

X. ACADEMIC STANDARDS, SCHOOL TECHNOLOGY, AND SMART

BACKGROUND

Academic Standards

The 1997 Legislature took significant action with regard to standards and assessments. Senate Bill 482 (NERA) of the 1997 Session created a Council to Establish Academic Standards for Public Schools. The Council, made permanent in 1999, consists of eight members, with four appointed by the Governor, including two parents and two licensed educators. The remaining four members are appointed by legislative leadership and include two legislators, one from each house, and two business or industry representatives.

The Council was required to review and recommend statewide standards in English, mathematics, and science before September 1, 1998. The panel convened a series of statewide writing teams for each of these topics, with team members consisting of educators, community members, parents, and others. The State Board of Education, in a joint meeting with the Council, adopted standards and the statewide tests linked to these standards in August 1998. The standards for English, mathematics, and science took effect within the public schools during the 1999-2000 school year. During Phase II of the Council's activities, writing teams drafted standards in the arts, computer education, health/physical education, and social studies. The Council adopted standards for these subjects in March 2000, effective for 2000-2001 school year.

As set forth in NRS 389.520, 389.540, and 389.570, the Council is charged with:

- Adopting standards of content and performance for the eight specified subjects;
- Assigning priorities to the standards;
- Establishing a schedule for the periodic review of the standards;
- Reviewing and evaluating the results of the examinations required to measure the achievement and proficiency of students in selected grades on the standards;
- Comparing the progress of students on the CRTs from year-to-year;
- Determining whether the standards require revision; and
- Working in cooperation with the State Board of Education to prescribe the required examinations.

The Council has addressed the periodic review of existing standards by linking the revision schedule to the textbook adoption cycle and targeting the science standards as the first standards to be reviewed in FY 2003-2004 so that recommendations can be incorporated into textbook decisions in 2004-2005. The Council continues to meet regularly, and has begun to establish priorities for the English/language arts and mathematics standards in grades 4, 6, and 7 to prepare for the requirements of the Federal No Child Left Behind Act of 2001.

ACADEMIC STANDARDS, SCHOOL TECHNOLOGY, AND SMART

BACKGROUND

Educational Technology

The Legislature's 1997 Nevada Education Reform Act (NERA) also contained a significant commitment to technology in the classroom. The measure creates an 11-member Commission on Educational Technology charged with developing and updating a statewide plan for the use of educational technology within the public schools. Members serve two-year terms, and must have knowledge and experience in the use of educational technology. The Commission includes representatives of the private sector, public libraries, parents, University and Community College System of Nevada, educational personnel, and the Legislature. The Governor selects seven members, with the remaining four members appointed by legislative leadership. In addition, the Commission makes recommendations for the distribution of funds from the Trust Fund for Educational Technology and develops technical standards for educational technology and uniform specifications to ensure statewide compatibility. The initial plan was completed by December 1999 and annual updates are required.

The 1997 Legislature provided a \$27.5 million one-time appropriation for educational technology for schools for purchasing and installing hardware, software, and electrical wiring for computer laboratories; upgrading computer software; and purchasing additional computers and other technology for instructional purposes in the classroom. The 1997 appropriation contained an additional \$8.6 million for school districts for costs associated with educational technology including: (1) training; (2) repair; (3) maintenance; (4) replacement; and (5) contracting for technical support. The Commission distributed this funding based upon applications submitted by the school districts. The 1999 Legislature appropriated an additional \$4.2 million for the 1999-2000 biennium to be distributed by the Commission for assistance to local school districts in bringing schools up to a minimal technological level, for school library databases, and for maintenance contracts for software. That allocation also has been distributed to the districts.

The 2001 Legislature appropriated \$9.95 million to the Commission for hardware and software purchases to bring schools up to a minimal technological level for school library database, and for maintenance contracts for software. All allocations except for the library database funding (\$500,000) were frozen by Governor Guinn due to revenue shortfalls in the state's 2001-2003 biennial budget.

ACADEMIC STANDARDS, SCHOOL TECHNOLOGY, AND SMART

COUNCIL TO ESTABLISH ACADEMIC STANDARDS

QUALITY COUNTS 2003 STANDARDS AND ACCOUNTABILITY GRADES FOR WESTERN STATES

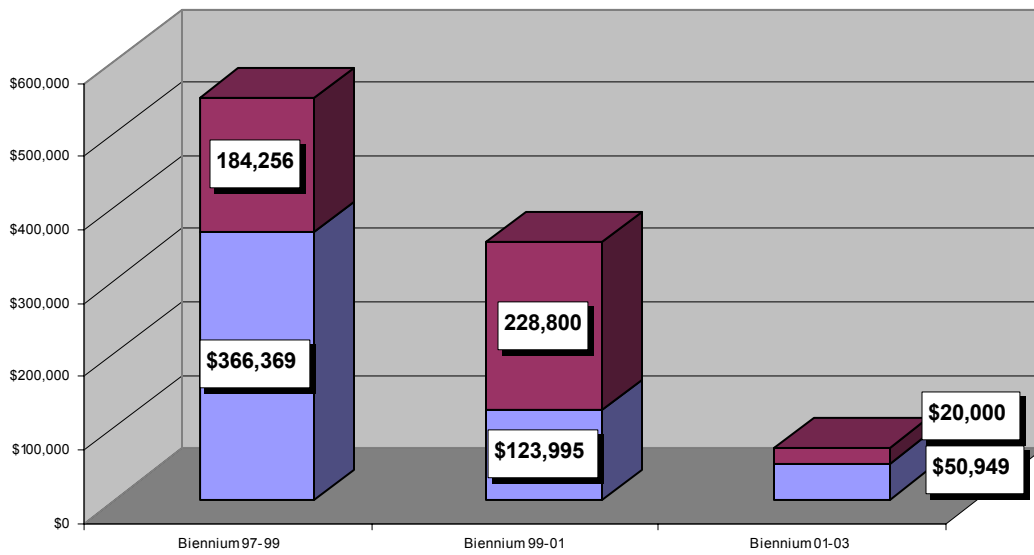


Source: Education Week, Quality Counts, 2003

ACADEMIC STANDARDS, EDUCATIONAL TECHNOLOGY, AND SMART

COUNCIL TO ESTABLISH ACADEMIC STANDARDS

Funds Expended on Academic Standards



Source: Nevada Department of Education

Note: Total funds for Biennium 1997-1999 were \$550,625.
Total funds for Biennium 1999-2001 were \$352,795.
Total funds for Biennium 2001-2003 were \$70,949.

QUALITY COUNTS—EDUCATION WEEK NEVADA'S REPORT CARDS 1997-2003

Report Card Category	1997	1998	1999	2000	2001	2002	2003
Standards & Accountability*	C	B-	B	A-	B-	B-	BI
Improving Teacher Quality*	C-	D	C	C-	C-	C-	C-
School Climate	D	?	?	F	F	N/R	D+
Resources: Adequacy	C	D	C-	C-	C-	C-	C-
Resources: Equity	B	B-	B-	C	B	B	B
Resources: Allocation**	D+	D	D	D			

*Labels for the categories related to Standards & Accountability and Improving Teacher Quality have changed slightly over the seven years that Quality Counts has been issued.

**The category of "Resources: Allocation" was dropped in 2001.

Note: ? for "School Climate" is the result of a lack of participation by Nevada in certain surveys.

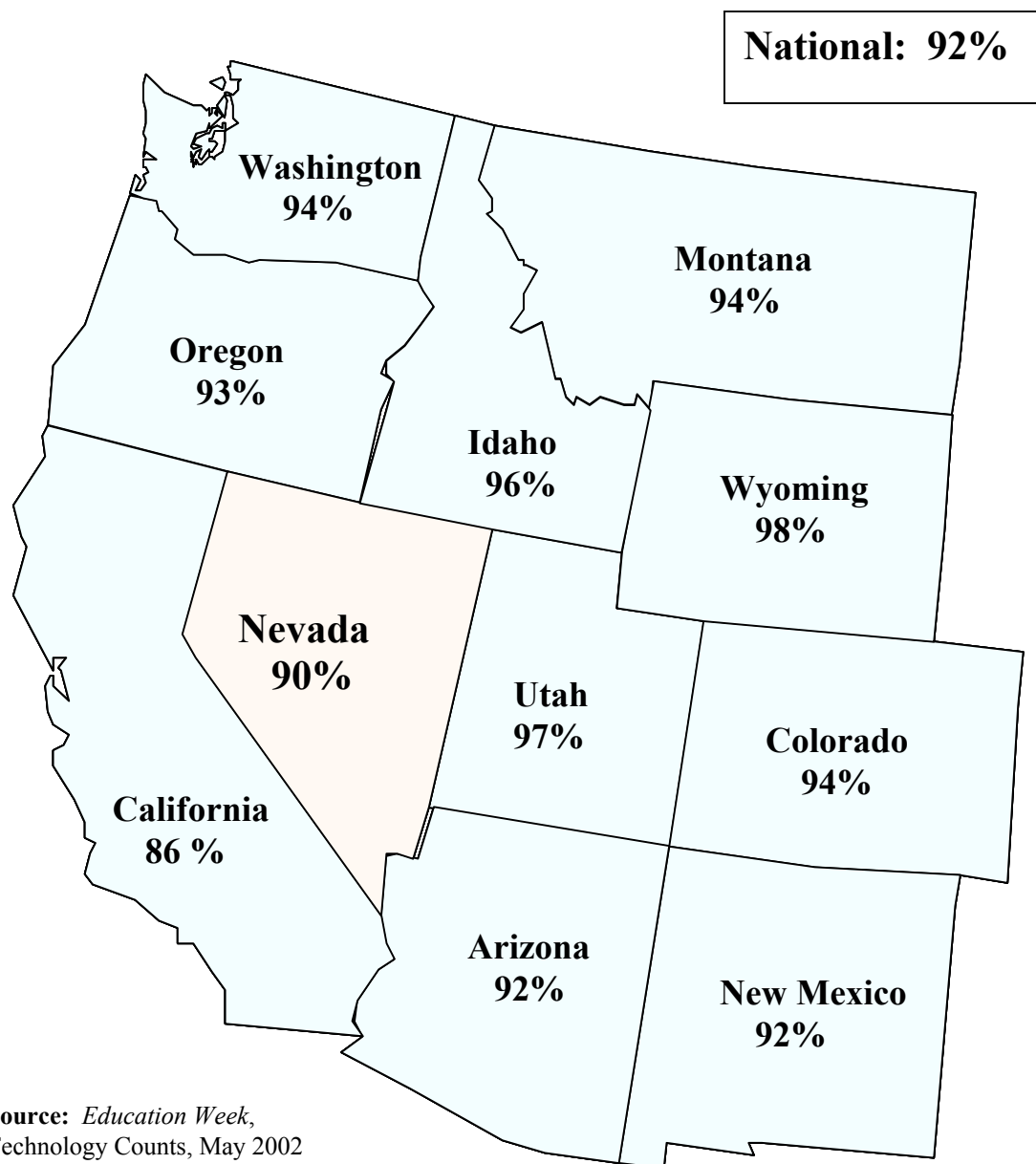
N/R for 2002 due to no states being graded for "School Climate" that year.

Source: Quality Counts, *Education Week*

ACADEMIC STANDARDS, EDUCATIONAL TECHNOLOGY, AND SMART

SCHOOLS WITH INTERNET ACCESS

PERCENT OF SCHOOLS IN WESTERN STATES WITH INTERNET ACCESS - 2001

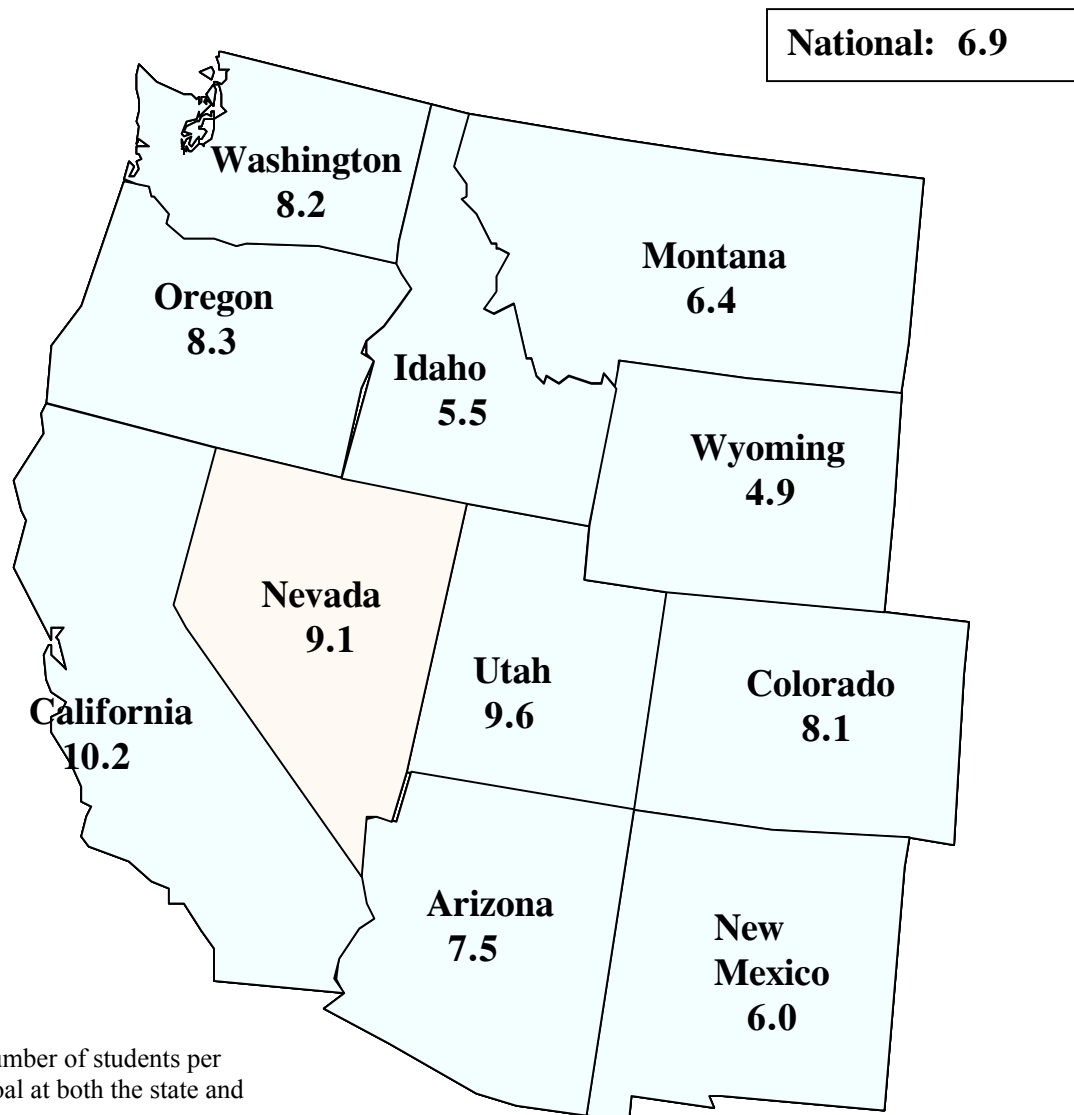


Source: *Education Week*,
Technology Counts, May 2002

ACADEMIC STANDARDS, EDUCATIONAL TECHNOLOGY, AND SMART

Computers in Schools

STUDENTS PER INSTRUCTIONAL MULTIMEDIA COMPUTER IN WESTERN STATES - 2001

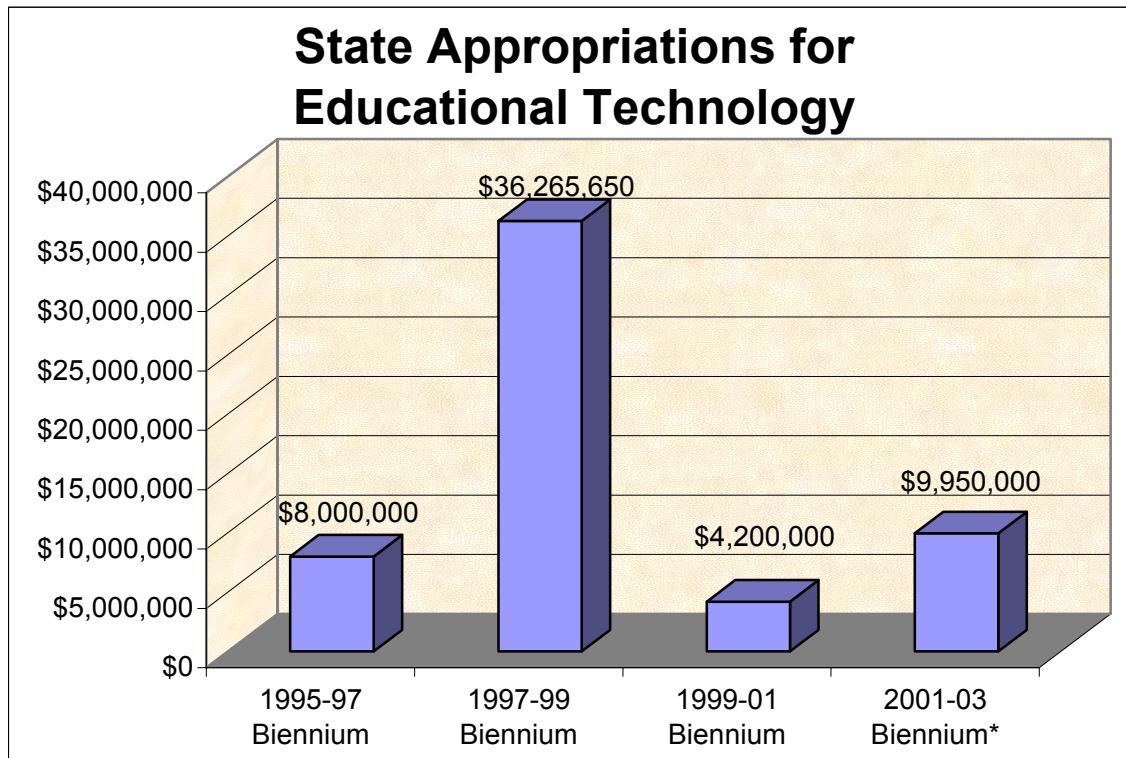


Note: A lower number of students per computer is the goal at both the state and national level.

Source: *Education Week*,
Technology Counts, May 2002

ACADEMIC STANDARDS, EDUCATIONAL TECHNOLOGY, AND SMART

TECHNOLOGY APPROPRIATIONS



*Governor Kenny Guinn froze all but \$500,000 of the appropriation for the 2001-2003 biennium, due to state budget considerations.

Note: The Commission has submitted a budget proposal in the amount of \$35 million for the 2003-2005 biennium.

Source: Legislative Counsel Bureau, State Appropriations Report, various years.

ACADEMIC STANDARDS, EDUCATIONAL TECHNOLOGY, AND SMART

EDUCATIONAL TECHNOLOGY EVALUATION

For the first time, the 2001 Legislature appropriated \$50,000 over the 2001-2003 biennium for an evaluation of the effectiveness of educational technology on student academic achievement. The following table shows the achievement of pupils in schools that implemented technology-based remedial programs during the 1998-99 and/or 1999-2000 school years. *TerraNova* test results for schools were tracked from FY 1996-97 (two years prior to implementation of the program) through School Year 2000-01. A summary of findings from review of this data is located on the following page.

Technology-Based Remedial Programs and *TerraNova* Reading and Math Scores

District	School	1998			1999				R97	R98	R99	R00	R01	M97	M98	M99	M00	M01
		A/R	CCC	VOY	A/R	CCC	LT-SP											
Churchill	E.C. Best ES								33	51	50	48	60	35	47	48	48	55
Clark	Booker ES								22	23	44	37	33	27	39	74	71	65
	Bracken ES								28	35	39	36	28	30	48	53	44	47
	Cahlan ES								23	27	30	26	30	38	44	53	58	41
	Cambeiro ES								21	23	31	37	29	34	30	45	55	49
	Cortez ES								NA	30	36	37	35	NA	42	55	50	56
	Fitzgerald ES								17	20	26	18	24	17	21	32	24	49
	Gragson ES								38	25	31	27	35	44	36	47	41	52
	Herron ES								28	25	25	30	36	34	40	40	46	42
	Lunt ES								24	26	29	30	36	34	34	66	64	62
	Lynch ES								23	28	32	25	30	22	34	42	33	33
	Madison ES								23	23	19	30	29	24	27	31	52	39
	Sunrise Acres ES								22	27	24	29	37	29	50	41	43	45
	Thomas ES								28	54	26	26	25	32	NR	43	35	37
	Woolley ES								26	36	46	40	40	28	48	56	49	50
	Cashman MS								30	44	43	38	40	23	34	41	43	46
	Martin MS								30	27	26	27	28	27	31	27	31	41
	J.D. Smith MS								21	30	25	23	28	31	34	30	33	40
	West MS								NA	32	28	27	26	NA	27	26	25	24
	Western HS								31	36	48	40	37	31	39	50	43	39
Elko	Owyhee K-12								28	41	28	31	29	28	24	25	45	46
	W. Wendover K-12								25	29	37	37	28	26	28	39	40	31
Humboldt	McDermitt K-12								22	23	48	35	NA	28	23	53	39	na
Mineral	Schurz K-8								29	32	42	NA	25	24	20	44	NA	34
Washoe	Booth ES								19	33	36	28	41	22	29	38	36	55
	Corbett ES								24	36	45	46	39	26	38	59	60	52
	Duncan ES								27	25	34	30	28	26	25	38	33	33
	Johnson ES								18	67	60	NA	NA	6	53	47	NA	NA
	Loder ES								26	32	27	43	24	17	24	23	44	40
	Mathews ES								25	29	34	41	46	26	33	36	42	43
	Palmer ES								23	38	40	35	43	22	37	35	38	41
	Risley ES								25	40	32	39	47	32	54	31	41	35
	Smithridge ES								32	27	27	33	35	32	26	37	37	39

Evaluation of Educational Technology in Nevada, Tara Shepperson, 2003.

ACADEMIC STANDARDS, EDUCATIONAL TECHNOLOGY, AND SMART

EDUCATIONAL TECHNOLOGY EVALUATION

Technology-Based Remedial Programs and *TerraNova* Reading and Math Scores Summary of Findings



Evaluation of Educational Technology in Nevada, Tara Shepperson, 2003.

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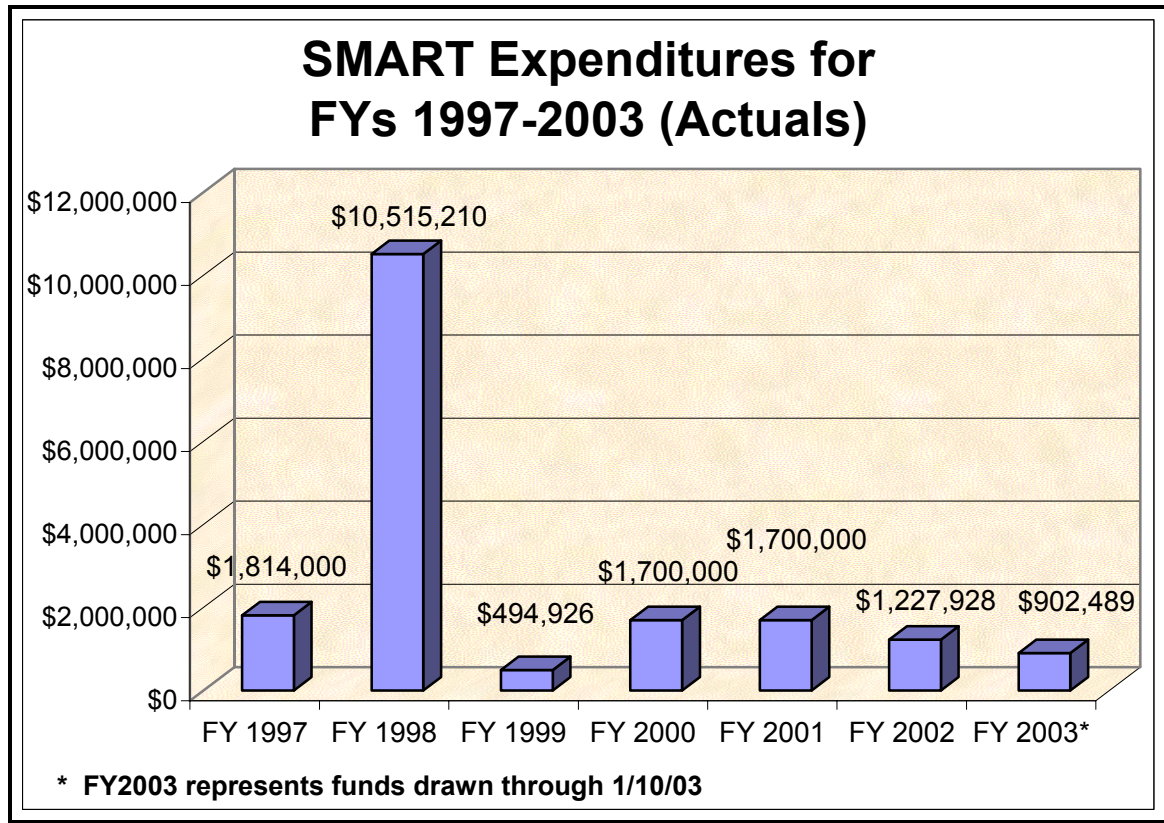
STATEWIDE MANAGEMENT OF AUTOMATED RECORD TRANSFER (SMART)

Expenditures of the Statewide Management of Automated Record Transfer (SMART) System by District

	Actual Expenditures	Actual Expenditures	Actual Expenditures	Actual Expenditures	Actual Expenditures	Actual Expenditures	Legislature Approved		Actual Disbursements*		Actual Expenditures & FY2002&03 Approved
	FY 1996	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY2002	FY2003	FY2002	FY2003	Total
Total for State		\$1,814,000	\$10,515,210	\$494,926	\$1,700,000	\$1,700,000	\$2,767,333		\$1,227,928	\$902,489	\$18,991,469
CARSON CITY			\$195,760					\$126,264	\$63,132	\$63,132	\$322,024
CHURCHILL		\$588,164	\$20,000	\$25,000				\$112,024	\$56,012	\$37,191	745,188
CLARK		\$300,000	\$6,837,931		\$1,700,000	\$1,700,000		\$0	\$0	\$0	\$10,537,931
DOUGLAS			\$408,476	\$1,433				\$128,764	\$64,382	\$32,191	\$538,673
ELKO		\$180,084	\$257,540	\$10,000				\$162,994	\$81,497	\$81,497	\$610,618
ESMERALDA			\$68,760	\$8,675				\$6,600	\$0	\$6,600	\$84,035
EUREKA			\$144,000					\$93,184	\$46,592	\$46,592	\$237,184
HUMBOLDT			\$431,728					\$121,634	\$60,817	\$40,817	\$553,362
LANDER			\$318,927					\$166,894	\$83,447	\$83,447	\$485,821
LINCOLN		\$456,480	\$26,400	\$13,567				\$111,574	\$55,787	\$55,787	\$608,021
LYON			\$373,000	\$42,865				\$432,964	\$206,510	\$0	\$848,829
MINERAL			\$284,325					\$98,154	\$49,077	\$49,077	\$382,479
NYE			\$620,775					\$133,924	\$66,962	\$66,962	\$754,699
PERSHING		\$164,272	\$24,000					\$95,134	\$47,567	\$47,567	\$283,406
STOREY			\$178,439					\$95,134	\$47,567	\$47,567	\$273,573
WASHOE		\$125,000	\$215,034	\$163,921				\$488,124	\$244,062	\$244,062	\$992,079
WHITE PINE			\$110,115	\$229,465				\$109,034	\$54,517	\$0	\$448,614
Source: Nevada Department of Education.										District Total	\$18,706,536

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STATEWIDE MANAGEMENT OF AUTOMATED RECORD TRANSFER (SMART)



Source: Nevada Department of Education 2003.