

Office of the
Legislative Fiscal Analyst

FY 2001 Budget Recommendations

Joint Appropriations Subcommittee for
Higher Education

Utah Education Network

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1.0 Summary: Utah Education Network

The Utah Education Network (UEN), a partnership of Utah’s public and higher education institutions, provides distance learning educational services statewide. It operates the State’s two public television stations, KUED-7 and KULC-9; provides closed circuit two-way video services through EDNET; and connects state institutions to each other and the Internet with UtahLINK. Its mission is to “provide the citizens of Utah access to the highest quality, most effective instructional experiences, administrative support services, library services, student services, and teacher resources regardless of location or time.”

	Analyst FY 2001 Base	Analyst FY 2001 Changes	Analyst FY 2001 Total
Financing			
General Fund	\$2,374,600		\$2,374,600
Uniform School Fund	10,942,500	(\$265,000)	10,677,500
Total	<u>\$13,317,100</u>	<u>(\$265,000)</u>	<u>\$13,052,100</u>
Programs			
EDNET and UtahLINK	\$10,942,500		\$10,942,500
<i>Eccles Expansion Delay</i>		(\$265,000)	(265,000)
UEN Technology Initiative	615,000		615,000
Satellite Telecommunication	1,511,800		1,511,800
CEU Distance Learning	247,800		247,800
Total	<u>\$13,317,100</u>	<u>(\$265,000)</u>	<u>\$13,052,100</u>
FTE	75.0		75.0

2.0 Issues: Utah Education Network

2.1 Rescission of Lease Appropriation

The 1999 Legislature provided \$265,000 in FY 2000 to support expansion of the Eccles Broadcasting Center, home of the Utah Education Network. Construction of the expansion will not begin until spring, thus pushing occupancy into fiscal year 2001. Thus, the Analyst recommends rescinding \$265,000 in one-time FY 2001 Uniform School Funds from the Utah Education Network.

Uniform School Fund - One-time..... (\$265,000)

2.2 Potential Priorities List Items

The following items are not included in the Analyst's recommendation for funding previously allocated by the Executive Appropriations Committee. However, should additional funding become available, the Legislature may wish to consider these projects.

Statewide Internet Bandwidth (Priorities List)

Traffic along the state's educational computer networks continues to grow by almost 100% per year. While significant efficiencies within the state are realized by the convergence of EDNET and UtahLINK, traffic across the state's gateway to the Internet requires additional bandwidth. The Analyst recommends adding \$229,400 from the Uniform School Fund to the additional funding priorities list for additional network bandwidth.

Digital Television Conversion (Priorities List)

Under the Federal Telecommunications Act of 1996, television broadcasters, including public television stations, are required to transition from analog to digital signal transmission (D-TV) by 2006. The Analyst recommends adding \$2,566,100 to the additional funding priorities list for transition of both KUED channel seven and KULC channel nine from analog to digital broadcasting.

3.0 Programs: Utah Education Network

3.1 EDNET and UtahLINK

Recommendation

The Analyst recommends \$10,667,500 for EDNET and UtahLINK, a 2.5% reduction from FY 2000 Estimated after correcting for one-time expenses.

	FY 1999	FY 2000	FY 2001	Est/Analyst
Financing	Actual	Estimated	Analyst	Difference
Uniform School Fund	\$10,018,100	\$10,947,600	\$10,677,500	(\$270,100)
Dedicated Credits Revenue	249,300	1,875,600		(1,875,600)
Transfers - Other Funds	247,900			
Beginning Nonlapsing	2,690,200	828,300		(828,300)
Closing Nonlapsing	(828,300)			
Total	<u>\$12,377,200</u>	<u>\$13,651,500</u>	<u>\$10,677,500</u>	<u>(\$2,974,000)</u>
Expenditures				
Personal Services	\$3,515,600			
In-State Travel	230,100			
Current Expense	6,940,100			
Capital Outlay	1,691,400			
Other Charges/Pass Thru		\$13,651,500	\$10,677,500	(\$2,974,000)
Total	<u>\$12,377,200</u>	<u>\$13,651,500</u>	<u>\$10,677,500</u>	<u>(\$2,974,000)</u>
FTE	70.0	70.0	70.0	

Lease rescission due to construction delay

The 1999 Legislature provided \$265,000 in non-lapsing FY 2000 Uniform School Funds to support expansion of the Eccles Broadcasting Center, home of the Utah Education Network. At the writing of this document, UEN and the University of Utah were finalizing plans for the expansion. Construction will likely not begin until at least spring, 2000, thus occupancy will be significantly delayed.

As this is an ongoing budget item, and as the Analyst’s recommendation is a one-time rescission, funding would remain in UEN’s base to cover lease costs in future years.

Additional adjustments include \$1,875,600 in one-time Federal E-rate funds used last year for digital television conversion, and ongoing reductions reflecting lower retirement costs.

Purpose

EDNET and UtahLINK provide closed circuit television connectivity and computer local area networks, respectively, for the State’s public schools and institutions of higher education. The two previously separate programs are currently converging to capitalize on networking efficiencies offered by digital signal transmission.

**Potential Priorities
List Items**

The following item is not included in the Analyst's recommendation for funding previously allocated by the Executive Appropriations Committee. However, should additional funding become available, the Legislature may wish to consider it.

*Statewide Internet
Bandwidth (Priorities
List)*

Through UtahLINK, the Utah Education Network also provides Internet access for public and higher education institutions as well as state agencies. It does so through a contract with private provider Qwest.

Utah is adding more schools and agencies to its network, and Internet content is becoming more complex, therefore the need for bandwidth is increasing. UEN claims that traffic on Utah's information highway is growing at 100% per year. Just as bigger vehicles and more drivers create traffic back-ups at tollbooths, increased network traffic leads to congestion at the state's Internet "gateway".

To alleviate some of this congestion, UEN has requested funding to add intra- and inter-state network bandwidth. By keeping network congestion at manageable levels, and therefore providing acceptable download speeds, UEN hopes to retain the economies of scale generated by maintaining a single network access point for the State.

The Analyst recommends adding \$229,400 from the Uniform School Fund, to the additional funding priorities list for FY 2001. Such funding, augmented by \$1,500,000 in Federal E-Rate funding, would support Internet bandwidth expansion.

*Digital Television
Conversion
(Priorities List)*

Under the Federal Telecommunications Act of 1996, television broadcasters, including public television stations, are required to transition from analog to digital signal transmission (D-TV) by 2003. To that end, Utah's public television stations, KUED-7 and KULC-9, have joined forces with commercial broadcasters in the state to form DTV of Utah, a consortium that has constructed a common digital transmission site on Farnsworth Peak.

The total cost of the transition for both stations, including production equipment and programming, will be more than \$15 million. UEN has proposed to finance \$11 million of the total with private philanthropy, federal funds, and base budgets, and is seeking the remaining \$4 million in state funding over two years. The State's contribution would finance new transmission equipment.

However, as digital transmission allows more information to be carried on the same amount of bandwidth, perhaps only one of the stations needs to be converted.

With DTV, one station does the work of four

DTV will allow the Utah Education Network to "multicast" - or broadcast the equivalent of four standard definition programs on a single frequency. Any one or all four of those programs could be replaced by a "datacast" carrying text, sound, graphics, or personal computer content. Alternatively, UEN could broadcast increased definition programming. It could also transmit some combination of multiple programs, data, and increased definition.

The industry standard for "high-definition" would require a similar amount of bandwidth as about three standard definition programs. Given this standard, UEN could broadcast a high definition program at the same time they broadcast standard definition content. For example, high-definition evening entertainment from PBS could show at the same time as a distance learning course – the functional equivalent of what is currently shown on Channels 7 and 9 combined.

Washington, D.C. based consulting group Forrester Research predicts that 80 percent of the digital television market will consist of standard definition programming by 2008, with high-definition TV reserved for premium events such as sports and movies.

Converting only one channel saves money

Given increased capacity and evolving standards, UEN could broadcast both sets of current programming with a single frequency, potentially saving as much as \$409,000 in FY 2001 and \$1,558,400 in FY 2002.

Should the Legislature choose to support conversion of only one channel, the other frequency would lapse to the Federal Communications Commission. The State would thus lose broadcast capacity that was originally allocated at no cost. Further, UEN would likely lose about \$1 million per year in operating grants from the Federal government.

The Analyst recommends adding \$2,566,100 in one-time Uniform School funds to the additional funding priorities list for the transition of both KUED channel seven and KULC channel nine from analog to digital broadcasting.

3.2 Utah Education Network Technology Initiative

Recommendation The Analyst recommends a maintenance-of-effort budget for the UEN Technology Initiative.

	FY 1999	FY 2000	FY 2001	Est/Analyst
	Actual	Estimated	Analyst	Difference
Financing				
General Fund	\$615,000	\$615,000	\$615,000	
Total	<u>\$615,000</u>	<u>\$615,000</u>	<u>\$615,000</u>	<u>\$0</u>
Expenditures				
DP Capital Outlay	\$615,000	\$615,000	\$615,000	
Total	<u>\$615,000</u>	<u>\$615,000</u>	<u>\$615,000</u>	<u>\$0</u>

Purpose A component of the Education Technology Initiative (ETI), the UEN Technology Initiative grant supports network infrastructure for connecting Utah’s educational institutions.

3.3 Satellite Telecommunications

Recommendation The Analyst recommends a maintenance-of-effort budget for Satellite Telecommunications.

	FY 1999	FY 2000	FY 2001	Est/Analyst
	Actual	Estimated	Analyst	Difference
Financing				
General Fund	\$1,507,500	\$1,511,800	\$1,511,800	
Beginning Nonlapsing	361,500	537,300		(\$537,300)
Closing Nonlapsing	(537,300)			
Total	<u>\$1,331,700</u>	<u>\$2,049,100</u>	<u>\$1,511,800</u>	<u>(\$537,300)</u>
Expenditures				
Personal Services	\$121,000			
Current Expense	817,300			
Capital Outlay	393,400			
Other Charges/Pass Thru		\$2,049,100	\$1,511,800	(\$537,300)
Total	<u>\$1,331,700</u>	<u>\$2,049,100</u>	<u>\$1,511,800</u>	<u>(\$537,300)</u>

Purpose The Satellite Telecommunications line item funds higher education’s use of commercial geostationary telecommunications satellites for distance learning. It includes satellite transponder lease expenses and ground station capital costs.

3.4 CEU Distance Learning

Recommendation The Analyst recommends \$247,800 for CEU Distance Learning, an \$800 decrease from FY 2000 Estimated.

	FY 1999	FY 2000	FY 2001	Est/Analyst
	Actual	Estimated	Analyst	Difference
Financing				
General Fund	\$242,500	\$248,600	\$247,800	(\$800)
Beginning Nonlapsing	142,600	162,700		(162,700)
Closing Nonlapsing	(162,700)			
Total	<u>\$222,400</u>	<u>\$411,300</u>	<u>\$247,800</u>	<u>(\$163,500)</u>
Expenditures				
Personal Services	\$219,500			
Current Expense	2,900			
Other Charges/Pass Thru		\$411,300	\$247,800	(\$163,500)
Total	<u>\$222,400</u>	<u>\$411,300</u>	<u>\$247,800</u>	<u>(\$163,500)</u>
FTE	5.9	5.0	5.0	

The Analyst's recommendation reflects an \$800 decrease in retirement costs.

Purpose

The College of Eastern Utah Distance Learning initiative supports maintenance and operation of the school's telecommunications network. The network was put in place through a Star Schools Grant, and is largely operated with dedicated credits revenue.

4.0 Additional Information

4.1 Funding History

	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001
	Actual	Actual	Actual	Estimated	Analyst
Financing					
General Fund		\$1,735,000	\$2,365,000	\$2,375,400	\$2,374,600
Uniform School Fund			10,018,100	10,947,600	10,677,500
Dedicated Credits Revenue			249,300	1,875,600	
Transfers - Other Funds			247,900		
Beginning Nonlapsing			3,194,300	1,528,300	
Closing Nonlapsing			(1,528,300)		
Total	\$0	\$1,735,000	\$14,546,300	\$16,726,900	\$13,052,100
% Change			738.4%	15.0%	-22.0%
Programs					
EDNET and UtahLINK			\$12,377,200	\$13,651,500	\$10,677,500
UEN Technology Initiative			615,000	615,000	615,000
Satellite Telecommunication		\$1,500,000	1,331,700	2,049,100	1,511,800
CEU Distance Learning		235,000	222,400	411,300	247,800
Total	\$0	\$1,735,000	\$14,546,300	\$16,726,900	\$13,052,100
Expenditures					
Personal Services		\$235,000	\$3,856,100		
In-State Travel			230,100		
Current Expense			7,760,300		
DP Capital Outlay			615,000	\$615,000	\$615,000
Capital Outlay			2,084,800		
Other Charges/Pass Thru		1,500,000		16,111,900	12,437,100
Total	\$0	\$1,735,000	\$14,546,300	\$16,726,900	\$13,052,100
FTE			75.9	75.0	75.0