

Public Education Technology Initiatives

Evaluation Report
January 2005

Office of Performance Evaluations
Idaho State Legislature



Report 05-01

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Public Education Technology Initiatives

January 20054

Report 05-01

Office of Performance Evaluations
700 W. State Street, Lower Level, Suite 10
P.O. Box 83720, Boise, Idaho 83720-0055



Office of Performance Evaluations Idaho State Legislature

Joe R. Williams Building
Lower Level, Suite 10
P.O. Box 83720
Boise, Idaho 83720-0055

Phone (208) 334-3880
Fax (208) 334-3871
www.state.id.us/ope

Rakesh Mohan
Director

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Members
Joint Legislative Oversight Committee
Idaho State Legislature

Last March, you directed us to review several key technology initiatives in public education, with a focus on fiscal accountability. In particular, lawmakers were interested in the implementation of the Idaho Educational Technology Initiative of 1994.

This evaluation report offers nine recommendations to ensure compliance with statutory requirements, improve statewide planning and data management, reduce district reporting requirements, direct management focus to results, and clarify requirements of the federal No Child Left Behind Act.

We appreciate the cooperation and assistance we received from the Office of the Governor, the State Board of Education, the Idaho Council for Technology in Learning, and the State Department of Education in conducting this study. Their written responses to our findings and recommendations are included in the report. The Governor's office, the board, and the council agree that our recommendations will help improve the integration of technology in our public schools. The department provided a detailed response, but did not specifically comment on the recommendations.

We also thank school districts, the J.A. and Kathryn Albertson Foundation, the Office of the State Controller, Budget and Policy Analysis, and Legislative Audits for their assistance.

Sincerely,

A handwritten signature in black ink that reads "Rakesh Mohan".

Rakesh Mohan

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Executive Summary

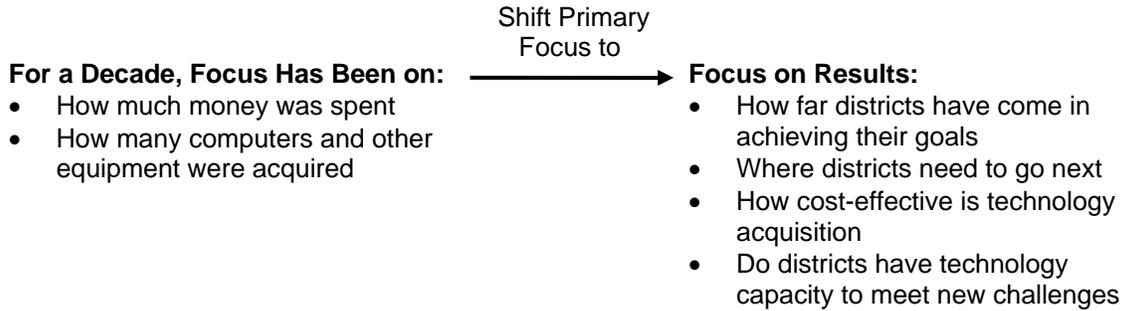
Public Education Technology Initiatives

Over the past decade, about \$442 million of public and private funds have been used by school districts to improve and integrate technology into Idaho's public schools. The Joint Legislative Oversight Committee directed the Office of Performance Evaluations to review technology initiatives in public education (K–12), including the implementation of the Idaho Educational Technology Initiative of 1994 and federal technology requirements. This report is the fourth in a series of evaluations conducted by the Office of Performance Evaluations on fiscal accountability of Idaho public education. Key findings from this review are:

- At the national level and in relation to neighboring states, Idaho compares well on established education technology measures, such as the statewide number of students per computer. However, we found that state and national averages are not necessarily a reflection of individual school districts' readiness or ability to offer and utilize technology. There is evidence of a large degree of variation among Idaho's 114 school districts on measures such as student access to computers, current computer operating systems, and technical support.
- The State Board of Education and Idaho Council for Technology in Learning have not implemented some of the key statutory requirements that govern the use of state technology funds. This lack of implementation has hampered proper planning, development of best practices, and justification of dollars spent by school districts. The council has also placed little priority on ensuring school districts have adequate support to maintain their technology investments.

These findings, together with other analyses included in this report, show there has been mixed success in implementing technology initiatives in Idaho's public schools. An improved response to the Legislature's Technology Initiative of 1994 will require the council to comply with statutory requirements and shift its primary focus away from measuring dollars spent and computers owned, and redirect its attention to cost-effectiveness and improving the readiness of school districts to provide and integrate technology. Additional efforts will also be needed to improve data quality and reporting processes, and clarify technology requirements of the No Child Left Behind Act of 2001.

Exhibit A: Necessary Change in Management Focus



Source: Office of Performance Evaluations.

The council would still need to keep track of financial and inventory information, but this type of tracking would only be a part of the new focus. The council's current management style and the necessary shift in focus is described in the exhibit above.

Many of the processes required for this shift of focus to occur are already in place, such as electronic reporting by districts, compilation of information, and publication of results. The benefit of this expanded approach would be knowing how well districts are attaining their technology goals and how well technology dollars are being spent.

The report contains nine recommendations to address current shortcomings and bring about the change in process discussed above. Each recommendation is provided below, with a brief explanation of why it should be implemented and the resources needed to do so. Detailed discussions are found in the main body of the report.

Recommendations

Implementation of the Technology Initiative (see Chapter 2)

1. *To comply with the statutory requirements of the Idaho Education Technology Initiative of 1994:*
 - a. *The State Board of Education should annually review and approve the statewide technology plan developed by the Idaho Council for Technology in Learning.*
 - b. *The Idaho Council for Technology in Learning should require school districts to submit a project plan as part of the application for annual grants. The plan should include a description of proposed purchases, effective classroom use, teacher training, and local matching funds.*

- c. *The Idaho Council for Technology in Learning should identify and recommend to the State Board of Education exemplary education technology programs, practices, and products (see Chapter 5).*
- d. *The Idaho Council for Technology in Learning should consult with Idaho Technology Resource Management Council (ITRMC) staff for guidance on adherence to ITRMC policies that would benefit school districts in their use of state technology dollars.*

The State Board of Education and the Idaho Council for Technology in Learning have either not addressed these statutory requirements or no longer require districts to follow them. If implemented, these requirements would improve state and district planning for technology, identify practices that optimize public and private dollars, and apply standards that could make district technology systems more manageable.

Additional Resources Needed to Implement Recommendation	None
Timeline to Implement Recommendation	December 2005

Technology Planning and Funding (see Chapter 3)

- 2. *The State Board of Education should ensure the statewide education technology plan has the following elements:*
 - a. *Assessment of current goals and realignment (if necessary) with statute*
 - b. *Timelines for achieving goals and objectives*
 - c. *Standards or benchmarks for performance measures*
 - d. *Standards and planning guidance for adequate district staffing for technical support*
 - e. *Guidance on finance, budgeting, and cost-effective technology acquisition*

The addition of these elements would provide the state and districts a better understanding of where the plan should take their technology systems in the future, when goals should be achieved, and criteria for achieving targets, and incorporate a new focus on staffing and financing education technology. Without these elements in the plan, it would be difficult to determine progress on goals.

Additional Resources Needed to Implement Recommendation	None
Timeline to Implement Recommendation	December 2005

3. *If the intent of the Idaho Council for Technology in Learning is to disburse technology grant program dollars directly to charter schools, the council should modify the funding formula to reflect this.*

The State Department of Education's practice of disbursing technology funds directly to charter schools, rather than through the host district, is not addressed by the formula established by the council. Therefore, either this practice should be discontinued or the formula should be modified.

Additional Resources Needed to Implement Recommendation	None
Timeline to Implement Recommendation	June 2005

4. *The Idaho Council for Technology in Learning should clarify annual appropriation bill intent language for the use of one-time funds for ongoing expenditures (including personnel) and communicate this intent to school districts.*

State and district technology professionals share many different interpretations of annual appropriation bill language related to the use of one-time funds for ongoing expenditures, such as district personnel. This is directly related to the council not clarifying and providing substantive guidance on these requirements to districts.

Additional Resources Needed to Implement Recommendation	None
Timeline to Implement Recommendation	June 2005

Data Management and Program Assessment (see Chapter 4)

5. *Idaho Council for Technology in Learning staff should improve the quality of technology information maintained and reported to the Legislature, and reduce the duplication of financial reporting requirements placed on school districts by:*
 - a. *Coordinating with the State Department of Education’s Bureau of Finance and Transportation and the Division of Accounting and Human Resources to obtain audited financial information already submitted by districts.*
 - b. *Taking steps to improve quality controls of district technology inventory data, and using existing electronic information when available, in coordination with the State Department of Education’s Bureau of Finance and Transportation*

The database used by council and department staff to track district technology allocations and expenditures and report to the Legislature contains inconsistencies and errors. This information did not match district data that is separately requested by the department. Therefore, better coordination between the council and the department would reduce duplication in reporting required of districts. Errors were also found in a database, maintained by council staff, that tracks district inventories of hardware, software, telecommunications, and technology services.

Additional Resources Needed to Implement Recommendation	None
Timeline to Implement Recommendation	June 2005

6. *The Idaho Council for Technology in Learning should review the CEO Forum’s technology assessment chart, used by other states, and develop a plan, including needed resources, for implementation of a similar assessment tool to meet Idaho’s needs.*

The current practice of reporting annual technology expenditures does not answer questions of how well funds were spent or how well individual districts are prepared to use and integrate educational technology. The successful development and implementation of a better assessment tool is critical as the council shifts its primary focus to more descriptive evaluations which measure progress and address deficiencies. Such an assessment tool will help the state and districts to determine where we are today and where we need to go tomorrow.

Additional Resources Needed to Implement Recommendation	None for the review of the assessment tool and to develop a plan, but a moderate amount of resources would be needed to develop Idaho-specific assessment criteria
Timeline to Implement Recommendation	December 2005 to review and develop a plan

District Operations and Best Practices (see Chapter 5)

- The Idaho Council for Technology in Learning should develop a standard ratio of computers-to-district technology support (measured by full-time equivalent employees).*

There has been little effort by the council to ensure adequate district technology staffing to maintain technology investments. Based on limited information collected by the State Department of Education, we determined most districts fall below minimum industry standards for adequate technology support. As a first step, the council should develop a standard definition of technology support, which can be consistently applied to districts.

Additional Resources Needed to Implement Recommendation	None
Timeline to Implement Recommendation	December 2005

Recent Technology Initiatives (see Chapter 6)

- Should the State Department of Education invest state or federal dollars into the development of a statewide centralized student information management system, legislative financial auditors should consider including a review of the department’s technology-related financial and budgetary practices as part of their periodic audit work.*

The recent private and public attempt to develop a centralized Idaho student information management system (ISIMS) linking all school districts was over budget, behind schedule, complex, and finally, cost-prohibitive. Therefore, additional oversight by legislative financial auditors would help ensure accountability for public resources invested in such a system.

Additional Resources Needed to Implement Recommendation	Minimal, or simple adjustment to audit schedule
Timeline to Implement Recommendation	Next scheduled audit cycle (either 2007 or 2008)

9. *The State Board of Education should formally revisit Idaho's eighth-grade technology standards, their purpose, and implementation relative to the requirements of the statewide technology plan and the No Child Left Behind Act of 2001.*

Although both board and department staff report the new eighth-grade technology standards were approved, we found no formal evidence of board approval. Based on our review of federal law and communication with federal officials, the apparent choice of developing eighth-grade technology standards as a strategy to integrate technology into instruction was an Idaho decision, not a federal requirement. Additionally, there is no federal requirement for students to demonstrate proficiency on these standards.

Additional Resources Needed to Implement Recommendation	None
Timeline to Implement Recommendation	December 2005

Summary of Responses to the Evaluation

We requested and received responses from the Office of the Governor, the State Board of Education, the Idaho Council for Technology in Learning, and the State Department of Education. The Governor's office, the board, and the council believe our recommendations will help achieve the purposes of the Technology Initiative. These responses have expressed varying perspectives on the evaluation, and are included at the end of this report.

Acknowledgements

We appreciate the cooperation and assistance we received from school districts, the State Department of Education, the Office of the State Board of Education, and the Idaho Council for Technology in Learning in conducting this study. We also appreciate the input we received from the J.A. and Kathryn Albertson Foundation, the Office of the State Controller, the Division of Financial Management of the Office of the Governor, Budget and Policy Analysis, Legislative Audits, the Idaho Association of School Boards, the Idaho

Association of School Administrators, the Idaho Educational Technology Association, and the US Department of Education.

Paul Headlee (project lead) and Rachel Johnstone of the Office of Performance Evaluations conducted the study. Breanne Kunz, an intern from Boise State University, also helped on this project. Chris Shoop of the Office of Performance Evaluations performed the quality control review on the project.

Additional assistance was provided by three consultants: (1) Tedd McDonald, Ph.D., Psychology Department at Boise State University; (2) Kathleen Sullivan, Ph.D., Director of the Center for Educational Research and Evaluation at the University of Mississippi; (3) Bob Thomas of Robert C. Thomas & Associates. Mr. Thomas is also Principal Management Auditor at the King County Auditor's Office in Seattle, Washington.

Chapter 1

Introduction

Since the establishment of the Idaho Educational Technology Initiative of 1994, Idaho school districts have received about \$442 million from state, local, federal, and private sources for educational technology programs. Districts have used these monies to invest in computers and other equipment, connect schools to the Internet, integrate technology into school curricula, administer the Idaho Standards Achievement Test (ISAT) by computer, and prepare for the Idaho Student Information Management System (ISIMS).

While Idaho’s technology in public education compares favorably to other states, there remains considerable variation among individual districts. Legislators expressed interest in how state technology funds have been administered through the Idaho Council for Technology in Learning, and how districts have invested these funds, particularly in light of computerized ISAT, ISIMS, and the technology requirements of the No Child Left Behind Act of 2001. In response to legislative interest, the Joint Legislative Oversight Committee directed the Office of Performance Evaluations to review K–12 technology initiatives in Idaho.

Idaho Educational Technology Initiative of 1994

In 1994, Idaho lawmakers recognized the importance of applying technology to meet the need for an improved and seamless public education system, and passed House Bill 901, which created the “Idaho Educational Technology Initiative of 1994.” The Technology Initiative is directed toward elementary and secondary education, the Idaho School for the Deaf and the Blind, post-secondary and higher education, and public libraries.

The Technology Initiative defines technology, as it relates to education, as “all present and future forms of computer hardware, computer software and services used or required for automated data processing, computer-related office automation or telecommunications.”¹

Throughout this report:

- ◆ State Board of Education is also referred to as the board,
- ◆ Idaho Council for Technology in Learning as the council, and
- ◆ Idaho Educational Technology Initiative of 1994 as the Technology Initiative.

¹ IDAHO CODE § 33-4803(3)

Important components of the Technology Initiative include:

- Idaho Council for Technology in Learning established under the State Board of Education²
- Statewide education technology plan developed by the council³
- Public school technology grant program administered by the council⁴
- Approaches to evaluate and report the costs and benefits of the educational programs conducted under the Technology Initiative⁵

Components added in later years addressed:

- Standing committees to advise the council on primary and secondary education and higher education technology and telecommunications matters⁶
- Assurance that policies of the Information Technology Resource Management Council⁷ are followed in the implementation of Technology Initiative programs⁸

K–12 Technology Funding Sources

As seen in Exhibit 1.1, about \$442 million of state, federal, local, and private funds have been distributed to districts for educational technology during the past 11 years.⁹

State Technology Initiative Funds

For fiscal years 1995 to 2005, the Idaho Legislature appropriated \$108.4 million to the Technology Initiative. Most (\$104.9 million) of this funding has been distributed to districts with the remaining funds allocated to the Idaho State Library's Libraries Linking Idaho (LiLI) project and for council staff,

² IDAHO CODE § 33-4804

³ IDAHO CODE § 33-4805(2)(a)

⁴ IDAHO CODE § 33-4806

⁵ IDAHO CODE § 33-4807

⁶ IDAHO CODE §§ 33-4809 and 33-4810

⁷ Established in 1996, the Information Technology Resource Management Council facilitates a centralized approach to the acquisition and evaluation of information technology and telecommunications systems for both state government and the public.

⁸ IDAHO CODE § 33-4805(2)(d)

⁹ This amount is likely underestimated because the Division of Professional-Technical Education within the State Board of Education does not track funds used for computers or other classroom technology, which is the focus of this evaluation.

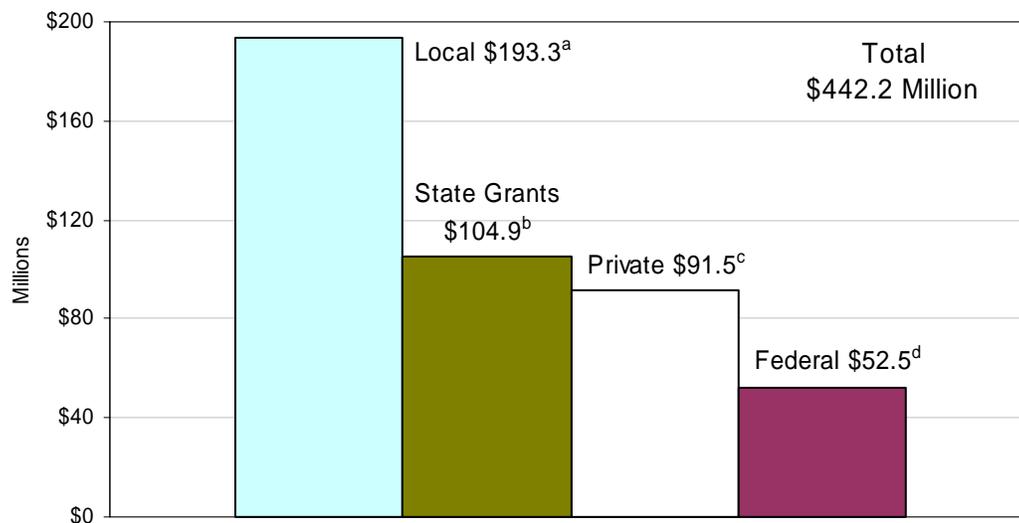
administration, and contracted evaluations.¹⁰ Exhibit 1.2 shows the annual amounts provided to districts during the past 11 years.

Local Funds

The council’s data collection efforts, discussed in Chapter 4, indicate that locally-generated support for K–12 educational technology between fiscal years 1995–2004 came to \$193.3 million. This figure—compiled by department and council staff from information collected from district technology coordinators—may be an under-representation of actual local contributions. These funds have

¹⁰ The total of 104.9 million does not include \$150,000 of Technology Initiative dollars used to match a grant from the Gates Foundation in 2002, adding to a \$200,000 match made by the Board of Education in 2001. These monies are also excluded from Exhibit 1.1. 2001 Idaho Sess. Law 341; 2002 Idaho Sess. Law 262.

Exhibit 1.1: Amounts and Types of Funding for District Technology Programs, Fiscal Years 1995–2005



- ^a Represents self-reported and estimated local fund expenditures, fiscal years 1995–2004 *only*.
- ^b Represents state grants and surplus Idaho Council for Technology in Learning administrative monies distributed to districts, fiscal years 1995–2005. This amount does not include \$350,000 in state matching funds for a Gates Foundation technology training grant to the Idaho Association of School Administrators in fiscal years 2001–2002.
- ^c Represents estimated amounts directly benefiting Idaho districts, from US West Communications in fiscal year 1996, the Albertson Foundation *since* fiscal year 1998, and the Gates Foundation in fiscal years 2001–2002.
- ^d Total represents monies from federal awards made between *federal* fiscal years 1995–2003 and distributed to districts between *state* fiscal years 1997–2004 (including E-Rate reimbursements and federal education technology grants). This does not include \$5.8 million of those federal grants, awarded to Idaho since federal fiscal years 2002, which have been partially or not yet distributed.

Source: Office of Performance Evaluations analysis of data from Idaho Council for Technology in Learning, US Department of Education, School and Libraries Division of the Universal Service Administrative Company, Office of the State Controller, J.A. and Kathryn Albertson Foundation, Idaho Association of School Administrators, and 2001 Idaho Sess. Law 341; 2002 Idaho Sess. Law 262.

come from district maintenance and operations budgets, and other sources such as lottery funds, fundraising activities, tax levies, and equipment donations.

Furthermore, this total does not approximate the investment of volunteer time and resources in many districts. From our interviews with council members and district staff, we learned valuable efforts by district and school staff, students, and community members may have a significant effect on individual district operations and programs. These types of investments, however, have not been measured in dollars by the council or the department.

Federal Funds

Since 1995, three federal education technology programs have provided \$22.7 million in grants to Idaho school districts. These programs included Goals 2000, the Technology Literacy Challenge Fund, and the current Enhancing Education Through Technology program, which supports Title II-D of the No Child Left Behind Act. In addition, between 1998 and 2004, the federal E-Rate program (also known as the Schools and Libraries Universal Service Support Mechanism) has reimbursed approximately \$29.8 million of district investments in telephone and internet connections and services.

Exhibit 1.2: State Technology Monies Distributed to Districts, Fiscal Years 1995–2005



^a After adjusting for inflation, state technology funds have decreased 39 percent since fiscal year 1995. Grants made in fiscal year 2005 (\$7.93 million) have an adjusted value of \$6.29 million when compared to 1995.

Source: Office of Performance Evaluations analysis of information from the Office of the State Controller, and the US Department of Commerce, Bureau of Labor Statistics.

Private Funds

Since 1998, districts received substantial education technology funding from the J.A. and Kathryn Albertson Foundation. According to foundation officials, this included \$27.4 million for the purchase of classroom computers, \$26.3 million for building computer labs and teacher training, and \$33.2 million for an early education reading program.¹¹

In 1996, the Idaho Public Utilities Commission directed US West Communications to provide \$3.8 million of revenue sharing to the council to be distributed to schools in southern Idaho. Additionally, the Idaho Association of School Administrators—in participation with the State Department of Education and the council—received a \$750,000 grant from the Bill and Melinda Gates Foundation to organize technology training for school administrators from 2001 to 2004.

Use of Technology Funds

The council reported that technology funds have been used by districts to:

- Increase the number of computers and other information technology equipment in schools (73 percent between fiscal years 1999-2004)
- Connect schools to the Internet
- Integrate technology into school curricula
- Administer the Idaho Standards Achievement Test (ISAT) by computer
- Prepare for the Idaho Student Information Management System (ISIMS)

Idaho Compared to Other States

Of its six neighboring states, Idaho is the only state with an ongoing annual budget line-item for technology in schools. When available, Nevada allocates funds to school districts with proportionately more funds going to poorer districts. Wyoming provides funding to districts, but the funds are administered centrally by the state and the districts have no direct control over the money. The remaining four states, Montana, Oregon, Utah, and Washington, either do not, or no longer, provide funding to districts specifically for educational

¹¹ The total includes only those monies directly affecting district level education technology programs. The total amount of private investment here does *not* include \$21 million the Foundation reports investing in the Idaho Student Information Management System (*in addition* to \$3.5 million the Foundation reports was invested in the early system).

technology.¹² In Montana, the main source of district technology funds is local levies.

The existence of the Technology Initiative line-item over the past decade has contributed to Idaho's favorable standing when compared to neighboring states and the nation on common technology indicators, such as the number of students per classroom computer, the number of classrooms connected to the Internet, and computer-based assessment testing. Exhibit 1.3 illustrates how Idaho compares

¹² In the past, Washington has provided one-time funds to districts, such as in 1994 and 1998, for Internet connection and hardware, respectively. Until 2000, Utah had a technology funding formula similar to Idaho, but has since replaced it with a block grant that can be used for purposes other than technology.

Exhibit 1.3: State and National Comparisons of Educational Technology Counts, Fiscal Year 2004

	<u>Students Per Instructional Computer</u>	<u>Students Per Instructional Computer Located in the Classroom</u>	<u>Students Per Internet- Connected Computer</u>	<u>Students Per Internet- Connected Computer in the Classroom</u>	<u>Percent of Instructional Computers Running Windows 2000, NT or XP</u>
Idaho	2.9	5.6	3.5	6.6	26
Montana	2.9	6.7	3.3	7.2	29
Nevada	4.5	11.3	5.7	11.2	25
Oregon	4.5	10.1	5.5	12.1	22
Utah	5.2	13.3	5.8	17.3	20
Washington	3.7	7.7	4.4	8.3	46
Wyoming	2.7	6.5	2.8	6.6	46
7 state average	3.8	8.8	4.4	9.9	30
Average of 6 neighbor states	3.9	9.3	4.6	10.4	31
United States	4.0	7.9	4.3	8.4	29
Idaho rank (7 states)	2	1	3	1	4
How to view ratios and percentages	Lower the better	Lower the better	Lower the better	Lower the better	Higher the better
Better than neighbor average?	Yes	Yes	Yes	Yes	No
Better than national average?	Yes	Yes	Yes	Yes	No

Source: Office of Performance Evaluations analysis of "Technology Counts" information in *Education Week*, Vol. XXIII, no. 35, 64-76.

on some common measures. Although Idaho students have good access to computers, these computers are older than the average in some neighboring states and the nation.

Idaho School Districts

Although Idaho compares well to other states, individual districts range widely when measured against the same indicators. We observed a wide variation among districts in areas such as students per classroom computer, current operating systems, and technology staffing.¹³ This variation underscores the need to look more closely at how well individual districts are able to provide and integrate technology, and to find solutions when deficiencies are identified.

Legislative Interest and Study Mandate

At its March 2004 meeting, the Joint Legislative Oversight Committee (JLOC) directed the Office of Performance Evaluations to conduct an evaluation of K–12 technology initiatives. This evaluation is the fourth in a series of reports on fiscal accountability in public education. This and the three previous evaluations were requested by majority and minority legislative leadership. Among the questions raised, legislators wanted to know:

- What are the sources and uses of the K–12 Technology Initiative funds?
- How well has the council implemented the Educational Technology Initiative as established in Idaho Code?
- What are the current and projected costs of the Idaho Student Information Management System?
- What are the technology demands of the No Child Left Behind Act and the Idaho Standards Achievement Test?

The full scope of the project is provided in Appendix A.

¹³ We tested for variation using the coefficient of variance, a measure of how far from the mean the standard deviation of the population is, and found a high degree of variance in each measure.

Evaluation Methodology

To address the evaluation questions raised by legislators, we:

- Reviewed Idaho statutes and legislative history
- Interviewed officials from:
 - ◆ State Department of Education, Office of the State Board of Education, Department of Administration, Legislative Budget and Policy Analysis, Legislative Audits, Office of the State Controller, and Division of Financial Management
 - ◆ Idaho Association of School Administrators, Idaho School Boards Association, and Idaho Educational Technology Association
 - ◆ Florida, Montana, Nevada, Oregon, Utah, Virginia, Washington, and Wyoming
- Interviewed members of the Idaho Council for Technology in Learning and reviewed meeting minutes and archived materials
- Visited and interviewed superintendents, technology staff, and business managers of 13 districts: Boise, Boundary, Coeur d'Alene, Emmett, Gooding, Idaho Falls, Kuna, Lake Pend Oreille, Mountain Home, Pocatello, Snake River, Weiser, and Wendell
- Analyzed Department of Education data on revenues, expenditures, hardware/software, and staffing
- Reviewed previous evaluations and technology literature
- Received a 96 percent response rate (110 of 115) on surveys mailed to districts and the Idaho School for the Deaf and the Blind regarding district financing and use of technology (surveys were completed by district technology coordinators or superintendents)
- Surveyed each of Idaho's four virtual academies to provide basic information related to technology budgets and operations
- Reviewed the No Child Left Behind Act and spoke with officials from the US Department of Education

Report Organization

The remainder of this report is organized as follows:

Chapter 2 provides a review of the statutory requirements of the Technology Initiative and how well these requirements have been implemented.

Chapter 3 addresses statewide and district technology planning and state funding of the Technology Initiative.

Chapter 4 addresses the types and quality of data collected by council staff and how that information is used. Recommendations are offered on how data management and assessment strategies may be improved.

Chapter 5 reviews topics related to district funding and operations (including survey response information from 110 districts and site visits to 13 districts). Also, best practices and various assessment tools are discussed for potential use at the district level.

Chapter 6 addresses recent K–12 technology initiatives, including the Idaho Student Information Management System, computerized remediation for the Idaho Standards Achievement Test, new eighth-grade technology standards, and requirements of the No Child Left Behind Act.

Chapter 2

Implementation of the Technology Initiative

The State Board of Education and the Idaho Council for Technology in Learning have responsibilities to coordinate and implement the Idaho Educational Technology Initiative of 1994. They have addressed many of their responsibilities including the development of a statewide technology plan and the administration of a public school technology grant program.

Some statutory responsibilities have not been met, however. The board did not conduct an annual review of the statewide plan. In addition, the council has not required districts to submit project plans as part of the grant application process. Neither has the council recommended technology-based exemplary programs, practices, and products to the board, nor has it ensured compliance with Idaho Technology Resource Management Council policies. The board and the council should take steps to impellent these requirements.

Legislative Intent and Role of the Council

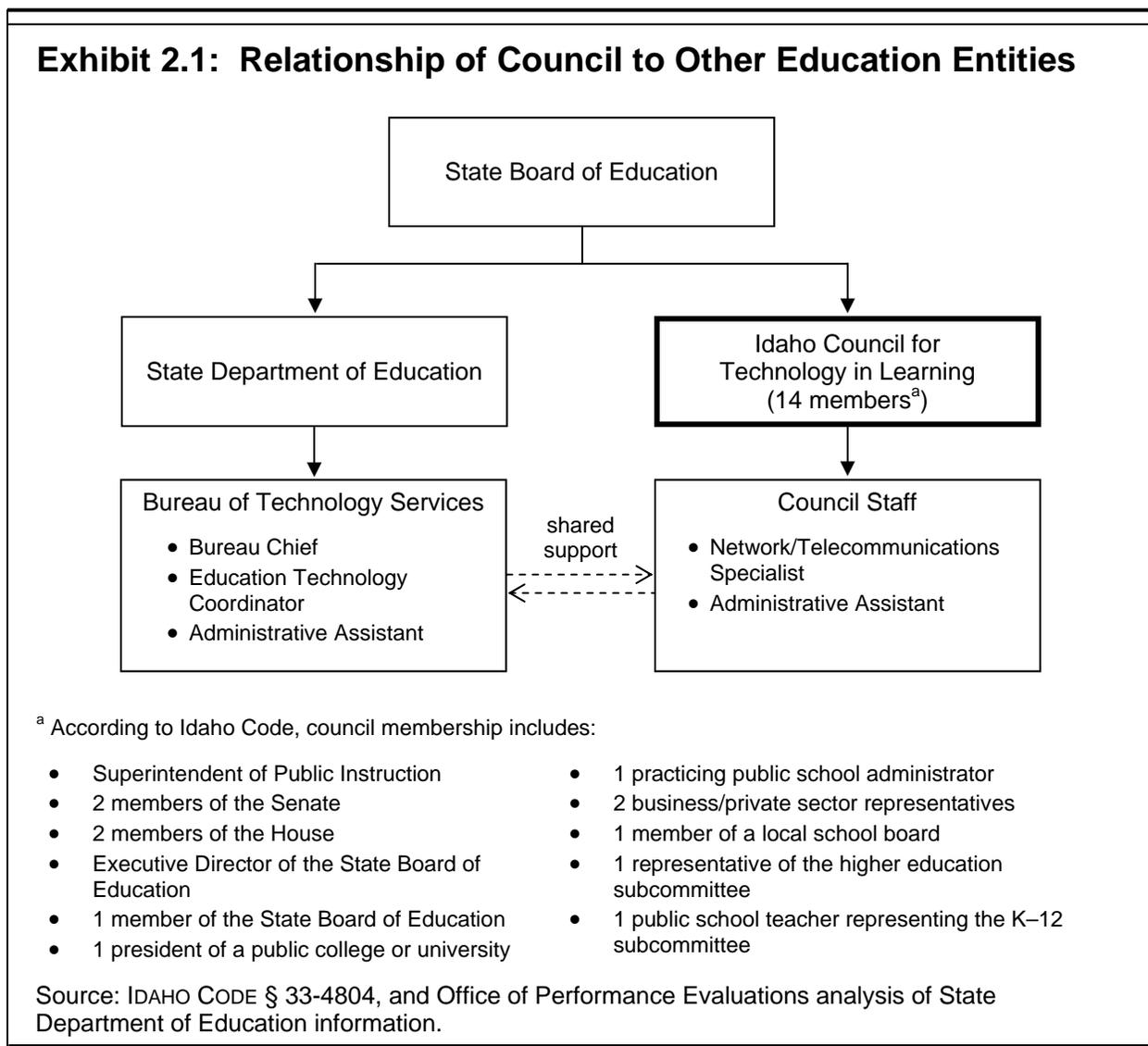
The Idaho Educational Technology Initiative of 1994 was intended to “establish a mechanism to assure the future coordination and effective implementation of state-funded learning technologies, [which] have been handled piecemeal and haphazardly in the past.”¹ The goals of the initiative are to:

- Promote the effective use of learning technologies
- Meet urgent needs for equipment, software, and training
- Coordinate delivery of related services
- Maximize the benefits of these technologies
- Minimize waste and duplication

¹ Statement of Purpose, House Bill 901 (1994)

As required in statute, the Idaho Council for Technology in Learning was established under the State Board of Education.² Exhibit 2.1 shows the relationship of this 14-member council with other entities. Technology Initiative funding is used for two full-time council employees (a telecommunications specialist and an administrative assistant). The State Department of Education’s Bureau of Technology Services also provides support staff to the council to assist with collection and reporting of data and preparation of meetings. The two groups of staff work closely with each other to serve the council and the department.

² IDAHO CODE § 33-4804



Addressing Key Statutory Requirements

Many key statutory requirements of the Technology Initiative have been implemented. The council's main responsibilities include developing a statewide education technology plan,³ thereby, recommending priorities for uses of educational technology funds,⁴ and administering a public schools technology grant program.⁵ In addition, the council is required to recommend to the State Board of Education technology-based exemplary programs, practices, and products.⁶

The following requirements of the Technology Initiative have not been implemented.

State Technology Plan Has Not Been Annually Reviewed

Idaho Code requires the council's statewide education technology plan to be reviewed and approved annually by the State Board of Education.⁷ We reviewed board and council meeting minutes and found no evidence the plan had been reviewed or approved annually. As a result, the statewide technology plan, originally developed in 1996, was not rewritten or approved by the board until 2004.

Idaho Code does not specify the nature or extent of the review, only that it occur annually. The review could be used to ensure that critical elements of the plan are being carried out or appropriately modified to keep pace with changing technologies and new initiatives.

District Project Plans Are No Longer Required

Since 2003, the council has not met the statutory requirement to ensure districts submit a project plan as part of the application to receive state technology grants.⁸ The project plan is to include descriptions of the following elements designed to ensure effective use of Technology Initiative dollars at the local level:

- Proposed equipment and software purchases, and how purchases will be effectively used in the classroom. Without insight into the types of equipment and software districts will purchase and use, the council cannot determine the effectiveness or appropriateness of intended purchases relative to the statewide educational technology goals.

³ IDAHO CODE § 33-4805(2)(a)

⁴ IDAHO CODE § 33-4805(2)(g)

⁵ IDAHO CODE § 33-4805(2)(c)

⁶ IDAHO CODE § 33-4805(2)(f)

⁷ IDAHO CODE § 33-4805(2)(a)

⁸ IDAHO CODE § 33-4806

- Provision for training teachers to make optimal use of technology. Without the required provision for teacher training, the council cannot assess if adequate efforts are being made to optimize technology dollars to integrate technology into instruction. We found 65 districts reported to the council that no part of their state technology grants was used for professional development during fiscal year 2003. The importance of teacher training is discussed further in Chapter 5.
- Provision for local matching funds as prescribed by the council. Without the required provision for local matching dollars, the council cannot determine if districts intend to contribute their own resources to educational technology. Fifteen districts reported to the council that they contributed zero local matching funds to technology during fiscal year 2003. This number increased to 24 in fiscal year 2004. During our interview with a sponsor of the Technology Initiative, we learned the intent from the beginning was that districts would share in the cost of technology.

Exemplary (Best) Practices Have Not Been Recommended

The council is required to recommend to the State Board of Education technology-based exemplary programs, practices, and products.⁹ Board officials told us this could assist board members to prioritize initiatives and budget decisions. Such best (exemplary) practices could assist districts to optimize monies allocated through the technology grant program.

We found no evidence the council has developed and recommended such exemplary programs, practices, and products, although we found a desire for such information during our visits to districts around the state. In Chapter 5, we discuss best practices and provide examples in Appendix B that may serve as a starting point. Also in Chapter 5, we discuss district operations, some of which may be considered exemplary.

ITRMC Policies Have Not Been Considered or Followed

The Information Technology Resource Management Council (ITRMC), created in 1996, facilitates a centralized approach to the acquisition and evaluation of information technology and telecommunications systems for state government and the public. ITRMC establishes policies that apply to all state agencies, boards, and councils—only constitutional officers, the Legislature, and judiciary, and their staff are exempt.¹⁰

⁹ IDAHO CODE § 33-4805(2)(f)

¹⁰ IDAHO CODE § 67-5745A(2)

Although the Superintendent of Public Instruction and her staff (the Department of Education) are exempt, the Idaho Council for Technology in Learning is statutorily required to ensure compliance with ITRMC policies.¹¹ In 1999, Idaho Code was amended to strengthen the council’s responsibility from “consider” telecommunications guidelines to “ensure” ITRMC policies are “followed.”¹²

ITRMC policies include requirements for agencies, boards, and councils to:

- Adopt a risk assessment strategy for major projects¹³
- Adopt compatible network protocols for connectivity—such as wiring standards—interoperability, and data sharing¹⁴
- Annually submit an information technology plan and a list of major projects for review¹⁵

While the council is required to ensure compliance with these policies in implementing the programs of the Technology Initiative, the entities the council oversees—school districts—are not required by statute to follow ITRMC policies. The ITRMC coordinator believes some districts would benefit from voluntarily adopting selected policies. Council staff report that some ITRMC policies are simply not relevant to district operations, and said the council should have its own standards that are similar to ITRMC policies.

Communication thus far between the council and ITRMC has been largely informal and irregular. When we interviewed the ITRMC coordinator in June 2004, the only council material on file was a copy of the 1996 statewide technology plan and a vision statement submitted by the higher education subcommittee in 2001.

Idaho Code requires the council to work with education entities to coordinate voice, video, and telecommunications systems,¹⁶ and ITRMC is required to review and approve large-scale information technology and telecommunications projects for state agencies, boards, and councils.¹⁷ It is clear both the council and ITRMC have similar telecommunication goals and would strengthen their programs by working together.

¹¹ IDAHO CODE § 33-4805(2)(d)

¹² 1994 Idaho Sess. Laws 229; 1999 Idaho Sess. Laws 327

¹³ ITRMC Policy 2040

¹⁴ ITRMC Policy 3020

¹⁵ ITRMC Policy 2010 and 2030. Although the council has not submitted an annual plan to ITRMC, very few agencies, boards, or councils comply with this requirement. ITRMC staff informed us that, in 2001, nine agencies, boards, or councils complied, in 2002, 17 complied, and in 2003 and 2004, only seven technology plans were submitted each year.

¹⁶ IDAHO CODE § 33-4805(2)(i)

¹⁷ IDAHO CODE § 67-5745C

Recommendation

1. *To comply with the statutory requirements of the Idaho Education Technology Initiative of 1994:*
 - a. *The State Board of Education should annually review and approve the statewide technology plan developed by the Idaho Council for Technology in Learning.*
 - b. *The Idaho Council for Technology in Learning should require school districts to submit a project plan as part of the application for annual grants. The plan should include a description of proposed purchases, effective classroom use, teacher training, and local matching funds.*
 - c. *The Idaho Council for Technology in Learning should identify and recommend to the State Board of Education exemplary education technology programs, practices, and products (see also Chapter 5).*
 - d. *The Idaho Council for Technology in Learning should consult with Idaho Technology Resource Management Council (ITRMC) staff for guidance on adherence to ITRMC policies that would benefit school districts in their use of state technology dollars.*

Additional Resources Needed None
to Implement Recommendation

Timeline to Implement December 2005
Recommendation

Chapter 3

Technology Planning and Funding

The Idaho Council for Technology in Learning has responsibilities for developing and maintaining a statewide education technology plan and, subject to the approval of the State Board of Education, administering a technology grant program for public schools.

The council, with support from other educational entities, developed the first statewide education technology plan in 1996. At the request of the council, the second statewide technology plan was developed by the State Department of Education in 2004. Key elements (which could help ensure the relevance and effectiveness of the plan) are missing: assessment of current goals and progress, timelines for accomplishing goals and objectives, criteria for measuring performance, and consideration of staffing and financing for technology. The board should review the statewide education technology plan in light of these elements, and make modifications as necessary.

State technology grants are allocated to districts on an attendance-based formula developed by the council, and district satisfaction with this formula has been mixed. Alternatives and possible improvements to the current funding formula are explored in this chapter, including how funds are disbursed to charter and virtual schools. Although appropriation bill language places restrictions on the use of technology grant monies, the council has not provided guidance to school districts to facilitate understanding of these restrictions to ensure appropriate adherence.

Technology Planning

Idaho Code requires the Idaho Council for Technology in Learning to develop and maintain a statewide technology plan for education.¹ The first plan, *Connections: A Statewide Plan for Technology in Public Schools*, was developed in 1996 by the council, the State Department of Education, and advisors from Idaho universities, in collaboration with legislators, representatives of business and industry, teachers, and students. The second statewide technology plan, *Connections 2004: Statewide Plan for Technology in Idaho*, was developed by

¹ IDAHO CODE § 33-4805(2)(a)

another collaborative effort led by department staff and district representatives. The plan was approved by the State Board of Education in March 2004.

1996 Statewide Plan

Idaho's first technology plan for public schools included 8 goals, 36 objectives, and 119 recommendations to achieve the objectives. Much of this plan continues to be relevant eight years later, including the recommendations to:

- Review and refine technology plans annually and reassess technology needs if necessary
- Predicate distribution of funds from the council on districts completing a technology plan
- Assess district telecommunication infrastructure as part of district technology plans
- Disseminate council guidelines and industry standards to districts
- Develop interoperable models—of diverse technology systems and programs working together—for districts through a cooperative effort of the department and Idaho Technology Resource Management Council
- Research and compile a recommended list of local, state, and national Internet connectivity options to be disseminated to districts via the department web site

Department staff said the 1996 plan was not measurable and progress towards its goals could not be determined. From our review of department documents, council minutes, previous grant applications submitted by districts, and interviews with state and district staff, it is clear some objectives set in 1996, including all of those listed above, were not consistently achieved.

2004 Statewide Plan

The 2004 statewide plan includes 6 goals, 25 objectives, and 78 performance measures. Each goal also includes actions to be taken by the state, districts, or *both* entities. The goals address:

- Integration—to improve the quality, effectiveness and relevance of instruction and learning by integrating technology with curriculum
- Technology literacy—to assist every student to become technologically literate

- Professional development—to promote professional development in technology use that enhances the educational process
- Collaboration—to promote the collaboration of schools, libraries, community members, state agencies, organizations, business and industry, post-secondary institutions, and public virtual learning environments to meet the needs of all learners
- Technology systems—to create and maintain compatible and secure technology systems that enhance the efficient operation of schools
- Assessment, evaluation and publication—to assess, evaluate and publicize the effects of technology use by educators and students toward student learning and achievement

Key Elements Are Missing from the Current 2004 Plan

If incorporated, the following elements would enhance the value of the plan.

1. Assessment of Current Goals Would Provide Guidance for Future Activities

The development of the new statewide technology plan did not include an assessment of the current status of educational technology in Idaho or of progress made on the previous 1996 plan. The relevance of the current goals in the plan cannot be assessed and a determination of “where we are and where we need to go” is not possible. Inclusion of goal assessment during the board’s annual review of the plan would help to determine their relevance and modification, if necessary.

2. Timelines Would Help Guide Progress and Achieve Goals

Timelines for achieving the goals and objectives are absent in the statewide technology plan. Timelines should be added to guide progress toward goals and inform policymakers, education professionals, and the public where the state and districts intend to be within the next several years.

3. Criteria for Performance Standards Would Allow Measurement of Progress

The expected levels of performance in the plan are not described in meaningful terms for many of the 78 performance measures. Rather, they are simply counts of specific activities and lack criteria for judging progress. For example, measures such as “number of districts that share data with state and local entities” or the “number of districts that restrict Internet sites deemed unsuitable” do not include criteria to determine how many or what percentage of districts meeting these objectives would be considered deficient, adequate, or exemplary.

4. Guidance for Adequate Staffing Would Benefit Districts

Although the Superintendent of Public Instruction and a recent study contracted by the council have noted the importance of district technology staffing, the statewide technology plan does not encourage districts to plan for personnel or

determine the technical support needs of users. Determining staffing based on a formula or standard, including strategies to reduce workload, could help districts optimize existing resources. Objectives on adequate staffing for technical support could be added to the plan's goals of integration, professional development, or technology systems.

5. Focus on Financial Planning Would Assist Districts in Acquiring Necessary Resources and Achieving Cost-Effectiveness

The statewide plan does not guide the state or districts in determining costs of technology programs or identifying funding strategies to meet resource needs. Specific guidance could include:

- Identification of actual and potential technology funding sources
- Description of how resources will be allocated among schools
- Description of how the district will acquire cost-effective technology

See Appendix B for additional financial best practices regarding technology planning.

District Technology Plans are to be Aligned with State Plan

Funded through the council, Regional Technology Advisors from higher education institutions around the state facilitated development of district technology plans in 2000 and 2001. These advisors also assessed the quality of these plans based on a rubric developed by the State Department of Education in 1999, although this information was not published.

The department has developed an on-line "Plan Builder," which district staff can use to facilitate the plan-writing process. This Plan Builder aligns district goals and objectives with those in the statewide plan, but allows districts to choose the actions and performance measures they determine relevant and important. As of July 2004, 17 districts and 2 charter schools had at least preliminarily accessed this resource. Idaho districts are required to submit new technology plans to the department by the end of June 2005.

Technology Initiative Grant Distribution Formula

The council, through the department's Bureau of Finance and Transportation, distributes annual public school technology grant dollars to districts based on a formula developed by the council. This formula, illustrated in Exhibit 3.1, includes a proportionate base grant to each district or local education agency based on average daily attendance for the previous year. The remaining dollars are distributed equally among all districts based on average daily attendance of the previous year.

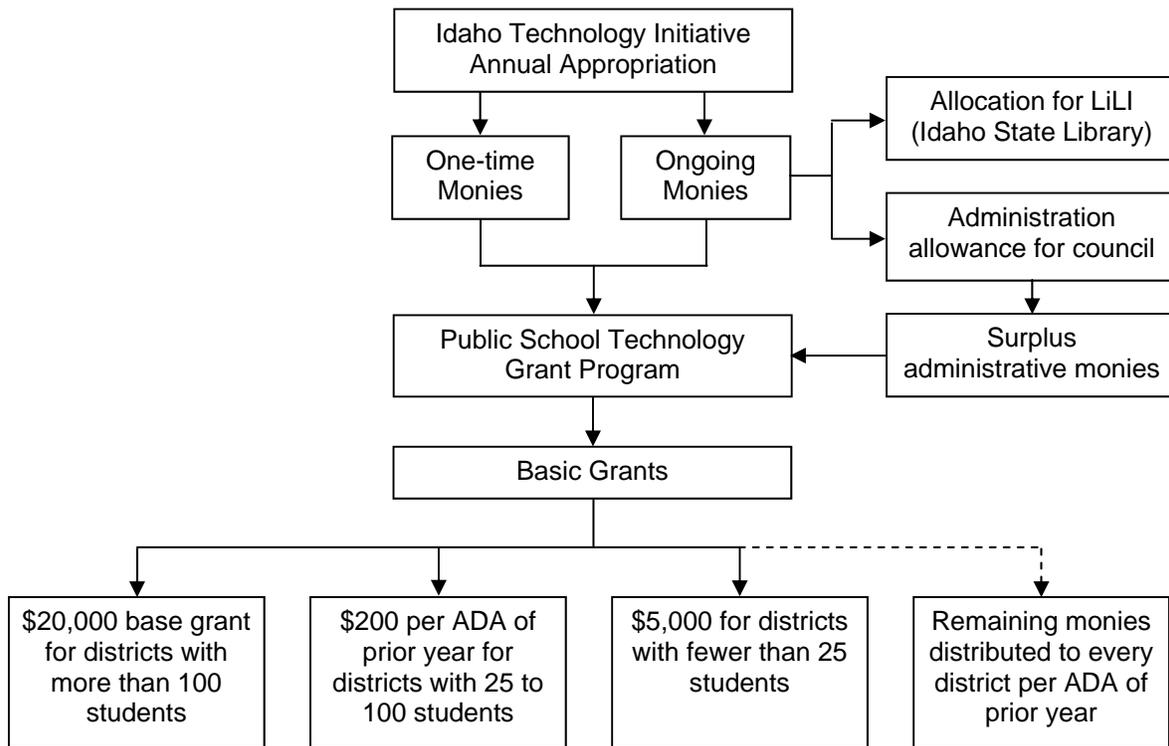
For fiscal year 2004, technology grant distributions to districts ranged from less than \$5,200 for very small districts such as Prairie Elementary and Three Creek Joint Elementary to over \$600,000 for Idaho’s largest districts, Meridian and Boise. See Appendix C for grant distributions to districts and charter schools.

Between fiscal years 1995 and 2004, illustrated in Exhibit 3.2, the council redistributed nearly \$168,000 of excess council administrative monies to districts. In December 2000, the council acknowledged it had “no carry over authority, [so] any remaining funds are distributed to the districts at the end of the year.” Since then, the council has systematically redistributed excess monies to districts based on attendance.

Technology Grant Formula Does Not Address Charter Schools

Since fiscal year 2003, the Bureau of Finance and Transportation has distributed state technology grants directly to charter schools which have indicated a preference for separate allocations, including those granted charters by a district

Exhibit 3.1: Formula for Distribution of State Technology Dollars



Note: ADA = average daily attendance

Source: Office of Performance Evaluations analysis of information from the Idaho Council for Technology in Learning, and 2004 Idaho Sess. Law 342.

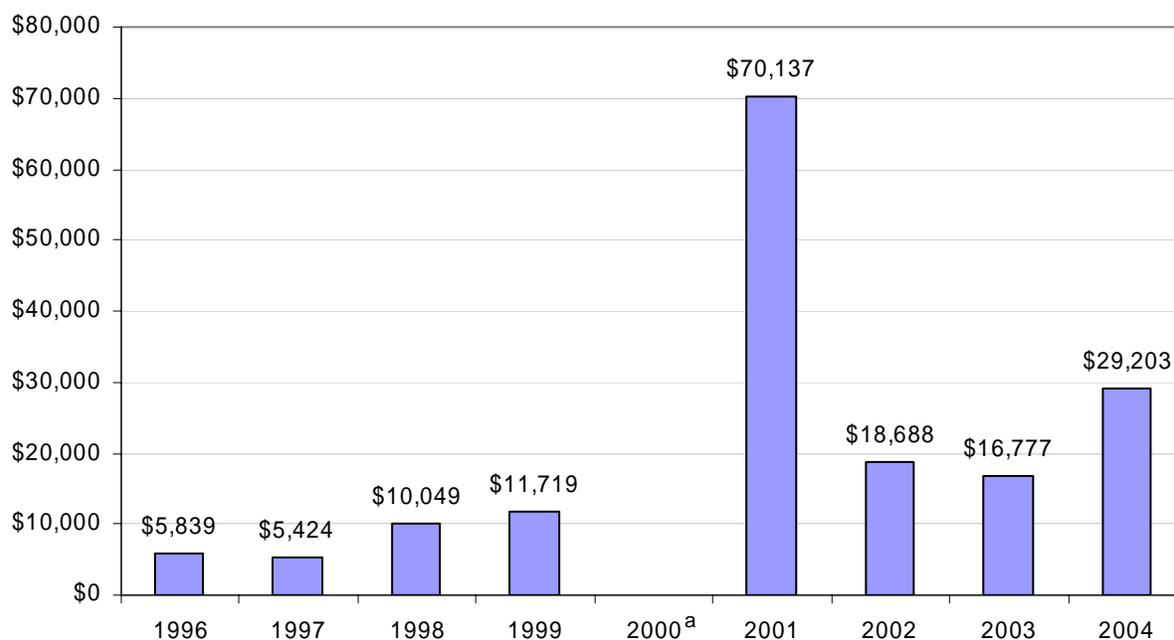
and without local education agency status. This has curtailed the ability of districts to exercise authority and discretion in distributing technology grant monies to charter schools in their district.

In our review of council documents, we found no evidence that the council has formally addressed this practice or its effect, and Bureau of Technology Services staff indicated that such decisions were left to the discretion of Bureau of Finance and Transportation staff. If the intent of the council is to distribute grant dollars directly to charter schools, the allocation formula should be modified to reflect this.

Virtual Schools Receive Technology Grants

Legislators wanted to know what types of technology funds virtual schools received and how those funds were used. To answer this question we reviewed grant disbursements and conducted a survey of the four virtual charter schools in operation.

Exhibit 3.2: Surplus Council Administration Monies Reallocated to Districts, Fiscal Years 1996–2004



^a No surplus funds were redistributed in fiscal year 2000.

Source: Office of Performance Evaluations analysis of data from the Office of the State Controller.

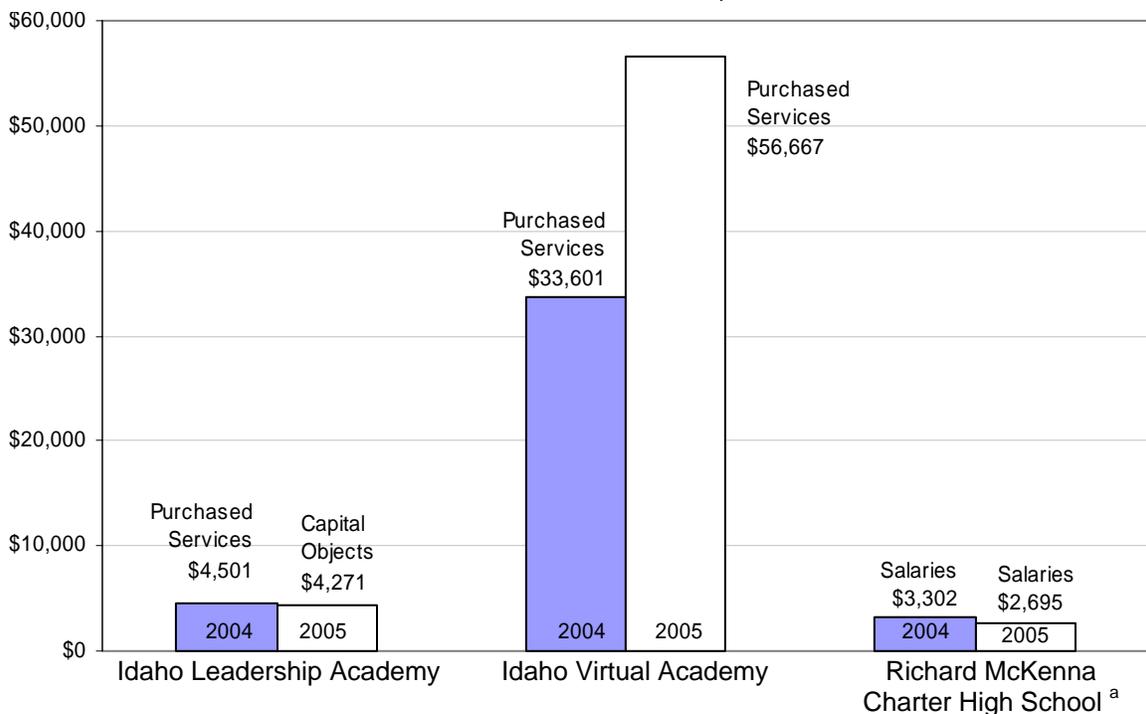
Idaho Code defines a “public virtual school” as a charter school, which may serve students in multiple districts and “provides instruction to pupils primarily through virtual distance learning or online technologies.”² The Idaho Virtual Academy, the Richard McKenna Charter High School, and the Idaho Leadership Academy have received separate state technology grants since fiscal year 2004. Exhibit 3.3 illustrates how these virtual charter schools expended their technology grants in fiscal year 2004 and how they expect to use their technology grants monies in fiscal year 2005.³

The Idaho Distance Education Academy, in its first year of operation, will be eligible for technology grants through its sponsoring district in fiscal year 2006. The Idaho Virtual Academy and Richard McKenna Charter High School were granted new charters as local education agencies by the Charter School Commission in 2004 and are thus eligible to receive grants in the same way as traditional districts with local education agency status.

² IDAHO CODE § 33-5202A, 2001 Idaho Sess. Law 302; 2004 Idaho Sess. Law 371

³ IDAHO CODE § 33-5203(7)

Exhibit 3.3: Expenditure of Public School Technology Grants by Idaho Virtual Charter Schools, Fiscal Years 2004–2005



^a Formerly known as the Idaho Virtual High School.

Source: Office of Performance Evaluations analysis of data from their survey of virtual charter schools, and data from the Idaho Council for Technology in Learning and Office of the State Controller.

Virtual Schools Can Use Pupil Transportation Support Funds

Effective fiscal year 2006, *home-based* virtual schools that meet specific attendance criteria will have access to reimbursement through the state pupil transportation support program for Internet connectivity between the student and school, computer equipment to transmit educational material, and toll-free telephone services.⁴ Idaho Code defines a *home-based* public virtual school as providing on-line instruction *primarily* to the student at home, and a *building-based* public virtual school as one which provides on-line instruction *primarily* at one or more central building locations.⁵ Under these definitions, department staff report the Idaho Virtual Academy and the Idaho Distance Education Academy will qualify as home-based virtual schools.

It is important to note that, for eligible virtual schools, the same technology expenditures may be funded from two distinct state programs: the state pupil transportation support program and the public school technology grant program.

District Satisfaction with Funding Formula Is Mixed

Districts we interviewed and surveyed indicated a variety of opinions about the current formula for distribution of public school technology grants. This is the third such formula used by the council since 1994, which according to department staff, has been revisited numerous times.⁶

Districts Say More Funding Is Needed

More than half (58) of the districts responding to our survey indicated they are dissatisfied with the current formula for distribution of state technology grants. We asked district staff to write in suggestions for improving the formula. The most commonly suggested “improvement” revealed that discontent is primarily with the amount of monies distributed, rather than the distribution method itself.

Some Believe the Emergence of New Districts Should Be Addressed

Ten districts in Region 3 responded to our survey expressing concern that new State Board of Education rules allowing charter and virtual schools to petition for local education agency (LEA) status will reduce allowable grant funds to other traditional districts.⁷ Because each new district (limited to six new charter

⁴ IDAHO CODE § 33-1006(7)(a-c)-5208(1); 2004 Idaho Sess. Law 370. Department staff have estimated this reimbursement for fiscal year 2006 at \$1.6 million, based on equivalent calculations for traditional transportation. Information regarding actual costs is not yet available.

⁵ IDAHO CODE §§ 33-5202A(6), -5208(4); 2004 Idaho Sess. Law 374

⁶ In 1998, a special subcommittee of the Idaho Council for Technology in Learning addressed revision of the formula. The subcommittee considered wealth as a factor, specifically the bond levy equalization index, which was rejected by the council as too complex. Staffing levels have not been formally considered by the council as criteria in a funding formula.

⁷ IDAHO ADMIN. CODE 08.02.04(500)(02)

districts each year)⁸ could be eligible for up to a \$20,000 dollar base grant, the result could be a maximum of \$120,000 less technology grant funds available each year to traditional districts. In the first year this could mean 1.5 percent less technology funds available to all other districts, but this percentage would increase as more districts achieve LEA status.⁹

Small Districts

Seven districts responding to our survey suggested an improved formula should consider the unique costs of small districts—those with schools in remote locations or unable to benefit from economies of scale. We interviewed a former member of the council, who observed that smaller districts benefit primarily from the size of the base grant, while districts with large enrollments generally prefer a larger per student allocation.

Council and department staff believe the current formula is the best that can be reasonably achieved. Department staff report, however, the formula will likely receive consideration again in light of new board rules affecting petitions for charters and LEA status.

Funding Formula Alternatives

Considered alongside our neighbors—Montana, Nevada, Oregon, Utah, Washington, and Wyoming—only Idaho has an ongoing budget line item for educational technology and a formal formula for distributing funds. In December 2003, Virginia’s Joint Legislative Audit and Review Commission addressed the question of funding formulas for educational technology with a number of funding options.¹⁰ Among these, Virginia identified funding to specific measures, such as the ratios of students or staff to computers.

Wyoming, which has not been affected by the budget constraints Idaho recently experienced, has established equipment and access standards and then funds districts based on those standards. Because this method is not tied to competitive performance outcomes, but rather minimum standards, it avoids the unpleasant and unresolved dilemma associated with formulas that reward or punish based on performance relative to established goals.

Idaho Falls School District distributes its Technology Initiative grant monies based on the needs and characteristics of individual schools. District officials told us this approach is intended to ensure all schools meet equitably applied minimum standards, regardless of affluence.

⁸ IDAHO CODE § 33-5203(2) and IDAHO ADMIN. CODE 08.02.04(100)(01)

⁹ \$120,000 divided by approximately \$8,000,000 in technology grant funds distributed to districts, multiplied by 100 = 1.5 percent.

¹⁰ Virginia General Assembly, Joint Legislative Audit and Review Commission, *Technical Report: State Funding Formula for Educational Technology* (2004).

Idaho Educational Technology Association

The Idaho Educational Technology Association was formed in 2001 and its members consist of district technology coordinators and network administrators. This statewide association has a board of directors, a president, and meets annually. In January 2004, the association preliminarily outlined a cost sharing program for the distribution of Idaho educational technology funds. In describing this program, the association outlined the essential elements of a district technology program that would have been reimbursed by the state at some agreed upon percentage:¹¹

- 1 full-time equivalent (FTE) technology director
- 1 FTE per 250 computers and one district network server
- 1 FTE software support analyst per 2,000 students
- Hardware maintenance contracts in lieu of personnel support
- Internet service provision and filtering costs
- District-wide network system circuitry and wiring
- Software licenses
- Training costs for technical support staff
- Technology supplies
- Computer replacement on a regular schedule

While this proposal was not formally presented to state policymakers, it is important because it outlines what the association believes are the essential elements of a district technology program.

Considerations for a Revised Formula

Through our interviews with district technology staff and research of national funding practices, we identified a number of areas that could be considered if the council determines revision of the formula is needed:

- Encourage innovation and best practices through competitive grants
- Adopt a base grant per school, rather than per district
- Address districts whose information technology networks cross more than one local access and transport area
- Consider geography—distance between schools (e.g., over one-half mile), or cities served by a single district—to accommodate the costs of Internet connectivity for remote schools

¹¹ Reimbursement would require a more complex process of expenditure reporting, verification, and approval on the part of the school districts and the council or department.

- Provide grants to accomplish uniformity, standardization, increased efficiency, and compliance with wiring guidelines
- Fund to a standard or number of technical support staff per an agreed-upon number of students or computers
- Consider a district's ability to generate local funds, and provide additional funds to districts that are at a clear disadvantage¹²

Restrictions on Technology Initiative Grant Uses

The Legislature has appropriated state technology grant monies in two funds: ongoing and one-time. Since fiscal year 1995, annual appropriation bills stated ongoing funds were to be used for “ongoing expenditures,” and in fiscal year 1996 added a stipulation for a separate “one-time” fund.¹³ In eight out of nine fiscal years between 1996 and 2004, annual appropriation bills specifically indicated that one-time funds were for “one-time expenditures” at the “direction of the Idaho Council for Technology in Learning.”¹⁴ When distributing district grants, the council has not, however, distinguished the funds that make up individual grants, nor has it attempted to monitor expenditure of grants according to their distinct fund sources.

Starting fiscal year 2003, Technology Initiative appropriation bills have included specific language addressing allowable expenditures from the one-time fund.¹⁵ For example, the fiscal year 2005 appropriation bill stipulated that these monies were to be used:

. . . to enable districts to participate effectively in the Idaho Student Information Management System (ISIMS). Funds not needed for ISIMS may be used to purchase software, electronic communications connectivity, technology equipment, or repairs and maintenance of such equipment.¹⁶

¹² See Chapter 5. A limited correlation analysis done by the Office of Performance Evaluations revealed that two separate indexes of relative district wealth and the amount of the annual technology grant award correlated positively and strongly with the number of students per classroom computer, the number of technology staff, and the number of computers running Windows XP or 2000 or greater. While not conclusive, the relative wealth of a district could be examined as a factor used in the technology grant funding formula.

¹³ 1994 Idaho Sess. Law 456; 1995 Idaho Sess. Law 89

¹⁴ 1995 Idaho Sess. Law 89; 1996 Idaho Sess. Law 77; 1997 Idaho Sess. Law 168; 1998 Idaho Sess. Law 363; 1999 Idaho Sess. Law 386; 2001 Idaho Sess. Law 359; 2002 Idaho Sess. Law 238; 2003 Idaho Sess. Law 342

¹⁵ 2002 Idaho Sess. Law 238

¹⁶ 2004 Idaho Sess. Law 342

Guidance for Interpreting Appropriation Bill Language Is Needed

Until 2004, the council did not formally communicate to districts the legislative requirements for the use of one-time funds and has not offered formal guidance to districts on allowable or non-allowable uses.¹⁷ According to Legislative Budget and Policy Analysis staff, “one-time expenditures” should not be used for personnel or to fund ongoing maintenance of district infrastructure. Conversely, district staff we spoke with argued that the appropriation bill language specifically allowed expenditures for “repair and maintenance” and this implies personnel.

In January 2004, the Office of the Governor proposed eliminating the \$5 million one-time fund from the fiscal year 2005 budget. Through our survey, we asked district technology and administrative staff how this elimination might have—if carried out—affected their technology programs. Their responses are dealt with in subsequent chapters, although here it is of interest to note that 54 districts reported that loss of these monies would cause the elimination of technology-related personnel.

Recommendations

1. *The State Board of Education should ensure the statewide education technology plan has the following elements:*
 - a. *Assessment of current goals and realignment (if necessary) with statute*
 - b. *Timelines for achieving goals and objectives*
 - c. *Standards or benchmarks for performance measures*
 - d. *Standards and planning guidance for adequate district staffing for technical support*
 - e. *Guidance on finance, budgeting, and cost-effective technology acquisition*

Additional Resources Needed to Implement Recommendation	None
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Timeline to Implement Recommendation	December 2005
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¹⁷ Fiscal year 2003 and 2004 appropriation bills specifically *allowed* the following expenditures, “upon the direction” of the council: “software purchases, technology equipment repairs and maintenance, and equipment necessary to administer state-required assessments.” 2002 Idaho Sess. Law 238, 2003 Idaho Sess. Law 372

2. *If the intent of the Idaho Council for Technology in Learning is to disburse technology grant program dollars directly to charter schools, the council should modify the funding formula to reflect this.*

Additional Resources Needed None
to Implement Recommendation

Timeline to Implement June 2005
Recommendation

3. *The Idaho Council for Technology in Learning should clarify annual appropriation bill intent language for the use of one-time funds for ongoing expenditures (including personnel) and communicate this intent to school districts.*

Additional Resources Needed None
to Implement Recommendation

Timeline to Implement June 2005
Recommendation

Chapter 4

Data Management and Program Assessment

Staff of the Idaho Council for Technology in Learning and the State Department of Education's Bureau of Technology Services maintain several financial and inventory databases. We found many errors and discrepancies in these databases and problems with the data collection processes. This has resulted in poor data reliability. In the case of financial data, the council should coordinate with the department to obtain reliable information, which is not duplicative or unnecessarily burdensome to district staff. Inventory information should be subject to greater quality control.

Previous evaluations of the Technology Initiative generally did not focus on compliance with statutory requirements or cost-effectiveness of technology acquisition. Future studies should include statutory requirements and cost-effectiveness as evaluation criteria. The council should consider developing a plan, including needed resources, for implementing an accountability tool that would focus on providing policymakers and the public information about how well dollars have been spent and how well individual districts are prepared to offer and integrate technology. Currently, such information is not available.

State Data Collection and Reporting

Staff of the Idaho Council for Technology in Learning and the State Department of Education's Bureau of Technology Services maintain detailed information on district technology funding allocations, budgets and expenditures, and inventories of equipment and services. This information is collected to report the costs and benefits of the Technology Initiative to policymakers and to help make decisions about future technology initiatives.

Data Is Not Reliable

To assess the accuracy and reliability of this data, we compared it to information from the department's Bureau of Finance and Transportation, the Office of the State Controller, and information from 10 school districts we visited during this evaluation.

Funding Allocations

During our review of the allocations database maintained by department and council staff, we found numerous internal errors and inconsistencies when compared to other departmental information. For these reasons, this database cannot be relied on to provide an accurate representation of dollars received or contributed by districts.

We found disagreement between this database and the Statewide Accounting and Reporting System (STARS) maintained by the Office of the State Controller, in two out of six years of council grant allocations we examined.¹ In fiscal year 2003, individual district allocations in this database differed from those reported in STARS and by the Bureau of Finance and Transportation by as much as \$6,000 in the case of one small district. Department staff responsible for this information were unable to identify the source of these discrepancies.

In December 2000, the council directed its staff to verify the accuracy of reported local funding and amend the database. In 2 of 4 cases examined, corrected figures submitted to the department by districts were not incorporated into the database, underreporting the local contributions of these 2 districts between 1995 and 2001 by nearly \$336,000.

Council records of federal allocations made to districts in any given year cannot be considered an accurate representation of district resources from federal technology programs. We found disagreement between council records and information from STARS and the US Department of Education. As a result, council data shows a distribution of \$1.8 million of federal funds to districts, between federal fiscal years 1997 and 2001, which did not actually occur.

Generally, the impact of these errors has been restricted to internal use by the department and the council. However, this information was also provided to the Legislature, which uses such information to make budget and policy decisions.

District Expenditure Data

As part of the application for the public school technology grant program, district technology coordinators are asked each year to compile and submit financial reports on technology. This process is known as the *Phase II Report*. We identified the following deficiencies in this process:

- Council staff have made the incorrect assumption that all district submissions are based on audited financial statements
- The council has not encouraged coordination between district technology and fiscal staff to ensure accuracy

¹ These discrepancies were explained neither by surplus payments to districts nor charter school allocations.

- The on-line application form, which requests both proposed and “actual” budgets, can be confusing
- Information requested duplicates existing financial reports required of districts

Districts are required to submit the same expenditure information, in different formats, on different occasions, to different bureaus within the department. This duplication of district effort could be eliminated if Bureau of Technology Services and council staff sought needed information from the Bureau of Finance and Transportation, which maintains the Idaho Financial Accounting Reporting Management System (IFARMS), and from the Office of the State Controller, which maintains the Statewide Accounting and Reporting System (STARS).

In 2003, council staff attempted to measure dollars spent in professional development and technical support. Because these are not standard accounting categories, and had not been tracked by all districts throughout the year, this effort resulted in widely variant reporting. District staff we spoke with expressed reservations about the resulting “guesstimated” data. The council should first determine what information is essential and coordinate with the Bureau of Finance and Transportation to determine the feasibility and reliability of data collection without adding unnecessarily to existing district reporting requirements.

IFARMS provides several benefits over the current process, including:²

- Consistent accounting codes used from year to year, which improves reliability
- Information based on independent financial audits
- New accounting codes will track technology revenues and expenditures from all funds
- Coding structure facilitates identification of coding errors

Inventory Information

The council requires districts to submit technology inventories each summer. These comprehensive inventories have included equipment, software, network configurations, and services. This process is referred to as the *Phase I Report*.

² A previous evaluation conducted by our office identified inconsistencies in the IFARMS database due to district miscoding of expenditures. However, IFARMS offers simple quality controls which can identify expenditure miscoding, allowing corrections to be made. This would be an improvement over the current process used by the council. Office of Performance Evaluations, *School District Administration and Oversight* (January 2004).

Council staff have managed the electronic collection and analysis of this data since 1998 and have used this information to report to the Legislature.

We examined technology inventory data reported by districts for fiscal years 2003 and 2004, and the processes used to collect that data, for accuracy and reliability. Our study revealed that quality control and definition of terms and purpose should be strengthened to improve confidence in the data.

We found errors had a minimal impact on *statewide* ratios and measures, but significantly affected the comparative standing of *individual districts*. Council staff additionally report that before teams from the Idaho Student Information Management System project conducted on-site reviews, council staff could only guess at the significance and reliability of information submitted by districts since 1999.

Previous Evaluations of the Technology Initiative

Idaho Code requires the State Board of Education to report each year to the Legislature and the Office of the Governor as to the relative impact, costs, and benefits of programs conducted under the Technology Initiative. The Legislature may also call upon the Legislative Services Office to review these programs.³

The first evaluation of the Technology Initiative was completed by the Legislative Services Office in December 1995. The office, however, has not been called upon to evaluate or audit the Technology Initiative since that time. In 1996, board staff developed an analysis of Technology Initiative expenditures and progress. Since that time, evaluation of the Technology Initiative has been conducted by department staff, the Division of Profession-Technical Education (Board of Education), the Buck Institute, and the Northwest Regional Educational Laboratory. In all, there have been eight evaluations of the Technology Initiative by six separate entities using several different research methodologies.

These evaluations have resulted in a number of conclusions and recommendations. For example, one study found a positive relationship between academic performance in language, math, and reading, and the integration of technology. Another study concluded the Technology Initiative had been implemented according to council goals. Other research concluded that technical support demands continue to grow with the record number of computers in schools, and that few schools have a formal mechanism for sharing successful practices.

³ IDAHO CODE § 33-4807

Compliance with Statutory Requirements Was Not Used as Evaluation Criteria

Only the 1995 analysis conducted by the Legislative Services Office used statutory requirements as criteria in assessing implementation of the Technology Initiative. Since then, statutes have not been used by evaluators as criteria for measuring implementation progress.⁴

Instead, the criteria evaluators used included legislative intent, selected goals within the statewide technology plan, and student achievement related to technology exposure. While these are reasonable criteria, compliance with statutory requirements should also have been part of the evaluations. Additionally, the inconsistent use of these criteria from year to year by different evaluators has precluded collection of long-term information that could have been used to determine the impact of the Technology Initiative over time.

Quality Control Needs Improvement

While some evaluation methodologies used were sound, we found obvious errors and inaccuracies that went undetected by council staff. These errors included conclusions based on unsupported assumptions, inaccurate expenditure comparisons, or the use of inaccurate enrollment data. For instance, although evaluators showed that approximately 80 percent of eighth- and eleventh-grade students reported moderate to high levels of technology exposure during a four year period, this did not support the conclusion that technology literacy had improved (only that technology exposure had taken place to varying degrees). In some instances, responses from limited or non-random samples of districts were generalized statewide to all districts. Information from these evaluations was reported to the Legislature and used, in the words of one council staff, to “justify continued funding.”

Assessment of Cost-Effectiveness Is Not Evident

These evaluations did not ask some important financial questions, including:

- Has reasonable progress been made on statewide goals for the money spent?
- What is the optimum number of computers for a school or district relative to their technology staff budget?
- What financial best practices have shown a positive return on the technology investment?
- What resources can be shared by districts to reduce technology costs?

⁴ IDAHO CODE §§ 33-4801–4810

The costs and benefits of the Technology Initiative have been analyzed and reported exclusive of each other. Each year, council staff have reported *how* technology grant funds were spent and *what* was purchased, yet there has been minimal attention to cost-effectiveness or to *how well* those dollars have been spent. While the current approach reports categorical expenditure outputs such as students per computer, we believe the Legislature and public would benefit by a more comprehensive understanding of the return on investment of the Technology Initiative.

Some district technology coordinators we interviewed expressed concern that the council has not adequately communicated to the Legislature the delivery costs for technology programs. Rather, the council has concentrated on anecdotal information and largely irrelevant computer and hardware inventory counts to justify the need for technology to a Legislature that has already recognized its importance. By measuring cost-effectiveness, the implementation of the Technology Initiative would be aligned with the legislative intent to maximize benefits and minimize waste.

Method for Measuring Progress

The education field offers a wide variety of free resources which would assist policymakers with a better understanding of the technology readiness of Idaho districts.⁵ The STaR Chart (School Technology and Readiness Chart)—an assessment tool developed in 1997 by the CEO Forum on Education and Technology—has been used by other states to assess how well districts have prepared themselves to offer and use technology.⁶ This tool could be modified to assess programs implemented under Idaho’s Technology Initiative.

The STaR assessment tool is used by Texas, Florida, Tennessee, and Massachusetts to establish benchmarks and measure progress on technology goals, identify strengths and needs at the district and school levels, and determine funding priorities. This assessment tool is also endorsed by the Education Commission of the States, an interstate compact of 49 states created to improve public education by sharing ideas and experiences among state policymakers and education leaders.

⁵ For example, the University of Texas’ Center for Educational Technology provides a clearinghouse for a number of these resources (www.tcet.unt.edu), including the STaR chart featured here (www.ceoforum.org) and resources offered by the SouthEast Initiatives Regional Technology in Education Consortium (www.seirtec.org), the Milken Foundation (www.mff.org), the North Central Regional Educational Laboratory (www.ncrel.org), and the National School Boards Foundation (www.nsba.org).

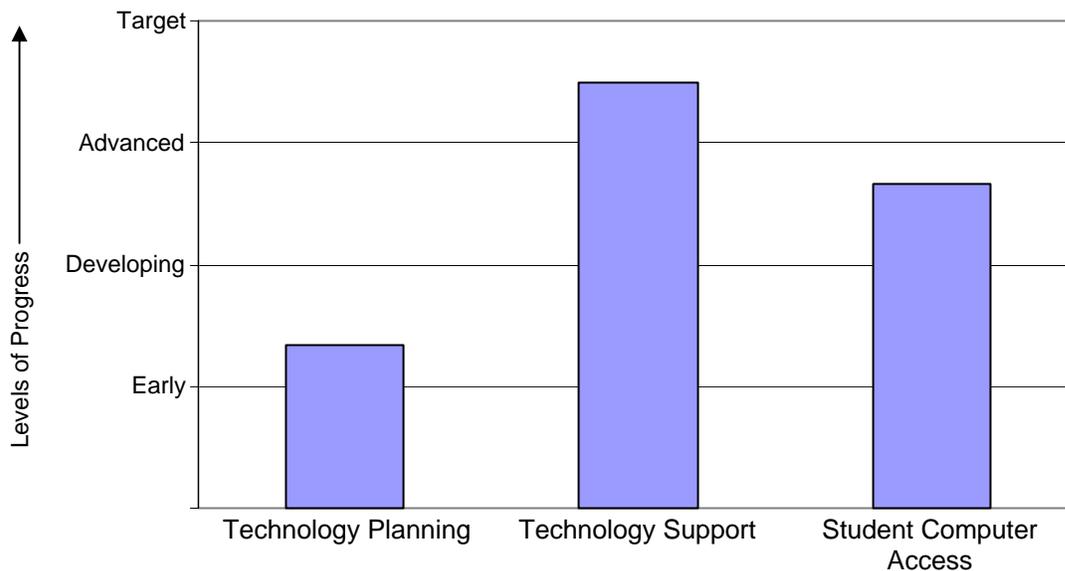
⁶ The CEO Forum was a five-year partnership between business and education leaders who were committed to assessing and monitoring progress toward integrating technology in America’s public schools.

Florida

We had the opportunity to meet with officials from the Florida Department of Education and discuss their experiences with the STaR assessment tool. Florida reports that 97 percent of the public schools chose to use the STaR Chart, even though they were not required to do so. Florida's STaR Chart measures the progress of school or district programs toward integrating technology by comparing these programs to cumulative benchmarks. The results are arranged in four technology stages: *early*, *developing*, *advanced*, and *target*.

An example of a profile developed based on standard criteria is illustrated by Exhibit 4.1. Here, if a district's *technology planning* process included a plan that was aligned with statewide goals, but was used primarily for administrative purposes, the district would be assessed slightly above the early stage. The district would be assessed higher in this category if the plan focused on student success and was revised annually. If a district's *technology support* includes a full-time, highly capable staff member, and responds to support requests in 8 hours or less, the district could be assessed above the advanced level. If a district has a student-to-computer ratio of less than 5:1, replaces these computers every 4 years, and offers 1 to 5 hours of after-school access, but has limited access to its special education computers, *student computer access* would be assessed between developing and advanced.

Exhibit 4.1: Potential Educational Technology Scorecard for an Idaho School District



Additional categories that could be measured:

- Integration
- Collaboration
- Professional Development
- Technology Systems
- Technological Literacy
- Budgeting and Finance

Source: Office of Performance Evaluations analysis of the School Technology and Readiness (STaR) Chart developed by the CEO Forum on Technology and Education.

Idaho Could Benefit from the Use of a Technology Assessment Tool

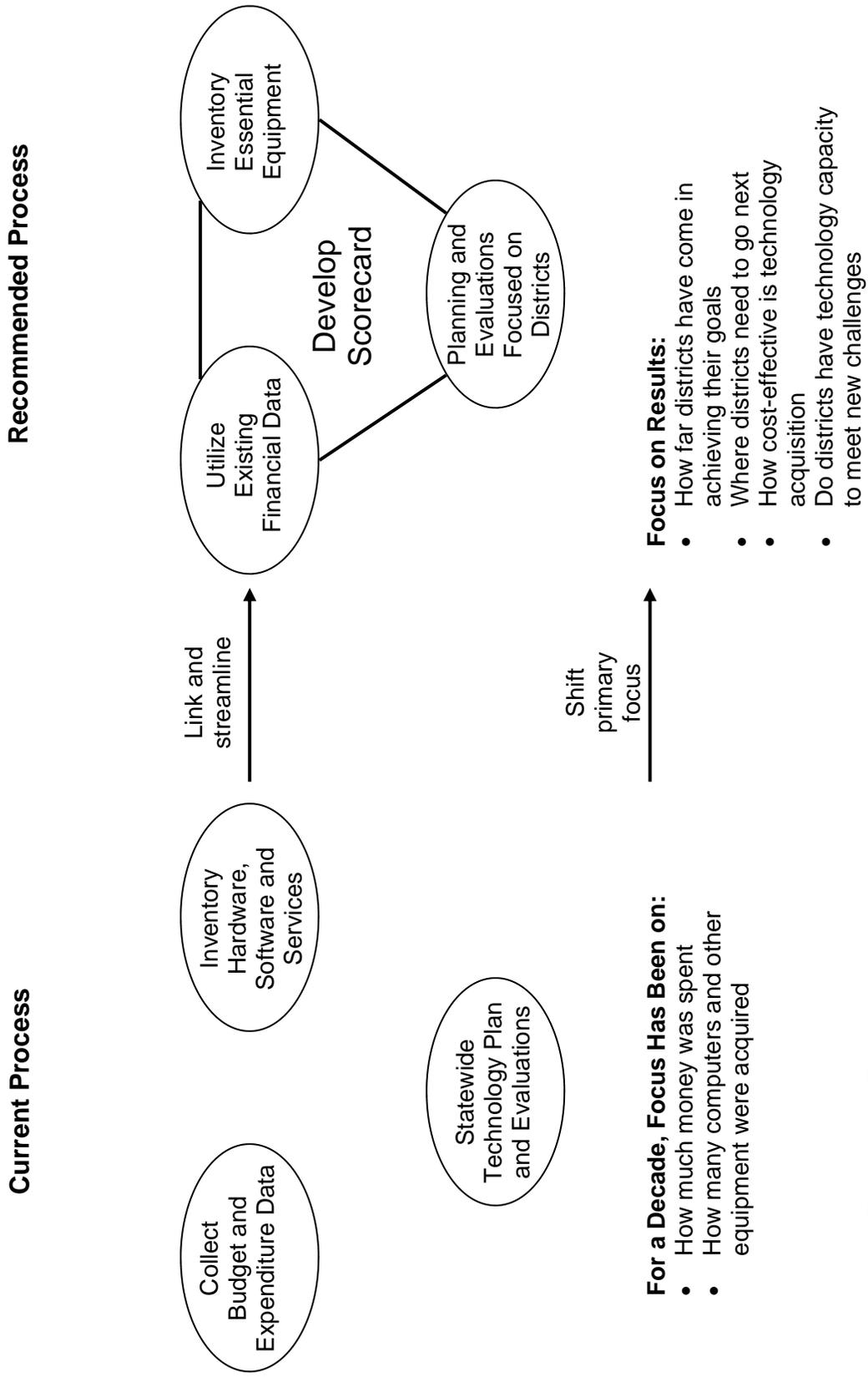
A STaR Chart or a similar scorecard-type assessment tool could be used by the council to measure and effectively report progress on district technology plans and the Technology Initiative in general. We believe the council is positioned very well to incorporate such a tool into the Technology Initiative for the following reasons:

- Districts already electronically submit technology information to department and council staff
- Council staff compile this electronic information into charts and reports
- Districts would likely not need to collect or submit additional information beyond what is already provided to the council, and the process may even reduce the amount of information required
- With some modification, the goals and performance measures in the statewide technology plan could be linked to the assessment criteria

An assessment tool could:

- Provide a new way to report district progress towards each of Idaho's six technology goals
- Shift the primary focus from *quantity* to *quality*
- Provide answers to ongoing questions about how well funding has been used and how well districts are prepared to integrate technology into their classrooms
- Provide consistent measurement of key indicators over time
- Assist the board with its requirements of annual review and approval of the state plan and reporting to the Legislature
- Assess district programs according to district plans
- Provide targets and benchmarks for staffing and budgeting for technology, currently missing from the statewide plan (discussed in Chapter 2)

Exhibit 4.2: Process Used for Funding District Technology Programs and Reporting Progress



Source: Office of Performance Evaluations.

As seen in Exhibit 4.2, the application of an assessment scorecard would link, with some modifications, three processes currently used by the council to fund district technology programs and report progress: (1) collect district budget and expenditure data, (2) inventory district hardware, software, and services, and (3) produce a statewide plan and evaluations. Applying an assessment tool that links these processes would shift the primary focus from a quantitative approach of reporting *outputs* (dollars spent, computers owned) to a qualitative approach of reporting *outcomes* (capacity, readiness, and cost-effectiveness).

We discussed the assessment chart concept with council staff responsible for maintaining the current data reporting system and were told that modifying the system to present information in bar charts would not be difficult and would require minimal time and resources. Should the council pursue this assessment tool, we suggest consultation with an expert in education evaluation to develop the benchmarks upon which districts progress would be measured.⁷

During our visits to districts, we found the Idaho Falls School District uses a similar assessment approach to allocate technology dollars among its schools. Rather than allocating funds based solely on enrollment, this district developed criteria to measure the readiness of each school and then apportions a percentage of funding based on each school's technology profile. The council may wish to consult with the technology coordinator from this district regarding their experiences with this assessment approach.

Recommendations

1. *Idaho Council for Technology in Learning staff should improve the quality of technology information maintained and reported to the Legislature, and reduce the duplication of financial reporting requirements placed on school districts by:*
 - a. *Coordinating with the State Department of Education's Bureau of Finance and Transportation and the Division of Accounting and Human Resources to obtain audited financial information already submitted by districts.*
 - b. *Taking steps to improve quality controls of district technology inventory data, and using existing electronic information when available, in coordination with the State Department of Education's Bureau of Finance and Transportation.*

⁷ Florida Department of Education officials told us they contracted with an assessment expert at Florida State University for \$60,000 to develop the criteria used in their technology assessment chart.

Additional Resources Needed to Implement Recommendation None

Timeline to Implement Recommendation June 2005

2. *The Idaho Council for Technology in Learning should review the CEO Forum's technology assessment chart, used by other states, and develop a plan, including needed resources, for implementation of a similar assessment tool to meet Idaho's needs.*

Additional Resources Needed to Implement Recommendation None for the review of the assessment tool and to develop a plan, but a moderate amount of resources would be needed to develop Idaho-specific assessment criteria

Timeline to Implement Recommendation December 2005 to review and develop a plan

Chapter 5

District Operations and Best Practices

Maintaining and replacing computers—used for instruction and testing—has increased financial and personnel demands on Idaho school districts. Districts face two interrelated challenges: increasing numbers and complexity of equipment and infrastructure, and increasing demands for district technology support staff. While the numbers of district technical support has been increasing, the amount of technical support to maintain the investment of the Technology Initiative is far below industry standards. The Idaho Council for Technology in Learning should develop a standard definition of technology support to be used as a measure at the district level.

This chapter reviews a number of resources, which may assist the council and districts to optimize their education technology dollars, including: best financial practices for technology, technology staffing calculators, total cost of ownership (TCO) calculators, and grant funding resources.

District Funding of Technology

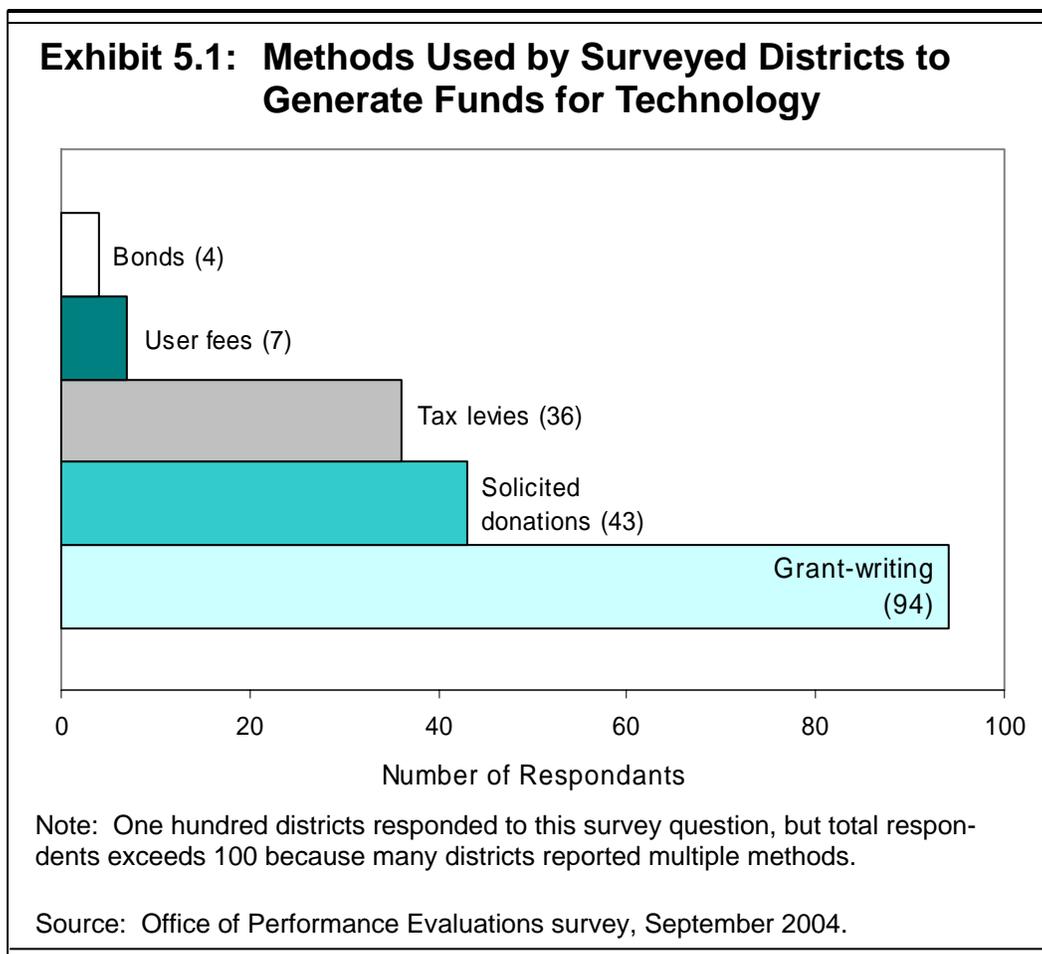
To better understand district funding of technology, we wanted to know the factors affecting how funds are generated at the local level. We asked several questions during our site visits and on our survey regarding funding, funding barriers, and how these barriers might be overcome.

Most districts (100 of 110 responding to our survey) indicated they had sought additional funds from a number of sources, as illustrated in Exhibit 5.1. The most frequently used method to obtain additional technology funding was through grant writing. In addition, more than half of the districts in Region 1 indicated the use of tax levies. All respondents who indicated they utilized bonds represented districts in Region 3.

We asked districts about their experience with barriers to technology funding:

- 100 districts reported insufficient staff to manage fund-raising and grant-writing

Region 1:	Northern Idaho
Region 2:	North Central Idaho
Region 3:	Southwestern Idaho
Region 4:	South Central Idaho
Region 5:	South Eastern Idaho
Region 6:	Eastern Idaho



- 48 districts cited resistance to tax increases within the district
- 45 districts pointed to the perceived difficulty of communicating complex technology issues to the public

The most frequent response to our question about how these barriers have been overcome (by 20 districts) was that districts worked with staff and users (students) to stretch budgets and encourage volunteering. The second most frequent response (by 15 districts) was that no progress had been made towards overcoming barriers.

District Wealth May Play a Role

Based on data available from the state, we conducted a limited analysis of the factors which may influence achievement of some common technology indicators. We found the relative wealth of a district, measured by two separate indexes, and the amount of the annual state technology funds a district receives, correlated strongly and positively with the number of computers in the classroom, current computer operating systems, and technology support.

Our interviews with district technology and administrative staff confirmed the significance of district wealth to a district's ability to generate additional technology dollars. For instance:

- Mountain Home District believes its ability to generate local funds is limited by the aging demographics of the community. A quarter of the district's students are from military families; these parents may not be registered to vote in the district.
- Kuna District likewise noted, despite growth in the district—estimated at 6 to 10 classrooms per year—a lack of industry, as well as the proportionately large number of starter homes, leaves the district with few supplemental funding options.
- Emmett District reported unemployment and a largely rural, senior, and fixed-income tax base significantly impact the community's ability to address supplemental technology funds through tax levies.

Impact of Maintaining a Large Number of Computers

Staff in 93 districts indicated on our survey that maintaining an increased number of computers and other hardware had increased their financial and personnel burden. Increased equipment purchases have been driven by the administration of the computerized Idaho Standards Achievement Test (ISAT), according to 72 districts responding to our survey.¹

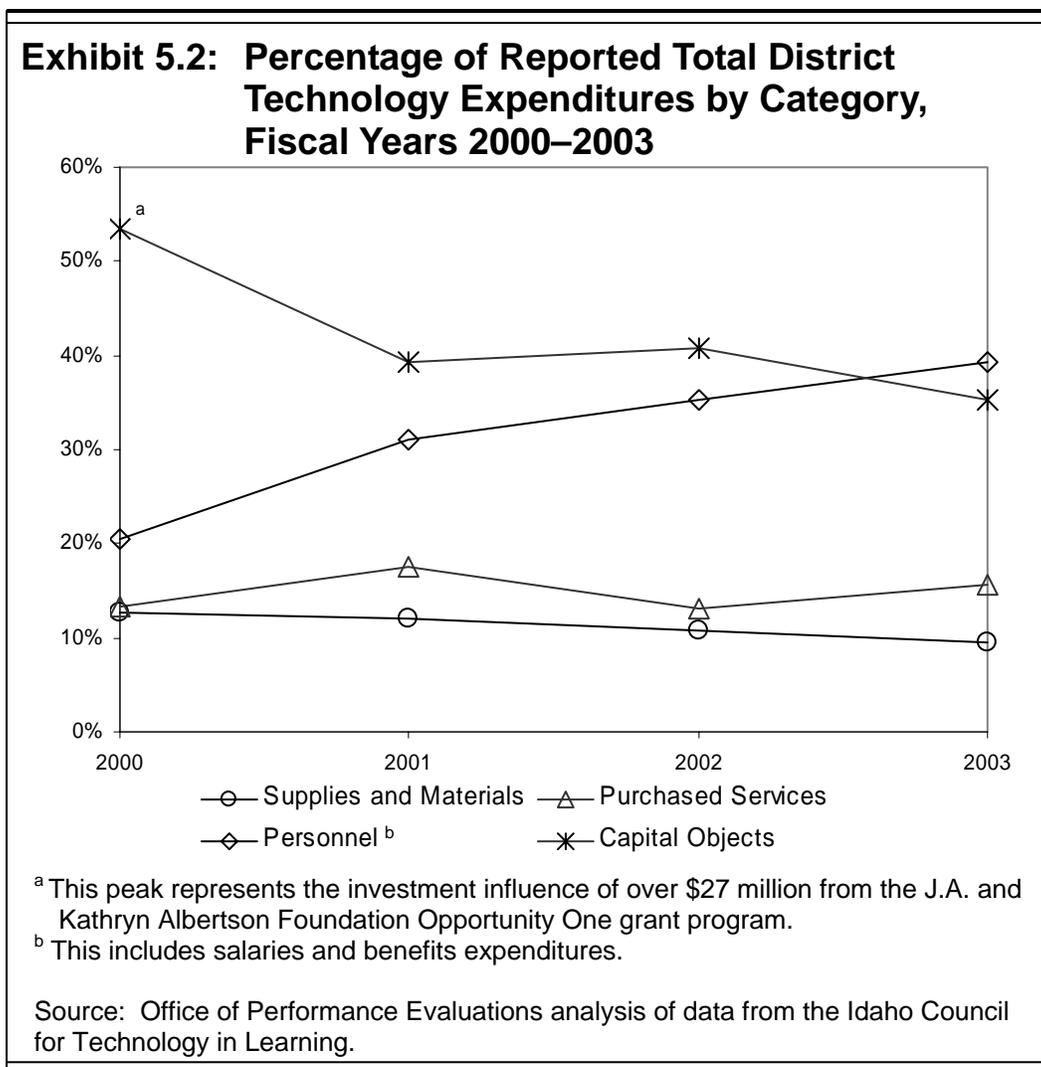
Prevention or delay of needed hardware and software purchases was also the single most frequently identified consequence (by 86 districts) of potential cuts to state technology funding. Information reported to the council through the technology grant application also indicates, between fiscal years 1999–2003, the two largest expenditure categories for technology in districts have been capital objects (e.g., computers), followed by personnel. As seen in Exhibit 5.2, in fiscal year 2003, district expenditures for technology personnel outpaced purchases of capital objects. Expenditures for supplies and materials (e.g., printer cartridges) and purchased services (e.g., software licenses) have remained relatively the same since fiscal year 1999.

Statewide Technical Support Ratio Does Not Meet Industry Standard

We identified two interrelated challenges for districts:

- Increasing quantity and complexity of equipment and infrastructure (91,773 total K–12 computers statewide in fiscal year 2004, an increase of 73 percent since fiscal year 1999)
- Increasing demands for district technology support staff

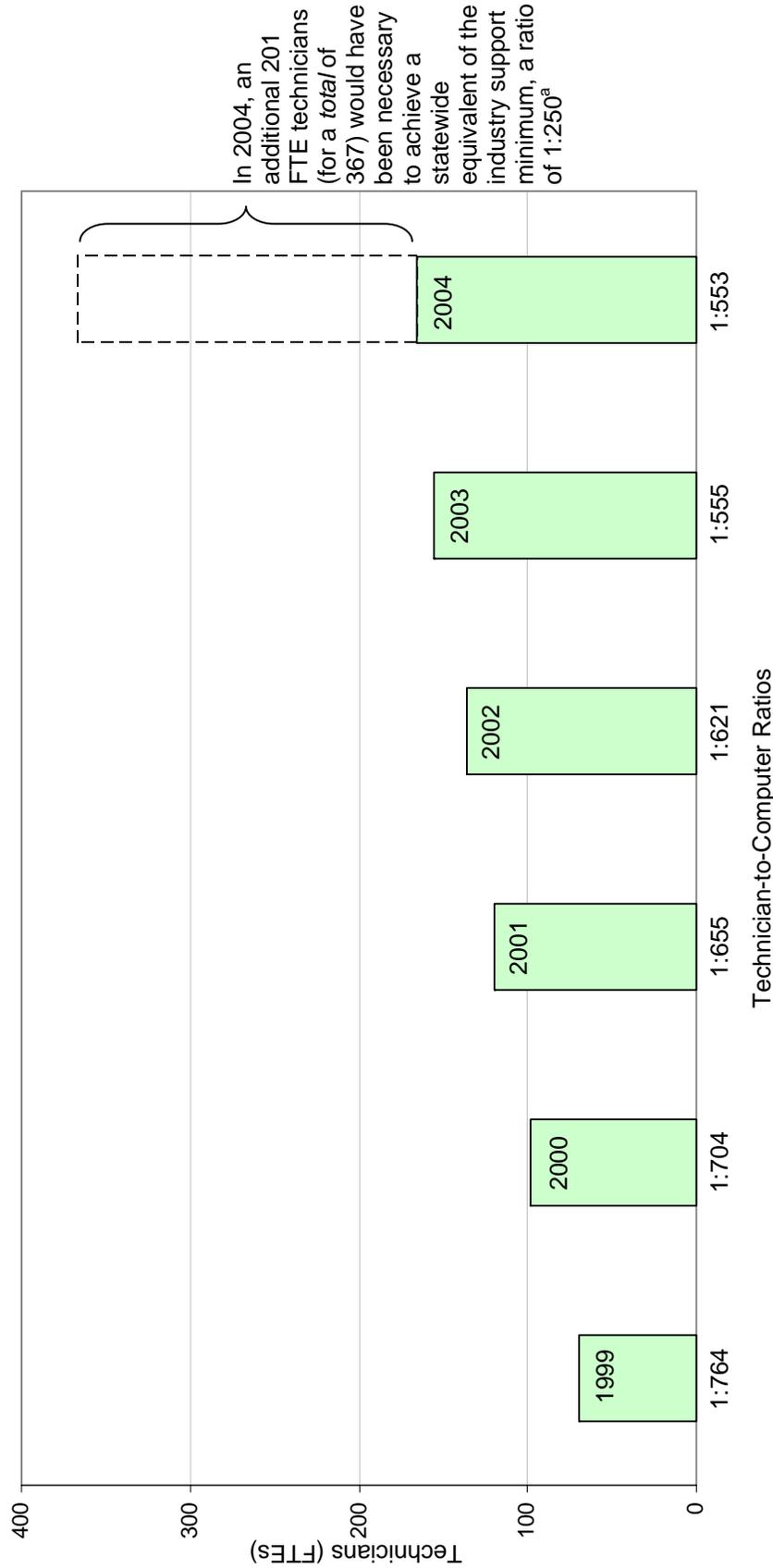
¹ Fifteen districts also noted administration of the new computerized remediation program (I-PLN) would require the purchase or upgrade of computers or servers.



According to information maintained by the State Department of Education, as shown in Exhibit 5.3, to maintain the investment in hardware and software, the number of full-time equivalent (FTE) maintenance technicians employed by all districts has grown from 69.5 FTEs in 1999 to 165.9 FTEs in 2004, an increase of 139 percent. Exhibit 5.3 also shows how, as the number of technicians has increased, the statewide ratio of technicians to computers has decreased from one technician to every 764 computers (1:764) in fiscal year 1999, to one technician for every 553 computers (1:553) in fiscal year 2004.

Individual districts such as Boise and Meridian have a technician-to-computer ratio of 1:601 and 1:670, respectively. In three smaller districts we visited—Gooding, Snake River, and Boundary, where we were able to confirm the accuracy of staffing information—we found the technician-to-computer ratio to be 1:191, 1:488, and 1:710, respectively.

Exhibit 5.3: Statewide K-12 Full-Time Equivalent Computer Technicians, and Technician-to-Computers Ratio, Fiscal Years 1999–2004



^a Industry support minimum (a ratio of one technician to every 250 computers) applied to the number of computers in Idaho in fiscal year 2004. State Department of Education data does not capture contracted labor, or extra support provided by teachers, students, or administrators. A generous estimate of support from these groups, based on available information, would still leave Idaho substantially shy of the industry minimum.

Source: Office of Performance Evaluations analysis of data from the Idaho Basic Education Data System (State Department of Education, Bureau of Finance and Transportation), Idaho Council for Technology in Learning, and International Society for Technology in Education.

It is important to note this ratio *only* includes technicians reported into the Idaho Basic Education Data System (IBEDS). Due to the coding limitations of this system, this does not account for teachers, administrators (including technology coordinators), contractors, or students who may perform some technology maintenance work. Therefore, the 165.9 FTEs reported in IBEDS *likely* underestimates the actual amount of *general* technology support used by the districts.

Education technology support standards, developed by the International Society for Technology in Education, describe a 1:250 technology support ratio as “deficient” and a ratio between 1:150 and 1:250 as “limited.”² Therefore, at a ratio of 1:553, Idaho is over twice the standard the industry considers deficient. As shown in Exhibit 5.3, for Idaho to reach a statewide ratio of 1 technician to every 250 computers in fiscal year 2004, an additional 201 full-time equivalent (FTE) computer technicians statewide (for a total of 367), would have been needed.

Our intent of this analysis is to show that, statewide, the amount of technical support to maintain the investment of the Technology Initiative is below industry standards. This underscores three important points:

- A focus on increasing the number of computers in the classroom should be balanced with adequate technical support to maintain the investment
- Based on available data, or data that is reasonable to collect, the council should develop a standard definition of technical support, which can be used to assess the desired and actual levels of support, across all support categories (instructional and administrative)
- When a standard definition is developed, it should be applied to determine how well individual districts are providing technical support (see Chapter 4). Chapter 3 addresses the need for a technology staffing element in the statewide technology plan

District Officials Emphasize Need for Technicians and Training

We found 88 districts responding to our survey believed they were *inadequately* staffed for technology support, with the greatest need for network technicians and training personnel, followed by maintenance and support technicians. While the industry standard for minimum staffing levels tends to confirm this impression, only 15 districts indicated they used a standard to determine technology staffing levels, and a majority of those merely designated a staff member to each school building.

² According to this standard, a “satisfactory” support ratio would be between 1:75 and 1:150. International Society for Technology in Education, Technology Support Index,

Responses to our survey indicate districts have met their technology staffing needs in a variety of ways, including:

- Full-time or part-time district technology coordinator (91 districts)
- “Borrowed” staff, such as teachers, for technical support (82 districts)
- Full-time or part-time technician, to maintain networks or computers (61 districts)
- Contract with the private sector for technology support (53 districts)

One district technology coordinator we interviewed identified three consequences of “borrowing” teachers for technical support:

- Complex infrastructure tasks are neglected
- Teaching process is disrupted
- Cost of teachers filling in for technology support is unnecessarily expensive

In our survey, we asked district technology and administrative personnel to identify factors which may affect students’ ability to take advantage of technology in education. Open responses from staff in 53 districts identified two factors more often than all others combined: teacher training or attitudes about technology.³

During our interviews with district staff, we learned that much of the technical expertise in Idaho school districts has been “homegrown” or developed as needed through the efforts of teaching and administrative staff. Responding to our survey, 31 districts indicated a need for personnel to provide technology support training. The importance of quality technology support was confirmed during our interviews as staff told us that trained technical staff can help ensure a district makes sustainable and equitable technology purchasing decisions. District technicians and coordinators we spoke with expressed concerns about a lack of statewide guidance and resources for technical training, particularly considering the rapid changes and advances in the computer industry.

Technology Purchasing

Districts approach purchasing in different ways. Staff from 67 districts reported having a target cycle for the replacement of computers. These targets ranged from three to eight years, with an average of five years. However, 108 districts

³ In our survey, 35 districts reported a reduction in state technology grant monies would prevent or delay technology training, 79 districts reported ISAT had increased the need for staff training, and 12 districts *wrote in* that the Idaho Student Information Management System was expected to require a major training initiative.

reported, on average, it *actually* takes seven years to replace each computer. A number of district staff also reported in our survey that replacement cycles were overly optimistic and cost prohibitive.

Although 57 districts reported in our survey they purchased through the statewide contract, district staff we interviewed observed state contracts were often not cost-effective or flexible enough for small purchases or small districts. The technology coordinator at Gooding School District reported that because state contract vendors will not allow student technicians to maintain or repair computers without voiding the warranties, the district chose to purchase from vendors who will accommodate their instructional decisions. Districts we visited also purchase refurbished computers from the manufacturer and from out-of-state vendors, use Internet offers, and generally, as one technology coordinator put it, “go where the deals are.”

Forty-eight districts indicated in our survey they used cooperative purchasing, such as the Oregon Educational Technology Consortium, but only 9 districts indicated they share telecommunications, Internet, or email services with another district.

While 47 districts⁴ reported they contracted for services as a measure to contain costs, only eight districts reported leasing equipment. Kuna and Coeur d’Alene have found lease-purchase agreements, which come with warranties and service agreements, an effective way to balance short-term resource restrictions with long-term economies achieved through standardizing the types and configurations of computers in their schools.

Standardization of Systems Helps Contain Costs

Some district staff we surveyed and interviewed reported standardizing hardware and software was an important step towards containing the costs associated with technology programs. State and district technology staff we interviewed noted the inefficiencies and inequities that have resulted without hardware or software standards or a uniform code for network wiring in Idaho schools.

Districts have accomplished standardization in various ways. Coeur d’Alene’s technology coordinator monitors all purchases and encourages schools to form active technology committees to direct planned purchases. By providing support only for equipment purchased from a published list of recommended specifications, the technology department at Idaho Falls encourages standardization without inhibiting technology decisions at the school level.

⁴ This is slightly less than those who indicated in another section of the survey (53 respondents) that they contract with the private sector for support. This slight difference may indicate some districts contract for support out of necessity, rather than as a cost-containment measure.

Centralized and Shared Resources

To manage costs, Idaho Falls has consolidated its voice and data infrastructure and encouraged resource sharing between administrative and instructional staff. Some districts we visited have cut printing and maintenance costs by networking printers or replacing inefficient desk printers with large-capacity copier printers. Emmett’s technology coordinator said the district lowered their printing costs by two-thirds using this method.

Other districts have managed the demands of computerized testing and instruction by scheduling computer labs for entire classes, or by purchasing roving mobile labs which can adapt to both testing and instruction. Staff at Gooding report centralized labs in their district are funded partly by user fees, and are maintained with the assistance of students in the technical support training course, who also help the district economize by upgrading computers with processors, memory, and software.

Best Practices for Technology

During this evaluation, we reviewed additional resources used by education professionals in other states, which could help districts optimize their education technology resources. These include:

- Best financial practices
- Technology staffing calculators
- Total cost of ownership (TCO) calculators
- Grant funding opportunities

As described in Chapter 2, the council is required by statute to recommend to the Board of Education exemplary practices of educational technology. While we found no evidence this has been done by the council, resources are available to accomplish the purposes of this statute.

We reviewed the *Best Financial Management Practices for Administrative and Instructional Technology* developed by Florida’s Legislative Office of Public Policy and Government Accountability. These best practices—including as Appendix B—could offer a starting point for the council to develop practices specific to Idaho.

Calculators Can Help Districts Manage Technology Staffing

Through our survey, we asked district representatives about their technology personnel and observed an apparent paradox. Eighty-eight districts indicated they were not adequately staffed for technology support, however, only 15 reported using a standard or formula to determine the appropriate number and type of personnel they needed. Although the Superintendent of Public

Exhibit 5.4: Examples of Inputs and Outputs of Technology Support Staffing Calculators

Examples of Inputs to Develop a District Profile

Number and type of computers, replacement cycles, and warranties
Peripherals such as printers, scanners, projectors, and digital cameras
Organizational structure, current staffing ratios, presence of help desks, and policies
Staff certifications, retention, turnover, compensation, and contracted and student support
Professional development and training
Troubleshooting, virus protection, network infrastructure, and standardization tools

Examples of Outputs for District Use

District technology profile (scale of 1 to 4) on various categories
Sliding scale of suggested ratios for technology support staff to computers
Action plans and strategies to address deficiencies
General information on whether implementation costs will be minimal, moderate, high, or variable

Source: Office of Performance Evaluations summary based on information from the International Society for Technology in Education and the Michigan Department of Education.

Instruction and a recent study contracted by the council have noted the importance of district technology staffing, the council has not provided guidance to districts on how to assess their needs for technical support personnel.

To address this lack of statewide guidance on appropriate staffing, we reviewed two technology staffing assessment tools developed specifically for K–12 education:

- Technology Support Index developed by the International Society for Technology in Education
- Michigan Technology Staffing Guidelines developed by the Michigan Department of Education

We found both assessment tools were easy to use, require approximately one to two hours to complete, and are accessible via the Internet, free of charge. As shown in Exhibit 5.4, these staffing calculators are based on a simple two-step process of entering data to create a district profile and receiving from the profile suggestions on staffing levels and strategies for improvement.

Staffing assessment tools may help districts determine whether it is necessary to hire additional staff if other measures can be taken, such as updating equipment, centralizing support functions, or investing in professional development. Using staffing assessment tools can also provide district technology coordinators with the necessary information to justify to administrators, policymakers, and the community proposed system changes or enhancements.

Total Cost of Ownership Calculator

Total Cost of Ownership (TCO) as applied to educational technology is an approach to understanding the full range of costs associated with technology investments. Technology costs do not end with the purchase of a computer. As one technology coordinator told us, “there is no such thing as a one-time expenditure for technology.”

TCO identifies the *direct costs* of hardware or labor and the *indirect costs* of those initial investments. Indirect costs may be incidental technology support or computer downtime. The TCO process is designed to assist districts in making informed budgetary decisions which will optimize their investments.

Although the department claims to have promoted TCO in the past, during our visits to districts we found only one technology coordinator who remembered the department’s efforts in this area, noting state projections for TCO had little relationship to actual district costs. Responses to our survey submitted by district technology and administrative staff further indicate only 18 districts may be using some form of TCO as a cost-containment approach. However, only half of those indicated they could provide supporting documentation.

Use of CoSN-Gartner TCO Tool in Idaho

There are several methods to calculate technology TCO. The calculator developed by Consortium for School Networking (CoSN) in collaboration with the Gartner consulting group and the US Department of Education is available on the web free of charge.

We spoke with technology coordinators from two districts, Idaho Falls and Lake Pend Oreille, who expressed interest in making the initial investments of time and effort to use the CoSN-Gartner TCO calculator. The technology coordinator at Lake Pend Oreille is reassessing the district’s entire technology program and budget, presenting an opportunity to incorporate the TCO calculator.

Although there is no cost to access to the CoSN-Gartner Group TCO calculator, using the calculator may require a substantial time commitment. We spoke with Gartner Group representatives and found it may take large districts up to 108 hours to collect the necessary information, and 12 hours to input the data into the calculator. Some district technology coordinators we spoke with had looked at the calculator but concluded they did not have the time or ability to complete the necessary inputs.

School Districts in Other States Use TCO Calculators

CoSN has published case studies of school districts from eight states which have used the CoSN-Gartner TCO calculator.⁵ With support provided by the Utah Department of Education and the Gartner Group, Utah has encouraged its districts to use this calculator and reported as of January 2005, at least 11 districts (28 percent) were doing so.

Grant Funding Resources

Through our survey, we attempted to understand the barriers districts have experienced to generating technology funds. Staff from 33 districts reported they had limited or no knowledge of funding resources.

We reviewed the website of the council and the Bureau of Technology Services at the Department of Education and found limited information on grant funding opportunities for districts and schools. Therefore, we researched potential funding opportunities and have included these as Appendix D for state and district use.

Recommendation

- 1. The Idaho Council for Technology in Learning should develop a standard ratio of computers-to-district technology support (measured by full-time equivalent employees).*

Additional Resources Needed to Implement Recommendation	None
Timeline to Implement Recommendation	December 2005

⁵ The TCO case studies are of districts from California, Minnesota, Missouri, Pennsylvania, Texas, Utah, Virginia, and Wisconsin. These case studies are available free of charge at http://classroomtco.cosn.org/gartner_intro.html, visited December 2004.

Chapter 6

Recent Technology Initiatives

This chapter provides a brief review of recent technology initiatives affecting the operations and budgets of Idaho school districts. These initiatives include the Idaho Student Information Management System (ISIMS), computerized Idaho Standards Achievement Test (ISAT) and remediation program (the Idaho Plato Learning Network), new Eighth-Grade Technology Standards, and a strategic plan for a statewide telecommunications system. Clarity on the technology requirements of the No Child Left Behind Act (NCLB) is also provided.

The ISIMS initiative underwent a number of changes after receiving legislative approval in 2003. Officials of the Albertson Foundation—which spearheaded the project—concluded recently that development of the system had proved too complex and costly and the goals of the project will need to be revised. Because this project has been prone to cost overruns, any further investment of state or federal dollars should be subject to periodic legislative audits. Results from our survey indicated district perspectives on the potential benefits and costs of ISIMS were evenly mixed.

Some state officials and district technology coordinators believed NCLB requires Idaho to implement a system such as ISIMS and to demonstrate student proficiency on the Eighth-Grade Technology Standards by the end of 2006. Our review of federal law and communication with officials of the US Department of Education indicates otherwise. We also encourage the State Board of Education to assess the future role of the Idaho Council for Technology in Learning in light of technology changes in the last decade and new challenges facing Idaho districts.

Status of the Idaho Student Information Management System

The Idaho Student Information Management System (ISIMS) began *formally* in November 2001 when the J.A. and Kathryn Albertson Foundation pledged to support the initiative of the State Department of Education’s Bureau of Technology Services for a “standardized, statewide curriculum and student

achievement data management system.”¹ The plan was to link all 114 districts to this centralized information management system, which would be used by education administrators, teachers, and parents to track student information and manage reporting and teacher resources. A timeline of key ISIMS events is provided as Exhibit 6.1.

Albertson Foundation Pledged Substantial Support

The Albertson Foundation presented ISIMS to the Idaho Legislature during the 2003 session, with an offer to continue developing and funding the project, up to \$35 million over six years.² This offer was contingent upon the state committing to manage and fund the project, and ensure statewide district participation, once it was operational.³ As a result, the Idaho Legislature passed House Bill 367 which defined ISIMS and committed ongoing funding. The statement of purpose attached to the legislation estimated the state general fund commitment would be approximately \$7 million annually over the next decade.

In May 2003, the Albertson Foundation, the Governor, the State Board of Education, and the State Department of Education signed an agreement to develop, operate, and maintain ISIMS. In this agreement, the Albertson Foundation committed \$35 million to development of this system, which would include converting all district-maintained information into the system. The state agreed to request the necessary annual funding from the Legislature to staff and operate the system. This mutual agreement is in effect for 10 years, unless appropriately terminated.

ISIMS Too Complex and Costly—Albertson Foundation Reassesses Project

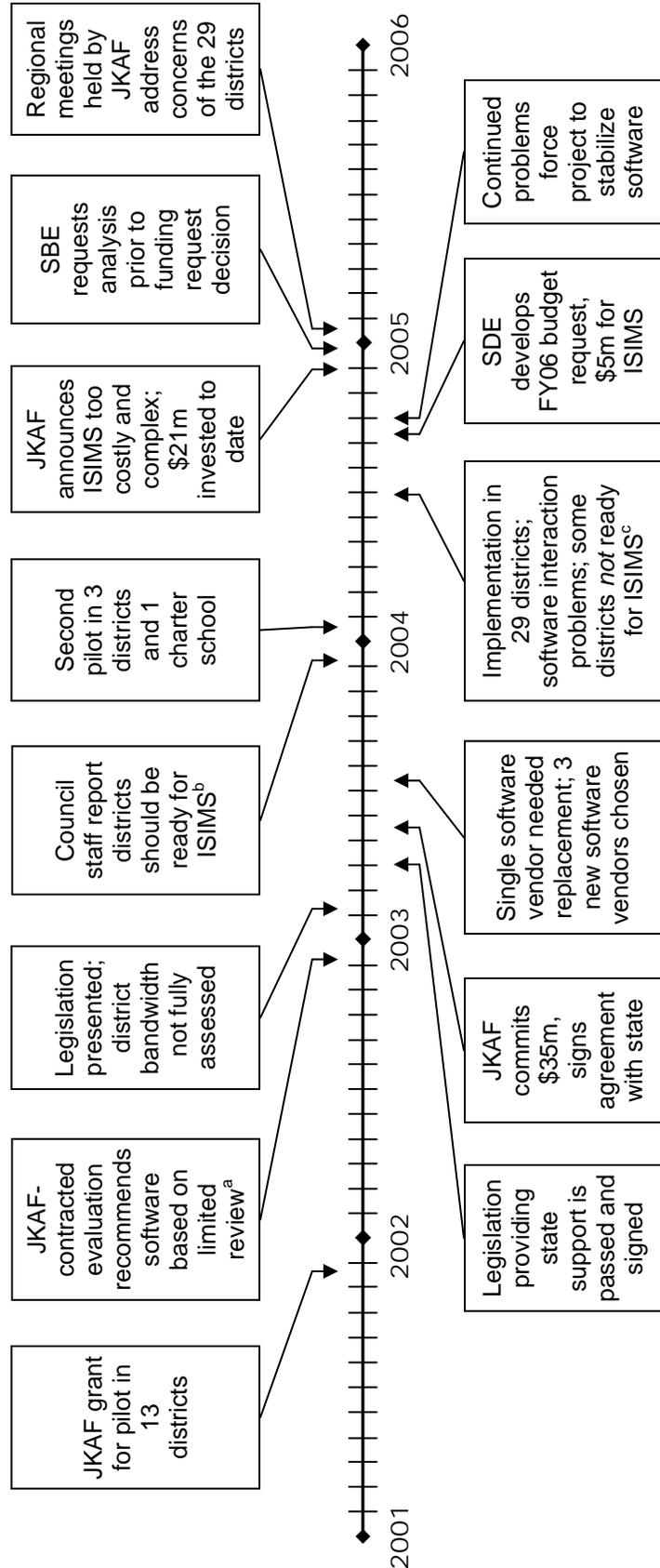
On December 14, 2004, the J.A. and Kathryn Albertson Foundation issued a press release announcing ISIMS was too complex and costly, and acknowledged that results had been “over promised.” The Foundation reported a recent assessment put the cost of the system at \$180 million over the next five years, in addition to the more than \$21 million already invested to date. According to the Foundation’s Chief Executive Officer, “. . . it is time to revise the goals, readjust the vision, reassess the project and work with our partners to reach a simpler, more workable, less costly but more achievable path forward.”

¹ Idaho Legislature, House Education Committee, January 15, 2002. During the 2002 legislative session, the department requested an additional \$2 million to fund ISIMS, under the auspices of the Idaho Council for Technology in Learning. This request was not recommended by the Governor and funding was not appropriated by the Legislative Joint Finance Appropriations Committee.

² Idaho Legislature, Senate and House Education Committees, January 30, 2003 (joint session).

³ IDAHO CODE §§ 33-120A, -1001(7)(a)(b), -1002(2)(k), -512

Exhibit 6.1: Idaho Student Information Management System Key Events, 2001–2005



Note: Bandwidth is a measure of the capacity of an internet network to send and receive information between workstations, buildings, and between districts and the outside world. This capacity can be negatively or positively affected by a host of environmental factors.

JKAF = J.A. and Kathryn Albertson Foundation; SBE = State Board of Education; SDE = State Department of Education; FY = Fiscal Year

^a Contractors reported that due to time constraints, they conducted a less than ideal review that did not include actual product testing.

^b This conclusion was based on self-reported information from districts that was not verified or tested at the district or school level.

^c This conclusion is based on actual visits to districts and school buildings by evaluation teams from the ISIMS project.

Source: Office of Performance Evaluations analysis of information from the J.A. and Kathryn Albertson Foundation, the Idaho Council for Technology in Learning, Senate and House Education Committees, and the State Department of Education.

ISIMS project management and an official from the State Department of Education told us that the primary factor influencing cost overruns had been difficulties involved with effective communication between three distinct software pieces which made up the basic functions of the system.

ISIMS Evolved from a Two-Part to a Five-Part System

The original concept of ISIMS—and the system as it existed in December 2004—is illustrated in Exhibit 6.2. Idaho Code defines ISIMS as a two-part, “secure, centralized data system,” which uses:

- 1) A “uniform package” of software applications
- 2) A data warehouse to deliver student information to authorized users⁴

NCS Pearson, Incorporated was originally chosen by the Albertson Foundation to provide the uniform software package, which included pieces for student information and curriculum management, and analysis and reporting.

In 2003, shortly after legislation was passed committing the state to future ISIMS funding, the project management team announced Pearson software “offered challenges that warranted further evaluation and exploration of other products.” In July 2003, the Albertson Foundation and the Bureau of Technology Services found it necessary to seek a new software vendor, and selected three vendors to replace Pearson. As a result, the project evolved to a five-part system. It is noteworthy to mention the ISIMS definition in Idaho Code does not reflect this change from a two-part to a five-part system.

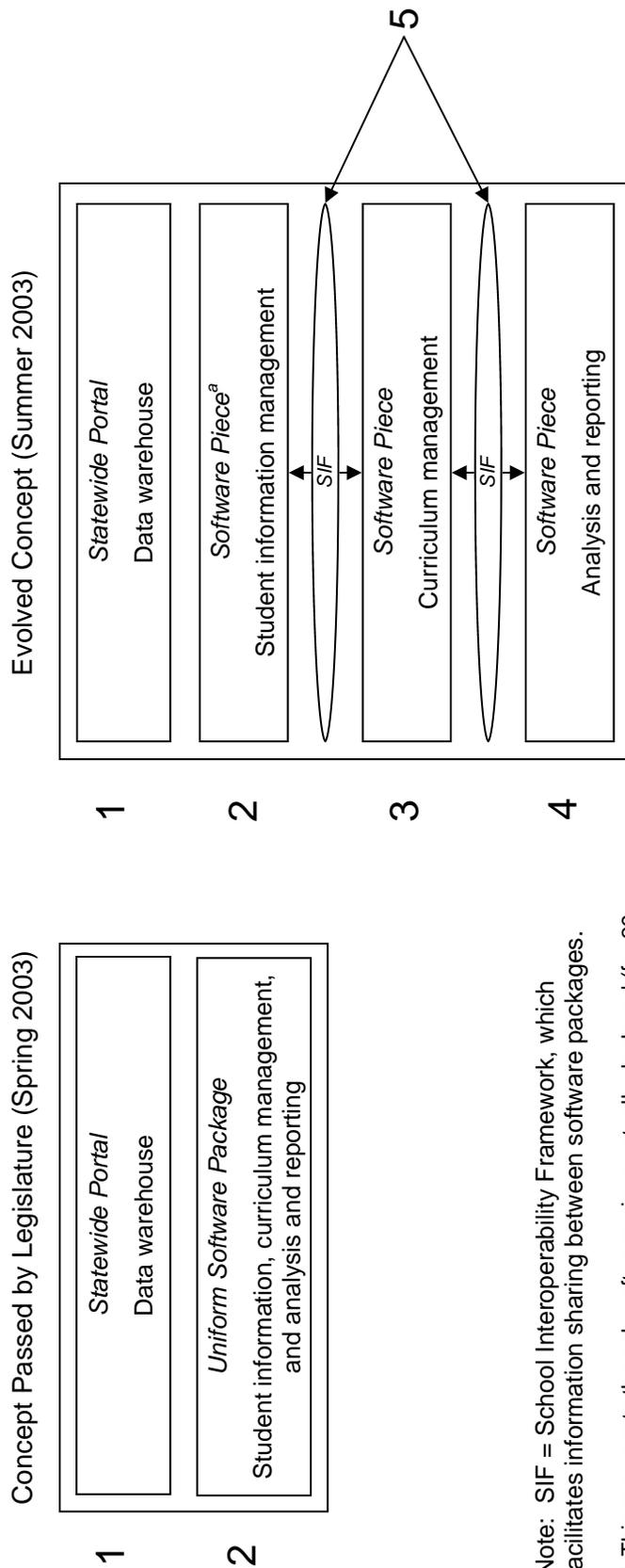
The five-part system is shown in Exhibit 6.2 and includes:

- 1) Student information management (*eSIS*) provided by Administrative Assistants Limited.
- 2) Curriculum management (*Orion*) provided by Plato Learning, Incorporated.
- 3) Reporting and analysis (*Academic Accelerator LLC*) provided by CRI Advantage, Incorporated.
- 4) Data warehouse provided by CRI Advantage, Incorporated.
- 5) School Interoperability Framework (SIF) to facilitate communication between software

Problems arising from the delivery capabilities of the original recommended software may be related to a less than stringent review of software products during a study contracted by the Albertson Foundation. The study, conducted by

⁴ IDAHO CODE § 33-1001(7)

Exhibit 6.2: Evolution of Idaho Student Information Management System



Note: SIF = School Interoperability Framework, which facilitates information sharing between software packages.

^a This represents the only software piece actually deployed (for 29 districts in the first phase of implementation).

Source: Office of Performance Evaluations analysis of IDAHO CODE § 33-1001(7), and information from the J.A. and Kathryn Albertson Foundation, State Department of Education, and Joint House and Senate Education Committee minutes, January 20, 2003.

MGT of America and CRI Advantage pointed out in December 2002:

Ideally, a full product assessment process would have been followed ... Due to the necessity to finalize the results for delivery to the Foundation's October 30, 2002 Board Meeting, allowing only five weeks for completion of the deliverables, it was determined that a less stringent process would be followed.

The report explained what a more desirable review would have included:

A full product assessment requires initial industry research, definition of business requirements prior to a Request for Information (RFI) process, assembling a full RFI, and selection of the top products for user testing and assessment.

Most ISIMS Funding Has Come from the Albertson Foundation

Nearly all of the costs of preparing for ISIMS to date have been provided by the J.A. and Kathryn Albertson Foundation. However, some federal and state funds have been used. The State Department of Education reported using \$3 million in federal funds provided by Title VI of the No Child Left Behind Act for the purchase of the data warehouse and analysis and reporting software.⁵

At this time, an undetermined amount of \$5 million of state "one-time" funds appropriated through the public schools technology grant program for fiscal year 2005 (described in Chapter 3) have been directed to be used by districts in "such a way as to enable districts to participate effectively" in ISIMS.⁶

District Confidence Was Mixed About ISIMS

When asked to describe their experience with or expectations of the requirements and costs of ISIMS in September 2004, staff in 44 districts told us the requirements and costs to their district would be *more* or *much more* than expected. Region 3 had the highest percentage of districts that expected additional requirements and costs. Well over half the respondents from Region 4 and Region 6 indicated they were unable to express an opinion.

⁵ No Child Left Behind Act, Title VI § 6111(2)(H) provides grants for state assessments and other activities including, "improving the dissemination of information on student achievement and school performance to parents and the community, including the development of information and reporting systems designed to identify best educational practices based on scientifically based research or to assist in linking records of student achievement, length of enrollment, and graduation over time." www.ed.gov/policy/elsec/leg/esea02/pg87.html, visited November 2004.

⁶ 2004 Idaho Sess. Law 342; Idaho Legislature, House Education Committee, February 9, 2004.

We asked district staff about their expectations for ISIMS with respect to management of student information. Those responding were almost evenly divided:

- 49 districts said the system would improve management
- 46 districts said the system would complicate management

Of the 29 districts that began actual implementation of ISIMS in the fall of 2004, 21 said it would improve their management of student information. Comparatively, of respondents in districts not yet scheduled to implement the system, a slight majority indicated ISIMS was expected to complicate management. We determined, at the time of our survey, those districts beginning the first implementation phase of ISIMS generally had a more positive outlook on the value of the system.

We surveyed district technology staff regarding the capacity of their district's information technology network, considering the expected data transfer demands of ISIMS:⁷

- 53 districts said their network had sufficient capacity
- 36 districts said their network had insufficient capacity
- 19 districts did not know if their networks met ISIMS requirements

New Direction for ISIMS

The Superintendent of Public Instruction reported to the board in December 2004 that the original projection of long-term state commitments to ISIMS has not changed. The budget request for state operation of ISIMS for fiscal year 2006, originally anticipated at \$5 million, however, has been increased to \$7.7 million for operation of and professional development for a scaled-down version of the system. However, the board voiced concern about moving forward with any version of the system without an adequate analysis of what has been spent, what will be spent, available resources, and options for the future. The Office of the Governor has not recommended an appropriation for the system in fiscal year 2006.

The board has directed its staff to conduct a financial and technical review of the ISIMS project and eventually produce a plan for a new direction. The Albertson Foundation has expressed its intent to fulfill its commitment to 29 districts, which had implemented the first phase of ISIMS, to ensure these districts have a workable student information management system. The Albertson Foundation held regional meetings in mid-January with the 29 affected districts. The results of these meetings were not available at the time this report was printed.

⁷ All virtual academies, with the exception of the newly-established Idaho Distance Education Academy, reported they had sufficient network capacity to meet the expected demands of ISIMS.

Eighth-Grade Technology Standards

The department, in collaboration with district and industry representatives, drafted Idaho's Eighth-Grade Technology Standards, which were *informally*⁸ approved by the board in March 2004, and discussed by department staff at regional meetings in September 2004. These standards are based closely on the National Educational Technology Standards for Students developed by the International Society for Technology in Education, which are already used by some Idaho districts.⁹

In our survey, 64 districts said preparing to meet these technology standards would increase the district's financial and personnel burden. Regarding how the standards will affect district operations, the same number of districts indicated the new standards will facilitate integration of technology into classroom instruction. In addition:

- 21 districts indicated the standards will have no effect on district operations
- 20 districts indicated the standards will increase teachers' teaching abilities

Negative reactions to the standards were in the minority, with 12 districts indicating the standards will detract from the quality of the curriculum. During our interviews with district staff, we learned that some were not concerned about standards *per se*, but did worry about how these technology standards will be integrated into the curriculum and assessed.

Idaho Standards Achievement Test

The Idaho Standards Achievement Test (ISAT) is the test administered to students to determine academic achievement on the state standards required to graduate from Idaho's public schools. The council reports all districts administer this test by computer.

In our survey, administering the ISAT by computer was the most commonly recognized factor (by 103 of 110 district staff) to increase financial and personnel demands on districts. For example, district responses indicated ISAT required:

⁸ Although board and department staff say the board approved these standards, there is no formal evidence, in the approved board minutes or audio recording, that a motion was made or a vote was taken.

⁹ International Society for Technology in Education. *Technology foundation standards for all students* (1998), http://cnets.iste.org/students/s_stands.html, visited December 2004.

- 72 districts to make more capital purchases
- 58 districts to reduce funding for other technology projects
- 39 districts to hire additional staff
- 24 districts to take staff away from regular duties

Administration of the computerized ISAT is widely recognized by districts to have increased workload for personnel, interrupted instructional use of equipment, and increased the need for staff training. For example, our interview with the network technician at one district was interrupted when ISAT testing encountered problems after students filed into a computer lab and simultaneously logged onto their computers. Technology staff in one district we visited observed that while computerized testing has shifted immediate spending from classroom integration to computer lab enhancements, these were improvements the district had planned to undertake eventually.

One district we visited reported experiencing continued technical difficulties, while another reported the ISAT mechanism is a vast improvement over the cumbersome paper-and-pencil test, providing information which can be used by teachers to make effective instructional decisions. In our survey:

- 86 districts reported ISAT facilitated better tracking of student progress
- 56 districts reported ISAT allowed better tracking of teacher effectiveness

It is important to note while ISAT was identified in our survey as the foremost cause of increased financial and personnel demands on districts, only 24 of 110 districts responding indicated an elimination of the \$5 million in one-time grant funds (described in Chapter 3) would affect how ISAT is administered. Thirty-nine districts reported ISAT administration necessitated hiring additional technology staff. Although ongoing testing will continue to be a challenge, council leadership believes districts have resolved issues associated with initial implementation of computerized testing.

Idaho Plato Learning Network (Remediation Software)

In July 2004, the board entered a two-year, \$5.03 million contract with Plato Learning Incorporated for unlimited software licenses, data warehousing, and technical support to help K–12 students improve their performance on ISAT.¹⁰ The Idaho Plato Learning Network (I-PLN) can be deployed to districts in a number of ways: via the Internet, over district servers, through a district's local network, or by loading the program on individual computers.

¹⁰ Plato Learning Incorporated and Compass Learning Incorporated both bid on the project.

After the second year of the contract, the board may offer up to 3 one-year mutually agreed extensions. The total cost of this potential 5 year contract is not to exceed \$7.97 million. An official from the board told us this contract will be paid with federal funds.

Districts Like I-PLN, with Some Financial Reservations

In our survey, we asked district administrative and technology staff how well they believed they were equipped with workstations and infrastructure to administer I-PLN. Districts were nearly evenly divided between reporting they were either adequately equipped (33 districts), poorly equipped (31 districts), or did not know (34 districts). Eight districts reported they were very well equipped.

Our interviews with district staff indicate much of the anticipation regarding readiness for I-PLN relates to issues of scheduling computers, remediation, and instruction, and of network and workstation capacity for this software. Because the software includes interactive graphics to keep the students' interest, it also requires a comparatively large amount of bandwidth.¹¹ Information we gathered from site visits supported the general division of responses to our survey, but also revealed many of these districts are pleased with the quality and usefulness of the software offered by I-PLN.

Since our survey in September 2004, I-PLN representatives have been visiting schools and implementing the system.¹² I-PLN officials report as of the start of December 2004, 87 districts and charter schools have been connected to I-PLN and 16 districts have incurred costs for purchasing additional servers.

Funds to Develop a Telecommunications Strategy

To address the expected information technology network demands presented by initiatives such as ISIMS, ISAT, and I-PLN, in October 2004, the department contracted with Boise-based The Futures Corporation to:

conduct a broad but comprehensive analysis related to the issues, challenges, and inhibiting factors associated with the current statewide telecommunications network that serves, or should be able to serve, the statewide K–20 educational community. Further, to prepare a summary strategic plan that describes a mission, vision, issues, goals, and key strategies, then offers a set

¹¹ Bandwidth is a measure, in kilobits or megabits per second, of the capacity of a network to send and receive information between workstations or buildings and the outside world.

¹² Of the 87 districts or charter schools connected to I-PLN, 46 are administering it through a local area network, 20 through a client-hosted web system, and 21 via Plato's website.

of critical implementation steps that will meet long-term statewide technical requirements related to the provision of public education throughout the state.

The Futures Corporation presented the first part of the contracted strategic analysis to the council in December 2004. The council approved the analysis and voted to continue funding of the project with \$11,000 from its budget for sundry expenses.

Technology Requirements of No Child Left Behind Act

During our research and visits to districts, we encountered varying views on the technology requirements of the federal No Child Left Behind Act of 2001 (NCLB). Some district staff and council leadership expressed the belief that unless the ISIMS project or other computer initiatives were implemented, federal education dollars for Idaho would be in jeopardy. Also, approved council meeting minutes recorded the chairman stating the ISIMS project was precipitated by NCLB. At the same meeting, the minutes reflect an official from the Albertson Foundation agreed with the assessment.¹³

NCLB requires a uniform statewide assessment and an accountability system, and provides funding for programs that encourage teachers to integrate technology into instruction. Idaho has addressed this through the statewide ISAT—although computerized testing is not *per se* required—and the State Department of Education’s publication of adequate yearly progress (AYP) information.

US Department of Education officials informed us the implementation of a statewide electronic student information management system, which goes beyond reporting adequate yearly progress—such as ISIMS—is not required by NCLB. However, ISIMS may have had the potential to improve state and district reporting functions through the eventual implementation of its analysis and reporting software.

An additional goal of the NCLB program Enhancing Education Through Technology, designed to improve student achievement by supporting training for teachers and teachers’ use of technology in the classroom, is:

To assist every student in crossing the digital divide by ensuring that every student is technologically literate by the time the

¹³ Idaho Council for Technology in Learning, meeting minutes, December 17, 2003.

student finishes the eighth grade, regardless of the student's race, ethnicity, gender, family income, geographic location, or disability.¹⁴

At this time, state education agencies are required only to describe how they will ensure technology is fully integrated into school curricula and instruction by December 31, 2006.¹⁵ To address this goal and requirement, the department has apparently chosen to develop eighth-grade technology literacy standards.

Idaho, through the statewide education technology plan, has directed that these standards be integrated into statewide and local assessments. In 2004, council staff collected information on how districts were planning to assess eighth-grade technology literacy. Contrary to widespread belief by district technology coordinators, US Department of Education officials informed us that NCLB does not require *student* proficiency to be demonstrated on these standards at this time or in the foreseeable future. Information provided by the US Department of Education to the State Educational Technology Directors Association states, "The Department does not plan to develop a national definition of technology literacy or require States to assess student technology literacy." Importantly, the focus of the federal requirement is on *integration* rather than assessment.

Several issues lead us to recommend the board revisit the purpose and requirements of the eighth-grade technology standards. For instance, 64 districts responding to our survey voiced concern that preparing students to meet the new eighth-grade technology standards would increase district personnel and financial demands. District staff we spoke with also expressed concern about assessment based on these standards. Since the board has not formally approved these standards, there is now an opportunity for the board to discuss this again.

Future Role of the Council

Since 1994, education technology in Idaho has progressed from acquisition of hardware and software to integration of technology in the classroom and the use of technology for assessing and improving student achievement. During this time, state technology funding to districts, when adjusted for inflation, has decreased 39 percent, and district telecommunications and technical support issues have emerged. Further, an organization of district technology coordinators—the Idaho Educational Technology Association—has been formed to share information and provide a consolidated voice on education technology issues. However, the purpose of the *Idaho Education Technology Initiative of 1994* remains the same and the role of the council has changed very little.

¹⁴ No Child Left Behind Act of 2001, Title II, Part D, § 2402(b)(2)(a)

¹⁵ No Child Left Behind Act of 2001, Title II, Part D, § 2413(b)(13)

We believe the State Board of Education should review the council's role in the Technology Initiative in light of the recommendations in this report, state and federal requirements, district responses to our survey, and emerging technology issues. The result of such a review could redefine the council's role, and provide recommendations to the Idaho Legislature for necessary changes to Idaho Code.

Recommendations

1. *Should the State Department of Education invest state or federal dollars into the development of a statewide centralized student information management system, legislative financial auditors should consider including a review of the department's technology-related financial and budgetary practices as part of their periodic audit work.*

Additional Resources Needed to Implement Recommendation	Minimal, or simple adjustment to audit schedule
Timeline to Implement Recommendation	Next scheduled audit cycle (either 2007 or 2008)

2. *The State Board of Education should formally revisit Idaho's eighth-grade technology standards, their purpose, and implementation relative to the requirements of the statewide technology plan and the No Child Left Behind Act of 2001.*

Additional Resources Needed to Implement Recommendation	None
Timeline to Implement Recommendation	December 2005

Appendix A

Project Scope Summary

Public Education Technology Initiatives
OFFICE OF PERFORMANCE EVALUATIONS
June 2004

In March 2004, the Joint Legislative Oversight Committee directed the Office of Performance Evaluations to begin an evaluation of public education technology initiatives. The evaluation will include a review of the \$108 million the Idaho Legislature has appropriated since 1994 to implement learning technologies within Idaho's public schools. The Idaho Council for Technology in Learning oversees those funds and reports that during the 2002–2003 school year alone, districts spent over \$34 million in state, local, federal, and private funds for technology. Other areas of evaluation will include the Idaho Student Information Management System that will require \$18 million of state funds over the next three years, technology requirements of the No Child Left Behind Act and the Idaho Standards Achievement Test, and technology use by Idaho's virtual academies.

This evaluation will focus on the following questions:

Sources and Use of Technology Funds

- What are the funding sources for K–12 technology and how have the funding formulas disbursed those dollars during the last 10 years? What are the restrictions on the use of those funds? Are there other funding formulas or mechanisms that should be considered?
- How are school districts investing their technology dollars and what criteria have been established to measure progress on their technology plans? Are district plans aligned with the statewide plan and legislative intent?
- Have recent technology initiatives placed more financial demands on school districts for technology support staff? If so, how are districts addressing this—through local funds?
- What technology purchasing practices are school districts using and do these practices optimize their technology dollars?

- What technology funds do Idaho virtual academies receive? How are those funds used?

Idaho Council for Technology in Learning (ICTL)

- How well has ICTL implemented the Education Technology Initiative established in Idaho Code?
- What are ICTL's oversight and evaluation functions? What criteria are used?
- How well has ICTL conveyed technology initiative results to lawmakers?

Idaho Student Information Management System (ISIMS)

- What are the current and projected costs (private, state, and local) of the ISIMS project?
- What are the requirements for school districts to participate in ISIMS and how will participation affect school districts' existing costs for information management?

Technology Demands of the No Child Left Behind (NCLB) Act and Idaho Standards Achievement Test (ISAT)

- How will the new eighth-grade technology literacy standards, required under NCLB, affect school districts?
- How well are school districts equipped to administer ISAT and remediation?

Appendix B

Best Financial Management Practices: Administrative and Instructional Technology

The Florida Legislative Office of Program Policy Analysis and Government Accountability and the Office of the Auditor General developed best financial management practices for Florida school districts. Many Idaho school districts are utilizing similar best practices, although there has been no statewide coordination.

Technology Planning

To provide direction for administrative and instructional technology decision making, each district:

- Annually conducts an assessment to identify district and school-level technology needs
- Has a comprehensive technology plan, which addresses:
 - Measurable objectives, reflecting the desired outcomes for educational and operational programs
 - Individual school technology needs
 - Equitable resource allocation, anticipating growth and technology advances
 - Funding for technology
 - Cost-effective acquisition
 - Professional development for technology users
 - Technical support needs of users
 - Infrastructure and network communication, including community access issues
 - Information management and delivery
- Provides funds for major technology initiatives as reflected in the plan

Cost-Effective Technology Acquisition

To acquire technology in a cost-effective manner that will best meet instructional and administrative needs, each district:

- Has established standards for acquiring digital instructional materials, software, and hardware for administrative and instructional use
- Provides opportunities for district and school personnel to preview, evaluate, and recommend acquisition of technology strategies, instructional materials, and software
- Considers future support, operating, maintenance, and disposal costs when it acquires technology
- Equitably distributes technology resources to schools within the district

Technology Professional Development

To ensure district and school-based staff receive professional development training for all technologies used in the district, each district:

- Verifies the availability of appropriate training before acquiring new equipment or software
- Funds technology training
- Provides a variety of opportunities in terms of time, location, and delivery mode for educators and other district staff to obtain technology training
- Provides specialized training for technology support personnel

Technical Support

To provide timely and cost-effective technical support that enables educators and district staff to successfully implement technology in the workplace, each district:

- Conducts a comprehensive assessment of the technical support needs of the schools and district offices
- Budgets for all costs associated with the installation and support of its technology
- Assigns technical support responsibilities to specific personnel at both the district and the school level
- Has procedures for a regular, systematic, and equitable prioritization of technical support services

- Has an equipment replacement policy that specifies a time frame for technologies to be recycled or replaced to minimize the cost of supporting out-of-warranty computers

Infrastructure and Network Communication

To maintain a dependable, standards-based infrastructure employing strategies that cost-effectively maximize network and Internet access and performance, each district:

- Has developed written speed and access standards for district network resources
- Has virus protection software and procedures in place

To use technology to improve communication, each district:

- Uses web technologies, such as the Internet and intranet sites, and email to improve and enhance communication between groups such as schools, districts, the state, parents, and the community

For written policies that apply safe, ethical, and appropriate use practices that comply with legal and professional standards, each district:

- Provides staff, teachers, students, and parents with written and verbal guidelines describing the appropriate and inappropriate uses of technology, such as school computers, the Internet, copiers, facsimile machines, and TV/VCRs
- Provides staff, teachers, students, and parents with written and verbal guidelines describing legal uses of digital materials, both instructional and non-instructional

Information Management and Delivery

To promote the proper functioning of the information systems department, each district:

- Has established general controls in the areas of access, systems development and maintenance, documentation, operations, and physical security
- Has written procedures and a standards manual
- Has had an information technology (IT) audit within the last three years with no outstanding findings of material weaknesses
- Has established controls to limit access to and prevent release of confidential and sensitive data

To meet the information needs of administrative and instructional personnel, each district:

- Applies appropriate project management techniques in order to define, schedule, track and evaluate the purchase of requested IT products and services (including development and delivery)
- Analyzes alternatives to identify the most cost-effective method of delivering IT products and services
- Can demonstrate that its information systems deliver IT products and services in a timely manner
- Has a way to gauge user satisfaction with the delivery of IT products and services

Appendix C

State Technology Allocations, District Reported Local Contributions and Computers, and Students-to-Computer Ratios, Fiscal Year 2004

	State Technology Grant Apportion- ment ^a	Reported District Matching Funds ^b	Percent of District Funds Compared to State Grants	Reported Total District Com- puters	Reported Total Instruc- tional Com- puters	Students to Instruc- tional Com- puter ^c	
Statewide	\$ 7,956,203	\$ 23,922,133	301%	91,773	85,230	3.0	
Enrollment 10,000 or more							
1	Boise	\$ 614,278	\$ 3,638,120	592%	10,388	9,472	2.7
2	Meridian	625,044	3,525,172	564	8,015	7,316	3.6
25	Pocatello	292,136	1,384,314	474	4,166	3,882	3.1
91	Idaho Falls	262,631	1,525,557	581	3,503	3,244	3.2
131	Nampa	298,709	849,666	284	3,953	3,677	3.6
Enrollment 4,000–9,999							
55	Blackfoot	\$ 114,332	\$ 207,268	181%	1,818	1,707	2.4
93	Bonneville	199,865	800,000	400	2,280	2,148	3.7
132	Caldwell	157,662	288,000	183	1,718	1,547	3.8
139	Vallivue	114,233	426,326	373	1,492	1,391	3.4
151	Cassia	136,138	186,283	137	1,975	1,887	2.7
193	Mountain Home	120,339	150,000	125	1,436	1,301	3.3
271	Coeur d' Alene	239,671	1,046,090	436	2,594	2,372	4.0
272	Lakeland	116,072	330,343	285	1,419	1,320	3.2
273	Post Falls	130,740	86,000	66	1,061	1,016	4.9
321	Madison	114,722	228,517	199	1,375	1,250	3.3
331	Minidoka	119,444	331,000	277	1,725	1,645	2.6
340	Lewiston	138,047	1,004,528	728	2,085	1,928	2.6
411	Twin Falls	181,741	850,000	468	2,489	2,379	3.0
Enrollment 2,000–3,999							
3	Kuna	\$ 96,954	\$ 319,651	330%	1,140	1,049	3.4
60	Shelley	65,516	79,000	121	658	638	3.2
61	Blaine Lake Pend	90,507	982,591	1086	1,552	1,439	2.2
84	Oreille	112,262	22,742	20	1,085	999	4.0
134	Middleton	75,567	195,253	258	760	687	3.6
201	Preston	77,108	40,000	52	580	551	4.4

Continued on next page

Appendix C—continued

		State Technology Grant Apportion- ment ^a	Reported District Matching Funds ^b	Percent of District Funds Compared to State Grants	Reported Total District Com- puters	Reported Total Instruc- tional Com- puters	Students to Instruc- tional Com- puter ^c
Enrollment 2,000–3,999							
215	Fremont	\$ 73,954	\$ 135,304	183 %	876	832	2.9
221	Emmett	88,771	385,137	434	1,024	947	3.2
251	Jefferson	112,077	323,526	289	1,477	1,399	2.8
261	Jerome	89,165	162,000	182	1,740	1,681	1.8
281	Moscow	73,236	383,227	523	935	831	2.9
Enrollment 1,300–1,999							
21	Marsh Valley	\$ 52,731	\$ 0	0 %	559	523	2.6
33	Bear Lake	52,509	34,656	66	635	607	2.2
52	Snake River	63,782	89,824	141	800	720	2.6
83	West Bonner	54,744	207,160	378	464	435	3.6
101	Boundary	56,495	198,213	351	625	578	2.7
171	Orofino	51,980	158,053	304	612	581	2.4
231	Gooding	49,320	8,875	18	381	350	3.7
241	Grangeville	54,145	56,402	104	595	561	2.6
370	Homedale	50,277	96,600	192	642	608	2.2
371	Payette	62,899	40,000	64	635	607	3.0
373	Fruitland	55,859	165,779	297	536	485	3.2
381	American Falls	58,857	174,837	297	691	658	2.5
391	Kellogg	52,260	305,277	584	753	604	2.4
401	Teton	52,449	58,390	111	482	447	3.1
412	Buhl	50,911	23,000	45	509	473	2.8
413	Filer	50,550	0	0	449	426	3.1
431	Weiser	57,854	20,000	35	398	368	4.4
Enrollment 800–1,299							
41	St. Maries	\$ 46,212	\$ 100,000	216 %	318	289	3.8
58	Aberdeen	41,023	48,963	119	306	276	3.1
59	Firth	41,819	0	0	220	203	4.4
137	Parma	44,226	5,000	11	356	338	3.0
150	Soda Springs	44,018	35,000	80	348	322	3.1
232	Wendell	44,686	20,000	45	424	404	2.7
291	Salmon	45,286	3,000	7	395	368	2.9
322	Sugar-Salem	49,882	0	0	503	477	2.7
351	Oneida	41,514	18,000	43	479	457	1.9
372	New Plymouth	42,662	139,341	327	491	467	2.1
414	Kimberly	51,284	98,127	191	437	411	3.1
421	McCall-Donnelly	42,596	130,465	306	381	344	2.8

Continued on next page

Appendix C—continued

	State Technology Grant Apportion- ment ^a	Reported District Matching Funds ^b	Percent of District Funds Compared to State Grants	Reported Total District Com- puters	Reported Total Instruc- tional Com- puters	Students to Instruc- tional Com- puter ^c	
Enrollment 350–799							
44	Plummer- Worley	\$ 30,932	\$ 88,064	285 %	245	200	2.7
72	Basin	30,163	57,500	191	134	116	4.2
111	Butte	18,856	57,211	303	285	265	1.9
133	Wilder	34,464	0	0	348	322	1.5
136	Melba	36,240	54,000	149	208	191	3.7
148	Grace	32,088	8,831	28	158	148	3.5
181	Challis	32,083	70,000	218	154	148	3.4
192	Glenns Ferry	33,705	38,310	114	294	273	2.1
202	West Side	33,230	31,800	96	229	216	2.6
233	Hagerman	29,568	103,158	349	122	114	3.6
242	Cottonwood	31,212	0	0	262	244	1.8
252	Ririe	36,192	0 ^e	0	285	271	2.5
253	West Jefferson	35,663	40,000	112	287	269	2.6
262	Valley	34,548	15,000	43	347	337	1.9
285	Potlatch	32,736	0 ^e	0	166	155	3.7
304	Kamiah	32,453	58,024	179	247	232	2.2
312	Shoshone	32,211	10,000	31	243	233	2.1
341	Lapwai	31,395	218,671	697	244	227	2.5
363	Marsing	37,423	52,204	139	345	314	2.4
365	Bruneau-Grand View	30,696	0	0	277	259	1.8
393	Wallace	33,235	144,000	433	346	327	1.8
415	Hansen	28,977	0	0	196	188	2.0
422	Cascade	28,500	0	0	282	271	1.3
Enrollment 150–349							
11	Meadows Valley	\$ 24,402	\$ 21,995	90 %	78	73	2.8
13	Council	27,781	0	0	184	176	1.8
71	Garden Valley	26,973	38,000	141	140	131	2.2
73	Horseshoe Bend	27,297	61,706	226	232	220	1.4
121	Camas	23,633	0	0	148	134	1.2
135	Notus	27,831	23,480	84	147	145	2.1
149	North Gem	24,220	43,000	178	121	113	1.7
161	Clark	24,675	17,619	71	162	155	1.4
182	Mackay	25,360	40,682	160	133	123	1.8
234	Bliss	24,450	0	0	104	95	2.0
274	Kootenai	26,537	47,780	180	210	194	1.5

Continued on next page

Appendix C—continued

		State Technology Grant Apportion- ment ^a	Reported District Matching Funds ^b	Percent of District Funds Compared to State Grants	Reported Total District Com- puters	Reported Total Instruc- tional Com- puters	Students to Instruc- tional Com- puter ^c
282	Genesee	\$ 27,703	\$ 0	0%	209	197	1.7
283	Kendrick	27,786	63,275	228	149	135	2.5
287	Troy	27,290	59,399	218	129	118	2.8
288	Whitepine	26,297	100,000	380	153	140	1.9
302	Nezperce	24,368	58,006	238	105	97	1.9
305	Highland	25,654	30,000	117	137	132	1.7
314	Dietrich	24,378	0 ^e	0	95	84	2.2
316	Richfield	24,927	2,000	8	106	99	2.1
342	Culdesac	24,715	28,710	116	175	169	1.2
417	Castleford	28,468	0	0	204	199	1.7
418	Murtaugh	25,331	0 ^e	0	155	148	1.5
432	Cambridge	24,018	0 ^e	0	181	170	1.0
Enrollment Less than 150							
92	Swan Valley Prairie	\$ 12,341	\$ 25,000	203%	43	40	1.5
191	Elementary	5,134	0	0	10	9	0.6
292	South Lemhi	22,823	35,798	157	92	86	1.5
364	Pleasant Valley	5,504	0 ^e	0	21	20	1.2
382	Rockland	23,593	32,000	136	126	123	1.2
383	Arbon	5,271	4,442	84	16	15	0.5
392	Mullan	23,424	0	0	103	96	1.4
394	Avery	5,897	0	0	37	35	0.7
416	Three Creek	5,144	875	17	15	15	0.7
433	Midvale	22,996	15,046	65	91	82	1.5
961	School for Deaf and Blind	19,751	0	0	200	173	2.2 ^c
Traditional and Virtual Public Charter Schools							
	Anser	\$ 3,387	\$ 0	0%	48	43	3.3
	Blackfoot	1,601	0	0	18	16	3.8
	Coeur d' Alene ^d	0	n/a	n/a	71	62	5.9
	Hidden Springs	7,745	0	0	63	60	6.2
	Liberty (Nampa)	8,461	5,970	71	72	68	5.4
	Meridian	4,160	0	0	367	364	0.5
	Moscow	3,300	0	0	43	41	2.7
	Pocatello	4,468	0	0	42	40	4.6
	Renaissance	2,903	0	0	35	30	1.9

Continued on next page

Appendix C—continued

	State Technology Grant Apportion- ment ^a	Reported District Matching Funds ^b	Percent of District Funds Compared to State Grants	Reported Total District Com- puters	Reported Total Instruc- tional Com- puters	Students to Instruc- tional Com- puter ^c
Sandpoint Idaho	\$ 2,479	\$ 0	0%	51	48	2.6
Leadership	4,501	0	0	18	13	10.8
Idaho Virtual	33,601	0	0	1,162	1,154	1.6
Richard McKenna ^f	3,302	0	0	27	18	10.2
White Pine	0	n/a	n/a	12	12	15.4
North Star	0	n/a	n/a	48	45	5.9
Meridian Medical	0	n/a	n/a	38	33	4.0

^a First disbursement in August, second in December-January; surplus distributions in July of following year.

^b These figures are reported by district technology coordinators, in some cases independent of district fiscal officers, and have not been verified by OPE.

^c Based on fall 2003 enrollment, with the exception of the Idaho School for the Deaf and the Blind, which is based on average daily attendance for fiscal year 2004.

^d Charter school elected to have funds distributed to school district.

^e Based on our analysis of the process and data from previous years, this may underestimate district support. This district also reported zero local dollars in fiscal year 2003; district fiscal staff confirmed that this underreported district contributions to technology in that year.

^f Formerly known as the Idaho Virtual High School.

Source: Office of Performance Evaluations analysis of information from the Office of the State Controller, the Idaho Council for Technology in Learning, and State Department of Education.

Appendix D

Technology Grant Opportunities

(as of January 2005)

<u>Program</u>	<u>Purpose</u>	<u>Eligibility</u>	<u>Awards</u>
<p>Rural Education Achievement Program (CFDA Number: 84.358)</p> <p>US Department of Education Office of Elementary and Secondary Education 400 Maryland Avenue, SW Washington, DC 20202 800-872-5327 www.ed.gov</p>	<p>Provide financial assistance to rural districts to assist them in meeting their state's definition of adequate yearly progress. Recipients may use program funds for various activities e.g.: programs that train teachers to use technology to improve teaching; and programs that support educational technology, including software and hardware.</p>	<p>State and local education agencies that meet the statutory eligibility requirements.</p>	<p>\$20,000–\$60,000 based on formula</p>
<p>Community Technology Centers Program (CFDA Number: 84.341)^a</p> <p>US Department of Education Office of Vocational and Adult Education 400 Maryland Avenue, SW Washington, DC 20202 800-872-5327 www.ed.gov</p>	<p>Create or expand community technology centers that will provide disadvantaged residents of economically distressed urban and rural communities with access to information technology and the training to use it.</p>	<p>Community-based organizations, including faith-based organizations, SEAs and LEAs, higher education institutions, foundations, libraries, museums, public and private non-profit organizations, and for profit businesses.</p>	<p>\$250,000–\$500,000</p>
<p>Improving Literacy through School Libraries (CFDA Number: 84.364)</p> <p>US Department of Education Office of Elementary and Secondary Education 400 Maryland Avenue, SW Washington, DC 20202 800-872-5327 www.ed.gov</p>	<p>Help local education agencies improve reading achievement by providing students with increased access to updated school library materials. May use funds to acquire and use advanced technology to enhance information literacy, facilitate Internet links and other resource-sharing networks.</p>	<p>Local education agencies in which at least 20% of students served are from families with incomes below the poverty line.</p>	<p>Average \$100,000</p>

^a For fiscal year 2006 applicants should check with the program administrator for grant availability and application guidelines.

Appendix D—continued

<u>Program</u>	<u>Purpose</u>	<u>Eligibility</u>	<u>Awards</u>
<p>Interagency Education Research Initiative (CFDA Number: 47.076)</p> <p>National Science Foundation 4201 Wilson Blvd Arlington, VA 22230 703-292-5111 www.nsf.gov</p>	<p>Investigate the effectiveness of interventions designed to improve student learning and achievement in preK-12 science or mathematics with an emphasis on middle and high school. Technology should be a part of the intervention or used in an essential manner in the analysis of the intervention.</p>	<p>State and local educational offices, state and local government, universities, and colleges.</p>	<p>Up to \$2–6 million</p>
<p>Autodesk Inc/ITEA Elementary Grants</p> <p>International Technology Education Association 1914 Association Drive Suite 201 Reston, VA 20191-1539 703-860-2100 www.itea.org</p>	<p>Advance quality in technology education at the elementary school level.</p>	<p>Elementary schools (K–6) applying for the grants must hold membership in ITEA.</p>	<p>\$1,000</p>
<p>Technology Grants for Rural Schools</p> <p>Foundation for Rural Education and Development 21 Dupont Circle NW Suite 700 Washington, DC 20036 202-659-5990 www.fred.org</p>	<p>Help public schools in rural areas served by Organization for the Promotion and Advancement of Small Telecommunications Companies (OPASTCO) members bring modern computers to every classroom, connect schools to the information superhighway and make sure that effective and engaging software and online resources are an integral part of the school curriculum.</p>	<p>Public K–12 schools located within the service area of an OPASTCO telephone company.</p>	<p>Average \$8,000</p>
<p>Micron Foundation K–12 Grants</p> <p>Micron Technology Foundation, Inc 8000 S Federal Way PO Box 6 Boise, ID 83707-0006 208-368-4400 www.micron.com/about/giving/foundation/</p>	<p>Fund high-impact programs that drive advancements in education, with emphasis on science and technology.</p>	<p>Tax-exempt organization under IRS Code Section 501(c)(3), or a publicly-funded academic institution.</p>	<p>Award amounts vary</p>

Appendix D—continued

<u>Program</u>	<u>Purpose</u>	<u>Eligibility</u>	<u>Awards</u>
<p>Best Buy Teach Grants</p> <p>Best Buy Co, Inc P.O. Box 9312 Minneapolis, MN 55440 888-237-8289 CommunityRelations@ BestBuy.com</p>	<p>Reward schools for the successful, interactive programs they have launched using available technology.</p>	<p>K–12 public, private, and parochial schools within 25 miles of a Best Buy store [locations in Boise, Idaho Falls, and Twin Falls].</p>	<p>\$2,500 gift card</p>
<p>HP Technology for Teaching Grant</p> <p>Hewlett-Packard Company 3000 Hanover Street Palo Alto, CA 94304-1185 800-752-0900 h21030.www2.hp.com</p>	<p>Transform and improve teaching and learning in education settings. Give all students, especially those from low-income and underserved communities, the resources and tools to achieve academic success. Improve the quality and accessibility of math, science, and engineering instruction.</p>	<p>US universities, low-income and ethnically diverse K–12 school districts, and national non-profit organizations.</p>	<p>Award amounts vary</p>
<p>Beaumont Foundation of America Technology Grants for Education</p> <p>Beaumont Foundation of America P.O. Box 1855 Beaumont, TX 77701 866-546-2667 www.bmtfoundation.com</p>	<p>Develop technology in underserved schools.</p>	<p>K–12 public schools where 51% of students qualify for the National School Lunch Program.</p>	<p>\$20,000– \$60,000</p>
<p>Toshiba America Foundation</p> <p>Toshiba America Foundation 1251 Avenue of the Americas, 41st Floor New York, NY 10020 212-596-0620 www.toshiba.com/taf/</p>	<p>Improve the classroom teaching and learning of science, mathematics and technology for students in grades K–12.</p>	<p>Teachers in public and private schools, local educational agencies, and youth organizations.</p>	<p>Over \$5,000</p>

Responses to the Evaluation

The response from the State Department of Education refers to page numbers in an earlier draft of the report. Updated references are provided below:

<i>Response Page Reference</i>	<i>See Report Page</i>
19	19-20
62	60
68	66
69	66
72	70



DIRK KEMPTHORNE
GOVERNOR

January 18, 2005

Mr. Rakesh Mohan
Office of Performance Evaluations
STATEHOUSE MAIL
Boise, ID 83720-0055

Dear Rakesh:

Thank you for the opportunity to respond to your evaluation of Public Education Technology Initiatives. First, I would like to complement the Office of Performance Evaluation on the thorough examination of this important aspect of our public education system. This administration believes that the education of our young people requires a strong understanding of technology and its ability to enhance student learning.

In that regard, the Governor supports each of the recommendations contained in the evaluation. The critical issue regarding technology in our public schools is not the number of workstations available but how is technology improving learning outcomes in our educational system. Statewide and local district technology plans that are tied to learning outcomes would be the best measurement of success. Short of that, obtaining information that is compared to clearly defined standards is a step in the right direction when it comes to better using the technology resources provided to public schools.

Again, thank you for the opportunity to respond to your evaluation. I appreciate the efforts of your office to improve public education technology and state government in general.

Sincerely,

A handwritten signature in black ink, appearing to read "Brian Whitlock".

Brian Whitlock
Chief of Staff
Office of the Governor

Cc: Brad Foltman, Division of Financial Management



IDAHO STATE BOARD OF EDUCATION

650 W. State Street • P.O. Box 83720 • Boise, ID 83720-0037
208/334-2270 • FAX: 208/334-2632
e-mail: board@osbe.state.id.us

January 17, 2004

Office of Performance Evaluations
700 West State Street
PO Box 83720
Boise, ID 83720-0055

Re: Report on Public Education Technology

Dear Mr. Mohan:

On behalf of the State Board of Education (Board), thank you for the opportunity to participate in this study of Public Education Technology issues. The background information and recommendations you have provided will be helpful to the Board as it explores ways to improve our educational system through the use of technology.

A copy of your final report will be provided to all Board members for their review and action on the recommendations. We look forward to a briefing by you and your staff at our January 24, 2005 Board meeting.

Thank you again for your efforts to improve our educational system.

Sincerely,

A handwritten signature in black ink, appearing to read "Gary Stivers", written over a horizontal line.

Gary Stivers
Executive Director



Idaho State Senate

State Capitol
P.O. Box 83720
Boise, Idaho 83720-0081

January 17, 2005

Rakesh Mohan, Office of Performance Evaluation

Dear Mr. Mohan:

I appreciate the opportunity to reply to the Office of Performance Evaluation (OPE) audit of the Public Education Technology Initiative and I strongly feel that there are several points that must be made. There are suggestions stated in the OPE report that can be beneficial to improve the operations of the Idaho Council for Technology in Learning (ICTL) and I am certain that these will be implemented. The ICTL will be a better organization because of the changes. However, I also feel there are criticisms or observations that must be addressed. Most of these could be resolved with staff and money and some of these were done until funding was cut. One of the major deficiencies of the report is relative to the Regional Technology Advisors (RTAs), which I will address later in the letter. I feel it is important to understand the direction taken by the ICTL especially relative to the 1994 statute.

Background

The ICTL began in 1994 when I viewed a PowerPoint presentation on the use of technology in instruction presented by the United States Department of Education. I was so impressed that I formed "LIFT" (Legislative Initiative For Technology). There were eighteen Legislators that joined LIFT. One of the Legislators was Representative Pam Ahrens. She developed the statute organizing the ICTL while I worked on the funding with Senator Atwell Perry and Representative Kitty Gernsey, co-chairs of the Joint Finance Appropriations Committee (JFAC). Because Legislators recognized the value of technology, we were able to secure \$10.4 million per year, with \$3.4 in the base. The ICTL was organized primarily with volunteers and Representative Ahrens was the first chairperson. There were remarkable people who volunteered like:

Rich Mincer – now one of the nation's top consultant in educational technology
Mike Rush – presently director of the division of Professional Technical Education for Idaho
Ben Hamilton – presently professor at Boise State University
Pam Ahrens – presently director of the Department of Administration for the state of Idaho
Mel Richardson – presently chairperson of the ICTL

these people and many other volunteers helped to build the ICTL from the ground up, not from the top down.

Local Control

It was determined that the districts should have local control to set goals according to the district's needs and funds. The ICTL did not have the staff or funds to micromanage the districts. A funding system was set up to give each district a \$20,000 base plus their share of the \$10.4 million according to the district average daily attendance (ADA). In order to receive the State Technology Funds, districts had to present a five-year plan based on recommendations of the ICTL and the K-12 State Technology Plan, *Connections 1994*. These districts plans had to project district goals and

budgets for each year and the ICTL checked on the status before additional funds were released in the following years. This continued for the next five years.

The districts raised local funds in addition to the state funds for technology purchases through many different methods. Some districts had bake sales, charity fund raisers, donated labor, some passed bonds and some reallocated their general fund budgets. Volunteers pulled wire, dug trenches, and donated equipment. The value of this "in kind" money was in the millions and can't be given a dollar figure. I feel the efforts by the districts were underreported in the OPE report. Each district is different in their ability to raise funds. The ICTL could not require districts to meet predetermined financial goals set by the ICTL. When staff and members of the ICTL attended national meetings other states asked over and over how Idaho had been able to do it. The answer continues to be local control with guidance. Which brings us to the RTAs.

Training

The OPE report seems to fault us for lack of training. The Office of the State Board of Education (OSBE) realized the importance of training and in 1997 placed a requirement that by the year 1999, 90% of the certificated personnel within the school districts would pass a technology competency assessment. By law, certificated personnel must now demonstrate technology competency in order to obtain an Idaho teaching certificate. Sensing the need to meet the OSBE requirement, JFAC added an additional \$1 million per year to go to the Colleges of Education to support technology training and integration efforts through the RTAs.

The additional funds allowed the ICTL to organize the state of Idaho into six regions with technology advisors from the Universities and Colleges regionally serving the districts in their region. The RTAs came from the following institutions of higher education: Eastern Idaho Technical College, Idaho State University, College of Southern Idaho, Boise State University, University of Idaho, and Lewis and Clark State College. The RTAs gave districts technical support and training needed for planning, instruction, and trouble shooting with technology in the classroom. The RTAs were leaders in the field of educational technology. One of the RTAs, Dr. Heidi Rogers, became president of the International Society for Technology in Education (ISTE). This is the international organization that has developed teacher, student, and administrator technology standards.

The ICTL worked closely with the RTAs as the qualifications for technology competency certification were developed. The RTAs developed three plans for assessing the technology competency of certificated personnel. A portfolio based assessment from ISU, an on-line multiple-choice test from BSU, and a performance based assessment from UI and LCSC. The certificated staff had their choice on which assessment they wanted to take. Instruction was given statewide with close supervision by the ICTL. This was not reported in the OPE report. Instruction and training is still needed as noted in the OPE report, but oversight of professional development had to be dropped by the ICTL when JFAC cut the funding due to budget constraints in 2001. This resulted in two staff members being left with the responsibility of supervision and instruction for all 113 districts.

Best Practices

"Best Practices" were developed with the ICTL staff and the RTAs. The RTAs met with districts and passed information onto the attendees. A book detailing "Best Practices" was written by a graduate student under the guidance of Dr. Carolyn Thorsen, the RTA from Boise State

University. This publication was disseminated to local school districts. In 1999-2002 The J.A. and Kathryn Albertsons Foundation (JKAF) set up annual statewide presentations featuring some of our best Idaho teachers demonstrating integration of technology to other teachers. JKAF paid for these statewide regional presentations so that Idaho teachers could see an example of what they could do with technology.

Through a grant by the ICTL, in 1998 Idaho Public Television filmed six classroom teachers demonstrating technology integration. These videos were distributed to every school district in the state of Idaho.

In partnership with the ICTL in 2000 the Northwest Educational Technology Consortium (NETC) filmed a video of Idaho teachers at O'Leary Junior High School in Twin Falls demonstrating a technology infused interdisciplinary math, science, and language arts project. This video titled Classrooms@work Tools@Hand was distributed to all Idaho school districts as well as nationally by NETC.

Reporting

In 1994, the first year of the Public Education Technology Initiative the grants were competitive and thus required a lengthy application that included a detailed project plan which included the following –

Proposed equipment and software purchases

How the equipment and software will be used effectively in the classroom

Provision for training teachers to make optimal use of technology

Provision for local matching funds as prescribed by ICTL

Due to school district comments about the lengthy application process, the ICTL voted in 1995 to have the State Technology Funds be flow through funds based on a funding formula. Thus, the district application for the funds was more streamlined. In 1999 with the J.A. and Kathryn Albertsons Foundation Opportunity One grant, the Technology Use Plans were reintroduced as a way for districts to detail the purchases for this grant.

The STAR chart mentioned in the OPE report was shown to the ICTL in 1999 and was used as a reference guide for developing the Phase II reporting requirements in 1999 – 2002. The Technology Use Plans included detailed reporting of purchases, training, and matching funds. In 2002, when the Technology Initiative was cut from \$10.4 to \$8.4 districts testified at the ICTL meeting about the need to use the State Technology funds to maintenance and repair of existing hardware and got the 25% teacher training requirement as well as the 15% evaluation requirement taken away as required State Technology Fund expenditures.

From the beginning it was obvious that many districts did not have the money and personnel to devote to long indepth reports to the ICTL. Requests from the district was to 'keep it simple.' The ICTL staff made every attempt to obtain the important information without overburdening school districts. Until 2004 IFARMS did not track technology revenues and expenditures with enough category breakdowns that was needed by the ICTL. The OPE report indicates we needed more than machine and student counts, with which we agree. With only two staff members and 113 districts they did a great job. As staff funds were cut again we became more limited in what we could ask from districts.

Federal Grants

Millions of dollars are available from federal grants to the Idaho K-12 schools. Federal requirements were that the grants had to be competitive. Most districts didn't have grant writers available and felt that they were not given a fair change to obtain federal funds. The ICTL staff assisted every district that requested grant writing assistance.

ITRMC

Regarding the ICTL association with the Information Technology Resource Management Council (ITRMC), a representative of the State Department of Education is a member of ITRMC and attends their meetings. The representative submits reports and informs ITRMC of public K-12 school issues when asked by ITRMC staff.

Maintenance

The final point that I will address is maintenance. From early in the program it became obvious that just buying equipment wasn't enough. Districts developed their maintenance programs to fit their funding. Some taught students how to build and repair computers; some used teachers or staff that had greater knowledge; and some used volunteers from the community. None of these produced results that are needed in an integrated technology program. ICTL has tried to tell everyone that a permanent technology staff will be required. The only way we can accomplish this is with more money from the state. Nearly every district tells us that the money received from ICTL is used in maintenance and they do not have the money necessary for equipment, infrastructure, and maintenance for ISAT, ISIMS, and IPLN. As for our ultimate goal, which was the integration of technology into the daily instruction, the teacher is still the main ingredient. We just intend to give him or her the best tool possible. We always hear that the answer to education problems is more money and staff. In this case I fear that it is true.

On behalf of the ICTL, I would like to thank OPE for thoroughly reviewing the Public Education Technology Initiative policies and procedures.

A handwritten signature in black ink, appearing to read "Mel Richardson". The signature is fluid and cursive, with a long horizontal stroke at the end.

Senator Mel Richardson, Chair ICTL



STATE OF IDAHO
OFFICE OF
STATE SUPERINTENDENT OF PUBLIC INSTRUCTION
BOISE

DR. MARILYN HOWARD

(208) 332-6811
FAX (208) 334-2228

January 17, 2005

Rakesh Mohan, Director
Office of Performance Evaluations
Lower Level, Suite 10
J.R. Williams Building
Hand Delivered

Dear Mr. Mohan:

Thank you for this opportunity to respond to your final report on your study of public education technology initiatives. The following comments are meant to add information or to answer questions or criticisms found in the OPE report.

Staffing guidelines

p. 19 4. *Guidance for Adequate Staffing would Benefit Districts*

The statewide technology plan does not encourage districts to plan for personnel or determine the technical support needs of users. Determining staffing based on a formula or standard, including strategies to reduce workload, could help districts optimize existing resources.

The Idaho Education Technology Association (IETA) has developed a three-year plan in an attempt to place adequate personnel in districts to meet the increased demand for software, hardware, and personnel. The public school budget request is taking a phased-in approach to the findings of this group. For fiscal years 2002, 2003, and 2004, the public school budget request included a request to increase the district classified staff allowance as a way to give districts more flexibility in hiring technology staff; none of these requests were approved by the Legislature. The budget request for FY2006 includes \$12.4 million, supported in the executive budget, to help ameliorate the 39 percent decrease in funding (p. 69) experienced by districts since the technology initiative was first put into place.

Special education expenditures

p. 62 The report notes that the State Department of Education contributed \$3 million in federal funds (through Title VI of the No Child Left Behind Act) to ISIMS development for the purchase of the data warehouse and reporting and analysis software. The report did not mention that the federal funds also paid for development of special education software to allow full implementation of the NCLB requirements for disaggregating and reporting on special education students. Because the special education application was developed as part of the J.A. and Kathryn Albertson Foundation's ISIMS project, it was lost to the state when the foundation withdrew its support for the single student information management system.

Costs of ISIMS

p. 72 **Idaho Student Information Management System (ISIMS)**

- What are the current and projected costs (private, state, and local) of the ISIMS project?
- What are the requirements for school districts to participate in ISIMS and how will participation affect school districts' existing costs for information management?

The J.A. and Kathryn Albertson Foundation initially committed \$35 million to the establishment of a student information management system for Idaho. When it appeared the project would cost much more, the foundation stopped full implementation of the project, and instead promised to make sure the 29 pilot districts participating in ISIMS development had a workable, but scaled-down, system. The foundation has notified districts that it will support pilot districts' transitions to the scaled-down system through August 1, 2005.

As of this date, the foundation has committed to support the purchase of a district-selected software product for each pilot district. The products are expected to transmit data to the state in forms that can be transposed at the state into one data system. It is expected that other districts will seriously consider and choose from among the three companies recommended by the foundation. It is difficult to estimate what the foundation's costs might be because districts have not yet made their choices.

The State Department of Education has computer-savvy specialists of various grades employed in its finance and technology bureaus. In those roles, they manage data from a number of sources and for a variety of purposes. They also build the templates that allow the reporting of data from districts to the SDE. Those data are published

primarily as financial information and as testing reports. In addition, the Bureau of Technology Services (BOTS) staff has been assigned to help “clean up” data from the state testing vendor, Northwest Evaluation Association (NWEA), and to work with NWEA to improve its reporting mechanisms.

In other words, the state has had on-going costs, albeit in a fragmented way, to try to obtain accurate reports from districts and to ensure accurate data from the testing vendor. Since much of the information gleaned from these activities found its way into ISIMS planning, it’s hard to draw a clear line between the usual and on-going activities of BOTS and any activity that might have had an impact on ISIMS.

Specifically for the ISIMS project, to this point the SDE has spent \$1 for the purchase of servers, cabinets, and back-up system worth \$1 million from the foundation. Those servers are intended to populate the state’s data warehouse, a centralized system for data collection. In addition, as the report mentioned, the Idaho Council on Technology in Learning allocated \$5 million in state funds to help districts prepare themselves to participate in ISIMS (p. 62). (Although six staff members to help with programming, technical assistance, professional development, and general support to districts are included among SDE personnel, the positions were supported by a foundation grant, and not by state funds.)

Eighth-grade technology standards

p. 68 “At this time, state education agencies are required only to describe how they will ensure technology is fully integrated into school curricula and instruction by December 31, 2006. To address this goal and requirement, the department has chosen to develop eighth-grade technology standards, although such standards are not required by NCLB.”

p. 72 Technology Demands of the No Child Left Behind (NCLB) Act and Idaho Standards Achievement Test (ISAT)

- How will the new eighth-grade technology literacy standards, required under NCLB, affect school districts?

The NCLB requires assurance that “every student is technologically literate by the time the student finishes the eighth grade....” Some kind of process for making that determination is necessary. In Idaho, the SDE chose to adopt technology standards for eighth grade students similar to the standards already adopted in other subject areas (math, language arts, science, and so on). The fact that the NCLB does not require assessment of technology proficiency is irrelevant; Idaho has adopted standards in a number of areas not currently assessed for federal purposes (for example, health, physical education, and social studies). Still, standards give teachers targets against which to plan their instruction and give students targets to measure their learning. It is difficult to know

how a state can ensure that students are technologically literate without making a determination of what that means.

More to the point, Jenelle Leonard, a U.S. Department of Education Title II-D program officer, has advised the staff of the SDE that states will be required to report the number and percentage of students who are technologically literate by the eighth grade once every three years as part of the USDOE program review. Adoption of standards will give Idaho a way to determine what its response will be.

School districts will be affected by the eighth grade technology standards in the same way that they are affected by all other standards: they may use SDE-adopted end-of-course assessments to measure student literacy in technology or they may adopt their own assessments. Already K-8 benchmarks have been adopted for the technology standards, and the standards have already been incorporated into courses of study.

Need for an ISIMS project

Chapter 6 – Recent Technology Initiatives

The language of this chapter includes two important misunderstandings: first, that it is believed the federal No Child Left Behind Act somehow required implementation of an ISIMS project, and, second, that the J.A. and Kathryn Albertson Foundation's entry marked the beginning of the ISIMS project.

As a practical matter, ISIMS was first proposed by the State Department of Education in 2001 as a way to bring order into the collection, retrieval, and analysis of data submitted to the SDE by school districts. Increasingly, reporting of data is an integral part of meeting federal requirements (for example, reports on schools that make Adequate Yearly Progress, as required by the NCLB), responding to federal data inquiries (for example, the National Center for Education Statistics inquiries regarding drop-out rates, enrollments, student-teacher ratios, and so forth), providing information to teachers to inform instructional decisions (over the past two years, more than 2,000 Idaho educators have attended statewide Data Academies to learn how to use testing data to make good educational judgments based on student outcomes), and responding to the myriad of inquiries regarding the status of education, student performance, support services, and materials and supplies in Idaho (for example, the annual reports of the National Education Association on teacher salaries or the annual "Education Weekly Quality Counts" reports that grade states on such things as teacher preparation, adoption of standards, and so on). Put most simply, whatever the system is called, Idaho – like other states – must have a way to report and retrieve needed information.

To emphasize the importance of good statewide electronic student information management systems, the U.S. Department of Education – regardless of whether the No Child Left Behind Act requires this system or not – has initiated its EDEN (Education

Data Exchange Network) project that has sent USDOE staff to every state department of education to discuss needed common data elements and a strategy to proceed. The goals of the project are to:

- Increase the focus on outcomes and accountability rather than process;
- Reduce the burden of existing data collections by streamlining the data collection process and eliminating redundancy across programs;
- Improve the accuracy, timeliness, and utility of information collected to be used to inform management, budget, and policy decisions; and
- Create a partnership between the U.S. Department of Education, the state, and local education communities based on common data standards and an effort to continually work towards more efficient and effective data management.

In other words – an ISIMS-type project. The U.S. Department of Education has identified nine offices at the federal level that request such data and proposes that the EDEN project will result in a consolidated system for collecting data from USDOE clients. They have identified 71 file formats to collect the data. The goal is to allow program officers to be able to obtain and analyze data and eventually to create a public database for looking across states.

So while it may be correct in a narrow sense to say that the NCLB does not “require” an ISIMS in each state, it is even more correct to say that the thrust of data reporting at the federal, state, and local levels, as well as through the private sector, is to ensure data are accurate, comparable, easily collected and retrieved, and available to the broadest number of users in a way that allows important comparisons of common data elements.

I would be happy to answer any questions you have.

Sincerely,



Marilyn Howard
State Superintendent of Public Instruction

MH:lrh

OPE's Response to Agency Comments

We appreciate the efforts of those who reviewed drafts of our report and provided input. Formal responses from the Office of the Governor, the State Board of Education, the Idaho Council for Technology in Learning, and the State Department of Education add value to the report. The following are our comments that offer clarity and perspective to the responses.

Idaho Council for Technology in Learning

1. *Council Statement:* “The OPE report seems to fault us [the council] for lack of training.”

OPE Comment: Our office does not fault the council or any other entity regarding lack of training. We do report, however, in Chapter 5 that 31 districts responding to our survey indicated a need for personnel to provide technology support training, 53 districts identified teacher training as a factor strongly affecting students' ability to take advantage of technology, and 79 districts reported that the computerized ISAT has increased the need for staff training. Additionally, district technicians and coordinators we spoke with expressed concerns about a lack of state guidance and resources for technical training.

2. *Council Statement:* “A book detailing “Best Practices” was written by a graduate student under the guidance of Dr. Carolyn Thorsen [sic], the RTA from Boise State University.”

OPE comment: We had reviewed the report prepared by the Boise State University student. However, that effort did not meet the statutory requirement for the council to recommend to the Board of Education exemplary programs, practices, and products. Additionally, both board officials and district technology coordinators we met with indicated a desire for a list of best practices. We believe the review of best practices should be an ongoing process; Appendix B of this report offers a starting point.

State Department of Education

1. *Agency Comment:* “The fact that NCLB does not require *assessment* of technology proficiency is irrelevant; Idaho has adopted standards in a number of areas not currently assessed for federal purposes (for example, health, physical education, and social studies).”

OPE response: Since receiving the department’s January 17, 2005 written comments, we have communicated further with the Title II-D federal program officer. We stand by our conclusion that technology standards and assessment are not required by the No Child Left Behind Act (NCLB). Additionally, the fact that NCLB does not require assessment of Idaho’s eighth-grade technology standards is relevant because 64 districts indicated that preparing to meet the standards would increase personnel and financial demands on their districts. According to the federal program officer, Idaho could fulfill US Department of Education information requests by reporting the number of Idaho schools which have integrated technology standards into their courses of study, without having to test students on technology. Our goal was to clarify the technology requirements of NCLB, not to judge whether eighth-grade technology standards and assessment of those standards are appropriate. Those are Idaho decisions, but not federal requirements.

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