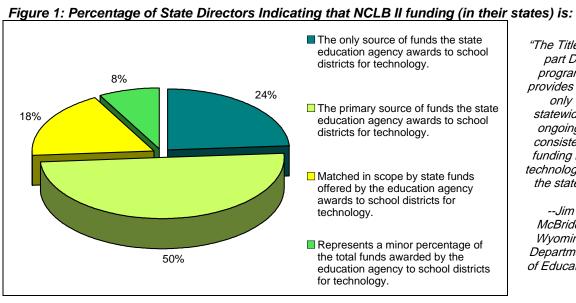
Each state designed its competitive grant process to build on and contribute to emergent research and best practices. Thus, the range of priorities in states' competitive grant processes varied considerably and has increased since Round 1. All states based their application processes on the core goals and strategies in the NCLB II D federal law. But while some focused exclusively on professional development in effective technology use as a lever for increasing academic achievement and ensuring highly qualified teachers, others focused on 1-to-1 computing, digital tools for informed instructional decision-making, or specific technology-related mathematics or literacy learning solutions to both use data to inform instruction and to close the achievement gap.

Many states are requiring their grantees to use research to design their NCLB II D programs. From these innovations, state directors are building a common knowledge pool of sound, technology-based learning solutions. This will be a critical resource for LEAs to tap into and leverage as they use technology to differentiate instruction to meet the needs of all learners. As the NCLB II D programs reach maturity, results from those programs (in many cases correlational findings) will provide important insights into what works and will serve as a guide for future research studies.

"Ohio does seek to identify sites that are successful in their Title II-D grant implementations. This is accomplished via onsite visits, self reporting, action planning, and project portfolio submissions." --Jill Abbott, Ohio SchoolNet

## Finding 7: In Many States, NCLB II D is the Only Source of Funding for Technology

NCLB II D funds are playing a significant role in the research, development, and scaling up of educational technology in states across the country. Nearly a quarter of the states report that the NCLB II D funds are the only source of funds LEAs award to schools for technology. Another 50% of states identify these funds as their "primary" source for educational technology funding.



"The Title II, part D program provides the only statewide, ongoing, consistent funding for technology in the state."

--Jim McBride, Wyoming Department of Education

#### After Two Years of NCLB II D

The seven findings strongly indicate that technology funding from the No Child Left Behind, Title II Part D program directly does supports NCLB goals in three distinct ways:

- Closing the achievement gap by providing access to software, online resources, and virtual learning aligned to academic standards for instruction and learning.
- Supporting the development of highly qualified teachers by providing online courses, communities of practice, and virtual communication that ensure flexibility and access.
- Enhancing data systems to ensure that educators can utilize real-time data to inform sound instructional decisions and ensure that states meet AYP.

As a result of combining the explicit learning focus for technology from the NCLB II D law with the experienced leadership of state technology directors across the country, NCLB Title II funds are focused on increasing literacy and mathematics achievement, closing the digital divide, and encouraging the alignment and integration of curriculum, technology, and research-based instructional methods. In alignment with NCLB priorities, 74% of states have focused their funds on increasing reading and/or writing achievement, and 38% have targeted improvements in mathematics. Furthermore, while professional development and student achievement remain top priorities across the country, it is encouraging to note the tremendous increase in the number of states (78%) that report using technology for assessment, outreach to parents, and data-driven decision-making.

It is also important to establish a context for the current transition of schools from industrial to knowledge age models. Business and industry experienced plateaus in productivity as these sectors introduced technology into the workplace; they found that systemic shifts in work processes were necessary to leverage the potential of the technology they acquired. For schools, while the insertion of new technologies into the current education system can result in minor gains in student achievement, full value will not be realized until they realign teaching and learning to take full advantage of today's powerful, real-time, digital tools and resources.

It took business and industry over a quarter of a century to see substantial productivity gains through smart technology use; schools are about a decade behind – in the midst of such a transition right now. The high-need schools impacted by NCLB II D funds require assistance during that transition. State technology directors indicate that NCLB II D funds contribute significantly to the transformational shifts required if schools are to accomplish significant increases in student learning and close both the digital divide and the achievement gaps evident in today's society.

Sustained funding and educational technology program continuation are critical to realizing the potential that technology brings to learning and teaching.

# An Overview: NCLB Title II, Part D

The No Child Left Behind (NCLB) legislation was passed by Congress in 2001, reauthorizing federal funding for elementary and secondary schools for 2002-2006. That legislation recast many of the previous programs for learning technology into a new program: NCLB, Title II Part D, Enhancing Education Through Technology (EETT).

The findings from this report are based on the use of Round 2 EETT funds (FY 2003), using Round 1 (FY 2002) as a baseline for comparison. See the chart at right for state allocations.

As with all funds in NCLB, Title II D monies are intended to improve student achievement—in this case, through the effective use of technology:

### (1) Primary Goal

To improve student academic achievement through the use of technology in elementary and secondary schools

#### (2) Additional Goals

- (A) 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
- (B) 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 educational agencies and local educational agencies

These goals focus Title II D funding on the improvement of student learning in Local Education Agencies (LEAs) that serve high-need students. The table at right lists allocations to each state and the District of Columbia. Each recipient is allowed to use up to 5% of the funds for administration and/or technical assistance. The remaining 95%, split equally between formula and competitive grants to eligible LEAs, are intended to improve student achievement through the effective use of technology.

	Table 1: NCLB II D			
	State 0			
	FY 2002 Final State			
	Allocations	State Allocations		
Alabama	\$8,794,248	\$9,690,136		
Alaska	\$3,075,155	\$3,214,970		
Arizona	\$10,111,346	\$9,655,054		
Arkansas	\$5,518,844	\$5,465,161		
California	\$85,123,372	\$89,959,919		
Colorado	\$5,569,804	\$5,489,698		
Connecticut	\$6,158,638	\$5,209,647		
Delaware	\$3,075,155	\$3,214,970		
District Of Columbia	\$3,075,155	\$3,214,970		
Florida	\$28,312,771	\$29,241,808		
Georgia	\$18,588,457	\$18,645,145		
Hawaii	\$3,075,155	\$3,214,970		
Idaho	\$3,075,155	\$3,214,970		
Illinois	\$25,456,201	\$25,908,318		
Indiana	\$8,959,597	\$7,836,888		
lowa	\$3,535,415	\$3,214,988		
Kansas	\$4,295,513	\$4,739,996		
Kentucky	\$8,799,115	\$8,608,243		
Louisiana	\$11,460,981	\$14,168,071		
Maine	\$3,075,155	\$3,214,970		
Maryland	\$9,146,822	\$8,092,948		
Massachusetts	\$12,793,954	\$14,154,554		
Michigan	\$24,296,861	\$20,457,029		
Minnesota	\$6,594,336	\$6,055,412		
Mississippi	\$6,105,610	\$8,315,118		
Missouri	\$9,312,229	\$9,557,431		
Montana	\$3,075,155	\$3,214,970		
Nebraska	\$3,075,155	\$3,214,970		
Nevada	\$3,075,155	\$3,214,970		
New Hampshire	\$3,075,155	\$3,214,970		
New Jersey	\$14,970,765	\$13,972,432		
New Mexico	\$4,856,313	\$5,774,873		
New York	\$60,907,113	\$64,948,122		
North Carolina	\$12,685,051	\$14,721,370		
North Dakota	\$3,075,155	\$3,214,970		
Ohio	\$19,229,051	\$21,866,049		
Oklahoma	\$7,091,048	\$6,646,069		
Oregon	\$5,495,169	\$6,253,983		
Pennsylvania	\$22,784,432	\$23,425,221		
Rhode Island	\$3,075,155	\$3,214,970		
South Carolina	\$8,393,257	\$8,651,744		
South Dakota	\$3,075,155	\$3,214,970		
Tennessee	\$8,285,988	\$10,282,694		
Texas	\$50,721,663	\$55,794,699		
Utah	\$3,075,155	\$3,214,970		
Vermont	\$3,075,155	\$3,214,970		
Virginia	\$10,364,389	\$9,917,162		
Washington	\$8,266,254	\$8,312,350		
West Virginia	\$4,506,136	\$5,106,182		
Wisconsin	\$8,498,770	\$7,546,299		
Wyoming	\$3,075,155	\$3,214,970		
Total	\$595,191,993*	\$619,124,333*		
	*Totals do not include allo Territories.	cadons to U.S.		

#### NO CHILD LEFT BEHIND TITLE II, PART D SEC. 2402. PURPOSES AND GOALS

- (a) PURPOSES: The purposes of this part are the following:
  - (1) 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.
  - (2) 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 educational agencies.
  - (3) 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.
  - (4) 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.
  - (5) 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.
  - (6) 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.
  - (7) 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.
  - (8) To support local efforts using technology to promote parent and family involvement in education and communication among students, parents, teachers, principals, and administrators.

#### (b) GOALS:

- (1) PRIMARY GOAL: The primary goal of this part is to improve student academic achievement through the use of technology in elementary schools and secondary schools.
- (2) ADDITIONAL GOALS: The additional goals of this part are the following:
  - (A) 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.
  - (B) 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 educational agencies and local educational agencies.

## State Leadership and the Administration of NCLB Title II D

The state directors are orchestrating effective technology use by LEAs on a number of fronts, within and outside of the NCLB II D program. SETDA's framework for effective technology in schools focuses on five key conditions aligned to targeted student learning goals. State directors are establishing policies to guide and support LEA advancement toward these conditions – conditions that will advance higher academic achievement, technology literacy, more effective teaching, 21<sup>st</sup> century learning, and increased efficiencies in PreK-12 educational systems.

# SETDA's Framework for Effective Technology Use in Schools

#### Goals for Learners

- Improvement of academic achievement through effective technology use
- Assurance that students acquire 21st century skills through effective technology use in the context of high standards and high quality learning
- Engagement of students in learning through effective technology use

#### Conditions for Effective Technology Use

- 1. Effective Practice. Is the practice in learning environments characterized by powerful, research-based strategies that effectively use technologies?
- 2. Educator Proficiency. Are educators proficient in implementing, assessing and supporting a variety of effective practices for teaching and learning?
- 3. Robust Access, Anywhere, Anytime. Do students and school staff have robust access to technology-anytime, anywhere-to support effective designs for teaching and learning?
- 4. Digital Equity. Is the digital divide being addressed through resources and strategies that ensure that all students are engaging in an educational program aligned to the vision?
- 5. Vision, Systems, and Leadership. Has the education system reengineered itself into a high-performance learning organization aligned to a forward-thinking, shared vision for 21<sup>st</sup> century learning?

States are driving effective technology use through a variety of state policies. They have been instrumental in shaping the NCLB II D programs at the local levels. Section 2415 of NCLB Title II D allows 5% of the total state funding allocation for state administration and technical assistance.

Examples of the technical assistance provided to LEAs by the state are included in the table on the next page.

State	NCLB Title II D Technical Assistance by States
AZ	Arizona offers regional workshops throughout the state on technology plan development, professional development training sessions, technical support and assistance, program implementation, and resources. 20 staff members provide these services, and a website with rich resources for LEAs has been developed. Other online resources are also provided, and the state has partnered with non-profit education agencies to provide online workshops, training, and assessment. There is a listserv for technology directors in the state, which also utilizes one-button fax deployment to every LEA.
CA	Approximately \$14M in state funds are directly allocated to the eleven California Technical Assistance Projects (CTAP), housed in county offices of education. The role of CTAPs is to provide technical assistance, training and support to local school districts to integrate technology into teaching and learning.
FL	Florida has supported intensive classroom technology integration though a special project funded with Title II-D technical assistance dollars. Educational Technology Integrators (ETI's) have supported schools and districts since year one of the federal EETT program. A project coordinator provides appropriate guidance and scheduling support to facilitate the effective delivery of support services to critically needy schools. Targeted workshops are conducted on a regular basis to model best technology integration practices and encourage local district utilization of Florida's STaR Chart planning tool. ETI's also share their expertise at major ed tech conferences (such as FETC and NECC), as well as at certain district level events.
IA	lowa provided support to consortia, conducted site visits to projects, and held meetings with all consortia every 6 months to review reports based on criteria established by state.
AL	Technical assistance is offered through various means. ALEX, the state Web portal for teachers, has lesson plans and promising practices aligned to state standards. Workshops and grant writing assistance is offered at the Alabama Educational Technology Conference. In addition, training, curriculum training, and website development for T4 (Teens and Teachers Teaming for Technology) is offered by regional technology specialist contacts who are also available at the state department for assistance with technology planning, monitoring, and other issues.
KY	Student and teacher access to instructional resources and the ability to access and use audio/video via the state network was enhanced through an upgrade to the state infrastructure. Technical assistance in implementing this resource was provided through OET staff and KETS Area Engineers (OET staff). Meetings are held regionally with district technology leaders, and state staff worked with district technology staff to maximize network capacity for schools. State leadership held regional meetings with technical, instructional, and district leadership on how this infrastructure could support student and teacher access to tools and resources for classroom learning.
MS	Funds were spent conducting statewide and regional meetings on technology planning, providing statewide professional development on curriculum/technology integration, and capturing "best practices" in teaching with technology on video/DVD, video-streaming data to schools.
PA	Technical assistance was provided to LEAs through a three-day grant writing workshop, onsite visits, review and discussion of biannual reports, and collection and dissemination of survey data to the LEAs and teachers to determine professional development needs.
TX	Technical assistance includes: assistance in developing applications for formula and competitive grants; coordination of evaluation strategies by all grant recipients; development and use of a system to document the progress of educators in meeting standards for educator proficiency; and support for the Technology Applications Teacher Network and Technology Applications academies to provide statewide resources and professional development modules to support the implementation of the state technology applications curriculum standards.
WI	Information resources include Web-based materials; e-mail distribution list or listserv; sample technology plans; sample successful proposals; and selection of best-practice examples. Personalized technical assistance includes state-wide conference and regional briefings; training sessions for grant writing; training sessions for developing technology plans; feedback on district technology plans; assistance with developing evaluation plans; district visits; telephone/e-mail help lines. The provider(s) of technical assistance (sponsored by the SEA) include the SEA, the Intermediate Units (e.g., Regional Centers), and the Regional Technology in Education Consortia (RTECs).

# Finding 1: Strategies Are in Place to Close the Achievement Gap Through Technology

In the 2004 Trends Report, State Directors said that the NCLB, Title II, Part D grant program was a positive force in refocusing technology use toward gains in student learning. This year, grantees have defined three distinct ways in which that technology emphasis can result in quicker and higher attainment of NCLB goals:

- The informed use of digital tools, which, in the hands of highly-qualified teachers, are used to broaden and strengthen learning and teaching through authenticity, real-world problem solving, critical thinking, communication, and production;
- The alignment of software, web courses, virtual learning, and other technology-based learning solutions that students use to build basic skills and increase academic achievement;

Figure 2, below, shows the broad range of strategies NCLB II D grantees are using to achieve NCLB goals. While professional development and student achievement are still extremely important, it is insightful to note the tremendous increase in the number of states (78%) that are using technology for assessment, outreach to parents, and data-driven decision-making.

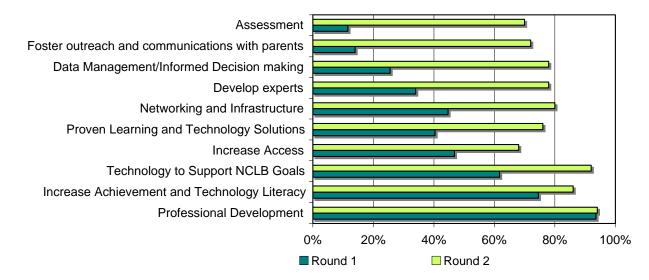


Figure 2: LEA Priorities for Competitive NCLB IID Grants (as reported by SEAs)

These findings support the premise of the SETDA Profile of Educational Technology Integration (PETI), which predicts slow going with technology until a school begins building its "readiness" to use it expertly and seamlessly, with maximum impact.

Included below are examples from NCLB II D projects across the country on a critical pathway to meeting NCLB goals through effective technology use.

State	NCLB II D Example
MA Digital learning tools in the hands of highly-qualified students and teachers	The Leadership Initiative for Teaching and Technology (LIFT2) program enables teams of middle and high school teachers of mathematics, the sciences and technology/engineering to more effectively integrate information and communication technologies into their instructional practice and to more confidently deliver technology-rich curriculum content in their classrooms. District administrators and teachers collaborate to implement new instructional practices that integrate technology, project-based learning, and 21st century skills. Upon completion of the LIFT2 program, teachers demonstrate district-wide leadership through their use of instructional technology and are better able to engage, challenge, and excite students in the pursuit of higher-level programs of study in math, science, and engineering. The professional development in this project includes an externship with business partners, a summer institute focusing on 21st century skills, and an online component to maintain and sustain the teaching learned during the summer and the externship.  Marlborough Public Schools with Waltham, Littleton, Hudson, Holliston; Ashland Public Schools; and Marian High School
GA Relevant, real-world learning through technology aligned to standards	This experience-based project provides teachers and students with the opportunity to apply science and math skills to real world problems. Teachers are meeting the Georgia Performance Standards (GPS) while requiring students to use higher order thinking skills. The JASON Project provides hands-on, technology-rich science and math activities using the TI calculator and probe ware. Using the JASON Project and "Hypothesis Based Learning" (http://www.hbl4u.org), teachers help students begin to discover areas of interest that they would like to follow as experiments; these often lead to Science Fair Projects. Teachers attend workshops scheduled on a monthly basis throughout the school year. The project focuses on student learning and applying higher order thinking skills in real world environments. Because students use a variety of technologies, the technology component grows more transparent than in classrooms that emphasize a single kind of technology. Teachers participate in continuing (monthly) professional development activities. (Engaging Students in Science and Math)
ID Software/technology-based learning resources integrated into the curriculum	This project includes a systemic, technologically infused approach to increasing student achievement in mathematics in grades K-12. The approach is based on: 1) identified need (data-driven); 2) specific goals aligned with the District Strategic Plan, School Improvement Plans, and the technology plan; 3) the implementation of technology in an effective manner supported by research, and; 4) extensive delivery of ongoing training. The software is coordinated with the curriculum, assesses a student's level, provides support and feedback for the student, and monitors achievement across time. Intensive teacher training and evaluation support the successful implementation of technology in the classroom.  Blackfoot School District
<b>NV</b> Data-driven decision-making	A partnership was formed with the University of Nevada, Reno, and five rural Nevada school districts to bring the rigor of university research to K-12 schools. Using sound experimental design methodologies, it analyzes the impact of specific technology uses on student achievement levels. Focused on middle school science, the model provides professional development to teachers in the areas of assessment and technology integration. Assessment scores for middle school science classes receiving the technology intervention were compared to scores from classes taught by the same teacher without the technology intervention.
<b>DC</b> Virtual learning	Using laptop computers and video conferencing, Project VECTOR is establishing virtual learning communities that support student-to-student, student-to-teacher, and student to external communities interactions. The guided collaborations support literacy and academic achievement. (Washington DC School District)

State	NCLB II D Example
MS Technology AND higher academic achievement	The EETT program in South Pike ramped up the implementation of the district technology plan's goals for all students to be technology literate by the 8 <sup>th</sup> grade. Focused on student use of technology that also improves academic achievement, the program assists every 4th - 8th grader at Magnolia Elementary and South Pike Middle Schools in becoming technologically literate by the end of 8 <sup>th</sup> grade. Professional development is provided to enable teachers to implement the program. (South Pike)
WA  New approaches to teaching and learning mathematics	Since its inception, Washington State has focused its EETT program on improving student performance in mathematics through the NO LIMIT! Project. The statewide model develops classrooms where students use standards-based best practices to improve their understanding and achievement of math concepts. Math scores across the state are inching upward, and English Language Learners are performing better in math. (NO LIMIT! New Outcomes: Learning Improvement in Mathematics Integrating Technology)
IN Hands-on Mathematics	Mathematics classes for students in grades 4-5 in Evansville-Vanderburgh School Corporation have become hands-on experiences with manipulatives and technologies. Students and teachers are more engaged, resulting in higher performance. (Evansville-Vanderburgh School Corporation, <a href="http://www.evsc.k12.in.us/icats/projects/edtechhome.html">http://www.evsc.k12.in.us/icats/projects/edtechhome.html</a> )

State	Commentary from a State Director
NM	"Shifting the focus (of educational technology in schools) to the role of technology in data-driven decision-making, differentiated instruction, and planning for increasing the 'human bandwidth' through targeted professional development efforts is a formidable challenge" (Ferdi Serim, New Mexico)

## Finding 2: A Focus on New Types of Professional Development

The NCLB, Title II, Part D legislation requires that all grantees for formula and competitive grants use a minimum of 25% of their funds for professional development aligned to program goals. Less than 1% of grantees exercised their right to a waiver for this requirement. Thus, nearly \$147,000,000 of grant funds were dedicated to professional development during Round 2 of the NCLB II D program.

State coordinators for Title II D are establishing criteria and providing technical assistance to ensure high-quality professional development from LEA and partnership awardees, which, in turn, ensures that states and districts are able to have highly qualified teachers. Over 60% of states reported judging the quality of their competitive grant applications against evidence-based principles on professional development. States are increasingly providing guidelines as to the characteristics of high quality professional development and awarding funds, in part, based on such criteria.

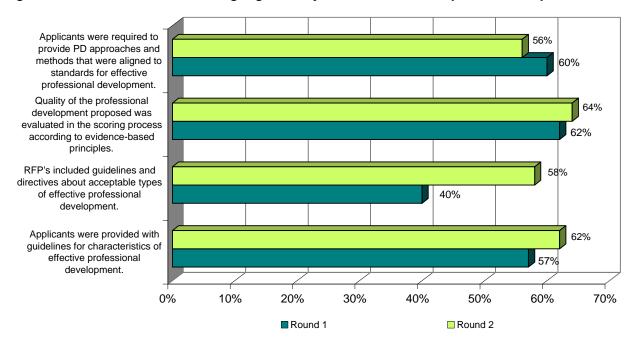


Figure 3: State Methods for Ensuring High Quality Professional Development in Competitive Grants

Examples from promising LEA grant programs identified by states indicate that some grantees are beginning to investigate the use of alternate forms of professional development, such as coaching, modeling, and analyzing student work. In addition, grantees are beginning to use technology as a vehicle to more accessible professional development. These programs help all states meet NCLB's highly qualified teachers requirement.

Included below are examples from NCLB II D projects across the country that are making progress in achieving the NCLB goals through effective technology use.

State	NCLB II D Example
NV	Clark County has partnered with Classroom Connect to provide online professional development in reading, face-to-face professional development that complements CCSD programs, and technology resources that enhance reading instruction. In accordance with state and national objectives, Clark County engaged a third party research team to collect and document the evidence of this success. The team is conducting scientifically based research to examine the effects of using online teacher professional development, tied closely to the integration of core student content, to strengthen reading instruction. Creating a replicable model while learning from the project as its effects unfold is critical to the success of this project. As this teacher training gathers positive results, models for scaling this project to the entire district, as well as the state, will be developed. The model is based on sound experimental design methodologies and reaches down to the student achievement level. It is focused on second grade literacy only. (Enhancing Reading Achievement through Technology Integration, Clark County School District, Las Vegas)
IL	The Blazing Learning Trails project puts into effect a 3-tiered, 3-strand professional development model that marries current research in effective professional development with high quality course curriculum, teaching methodologies, and state-of-the-art technology skills. The model takes professionals through "adoption, adaptation, appropriation, and innovation" for three main areas of competence: 1) Essential Technology Skills; 2) Engaged Learning; and 3) the Illinois Learning Standards. The project changes classrooms from teacher-centered to student-centered environments and accounts for resistance to change by including a psychological model that "corkscrews" the model into effect over a 5-year period. By first providing new PD opportunities to those most receptive to change and using a strategy heavily weighted toward school community involvement and peer mentoring, change is seamlessly woven into the school community, institutionalizing the use of existing and emerging technologies. Key to the model's success is the involvement of diverse and highly-qualified consortium partners, including the state education agency (ISBE), a high-need LEA (the Franklin-Williamson K-12 region: 16 public school districts, 2 private school districts, 2 special ed co-ops, 2 alternative schools, and the local School-to-Work coalition), the institution of higher education that trains a majority of the teachers in the region (the College of Education of Southern Illinois University - Carbondale), the North Central Regional Education Laboratory (NCREL), multi-type libraries, museums, and government-run organizations, and major business partners.
ОН	Columbus Public Schools is utilizing the online Blackboard learning system to provide teacher training across the district. CPS adopted the use of this technology district wide as a result of the EETT grant to impact more with less. (Columbus Public Schools, Middle School EETT Project)
VA	Through the EETT grant, Shenandoah Valley established a program through which teachers become NETTS certified. This created a "mentors and model teacher technology" program in each of the participating schools. A partnership with local businesses is also integral to the program's success. (Shenandoah Valley Technology Consortium)
WI	Through professional development and capacity building, this project expands consortium members' abilities to increase achievement by integrating online learning (courses and modules) into alternative programs and high schools. Alternative program teachers, high school teachers, Write Middle School teachers, counselors, and administrators participate in staff development. Capacity-building activities include: expanding technical infrastructure, creating online learning policies, researching emerging technologies, creating a sustainability plan, establishing strategic collaborations, and creating a county-wide expansion plan. This program showed great promise last year and expanded consortium membership will spread the success to more students. The consortium has demonstrated success in the development of online learning courses and modules in an alternative school setting. (Dane County Online Learning Consortium in Madison)
TX	The Write in the Middle Project focuses on improving writing across the curriculum through professional development strategies and the integration of technology in grades 3-8. Mobile laptop labs and videoconferencing technologies are used to increase collaboration between campuses, and ongoing professional development builds upon proven strategies to increase writing skills. This is a district-wide project that also includes a partnership with another district. (Bryan ISD)

State	NCLB II D Example
СТ	The Metropolitan Learning Center (MLC) has become a powerful model for thoroughly integrating technology across the curriculum. It is also exemplary in terms of effective, ongoing professional development. This is a high-tech laptop magnet school where teachers meet for 90 minutes/day for professional development. Technology teachers spend 50% of their time modeling lessons and coaching. (Metropolitan Learning Center cooperative with Kuiwen Experimental School in China)
NH	The state has established six support centers that provide face-to-face and online access to professional growth opportunities for surrounding districts. This is especially critical in rural areas of the state. The concept is dependent on strong staff to support effective technology mentoring/pairing of teachers. (Southwestern NH Educational Support Center)
LA	FIRSTTech is a program for inducting, retaining, and supporting teachers with and through technology. New teachers and mentors receive laptops and professional development that support both online mentoring and interactions surrounding the effective use of instructional technology.
AR	The Pottsville School District and the Arch Ford Cooperative developed and implemented a program designed to correlate Arkansas Educational Technology Standards with specific teacher skills and technology-based student activities. To effectively practice the goals of the No Child Left Behind philosophy and the state technology standards, teachers must be made aware of these goals and given the tools and skills to reach them. The project placed wireless laptop labs at Pottsville School District, Nemo Vista School District, and at Arch Ford Cooperative. These serve as training labs for teachers in curriculum integration and technology standards, as well as serve the students in these districts. This project involves extensive continuing technology professional development over an extended period of time, and a continuous demonstration of the technology integrated into the classroom. (Pottsville Consortium Project)

## Finding 3: Doing More with Less through Collaborations and Partnerships

The federal government's consolidated approach to NCLB education funding establishes an excellent model for accomplishing more with less through collaboration and partnership. This often works to education's advantage in opening up lines of communication that can result in a shared commitment to common goals. As the linkages between education and economic viability in today's knowledge based economy become clear to decision makers, such collaborations and partnerships are increasingly viewed as mutually beneficial.

During Round 2, collaborations and partnerships lowered telecommunications costs, provided services not otherwise available, and resulted in a more seamless approach through which teachers and administrators could work together to close the achievement gap. More and more, LEAs are opting to use the flexibility of the federal guidelines to transfer funds in and out of the NCLB II D program. In the first year of the program (2002-2003), transfers across federal programs resulted in a net gain of \$2,323,302 to Title II D. In Round 2, the transfer of formula grant funds resulted in a small net loss of \$8,831. However, that net sum should be viewed in the context of the REAP Flex option that allows rural schools broader authority in spending applicable funds without the formal transfers between programs. (For additional information on REAP Flex, see the note in the Title Program Fund Transfer table below, as well as page 44). The table below reports which programs were impacted by these transfers in and out of Title II D.

#### Overall Fund Transfer

	Dollars Transferred In	Dollars Transferred Out	Net Gain/Loss From Transfers:
Round 1	\$4,257,733	\$1,934,431	\$2,323,303
Round 2	\$3,087,476	\$3,096,308	- \$8,831

### Title Program Fund Transfer

	Title I	Title IIA	Title IV A	Title V	*Other	Totals
Funds transferred OUT of Title II D into:	\$775,014	\$585,672	\$37,078	\$1,698,544	\$0	\$3,096,308
Funds transferred INTO Title II D From:	\$0	\$2,301,474	\$328,440	\$147,788	*\$309,774	\$3,087,476
Net Gain/Loss for Title II D	-\$775,014	\$1,715,802	\$291,362	-\$1,550,756	*\$309,774	-\$8,831

\*From Title VI, or Title programs not specified.

Note: REAP-Flex funds also impact Title II D funds, but are not included here since they do not constitute a transfer, but rather can be reallocated within existing programs. One state director reported that \$500,303 was REAP'd out of Title II D and \$607,051 REAP'd into Title II D for a gain of \$106,748.

#### Definitions:

Title I Programs: Improving the Academic Achievement of the Disadvantaged. The purpose of this title is to ensure that all children have a fair, equal, and significant opportunity to obtain a high-quality education and reach, at a minimum, proficiency on challenging State academic achievement standards and state academic assessments. Funds cannot be transferred out of Title I.

Title II, Part A: Teacher and Principal Training and Recruiting Fund (Improving Teacher Quality). The purpose of Title II A is to increase student academic achievement through strategies such as improving teacher and principal quality and increasing the number of highly qualified teachers in the classroom and highly qualified principals and assistant principals in schools, as well as "to hold local educational agencies and schools accountable for improvements in student academic achievement."

Title IV, Part A: 21.st. Century Schools - Safe and Drug-Free Schools and Communities. The purpose of this part is to support programs that prevent violence in and around schools; that prevent the illegal use of alcohol, tobacco, and drugs; that involve parents and communities; and that are coordinated with related Federal, State, school, and community efforts and resources to foster a safe and drug-free learning environment that supports student academic achievement.

Title V: Promoting Informed Parental Choice and Innovative Programs. The purpose of this part is to improve the quality of education for all students through the support of local education reform efforts that are consistent with and support statewide education reform efforts; to implement promising reforms and school improvement based on scientifically based research; to provide a continuing source of innovation and educational improvement; and to develop and implement programs to improve school, student, and teacher performance.

The federal focus on academic achievement, as measured by each state's Adequate Yearly Progress (AYP), has established a common and unifying goal at the state and local levels, resulting in: consolidated applications; application requirements for leveraging funding across programs; the building of consortia that work together through competitive grant awards; and the consolidation of administration and technical support for federal programs.

The power of such collaborations is two-fold. First and foremost is the establishment of a common target for the state and its school districts. As a result, the school district applying for NCLB II D technology funds targets those funds at common learning goals aligned to meeting (and exceeding) NCLB learning goals. The alignment is critical. Title II D is providing an important high-tech, 21<sup>st</sup> century approach to learning that will not only advance academic achievement as defined by AYP, it will also serve to close the digital divide and increase the efficiency and effectiveness of teachers and administrators.

State technology directors have established strong NCLB II D programs to ensure that grantees use the funds to advance toward AYP benchmarks and beyond. Without the technology expertise made possible by the NCLB II D funds and guidance by state leaders, research-based use of technology for early reading and math interventions, the establishment of online assessments for NCLB accountability, the collaborative approaches to enhance Teacher Quality and Retention (Highly Qualified Teacher), and the creation of online curriculum management systems to help differentiate instruction for students who need remediation will be diminished or lost. It is essential to have experts at the state level to guide informed, research and practice-based uses of technology.

The key is to not only ensure that technology works to advance academic achievement, but that, like business and industry, schools evolve into organizations that reflect today's knowledge age. That translates into real collaboration, where the leader in educational technology works side-by-side with other educational specialists, working together to ensure the highest quality, most efficient education system that meets the evolving needs of all of today's students.

State	NCLB II D State Examples
MA	"We work with other programs and Titles to provide professional development through the Department's Content Institutes. Technology is now required in all Content Institutes." (Connie Louie, MA)
KS	"We're collaborating with KanEd State Network for increased bandwidth and connectivity." (Jana Craig, KS)
NM	"We're working with Career/Technical education, Reading First, our Microsoft Partners-in-Learning grant, and state sponsored initiatives (NM Laptop Learning Initiative, Digital Media, etc)." (Ferdi Serim, NM)
МО	"The state is able to leverage the pricing of technology hardware, software, and support through work with the state Prime Contract Vendor, individual vendors, and national consultants. Teachers that complete the eMINTS professional development can obtain college and graduate credit at various universities in the state at significantly reduced tuition costs." (Deborah Sutton, MO)

State	NCLB II D LEA Program Examples
MD	The purpose of the MDK12 Digital Library Project is to establish a purchasing consortium of 24 local school systems to provide a cost-effective way to deliver digital content that supports the teaching and learning of Maryland content standards in an equitable and timely manner for all students. By the end of the proposed three-year grant period, the consortium will have developed and implemented a business model for long-term sustainability of the project. Trainer of trainer sessions will be designed, conducted, and evaluated to determine their influence on enhancing teacher competency in the instructional use of online information databases. In addition, multiple data sources will report ways this digital content promotes student achievement.
СТ	Through the "Parent Communication: Leave No Parent Behind" program in Danbury Public Schools, parents are trained to use a Web resource created to foster communication between themselves, their children, and the school. The training was given to groups in English, Spanish, and Portuguese. The parents asked for assistance in how to better aid their children's activities when using technology. Teachers and administrators indicated that there was a direct correlation between the trainings and parents' increased involvement.

# Finding 4: The Formula Grants Sustain; The Competitive Grants Innovate

The number and focus of the competitive and formula grants differ considerably. With comparable amounts annually in each category, 12,933 grants were awarded in Round 2 through formula funds compared to only 1,654 in competitive grants. That translates into much larger, more substantive grants through the competitive awards. For those districts with substantive awards, the formula grants are an effective means of closing the achievement gap by targeting LEAs with high percentages of high-need, at-risk students. Districts that received sizeable formula awards, as opposed to those smaller awards, have more options in using the funds to continue or develop existing initiatives. However, with over 45% of such grants at less than \$5,000, most state technology directors agree that, while these funds are critical, the administrative effort on the part of districts and states required to manage such grants is high. Survey respondents report that the high numbers of grant recipients are further stretching states' administrative and technical assistance budgets.

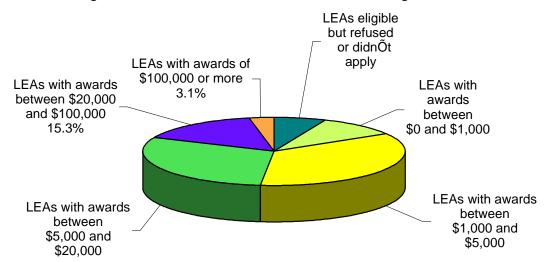


Figure 4: Round 2 NCLB II D Formula Awards to Eligible LEAs

#### Formula Grant Allocations to LEAs

	LEAs LEAs eligible		LEAs with awards between:				LEAs
	not eligible	but refused or didn't apply	\$0 and \$1,000	\$1,001 and \$5,000	\$5,001 and \$20,000	\$20,001 and \$100,000	receiving \$100,001 or more
Number of LEAs (n=14,045)	1,266	820	1,274	4,511	3,832	1,951	391
Percent of eligible LEAs (n=12,779)		6.4%	10.0%	35.3%	30.0%	15.3%	3.1%

Note: Data on Minnesota and Illinois not included: data not available.

The table below includes examples from across the country representing the innovative, effective uses of technology made possible through the NCLB II D competitive grants.

State	Innovations from the NCLB II D Competitive Grant
SC	Bamberg 2, Barnwell 29, Barnwell 45, and Spartanburg 3 are using technology to create Learning Communities Without Borders. The goal of the partnership is to reduce rural isolation and provide teachers and students with expanded opportunities to learn by using e-mail, videoconferencing, and online learning projects to increase both teacher proficiency with technology as a learning tool and student achievement in writing, mathematics, science, and social studies. These districts are using distance learning to share professional development and increase student collaboration. (3 Consortium Project)
UT	Logan School District is challenging poverty by helping high need, underachieving students through innovative programs that integrate technology into nature programs. Students get practical experiences that increase reading, writing, mathematical and science skills during the summer. Teachers facilitate reading improvement by incorporating various sources of literature as an integral component for each teaching session. Reflection and application of field experiences is combined with technology to support writing in the production of digital video, Web-quests, Web sites, computer programming, electronic multimedia, and desktop publishing projects. Children learn practical applications of math concepts and technology though real life experiences that are interwoven throughout each strand. Outdoor science experiences use a wide range of technologies such as global positioning systems, laser optic range finders, Utah Education Network Internet resources, computer interfaced microscopes, handheld computers, and probes. The Mount Logan Middle School is partnering with our Regional RTEC (WestEd). As this program evolves, teachers learn how to engage their students with reading, how to create a love for reading within their students, and how to help low-income students succeed academically. These students report an increased confidence in reading, and parents report satisfaction with the skills their students acquire. Additional benefits include the relationships formed between teachers and students that carry into the regular school year, as well as improved teaching styles and literacy pedagogy. Logan City School District created a state-recognized teaching and learning model for integrating technology with state standards and improving pedagogical practice by trained teachers. (Children Learning With Technology Districts: Logan City Schools, Ogden City Schools)
KY	Kentucky established data-driven decision-making as one its priorities for EETT grantees. Through increased skills and the use of existing data tools in schools, plus more efficient data collection, analysis, and access, Kentucky EETT grantees are able to make informed instructional decisions based on data.

## Finding 5: Grappling with Evaluation and Impact Research

In this era of high-stakes accountability, nearly all program administrators are exhibiting an intense interest in assessing the effectiveness of the NCLB program, as evidenced by trends in their approaches to the program's evaluation.

All states are required to conduct statewide program evaluations for both formula and competitive grant programs (e.g., reports that document administrative processes, detail grantees implementation processes, and summarize evaluative reports provided by the grantees). But states are approaching the evaluation of formula and competitive grants somewhat differently. Because over 45% of the formula grants are less than \$5,000, 32% of the states are tracking the impact of NCLB funds on the formula side by tracking schools' progress in meeting AYP (Adequate Yearly Progress). That number drops to 12.8% for competitive grants, since 86% of the states are requiring each competitive grant awardee to conduct a program evaluation.

Fifty-eight percent (58%) of states now require LEAs receiving competitive grants to "report findings based on improvements as compared to baseline data." An increasing number of states are requiring that LEA grantees dedicate at least 7% of their funds to evaluation. That increase coupled with the fact that 42% of the states are providing training on program evaluation, and 34% of the states are providing guidance for EETT local evaluations should result in increasingly higher quality evaluations from grantees. Higher quality evaluations should provide formative data that grantees can use to continuously improve their programs over time.

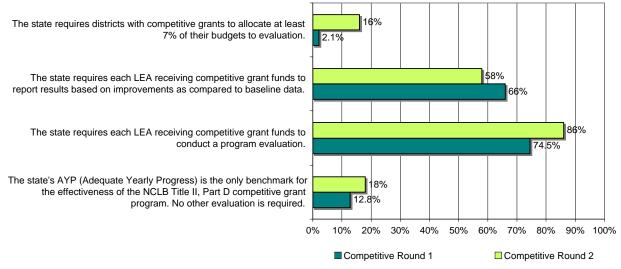


Figure 5: Trends in Evaluation Approach – NCLB II D Competitive Grants

Note: Percentages are based on the number of survey respondents (47 in Round 1 and 50 in Round 2)

Since this degree of accountability is relatively new, and federal evaluation requirements for NCLB II D have not yet been released, many states are struggling to find solid ground. What evaluation requirements do they make of LEAs? How do they build the capacity of local LEAs to conduct rigorous evaluations given limited funds? How will they conduct studies that enable them to correlate technology interventions with student learning outcomes? According to survey respondents, the lack of funds for evaluation at the state level makes it difficult to provide the

leadership, guidance, and electronic data collection systems necessary to evaluate the effectiveness of both the formula and competitive grants.

That said, trends from this report suggest that technology directors are ready to take another step forward in accountability, toward research studies that would provide more rigorous data on the impact of the NCLB II D program on student learning, the digital divide, and teacher proficiency and practice — only then will they be able to report with confidence their progress toward meeting NCLB goals. Nearly a quarter of the respondents indicated that they were asking recipients of NCLB II D competitive grants to conduct experimental or quasi-experimental impact studies to determine the impact of NCLB II D programs.

State	Description of experimental or quasi-experimental evaluation efforts
IN	Each site has an outside evaluator and collects large-scale objective assessment data at a minimum of three times per year. This student data includes the instrument used, the types of scores collects, low score, high score, mean, median and mode, what this data represents, and where they will proceed. The information for the teacher portion includes the assessment title, the data points collected (grouping under main headings is fine), what this data represents, and where they will proceed with professional development.
NC	The state is conducting a formal evaluation of the IMPACT model.
WA	There was use (by competitive grant recipients) of the Western Washington University Woodring Research Center review team, as well as RMC Research in Portland, Oregon.
WV	The state is conducting a quasi-experimental evaluation on LEAs with certain grade configurations involved in the competitive grant program.

In addition, several respondents mentioned the large-scale research on educational technology programs funded through the U.S. Department of Education that is currently underway in their states.

State directors provided the following comments when asked how their state will measure the impact of its competitive grant program in achieving the NCLB II D goal of closing the achievement gap and the digital divide.

State	Reports as to how states will measure impact
CA	Districts are analyzing the impact as part of their semi and annual reporting to the California Department of Education. Results will be summarized to determine overall grant impact.
IA	The evaluation of NCLB II D is being coordinated by PERL of Iowa State University, which is currently gathering data. All EETT districts are either serving as experimental groups or control groups.
ID	AYP indicators will be used to measure impact since schools are using these funds to support getting students at a proficiency level on the Idaho Standards Achievement Test (ISAT).
ОН	AYP, achievement test results, and local report card data will be used to obtain state level trends in gains. In addition, short cycle assessments and local diagnostics will be used to measure student, building, and district gains at the local level. Finally, survey comparison data will be correlated to baseline and summative measures to refine findings in areas such as professional development and student technology literacy.
VT	Vermont asks LEAs to choose multiple sources of data including surveys, observations, and performance assessment using the VT Grade Expectations, student products, and school reports. A concern is the difficulty of illustrating a direct causal relationship between our competitive grant program and student performance improvement.
WA	Comparisons are being made between statewide standard test in 7th grade math scores, students' projects, teacher, administrator and district interviews, along with the analysis of the baseline data previously gathered.

In addition, states are building the capacity of their LEA grantees to conduct local evaluations. The following table provides examples from across the country of NCLB programs that advance program goals through evaluation related to educational technology.

State	NCLB II D Example
CO	A consortium of over 75 school districts is participating in the development of information-based educational practices to improve student achievement. The potential impact on increasing student achievement is very high. Practices are defined by current research, and affect a large percentage of LEAs in the state. (C2D3- Colorado Consortium for Data Driven Decision Making)
WY	This is a partnership were advanced applications and hand-helds are being used to collect data in order to improve instruction. Staff buy-in is very high; there is good leadership from BLE Group and the Superintendent. (Partnership Platte 2, Niobrara, #1 and BLE Group, Guernsey)
WI	Project AYP PLUS increases student achievement by developing effective, research-based instructional models that can be replicated in other schools. There are three major objectives of the grant. 1) Professional Development: Plan and provide staff development to more effectively train teachers in: assessing student knowledge and understanding; engaging students and enhancing learning through technology; and effectively identifying and delivering needed interventions in order to improve student reading achievement. 2) Quality Instruction: Provide quality instruction and interventions to ensure that all students have the best possible opportunities for increasing academic achievement. 3) Student Technology: Train students to use technology to enhance learning and to assess individual strengths and weaknesses to further academic growth. (YP PLUS Madison School District)
MD	The Learning Management Systems (LMS) project provides education staff with a link to professional development and collaboration opportunities that enhance student learning by building internal capacity for the effective use of learning management systems. The LMS is piloting three systems - Blackboard, Desire2Learn, and Muddle. By June 2005, participating local school systems will have increased their ability to use the learning management system platform. By October 2005, the learning management system consortium, in collaboration with other Ed Tech grant initiatives, will facilitate the creation of a common design standard for reusable learning objects that will facilitate professional development activities. The LMS consortium uses MSDE/SREB modified metadata standards and associated training materials to provide local and regional training on adding metadata to learning objects. (Learning Management Systems Consortium, Carroll County Public Schools, Westminster)
ND	Electronic portfolios and online assessments are used to determine where additional focus is needed for students to do well on state assessment. During August of 2003, all K-12 teachers in Dunseith were trained in using Grady Profile 3, an electronic portfolio. Six teachers from the TGU district and the Grady Profile trainer facilitated this three-day workshop. Dunseith is in its first year of implementation; the TGU district is in its third year of implementation. (TGU/Dunseith)
MN	This consortium of 30 public school districts and one nonpublic school addresses two common, interconnected needs to build and strengthen internal capacity in two areas: data driven decision-making and technology integration in teaching and learning. To accomplish this, the Southeast Service Cooperative works with participating schools to implement a train-the-trainer strategy and develop data and technology integration teams. To develop data-driven decision-making proficiency, the schools work with NWEA testing products and the North Central Regional Education Laboratory (NCREL) to train district teams through data retreats. These teams are then expected to train colleagues on-site. Educators learn to find and extract, organize, analyze, and interpret data, as well as how to use data to plan learning needs, coordinate curriculum/instruction, and work with parents. To increase the effectiveness of technology integration in schools, ISTE experts have developed a network of technology integration teams to support technology integration development. These teams methodically assess needs, design and implement strategies, inventory resources, organize the delivery of learning opportunities, evaluate and document outcomes relating to teacher development and student achievement, and network with other area teams to share best practices and resources. (Southeast Service Cooperative)

# Finding 6: Through Leadership, A Knowledge Base Is Emerging

Most NCLB, Title II, Part D administrators viewed the competitive grant process as an opportunity to advance Title II D learning goals through substantive, innovative approaches to technology-enriched learning. It is apparent from Round 2 survey results that state and Washington D.C. technology directors are using frameworks, standards, and experience to design technology-based learning programs to advance Title II D goals. More than 50% of survey respondents use existing sources, such as the Regional Technology Education Centers (76% of respondents), the ISTE Caret site (62% of respondents), the What Works Clearinghouse (38%), and the Regional Educational Labs (64% of respondents) to inform decision-making related to technology and learning, but few go directly to source journals (8% of respondents). This is indicative of busy professionals who need the information analyzed and indexed by reliable sources.

State directors are beginning to develop wide-scale efforts to establish a common knowledge base of sound research practices, or to conduct research studies that will establish that common knowledge base for technology-enriched programs. When asked if the state "identifies what NCLB Title II D technology-related educational interventions appear to be working," 26 states (52%) answered in the affirmative. Those states went on to describe the ways in which they identify what is working, as outlined below.

State	Identification Process	Dissemination Process
МО	The Department and the National eMINTS Center contract for eMINTS program evaluation and research. These resources and assistance from outside experts are used to evaluate effective intervention strategies, and eMINTS staff reviews and fine-tunes strategies as necessary. Selected professional development modules and materials (templates, lessons, data protocols) will be available after data is analyzed.	Evaluation reports, research findings, web-based resources, and a select set of professional development modules are posted on the eMINTS website. These are promoted through the Department's website, newsletters, conferences/professional development events, and via feature articles in journals and magazines.
WV	West Virginia has a process in place for identifying technology solutions that are working. It is a component of a U.S. Department of Education funded 3-year evaluation study.	Findings are disseminated to LEAs through SETDA and via email. Further plans will be developed.
NJ	There is a formal selection process organized by the Office of Innovative Programs called Best Practices/ Star Schools. Educational Technology is part of the best practices category.	Second year project participants are required to present their findings at regional and state meetings so that others might learn about their projects. Third year schools will be required to have a website that includes templates, models, lesson plans, and data collection tools for replication.
WI	Wisconsin is part of the Evaluating States' Educational Technology Programs grant project. The findings of this research will help determine the success of funded projects. They also use enGauge with all districts funded through the competitive grants.	Findings are disseminated through SEA web sites, as well as at statewide conferences and meetings. Research findings will also be disseminated by SETDA.
AR	Site visits are made to each of the LEAs receiving Title-IID competitive funds. Information is collected about the project.	Findings are disseminated via the ADE web site and through regularly scheduled meetings with State Technology Coordinators.
UT	The Department contracted with a state evaluator to identify what is working well in each of the five grants.	Each grantee presented activities and lessons learned at their quarterly meeting and at the technical assistance meeting for those districts qualifying for the next round of competitive grants.

A knowledge base is emerging from the innovative projects funded through the NCLB II D competitive grants. The following table includes examples from across the country of NCLB II D local grant programs.

State	Focus	NCLB II D Examples
ME	Learning communities	All staff has access to just-in-time, task-specific training, as well as the support to extend the initiative from the school to the home and community. The work is built on a training spiral that continues and expands web-based forms of reporting and demonstrates student progress toward the achievement of Maine's Learning Result. A "train-the-trainer" model project built on a series of intensive four-day workshops combines with teacher/mentor clusters to reinforce training activities. (Glenburn School Department)
NJ	Reading and writing	The Access-Collaboration-Equity (ACE+) Grant program established ACE Centers that simultaneously bridge the digital divide as they involve students in language arts and literacy programs targeting Core Curriculum Content Standards. The ACE Center established in Woodlynne School District serves as a technology HUB for this small town, enabling children and adults to use technology through a focus on literacy. (ACE)
WI	Reading and writing	Designed to improve student achievement through technology, Fast ForWord is used with students to improve reading achievement. Teachers are trained to integrate technology (including assistive components) to improve reading and writing achievement. "Criterion," an online writing assessment tool, is used for instruction and to collect assessment data. Curriculum Mapping Coaches mentor other teachers in mapping their curriculum to the ITLS curriculum. Previous success with these programs indicates an increased level of student achievement. (Bay Area Consortium, Green Bay)
MA	Online courses and resources	ACCEPT Metrowest Education Collaborative and Virtual High School, Inc. (VHS) provides coordination, supervision, and professional development to seven school districts, five of which are high-need. During the first semester, a series of informational programs are held to facilitate the enrollment of teachers and other school-based personnel in professional development provided by VHS. These informational programs include individual site visits, face-to-face group meetings, and Webinars. The formal VHS Netcourse Instructional Methodologies (NIM) and Site Coordinator training is held during the second semester. Upon completion, each participating high school implements VHS courses for students under the supervision of the local Site Coordinator and provides additional VHS courses by newly trained teachers. Year two will expand the program to include additional high-need districts. A long-term consortium modeled after the existing ACCEPT VHS Consortium will be developed to sustain this project. VHS evaluation instruments will be utilized to monitor both years of the program's implementation. Virtual High School is housed in Massachusetts and is used by more than 75 school districts. However, the Collaborative in this project supports schools in their use of the system so that they can maintain and sustain the efforts provided by the grant. (ACCEPT Metrowest Collaborative - Dennis-Yarmouth, Martha's Vineyard, Somerset, Avon, Hull, and Medway School Districts and South Middlesex Vocational Technical School Project Title: Using Innovative Strategies to Offer Professional Development and Specialized Courses Through Online Distance Learning)
DE	Web Portal	A web educational portal has been established so that teachers, administrators, and students can access quality, standards-based resources within the school and, in the future, across the state. The Information Power Portal allows teachers to post signature lessons and share the teaching and learning with their students' parents and the school community. Teachers involved in this competition have had professional development training. (Information Power Portal, Seaford SD)
IA	Research-based Practice	Based on the sound research on impact, the Mississippi Bend AEA Math is working with local grantees on the implementation of Cognitive Tutor in algebra classes. 7-9th grades.

# Finding 7: For Many States, NCLB IID is the Only Source of Funding for Technology

Federal funds have played a significant role in the research, development, and scaling up of educational technology in states across the country. The level of significance is striking, with nearly 75% of states reporting that NCLB II D funds are either the only source or the primary source of funds an LEA awards to schools for technology. For 12 states (24% of respondents), these funds were literally the "only game in town"; their school districts had no other funding earmarked specifically for technology in schools. Those states are: Arkansas, Arizona, Delaware, Maryland, Michigan, Minnesota, Missouri, North Dakota, New Hampshire, Oregon, Vermont, and Wisconsin.

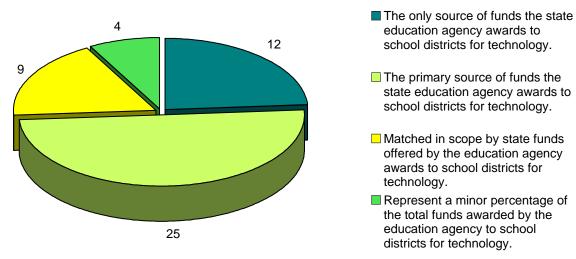


Figure 6: The number of states reporting that NCLB II funding is:

State directors commented on the value they place on the NCLB II D program:

State	Commentary
WV	"There are other educational technology initiatives funded at the state level, but the use of Title IID funds is different. The technology integration specialist model is primarily funded only through Title IID."
MD	"Title II D funding represents the sole source of funds dedicated specifically to education technology at the State level. Without these funds, Maryland would not be able to carry out many of its education technology initiatives. In Maryland, it is a local decision as to how school systems spend local money, creating inequity in resources for students within and across school districts. Particularly impacted are small school systems with little capacity for technology initiatives."
MT	"The Title II, Part D program provides the only statewide, ongoing, consistent funding for technology in the state. Montana provides funding to school districts from a fund that generates revenue from trees harvested from state held trust land. If the fund generates enough revenue, it is distributed, usually every other year at the most. The fund typically provides with \$1 - \$7 per student. Local school districts are allowed to run a mill levy for technology."
SD	"E2T2 funds are the primary source for new hardware purchases in schools. The state, however, provides high speed Internet connections and two-way videoconferencing free to all public schools."

## Competitive Grants: Facts and Figures

"The (competitive) program is running smoothly with a high demand for participation. As more districts participate in the program, Department and eMINTS staff are working to move the program from a classroom intervention to a school-wide renewal program."

--Deb Sutton, Missouri

"The competitive part of this program offers a chance for LEAs to secure enough funding to effect true changes in instruction and culture in their schools."

--Chris Kalesh, North Dakota

During Round 2 of the NCLB Title II D competitive grant program, states awarded 1,654 competitive grants, totaling approximately \$294,084,000. The rollout of the Title II D competitive grant program varies considerably across states.

Many states established content priorities in their competitive grant processes to guide LEAs toward achievement of NCLB II D goals. In alignment with the NCLB II D priorities, 74% of states focused on reading or writing, and 38% focused on mathematics. While all grades were represented, over 40% of the states focused on PreK-5 grades, with middle school a close second. States placed less emphasis on high school programs.

Many of the states guided their LEAs' use of competitive grant funds by establishing programmatic priorities in the competitive process. While professional development was a top priority, states also guided their grantees toward data driven decision-making, specific learning interventions and software, and laptop programs.

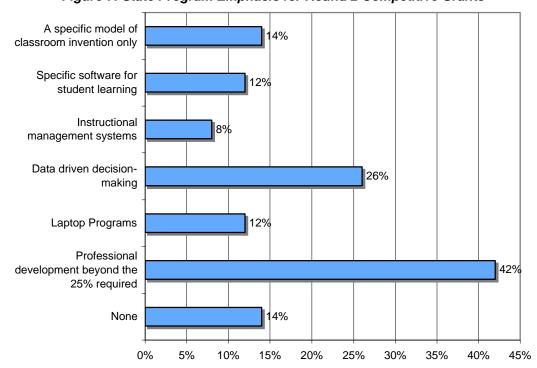


Figure 7: State Program Emphasis for Round 2 Competitive Grants

The use of competitive funds in Round 2 broadened considerably from Round 1. Whereas there were distinct priorities in Round 1 (e.g., increasing student achievement and professional development), in Round 2 school districts deployed NCLB II D funds for a broad range of uses, including data management/informed decision-making and networking and infrastructure. Title II D funds are clearly being used to support overall NCLB education goals including helping schools and districts to train and retain highly qualified teachers, closing the achievement gap and using data to inform student instruction and increase student achievement.

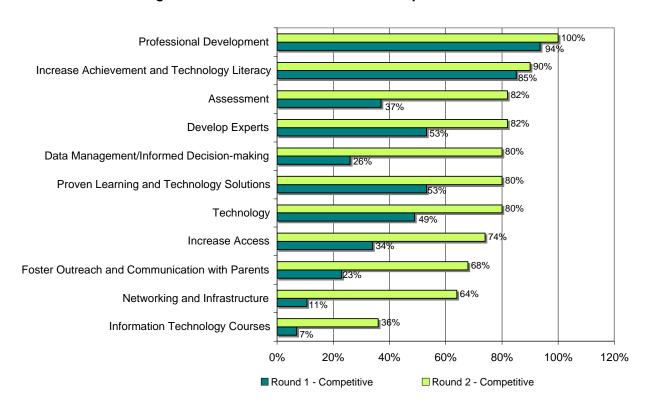


Figure 8: LEA Priorities for NCLB II D Competitive Grants

The purposes for which competitive grants were used in Round 2 were (in priority order):

- Professional Development: Professional development that provides school teachers, principals, and administrators with the capacity to integrate technology effectively into curricula and instruction aligned with challenging State academic content and student academic achievement standards, through such means as high-quality professional development programs.
- Increase Achievement and Technology Literacy-: Adapt or expand existing and new applications of technology to enable teachers to increase student academic achievement, including technology literacy.
- Assessment: Implement performance measurement systems to determine the effectiveness of education technology programs funded under this subpart, particularly to determine the extent to which activities funded under this subpart are effective in integrating technology into curricula and instruction, increasing the ability of teachers to teach and enabling students to meet challenging State academic content and student academic achievement standards.
- Develop Experts: Prepare one or more teachers in elementary and secondary schools as technology leaders with the means to serve as experts and train other teachers in the effective use of technology, providing bonus payments to these teachers.

- Data Management/Informed Decision-making: Use technology to collect, manage, and analyze data to inform and enhance teaching and school improvement efforts.
- Proven Learning and Technology Solutions: Acquire proven and effective courses and curricula that include integrated technology and are designed to help students meet challenging Sate academic content and student academic achievement standards.
- Technology: Acquire, adapt, expand, implement, repair, and maintain existing and new applications of technology to support the school reform effort and to improve student academic achievement, including technology literacy.
- Increase Access: Establish or expand initiatives, including initiatives involving public-private partnerships, designed to increase access to technology, particularly in schools served by high-need local educational agencies.
- o Foster Knowledge with Parents: Utilize technology to develop or expand efforts to connect schools and teachers with parents and students to promote meaningful parental involvement; to foster increased communication about curricula, assignments, and assessments between students, parents, and teachers; and to assist parents in understanding the technology being applied in their child's education, so that they are able to reinforce at home the instruction their child receives at school.
- Networking and Infrastructure: Acquire connectivity linkages, resources, and services (including hardware, software, and other electronically delivered learning materials) for use by teachers, students, academic counselors, and school library media personnel in the classroom, in academic and college counseling centers, or in school library media centers in order to improve student academic achievement.
- o Information Technology Courses: Develop, enhance, or implement information technology courses.

-Source of definitions: NCLB Title II D legislation

States are grappling with the need to show evidence of impact related to the NCLB II D goals. They acknowledge that to do so will require carefully constructed research studies, yet few have the resources to guide their LEAs in this arena. As Figure 9, below, indicates, while states are requiring or encouraging LEAs to use research in their selection of technology-based interventions, only 20% are, at this time, requiring them to conduct research studies on the impact of such interventions on learning, teaching, and school systems.

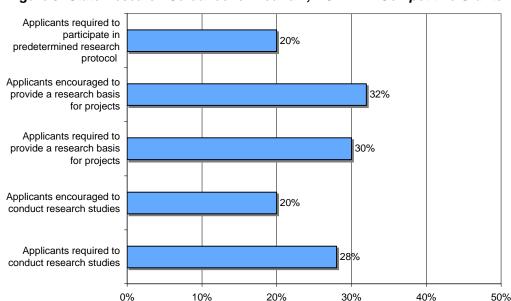


Figure 9: State Research Guidance for Round 2, NCLB II D Competitive Grants

State education agencies are using national and state standards and frameworks to guide their grantees' implementation of programs under Title II D:

- o 78% of respondents use the ISTE NETS for Students
- 72% of respondents use the ISTE NETS for Teachers
- o 66% of respondents use the ISTE NETS for Administrators
- o 38% use the enGauge 21st Century Skills
- o 36% use the enGauge Six Essential Conditions
- 34% of respondents use state standards
- 30% use the CEO Forum 21<sup>st</sup> Century Learning
- 28% use the CEO Forum StarChart
- 24% use the Seven Dimensions for Gauging Progress (Milken Foundation)
- 16% use SETDA resources
- 12% use their own state framework
- 12% use other state's framework
- o 8% use state legislative language

The top sources used by respondents for research and practices related to technology are the Regional Technology Education Consortia, followed by the Regional Education Centers.

The following section list represents the many EETT programs from across the nation that have been launched through NCLB II D funds. Each is aligned to a specific goal or strategy in the federal No Child Left Behind, Title II Part D law.

## Competitive Grant Alignment to NCLB Purposes

Section 2402 of the NCLB Title II, Part D legislation clearly outlined nine purposes for the legislation. Listed below are descriptions of competitive grant awards that represent clusters of awards addressing those purposes. This alignment is a result of states' competitive grant processes.

### Competitive Awards Targeting Specific Purposes in NCLB II D

Purposes of NCLB, Title II D	State	Representative Competitive Awards
1) 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.	ND	Kulm High School is in a small district with 21st century multi-media classrooms. The district uses one-to-one student and teacher personal computing devices (PDAs) in combination with Discourse software to informally assess the level of understanding in real time of language arts and math curriculum. A portfolio assessment will be developed to ensure that students meet the North Dakota Standards and Benchmarks for Library/Technology Literacy by the end of the eighth grade. The school provides parental access to the JMC Student Database.
	NV	At Lake Tahoe Unified Schools, students are involved in service learning and multi-disciplinary, hands-on research. Students use technology to collect, measure, track, and analyze data from water and soil samples in and around the Lake Tahoe Basin (declared in Executive Order 13057 an "Area of National Concern"). Findings are shared with partner organizations to gain knowledge and communicate the impact of pollutants on the environment.
2) 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 educational agencies.	MA	In Pittsfield Schools, the Housatonic River and its history provide a rich, local source of curriculum materials for students. This project is collaboration with river partners, two other Berkshire school districts, and businesses to develop a core set of lessons and units in Science, Math, English Language Arts and the Arts. River partners include the Housatonic River Restoration (HRR) and the Housatonic Valley Association (HVA). Students and teachers collaborate with their counterparts in other districts and present their learning online for peer review via instant messaging, e-mail, electronic conferences, centralized databases, a web site, and digital video productions that are aired on local access television stations. Pittsfield technology and curriculum leaders create the structure for the searchable, web-enabled databases with links to class, school and district web sites.
	UT & MO	eMINTS-4-Utah replicates the model of Missouri's highly successful eMINTS (Enhancing Missouri's Instructional Networked Teaching Strategies) program. eMINTS is administered by eMINTS National Center, a unit of the University of Missouri system. Results of the eMINTS program are improved student MAP (Missouri Assessment Program) test performance. On each of the 2001 MAP tests, students in eMINTS classes scored higher than non-eMINTS students in the same schools. The eMINTS program showed improved student performance in communication arts (language arts), science, mathematics, and social studies for third and fourth grade student participants.
		eMINTS-4-Utah increases student performance and improves test scores in participating low-performing schools in Utah. eMINTS-4-Utah is research-based and designed to enhance teacher instructional practice using technology. It impacts student instruction as it supports twenty grade 3-8 teachers from low-performing, low-income schools. See: <a href="http://emints.org/webquest/index.shtml">http://emints.org/webquest/index.shtml</a>

Purposes of NCLB, Title II D	State	Representative Competitive Awards
Continuation of (2)	AK	In Bering Strait School District, the TRAIN project provides research-based, integrated support to BSSD's three main educational initiatives: increasing achievement in language arts and math; implementing standards through the Quality Schools Model (QSM); and integrating technology throughout the aligned, standards-driven curriculum. BSSD develops cross-curricular, project-based units based upon the BSSD standards-based curriculum and using the Balanced Instructional Model (BIM). These modular instructional units, as well as the training to use them, are offered via distance delivery, web streaming, and on-site visitations.
3) 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.	HI	The Hamakua Mobile Education Partners is a collaboration of efforts stemming from a genuine interest in and need for educational opportunity and reform in the socio-economically depressed rural communities of Hamakua on the Big Island of Hawaii. Through innovative partnerships and programs, this initiative provides high quality professional development in technology and research based instructional strategies that inspire, invigorate, and empower our teachers and administrators. This grant utilizes technology to engage students in data gathering and the study of science.
4) 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.	WV NC	Wood County Schools is implementing the Technology Model School project, in which technology integration specialists assist teachers with effective strategies for integrating technology into the curriculum to increase student academic achievement. The district is involved in the state evaluation through a US DOE grant, and is also involved in a national evaluation through SRI.  The IMPACT model provides a fully funded media and technology program, including personnel, resources, and access. The model recognizes that effective school library media and instructional technology programs support effective teaching and learning and are key to making education relevant. The model is outlined in IMPACT: Guidelines for Media and Technology Programs. See: ( <a href="http://www.ncwiseowl.org/impact.htm">http://www.ncwiseowl.org/impact.htm</a> .)
5) 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.	MN	The Arrowhead Technology Literacy Association of Schools (ATLAS) consortium consists of 25 school districts and three nonpublic schools in northeastern Minnesota that enjoy a highly successful tradition of providing staff development training academies in technology integration for the teachers in the region. The purpose of the ATLAS Academy is to provide opportunities to become proficient in integrating technology with the Minnesota Academic Standards in science and social studies. Participants attend information sessions, team work sessions, and breakout sessions that provide training activities and skills in integrating ISTE/NETS standards with science and social studies standards to increase student achievement in these curricular areas.  Journey to Excellence answers the need for a standards-driven professional development system that can be delivered in an easily accessed, user-friendly, cost effective way. Journey to Excellence serves as a catalyst for developing a standards-driven professional development system that produces quality teachers who can meet growing challenges in the public school system.

Purposes of NCLB, Title II D	State	Representative Competitive Awards
6) 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.	SC	RADICALS (Raising Academic Demands through Innovative Curriculum, Accessibility, and Learning Styles) is a multi-district, innovative project that builds on the DILLONTEAMS grant provided by the South Carolina Department of Education in 2002. Participating teachers and staff use high quality, technology-enriched professional development and modern classroom resources to increase student achievement through enhanced classroom delivery. The RADICALS project also expands the learning of all educational stakeholders by providing for Community Computer Centers and student laptop checkouts, and by offering quality professional development for educators across the state via online classes.  The intent of the Maryland Students Online Consortium (MSOC) is to review, offer, evaluate, modify, and recommend online courses for Maryland Virtual Learning Opportunities Program (MVLOP). The implementation of the grant goals and objectives fall into two major activities: (1) the support of the work of the consortium itself as members meet to share their experiences as they implement online programs and jointly develop/implement related resources such as online professional development courses and student courses; and (2) the support of local activities, including the provision of student courses and professional development to plan and implement online learning for students.
7) 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.	СО	The C2D3, or Colorado Consortium for Data Driven Decision Making, consists of over 75 school districts participating in the development of information-based educational practices designed to lead to improved student achievement. The potential impact on increasing student achievement is very high. Practices are defined by current research and will affect a large percentage of LEAs in the state.
8) To support local efforts using technology to promote parent and family involvement in education and communication among students, parents, teachers, principals, and administrators.	CA	The Environmental and Spatial Technology (EAST) Center in the Eureka City Schools uses a cascading leadership model to link the high school with EETT-C funded middle schools. This model effectively leverages funds to support an existing, successful, multi-disciplinary program that connects students to their community and to academic content standards through service learning.

# **Summary Table for Competitive Grants – Round 2**

State	Release Date (Round 2)	Total Competitive Grants	*Partnership Grants	LEA Only Grants	Leverage with Other Funds	Strategies Used to Ensure Leveraging of EETT through Other Funds
Alabama	1/5/04	64	18	46	No	
Alaska	7/1/03	6	1	5	No	
Arizona Arkansas	7/1/03 8/12/03	31 22	<u>8</u>	23 18	Yes No	The application and technology plan encourage consolidation of various funds and projects to impact technology. LEAs were encouraged to work with the various Title staff to align school improvement goals, consolidated plans, etc. with their technology goals and objectives.
Alkalisas	6/12/03	22	4	10	INO	Coordination and collaboration is
California	4/44/04	24	20		No	Coordination and collaboration is encouraged at the LEA level. Partnerships are encouraged and points are awarded. There is little leveraging directly at the state level,
California	1/14/04	34	28	6	No	however.  Coordination and collaboration with
Colorado	7/1/03	36	2	34	Yes	other funding sources is encouraged and recommended.
Connecticut	8/30/02	39	17	22	Yes	Extra points are given if applicants can demonstrate how IID funds are combined with other resources.  Districts are required to attest to how, once IID funds are expended, the projects will become sustainable.
Delaware	7/1/03	18	3	15	No	
District of						
Columbia	12/30/04	56	26	30	Yes	None listed
						A specific level of in-kind or auxiliary support is not required of applicants in the competition; however, LEAs are certainly encouraged to seek such support to the extent possible. Many small rural districts would be at a considerable disadvantage in the competition if points were awarded for
Florida	2/11/04	59	N/A	N/A	Yes	demonstrating such support.
Georgia	3/15/04	121	0	121	Yes	There are plans to increase and focus on partnering, vendor contributions  Hawaii consolidated their grant with
Hawaii	5/14/04	14	12	2	Yes	Title IIA, Title V, Title IID
	411=10:					Title II-D funds are leveraged with
Idaho	1/15/04	23	0	23	Yes	state technology funds.
Illinois	8/1/03	53	8	45	Yes	programs are leveraging ROE/LTC services and others are not.
Indiana	6/15/04	23	0	23	Yes	Schools are encouraged to include other funding sources as they relate to project sustainability.
Iowa	5/1/04	13	10	3	Yes	Other grants, AEA funds and support, outside grants, and REAP funds are used
						There is collaboration with the KanEd State Network for increased
Kansas	3/1/04	29	20	9	Yes	bandwidth and connectivity.
Kentucky	12/31/04	56	0	56	No	
Louisiana	10/16/03	49	14	35	No	

					1	
	Release	Total			Leverage with	
	Date	Competitive	*Partnership	LEA	Other	Strategies Used to Ensure Leveraging
State	(Round 2)	Grants	Grants	Grants	Funds	of EETT through Other Funds
	,					Local educational agencies are asked
						to show how IID competitive funds are
						matched with local resources. This is
	7/4/04	4-		4.5		connected to the grant scoring
Maine	7/1/04	45 19	0	45	Yes	process.
Maryland	10/1/03	19	9	10	No	MA works with other programs and
						Titles to provide professional
						development through the
						Department's Content Institutes.
						Technology is now required in all
Massachusetts	9/1/03	95	95	0	Yes	Content Institutes.
	0/4/04	<b>5</b> 0		40	v	Extra points are awarded for Gates
Michigan	3/4/04	52	4	48	Yes	Program & e-rate participation.
						MN does not require a match, but they do require school districts to work
						together in groups of two or more and
						strongly encourage the collaboration
Minnesota	5/12/04	16	16	0	Yes	of both public and private partners.
Mississippi	5/30/04	19	0	19	No	
						The state is able to leverage the
						pricing of technology hardware,
						software, and support through work
						with the state Prime Contract Vendor,
						individual vendors, and national
						consultants. Teachers that complete the eMINTS professional development
						can obtain college and graduate credit
						at various universities in the state at
Missouri	7/1/03	72	0	72	Yes	significantly reduced tuition costs.
Montana	7/1/04	6	6	0	No	ğ ,
						The NE scoring rubric takes into
Nebraska	1/5/04	31	18	13	Yes	consideration leveraged funds
						NV requires applicants to describe
						support from other sources, including
Nevada	11/21/03	8	6	2	Yes	state and private funding, other NCLB programs, E-rate, etc.
INCVAGA	11/21/03	0	0		103	This is designed to enhance funding
						from other Title programs by
						increasing collaboration among
New Hampshire	3/30/04	6	6	0	Yes	districts in each region of the state.
						At the state level, there is ongoing
						coordination with other offices. They
						assisted the Title I office with a SBR
						training module and assisted the Title
						III office with resources that support
						LEP students using technology. They require LEA partnerships with higher
						education, local libraries, other LEAs
						and community groups such as the
						Workforce Workforce Investment
New Jersey	2/15/03	24	24	0	Yes	Board (WIB).
						NM is working with Career/Technical
						education, Reading First, a Microsoft
						Partners-in-Learning grant, and state-
New Mexico	9/17/04	21	4	17	Yes	sponsored initiatives (NM Laptop Learning Initiative, Digital Media, etc).
New York	5/7/04	46	10	36	No	Learning initiative, Digital Media, etc).
North Carolina	8/7/03	19	19	0	No	
. total outomid	3,1,703			<u> </u>		As always, LEAs are encouraged to
						pursue other funds in coordination with
						parodo otrior rarido in ocordination tritir

	Release Date	Total Competitive	*Partnership	LEA	Leverage with Other	Strategies Used to Ensure Leveraging of EETT through Other
State	(Round 2)	Grants	Grants	Grants	Funds	Funds
Ohio	2/2/04	102	0	102	Yes	LEAs are encouraged to seek and incorporate multiple levels of state and local funding programs, as well as the use of II-D formula funds, to meet local needs.
	2/12/2					In their applications, districts are asked to describe how the competitive activities extend the
Oregon Pennsylvania	3/18/04 7/1/03	12 87	6	6 87	Yes No	planned formula funded activities.
						Funding for technology in RI schools relies on multiple sources, including the regulatory fund, state aid formulabased awards, private foundation grants, and federal funding from Erate sources. Other annual funding, described as State Aid under Article 31 of the state's General Laws, establishes a category of targeted funding exclusively for technology (i.e., for hardware, software, and
Rhode Island	4/1/04	9	1	8	Yes	other needs for technology).
South Carolina South Dakota	10/11/03 3/8/04	10 22	6 3	4 19	Yes No	Partnerships and collaborations with business partners are strongly encouraged. Districts also get bonus points for in-kind contributions and matching funds in their competitive grant proposals.
Tennessee	5/1/04	14	3	14	Yes	None listed
Texas	7/1/03	31	20	11	Yes	The application for competitive grants requires a description of how other funds are being leveraged to support the proposed project. Scoring criteria also include points based on the degree to which the applicant leverages other funds. However, there are no data available to respond to questions regarding specific federal fund sources.
Utah	7/1/04	5	5		Yes	UT established a scoring rubric that encourages districts to use their formula funds to support the competitive grant goals.
Vermont	11/10/03	32	6	26	Yes	One grant program required a local match, and two other grantees were selected because they added local dollars.
Virginia	3/1/03	8	8	0	Yes	Local administration of the grant supports taking advantage of opportunities to leverage funds from other sources.
\\\-\-\-\-\-\-\-\-\-\-\-\-\-\-\-\-\-\-	7///0			4.5		Use of flow-through funds and other
Washington  West Virginia	7/1/04 5/1/04	18	0	48	Yes Yes	Title program funds is encouraged.  Many districts have used local funds, other Title funds (such as Title VII), and other state initiatives to supplement and support the competitive projects.
Wisconsin	7/1/03	21	19	2	No	compositive projects.
Wyoming	3/26/04	9	2	7	Yes	WY requires LEAs to address other sources of funds in their grants.

<sup>\*</sup>Partnership grants include grants awarded to high-need LEAs who applied in partnership with entities such as other LEAs, institutions of higher education, nonprofit organizations, or private sector businesses.

NOTE: Thirty-eight of the 50 respondent states (76%) reported that they encouraged partnership grants. They did so by limiting awards to partnerships only (7 states: 14%); awarding extra points to partnerships in the scoring process (19 states: 38%); disseminating information to potential members of partnerships prior to submission date (20 states: 40%); facilitating informational meetings to which potential partnership members were invited prior to submission date (21 states: 42%); or linking potential partners through referrals or introductions prior to submission date (14 states: 28%).

### Formula Grants: Facts & Figures

In the second grant year of NCLB, state directors reported awarding nearly 13,000 formula grants to eligible Local Education Agencies (83% of the total number of LEAs represented by the 50 respondents and 90% of the LEAs eligible in those 49 states and Washington DC). The size of the awards ranged from \$1.00 to \$1,427,131.00, with 46% of those eligible for such awards either receiving less than \$5,000.00 or declining the award because the size did not warrant the effort. (See the charts and tables on page 19 in Finding 4.)

Over 75% of the state technology directors commented on the resource demands of administering a program with such a large volume of small grants. Many recommend adding a minimal award amount to increase the efficacy of the awards in meeting NCLB goals.

Survey respondents reported various strategies for dealing with the small amounts allocated to many LEAs. One of the most effective was to allow LEAs to carry over the funding and use Rounds 1 and 2 funding in the second year.

"We allowed districts to wait one year, carry over funds, and then submit one application for one project with separate budget sheets.."

--Mark Knudson, Nevada

Because the formula by which the grants are allocated is relatively consistent from year to year, little change in the scope and size of awards was seen from Round 1 to Round 2.

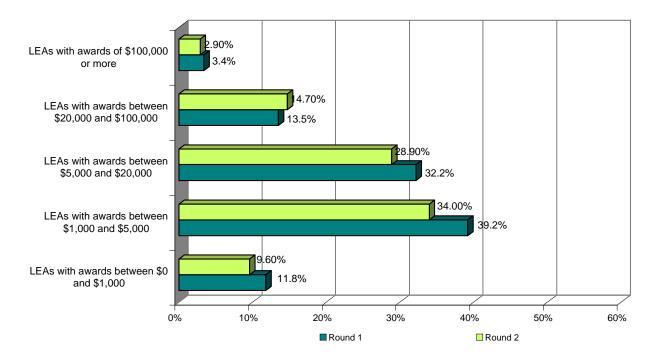


Figure 10: LEA Formula Grants - Rounds 1 and 2

Some state directors are reducing the administrative burden on schools with smaller awards by allowing them to carryover their funds until the award is of sufficient size to warrant application.

Despite these efforts, the number of eligible districts that refused their grants or didn't apply increased slightly from Round 1 to Round 2, from 6.2% to 6.4% of those eligible in the states with data available. The major reason cited by these districts, according to state directors is that, "the amount of funding was insufficient to warrant the effort."

The state directors indicated that LEA grantees were using formula funds for a broad range of purposes. The chart below shows that, unlike the first year when grantees focused on increasing achievement and technology literacy, as well as professional development, this year seems to be less geared toward any specific focus, suggesting that LEAs are exploring a host of new uses of technology. (See Figure 11, below.)

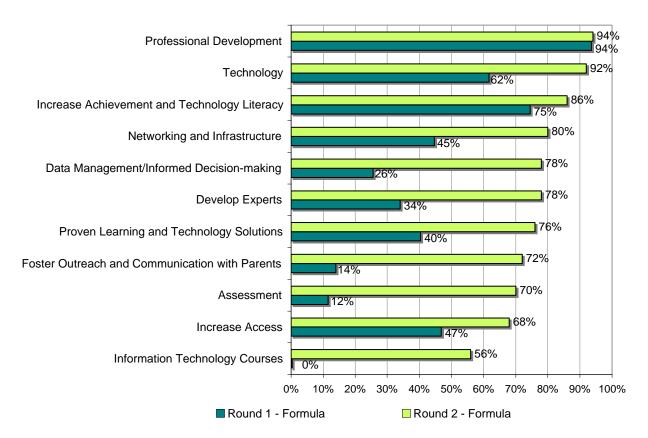


Figure 11: LEA Priorities for Formula Grants – Rounds 1 and 2

When faced with identifying the top five LEA priorities for their use of NCLB II D formula funds in Round 2, state directors indicated similar priorities to those identified last year, though there was a new emphasis on experts and a diminished emphasis on increasing access.

The purposes for which formula grants were used in Round 2 were (in priority order):

 Professional Development: Professional development that provides school teachers, principals, and administrators with the capacity to integrate technology effectively into curricula and instruction aligned with challenging State academic content and student academic achievement standards, through such means as high-quality professional development programs.

- Technology: Acquire, adapt, expand, implement, repair, and maintain existing and new applications of technology to support the school reform effort and to improve student academic achievement, including technology literacy.
- Increase Achievement and Technology Literacy-: Adapt or expand existing and new applications of technology to enable teachers to increase student academic achievement, including technology literacy.
- Networking and Infrastructure: Acquire connectivity linkages, resources, and services (including hardware, software, and other electronically delivered learning materials) for use by teachers, students, academic counselors, and school library media personnel in the classroom, in academic and college counseling centers, or in school library media centers in order to improve student academic achievement.
- o Data Management/Informed Decision-making: Use technology to collect, manage, and analyze data to inform and enhance teaching and school improvement efforts.
- Develop Experts: Prepare one or more teachers in elementary and secondary schools as technology leaders
  with the means to serve as experts and train other teachers in the effective use of technology, providing bonus
  payments to these teachers.
- Proven Learning and Technology Solutions: Acquire proven and effective courses and curricula that include integrated technology and are designed to help students meet challenging Sate academic content and student academic achievement standards.
- Foster Knowledge with Parents: Utilize technology to develop or expand efforts to connect schools and teachers with parents and students to promote meaningful parental involvement; to foster increased communication about curricula, assignments, and assessments between students, parents, and teachers; and to assist parents in understanding the technology being applied in their child's education, so that they are able to reinforce at home the instruction their child receives at school.
- Assessment: Implement performance measurement systems to determine the effectiveness of education technology programs funded under this subpart, particularly to determine the extent to which activities funded under this subpart are effective in integrating technology into curricula and instruction, increasing the ability of teachers to teach and enabling students to meet challenging State academic content and student academic achievement standards.
- Increase Access: Establish or expand initiatives, including initiatives involving public-private partnerships, designed to increase access to technology, particularly in schools served by high-need local educational agencies.
- o Information Technology Courses: Develop, enhance, or implement information technology courses.

Source of definitions: NCLB Title II D legislation

Twenty-four states reported that their LEAs' use of NCLB II D funds required transfers to or from their formula grant programs, resulting in a net loss of \$8,831 to the NCLB II D program as compared to the net gain of \$2,323,303 in Round 1. (Tables repeated from page 20.)

#### Overall Fund Transfer

	Dollars Transferred In	Dollars Transferred Out	Net Gain/Loss From Transfers:
Round 1	\$4,257,733	\$1,934,431	\$2,323,303
Round 2	\$3,087,476	\$3,096,308	- \$8,831

See page 18 for specific transfers in and out of Title programs.

Respondents were also asked about the impact of the Rural Education Achievement Program use of alternative funds authority (REAP-Flex) on their Title II D funds. While this does not involve a transfer, 18% of state directors reported a substantial impact on their program through REAP-Flex.

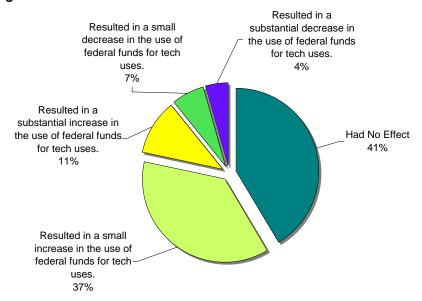


Figure 12: Net Effect of REAP-FLEX on Use of Formula Funds in Rural Schools

NOTE: REAP-Flex" is the term that the U.S. Department of Education has given to the "alternative uses of funds" authority under the Small, Rural School Achievement program. This authority provides flexibility to eligible, rural LEAs to support local activities under an array of federal programs in order to assist them in addressing local academic needs more effectively. REAP-Flex does not involve a transfer of funds from one program to another. Rather, REAP-Flex gives an LEA broader authority in spending "applicable funding" for alternative uses under selected federal programs.

The challenge of efficiently administering the large number of formula grants was identified in both Rounds 1 and 2. State directors commented that the structure of the formula grants does ensure sustainability and equitable distribution of funds, but, in some cases, the small size of the grants makes administration and the measurement of impact challenging.

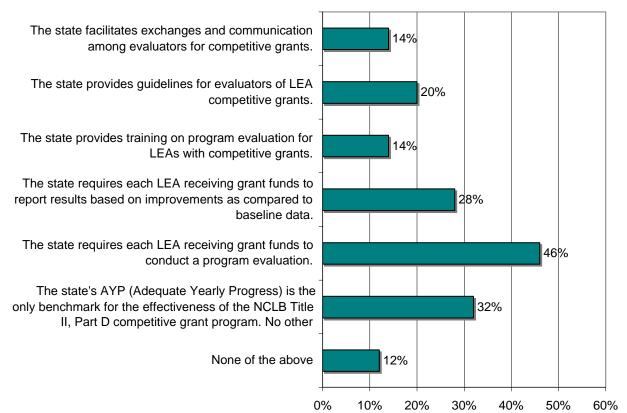


Figure 13: State Requirements and Guidance for Program Evaluation - Formula Grants

The bottom line for survey respondents is that formula grants are an expeditious method for allocating technology funds to high need schools, provided the grants are of a sufficient size and the evaluation associated with these funds is focused on fidelity of implementation – not ferreting out the impact of the technology versus other aspects of the overall school improvement effort.

The table on the following page provides information on the formula grants in each state.

### Formula Grants - Round 2

State	Number of LEAs (2005)	Number of LEAs Eligible for Title II D	Percent of LEAs Eligible for Title II D	Number of Formula Grants Awarded in Round 2
Alabama	129	128	99%	128
Alaska	53	53	100%	53
Arizona	577	412	71%	335
Arkansas	308	308	100%	303
California	1329	1146	86%	818
Colorado	178	178	100%	178
Connecticut	237	154	65%	146
Delaware	32	32	100%	32
District of Columbia	40	38	95%	29
Florida	72	72	100%	71
Georgia	180	180	100%	180
Hawaii	1	1	100%	1
Idaho	115	115	100%	115
Illinois	893	763	85%	720
Indiana	309	299	97%	290
Iowa	371	370	100%	369
Kansas	302	302	100%	302
Kentucky	176	175	99%	175
Louisiana	81	78	96%	72
Maine	231	210	91%	210
Maryland	24	24	100%	24
Massachusetts	380	373	98%	336
Michigan	809	760	94%	672
Minnesota	501	400	80%	316
Mississippi	152	148	97%	148
Missouri	524	517	99%	516
Montana	450	347	77%	345
Nebraska	504	310	62%	296
Nevada	17	17	100%	13
New Hampshire	162	139	86%	115
New Jersey	668	538	81%	**485
New Mexico	89	89	100%	89
New York	743	713	96%	698
North Carolina	215	179	83%	124
North Dakota	214	190	89%	190
Ohio	764	732	96%	732
Oregon	198	182	92%	179
Pennsylvania	664	567	85%	567
Rhode Island	45	43	96%	43
South Carolina	85	85	100%	85
South Dakota	172	170	99%	170
Tennessee	138	138	100%	133
Texas	1256	1256	100%	1,146
Utah	58	58	100%	45
Vermont	60	59	98%	59
Virginia	132	132	100%	132
Washington	296	296	100%	290
West Virginia	55	55	100%	
Wisconsin	441	403	91%	403
Wyoming	441	403	48	
Totals or Averages	15,478	13,934	90%	12,933

\*Data Source: SETDA Surveys 2004-05

\*\*An additional 50 districts applied for funding, but their award was less than a dollar.

Another 3 received funds through a consortium.