MINUTES OF THE MEETING OF THE JOINT APPROPRIATION SUBCOMMITTEE ON EDUCATION

February 11, 1981

The University meeting of the Joint Appropriations Subcommittee on Education was called to order at 7:30 a.m. on Wednesday, February 11, 1981 by Chairman Donaldson in Room 104, Capitol Bldg., Helena, Montana.

All members were present including Curt Nichols and Bruce Shively, Fiscal Analysts. (See Bulky Testimony for "UNIVERSITY FUNDING FORMULA".)
Testimony was given in support of Northern Montana College by:

Rep. Audrey Roth, Senator Stan Stephens, Senator Allen Kolstad, Senator Fred Van Valkenburg.

Testimony was given in support of Montana State University by:

Rep. Dan Oberg, Amber Webb, Jim Mocabee, Jeff Morrison for the Board of Regents.

Testimony was given in support of Montana College of Mineral Science and Technology by:

Roy Turley, Rep. Fritz Daily, Rep. Dave Brown, Gustav Stolz, Dr. Jerry Plunkett.

#### MAINTENANCE - UNIVERSITIES

COMMISSIONER JOHN RICHARDSON gave his presentation in regard to the maintenance proposals and where they are in the budgets. Within each unit's presentation book, "Blue Book" for the operations and maintenance of the Physical Plant there is a base budget for maintenance and added to that base for several of the institutions were new space costs. For instance, buildings that come on line during the present biennium which would have to be funded for maintenance the next biennium. This is one component of the maintenance budget. The second component amounts to \$2.3 million across the system over the biennium and was based on the LFA analysis of peer institution and what they were putting into the operations and maintenance of their physical The LFA recommended a little over \$1 million per year to be added to the base budgets of the six units. He also recommended that the Commissioner's Office develop an allocation model for allocating that money to the six units. They set that money aside and directed us to come back with a report.

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COMMISSIONER RICHARSON continued to explain the third component. This is the first priority in the Regent's Long Range Building Program and will be considered by another committee. for \$1.5 million for maintenance projects across the University System. Those may be described as major maintenance; i.e., new It is not on-going maintenance, it is major capital The fourth component of maintenance is after taking these first three into consideration, two of the units said that they believe that their maintenance needs are so pressing and they won't be accomplished through these three components therefore, they are asking for a program modification. That was the case of the University of Montana and will be the case for Montana State University. The other point is there are two lists of modifications. The Commissioner explained that when they had to submit their budgets to the Executive branch in September, they did not know at the time that the new formula would be introduced by the Interim Finance Committee and they put in a list of program modifications which are referred to as our "A" list. Then when the Interim Finance Committee did recommend the formula, the Board of Regents directed the institutions to review those program modifications based on the new formula approach and make a new request. He explained the eliminations made for the University of Montana as an illustration.

#### NORTHERN MONTANA COLLEGE

PRESIDENT JAMES ERICKSON gave his presentation for Northern Montana College with Bill Byars assisting. (EXHIBIT A) President Erickson stated that they have two exceptions. The first of these lies in the area of compensation and the other exception is maintenance. The Instructional Program is recognized by the proposed formula at a 14 to 1 ratio from the 16 to 1 ratio they did have. It will enable us to reduce some class sizes.

BILL BYARS discussed the operation of the Plant Program. He stated that they have increased the services by two FTE's for an additional custodian with the new libraries coming on line. This brings our total custodial staff to 9 FTE's and 1 student FTE. Funded from the "designated" maintenance account the present staff is 1 electrician, 1 plumber, 1-1/2 carpenter, and 1 maintenance worker. He stated that they are proposing to put the carpenter up to a full-time position and add an additional plumber and a maintenance supervisor. (EXHIBIT B)

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MR. BYARS stated that with the addition of these positions we feel it will respond to the needs of the campus. Our allocation by the formula will leave us about \$30,000 to \$40,000 short. That is above the amount that would be our share from the allocation for \$1.1 million for FY 82 and \$1.2 million for FY 83 for maintenance money. The budget was built off our 1980 expenditures. This was a year we had an increase in enrollment. He explained that they had just come off a very poor year and had some transition costs and had to eliminate a program in another area and had to give up some of the expenditures in the maintenance area. Therefore, the FY 80 is not a true picture of expenditures. Under the operations category of the Library - Academic Support Program the budget goes from \$25,000 to \$47,000 to \$53,800 this includes periodicals. Under capital there would be books, etc. There is a serious problem in the Library. Mr. Byars stated that their intercollegiate athletics go from 4.41 FTE's to 4.66 FTE's and this is their student health.

CHAIRMAN DONALDSON asked if there was a modification for the \$30,000 to \$40,000 shortfall.

BILL BYARS stated that yes, because of the increase that we will put into our maintenance shop to provide extra services.

CHAIRMAN DONALDSON asked if the Library is a member of WLN (Washington Library Network) or if it is included in the budget or if they are relying on the budget mofication.

PRESIDENT ERICKSON stated that they are depending on the budget modification.

#### MONTANA TECH

PRESIDENT FRED DEMONEY gave his presentation for the Montana College of Mineral Science and Technology. (EXHIBIT C) The first item he brought to the committee's attention was the fact sheet he handed out. (EXHIBIT D) The fundamental philosophy of our institution is the education and training of engineering professionals and the other is education of humanities, arts and science people. He stated that they believe that accreditation is the key. Since 1975 the enrollment for engineering has doubled and 70% of our full-time students are in engineering. He stated that they have had enrollment growth of 45% in this past year and they don't anticipate that to happen again. One out of three students have not had the resources to back them for the last six years.

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PRESIDENT DEMONEY stated that they have a lot of catch up in this area. This has a compact also on their computer facilities. The use of that computer has tripled due to the growth of students and assignments. They are 54% over what they were a year ago in the appropriated amount and this is a tremendous increase. He stated that they have to look at that with the enrollment. The increase, though it is large, is keeping up with the enrollment. In our case, the impact of the formula however well intended, does not provide the catch up that was intended. He stated that they find their faculty ratio increased from 16 to 1 to almost 18 to 1 and the peer institutes are 15 to 1.

DR. ROY TURLEY gave his testimony in regard to enrollment projections, contingency funds, salary situation in critical areas, and library funds. (EXHIBIT E)

GUSTAV STOLZ gave his testimony. He spoke in regard to the starting salary and job offers for engineering graduates. (EXHIBIT F)

VICK BURT, Director of Fiscal Affairs for Montana Tech explained the requests. (EXHIBIT C) There are two entities that generate indirect costs. The major entity is the Bureau of Mines and the other area is the contracts and grants. We are running \$2,000,000 per year in contracts and grants. Of the \$2,000,000, Federal Grants are about 75%. If the revenue does not materialize than our program as impacted with growing enrollment will suffer greatly. We expect a decline of Federal Funds next year. (See Bulky Testimony.)

#### MONTANA STATE UNIVERSITY

PRESIDENT WILLIAM TIETZ was assisted by Tom Nopper in giving the presentation for Montana State University. (EXHIBIT G) He provided the committee with a handout that gives a picture of the actual and projected enrollment. (EXHIBIT H) There has been a significant differential between projected and actual enrollment. At the present time we are at a differential of 923 students and we anticipate there will be a problem in the future. Our estimates are derived as explained in the second page of the exhibit. Our applications for enrollment is 12% above what they were a year ago.

PRESIDENT TIETZ stated that they undergo review by accreditation teams. This recently was done by the Northwestern Schools and Colleges for Montana State University. He read from the assessment made, "but as impressive as MSU is, the committee sees it in a precarious position and would like to warn any concerned persons who may read this report that the erosion of quality of a very fine institution is now under way at MSU and threatens to become

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deeply serious. If not arrested this erosion could reach a point where recovery would be very costly and would take a very long time." Their final recommendation then states, "The principal recommendation of the committee is that the State of Montana increase resources for MSU so that the services demanded at the present and the future can be provided. The committee finds the insitution in a precarious position of growth in student body and growth in demands for services which it cannot be absorbed by the present funding."

PRESIDENT TIETZ stated that they also commended the University for the effective steps taken in the past two years in beginning to correct the inadequacies of the library's material budget and for its committment of the top priority of the library in the allocation of any new dollars that are recieved by the University in the next biennium. They also had a list of the problems in the biennium and in the past. There were over 200 subscriptions cancelled last year for serials. Montana State University is attempting under the formula to restore a number of the functions which it has deleted in the last several years. He stated that as they approach the current year they are looking at restoring the areas that they have had to sacrifice; i.e., staff, operations, and in equipment. He then explained the instructional portion included in EXHIBIT G.

PRESIDENT TIETZ explained that their proposal is to eliminate the graduate teaching assistants and hire instructors. The teaching assistants would revert to assistant levels. They would take them out of direct contact teaching and assign them tasks that are supportive to help with grading and in the labratories, etc. They would be reallocated where we have seen increased enrollment at the graduate level.

PRESIDENT TIETZ stated that they have looked at the possibility of restricting enrollment in engineering. We would also add staff to other enrollment stricken areas. The area of academic support is one of importance. He expressed concern with the future of the library. He stated that they don't want to be in a situation ten years down the road back here to bring it up to snuff. They have a grant for \$300,000 for the financial library of medicine. The second area of support is for continuing education. Based on the demands we feel it is appropriate that we provide some institutional support in the area of education and continuing education.

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PRESIDENT TIETZ continued to say that roughly four FTE's would be added. We asked the student services group to cut back their services two years ago by 10%. We have had a problem with financial aid in being able to meet the needs on a timely basis.

TOM NOPPER discussed the Institutional Support and the Physical Plant. The major concern is the internal audit. He stated that they hope to get two internal auditors. They have operated for three years without one and when they need help they have to go outside the University and seek a local accounting firm. When they fill it, he stated that they probably won't be able to fill at the CPA level. In the area of personnel benefits we don't have a benefits clerk for handling the insurance, benefits, etc. This has been handled by people who have payroll duties. It is also important for people retiring to have good counseling. the Physical Plant we are having problems. The formula did not address the Physical Plant. It was driven off the 1980 base. That was the year the University suffered a strike and we were closed down. There are areas we should add personnel. though we did not add personnel we feel we will be short in the funding. This would also apply to our operational budget. I am concerned with utilities out of our operation's budget.

PRESIDENT TIETZ explained the Scholarships and Fellowships. He explained that what they propose to do with the dollars for fee waivers for FY 82 and FY 83 is reconstitute a program which we had in the past on our advanced scholarships. We do not have the ability to provide incentive to those doing a bang-up job.

PRESIDENT TIETZ also discussed the modification requests for the Energy Program, Nursing Program, and the University Learning Resource Center. (EXHIBIT I) There are a number of buildings that need aid. These are projects that would increase energy conservation. In the area of nursing we do not have a large enough medical family to support a whole clinical training for our nursing camp. This requires them to have a clinical center like Spokane. He stated that they must use the entire state as their center. They have students in Billings, Great Falls, Missoula, and Butte. They have the two largest in Billings and Missoula. He stated that they would argue that because of this unusual relationship each of those campuses requires a full complement of nursing faculty if we are going to train people capable of performing. We argue that the formula does not take the replication at each extended campus into account. We would argue that in reality the productivity ratio should be lower division 500 credit hours and upper division 300 hours, and at the graduate

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level we would accept 300 hours. So our request is the consideration of the four extended campuses as separate entities independent of the funding formula and funded at a level that is appropriate for the medical and health care education. The nursing enrollment has taken an up swing.

CHAIRMAN DONALDSON asked Curt Nichols what we used for the credit hours for nursing.

CURT NICHOLS stated that they used 300, 500, and 300. It would be switching the upper and lower divisions.

REP. BENGTSON asked if they have taken it out of their budget and are asking for a separate budget.

PRESIDENT TIETZ stated that they are not making a recommendation for this to be a line item or not. He stated that they are saying there is no other nursing program that has to replicate their faculty four times. They would remove those credit hours out of the formula and be reconstituted in terms of the new nursing formula.

Meeting adjourned at 11:15 a.m.

REP. GENE DONALDSON, Chairman

# NORTHERN MONTANA COLLEGE Havre, MT 59501

January 27, 1981

The following pages present Northern Montana College's plan for allocating funds generated under the proposed formula-driven budget for the 1981-83 biennium. We recognize with appreciation the many months of effort expended by the Legislative Finance Committee, the Legislative Fiscal Analyst, the Office of the Commissioner of Higher Education, and personnel of the various University System units. This formula and this budget represent a milestone for Northern, since there is therein an explicit recognition of the special nature of a technologically-oriented campus such as Northern. The budget recognizes that we are capital-intensive, and that because of the nature of our instructional task, we are properly positioned at a lower student-teacher ratio than more traditional institutions.

We are grateful for this recognition and support the new formula and the proposed budget strongly—with two exceptions as to the latter.

The first of these exceptions lies in the area of faculty compensation. The fiscal analyst's report recommends differentiated funding between Eastern Montana College and the remaining two colleges, Northern and Western. the Commissioner has pointed out, this differentiation seems to be a function of the peer groups selected. In Northern's instance, "selection" did in fact take place, as the fiscal analyst informed the Commissioner that if certain technology-oriented schools were retained in the peer group, Northern's faculty compensation would be unacceptably high in relation to other System institutions. Changing the peer group, however, resulted in what could be regarded as "overkill"-- Northern was placed below the two universities, below Eastern Montana College, and with Western, shares the doubtful distinction of being at the lowest compensation level in the System. Elsewhere in the proposal technology is rightly recognized as being by its very nature a high operatingcost, capital-intensive program. . This recognition should extend into the area of faculty compensation, as it does in the instance of Montana Tech, as we compete for faculty just as fiercely as does Tech against much more attractive salaries in private industry.

We do not ask that our faculty be compensated at the level of Tech. Instead, we ask for the much more modest support provided under the Regents' plan, as described by the Commissioner. In essence, this plan broadens the peer group for all three colleges and treats them equitably—the peer group becomes all Category II schools (colleges) included in the 404 institutions of AAUP study used by the fiscal analyst.

Our faculty has fallen seriously behind in their battle with inflation. Last year, when inflation was 12.4%, our faculty received an average raise of 5.73%. Under the fiscal analyst's plan, the total dollars available for compensation would figure out to 5.45% for the first year of the biennium and 9% for the second year of the biennium. This would present serious problems to Northern, which would probably be exacerbated by the fact that we are a collective bargaining campus.

In speaking of the relationship of compensation levels between the three System colleges at his last appearance before the Education Subcommittee, Commissioner Richardson said "Montana should not adopt a divisive salary guideline for faculty, but should attempt to provide comparable salaries for comparable faculty." We support strongly the Board of Regents' position on faculty compensation for our three colleges, and ask for your thoughtful consideration of our position.

The second exception has to do with campus maintenance. While the new formula relieves many of the problems in the instructional and support areas, it does not address the problem of maintenance of facilities. We do not feel that the dollars assigned to this area are adequate, and recommend additional study of the problems of plant maintenance.

We hope that the Education Subcommittee will consider our two exceptions to the proposed budget as being both thoughtful and constructive, and that the Subcommittee will understand that our support of the new formula and the proposed System budget is no less genuine and enthusiastic. We are grateful to you for your support.

# NORTHERN MONTANA COLLECT FORMULA BUDGET ALLOCATION TOTAL BUDGET

	. 1	1980-81		1981-82		1982-83	
	FTE	AMOUNT	FTL	AMOUNT	FTE	AMOUNT	
Faculty FTF GTA FTE Staff FTE TOTAL FTE	78.53 .75 71.26 150.54	\$1,774,065 7,500 1,165,818 \$2,947,383	90.00 5.00 83.81 178.81	\$2,241,179 70,741 1,454,737 \$3,766,657	$   \begin{array}{r}     90.00 \\     5.00 \\     83.81 \\     \hline     178.81   \end{array} $	\$2,442,957 77,10° 1,585,663 \$4,105,72	
ОВЈЕСТ							
Personal Services Operations Capital TOTAL	150.54 150.54	\$2,947,383 952,340 140,834 \$4,040,557	178.81	\$3,766,657 921,266 244,847 \$4,932,770	178.81 178.81	\$4,105,728 1,025,128 254,455 \$5,385,311	
	150.54	, v4, v40, 337	170.01	Ç4,732,770	170.01	<b>73,303,</b> 24.1	
PROGRAM							
Instruction Public Service Academic Support Student Services	78.30 .20 23.58 17.11	\$1,962,588 8,859 449,600 422,653	105.00 .20 19.15 18.56	\$2,829,125 9,538 518,265 466,377	105.00 .20 19.15 18.56	\$3,089,690 10,396 581,335 512,100	
Institutional Supp. Op. of Plant Schol. & Fellow.	11.95	422,169 649,688 125,000	12.70 23.20	473,592 595,781 40,092	12.70 23.20	496,100 652,782 42,890	
TOTAL	150.54	\$4 <b>,0</b> 40 <b>,</b> 557	178.81	\$4,932,770	178.81	\$5,385,311	

# NORTHERN MONTANA COLLEGI FORMULA BUDGET ALLOCATION INSTRUCTIONAL PROGRAM

	1980-83		1981-8?		1982-83	
	FTE .	VHORE),	FTI	AMOUNT	FTE	AMOUNT
Faculty ITE	77.20	\$1,744,210	90.00	\$2,241,179	90.00	\$2,442,957
GTA FTE			5.00	70,741	5.00	77,108
Staff FTE			8.00	127,358	8.00	138,820
Other FTE	1.10	8,335	2.00	15,000	2.00	16.350
TOTAL FTE	78.30	\$1,752,545	105.00	\$2,454,278	105.00	\$2,675,235
_						
Personal Services	78.30	\$1, <b>7</b> 52,545	105.00	\$2,454,278	105.00	\$2,675,235
Operations		<b>159,</b> 056		225,000		<b>245,</b> 000
Capital		50,987		149,847		169,455
TOTAL	78.30	\$1,962,588	105.00	\$2,829,125	105.00	\$3,089,690

The mode of instruction in Technology and Professional programs requires a low student faculty ratio, which is recognized by the proposed formula.

The funding formula will allow for the hiring of four additional clerical staff. This along with the transfer of five positions from the Academic Support will bring the total to nine positions. Six positions will be strictly secretarial and the other three will provide other instructional services. (ie. A tool room clerk for the Automotive Area). There currently is a grievance filed against Northern by the Faculty Federation for lack of secretarial support. This funding will allow Northern to respond to those needs.

The funds allocated for capital will allow for the upgrading of the instructional equipment. At every Legislature in the last six years, Northern has asked for additional funding for capital. This formula will certainly help in meeting those needs.

Operations allocations will permit the purchase of necessary instructional supplies. Many of Northern's programs are both capital and supplies intensive and this funding formula recognizes that fact.

# NORTHERN MONTANA COLLEGE FORMULA BUDGET ALLOCATION PUBLIC SERVICE PROGRAM

		1980-81	. 1	981-82	1	982-83
	FTE	AMOUNT	FTE	AMOUNT	FTE	AMOUNT
Staff FTE TOTAL FTE	.20 .20	\$ 6,159 \$ 6,159	.20	\$ 6,740 \$ 6,740	.20	\$ 7,347 \$ 7,347
	•					
Personal Services Operations	.20	\$ 6,159 2,700	.20	\$ 6,740 2,798	.20	\$ 7,347 3,049 \$10,396
TOTAL	.20	\$ 8,859	.20	\$ 9,538	.20	\$10,390

# NORTHERN MONTANA COLLECT FORMULA BUDGLT ALLOCATION ACADEMIC SUPPORT PROGRAM

•	1980-81		J	1981-82		<b>1982-8</b> 3	
	FTI	TRUOMA	FTI	AMOUNT	FTL	CHUOMA	
Faculty FTE	1.33	\$ 29,855				<b>^^</b>	
Staff FYD	22.25	328,037	19.15	<b>\$359,023</b>	19.15	\$ <u>391,335</u>	
TOTAL FTE	23.58	\$357,892	19.15	\$359,023	19.15	<b>\$391,</b> 335	
Personal Services	23.58	\$357,892	19.15	\$359,023	19.15	<b>\$391,</b> 333	
Operations		58,003		109,242	*.	125,000	
Capital		33,700		50,000		65,000	
TOTAL	23.58	\$449,600	19.15	\$518,265	19.15	\$581,355	

Three professional positions and one staff position have been added to this program. A full time (1 FTE) professional cataloger and a full time (1 FTE) clerical will be assigned to the Library. This will bring Northern's Library staff to 8.00 regular employees. A .75 FTE professional position will be established as the Director of Teacher Education. A .40 FTE Professional position will be established as the Director of Malmstrom Higher Education Center.

Increased funding will allow for the increase in support of the Library program. Book acquisitions can be increased from \$25,000 in FY 81 to \$48,000 in FY 82 and \$63,000 in FY 83. Periodicals purchase can be increased substantially also.

# NORTHERN MONTANA COLLEGE FORMULA BUDGET ALLOCATION STUDENT SERVICES PROGRAM

	1980-81		1981-82		1982-83	
	FTE	AMOUNT	FTE	AMOUNT	FTE	AMOUNT
GTA FTE	.75	\$ 7,500				
Staff FTE	16.36	300,756	18.56	\$341,377	18.56	\$372,100
TOTAL FTE	17.11	\$308,256	18.56	\$341,377	18.56	\$372,100
Personal Services	17.11	<b>\$3</b> 08,256	18.56	\$341,377	18.56	\$372,100
Operations		98,776		115,000		135,000
Capital		15,621		10,000		5,000
TOTAL	17.11	\$422,653	18.56	\$466,377	18.56	\$512,100

An additional secretarial position will be added to the Dean of Students Office. This position will assist with student testing, public information and Alumni affairs.

# NORTHERN MONTANA COLLEGE FORMULA BUDGET ALLOCATION : INSTITUTIONAL SUPPORT PROGRESS

	1980-83		1981-82		<b>1982-8</b> 3	
	FIL.	TRUGMA	FTE	AMOUNT	FTL	AMOUNI
Staff FTE TOTAL FTE	11.95 11.95	\$254,444 \$254,444	$\frac{12.70}{12.70}$	\$271,962 \$271,962	$\frac{12.70}{12.70}$	\$296,433 \$296,433
Personal Services Operations Capital TOTAL	11.95 11.95	\$254,444 130,524 <u>37,201</u> \$422,169	12.70 12.70	\$271,962 176,630 _25,000 \$473,592	12.70 12.70	\$296,438 189,671 10,000 \$496,109

# NORTHERN MONTANA COLLEGE FORMULA BUDGLT ALLOCATION OPERATION OF PLANT PROGRAM

	1980-83		1981-82		<b>1982-8</b> 3	
	FTE	THUOMA	FTH	AMOUNT	TTL	TRUOMA
Staff FTE TOTAL FTE	19.40 19.40	\$268,087 \$268,087	$\frac{23.20}{23.20}$	\$333,277 \$333,277	$\frac{23.20}{23.20}$	\$363,273 \$363,273
Personal Services Operations Capital TOTAL	19.40 19.40	\$268,087 378,276 <u>3,325</u> \$649,688	23.20	\$333,277 252,504 _10,000 \$595,781	$23.20$ $\overline{23.20}$	\$363,273 284,509 5,000 \$652,782

This program is not a part of the formula-based funding and may not have received the consideration required. The amount allocated, per the LFA report is \$595,781 (FY 82) and \$652,782 (FY 83). Included in these figures are amounts for new facilities but no distribution of the additional funds for maintenance.

The present staff of the Physical Plant is 1 professional, 14.4 classified and 4.00 FTE students. To continue these positions into FY 82 will cost \$240,842. A new library building will require two additional custodial positions at a cost of \$24,290. Currently there are two shifts of watchmen on the weekends and one shift during the week. Leaving the campus somewhat insecure in this manner has caused concern on the part of the Administration. To remedy this, an additional watchman position should be established at an annual cost of \$13,145.

Utilities anticipated for FY 81, per the supplemental request, total \$158,821. Should these increase by 12% annually, the cost in FY 82 would be \$177,880 and in FY 83 \$199,226.

Another large item in the Physical Plant operations budget is the repair function. Currently Northern has a recharge basis service center for all campus repairs. The FY 81 allocation is \$90,000 since most of this cost is for labor this amount should be increased by nine percent each year of the Biennium just as other personal services are being increased. The total would then be \$98,000 FY 82, \$106,929 FY 83. This does not allow for any increased maintenance.

TOTALS	FY 82	FY 83
Personal Services	\$333,277	\$363,273
Utilities -	177,880	199,226
Maintenance	98,100	106,929
	609,257	669,428
LFA Proposal	<b>-595,</b> 781	-652,782
	13,476	16,646
Other Expenses	+ 35,463	+ 37,591
Total Deficit	\$ 48,939	\$ 54,237

If there is so be an increase in the naintenance effort, the base for badgeting the sheal Plant must be recvaluated.

# NORTHERN MONTANA COLLEGE FORMULA BUDGET ALLOCATION SCHOLARSHIPS & FELLOWSHIPS PROGRAM

	*		1980-81 AMOUNT	1981-82 AMOUNT	1982-83 AMOUNT	
		*	•	· .		
Operations TOTAL			\$125,000 \$125,000	\$ 40,092 \$ 40,092	\$ 42,899 \$ 42,899	

# NORTHERN MONTANA COLLEGE FORMULA BUDGET ALLOCATION LIBRARY - ACADEMIC SUPPORT PROGRAM

	1980-81		1981-82		1982-83	
	FTE	CUOMA	FTU	AMOUN	FTE	AMOUNT
Staff FTE TOTAL FTE	8.90 8.90	\$101,100 \$101,000	11.50 11.50	\$149,054 \$149,054	$\frac{11.50}{11.50}$	\$162,463 \$162,463
Personal Services Operations Capital	8.90	\$101,000 25,000 _30,000	11.50	\$149,054 47,000 48,000	11.50	\$162,469 53,800 _63,000
TOTAL	8.90	\$156,000	11.50	\$244,054	11.50	\$279,269
Library Acquisitions		\$ 25,000		\$ 48,000		\$ 63,000

# MORTHERN BOLFANA COLLUCTION FORMULA BUDGLE ALLOCATION INTERCOLLEGIATE ATRLETICS - STUDENT SERVICES PROGRAM

	1980-81		1981-82		<b>1982-</b> 83	
	FTD	IMUUMA	FTL	THUUNIA	FTF	TRUCOMA
GIA FIL	.75	\$ 7,500				
Staff FTE	3.66	77,145	4.66	\$ 90,913	4.66	\$ 99,095
TOTAL FIL	4.41	\$ 84,645	4.66	\$ 90,913	4.66	\$ 99,095
Personal Services Operations	4.41	\$ 84,645 54,198	4.66	\$ 90,913 65,000	4.66	\$ 99,095 72,000
TOTAL	4.41	\$138,343	4.66	\$155,913	4.66	\$171,095

# NORTHERN MONTANA COLLEGE SERVICE SHOP PROPOSED BUDGET

			FY 81	FY 82	FY 83	
FTE	Positions	Grade				
1.00	Electrician	13	\$ 19,689	\$ 21,461	\$ 23,393	
1.00	Plumber	13	16,257	17,720	19,315	
1.00	Carpenter	12	18,125	19,756	21,534	
.50	Carpenter	12	7,320	7,979	8,697	
1.00	Painter	12	14,641	15,959	17,395	
1.00	Maint. Worker	9	11,419	12,447	13,567	
	Proposed New Positio	ns	•			
.50	Carpenter	12		7,979	8,697	
1.00	Plumber	13		16,154	17,609	
1.00	Maint. Supvr.	- 14		17,761	19,360	
8.00	TOTAL		\$ 87,451	\$137,216	\$149,567	
	Personal Services			•		
	Salaries		\$ 87,451	\$137,216	\$149,567	
	Hourly Wages	•	6,000	10,000	10,900	
•	Benefits		17,750	27,576	30,414	•
	Total Persona	l Services	111,201	174,792	190,881	
	Operations	•			•	
	Supplies & Mate:	rials	35,000	45,000	50,400	
	Other Expenses		2,000	2,300	2,500	
	Total Operation	ons	37,000	47,300	52,900	
	Equipment	. •	6,000	2,000	2,000	
	Total Expense		\$154,201	\$224,092	\$245,781	
	Income					
	Recharge-State I	-	\$ 90,000	\$134,500	\$147,500	60%
-	Recharge-Self Su	ipport.	70,000	89,700	98,500	40%
		•	\$160,000	\$224,200	\$246,000	

The FY 82 & 83 breakdown of Income between State and Self Supporting is in approximately the same ratio of square footages.

State Buildings	339,729	59%
Self Supporting	236,030	41%
Total	575,759	



# MONTANA COLLEGE OF MINERAL SCIENCE AND TECHNOLOGY

BUTTE, MONTANA 59701 406/496-4101

Office of the President

Feb/1,1981

January 30, 1981

Representative Gene Donaldson Chairman, Education Subcommittee HOUSE DISTRICT 29 3890 Helberg Drive Helena, Montana 59601

Dear Representative Donaldson:

In accordance with your request of January 12, 1981 transmitted to me by Commissioner Richardson on January 13, enclosed is the information requested for Montana Tech. We appreciate the opportunity to respond, and we look forward to our hearing before the Education Subcommittee within the next several weeks. You and your subcommittee have been most open with the University System, and we thank you for that.

Very truly yours,

Fred W. DeMoney

President

FWD/p1

Enc:

cc: John A. Richardson
Members of Education Subcommittee
Tech Admin. Board and
Budget Committee

#### GENERAL COMMENTS

# The Formula

The concepts of a formula approach to funding based on peer analysis has been largely accepted. Much progress has been made in ironing out disparities, and much work remains to be done, particularly in the area, in Tech's case, in the aggregate productivity and instructional support/FYFTE funding.

The amount listed for the College, \$6,053,416 for FY '82 and \$6,695,208 for FY '83 is a substantial increase, some 44% over that appropriated for FY '81. This increase, while large, must be looked at with the increase in enrollment, some 38%, estimated FY '81 vs. appropriated FY '81. Essentially, the formula has generated 6 percentage points more funding than the increase in enrollment. This is interpreted as keeping up with enrollment and about half of the inflation rate.

Emphasized again is the fact that the formula for the most part, is <u>Student En-rollment Driven</u>. The Research, Public Service, and Operation and Maintenance of Plant programs are not so driven.

In Tech's case, we are asked to allocate those resources largely developed by enrollment data among programs that are impacted significantly by the cost of supporting research, a non-enrollment driven identity. The LFA has recommended 85% of the total: \$272,850 for FY '82 and \$296,650 for FY '83. While we appreciate the 15% of the Indirect Cost not being appropriated, the impact of absorbing \$272,850 in FY '82 on the student oriented programs is overwhelming. As a result, many of the desired and needed functions, particularly in the Academic Support and Student Services and Operation and Maintenance of Plant areas could not be addressed. More will be said about the Indirect Cost situation.

#### Indirect Cost

The LFA has recommended for FY '82 an increase over FY '81 in total Indirect Cost Recovery of some 20%, followed by a further increase of about 8% for FY '83. The LFA notes that these increases are based on increased costs for personal service and operations and do not represent an increase in overall grant activity. Unfortunately, the LFA does not appear to have considered the possibility of a decrease in grant activity. In fact, the LFA does not appear to recognize that total Indirect Cost Recovery is a dynamic situation which varies up or down from month to month and year to year because grants are completed, terminated, started, or undergo drastic changes in levels of wages and benefits paid (upon which Indirect Cost is calculated).

To be specific, in FY '82 it is currently anticipated that all Tech's MHD research will be terminated effective September 30, 1981 because the present budget for the DOE-MHD division is due for a drop from around \$75 million to \$20 million, instead of the requested \$107 million. If, as now seems increasingly probable, DOE-MHD is forced to terminate all university MHD research, Tech's Indirect Cost Recovery will drop by about \$90,000. Even if current efforts to raise the DOE-MHD budget to \$60 million are successful, there will be no universities MHD research next

#### Indirect Cost Continued...

year. We also point out that about 50% of our Indirect Cost Recovery is attributable to projects in the MBMG and almost all are with one agency, the U.S. Geological Survey. We are, thus, markedly dependent on continued Congressional appropriations to the USGS and in supportive state match of funds for certain specific projects. Yet this work in the MBMG has no direct connection with the College's instructional activities, and it is surely irrational to fund the College with Indirect Cost Recovery based on MBMG research activities. In the actual budgeting process, these Indirect Cost resources are put into the common revenue pot and used thus to fund all programs, including the Instruction Program.

Several other contracts will expire in calendar '81, and these too will bring about a drop in Indirect Cost Recovery unless they are replaced by new contracts. Unfortunately, owing to past practice of 100% appropriation of Indirect Cost, many faculty now perceive that research is not desirable in the eyes of the state, and efforts to secure new contracts are diminishing.

At this time, we have no way to know whether new contracts will be awarded in amounts sufficient to <u>maintain our present level</u> of grant activity. The new administration in Washington, apparently committed to decreases in Federal expenditures, may well bring about decreased levels in grant activity at Tech.

We, therefore, request that the LFA's recommendation on Indirect Cost not be accepted. We maintain that Indirect Cost Recovery should not, in the first place, be included as revenue in a formula to provide for an instructional program, and secondedly, that the facts of the basis of Indirect Cost Recovery be recognized and accepted. If, in spite of the above, the committee decides to stay with the LFA recommendations, then we must respectfully request that the committee also provide for an appropriation to replace Indirect Cost Revenue when our Indirect Cost Recovery fails to meet the LFA forecast. The LFA Indirect Cost forecast must be based on something more rationale than inflationary cost increases. As a minimum, our instructional program should not have to suffer because of events not related to the instructional program. And since the enrollment driven formula is the sole generator of funding for the support programs - Academic, Student Services, and Institutional, it is most difficult to rationalize a reduction of those programs when the Indirect Cost is reduced.

#### Pay Increases

We have used the LFA's pay increases of 9% for each year of the biennium in our calculations, for all personnel: faculty, GTA's, and staff. We would hope that the Committee would look with great favor on increases of 12% and 11% as recommended by the Board of Regents. Such recommended increases would keep all personnel current with the projected Consumer Price Index. Our difficulty in retaining faculty would be eased considerably. A higher level of faculty compensation would also be of significant assistance in adding the needed new faculty to Tech's rapidly growing engineering departments.

#### Priorities

Two programs, Instruction and Academic Support, were given priorities in the allocation of resources. By this action, the faculty, operating, and to a lesser extent, capital needs could be addressed. Major capital needs for large dollar items of the \$50,000 to the \$300,000 kind could not be addressed. These will be discussed later.

In like manner, the Library needs in the Academic Support Program were addressed. We directed a major budgeting effort in the maintenance of professional and technical journal subscriptions. Of the remaining support programs, Institutional Support was given some preference by virtue of the campus-wide need for improving our personnel operations and our purchasing system. As a result, our Student Services Program suffered. We were not able to allocate the resources highly desirable for the Operation & Maintenance of Plant Program, principley in the area of needed staff personnel - custodians, maintenance, grounds laborers, etc. But we are optimistic that the allocation of the \$1 million plus per year of the biennium earmarked for maintenance can alleviate some of the problems.

#### Modified Requests

The Regent has recommended three modified requests:

		FY '82	FY '83
1.	Computer Equipment	\$17,000	\$320,000
2.	Maintenance, HPER Facility	54 <b>,</b> 552	64,669
3.	Automatic Powder Diffractometer	125,000	-0-

All of these requests are critically needed, the computer equipment most critical of all. Our Computer Center is the essential key to our academic and administrative operations, and we have simply out grown our present equipment, both in quantity and quality. Further detail is given in the Instructional Program.

#### Process and Limitations

Finally, a word or two must be said about the process we used in developing the budget.

The letter requesting our budget was received late afternoon on January 14. We convened our Budget Committee, consisting of representatives of faculty, staff, student, and administrators, the next afternoon, January 15 to discuss the requests and layout plans. It was decided to get input from the Department Heads for consideration by the Program Managers. A format with historical and current budget information was sent to each Department Head on January 20, requesting feedback to the Program Managers on January 23. The Council of Presidents met on January 20 and decided on formats, etc. and a due date of the Unit's response

PROGRAM: INSTRUCTION

		1980-81 BUDGET		1981-82 REQUEST		1982-83 REQUEST
	FTL	AMOUNT S	FTE	AMOUNT S	FTE	AMOUNT S
FACULTY GTA STAFF	65.0 -0- 12.4	1,722,096 -0- 141,818	85.0 1.0 15.1	2,522,290 29,674 188,240	86.0 1.0 15.1	2,781,670 32,345 205,181
TOTAL	<b>7</b> 7.4	1,863,914	101.1	2,740,204		3,019,196
PERSONAL SERVICES OPERATIONS CAPITAL	77.4 -0- -()-	1,863,914 204,591 -0-	101.1 -0- -0-	2,740,204 317,682 130,440	102.1 -0- -0-	3,019,196 372,507 130,440
TOTAL	<b>7</b> 7.4	2,068,505	101.1	3,188,326	102.1	3,522,143

#### EXPLANATION & JUSTIFICATION:

#### 1. ENROLLMENT EXPLOSION

Tech's FYFTE student enrollment is 38.5% over the number funded for the FY '81 (1097.5). Out estimated FYFTE enrollment for 1981 is 1520 based upon second semester registration. The proposed budget will permit an increase of only 25.4% in the number of FTE faculty to handle the 38.5% increase in students. (From 68.6 FTE faculty 1980-81, to 86 FTE projected for 1981-82) Problems will continue in meeting the needs of our students. For FY '82, the 86 FTE faculty and projected enrollment of 1525 FYFTE students would give a 17.7 student: faculty ratio. Our peer institutions have a 15.8 student: faculty ratio. Montana Tech needs a minimum of 90 FYFTE Faculty.

0.75 FTE of departmental support personnel have been added. (0.50 FTE machinist, 0.25 FTE electronics technician) We were unable to fund a support person for the Petroleum Engineering Department, a position which was urged by the recent Accreditation Board for Engineering and Technology evaluation team. We were not able to provide funds to move the Heads of the Mining Engineering, Petroleum Engineering, and Environmental Engineering Departments from academic year to fiscal year contracts as had been planned.

1.5 FTE's have been added in clerical support for faculty. This means that each secretary will be responsible for the typing and other clerical functions for 15 faculty members.

#### 2. OPERATIONS BUDGET ALMOST AT NEEDED LEVEL

Operations budgets have been woefully underfunded during the past year as we have attempted to provide educational services while being underfunded according to our enrollment. The sum of \$317,682 recommended for 1981-82 gets us within 12.5% of what we feel is the minimum to cover general operating needs and computer use by students and faculty for 1981-82.

#### 3. CAPITAL BUDGET INSUFFICIENT FOR MAJOR PURCHASES

No funds were budgeted for capital during 1980-81 except for continuing publications in the library in the Academic Support Program. The above sum for capital expenditures represents approximately a normal year's expenditure for essential small items

3. with no funds available for major purchases.

#### 4. BUDGET MODIFICATIONS

The Board of Regents approved recommending two budget modifications for the 1983 biennium. These are essential for the continuation of programs: \$337,000 for a VAX 11/780 computer; and \$125,000 for an X-Ray Diffractometer.

VAX 11/780 COMPUTER '82 FY \$17,000 '83 FY \$320,000

The existing PDP 11/70, a mini-computer, cannot handle the advanced engineering/scientific type problems now becoming part of the undergraduate and graduate students educational needs.

The VAX 11/780 computer will be added to Tech's exsisting PDP 11/70 set-up, and will then make the PDP 11/70 the front end of a significantly enhanced sophisticated computer system in Tech's computer center. With this addition, our computer capacity will be large enough to handle a greater variety of programs in the instructional and research functions and to increase our public service capabilities.

The Computer Center at Tech is one of the busiest and heaviest used facilities on campus. Computer usage by engineering students and faculty has tripled in three years and by non-engineering students and faculty, doubled. On any weekday during the academic year approximately one-half of the total student body use the computer. The Computer is an integral part of a student's education today, especially an engineering student's. All engineering graduates receive extensive computer training. Tech's Spring Semester/1981 course offering include over 20 courses that teach computer concepts. In addition to regularly scheduled day classes, computer courses are taught on every weeknight except Tuesday. Those evening courses are heavily attended by local business people, teachers, etc. who are beginning to utilize computers in their work.

#### X-RAY DIFFRACTOMETER

Automatic Powder Diffractometer and Generator (Philips APD 3600 with certain software items) '82 FY \$125,000; '83 FY -0-

This unit is needed to replace the present unit which is now over 30 years old and is unreliable and technically obsolete. The present unit does not possess any of the currently required radiation safety and protection devices; moreover, certain parts are now no longer available, maintenance of operation and maintaining alignment and performance is becoming costly, troublesome and expensive of faculty time. A service contract is prohibitively expensive, due to the age of the equipment.

The present unit plays a vital role in the undergraduate instructional program of the Metallurgy and Chemistry departments and is also extensively used by graduate students, staff of the MBMG and various faculty. If this unit becomes unavailable, there will be serious impact on the instructional and research programs at Montana Tech since the unit is basic and necessary in several required courses and essential to several research programs.

The unit requested is the modern 'state-of-the-art' equivalent of the older unit. It is microprocessor controlled, hence automatic, and fully meets all present OSHA standards for x-radiation safety and protection. This unit is capable of meeting instructional and research needs for many years.

# PROGRAM: ORGANIZED RESEARCH

	1980-81 BUDGET		1981-82 REQUEST		19 <b>82-</b> 83 REQUEST		
•	FTE	AMOUNT S	FTE	AMOUNT S	FTE	AMOUNT \$	
FACULTY	-0-	-0-	0.71	21,000	0.7	22,890	
GTA	-0-	-0-	-0-	-0-	-0-	<b>-</b> 0-	
STAFF	-0-	-0-	0.70	7,000	0.7	7,630	
TOTAL	<b>-</b> 0-	-0-	1.41	28,000	1.4	30,520	
PERSONAL SERVICES	-0-	-0-	1.41	28,000	1.4	30,520	
OPERATIONS	-0-	-0-	<del>-</del> 0-	8,400	-0-	17,898	
CAPITAL	-0-	-0-	-0-	5,600	<b>-</b> 0-	-0-	
TOTAL	-0-	-0-	1.41	42,000	1.4	48,418	

#### EXPLANATION & JUSTIFICATION:

This recognizes the organized research in the Minerals Applied Research area of activity at the College. A portion of the 15% of the Indirect Cost Recovery revenues as projected by the Legislative Fiscal Analyst (\$48,150 for FY '82) has been dedicated to this program.

#### MODIFIED REQUEST

We certainly support the Regents' request for state matching funds to expand research in the Montana University System, the NSF MONTS program. Montana Tech currently has a modest one year research project of \$39,000 in the MONTS program and is anticipating broadening the base of College faculty research potential through increased particiation in the MONTS program.

# Budget request:

FY	<b>'</b> 82	\$200,000
FY	<b>'</b> 83	300,000

PROGRAM: ACADEMIC SUPPORT

			1980-81 BUDGET		981-82 EQUEST		982-83 EQUEST
		FTE	AMOUNT \$	FTE	AMOUNT \$	FTE	AMOUNT \$
	FACULTY GTA	-0- -0-	-0- -0-	-0- -0-	-0 -0-	0- -0-	-0- -0-
	STAFF	10.3	208,588	13.2	303,341	13.2	330,642
	TOTAL	10.3	208,588		303,341	13.2	330,642
,	PERSONAL SERVICES OPERATIONS CAPITAL	10.3 -0- -0-	208,588 59,560 22,172	13.2 -0- -0-	303,341 84,796 65,311	13.2 -0- -0-	330,642 95,000 72,731
	TOTAL	10.3	290,320	13.2	453,448	13.2	498,373

# EXPLANATION & JUSTIFICATION:

#### Personnel

Professional and administrative support have been increased by 1.50 FTE (1.0 FTE professional librarian and 0.5 FTE Assistant to Vice President for Academic Affairs).

Classified support has been increased by 1.25 FTE (0.50 clerk-typist for Vice President for Academic Affairs Office and 0.75 FTE Library Clerk).

ulletPart time and student help is at approximately the same level as in 1980-81.

We were unable to move the two Associate Deans from academic year to fiscal year contracts as had been planned.

#### Operating Budget

A 42% increase has been budgeted for operating expenses. This is a minimum because of increases in library journal subscription notes. (see detail shown in ACADEMIC SUPPORT: LIBRARY DETAIL)

#### Capital

Tapital needs for the library have been met at an acceptable level. Additional capital is needed to provide better audio-visual instruction equipment for classrooms.

BY: RHT/VB T TE: 1/29/81 PROGRAM: ACADEMIC SUPPORT - LIBRARY DETAIL

	1980-81 BUDGET			1981-82 REOUEST		1982-83 REQUEST	
	FTE	AMOUNT 5	FTE	AMOUNT \$	FTE	AMOUNT \$	
FACULTY	-0-	-0-	<b>-</b> 0-	<b>-</b> 0-	. <b>-</b> ()-	-0-	
GTA	-0-	-0-	-0-	-0-	-0-	-0-	
STAFF	7.0	86,033	8.75	138,782	8.75	151,272	
TOTAL	7.0	86,033	8.75	138,782	8.75	151,272	
PERSONAL SERVICES	7.0	86,033	8.75	138,782	8.75	151,272	
OPERATIONS	-0-	40,749	-0-	60,275	-0-	66,302	
CAPITAL	-0-	22,172	<b>-</b> 0-	47,182	-0-	51,900	
TOTAL	7.0	148,954	8.75	246,239	8.75	269,474	

# EXPLANATION & JUSTIFICATION:

#### Personnel

The professional library staff will be increased by 1.0 FTE and the classified staff by 0.75 FTE. These additions will permit the library to be open on Saturdays and possibly to extend hours in the evening.

# Acquisitions

Journals - \$54,900 has been budgeted under Operations for journals.

Books - \$28,500 under Capital has been budgeted for books and \$1,000 for replacement books.

The journal budget represents a 57.9% increase over last year and will permit college funds to pick up subscriptions paid for by the Montana Mining and Mineral Resources Research Institute and Alumni funds during the past two years when insufficient state funds were available. Only \$2400 will be available to add new journals.

#### \$1.4 Million Regent's Modified Request

The book budget has been increased 48% over that budgeted for 1980-81. This will help increase holdings, but will not make a sizable impact in bringing the library book holdings up to American Library Association standards. Funding of the \$1,400,000 Regent's modified budget requests for libraries will be necessary if we are to begin to remove the deficiencies in the number of volumes in the Tech library.

# Washington Library Network Regent's Modified Request

Montana Tech also supports the Regents modified budget request for \$221,837 in 1981-82 and \$146,458 in 1982-83 to initiate participation in the Washington Library Network. Participation would make Tech's unique collection of minerals engineering volumes available to researchers in the region and would support research conducted at Montana Tech.

PROGRAM: STUDENT SERVICES

	1980-81 BUDGET		1981-82 REQUEST		1982-83 REQUEST	
	FTE	AMOUNT \$	FTE	AMOUNT \$	FTE	AMOUNT \$
FACULTI	-0-	-0-	-0-	-()-	-0-	-0-
GTA	-0-	-0-	-0-	-0-	-0-	-0-
STAFF	16.4	311,240	18.3	394,624	18.3	430,140
TOTAL	16.4	311,240	18.3	394,624	18.3	430,140
PERSONAL SERVICES	16.4	311,240	18.3	394,624	18.3	430,140
OPERATIONS	-0-	121,294	-0-	175,858	-0-	200,521
CAPITAL	-0-	-0-	-0-	12,000	-0-	16,000
TOTAL	16.4	432,534	18.3	582,482	18.3	646,661

#### EXPLANATION & JUSTIFICATION:

#### PERSONAL SERVICES

- 1. Added 1.00 FTE clerk-typist to the Registrar's/Admission's Office to take care of the added work load due to the 38% increase in student enrollment over appropriated, and the net high head count enrollment, 1710 in Fall 1981 over 1386 in Fall 1980.
- 2. Fully funded Financial Aid Officer to 1.00 FTE from 0.50 FTE. Workload from increased student loan due to increased enrollment makes change mandatory.
- 3. Added 0.41 FTE Assistant Women's Basketball and Volleyball Coach, in compliance with intent of Title IX.
- 4. Unable to fund requests for: an admissions counselor, now being presently funded under Title III (Federal) program, a counseling and testing counselor to handle academic counseling for the rapidly increasing number of engineering students at Tech, a registrar/admissions information system technician, and a students activities coordinator, partially funded by students and auxiliary enterprises.

#### **OPERATIONS**

1. Operations in Student Services reflect heavy demands due to increased enrollment.

PROGRAM: STUDENT SERVICES - INTERCOLLEGIATE ATHLETICS

	1980-81 BUDGET		1981-82 REQUEST		<b>1982-</b> 83 <b>REOUE</b> ST	
	FTE	AMOUNT S	FTE	AMOUNT \$	FTE	AMOUNT \$
FACULTY	-0-	-0-	<b>-</b> 0-	-0-	-0-	-0-
GTA	-0-	-0-	-0-	-0-	-0-	-0-
STAFF	4.39	104,855	4.80	124,939	4.8	136,184
TOTAL	4.39	104,855	4.80	124,939	4.8	136,184
PERSONAL SERVICES	4.39	104,855	4.80	124,939	4.8	136,184
OPERATIONS	-0-	71,759	<del>-</del> 0-	102,931	O-	115,732
CAPITAL	-0-	-0-	-0-	1,300	-0-	1,000
TOTAL	<b>4.3</b> 9	176,614	4.80	229,170	4.8	252,916

# EXPLANATION & JUSTIFICATION:

- 1. Add 0.41 FTE assistant women's basketball and volleyball coach, in compliance with intent of Title IX.
- 2. Increased operations for women's basketball and volleyball, compliance with intent of Title IX.

PROGRAM: INSTITUTIONAL SUPPORT

	1980-81 BUDGET			1981-82 REQUEST		1982-83 REQUEST		
	FTE	AMOUNT \$	FTE	AMOUNT \$	FTE	AMOUNT \$		
FACULTY GTA	-0- -0-	-0- -0-	-0- -0-	-0- -0-	-0- -0-	-0-		
STAFF	17.35	363,710	20.35	467,125	20.4	509,166		
TOTAL	17.35	363,710	20.35	467,125	20.4	509,166		
PERSONAL SERVICES	17.35 -0-	363,710 164,621	20.35 -0-	467,125 201,445	20.4 -0-	509,166 235,103		
OPERATIONS CAPITAL	-0-	-0-	-0-	9,150	-0-	8,000		
TOTAL	17.35	528,331	20.35	677,720	20.4	752,269		

#### EXPLANATION & JUSTIFICATION:

- 1. Add Director of Personnel, 1.00 FTE, to perform the duties of a Personnel Officer, and Affirmative Action, EEO, & Title IX Officer. The College and its departments, consisting of 1700 students, 215 full-time employees and 225 part-time and student employees, require the services of a full time personnel officer. These functions are now being performed by the Director of Fiscal Affairs and his Administrative Secretary. Our employees need proper professional expertise and guidance in reclassifications, collective bargaining, benefit programs and information, training programs, upward mobility programs, etc.
- 2. Add Purchasing Agent, 1.00 FTE, to perform the duties of a State Purchasing Agent in accordance with Regents' Policy 920 (11/6/75) Such a position will provide a direct communication between the Tech requisitioner and the purchasing agent, thus, improving delivery dates and eliminating the time spent on referrals. There is also the great potential for cost saving (in time of rapidly increasing prices) and greater assurance of receiving the desired material, particularly for those items needed in research and specialized instruction.
- 3. Alumni Relations Department now budgeted in Institutional Support Program, was in Student Services.

EY: FWD
DATE: 1/28/81

PROGRAM: OPERATION & MAINTENANCE OF PLANT

	1980-81 BUDGET			1981-82 REQUEST		982-83 EQUEST
	FTE	AMOUNT \$	FTE	AMOUNT S	FTE	AMOUNT \$
FACULTY	-0-	-0-	-0-	-0-	-0-	-0-
GTA	-0-	-0-	-0-	-0-	-0-	-0-
STAFF	27.7	419,072	31.7	511,947	31.7	558,022
TOTAL	27.7	419,072	31.7	511,947	31.7	558,022
PERSONAL SERVICES	27 7	/10 072	21 7	511 0/7	31.7	550 022
OPERATIONS	27.7 -0-	419,072	31.7	511,947	-0-	558,022 547,702
CAPITAL	-0-	334,583 -0-	-0- -0-	<b>479,794</b> 10 <b>,0</b> 00	<b>-</b> 0-	3,488
TOTAL	27.7	<b>753,</b> 655	31.7	1,001,741	31.7	1,109,212

#### EXPLANATION & JUSTIFICATION:

- 1. Personal Services: sufficient funds were allocated to add the following personnel:
  - 2.00 FTE Custodians (to take care of new & remodeled space)
  - 1.00 FTE Maintenance engineer (to put out increasing brush fires)
  - 1.00 FTE Grounds labor (to take care of increased landscaped areas, roadways, & parking lots)

Desired, as determined from the conservative of staffing formulae for Physical Plants from the University Systems in Florida, Texas, Maryland, Colorado, Washington, California, and Georgia is a total of 51 FTE compared with our requested budget total of 28 FTE for FY '82, and for FY '83.

- 2. Operations: The utility budget takes the lion's share of the Operations, about 75%. The level of budgeted operations for the supplies and repairs part of the operating budget has been set at \$82,000, about \$3,000 higher that the actual expenditures, \$79,000 for 1979-80. Our serviceable floor area has increased about 20% since 1980.
- 3. Capital: The request for \$10,000 reflects a modest request for replacement of worn out plant service vehicles and floor maintenance equipment.
- 4. <u>Utilities</u>: We expect utilities to increase substantially in the next two years. The amount is impossible to estimate accurately now because:
  - 1. We have not had sufficient heating experience with two new structures (Library/Auditorium & HPER) and a remodeled structure (the old Gymmasium into a Science and Engineering classroom-laboratory-office building scheduled for completion third quarter, 1981) which amounts to about 25% of our space.
  - 2. Uncertainty in the amount of future rate increases. The telephone company, for example, may be eligible for a substantial rate increase.
- 5. Modified Request: As recommended by the Board of Regents, Maintenance of the HPER facility: FY '82 \$54,552 FY '83 \$64,669
  This provides funding for 2 custodians, operating and maintenance cost, for the new 57,000 sq. ft. facility opened in January 1980 and not budgeted in the FY '81 biennium.

BY: EA, VB, FWD

PROGRAM: SCHOLARSHIPS & FEE WAIVERS

	1980-81 BUDGET			1981-82 REQUEST		1982-83 REQUEST		
	FTE	AMOUNT \$	FTE	AMOUNT \$	FTE	AMOUNT \$		
FACULTY	-0-	-0-	-0-	<b>-</b> 0-	-0-	-0-		
GTA	-0-	-0-	-0-	-0-	-0-	-0-		
STAFF	-0-	-0-	-0-	-0-	-0-	-0-		
TOTAL	-0-	-0-	-0-	-0-	-0-	-0-		
						•		
PERSONAL SERVICES	-0-	-0-	-0-	-0-	-0-	-0-		
OPERATIONS	-0-	120,000	-0-	107,699	-0-	118,132		
CAPITAL	-0-	-Ó-	<b>-</b> 0-	-0-	-0-	-0-		
TOTAL	<b>-</b> 0-	120,000	-0-	107,699	-0-	118,132		

#### EXPLANATION & JUSTIFICATION:

- 1. Except for the 1980-81 budget, amount shown includes only the discretionary fee waivers. Mandatory fee waivers are budgeted in the Commissioner's budget.
- Amounts budgeted will most likely have to be increased substantially due to:
  - A. Increased fees, particularly out of state fees, as per schedule below:

Tuition and Fee Rates Per Academic Year

In-State			Out-of-State			-Total In & Out-of-State-		
1981	1982	1983	1981	1982	1983	1981	1982	1983
\$333	\$423	\$477	\$936	\$1,296	\$1,368	\$1,269	\$1,719	\$1,845

B. Increased enrollment, per data below
1980-81 1520 FY FTE (estimated)
1981-82 1525 FY FTE (projected)
1982-83 1550 FY FTE (projected)

SUMMARY A

	1980-81 BUDGET FTE AMOUNT \$			1981-82 REQUEST AMOUNT \$		1982-83 REQUEST FTE AMOUNT S	
FACULTY GT: STAFF	65.0 -0- 84.2	1,722, <b>0</b> 96 -0- 1,444,428	85.7 1.0 99.4	2,543,290 29,674 1,872,277	86.7 1.0 99.4	2,804,560 32,345 2,040,781	
TOTAL	149.2	3,166,524	186.1	4,445,241	187.1	4,877,686	
PERSONAL SERVICES OPERATIONS CAPITAL	149.2 -0- -0-	3,166,524 1,004,649 22,172	186.1 -0- -0-	4,445,241 1,375,674 232,501	187.1 -0- -0-	4,877,686 1,586,863 230,659	
TOTAL	149.2	4,193,345	186.1	6,053,416	187.1	6,695,208	
MODIFIED REQUESTS	<del>-</del> 0-	-0-	2.0	196,552	2.0	384,669	
GRAND TOTAL	149.2	4,193,345	186.1	6,249,968	189.1	7,079,877	
		SUMMARY B -	BY PROGRAM		• .		
INSTRUCTION RESEARCH PUBLIC SERVICE ACADEMIC SUPPORT STUDENT SERVICES INSTITUTIONAL SUPPORT	77.4 -0- -0- 10.3 16.4	2,068,505 -0- -0- 290,320 432,534 528,331	101.1 1.4 -0- 13.2 18.3	3,188,326 42,000 -0- 453,448 582,482 677,720	102.1 1.4 -0- 13.2 18.3	3,522,143 48,418 -0- 498,373 646,661 752,269	
OP.& MAINT. PLANT	27.7	753,655	31.7	1,001,741	31.7	1,109,212	
SUB-TOTAL	149.2	4,073,345	186.1	5,945,717	187.1	6,577,076	
SCHOLARSHIPS & FELLOWSHIPS		120,000		107,699		116,132	
TOTAL BUDGET	149.2	4,193,345	186.1	6,053,416	187.1	6,695,208	
MODIFIED REQUEST	-0-	-0-	2.0	196,552	2.0	384,669	
GRAND TOTAL	149.2	4,193,345	188,1	6,249,968	189.1	<b>7,</b> 079 <b>,</b> 877	

BY: VB/FWL DATE: 1/29/81



OFFICE OF THE PRESIDENT Billings, Montana 59101 (406) 657-23(6)

Acquisition of Computer System (As approved by Board of Regents, August 21, 1980)

DEC 1091 System (CPU, Disc, and Tape Drives, Card Reader, Printers, etc., including shipping and insurance)

Estimated Cost: \$598,500

Trade in (or sale on open market in lieu of trade) of old systems:

- DEC 1095 System - value \$30-40,000 (system purchased by UM in 1972, sold to EMC in 1977)

use (35,000)

- IBM 360/20 System - value \$10-15,000

use (12,500)

Net cost of new computer system:

\$551,000\*

\*Does not include site modification required — (New air conditioning and exhaust system including humidification; new electrical power supply, and related structural modifications.)

Estimated cost - now included in Long Range Building Program.

\$160,000

KWH/11t 2/5/81



# TESTIMONY OF EASTERN MONTANA COLLEGE BEFORE THE JOINT SUB COMMITTEE ON EDUCATION FEBRUARY 1981

John E. Van de Wetering President

#### EASTERN MONTANA COLLEGE

#### INTRODUCTION

What follows provides an outline of the manner in which Eastern Montana College tentatively plans to spend the difference between the current level of expenditure and that recommended in the Fiscal Analyst's proposal. For the first year of the biennium we used an inflation factor of 12% for operations and capital, 30% for utilities and 9% for personal services.

In the second year of the biennium we have found a problem with the dollars recommended that we do not understand. We have treated the first year conservatively by using the indicated inflation factors and added staff cautiously. But when we use that base for the second year - the \$11,110,367 provided in the Committee Chairman's letter - we are unable to fund even a 9% inflation increase. We had hoped to use a 12% inflation rate for the second year, as for the first, while dropping one faculty and calculating the impact of the projected 30 FTE enrollment decline on the operations budget. But that is not possible. Instead, when we use a 9% inflation rate for non-utility operating costs, less the enrollment decline adjustment, we are still short \$38,500. If we were to use a 12% inflation rate and make the same calculation, we will be short \$111,936.

Although the Legislative Fiscal Analyst's proposed budget will handle a portion of the lesser modified requests, there are some crucial areas that will not be covered. Eastern Montana College is requesting through the budget modification process a one-time expenditure of \$551,000 for the replacement of its computer. That replacement has been discussed and planned with legislaleadership and the Office of Budget and Program Planning since the last Legislative Session in an effort to program carefully and appropriately the computer needs of the University System in a rational sequence. In 1977 Eastern Montana College, through a special appropriation, acquired a five year old DEC 10 computer from the University of Montana. That equipment is no longer being manufactured and replacement parts are nearly impossible to acquire. The maintenance costs, moreover, have skyrocketed as the equipment has aged and it is no longer cost effective to operate. Finally, the rapid expansion of academic and administrative use has exhausted the capacity of the DEC 10. Its replacement is essential. Without a replacement we would face a crisis in our efforts to meet fully our computer obligations. Eastern's computer system handles our part of the Statewide Budgeting and Accounting System, student records, and a rapidly expanding student and classroom use. We also have requested a one-time allocation of \$150,000 for replacement of bleachers and carpeting which cannot be absorbed by this budget. are not sufficient funds in this budget to handle such a one-time cost.) These are necessary replacement items.

A System-wide modified request for \$330,000 involves the University of Montana, Montana State University, and Eastern Montana College in a Master of Business Administration program to be offered jointly in the City of Billings by the three business schools. I cannot emphasize strongly enough the demand for this program in Billings and Eastern Montana and its importance to the Billings business community. We estimate that the demand is sufficient to virtually fill such a program at the moment it is offered. Those seeking it are people who are unable to leave the Billings area for education elsewhere because of job and/or family obligations.

#### Introduction Page Two

We also support the System-wide modified request for Library acquisitions and a Library Network System. The Library is the heart of every college and university and expenditures have fallen behind in recent years. Catchup is badly needed. The Network System, frankly, makes good economic sense and will eventually dramatically improve the quality of Library service at all the units.

I turn now to what will be achieved with the proposed budget. All of the "major additions" described must be viewed as tentative. Modifications made in the future will be the result of changing conditions and of more compelling concern than those listed. It may not always be easy to recognize the impact of the following specific budgets on quality, since we tend to become preoccupied with numbers. But I am confident that the improvement I will describe in each program constitutes in sum a significant increase in the quality of education at Eastern Montana College.

#### SUMMARY OF PROGRAM

FY-FTE Enrollment 3,167*			3,070	3,040		
Student/Faculty Ratio		20.8:1	18.6:1		18.5:1	
	T T T T	1980-81		1981-82		1982-83
	FTE	Amount	FTE	Amount	FTE	Amount
Faculty	152.55	\$3,659,136	165.00	\$ 4,316,235	164.00	\$ 4,676,132
GTA	1.35	17,000	1.35	18,530	1.35	20,198
Staff	153.61	- 2,503,045	168.04	2,969,305	168.04	3,227,971
Total Personal Services	307.51	\$6,179,181	334.39	\$ 7,304,070	333.39	s 7,924,301
Operations		\$2,080,703	ļ	\$ 2,416,149		\$ 2,659.094
Capital		405,467	! !	454,123		409,941
Fee Waivers		180,612		110,137		116,931
Total		\$8,845,963		\$10,284,479		\$11,110,267

<sup>\*</sup>Per Commissioner's revision of November 28, 1980. Budget based on 2,975.

#### EASTERN MONTANA COLLEGE

Program Instruction
Program Instruction

#### NARRATIVE

The following figures include a \$100,000 adjustment for Summer School for faculty salaries, as suggested by the Interim Committee. We will add approximately 1.5 FTE clerical help so that faculty will have some of the additional support they have long needed. With this increased assistance, areas of past critical shortages will be staffed so that faculty members will be able to provide students with tests, syllabi, other teaching aids, and complete their required correspondence in an efficient manner.

We will add faculty to the level funded in the Legislative Fiscal Analyst Budget Analysis. The student faculty ratio produced by that number, assuming the accuracy of the enrollment projections, will be 18.5 to one. That ratio was used in the last Legislative Session, and we consider it an appropriate bench mark. (5 of the additional faculty shown are not new positions. They represent the Summer School adjustment from .22 FTE to .33). We propose to add 1.2 FTE Lab Assistants in order to staff a Student Computing Instructional Center that is seriously understaffed. These Assistants allow students to receive appropriate instructional assistance in their laboratory work.

Eastern Montana College faculty is organized into a bargaining unit so that salary or compensation figures used must be understood as subject to changes that will come about in the Collective Bargaining process. compensation pool created for faculty by the LFA's proposal will provide a small base adjustment of 1.4% and uses an inflation increment of 9% each year. From these pools must come funds to acknowledge cost of living increases, promotion, market adjustments, merit increments, etc. All of these factors are subject to Collective Bargaining. The many pieces that must be accommodated by the pool means, of course, that each faculty member will not receive an across the board 9% increase. Some increases will be less, a few will be An average non-promoted faculty member who is performing satisfactorily will receive less than 9% - Probably between 6% and 8% through this process. Although there has been a general acknowledgement by legislators and the public of the need for better faculty salaries, this proposal will fall significantly short of allowing an average increase that will match inflation. The annual rate of inflation for the fiscal year October 1979 to October 1980 was 12.6%. Our faculty has received an increase of less than 5% for the same year, but a decrease in purchasing power of approximately 8%. I hesitate to return to Billings at the end of the Session with an increment again less than the rate of inflation. And I dread collective bargaining under such circumstances.

Program Instruction

NARRATIVE

-2-

The Regents budget proposal for faculty salaries provides a new base and percentages of increase that will respond to everyone's concern that faculty salaries be significantly adjusted. If one calculates the relationship between Eastern Montana College's proposed average compensations in the LFA's recommendation to the average compensations proposed for the universities it is still 90%, even though the proposed average for Eastern Montana College is, for the first time since 1975, slightly above the actual average. The legislative approach that had led in the past to the use of 90% rested upon relationships reported by the American Association of University Professors between what they classified as Category I and Category IIA schools. That compensation relationship now is 93%, which is the basis for the recommendation of the Regents. We feel that for an institution like Eastern that figure will establish a more realistic base. Upon that base the Regents recommend increments of 12%.

		1980-81	1	1981-82	1982-83	
	FTE	Amount	FTE	Amount	FTE	Amount
Faculty	151.80	\$3,643,250	164.25	\$4,298,918	163.25	\$4,657,257
GTA	-	-	-	-	-	-
Staff	23.97	260,876	26.61	315,300	26.61	339,420
Total Personal Services	; 175.77	\$3,904,126	190.86	\$4,614,218	189.86	\$4,996,677
Operation		\$ 412,956		\$ 462,511	i	\$ 504.137
Capital		99,630		111,586		111,586
Total		\$4,416,712		\$5,188,315		\$5,612,400

#### EASTERN MONTANA COLLEGE

Program	Public	Service
- * * () * (*1)		

#### NARRATIVE

For Eastern Montana College the public service budget consists of two components, the Radio Station and the Eastern Elementary School.

We have just completed a development program for the Radio Station funded by a federal grant that has moved it from 10 watts to 24,500 watts of effective radiated power. We are now able to reach the entire Yellowstone Valley and beyond, and provide an effective public service station for the entire community.

Eastern's Elementary School has operated for many years and continues to operate as a part of School District #2. Its location on the campus has provided the Education School with easy access to a public school.

In the category of public service we plan to adjust the budgets of both the Elementary School and the Radio Station to meet inflation.

	1980-81		1	981-82	1982-83		
	FTE	Amount	FTE	Amount	FTE	Amount	
Faculty	.75	\$15,886	.75	\$17,317	.75	\$18,875	
ГА	-	-	-	-	-	-	
Staff	1.05	13,447	1.05	14,426	1.05	15,863	
Personal Services	1.80	\$29,333	1.80	\$31,743	1.80	\$34,738	
Cerations		\$ 5,125		\$ 5,740		\$ 6,257	
Capital		-		-		~	
Total		\$34,458		\$37,483		\$40,995	

#### WHAT

ECPD (ABET) Accreditation. Number of B.S. degree programs in mineral engineering fields, including mandatory Mining Engineering (Geological, Geophysical, Metallurgical, Mineral Processing, Petroleum).

MONTANA TECH*	6	New Mexico Inst. Mines & Tech	2
Alaska, University of	2	Penn State*	3
Arizona, University of*	3	South Dakota School of Mines*	3
Colorado School of Mines*	6	Utah, University of*	3
Columbia University*	2	Virginia Tech*	1
Idaho, University of	3	West Virginia University	2
Michigan Tech*	2	Wisconsin-Madison, Univ. of	2
Missouri-Rolla, Univ. of*	4	Wisconsin-Platteville,	1
Nevada-Reno. Univ.*	3	Univ. of	

\*Participated in South Dakota School of Mines Salary Survey Source: 47th. Annual Report, ECPD, Year Ending September 30, 1979.

HOW MANY	Actual	7 Increase	Legislative Budgeted FYFTE	Underfunded FYFTE	Under-
FY	FYFTE	<pre>% Increase</pre>			funded
1976	894		722	172	23.8
1977	991	10.8	698	293	42.0
1978	1058	6.8	954	104	10.9
1979	1141	7.8	954	187	19.6
1980	1247	9.3	1056	191	18.1
1981	1531	22.8	1056	475	45.0

9

Total Underfunded, 1976 through 1981: 1422 FYFTE, 38.7%

1975 Fall Enrollment: No. Full-time Students 798, No. Engineering Students 474=59.49 1980 Fall Enrollment: No. Full-time Students 1246, No. Engineering Students 864=69.39 Growth in Full-time Engineering Students: 82.2% 1975-1980 (Fall)

1975 B.A., B.S. Graduates: Total 74 1980 B.A., B.S. Graduates: Total 131

Engineering 52 Engineering 103

Engineering 70% Engineering 79%

#### HOW MUCH

Engineering faculty salaries (1980-81 South Dakota School of Mines Survey)
Programs in Mineral Engineering

	Professors	Assoc. Prof.	Asst. Prof.	Weighted Avg.	Deans
1979-80					***
Average	\$32,362	\$24,200	\$20,007	\$27,392	\$49,359
Tech (15/16)	25,086	22,446	19,553	22,368	35,500
1980-81					
Average	35,420	26,528	22,406	30,282	52,011
Tech (15/16)	27,081	24,356	21,288	23,763	39,000

1980 average starting annual salary, B.S. Engineering, Tech = \$23,100

#### WHAT HAPPENED

Placement Summary,	Engineering	Class of 1980 (July 21, 19	80 Summary)
No. of Graduates	103	Actual starting salaries	, \$/Month
Graduates to Industry/	84	Average	\$1,925
Foreign Nationals	12	Maximum	3,200
Graduates to Grad School	L 5	Minimum	1,500
Other	2		

Average Number of Offers 3.3

President's Office 8/18/80, revised 9/1/80, 9/30/80, 2/10/81

# TALK BEFORE EDUCATION SUBCOMMITTEE ROY H. TURLEY 2/11/81

I WOULD LIKE TO TAKE TEN MINUTES TO LOOK AT THE FOLLOWING FOUR AREAS:

#### **ENROLLMENT PROJECTIONS**

#### CONTINGENCY FUNDS

#### SALARY SITUATION IN CRITICAL AREAS

#### LIBRARY FUNDS

#### ENROLLMENT PROJECTIONS

PAGE 554 OF THE LEGISLATIVE FISCAL ANALYST BUDGET REPORT PROJECTS 1,479

ACADEMIC FULL-TIME EQUIVALENT STUDENTS FOR 1981 AND 1,525 AY FTE FOR 1982.

WE HAVE COMPLETED REGISTRATION FOR THE SECOND SEMESTER OF THIS YEAR AND

OUR ACTUAL AY FTE ENROLLMENT IS NOW SET FOR 1981 AT 1,531 STUDENTS. THUS

WE HAVE ALREADY EXCEEDED THE PROJECTION FOR BOTH 1981 AND 1982.

THE LEGISLATIVE FISCAL ANALYST PROJECTED AN INCREASE OF 3.11% FROM 2014 for 1982 for 1982 for 1982 for 1982 for 1982 for 1982 in PROJECTED ENROLLMENT BE ADDED TO OUR ACTUAL AY FTE ENROLLMENT FOR 1981 TO PROJECT OUR 1982 ENROLLMENT. THIS WOULD GIVE A PROJECTION OF 1578.6 OR 1579 FTE STUDENTS FOR 1982 AND 1605 FOR 1983 (BASED ON THE 1.6% INCREASE FROM 1982).

WE FEEL THAT THESE ENROLLMENT INCREASES ARE CONSERVATIVE AND ARE ESTIMATING AN ENROLLMENT INCREASE OF 7-10% FOR 1982 OR 1628-1687 AY FTE STUDENTS.

#### CONTINGENCY FUNDS

PAGE 567 OF THE LEGISLATIVE FISCAL ANALYST'S REPORT DISCUSSES THE CALCULATION OF CONTINGENCY APPROPRIATIONS. A GENERAL FUND AMOUNT FOR CONTINGENCIES WOULD BE APPROPRIATED TO THE BUDGET OFFICE FOR DISTRIBUTION TO UNITS WITH INCREASED ENROLLMENTS.

ACCORDING TO THE ILLUSTRATION GIVEN IN THE REPORT (P. 568), AN APPROPRIATION FROM THE CONTINGENCY FUND FOR 1983 WOULD BE BASED ON THE AY FTE ENROLLMENT FOR 1982. ALTHOUGH THIS IS AN IMPROVEMENT OVER OUR CURRENT SITUATION, IT DOES NOT MEET THE NEED OF PROVIDING FUNDS FOR ALL STUDENTS ENROLLED DURING THE YEAR OF THEIR ENROLLMENT. TECH WOULD RECOMMEND THAT THE GENERAL FUND AMOUNT WOULD COME FROM THE CONTINGENCY APPROPRIATED TO THE BUDGET OFFICE IN TWO INSTALLMENTS DURING EACH YEAR OF THE BIENNIUM. WE WOULD SUGGEST FOR A SCHOOL ON THE SEMESTER BASIS THAT 40% OF THE ESTIMATED CONTINGENCY FOR THE YEAR BE APPROPRIATED TO THE UNIT ON THE BASIS OF FIRST SEMESTER ENROLLMENTS, ONE MONTH AFTER THE START OF SCHOOL.

OFFICE BY THAT TIME. THE REMAINDER OF THE APPROPRIATION WOULD BE MADE ONE MONTH AFTER THE START OF THE SECOND SEMESTER WHEN THE AY FTE REPORTS ARE COMPLETED.

SUCH A DISTRIBUTION PROCEDURE WOULD PERMIT THE FUNDING OF EACH AY FTE STUDENT IN A TIMELY MANNER SO THAT THEIR EDUCATIONAL NEEDS CAN BE MET.

INSTRUCTIONAL SUPPLIES CAN BE PURCAHSED AND FACULTY CAN BE HIRED.

SALARY SITUATION.

WE APPRECIATE THE INCREASE WHICH HAS BEEN PROVDED IN THE FORMULA FOR FACULTY SALARIES. THIS WILL ALLEVIATE SOME OF OUR PROBLEMS. ONLY TIME WILL TELL WHAT OUR COMPETITION, BOTH ACADEMIC AND INDUSTRIAL, WILL DO FOR THEIR EMPLOYEES NEXT YEAR.

THE ADJUSTMENT IN OUR SALARY BASE IS GOOD. WE WOULD APPRECIATE HAVING CONSIDERATION GIVEN TO A 12% INCREASE TO THIS BASE FOR EACH YEAR, RATHER THAN THE 9% USED BY THE LEGISLATIVE FISCAL ANALYST.

PETROLEUM ENGINEERING IS A CRITICAL AREA ON OUR CAMPUS, ON MONDAY,

FEBRUARY 9, WE WERE TURNED DOWN BY A PERSON TO WHOM WE HAD OFFERED A CONTRACT

FOR \$42,000 TO HEAD THIS DEPARTMENT. HIS REASON FOR TURNING DOWN OUR OFFER

WAS THAT AS DEPARTMENT HEAD HE FELT THAT HE COULD NOT RECRUIT THE ADDITIONAL

TWO FACULTY MEMBERS NEEDED IN THE DEPARTMENT OR RETAIN CURRENT FACULTY UNDER

OUR SALARY SCALE.

WE WILL DO OUR BEST TO OBTAIN A COMPETENT AND STABLE FACULTY WITH THE MONEY PROVIDED.

#### LIBRARY

THE TECH LIBRARY IS RECEIVING INCREASED DEMAND FROM RESIDENTS OF THE STATE WHO DRIVE TO BUTTE TO USE OUR RESOURCES, AS WELL AS FROM OUR OWN AND OTHER RESEARCH ORGANIZATIONS, AND OUR UNDERGRADUATE AND GRADUATE STUDENTS AT MONTANA TECH. ELIZABETH MORRISSETT, OUR HEAD LIBRARIAN, HAS SHARED WITH ME THE FACT THAT TWO OR THREE PERSONS ARE DRIVING TO BUTTE EACH WEEK AND MAKE USE OF OUR REFERENCE LIBRARIANS TO SEEK ANSWERS TO QUESTIONS CONCERNING THE STATE'S MINERAL RESOURCES. THE CURRENT INFLUX IS FROM SILVER PROSPECTOR ALSO, AUTHORS ARE AWARE OF OUR SPECIALIZED RESOURCES AND COME TO WORK ON THEIR MANUSCRIPTS.

WE HAVE CRITICAL NEEDS IN TWO AREAS OF OUR LIBRARY: STAFFING AND ACQUISITIONS.

WE HAVE A DEFINITE NEED TO ADD ONE PROFESSIONAL LIBRARIAN AND TWO

CLASSIFIED LIBRARIANS. THE ADDITIONAL STAFF IS NEEDED TO EXTEND HOURS ON

WEEK NIGHTS AND TO OPEN THE LIBRARY ON SATURDAYS. THE LIBRARY IS WELL USED.

OUR LIBRARY HAS A GOOD COLLECTION OF FUNDAMENTAL DOCUMENTS IN OUR

AREAS OF SPECIALIZATION. HOWEVER, A REVIEW OF OUR INTERLIBRARY LOAN REQUEST

SHOWS THAT WE ARE WEAK IN OUR GENERAL JOURNAL COLLECTION AND IN BOOKS USED AND NEEDED IN OUR UNDERGRADUATE INSTRUCTION PROGRAM. WE CURRENTLY HAVE APPROXIMATELY 700 JOURNALS. A LIBRARY SERVING THE SIZE OF CLIENTELE AS THE TECH LIBRARY SHOULD HAVE APPROXIMATELY 1,000 JOURNALS. THE BUDGET WE HAVE BEEN ABLE TO PROVIDE FOR JOURNALS WILL PERMIT THE ADDITION OF SEVERAL NEW JOURNALS, BUT WILL HAVE MANY DEMANDS UNANSWERED.

WE SUPPORT THE UNIVERSITY SYSTEM SUPPLEMENTAL FOR ACQUISITION OF BOOKS. TECH LIBRARY RANKS THE LOWEST OF THE THREE RESEARCH INSTITUTIONS IN MEETING AMERICAN LIBRARY ASSOCIATION STANDARDS. PASSAGE OF THIS MODIFIED BUDGET REQUEST WILL GREATLY HELP MONTANA TECH.

### ENGINEERING MANPOWER COMMISSION STARTING SALARIES ACCEPTED BY 1980 GRADUATES

	4.5.	Tech
1. Petroleum Engr.	#1989	# 2022
2. Chemical	1809	
3. Metallurgica (	1749	1783
4. Mining, Good , Geoph	1745	1786
5. Engr. Sc; (Mech)	1710	1860
6. Electrical .	1699	
7. Computer Sc.	1689	+
9. Nuclear	/680	
9. Naval, Marine	1657	
10. Aeronautical	1648	
11. Civil	1570	
12. Architectuml	1388	
Overal!	# 1711	# 1917

Testimony by EUS TAU STOLZ, SR. MONTANA TECH 2/11/81

# 1981-83 BIENNIUM MODIFIED LEVEL BUDGET REQUEST ENERGY CONSERVATION PROGRAM MONTANA STATE UNIVERSITY

Montana State University has initiated an energy conservation program to counteract the spiraling cost of utilities. The program for the present fiscal year must be of a modest nature due to funding limitations and therefore will consist of an educational program and other modifications that can be inexpensively implemented, such as new time clock and thermostat installations, damper installations, etc. If additional significant savings are to be achieved, physical modifications to some of the buildings must be made in the form of window replacement, weatherstripping, door modifications, etc. The schedule presented below, which was extracted from the Montana State University energy conservation plan, estimates that a capital investment of \$204,850 could result in an annual energy cost savings of \$42,080. This would result in recovery of the capital costs in approximately five years. Therefore, Montana State University requests \$204,850 to begin implementation of our energy conservation program.

				ESTIP	ESTIMATED ANNUAL SAVINGS	VINGS
BUI	BUILDING	STRATEGY	EST. COST	HEAT	ELECTRICITY	TOTAL
<u>.</u>	l. Traphagen	Replace Windows Replace West Doors	\$ 77,000	\$ 6,844	1 1	\$ 6,844
		weatherstrip N & E Doors Vestibule for E Doors	3 1,500	\$ 203	1 1 1 1	\$ 203
2.	2. Fieldhouse	Utilize Mech. Rm. Heat	5 2,000	\$ 337	1 ;	\$ 337
ж	3. Ryon	Replace Roof Windows	\$ 84,300	\$ 6,606	t 1	\$ 6,606
	4. Johnson	Shut-Off Chiller, Modify Vent. System	\$ 35,000	\$22,680	\$ 1,017	\$23,697
5.	5. S.U.B.	Attic Insulation in Old S.U.B.	\$ 3,300	\$ 4,074	1	\$ 4,074
			\$204,850	\$41,063	\$ 1,017	\$42,080

#### **Bachelor's Degree Candidates**

(Data Combined for Men and Women)

	Number	of Offers	Average	\$ Offers	Percent Change			
By Curriculum For	January	January	January	July	in \$ Offers from		Percentil	es
All Types of Employers	1980-81	1979-80	1980-81	1979-80	July 1980	90th	1,300 1,250 1,025 1,275 1,000 1,798 2,010 1,710 1,833 1,800 1,860 1,885 1,917 1,850 2,200 1,750 1,125 1,173 1,585 1,651 1,285 1,527	10th
Business								
Accounting	1,701	1,908	\$1,394	\$1,293	7.8%	\$1,542	\$1,400	\$1,25
Business—General (inc. Mgmt.)	734	696	1,298	1,218	6.6	1,650	1,300	97
Marketing & Distribution	229	359	1,232	1,145	7.6	1,545	1,250	95
Humanities and Social Sciences								
Humanities	105	78	1,058	1,074	<b>—</b> 1.5	1,350	1,025	80
Economics <sup>1</sup>	58	24	1.242	1,252	<b>—.8</b>	1,516	1,275	85
Other Social Sciences	160	228	1.047	1,072	<b>—2.3</b>	1,375	1,000	75
Engineering								
Aeronautical	99	56	1,758	1,648	6.7	1,885	1,798	1,64
Chemical	830	772	1,994	1,801	10.7	2,120	2,010	1,83
Civil (inc. Construction, Sanitary,								
& Transportation Engrg.)	958	745	1,715	1,554	10.4	1,950	1,710	1,45
Electrical (inc. Computer Engrg.)	1,540	1,490	1,824	1,690	7.9	1,975	1,833	1,65
Industrial	301	343	1,800	1,655	8.8	1,975	1,800	1.64
Mechanical	1,609	1,603	1,855	1,703	. 8.9	2,050	1.860	1,65
Metallurgical (inc. Metallurgy								
& Ceramic Engrg.)	132	133	1,879 -	1,726	8.9	2,000	1.885	1,75
Mining	88	49	1.927 •	1,734	11.1	2,070	1,917	1,75
Nuclear (inc. Engrg. Physics)	55	32	1.828	1,668	9.6	1,900	1,850	1,69
• Petroleum	338	339	2.189 •	1,987	10.2	2,302	2,200	1,97
Engineering Technology	233	285	1,740	1,585	9.8	1,910	1,750	1,58
Sciences								
Agricultural Sciences	89	94	1,210	1,192	1.5	1,650	1,125	82
Biological Sciences	61	31	1,200	1,159	3.5	1,650	1.173	85
Chemistry	51	52	1,574	1,459	7.9	2,000	1.585	1,26
Computer Science	398	307	1,624	1,558	4.2	1,850		1,30
Health (Medical) Professions	45	33	1,304	1,155	12.9	1,583		1,08
Mathematics	88	77	1,494	1,475	1.3	1,834		1,19
Other Physical & Earth Sciences	89	57	1,720 •	1,543	11.5	2,120		1,16
	9,991	9,791						

#### The Committee on Statistical Services

Elenora A. Cawthon, Louisiana Tech University (Chairperson); David M. Bates, United States Steel Corp.; Boyce V. Cox, Jr., College of Charleston: William M. Hutchison, Phillips Petroleum Co.; Gloria Myklebust, Bank America; James C. Older, Deloitte Haskins & Sells; Glenn T. Rosenthal, Ball State University. Ex Officio: Walter S. Warren, Memphis State University, Eugene W. Steele, 3M Co. Jesse M. Smith, Executive Director, College Placement Council; Judith O'Flynn Kayser, Manager, Statistical/Informational Services. College Placement Council; Robert J. Corkhill, Statistical Consultant.

#### Participating Colleges and Universities

Akron. Alabama A & M, Arizona State, Arizona. Arkansas-Fayetteville, Auburn. Baylor, Bentley, Boston, Brigham Young, Brown, Bucknell, Cal Tech, California Foly-San Luis Obispo, California State Poly-Pomona, California State. Chico-Fresno-Long Beach-Sacramento, California. Berkeley-Los Angeles. Carnegie-Mellon, Case Western Reserve, Cedar Crest, Central State, Chicago (Bus), Clemson, Cleveland, Colorado Mines, Colorado State, Colorado, Columbia, Connecticut, Cornell, CUNY. Bernard M. Baruch-City College-Hunter, Dartmouth, Delaware State, Delaware, Denver, Detroit, Duke, Fairleigh Dickinson-Teaneck, Florida A & M, Georgia Tech, Georgia, Goucher, Grambling State, Grove City, Harvard (Bus), Houston, Idaho, IIT, Illinois, Indiana, Iowa State, Iowa, Jackson State, Kansas State, Kansas, Kentucky, Lafayette, Lamar, Lehigh, Lincoin (PA), Louisiana Tech, MIT, Maine-Orono, Mary Washington, Massachusetts-Amherst, Memphis State, Michigan State, Michigan Tech, Michigan: Ann Arbor-Dearborn, Minnesota-Minneapolis, Mississippi State, Mississippi, Missouri Columbia-Kansas City-Rolla-St. Louis, Montana State, Montana, Morgan State, Mount Holyoke, Nebraska, Nevada-Reno, New Jersey Tech, New Mexico State, New Mexico, NYU (Bus), North Carolina A & T. North Carolina: Chapel Hill-Greensboro, North Dakota, North Pexas State, Northern Arizona, Northwestern, Notre Dame, Ohio State, Ohio, Oklahoma State, Oklahoma, Oregon State, Oregon, Penn State: Capitol Campus-University Park, Penn, Pittsburgh, Polytechnic Institute of NY, Prairie View A & M. Princeton, Purdue, Rensselaer, Rhode Island, Rochester, Rutgers: Camden-New Brunswick, San Diego State, San Jose State, Smith, South Dakota Mines, South Fiorida, Southern California, Southern Illinois: Carbondale-Edwardsville, SMU, Southern-Baton Rouge, Stanford, SUNY-Buffalo, Temple, Tennessee-Knoxville, Texas A & M. Texas Tech, Texas Arlington-Austin-El Paso, Toledo, Villams, Wisconsin-Madison, Worcester Poly, Vale

<sup>&</sup>lt;sup>1</sup>Includes economics programs with both business and social science orientation.

#### MONTANA STATE UNIVERSITY

Proposed Allocation of Formula Generated Appropriations 1981-1983 Biennium January 30, 1981

For the past ten years Montana State University's internal budgeting process has been driven by dramatic increases in total enrollment and by equally dramatic enrollment shifts between the various academic units. Total fall enrollment has increased from about 7,700 students in 1970 to over 10,700 students in 1980. Internally, the College of Engineering has grown 60% in the past four years alone while the School of Business has increased its enrollment over 45% in the same period. It has been impossible for funding to keep pace with the enrollment increments. As a result Montana State University has adopted an efficient and effective system of assessing programmatic needs that incorporates faculty, student and administrative input to the final budget process.

Since the new formula recognizes appropriate funding for enrollment and increased support costs, the bulk of the funds proposed in the Fiscal Analyst's budget will be allocated to the academic and instructional units by our standard processes after the budget is finalized. To do so prematurely would cause serious morale problems between units and among faculty should the proposed resources fail to materialize. Therefore, the MSU program allocations presented in this document reflect the manner in which the funds were generated by the new guidelines. Within each program the allocations to categories were based upon the Fiscal Analyst's recommended faculty and staff salary levels. This approach provided significant increases in average salary levels as well as some equity adjustments for special cases. The additional faculty will bring the student-faculty ratio closer to 19:1 than it has been for some time. The addition of FTE to support programs will assist in alleviating deficiencies in these areas.

Although the administration and the budget review and planning committee at Montana State University are generally satisfied with the new guidelines, there are several special issues that appear to have escaped the formula. First among the exceptions appears in the allocation for the Physical Plant. The proposed appropriation for 1981-82 was driven by actual expenditures in FY 79-80, a year in which the university experienced a 60 day strike of all custodians and grounds personnel. During this period no salary expenditures were incurred for these individuals making the year's total expenditures "light" by a corresponding amount.

A second factor not recognized by the guidelines is the problem peculiar to the School of Nursing. The new formula addresses the problem of appropriate funding for the on-campus university enrollment. The School of Nursing, however, operates four extended campuses for instruction of clinical nursing courses. Each such campus must have a full complement of clinical instructors at a student-faculty ratio of about 4:1. A modified program request for additional funding for these extended nursing campuses will be presented as a separate document.

The third special issue not addressed by the guidelines is the need for matching funds for the MONTS program. This NSF approved project will provide \$2.3 million for the advancement of the research establishment of the Montana University System. To take advantage of this grant it is necessary that the State of Montana express its interest in the research and development activities of Montana State University, the University of Montana and Montana Tech by providing matching money. First year matching would require \$200,000 and the second year would require \$300,000.

In summary, Montana State University will use the money generated by the formula to fund existing enrollment needs and to restore some of the support programs that have deteriorated or been lost over the past several years.

PROGRAM: <u>SUMMARY</u>	FTE 19	980-81 AMOUNT	FTE FTE	81-82 AMOUNT	1982 FTE	2-83 AMOUNT
FACULTY	501.9	\$ 10,841,269	535.3	\$ 13,285,539	531.5	\$ 14,378,437
GTA	42.5	541,929	42.5	590,703	42.5	643,866
STAFF	537.0	7,884,839	<u>577.8</u>	9,487,552	577.8	10,341,345
TOTAL FTE	1081.4		1155.6		1151.8	*
		<u> </u>				
PERSONAL SERVICES		\$ 22,540,158	•	\$ 27,844,217		\$ 30,227,756
<b>OPERATIONS</b>		4,750,431		5,160,430		5,586,694
CAPITAL		1,260,590		2,263,766		2,391,685
FEE WAIVERS		544,002		565,077		586,710
TOTAL		\$ 29,095,181		\$ 35,833,490		\$ 38,792,345

GRAM: INSTRUCTION	1980-81	1981-80	1982-83
	FIE AMOUR	FTE AMOUNT	FTE AMOUNT
FACULTY	501.9 \$ 10,841,269	535.3 \$ 13,285,539	531.5 \$ 14,378,437
AT	42.5 541.929	42.5 590,703	42.5 643,866
STAFF	114.1 1,240,384	125.0 1,473,269	125.0 1,605,863
TOTAL FTE	658.5	702.8	699.0
_			
ERSOMAL SERVICES	\$ 14,695,128	\$ 18,265,918	\$ 19,787,517
OPERATIONS	1,259,575	1,338,327	1,427,068
TAPITAL	469,935	618,828	659,867
JEE MAIVERS	-0-	-0-	-0-

\$ 16,424,638

TOTAL

Montana State University uses a system of student, faculty and administrative input to the distribution and re-distribution of instructional resources. Faculty, staff, and operational budgets are assigned using a set of criteria that includes enrollment and enrollment trends, institutional priorities, University System priorities, and departmental or college vigor (merit). Staff additions in 1981-82 will be assigned using the present system. Some reassignments of existing staff may also occur. New instructorships will be established in mathematics, replacing Graduate Teaching Assistants. These GTA positions will be reassigned to other departments that need instructional assistance. Examples of such departments include chemistry, physics, microbiology, and engineering. Several positions will be absorbed by the summer session in the conversion from the 2/9 to the 3/9 funding scale and through an increase in summer session activity; e.g., English composition and interdisciplinary courses.

\$ 20,223,073

\$ 21,874,452

It should be noted that the enrollment driven allocation system does not address the problem of the multiple extended campuses in the School of Nursing. At each extended campus the full complement of clinical instructional staff must be replicated, a situation that is not represented in the group of peer institutions. The new guidelines provide the faculty needed to meet the increased enrollment but the guidelines do not address the problem of the multiple clinical instruction sites.

<u>Staff:</u> New positions will be allocated to those colleges and departments that have incurred the greatest enrollment growth.

Operations: For the past several years, MSU had to transfer funds from Capital and Personal Services to meet its needs in Operations. This biennium the first priority for program modification support in the request to the Regents was for Operations dollars. The need continues high and the level of funding provided in the 1981-83 budget proposal provides significant increases in operations.

Capital: At evidences above and in previous amendments, operations costs have been met to the term of fonce out of capital. Sacrificed have been instruction equipment and library acquisitions. The recently adopted formula addresses capital needs more appropriately.

PROGRAM: RESEARCH	1980-			31-82		32-83	
FACULTY	FTE	TNUOMA	FTE	AMOUNT	FTE	AMOUNT	
				-			
GT/.	17.9	404,946	16.7	\$ 429,630	16.7	\$ 468,297	_
STAFF		404,940	10.7	\$ 429,630	10.7	\$ 400,237	
TOTAL FTE	17.9		16.7		16.7		
							-
	_		7		7		
PERSONAL SERVICES	\$	469,047		\$ 511,260		\$ 557,273	
OPERATIONS	:	23,515		25,000		27,261	
CAPITAL		7,000	-	.6,077		6,627	

-0-

499,562

#### Research allocations to:

FEE MAIVERS

TOTAL

#### Engineering Experiment Station (EES)

The EES is a separately budgeted activity within the College of Engineering to provide support to faculty for maintaining and initiating research programs. Faculty members prepare proposals that are competitively evaluated for support. Most research is mission oriented or applied and serves to strengthen the economy of the state. A major emphasis is in coal research (materials and liquefaction), water resources and transportation systems Other projects in solar, hydrology, and biofouling have been and will continue to be supported. There will be increased emphasis on basic research in critical areas including avalanche dynamics, environmental engineering and turbulence structures, and stability of stream flows.

-0-

\$ 542,337

-0-

\$ 591,161

#### (2) Institute of Applied Research

These funds are used to initiate new projects or maintain a high level of research by outstanding faculty in colleges where experiment stations or other state research monies are not available.

Faculty projects undergo annual reviews and reappointments. Research FTE allocations are made on the basis of performance and potential to excel. Modest levels of funding are offered for operations, library acquisitions and travel.

PUBLIC SERVICE	<u> </u>	0-81		1-82		2-83
•	FTE	TAUOMA	FTE	AMOUNT	FTE	AMOUNT
FACULTY						•
• GTA	,					
STAFF	.1	\$ 4,100	.2	\$ 7,994	.2	\$ 8,626
TOTAL FTE	.1		.2		.2	
•					* · · · · · · · · · · · · · · · · · · ·	•
•			1		1	
PERSONAL SERVICES		\$ 4,748		\$ 9,513		\$ 10,265
* OPERATIONS		-0-		-0-		-0-
CAPITAL		-0-		-0-		-0-
FEE MAIVERS		-0-		-0-		-0-
TOTAL		\$ 4,748		\$ 9,513		\$ 10,265

Public Service for the most part is included in the functions of the Agricultural Experiment Station and the Cooperative Extension Service. The amounts above represents components of the salary of the alumni relations officer who also serves as a public affairs representative. In this capacity the individual directs the High School Week program and assists in admissions, homecoming, national collegiate rodeo, and summer orientation. The increased (0.1 FTE) reflects the actual time devoted to university public service functions.

PROGRAM: ACADEMIC SUPPORT

,#		0-81		11-82		2-83
FACHITY	FTE	AMOUNT	FTE	<u>A:10UNT</u>	FTE	AMOUNT
FACULTY				•		
• GT/-	130.3	\$ 2 <b>,266,</b> 180	142.3	\$ 2,756,226	142.3	\$ 3,004,286
STAFF		\$ 2,200,100		\$ 2,750,220	<del> </del>	3 3,004,200
TOTAL FTE	130.3		142.3		142.3	

\$ 2,660,207		\$ 3,279,909
		366,141
552,000		1,226,984
-0-		-0-
\$ 3,504,790	•	\$ 4,873,034
	-0-	<b>292,</b> 583 <b>552,000</b> <b>-0-</b>

\$ 3,575,100 386,937 1,296,674 -0-\$ 5,258,711

Academic support dollars will be used to improve the library holdings and to improve library service. The acquisitions budget will be increased by \$500,000 over the existing capital budget. Purchases will include books and serials. Staff will be added to help process the new additions and to provide additional services to users. Positions to be filled include a librarian to handle the new computer reference facilities, a catalogs librarian, and a technical services staff member.

A second area of support will be in continuing education and continuing education medical education. Allocations to these areas will be proportional to the number of academic credit hours that are generated through our continuing education and extended campuses programs. A significant amount of the costs will continue to be carried by user fees.

Support will also be given to our honors program for staff and operations. The honors program was one of the academic opportunities that was sacrificed over the past several years as we tried to meet the basic needs of increased enrollments.

Some additional support will be given to the Academic Vice President to compensate for the burden of the increased enrollments. No increase in assistance has been awarded this office for eight to ten years.

OGRAM: ACADEMIC SUPP (Library or		nigi	100	31-82	198	2-83
	FTE	AMOUNT	FTE	AJOUNT	FTE	AMOUNT
FACULT"						
GTÆ						
STAFF	54.1	\$ 719,152	58.1	\$ 864,203	58.1	\$ 941,981
TOTAL FTE	54.1		58.1		58.1	
•						
_						
PERSONAL SERVICES		\$ 852,329		\$ 1,028,402	]	\$ 1,120,958
<b>-</b>		26,563		31,371		33,153
OPERATIONS	·	·		·		1,245,874
- CAPITAL (1)	i	515,500		1,178,914		
FEE MAIVERS		-0-		-0-		-0-
TOTAL	,	\$ 1,394,392		\$ 2,238,687	]	\$ 2,399,985
-						
(1) Capital:						
Library a	acquisi-	\$ 445,000		\$ 1,178,914		\$ 1,245,874
Equipmen	t	70,500		-0-		
		\$ 515,500		\$ <u>1,178,914</u>		\$ 1,245,874

OGRAM: STUDENT SERVICES

er .	1980-81		1981-82		1982-83	
•	FTE	AMOUNT	FTE	AMOUNT	FTE	TAUOMA
FACULTY						
GTA						
STAFF	101.2	\$ 1,595,437	111.2	\$ 1,959,906	111.2	\$ 2,136,298
TOTAL FTE	101.2		111.2		111.2	

PERSONAL SERVICES	\$ 1,886,787	\$ 2,332,288	\$ 2,542,195
OPERATIONS	642,973	804,891	850,607
CAPITAL	3,000	3,951	4,175
FEE MAIVERS	-0-	-0-	-0-
TOTAL	\$ 2,532,760	\$ 3,141,130	\$ 3,396,977

For the past ten years, enrollments have been increasing significantly at Montana State University, but funding for the Student Services support areas has not increased. Major program growth and demand have occurred, particularly in Financial Aid, Career Placement, Counseling, Intramurals & Recreation, and Handicapped Services as a direct result of the enrollment increase. In addition, federal regulations and new financial aid programs in the past 2-3 years have overburdened clerical and professional staff. With significant increases in students enrolled in engineering, sciences, and business, placement services have nearly doubled in recent years and will continue to increase in the future. Overcrowding on the campus and increased academic pressures have added many demands on the Counseling staff to the degree that students must now wait up to three weeks to make appointments. Women and co-ed intramurals have had a dramatic impact on services required and staff needed in Intramurals & Recreation programs. The number of handicapped students at MSU has grown from basically very few to over 200 this year.

'OGRAM: STUDENT SERVICES

(Men's Intercollegiate	1980-81		1981-82			<b>2-</b> 83
Athletics)	FTE	AMOUNT	FTE	A! IOUNT	FTE	AMOUNT
FACULTY						
GT;						
STAFF	17.3	\$ 325,455	18.3	\$ 390,518	18.3	\$ 425,665
TOTAL FTE	17.3		18.3		18.3	
TOTAL						

PERSONAL SERVICES	\$ 382,424	\$ 464,716	\$ 5
OPERATI ONS	226,646	272,669	7
CAPITAL ·	-0-	-0-	
FEE MAIVERS	-0-	-0-	
TOTAL	\$ 609,070	\$ 737,385	\$
<b>∀</b>			

\$ 794,696 te the coaching

506,540

288,156

-0-

-0-

Men's Intercollegiate Athletics will receive an increment to complete the coaching staff in track and Nordic skiing. A small increase in operations will be used to provide support for Nordic skiing.

It should be noted that in the Big Sky Conference the two Montana universities are among the lowest in support for Men's Intercollegiate Athletics. It is doubtful that the additional amounts allocated above will significantly alter our competitive position.

1980-81

PROGRAM: STUDENT SERVICES comen's Intercollegiate

**OPERATIONS** 

FEE MAIVERS

TOTAL

CAPITAL

Athletics)	FTE	AMOUNT	FTE	THUOINT	FTE	AMOUNT
FACULTY			•			
GT:		:				
STAFF	9.9	\$ 187,848	12.9	\$ 268,299	12.9	\$ 292,446
TOTAL FTE	9.9	1	12.9		12.9	
		· · · · · · · · · · · · · · · · · · ·		<u> </u>		
PERSONAL SERVICES		\$ 220,393		\$ 319,276		\$ 348,011

144,403

\$ 364,796

-0-

-0-

1981-82

190,540

\$ 509,816

-0-

-0-

1982-83

201,362

\$ 549,373

-0-

-0-

In 1975, Montana State University was judged to have discriminated against its women faculty members. Subsequently, in 1979, the University was the only public college or university in Montana selected for a Title IX audit. All components of Montana State University passed the audit with the exception of the intercollegiate athletics for which the final guidelines had not been finalized. Our concern for meeting the requirements of Title IX in both the spirit and intent of the law is reflected in our allocation of resources to Women's Athletics.

In the 1981-83 biennium we will complete the equity adjustment for Women's Athletics by adding three professionals to the staff, increasing operations to reflect increased participation in several sports and adding fee waivers for participants. (see narrative on Fee Waivers).

OGRAM: INSTITUTIONAL SUPPORT

	FTE	AMOUNT	FTE	AMOUNT	FTE	AMOUNT
FACULTY				•		
ST/.						
STAFF	94.5	\$ 1,431,169	103.5	\$ 1,760,185	103.5	\$ 1,918,602
TOTAL FTE	94.5		103,5		103.5	
ı						
ı						
	•		-		$\neg$	
PERSONAL SERVICES		\$ 1,685,802		\$ 2,094,620		\$ 2,283,136
OPERATIONS		<b>598,43</b> 8		706,755		746,897
CAPITAL		132,632		174,753		184,679
FEE MAIVERS		-0-		-0-		-0-
TOTAL		\$ 2,416,872		\$ 2,976,128		\$ 3,214,712

1981-82

The nine new positions in this program represent the strengthening of existing support functions and not the addition of new support functions. Personnel would be added in such areas as internal audit, property control and contracts and grants administration.

OGRAM: PHYSICAL PLANT

					82-83 AMOUNT
1	2.2.3.11				
78 9	<b>\$ 942.6</b> 23	78.9	\$ 1.032,542	78.9	\$ 1,125,471
	3 3 12,020	78.9		78.9	
	78.9 78.9	78.9 \$ 942,623	78.9 \$ 942,623 78.9	78.9 \$ 942,623 78.9 \$ 1,032,542	78.9 \$ 942,623 78.9 \$ 1,032,542 78.9

PERSONAL SERVICES	\$1,138,439	· :	\$ 1,270,027	\$ 1,384,3
PERATIONS	1,933,347		1,868,798	2,082,1
APITAL : ==	96,023 -0-		108,173 -Ō-	114,6
TOTAL	\$3,167,809		\$ 3,246,998	\$ 3,581,1

The proposed L.F.A. Physical Plant budget is not formula generated but is an historically based budget generated by applying inflation factors to the 1970-80 level of expenditures. Inherent in this approach is the assumption that the base year (1979-80) reflected a "normal" operational level and that the inflation factors adequately reflect price increases incurred since the base year.

MSU's personal services expenditures for the base year (1979-80) do not reflect a normal operational level because of a labor strike lasting approximately two months in early 1980. The strike affected most of the Physical Plant labor force causing a significant reduction in personal services cost for the two month period.

If MSU is to maintain the Physical Plant staff at the FTE level of 1979-80 and at the estimated pay plan rates, the proposed personal services budget for 1981-82 must be increased by \$128,696 from the L.F.A. proposed \$1,141,331 to \$1,270,027. This increase was transferred from the operations budget.

The proposed L.F.A. operations budget provides \$1,527,984 for 1981-82 utilities, an increase of only \$24,856 or 1.7% over the current 1980-81 estimate used in the supplemental appropriation request. If a utility rate increase of 20% is assumed for 1981-82 an additional \$275,769 will be required to provide an estimated utility cost of \$1,803,753. The total requested increase for 1981-82, if the above assumptions are accepted, is \$128,696 for personal services and \$275,769 for utilities, or a total of \$404,465. Appropriate inflationary factors should be applied to adjust the total for the second year of the biennium.

OGRAM: SCHOLARSHIPS FELLOWSHIP.						
1 ELEOWSHITT	198	18-0		1-82		2-83
	FTE	TMUOMA	FTE	AHOUNT	FTE	AMOUNT
FACULT				•	-	
GT/			1			
STAFF						
TOTAL FTE						
			<b></b>			
		•				
			•		ı .	*
PERSONAL SERVICES		\$ -0-		s -0 <b>-</b>		\$ -0-
OPERATIONS		-0-		-0-	i	-0-
CAPITAL		-0-		-0-		-0-
FEE MAIVERS		544,002	**************************************	565,077		586,710
TOTAL		\$ 544.002		\$ 565,077		\$ 586.710

Prior to 1979, over \$100,000 per year had been allocated to in-state students for Advanced Honors fee waivers; recognizing outstanding achievement and potential of Montana high school students. Due to inadequate discretionary fee waivers in 1979-80, these Advanced Honors and need waivers were eliminated. A small amount (\$25,000) from reductions in other categories was allocated in 1980-81 for Advanced Honors fee waivers.

With increased discretionary fee waivers, MSU would re-establish the Advanced Honors fee waivers and the need waivers at the pre-1979 level. In addition, an equity adjustment for Women's Athletics would be made allocating additional in-state and non-resident fee waivers. All other discretionary categories will remain approximately at the same level as 1980-81.

)GRAM: UNALLOCATE	D INDIRECT				
COSTS	1930-81		1-82		2-83
	FTE AMOUNT	FTE	AMOUNT	FTE	TAUOMA
FACULTY			•		
STA					
<b>STAFF</b>		3.0	\$ 67,800	3.0	\$ 73.902
TOTAL FTE		3.0		3.0	
<b>,</b>					
	-	<del></del>		1	·
PERSONAL SERVICES			\$ 80,682		\$ 87,943
OPERATIONS			50,518		65,757
- CAPITAL			125,000		125,000
FEE MAIVERS			<del>_</del> 0-		-0-

#### Indirect cost monies will be used to:

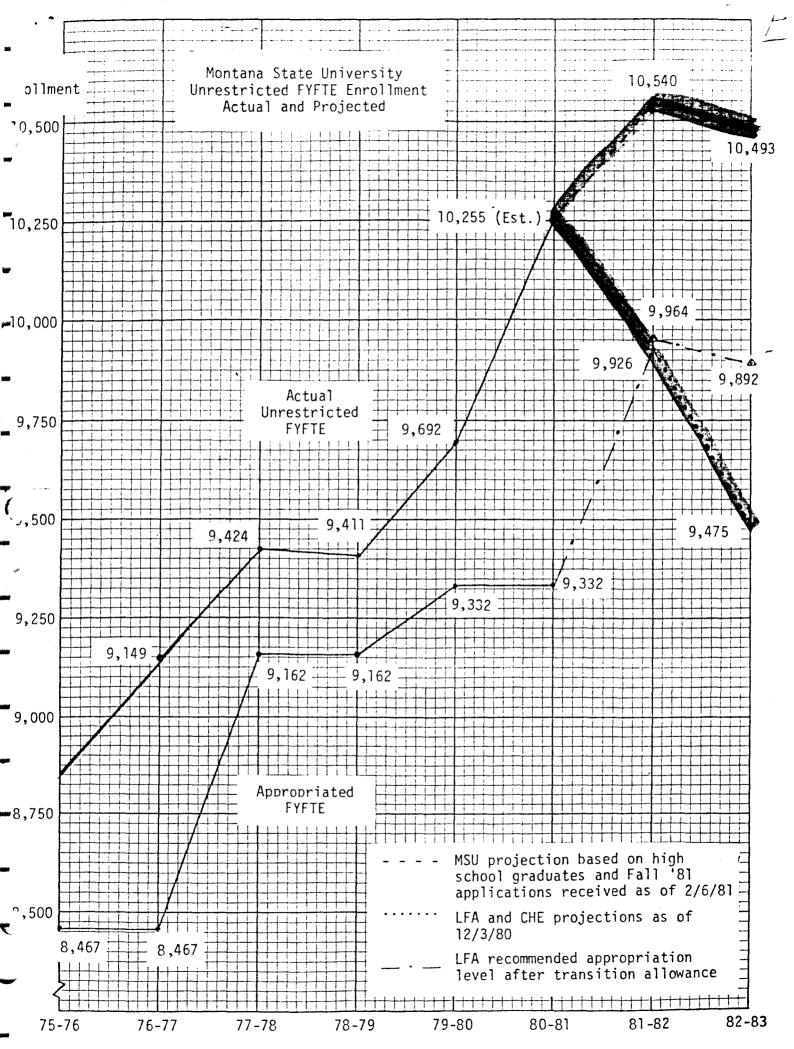
TOTAL

Reimburse, in part, those departments that have incurred cost in conducting research and/or those that have been determined to be necessary to initiate or support the research activities of the faculty.

\$ 256,200

\$ 278,700

- To provide research resources and services for faculty and students which are other-2. wise not provided by state appropriations and which serve the overall campus community. Such resources and services would include among other things, library materials, computer and statistical services, data files, etc.
- To upgrade and purchase major equipment items to broadly support the facult research effort.
- To promote the professional development of new faculty and those who desire to reestablish themselves in another research endeavor.
- To renovate or remodel facilities to more effectively meet research needs. 5.



Notes for the FYFTE Enrollment Chart

#### Actual Enrollments

FY 75-76

Unrestricted Enrollment - The term "unrestricted" was not used prior to 1976. The line back to 75-76 parallels the general FYFTE growth rate of the university between 75-76 and 76-77.

9332 vs 9309

The Formula Budget Cost Study used 9309 as a budgeted enrollment level for 79-80. The 9332 includes 23 FYFTE added to the original LFA recommendation.

#### Estimated Enrollment (1980-81)

10,255

This estimate, prepared by the Commissioner's Office has been used for recent budget preparations. New winter quarter data will result in a revised estimate very close to this figure. The LFA budget analysis uses 10,274; a slightly earlier estimate.

#### Projected Enrollment (1983 Biennium)

10,540 and 10,493 These enrollments were projected by the MSU Office of Institutional Research by converting projected fall headcount enrollment to FYFTE enrollment. The headcount projections used a five year pool of Montana high school graduates and college enrollment rates to project the number of students expected to arrive on the MSU campus (Rose memo of 11/17/80). The conversion to FYFTE was by a three year average method used by the Commissioner's Office (described in Hample memo to Dunham (12/16/80).\*

9926 and 9475

As reported in the LFA <u>Budget Analysis</u>, 1983 <u>Biennium</u>, p. 554 prior to transition allowance.

△ levels

LFA analysis, p. 554, uses a three year average to provide a "transition" adjustment. This results in recommended budgeted enrollment levels for MSU of 9964 and 9892 for the 1983 biennium.

SRH/jh 2/4/81

<sup>\*</sup> Late note: Applications for the next fall quarter are up 12.7% over those received at this same time last year.

### MONTANA STATE UNIVERSITY 1981-83 BIENNIUM MODIFIED LEVEL BUDGET REQUEST

#### FUNDING MODIFICATION FOR MAJOR BUILDING MAINTENANCE

Montana State University is requesting a funding modification for major building maintenance projects of \$340,500 during the 1981-83 biennium. Funding was originally requested from the long range building program but the Regents subsequently determined that the projects would more properly be funded from current operating funds appropriations.

#### The projects are as follows:

Health and Physical Education Building - Repair office area	\$ 3,700
Johnson Plaza - Replace brick	5,000
Traphagen Hall - Repair stone facia	3,500
Library - Repair main concrete canopy at north entrance	8,200
Service Shop - Repair sheet metal roof	4,200
Campus - Replace sidewalks	25,000
Roberts Hall - Exit stairways, separation of mechanical rooms, exit doors with a l-hour rating, exit lighting and exit corridor	80,000
Campus - Replace soda-acid fire extinguishers with pressurized ABC multi-purpose fire extinguishers	6,000
Roberts Hall - Emergency lights for fourth floor and second floor halls, east end	1,500
Linfield Hall - Replace steps east entrance, replace carpet Room 301	6,000
Lewis Hall - Replace standpipe hose in basement, and provide exit enclosures to comply with 1979 UBC, Section 3308	125,000
Service Shop - Pave yard	60,000
Gatton Field - Replace brick pedestrian entrance	5,000
Traphagen Hall - Paint and repair 3rd and 4th floors	\$ 7,400

Campus by Campus Costs (Projected)

	1981-82	1982-83
Great Falls		
Faculty (9AY FTE)	\$268,092	\$306,576
Support Personnel (2FY FTE incl.	E.B.)\$24,942	\$27,436
Operations	\$20,550	\$22,600
Capital	\$5,300	\$5,800
. Total (Great Falls)	\$318,884	\$362,412
Butte		
Faculty (9AY FTE)	\$268,092	\$306,576
Support Personnel (2FY FTE incl.	E.B.) \$24,942	\$27,436
Operations	\$20,550	\$22,600
Capital	\$5,300	\$5,800
Total (Butte)	\$318,884	\$362,412

#### Campus by Campus 1981-82 Proposed Budget

Campus	Enrollment	Prof* FTE AY	\$\$	Support FTE FY	\$	OPR	CAP	Total
Blgs	≤ 120	18	536,184	3	37,695	42,900	10,600	627,379
Msla	<b>≤</b> 120	18	536,184	3	34,731	42,900	10,600	624,41
G.F.	≤ 60	9	268,092	2	24,942	20,550	5,300	318,884
Butte	<b>≤</b> 60	. 9	268,092	2	24,942	20,550	5,300	318,884
Bzn*	<b>≤</b> 240	7	208,516	5	76,136	19,050	9,000	312,70:
General	School Oner	ations (	Costs			64,700		64,700
TOTALS	600	61	1,817,068	15	\$198,446	\$210,650	\$40,800	\$2,266,964

NOTE: \* Does not include Dean and Assistant Dean Salaries

### Campus by Campus Costs (Projected)

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Bozeman (Enrollment 240)	1981-82	1982-83
Dean and Assistant Dean (2FY F	TE) (Not Incl)	
Faculty (7AY FTE)	\$208,516	\$238,455
Support Personnel (5FY F	TE incl E.B.)	
	\$76,136	\$83,745
Operations		
For Bozeman Instruction	\$19,050	\$21,000
For School wide costs (See	e attached)	
Capital	\$9,000	\$9,900
		<del></del>
Total (Bozeman)	\$312,702	\$353,100
Pillings		
Billings		*
Faculty (18AY FTE)	\$536,184	\$613,152
Support Personnel (3FY FTE incl	1 E.B.) \$37,695	\$41,464
Operations	\$42,900	\$47,200
Capital	\$10,600	\$11,700
<u>Total</u> (Billings)	\$627,379	\$713,516
Missoula		
Faculty (18AY FTE)	\$536,184	\$613,152
Support Personnel (3FY FTE inc.	1. E.B.)\$34,731	\$38,205
Operations	\$42,900	\$47,200
Capital	\$10,600	\$11,700
Total (Missoula)	\$624,415	\$710,257

### MONTANA STATE UNIVERSITY UNIVERSITY LEARNING RESOURCE CENTER

### Budget--1981-83 Biennium

#### Personnel Services

Faculty/Staff		
<ol> <li>Director</li> <li>Service/Repairman</li> </ol>	\$ 22,000 13,000	\$ 24,200 19,800
Classified		
l. Secretary Hourly help	10,000 6,000 56,000	11,000 8,000 63,000
Operations		
Supplies & materials Communications Travel Repair & maintenance	9,000 1,500 2,250 2,250 15,000	10,700 1,500 2,400 2,400 17,000
<u>Capital</u>		
Repair shop setup** Audio-visual hardware (new and repl) Non-print materials****	25,000 42,500 36,500 104,000	20,000
Total	\$175,000	\$100,000

<sup>\*&#</sup>x27; Tools, electronic service/
testing gear

<sup>\*\*\*\*</sup>Tapes, films and other software

### MONTANA STATE UNIVERSITY 1981-83 BIENNIUM MODIFIED LEVEL BUDGET REQUEST -

#### UNIVERSITY LEARNING RESOURCE CENTER

For several years, the University administration has considered the desirability of expanding the collection of audio-visual materials housed in Renne Library into a full-fledged learning resource facility which would include both hardware and software resources. Such a facility would have the advantage of providing both coordinated campus-wide service and considerable economic benefits. It will require space renovation, and service to users would be handled by staff especially trained to provide a high level of expertise in the maintenance and utilization of resources and associated equipment. Budget figures shown below anticipate hiring a director to inventory resources on campus and to plan facility and service components while space renovation is underway.

The University Learning Resource Center would serve four major campus functions:

- Audio-visual equipment supply and repair. Slide projectors, tape recorders, movie projectors, etc., would be available on request for on-premises and classroom use. Repair service would be provided full-time.
- 2. Film library organization and loan. Film resources on campus (including video tapes) would be inventoried, collections centralized where feasible, and circulation to users organized to make best use of existing resources.
- 3. Media production. Media production services would provide a facility capable of producing presentations for academic programs and students on special projects. Staff would provide instruction in production techniques, presentation modes, and content design.
- 4. Photo Service and Processing Laboratory. This service would provide developing and processing service to the campus.
- 5. Graphics Production. This operation provides design and construction of charts, slides, graphs, illustrations and exhibits for instruction and recognized campus functions. It is now housed in the Library basement.

The nucleus of the University Learning Resource Center would be the collection of hardware and software presently housed in the Library. Listening and viewing equipment and extensive files of films, microforms, recordings, audio and video tapes would be brought together from various locations in the Library. Special storage equipment would be consolidated in this central location.

Start-up costs are difficult to estimate. They depend, to a great extent, on how much of the under-utilized equipment on campus can be directed into such a center. The cost of a repair shop and repairman will be significant. Substantial funding for software resources is essential, since audio-visual materials, particularly films and video tapes are expensive. The salary of a director must be adequate to assure a top quality administrator for planning and setting up such a facility.

Budget - 1981-82

\$175,000

Budget - 1982-83

100,000

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	NO. OF	TOTAL	TOTAL	NO. OFFERS	OFFER	 œi	٠ 1		T.	ACCEPT
ENCINEERING DEPARTMENT	STUDENTS REPORTING	NO. OF GRADS	NO. OF OFFERS	PER STUDENT REPORTING	TOTAL \$/MO.	AVE. \$/MO.	TOTAL AVE. \$/MO. \$/MO.	HIGH \$/MO.		LOW \$/MO.
ENGINEERING SCIENCE	*5	9	11	2.2	19,670	1,788	9,300 1,860	0 2,600		1,500
ENVIRONMENTAL ENGR.	5*	6	6	1.8	16,081	1,787	9,166 1,833	3 1,917		1,800
GEOLOGICAL ENGR.	*9	6	14	2.3	25,747	1,839	12,372 2,062	2 3,200		1,700
GEOPHYSICAL ENGR.	e	7	11	3.7	19,975	1,816	6,175 2,058	8 2,750		1,775
METALLURGICAL ENGR.	**	9	13	4.3	22,602	1,739	5,350 1,783	13 1,800		1,750
MINERAL PROCESSING ENGR.	7	7	16	4.0	29,004	1,813	7,371 1,843	3 2,288		1,700
MINING ENGINEERING	23*	28	53	2.3	94,064	1,775	41,071 1,786	16 2,288		1,600
PETROLEUM ENGINEERING	30	37	134	4.5	267,034	1,993	60,676 2,022	2 2,785		1,500
OVERALL	79****	103	261	3.3	494,177	1,893	151,481 1,917	7 3,200		1,500
	· · · · · · · · · · · · · · · · · · ·	(+50.7%)			•	(+15.8%)	(+15.2%)	(%;		

\*\*\*...EACH \* REPRESENTS ONE STUDENT REPORTED GOING TO GRADUATE SCHOOL

PLACEMENT OFFICE
MONTANA COLLEGE OF MINERAL SCIENCE AND TECHNOLOGY
BUTTE, MONTANA

PREPARED BY: G. STOLZ, JR. DIRECTOR OF PLACEMENT

JULY 23, 1980

#### VISITORS' REGISTER

### HOUSE JOINT APPROPRIATION SUB COMMITTEE ON EDUCATION

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PLEASE LEAVE PREPARED STATEMENT WITH SECRETARY.

#### VISITORS' REGISTER

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IF YOU CARE TO WRITE COMMENTS, ASK SECRETARY FOR LONGER FORM.

PLEASE LEAVE PREPARED STATEMENT WITH SECRETARY.

# MONTANA VOCATIONAL EDUCATION STUDY EXECUTIVE SUMMARY

#### Prepared for

The Montana State Advisory Council for Vocational Education

and

The Superintendent of Public Instruction

by

Thomas R. Owens, Ph D.
Education and Work Program
Northwest Regional Educational Laboratory
710 Southwest Second Avenue
Portland, Oregon 97204



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#### INTRODUCTION

This report summarizes an eight-month study to investigate the perceptions of a sample of employers and of high school and postsecondary students who completed a vocational education program in Montana in 1976. We wished to learn their perceptions of the quality of vocational education components, student outcomes from vocational training and its relationship to their current jobs, and the extent to which vocational education is meeting the labor market needs of Montana. The study was conducted by the Education and Work Program of the Northwest Regional Educational Laboratory under contract to the Montana State Advisory Council for Vocational Education and the Superintendent of Public Instruction. Planning of this study and development of survey instruments involved the close collaboration of representatives from all three agencies.

The overall plan of the study called for telephone interviews with a sample of employers and a mailed guestionnaire to be sent to a sample of employers in Montana, to a sample of 1976 high school vocational education completers and to a sample of 1976 postsecondary vocational education completers. The class of 1976 was selected because those young people had been out of school long enough to get into regular careers or further education and would have had enough taste of the adult world to determine how well their vocational training prepared them. At the same time, they would not have been out of their vocational training programs for so many years that the delivery strategies they would be assessing would have changed drastically since their participation.

#### High School Sample

The high school vocational followup survey was completed by 152 former students out of 524 surveyed, thus giving a 29 percent response rate. Responses were received from each of the six high schools in the sample. Fifty-eight percent of the respondents were females and 94 percent of the respondents were Caucasian. Two percent of the respondents were Native American, 1 percent was Black and 1 percent was Hispanic. The largest number of respondents took courses in office occupations. Those completing the survey had been in vocational education an average of four semesters.

#### Postsecondary Sample

The postsecondary vocational education survey was completed by 179 respondents out of the 600 sampled, thus giving a 30 percent response rate. Response rates ranged from 37 percent at one vocational-technical center to 22 percent at another. Billings, Great Falls and Helena Vocational-Technical Centers provided the largest number of respondents for this study.

Forty-three percent of the postsecondary respondents were female. Ninety-five percent of the postsecondary respondents were Caucasian, 2 percent Native American, 1 percent Hispanic and 1 percent Black. Forty-seven percent were under 25 years of age, 34 percent between 25 and 35 years of age and 17 percent over 35 years of age. Thirty-four percent of the respondents reported that they had been enrolled in the trade and industrial area, 21 percent were in health, 18 percent in office occupations, 7 percent in agriculture, 5 percent in technology, 1 percent in food services and 1 percent in distributive education.

#### Employer Sample

The employers to be surveyed came from two major groups. The first group represented 30 companies recommended by the vocational-technical centers because they employed a substantial number of postsecondary vocational completers. Out of this group, we received a 50 percent return rate. The second group consisted of the random sample of members of the Montana State Chamber of Commerce and of the 20 companies employing the largest number of workers in the state. Of these 326 companies, we received a response rate of 24 percent plus letters from ten companies explaining that they employed no vocational education completers and, therefore, felt unqualified to respond to the survey.

#### Findings

The major findings from this study will be highlighted by organizing information around key questions. These questions center around (1) perceptions of vocational education and its outcomes, (2) current employment or educational status of vocational education completers and its relationship to vocational training received and (3) recommendations for improving vocational education.

#### 1. Perceptions of Vocational Education and Its Outcomes

#### a. Why do students enter vocational education programs?

At both the high school and postsecondary level the most frequently cited reason for joining a vocational training program was to learn specific job skills. However, it was interesting to see that other reasons play an important role. For example, 29 percent of the high school students and 12 percent of the postsecondary students joined a vocational program because they had an interest in the area, although they never intended to get a job in that area. Another important reason for joining at the postsecondary level was to update job skills.

#### b. How do program completers rate their former program?

Both high school and postsecondary vocational education completers were asked to rate various characteristics of their vocational program. Former students at both levels gave highest marks to the quality of the instruction and to the up-to-dateness of the equipment and materials. Although work experience was a part of less than half the students' experiences, those who were in it rated it as very

satisfactory. Areas of greatest dissatisfaction were help in finding a job after program completion and career counseling. At the high school level but not at the postsecondary level, at least a quarter of the students were dissatisfied with opportunities to learn about nontraditional careers.

#### c. How well prepared are vocational education completers?

All three groups--high school, postsecondary and employers--were asked to rate how well vocational education programs prepared their completers. Areas rated high by all groups were: good work habits and attitudes, overall effectiveness as an employee and ability to get along with others. In general, postsecondary completers rated themselves higher than did high school completers. Employers rated postsecondary completers significantly higher on these outcomes than they rated high school completers. Areas rated lowest by these three groups were pre-employment skills and awareness of negative aspects of a job. Overall, 90 percent of the high school and 95 percent of the postsecondary completers were satisfied with the vocational training they received. This compares favorably with the fact that only 77 percent of the high school completers were satisfied with the general (nonvocational) high school education they received.

#### 2. Current Employment or Educational Status

#### a. What proportion of the program completers are currently employed?

At the high school level, 68 percent of the vocational education completers were employed full-time, 13 percent part-time and 18 percent were unemployed. At the postsecondary level, 80 percent were working full-time, 7 percent part-time and 13 percent were unemployed. Of those employed, 5 percent of the high school completers and 17 percent of the postsecondary completers were self-employed. Most of the people who were unemployed indicated it was because they were homemakers or continuing their education. Very few were unemployed because they were inadequately trained or because there were no openings in the area for which they were trained.

### b. How important was vocational education for the completers in getting their jobs?

Fifty-three percent of the high school completers and 40 percent of the postsecondary completers felt they could have obtained their jobs without their vocational training. However, 68 percent and 78 percent respectively said that course work associated with their training was helpful in performing their jobs.

#### c. How do their jobs match with the vocational training received?

Vocational education completers were asked to judge the extent to which their current job matches their vocational training. At the high school level, 22 percent indicated their job was directly related to their training and 43 percent indicated it was indirectly related. At the postsecondary level, 44 percent are in jobs directly related to their training and 35 percent are in jobs that are indirectly related. These figures appear guite favorable, especially considering that some students entered vocational education with no intention of obtaining work in that career field.

### d. What proportion of high school vocational education completers are in school now?

Of the high school completers, 43 percent are or were currently enrolled in postsecondary education. Twenty-two percent of those enrolled are taking courses highly related to their high school vocational program and 41 percent are in courses that are somewhat related. Most of those involved in postsecondary education now are in four-year colleges.

### e. How well does the supply of and demand for vocational education completers match?

A guestion of concern to the Advisory Council and Department of Vocational Education has to do with whether the labor supply and the demand are balanced. The perceptions of employers and vocational education completers suggest that there is no great imbalance. Of those employers responding, 25 percent expressed a need for more high school vocational education completers and 19 percent for more postsecondary completers. Conversely, 10 percent felt there were too many high school vocational education completers and 6 percent felt there was an oversupply of postsecondary completers. Relatively few employers listed specific occupations having an over or undersupply. Areas where there was a perceived shortage of trained labor were electronics and skilled secretaries. Secretaries with only average skills were seen to be in oversupply. The fact that very few program completers were unemployed because they were unable to find work in the field for which they were trained supports the conclusions that no major imbalance exists.

#### 3. Recommendations for Improving Vocational Education

#### a. What areas were suggested for improving vocational education?

When employers were asked on their survey to indicate the extent to which they felt greater or lesser emphasis should be given to certain characteristics of vocational education in Montana in the 1980s, three top areas where they recommended greater emphasis were in (1) counseling students about careers, (2)

having current written career information available for students and (3) helping students find a job after program completion. Career counseling, placement services and availability of occupational information were also a concern to many vocational education completers. Thirty-nine percent of the high school completers and 30 percent of the postsecondary completers expressed dissatisfaction with career counseling. More specifically, 22 percent of the postsecondary completers felt they were inadequately prepared with a knowledge of future demands for workers in a particular career field, 33 percent felt inadequately prepared in pre-employment skills (such as preparing a job resume) and 24 percent felt inadequately aware of negative aspects of a job. The above findings suggest the need for vocational education programs to examine when and where in their program students are to receive career counseling and pre-employment skills and to re-examine the quality of such counseling. Another approach might be to expand opportunities for supervised work experience at employer sites for more students and to build career counseling into such work experience.

### b. $\frac{\text{Do employers share the same perceptions as vocational education}}{\text{completers?}}$

In general, employers and program completers agreed on almost all areas of ratings. One area where there appears to be the greatest disparity between employer and former student ratings deals with the issue of the employees' need to be productive on the job. Thirteen percent of the former high school completers versus 54 percent of the employers rated them as poorly prepared on this outcome and 9 percent of the postsecondary completers versus 26 percent of the employers rated postsecondary students as poorly prepared on this point. This obvious discrepancy suggests that the employers and former students view the situation quite differently. The Advisory Council may wish to suggest remedies such as some seminars to be set up where employers and students could discuss their perceptions of what it means for an employee to be productive on the job and why it is important.

For further information about this study contact Mr. William Ball, Executive Director, Montana State Advisory Council for Vocational Education, for the complete report.