

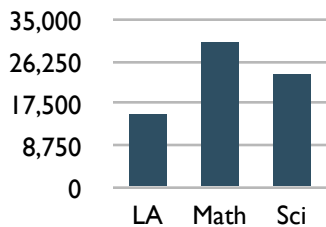
Educational Technology

Utah's K-12 Ed Tech - Status and Recommendations

2004/05 SB 51 - One Time \$5 Million for Infrastructure

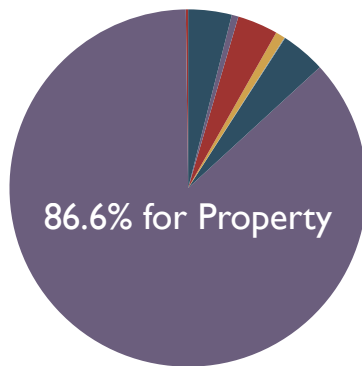
Delivered Online

To qualify for funds, districts agreed to deliver some tests online. It was district choice which year to begin (Spring 2005 or Spring 2006).



Total number of online tests delivered during 2004/05 end-of-level testing

2004 Funds Expended as of 7/1/05: \$3,190,513 of \$5,000,000



- Salaries (3.9%)
- Employee Benefits (0.6%)
- Purchased Professional and Technical Services (3.7%)
- Purchased Property Services (0.8%)
- Other Purchased Services (0.0%)
- Travel (0.6%)
- Supplies and Materials (4.0%)
- Property (including equipment & computer hardware) (86.6%)
- Other (0.2%)

SB 51 Legislation

Educational Technology Support for Online Testing (Senate Bill 51) was sponsored in the Senate by Leonard Blackham and by Michael Styler in the House during the 2003 legislative session

SB 51 monies can be used to pay for any of the following, provided it is directly related to implementing a uniform online summative test system:

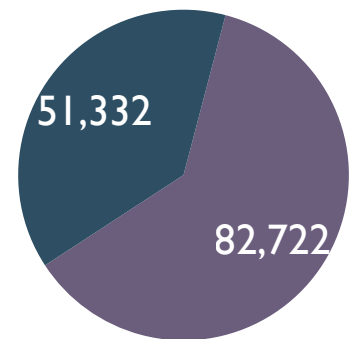
- (i) computer equipment and peripherals, including electronic data capture devices designed for electronic test administration and scoring;
- (ii) software;
- (iii) networking equipment;
- (iv) upgrades of existing equipment or software;
- (v) upgrades of existing physical plant facilities;
- (vi) personnel to provide technical support or coordination and management; and
- (vii) teacher professional development.

Equipment purchased in compliance with Subsection (3)(a), when not in use for the online delivery of summative tests required under U-PASS may be used for other purposes.

<http://www.le.state.ut.us/~2004/hmdoc/sbillhtm/SB0051S01.htm>

Aging Computer Base

State-wide, about 38% of the computers are 4 or more years old.



- older
- newer

These counts were supplied by technology directors, testing directors, superintendents, and regional technology coordinators in September, 2005 and include the new computers purchased with SB 51 funds. The numbers include seven of the current charter schools and counts from the 40 school districts.

Expenditure Summary

Districts spent 86.6% of expended funds in the Property category. The next largest expenditure was 4.2% for salaries and 3.9% for supplies and materials.

Several large districts, including Jordan and Ogden, elected to postpone expending the funds until the statewide summative online testing system was selected and the hardware and software requirements were better understood. That system has now been selected and will be used for the Spring 2006 end-of-level CRT tests.

Recommendation: State Funding for Student Access

The February 2005 Legislative audit report concludes “There are three components for efficient and effective technology use - student access, technical support, and professional development - each requiring stable funding. Where funding, policy review, and leadership are in place, schools and students benefit from the investment in educational technology.”

	'91	'92	'93	'94	'95	'96	'97	'98	'99	'00	'01	'02	'03	'04	'05	'06	'07
line-item	0	0	0	1.0	1.01	4.4	4.4	6.4	8.5	8.9	8.9	0	0	0	0	0	
one-time	13.4	11.8	9.9	8.9	6.6	9.7	9.6	0	5.5	4.5	0	0	0	0	5.0	2.5	

1) Student Access in the Classroom

Utah currently has about 21,200 teachers and 492,400 students. Our overall student to computer ratio is approximately 5:1. According to Ed Week, Utah is 51st in the nation in student/computer classroom access ratio. To bring the overall student/computer ratio to 2:1:

Per Year Expenditure	Grades K-2 and Self-contained	Grades 3-6	Grades 7-12	Teachers (not Admins)	Totals
Person Count:	132,280	146,680	216,720	21,200	516,880
Recommended Ratios:	4:1	2:1	1:1	1:1	2:1
State funds \$1,000 computer; 4 year cycle:	\$8,267,500	\$9,167,500	\$13,545,000	\$1,325,000	\$32,305,000
State funds \$1,000 computer; 5 year cycle:	\$6,614,000	\$7,334,000	\$10,836,000	\$1,060,000	\$25,844,000
State funds \$1,500 computer; 5 year cycle:	\$8,267,500	\$9,167,500	\$13,545,000	\$1,325,000	\$32,305,000

Recommendation: District Matching Funds for PD and Tech Support

2) Professional Development

Intensive, sustained training produces stronger instructional practices and increased student performance on required state-wide tests. Instructional specialists doing in-classroom coaching help teachers become expert in data-driven instruction so they can better reach lower achieving students.

Strong professional development transitions classrooms from traditional teacher-as-expert models to energized environments where students engage with reading and math content. Student access to technology coupled with strong professional development drives this change in teacher practice and classroom instruction.

Total Teachers	Trainer Salary	Cost per Trainer
21,272	\$45,070 plus 27% benefits	\$57,239
Teachers to Trainer	Number of Trainers	Cost to Districts
390	55	\$3,122,015
300	71	\$4,058,620
250	85	\$4,870,344
200	105	\$6,087,929

Currently districts have 55 educational technology trainers.

3) Technical Support and Infrastructure Support

Total Computers	Tech Salary	Cost per Tech
313,130	\$45,070 plus 27% benefits	\$57,239
Computer to Tech	Number of Techs	Cost to Districts
920	340	\$19,481,757
500	626	\$25,846,434
250	1,253	\$71,692,867
125	2,505	\$143,385,734

Currently districts have 340 tech support persons.

As part of district matching funds, we recommend districts provide either increased in-house or contracted technical support personnel. We also recommend districts institute the CyberCorps program where students are trained to give first level teacher tech support.

We recommend districts continue to use local funds to sustain local-area-networks including server hardware and software, switches, wireless hubs, network cabling, electrical wiring, administrative hardware and software, etc.

The Utah Education Network provides Internet (wide-area-network) connectivity to secondary schools, using E-Rate rebates to help sustain the monthly line costs. Districts use local funds and their E-Rate rebates to fund network connectivity to elementary schools.