February 3, 1998

President R. Lane Beattie
Utah State Senate
319 State Capitol Building
Salt Lake City, UT 84114

Subject: Snow College South

Dear President Beattie:

This letter is in response to your request to comment on the information provided by the State Office of Education regarding the creation of the "Snow College South" campus proposed by HB 114. The State Office of Education offers many arguments against the proposed campus that reflect their philosophy about how to provide applied technology education. We have decided to avoid the policy issues and focus our comments on two arguments that are factual in nature. These relate to (1) the level of applied technology enrollment at the colleges, and (2) the cost of providing applied technology education at the ATCs in comparison to the colleges. In a third section, we offer the criteria that you requested for deciding when a satellite college campus should be created.

The information from the State Office of Education includes enrollment data reported by the State Council for Applied Technology Education or "SCATE". The information is used to show that *"vocational institutions that have changed to community colleges have drastically reduced job training and other education opportunities for secondary students."* When we examined the enrollment data, institution by institution, we found that it can be interpreted many different ways. Because the ATC and college systems are so different, the data does not clearly predict just how vocational education might be impacted by the creation of a satellite campus in Richfield.

The information you were provided also includes a few sections from an audit report we released in January 1995. The 1993 cost data is somewhat dated and we did not have sufficient time to update our analysis. Even so, the conditions that made the ATCs less expensive than the colleges have probably not changed significantly since 1993. The ATCs

tend to have a lower direct costs because their instructors are not paid as much as their counterparts in the college system. In addition, the ATC instructors spend more time in the classroom than college instructors. The overhead costs at the ATCs are also lower than at the colleges because the ATCs do not offer as many student and academic services as the colleges.

The State Board of Regents has not established criteria for deciding when to create a new college or satellite campus. However, the Salt Lake Community College has created several satellite campuses and was able to provide us with some useful criteria. The third section of this report describes the process they went through when deciding to expand to South High School and other locations in the Salt Lake County.

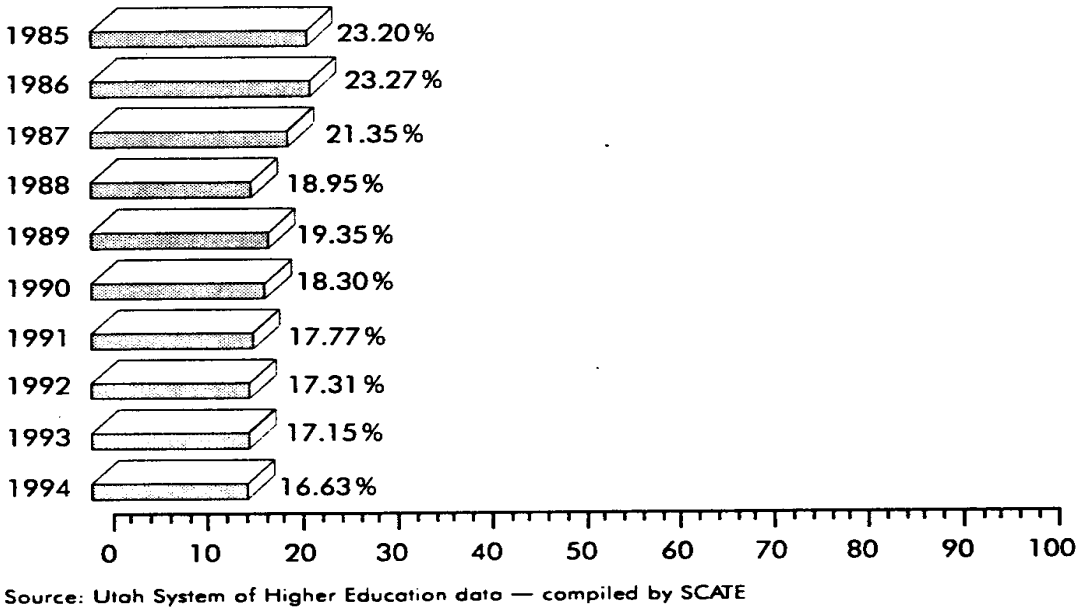
There are Different Ways to View ATE Enrollment Data

You were given sections from a report by "SCATE" that show that college enrollment in applied technology education (ATE) is declining---as a percentage of total enrollment. While this information is accurate, legislators should use care in what conclusions they draw from this and any enrollment data they are provided. We have found that enrollment data can be interpreted in many different ways, particularly when it comes from different education systems. The SCATE data is accurate in that there has been a decline in the ATE enrollment at the colleges and universities---as a percent of total enrollment. Because the enrollment in academic programs at the state's colleges and universities has increased significantly, the growth in ATE enrollments appears small in comparison. While some colleges have experienced declines in ATE students, the number of ATE students enrolled throughout higher education has been increasing.

Figure I is a table from the SCATE report that was included in the packet of information you received from the State Office of Education. It is used to show that enrollment in applied technology education is on the decline among the state's colleges and universities.

Figure I

ATE - FTE
10-year Enrollment History Systemwide - By Percentage



Source: Utah System of Higher Education data — compiled by SCATE

The SCATE report expresses concern that institutions that were once technical colleges such as UVSC and SLCC have experienced significant declines in their ATE enrollment. According to SCATE, this *"steady decrease of the five-year head count"* and an *"academic drift"* towards four-year colleges means that enrollment in applied technology education is moving "in the opposite direction of the educational needs of Utah's workforce."

The concerns expressed by SCATE are justified because some institutions, such as Utah Valley State College have experienced a declining enrollment in applied technology education. ATE enrollments at UVSC are currently lower than they were in 1987 when Utah Valley Technical College was changed to a community college but has made a slight rebound in recent years. On the other hand, Salt Lake Community College has continued to emphasize applied technology education long after they gave up the name of "technical college." Because conditions vary from institution to institution, the best way to evaluate enrollment levels is to consider the enrollment of each individual institution. Figure II provides a complete description of the ATE enrollment at each of the state's colleges, universities and ATCs.

Figure II
Annual Statewide Applied Technology Enrollment
by FTEs and Membership Hours

Institution	1991	1992	%Δ	1993	%Δ	1994	%Δ	1995	%Δ	1996	%Δ	Change '91-'96
Higher Education Enrollment in FTEs												
CEU	670	708	5.7	760	7.3	779	2.5	737	-5.4	780	5.8	16%
Dixie	663	780	17.6	846	8.5	812	-4.0	826	1.7	1,111	34.5	68%
SLCC	5,835	5,958	2.1	6,023	1.1	6,297	4.5	6,675	6.0	6,775	1.5	16%
SNOW	292	317	8.6	289	-8.8	288	-0.3	296	2.8	315	6.4	8%
SUU	202	215	6.4	184	-14.4	327	77.7	388	18.7	409	5.4	102%
USU	147	135	-8.2	144	6.7	-122	-15.3	149	22.1	158	6.0	7%
UVSC	2,335	2,319	-0.7	2,530	9.1	2,681	6.0	2,707	1.0	2,690	-0.6	15%
WSU	2,235	2,246	0.5	2,227	0.8	1,889	-15.2	1,750	-7.4	1,768	1.0	-21%
Total	**12,379**	**12,678**	**2.4**	**13,003**	**2.6**	**13,195**	**1.5**	**13,528**	**2.5**	**14,006**	**3.5**	13%
ATC Enrollment in Membership Hours (in 000's)												
BATC	590	699	18.6	744	6.5	735	-1.3	744	1.3	889	19.5	51%
DATC	617	714	15.7	824	15.5	728	-11.7	748	2.8	799	6.9	30%
OWATC	841	926	10.0	982	6.2	1,059	7.8	972	-8.2	1,015	4.4	21%
SVATC	367	431	16.9	415	-3.8	434	4.6	365	-15.8	467	27.8	27%
UBATC	417	412	-1.2	377	-8.6	379	0.5	418	10.3	430	2.7	3%
Total	**2,834**	**3,181**	**12.3**	**3,343**	**5.1**	**3,334**	**0.3**	**3,247**	**-2.6**	**3,599**	**10.8**	**27%**

Figure II shows the enrollment figures for the state's two different education systems. The higher education system measures its enrollment in terms of "full-time equivalent" students. The public education system measures class time activity in terms of "membership hours." Because they are different education systems, there are two different ways to look at the data.

Figure II shows that ATE enrollment has increased at a much faster rate at the ATCs than at the colleges and universities. Some institutions within the higher education system have had relatively slow growth in ATE enrollment and Weber State has even experienced a modest decline. This lends support to the SCATE concern of "academic drift"---that colleges and universities are moving away from applied technology education. Considering the growth the ATCs have experienced the last decade, the ATCs appear to be assuming a more significant role in providing post-secondary ATE education. Figure II shows that between 1991 and 1996, ATE enrollment grew much faster at the ATCs (27%) than at the community colleges (13%).

Another completely opposite perspective of the data in Figure II is that the colleges, as a whole, are increasing their ATE enrollment. The data in Figure I seems to suggest that ATE enrollments at the colleges and universities are on the decline. Figure II shows they have actually increased 13% between 1991 and 1996. The increase appears small because total college enrollments grew 48% during the same time period. This is why the "percent of total enrollment" alone shouldn't be considered by itself. When we compared the total enrollment at the ATCs with the total enrollment at the colleges, (using a conversion factor of 670 membership hours to 1 FTE) we found that the higher education system actually provides more ATE education than the public education system. In addition, even though their percentage growth has been relatively slow, the colleges have added more students to their applied technology enrollment than the ATCs. That is, the total number of new applied technology students at the colleges and universities (1,627 FTEs) exceeds the number of new students at the ATCs (1,143 estimated FTEs). In addition, the total enrollment of applied technology education at SLCC alone (6,775 FTEs) is actually higher than the enrollment at all the ATCs combined (5,372 estimated FTEs).

Because the enrollment data can be interpreted different ways, it does not prove whether or not the proposed Snow College South campus would be good for applied technology education. It has been our observation that the growth and importance of applied technology education seems to depend on the desires of the local community, the emphasis placed by administrators, and the needs of local employers.

ATCs Cost Less Than Colleges

You were also given selected pages from our 1995 audit report that show that the cost of applied technology education is lower at the ATCs than at the colleges. It is important to recognize that the objective of our audit was to help legislators compare the cost effectiveness of the two different systems---not to identify the cost of converting an ATC to a community college. What the audit does show, however, is that there are important differences between

the two types of institutions that makes an ATC much less costly to operate. These cost differences should be considered during any discussion about the conversion of an ATC to a community college. In addition to the basic instruction, the colleges offer a wide range of services that makes them more expensive to operate than ATCs. These additional services include student life activities, counseling, the opportunity to earn college credit and the opportunity to transfer that credit to other institutions. These additional services are what makes a college different from an ATC and they are the reason why colleges are more expensive to operate.

Direct and Overhead Costs were Lower at ATCs. Our audit report indicates that both direct and overhead costs were lower at the ATCs than at the community colleges. You were provided with Figure III, below, from our 1995 audit report.

Figure III
Total Average Program Costs
1993 Cost Per Instruction Hour

INSTRUCTION	DIRECT COST	OVERHEAD COST	FULL COST
BATC	$50.42	$31.11	$81.53
DATC	49.48	48.52	98.00
OWATC	53.89	51.05	104.94
SVATC	42.54	29.65	72.19
UBATC	43.55	51.98	95.54
ATC AVERAGE	**48.76**	**42.37**	**91.13**
CEU	80.16	90.26	156.31
DIXIE	76.23	82.89	159.12
SLCC	74.34	55.02	129.36
SNOW	75.70	105.41	181.11
SUU	108.41	118.91	227.32
UVSC	96.83	84.85	181.68
COLLEGE AVG.	**82.33**	**72.27**	**154.60**

The lower direct costs at the ATCs were mainly due to the lower cost of instructor salaries. We found that ATC instructors were not only paid less than their college counterparts but they

also spent more time in the classroom. College instructors had higher salaries and spent more time outside the classroom for consultation, course preparation, and other tasks.

Overhead costs were also lower at the ATCs than at the community colleges. Although the cost of facilities and equipment were about the same, we found that the ATCs did not have the administrative overhead created by the need for a wide range of services such as student life, counseling, extracurricular activities, career counseling and libraries.

There are Qualitative Differences Between ATCs and Colleges. Any analysis of the costs of the two different systems needs to considered in terms of the qualitative differences between them. The state operates two very different systems for providing applied technology education. The differences between them makes it difficult to draw "apple to apple" comparisons of program costs. On page 42 of our report we describe some of the differences between the two systems:

> *The applied technology programs offered by the colleges and the applied technology centers are based on two different philosophies about how to prepare individuals for the workforce. The two styles come from different beliefs about what is best for the student and what employers are most in need of. The colleges offer a broad-based education that generally leads to the student obtaining a degree. This training takes two or more years to complete and students are required to take more classes than just those necessary for their area of emphasis. Because students are studying their subject area for a longer period of time, they may obtain a more advanced level of training at the colleges than they would at the ATCs. Moreover, students earn college credits for their applied technology training at the colleges. These credits may be transferred to other schools and may be applied to higher degrees.*
>
> *To meet this broader purpose, the colleges offer more services to students. These services may include things such as libraries, student unions, extra-curriculum activities, sporting teams, and student government associations. Providing these services to students increases the cost of instruction at the colleges.*
>
> *The ATCs, on the other hand, specialize in providing students with the skills necessary to get an entry level job. Students learn enough of a particular applied technology skill to get a job and usually do not go on for advanced training. In addition, students are not required to take general education type courses, such as English and Math to obtain a certificate.*
>
> *Office of the Legislative Auditor General, Report 95-01, A Performance Audit of Applied Technology Education Programs, page 40.*

As we have suggested above, any cost comparison between the ATCs and the community colleges needs to consider the fundamental differences between them. A wider range of services are offered to students at a community college that are not available at an ATC.

These additional services explain much of the difference in cost. However, the additional services may also be the reason why the residents of Sevier County want a community college. Before the Sevier Valley ATC is transferred to the system of higher education, legislators should ask whether there will be changes in instructor salaries, the amount of time instructors spend in the classroom, and whether student life and academic services will be offered and at what cost.

How Can Policy Makers Decide When to Expand a College?

We were asked to identify a set of criteria that legislators might use when deciding when it is appropriate to create a new college or a satellite campus for an existing college. The Board of Regents does not have a set of guidelines to determine when a new college or a satellite campus should be established. However, we found that the Salt Lake Community College has created a number of satellite campuses within Salt Lake County. Their experience is somewhat analogous to the process that Snow College is currently going through. President Frank Budd and his staff told us that they look at the following factors when deciding whether to create an additional campus:

- the participation rate of students in a geographical area,
- the population of the area,
- the expected population growth,
- the interest by local residents in a satellite campus.

Because of the need to respond quickly to your request, there has not been sufficient time to adequately apply the steps described above to the proposed "Snow College South" campus. However, we have obtained as much information as we could to make a rough analysis of the conditions in Sevier County. It is important to recognize that we have not been able to verify the accuracy of the data that has been collected.

Participation Rate Identifies the Unmet Need For a Community College. Representatives from the Salt Lake Community College report that most of the students that attend the Redwood Road campus live within three to five miles of the campus. They have found that the best way to increase enrollment has been to create satellite campuses away from the main campus---areas that have low participation rates. The participation rate is the percentage of residents from a geographical area (such as a zip code or city) that attend the college. Salt Lake Community College has found that if they establish a satellite campus in an area that has a low participation rate the participation rate will eventually double. For example, prior to their expansion to the South High and Sandy City areas they found those areas had participation rates of between 1.2 to 1.4 percent. Since their expansion to those areas, they have increased the participation rates to about 2.4 to 2.8 percent.

Snow College provided us with the following participation data for Sanpete (home of Snow College) and Sevier (home of the Sevier Valley ATC) Counties: Unlike the Salt Lake

rates described above, these rates are broken down by specific age groups and therefore do not correspond to the Salt Lake County rates.

Figure IV
Participation Rates in Sanpete and Sevier Counties

Age Group	1995 Population	College Enrollment	Participation Rates
Sevier			
15 to 19 Years	1,862	86	4.6%
20 to 24 Years	1,122	55	4.9
25 to 29 Years	899	16	1.8
30 + Years	8,665	50	.6
Sanpete			
15 to 19 Years	2,542	262	10.3%
20 to 24 Years	1,811	148	8.2
25 to 29 Years	1,194	21	1.8
30 + Years	8,403	92	1.1

Figure IV shows that in all age groups except the 25 to 29 age group, the participation in community college is lower for Sevier County residents than it is in Sanpete County. Based on the experience of Salt Lake Community College, one might assume that the creation of a satellite campus in Sevier County would increase the community college enrollment in that area to a participation rate that is closer to those in Sanpete County. The next step in our analysis, described below, is to determine whether there is sufficient population in the region to support a satellite campus.

Is there Sufficient Population to Support a Satellite Campus? An analysis of participation rates must be accompanied by an examination of the populations levels of a community to see if there are enough potential students to support a satellite campus. By applying the participation rate of Sanpete county to the Sevier County population, we can determine how many additional students might attend if there were a local campus. Figure V applies the Sanpete participation rates to the number of residents, by age group in Sevier County.

Figure V
College Participation Assuming Local Campus

Sevier Residents By Age Group	Population in 1995	Participation Rate (Assuming Local Campus)	Total Students from Sevier County
15 to 19 Years	1,862	10.3%	192
20 to 24 Years	1,122	8.2	92
25 to 29 Years	899	1.8	16
30 + Years	8,665	1.1	95
Projected Enrollment from Sevier:			**395**

Figure V assumes that Sevier County residents would have the same participation rate as Sanpete County. It suggests that the addition of a local campus in Sevier would increase college enrollment from the 207 students that currently attend the campus in Ephraim to 395 students - a net increase of 188 students However, we should be careful not to presume that a local campus would attract all of the students in Sevier County. It is possible that some students would prefer to attend college in Ephraim for the social life offered by the larger campus or to take special courses not offered at a Richfield campus.

In addition to the 395 projected enrollment in college courses, the proposed Snow College South campus would include the students attending Sevier Valley ATC. Because the ATCs measure enrollment in terms of membership hours, it is difficult to identify a comparable enrollment figure. Our rough estimate, based on information provided by the Sevier Valley ATC, is that the ATC enrollment in 1995 is equivalent to about 545 FTEs. About 60% of those, however, are high school students. This suggests that a combined SVATC and satellite college campus would have an potential FTE enrollment of about 940 students.

Is there Sufficient Growth to Support a Satellite Campus? The growth of the local community and of the enrollment in the main campus also need to be considered. It is important for legislators to recognize that we have not had time to identify any standards for evaluating this data. We are providing the figures so legislators can use their own judgement to decide whether the numbers are sufficient to justify the creation of a satellite campus. The Governor's Office of Planning and Budget predicts that Sevier County will grow at a rate of about 2% each year for the next 20 years. This suggests that our estimated local participation of 395 students in 1995 will increase to 437 in the year 2000 and 483 by the year 2005.

The expected growth at the main campus should also be considered because it is important to determine whether the creation of a satellite campus would create excess classroom space at

the main campus. The **Data Book**, published by the Board of Regents, indicates that enrollment at Snow College has doubled during the past ten years from 1,313 FTE enrollments to 2,748 in 1996. President Gerald Day of Snow College anticipates that the school's enrollment will continue to expand. It is a policy choice that legislators and the Board of Regents will need to make concerning whether this expansion should occur in Ephraim at the existing campus, or whether Snow should expand to remote locations such as Sevier County.

Do Local Residents Support the Creation of a Satellite Campus? Salt Lake Community College reports that the concerns of local residents is always considered when deciding whether and where to locate a satellite campus. For example, some administrators at SLCC were not initially inclined to establish a campus at the old South High School building. They told us that it was due to the encouragement of the community members that led the college to consider expanding to that part of the county and to create a campus at that specific site. Obviously, the Sevier County community is expressing its desires for a community college through its support of HB114. State policy makers need to decide whether there is sufficient population in the area to support a satellite campus.

In conclusion, we found that the enrollment data offers conflicting information regarding how a community college in Richfield might impact enrollment in applied technology education. In addition, our past audit of ATCs shows that the costs of applied technology education are lower at ATCs than at community colleges. Finally, using the approach followed by the Salt Lake Community College in establishing satellite campuses, our rough estimate of the FTE enrollment at a Snow College South campus is about 395 college students plus the approximately 545 ATC students.

We hope this letter addressed your concerns. If there is any additional information you need or if you have any further questions, please feel free to contact our office.

Sincerely,

Wayne L. Welsh
Auditor General

WLW:JPB/lm