

MINUTES

WAYS AND MEANS COMMITTEE

NEVADA STATE LEGISLATURE - 60th SESSION

March 12, 1979

Chairman Mello called the meeting to order at 8:15 a.m.

MEMBERS PRESENT: Chairman Mello, Mr. Barengo, Mrs. Cavnar, Mr. Glover, Mr. Hickey (late 8:25), Mr. Mann, Mr. Vergiels, Mrs. Wagner, Mr. Webb,

MEMBERS ABSENT: Vice-Chairman Bremner

ALSO PRESENT: Bill Bible, Fiscal Analyst; Judy Matteucci, Deputy Fiscal Analyst; Mike Alastuey, Deputy Budget Director; Robert Cashell, University of Nevada Board of Regents Chairman; Dr. Donald Baepler, Chancellor UNR; Dr. Joseph Crowley, President UNR; Dr. Brock Dixon, President UNLV; Dr. Lloyd Smith, President DRI; Dr. Paul Kreider, President CCCC; Dr. William Berg, President NNCC; Dr. Jack Davis, President WNCC; Dr. Robert Laxalt, University Press; Dr. Young, Dean of Students; Doug Mathews, Mrs. Martinez and Mr. Niels Anderson, Computing Center

UNIVERSITY OF NEVADA SYSTEM

Mr. Cashell, Chairman Board of Regents, assured the Committee that in the future the University would follow the proper budget format. He said that the University is requesting that an 18-1 student-teacher ratio be established as opposed to the existing 20-1 ratio. Mr. Cashell said that this ratio is essential to providing quality education and noted that most universities maintain a ratio of 16-1. He said that enrollment is down but that improved recruitment and continued area growth will result in a reversal of the downward enrollment trend. Mr. Cashell assured the Committee that businesslike methods of operating the Universities will be followed and that all changes in money allocations will be carefully reviewed by the Board. He said that the Board will be studying graduate courses to see if all those offered are necessary; reviewing accounting procedures, considering faculty teaching loads; and implementing Nevada Industrial Commission safety programs to realize a savings of 40% on insurance premiums.

Mr. Cashell said that a Coordinator, instead of a Community College President, would be able to work on various community college problems while still leaving a clear path for the campus presidents to go to the Chancellor and the Board of Regents. He added that with a Division President, access such as this would not be possible. He pointed out that the Coordinator would work out of the Chancellor's office.

Mr. Hickey said that a study by an Interim Legislative Committee on community colleges indicated a president would have more standing than individual college presidents. He pointed out that past relations between the Regents and the legislature have not been good and asked if the situation would be different now. Mr. Cashell said that the difference would be most apparent. Dr. Baepler said that the Coordinator's salary would be \$10,000 less than a centralized president and added that in the recruitment program for a college president, in the \$47,000 salary range, most candidates are making higher salaries. Chairman Mello asked if these other states have the 95% factor. Dr. Baepler said that he doubted that they did have.

Assembly

Mr. Cashell introduced Dr. Baepler, Chancellor, to the Committee. Dr. Baepler said that with the exception of the student-teacher ratio a modified zero-based approach was utilized in preparing the budget. Dr. Baepler said that in the past each 16 credits generated was considered the equivalent of one full-time student. Dr. Baepler explained that in all other states surveyed, except Nebraska, the FTE figure is based on 15 credits. Dr. Baepler said that in the current budget, the FTE definition of 15 credits is used.

Chairman Mello questioned this change and pointed out that it sounds like students are taking fewer courses yet the budget increases by changing the definition. Dr. Baepler said that the change means that all credits are counted and then divided by 15 instead of 16 to get the number of FTE students per semester. Chairman Mello said that the situation still exists that fewer students are being enrolled with more money being requested in the budget.

UNIVERSITY OF NEVADA SYSTEM ADMINISTRATION

Dr. Baepler said that the Administration Office is comprised of the Board of Regents, and the Chancellor's Office which serves as the support staff to the Board of Regents. Dr. Baepler said that two positions are being requested: a Para-legal position to replace a position currently borrowed from UNLV, to aid the legal services division instead of hiring another attorney as was originally requested in the budget, and a Fund Raiser to add to the endowment funds in areas such as libraries and other non-athletic areas. He said other increases in this budget are in litigation fees for private attorneys for out-of-state cases such as the Hughes case in Texas, and an increase in audit fees.

Chairman Mello asked if the University's Legal Counsel is a Deputy Attorney General. Dr. Baepler said that he is not. Chairman Mello said that this individual's salary is greater than that of the Chief Deputy to the Attorney General. Dr. Baepler said that in comparison to private practice, the salary is equivalent. He added that the attorney presently with the University has eight years of experience. Mr. Hickey pointed out that the Attorney General presently draws people from the District Attorney's Office and that their salaries are less than that paid by the University.

Chairman Mello said that the University's request for their budget shows a 68% increase. Dr. Baepler said that this budget is no longer being requested and that he is requesting the Governor's suggested 45%. Dr. Baepler said that this is due to the two requested positions and the Community College Coordinator.

In response to a question from Mr. Hickey, Mr. Cashell indicated that the new regents are in favor of a Community College Coordinator position to eliminate "bottlenecks" in the flow of information. Mr. Webb observed that after consideration for the five positions, the budget will show a 43% increase.

COMPUTING CENTER

Dr. Baepler said that the system's computing center has three major functions: providing administrative services, handling instructional needs, and servicing research needs. Dr. Baepler introduced Mr. Niels Anderson, Director of the Computer Center, to the Committee. Mr. Anderson said that the Center budget approved by the Board of Regents contained three areas of significant increase: operators and maintenance for expected additional hardware; additional administrative analyst/programmer positions; and support for a computer located on the UNLV campus and a small computer on the CCC campus. Mr. Anderson recommended that the Center budget be increased by \$240,592 in FY 1980 and \$244,052 in FY 1981 in order to keep pace with the educational needs of the State's citizens. His remarks and additional information presented to the Committee are contained in Exhibit A. Letters of support are contained as Exhibit B. Chairman Mello asked if the University System

already has this requested equipment on board. Mr. Anderson said that the University currently has this equipment. Chairman Mello asked what funds were used to acquire the equipment. Mr. Anderson said that Regent's discretionary funds were used. Chairman Mello asked if the Regent's funds could continue to be used. Mr. Anderson said that they can use these funds but that a decrease is expected in the sale of computer services of about \$40,000 per year.

Mr. Rhoads asked who pays for the staff when discretionary funds are used for new programs. Mr. Anderson said that one position was added and paid for from discretionary funds.

Mr. Webb asked where the \$40,000 per year earnings appear in the budget. Mr. Anderson said that these earnings are shown in an estimated budget that is submitted separately. Mr. Webb said that he would prefer to see earnings included in the budget under income and used to off-set state funds in some manner. Mr. Webb requested the figures for last year's earnings. Mr. Anderson said that last year's earnings were \$120,000.

Mr. Hickey asked if discretionary funds could be used if state funds are not made available. Dr. Baepler said that discretionary funds would be the ability of the computing center to generate sufficient sales and that sales are being reduced. Mr. Hickey asked if it would be less expensive to contract out this work to computer firms. Mr. Anderson said that he thought this would be more expensive but that they had not asked for any bids for these services.

UNIVERSITY PRESS

Dr. Baepler introduced Mr. Robert Laxalt, University Press Director, and indicated that a status-quo budget is requested. Mr. Laxalt said that the purpose of the University Press is to provide a permanent record of the people and institutions of Nevada and the West, to enhance the nationwide reputation of the University of Nevada, and to stimulate research writing. Mr. Laxalt said that the books published by the University Press are mainly for public service, school systems, filling gaps in Nevada history, and scholarly books. Mr. Laxalt said that five books are contracted to be published this year and 22 additional books are scheduled to come out in the following three years. Mr. Laxalt added that a grant is being requested from the Fleischmann Foundation for \$550,000.

Mr. Wagner asked when the University Press would learn whether they will get this grant from the Fleischmann Foundation. Mr. Laxalt said that the Press should receive notification after July 1, 1979.

Chairman Mello said that one editor is requested in new positions, and asked Mr. Laxalt how many books the present editor edits a year. Mr. Laxalt said that one half of the books are freelanced out and that the number of books edited and published depends on the complexity of the manuscript. Mr. Laxalt said that one book that is not completed concerns the Spanish Inquisition and Basque witchcraft which was written in Danish.

Chairman Mello asked how many books were edited in-house in 1978. Mr. Laxalt said that 2 books were edited in-house and 4 books were contracted out. Chairman Mello said that the national average for a University Press editor is between 2 and 3 books a year and the editor for Nevada's Press averages one book a year. Mr. Laxalt said some of the books are quite large or in several volumes and that they take a lot of time to edit. Chairman Mello observed that everybody must work to their fullest productivity or positions will be cut and book editing contracted out-of-house.

Mr. Hickey asked the cost of freelancing books out for editing. Mr. Laxalt said that the cost is \$200 a manuscript and \$1.00 per page but that the Press must do additional work on these books when they come back with regard to checking historical details and other data.

Chairman Mello said that the editor of Nevada Magazine, who does a great deal of editing and is going to a bi-monthly publication, earns \$20,293 per year while the editor of University Press earns \$23,658. Mr. Laxalt said that the type of books put out by University Press are very complex and that a different type of editing is required.

Mr. Vergiels observed that the cost to contract out these books is certainly less expensive than the salaries paid to these editors so the service should be contracted out. Mr. Laxalt said that the Press has to make the final analysis as to the contracting people do not check out such things as Nevada History and that much of the work is edited twice. Mr. Vergiels added that he was having trouble understanding Mr. Laxalt's presentation. Mr. Mann said that \$126,175 for six books plus fees paid for four out-of-house contract costs is a great deal of money.

Mrs. Wagner requested Mr. Laxalt to submit a list of books published by the University Press in the last four years and a definition of the work done in-house and out-of-house. Mr. Vergiels also requested production and sales data. Mr. Laxalt said that he would furnish this information. Mr. Vergiels asked the business manager's function. Mr. Laxalt said that this individual keeps track of Press expenses, production costs, design, editing and other details. Chairman Mello pointed out that the Business Manager of the State Mental Health Institute supervises a budget of \$8 million and 248 people and makes the same salary as the business manager of the University Press. Mr. Laxalt said that the Business Manager had been at the University for 20 years.

NATIONAL DIRECT STUDENT LOAN

Dr. Baepler said that this request is for the same level of support as in the current year, or \$100,000 each year to be matched by \$900,000 of Federal funds. He said that approximately 850 students used these loans last year.

Mr. Mann asked the default rate of this loan program. Dr. Baepler said that it is 9 to 10% at UNR, and slightly higher at UNLV and the community colleges. Mr. Mann asked what is being done regarding collection of these funds. Dr. Baepler said that the University System uses standard collection procedures and is considering a new program where they are turned over to the Federal government. Mr. Mann said that the University should stop just considering this action and take some positive action to recover these bad loans. Dr. Baepler said that one control is to refuse transcripts of grades for students who are delinquent in their loan payments.

Mr. Hickey asked the default rate at UNLV and the Community Colleges. Dr. Baepler said that the default rate is 12% and that he did not have figures on the community colleges default rate.

Mr. Glover said that when these loans are turned over to a collection agency, the agency takes about 50% of amounts collected. Mr. Glover then asked what part of monies collected would the Federal government keep if accounts are turned over to them for collection. Dr. Baepler said that the state would get everything collected except 10%.

BUSINESS CENTER SOUTH AND BUSINESS CENTER NORTH

Dr. Baepler said that these business centers merge the University's business functions and avoid duplication. The budget requests insure the status-quo.

Mrs. Wagner asked what the cost savings are for consolidating the business centers. Dr. Baepler said that if the centers had not merged, the business functions of the various campuses would have had to grow.

Mr. Mello mentioned the rumor he had heard that one of the regents said that the meal service is a private enterprise operated by the Board of Regents or the University and that he has heard the same rumors. After further inquiry and at a later point in the meeting, Dr. Baepler said that this individual has eaten two meals there and had paid for both of them.

Mr. Hickey asked if there were any unfilled positions in either Business Center. Dr. Baepler said that one position is unfilled in Business Center South. Mr. Hickey asked if any positions are being upgraded. Mr. Herman Westfall, Business Center Director, said that no positions are being upgraded but that one requested new position is being used to keep the business office open longer hours for collection of student fees.

COMMUNITY COLLEGES

Dr. Baepler explained that the Community Colleges used the following ratios:

metropolitan area colleges, 22-1, with the Governor's being 24-1; nursing programs, 7.5-1, with the executive recommendation of 10-1; Carson City, 20-1, with the executive recommendation of 20-1; and a Rural Factor, 12-1, with the executive recommendation of 12-1.

Dr. Baepler said that the community colleges have a heavy emphasis on vocational and occupational type of training and are meeting their original objectives.

CLARK COUNTY COMMUNITY COLLEGE

Dr. Paul Kreider, Acting President CCCC, said that Clark Community College has done extremely well with the money that has been made available and furnished the Committee with a handout containing information on requested additions to the Executive Budget -- (Exhibit "C.") Dr. Kreider pointed out that the Executive Budget has cut \$1,263,000 the first year of the biennium, and cut \$1,929,000 the second year of the biennium. Dr. Kreider said that with the projected growth for the biennium, there is a need for additional full-time faculty members. Dr. Kreider said that he is requesting that eight positions be changed from part-time to full-time each year of the biennium, which would cost a total of \$265,947. Dr. Kreider referred to the need for two positions in the Learning Resource Center the first year of the biennium for a total cost of \$29,741, and two additional positions the second year of the biennium at a total cost of \$61,266. Other requests for the Career Development and Placement Center, Campus Security, and Operating and Maintenance are detailed in Exhibit "B."

Chairman Mello requested an organizational chart for the Clark County Community College, and said that it appeared that CCCC had excess administration. Dr. Kreider said that he would furnish this chart for the Committee and stated that all non-management personnel are predominantly teaching personnel. Chairman Mello asked how many hours each of these Deans actually spends teaching. Dr. Kreider said that the Liberal Arts Associate Dean teaches 3 classes, or 9 credits. Chairman Mello asked how many hours the Business Dean teaches. Dr. Kreider replied that this individual is required to teach two classes per semester. Chairman Mello asked how many hours the Community Services Dean teaches. Dr. Kreider said that this Associate Dean is a self-supporting program and is responsible for the Outreach Program and other programs but is not teaching at this time. Chairman Mello stated that this person is an administrator and not an instructor. Dr. Kreider said the position was a teacher until a year ago. Dr. Kreider said that the Associate Dean for Applied Sciences and Technology was on a sabbatical in 1978 and is now teaching 3 credits. Chairman Mello asked if this position was filled while the Dean was on sabbatical. Dr. Kreider said that he believed he had filled this position himself. Chairman Mello asked if Dr. Kreider could continue in this function. Dr. Kreider said that this would be extremely difficult. Chairman Mello asked the salaries of these positions. Dr. Kreider said that the Associate Deans are paid approximately \$24,900 per year for a 12 month contract.

Chairman Mello asked if the Community College would collapse if these positions were abolished. Dr. Kreider said that this would be cutting four positions from the instructional budget. Chairman Mello said that these positions could be cut and four full-time teachers who work 8-5 could be added. Dr. Kreider said that these Deans are absolutely essential for the hiring and approval of part-time faculty and are relied upon for program development. Chairman Mello said that the legislature established the Community College systems and could also reorganize to provide what is essential to the education of the people in Nevada. Dr. Kreider said that the Community College Division would work with the legislature in any suggested reorganizational planning. Chairman

Mello asked the number of positions under the Deans of Students. Dr. Kreider said that there are 6 Directors of Program in the Student Services' area and that these Directors do not teach. Chairman Mello asked their salaries. Dr. Kreider said that these salaries average about \$20,000, the Dean of Students salary is about \$28,000, and the current Dean of Instruction makes just in excess of \$30,000. Chairman Mello asked if these Deans teach. Dr. Kreider said that the Dean of Instruction teaches two classes each semester, and the Dean of Students does not teach. Chairman Mello said that these are very expensive programs. Dr. Kreider said that the positions are essential to help administer the college and manage the operational affairs.

Chairman Mello asked the average number of hours that a Professor teaches at CCCC. Dr. Kreider said that the average is 15 credits or 20-24 contact hours. Chairman Mello asked if they are normally in their offices during the day. Dr. Kreider said that the Deans are in their offices during the times when they are not teaching and that most of the faculty are involved in program planning and development which is in addition to teaching, working with the part-time teaching staff, and assisting students.

Mr. Webb said that these Deans are in their offices at least five hours a week plus 15 hours of teaching which is still only 20 hours a week which is only half of the 40 hours that most people work. Dr. Kreider said that a great deal of time is spent in classroom preparation. Chairman Mello said that after teaching a number of years, the subject matter should be quite familiar and should not take very much preparation time. Dr. Kreider said that other things--such as Community Service--also take-up a significant amount of time.

Mr. Mann said that the college is overstaffed in Deans but that the counselors are needed to provide a beneficial service. He added that preparation time is required for teaching and lecturing due to new research and in-depth study that would not be required at lower levels of education.

Mr. Hickey asked if emphasis in Community Colleges still continues to be placed in the vocational programs. Dr. Kreider said that it is and that new programs are being added as in the Dental Hygienist field. Mr. Hickey said that in the handout (Exhibit "C") several half-time positions are requested to be changed to full-time and these positions are in academic areas. Dr. Kreider said that vocational students are required to take certain academic courses to complete a degree and that part-time teachers are not available for teaching some of these courses.

Mr. Hickey asked if funds are available for the learning resources center. Dr. Baepler said that the Board of Regents has approved this expenditure from capital improvement fee funds, the funds are available, and legislative approval is necessary to use these funds for this budget. An organizational chart for CCCC was later furnished the Committee and is attached as Exhibit "D."

WESTERN NEVADA COMMUNITY COLLEGE

Dr. Jack Davis, President WNCC, said that this college is a multi-campus college serving 2,349 FTE students with an actual head count of 8,474 students with an 11% growth factor in FTE students from January, 1978 to January, 1979. Dr. Davis said that the Governor's recommendation is \$1,457,423 less than the requested appropriation for 79-80 and \$1,702,088 less than the college's request for 80-81 which are very severe cuts for a fast growing and developing institution. Dr. Davis furnished the Committee with a handout detailing requested budget changes which is attached as Exhibit "E." Dr. Davis discussed this handout with the Committee: a request for a change from part-time to full-time faculty, increased positions in student services, and additional funds for operation and maintenance.

Chairman Mello asked for the location of the rural factor. Dr. Davis replied that it is located under the 78-79 work program figure of 116.46 and is included in the \$1,324,237 total. Dr. Davis said that he had

not put the budget together and that due to a reduction of vocational funds that were budgeted, and due to a transfer of \$165,000 which had to be sent to the North Campus Business Center which was not included in the budget, there was a resulting shortage of \$204,000 in the instructional budget. Also the "rural factor" faculty was all part-time faculty. Dr. Davis added that more professional positions are going to be added in the 78-79 work program because of increased revenues.

Chairman Mello asked if any of the positions included in the figure of 136.27 were transferred. Dr. Davis said that three people were transferred into the Student Services area with one put back into instruction. Chairman Mello commented that WNCC has 7 Deans and Clark County has 6 Deans. Chairman Mello asked where the additional position in Dr. Davis's office came from. Dr. Davis said that when the President's office was closed out, a position there was transferred to the Northern Business Center and at the end of that year (1977-78) there were a number of areas that were not being covered at WNCC so this position was returned to WNCC in July, 1978. Chairman Mello asked where the funds came from to pay for this position. Dr. Davis said that the funds came from the operations and maintenance (Building and Grounds) budget.

Chairman Mello asked why the book acquisition fund for the actual is \$55,488 when the last session of the legislature appropriated \$156,454 and the work program figure is \$77,775 and the legislature appropriated \$170,183. Dr. Davis said that the budget was developed before he came on board and said that this money was utilized to replace the money not provided in the budget to pay the Northern Business Center: \$155,000 the first year of the biennium and \$165,000 the second year of the biennium. Chairman Mello said that Dr. Davis had stated that this money came from instructional funds, and \$94,408 from the book acquisition fund in 1978-79. Chairman Mello said that these figures still leave some book acquisition funds unaccounted for. Dr. Davis said that in 1977-78, WNCC was required to transfer \$153,496 to the Business Center North and \$100,966 of the required amount was taken from the book acquisition fund and sent to the Business Center North. Dr. Davis said that this procedure was established before he came on board and that in the future his job would be to do what the legislature determines, to stay within the budget, and if there is any problem to go to the Board of Regents and Interim Finance. Chairman Mello asked if Dr. Davis had gone to Interim Finance over this matter of funds sent to the Business Center North. Dr. Davis said that he did not and that he had asked to go to Interim Finance two years ago and was not allowed to do so by the previous Chancellor. Chairman Mello suggested putting these budgets into the general appropriations act "line by line" to prevent funds being transferred.

Mr. Barengo inquired into the differing figures in every category for the President's office and the Vice President's office. Ms. Martinez, Chancellor's Office, said that the out-of-state travel budget was omitted from the Vice President's office which accounted for one discrepancy in the two budgets. Mr. Alastuey, Budget Office, said that he was unable to explain the difference in the figures between the Executive Budget and the University's budget book.

Mr. Mann commented that he was appalled at the transfer of book acquisition funds and asked if the Board of Regents approved that action. Dr. Baepler said that they did.

Mr. Hickey mentioned an article in the Lahontan Valley News, dated February 28, 1979, referring to the Churchill County trustees receiving a letter from the Fallon Center of WNCC rejecting an offer to purchase the Oaks Park facility. Mr. Hickey said that the subcommittee on community colleges had agreed that local facilities should be used, rather than building new facilities for the colleges. Mr. Hickey asked whether the decision to refuse the Fallon school system's offer of a school and sheds was the Regent's, the Dean's, or Dr. Davis's. Dr. Davis said that he made the decision and that the offering of the sheds was not useful, and the building was not useful because of its age and because of its possible earthquake hazard.

Dr. Davis said that the sheds would have had to be torn down and the school building could not be utilized by handicapped students.

Mr. Hickey said that this information should have been supplied to the legislature.

Chairman Mello asked if the newspaper article was wrong. Dr. Davis said that he understood that only the sheds were offered.

The meeting was adjourned at 11:00 a.m.

Chairman Mello, Distinguished Members of the Assembly Ways and Means Committee:

My name is Niels Anderson. I am the Director of the University's System Computing Center.

The Center budget submitted to and approved by the Board of Regents for the next biennium contained three areas of significant increase.

1. Funds to provide operators and maintenance for expected additional hardware which would have been positioned in the Community Colleges, the DRI, the Medical School, and the Center itself.

2. Funds to support an increase in administrative system analyst/programmers. This increase would expedite the completion of new or on-going projects to mechanize manual procedures and result in more efficient administration of the University.

3. Funds to support a computer located on the UNLV campus and a small computer on the CCCC campus to provide a report generator language capability to the entire System.

Mindful of the responsibility of this Committee to insure that public expenditures be held to a minimum yet meet the needs of the State I request your serious consideration for sufficient funds for two purposes. First, to meet the critical need for computer capabilities in the Southern part of the State, and second, to provide sufficient funds to cover the current costs of professional salaries.

If you will turn to the folder on your desk.

The first page cites the significant reasons why the Board of Regents decided to install, using discretionary funds, a computer in the Southern part of the State.

1. Heavy growth in computer workload.
2. Need for back up.
3. Increasing cost of communications.

The next chart depicts the number of jobs processed by the Center since July 1976. The increase has averaged 11.8% per year despite the fact that some Divisions show fewer students. This increase can only be explained by a lateral expansion in computer use. A greater percent of students out of total potential users are using the University's computers. Also, it should be noted that the Community Colleges during 1979-80 will be expanding their computer offerings.

Another measure of computer use is shown on the next chart. This chart depicts central processor hours used per month. The rate of increase has been 15% per year.

The next chart measures system resource hours. A system resource hour is derived from an equation which purports to measure average use per job of each of the computers' resources. For example, disk space, the card reader, tape drives, and so forth. The rate of increase in system resource hours has averaged 19.4% per year.

There are three ways to gain access to our computers. First, the traditional method where a user brings a deck of cards to the computer, an operator feeds the data on the cards to the computer via a card reader. The second method is for a user to bring his deck of cards to a remote batch terminal. We have three, one on the Reno campus, one at Dandini Park, and one at CCCC. The third method is by using a time share terminal. There are known to be about 450 of these terminals located primarily in our urban areas. Each terminal when connected to the computer must go through what is known as a port. We have found that one port will serve adequately 4 terminals. Using this ratio, the next chart compares the number of ports we actually had with the number we should have had to maintain a satisfactory level of service.

As you will observe, in 1974 we had 35 ports and needed 37; in 1975 we had 47 and needed 49; in 1976 we had 53 and needed 56; in 1977 we had 61 and needed 74. The equipment we have allows only 64 T/S ports per computer. Therefore, a second computer was necessary to meet the demands of both 1977 and 1978.

I believe the foregoing statistics concerning jobs processed, CPU hours, SR hours, and port availability substantiate the need for a second computer in the System.

Many people tend to associate computers only with running the payroll or similar administrative procedures. The next chart shows the distribution of workload within the University computers. As you will note 45% of our jobs are educational, 20.1% are concerned with state supported research, 12.5% deal with administrative procedures and 11.1% are devoted to the housekeeping of running a Center. The other functions shown do not consume significant amounts of time.

~~The next two sets of charts show a typical computer~~
day in March for the years 1976, 1977 and 1978, and for a day in October (same year). This is a measure of the number of jobs in the computer at any one time during the 24 hour period 5 PM to 5 AM.

In the first set of charts all work was processed on the Northern computer.

In the second set of charts, work was processed in 1976 and 1977 on the Northern computer and in 1978 work was split between the two computers.

The next page outlines the problem of furnishing a report generator processor to the Community Colleges. Briefly, the Center does not have such a program. Many mini-computer vendors do furnish this software. It was planned to install such a mini on the CCCC campus and move the remote batch terminal at the CCCC to Elko for use by the Northern Nevada Community College.

The report generator capability could be used by students located anywhere in the System. Source decks entered in Elko, or wherever, would be transmitted to CCCC, processed and the results transmitted back to the originator. The educational capability is badly needed to meet the demands of businesses with small computers which use the report generator language to write programs.

Turning to the second area of financial concern is professional salaries. Subsequent to the submission of the Computing Center's budget to the Executive Branch in September

1978 several professional salary adjustments were made to bring University system analyst/programmer salaries into line with those paid by the State. Therefore, the professional salaries as shown in the Executive Budget are understated.

The final page in your folder lists the bare bone cost to keep a computer in the southern part of the state and the cost to provide a report generator capability to the System.

Exclusive of professional salary adjustments the first year cost represents an increase of 23% over this year's state support of the Center. However, if the 8% inflationary increase recommended in the Executive budget is separated from these costs, the net increase is 15% which comes close to the average increase in our workload.

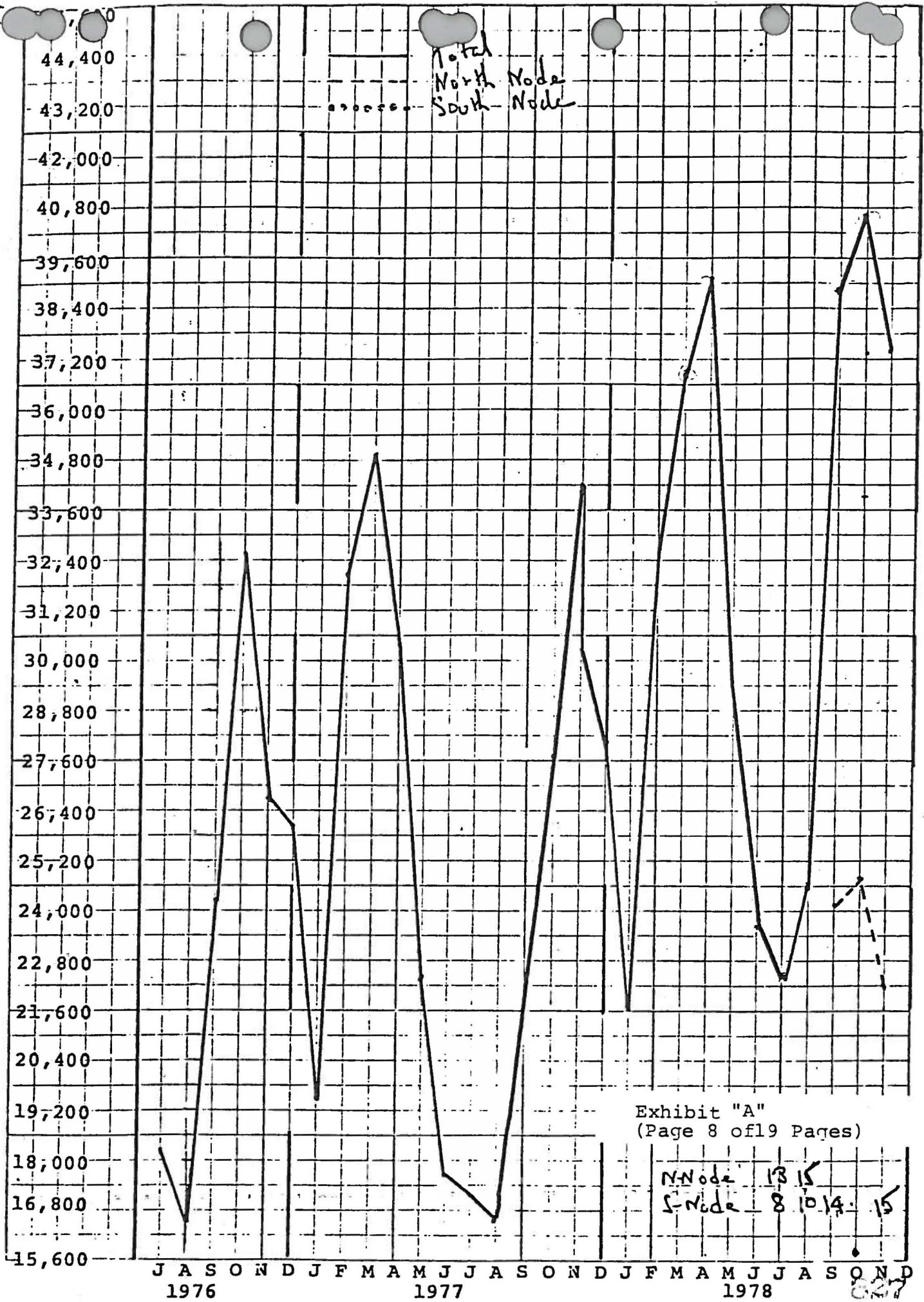
It is my recommendation to this Committee that the Center budget be increased by \$240,592 in FY 1980 and \$244,052 in FY 1981 in order that we may be able to keep pace with the educational needs of the State's citizens.

RATIONALE FOR DECISION TO INSTALL A
SECOND COMPUTER IN LAS VEGAS

1. Heavy growth in computer workload.
2. Need for back up if single computer inoperative as administrative applications expand.
3. Increasing cost of communications created need for University to develop alternative methods of providing computing capability to Southern Nevada.

NUMBER OF JOBS PROCESSED PER MONTH

12 785



Total
North Node
South Node

Exhibit "A"
(Page 8 of 19 Pages)

N-Node 13 15
S-Node 8 10 14 15

CPU HOURS

NUMBER OF CPU HOURS PER MONTH

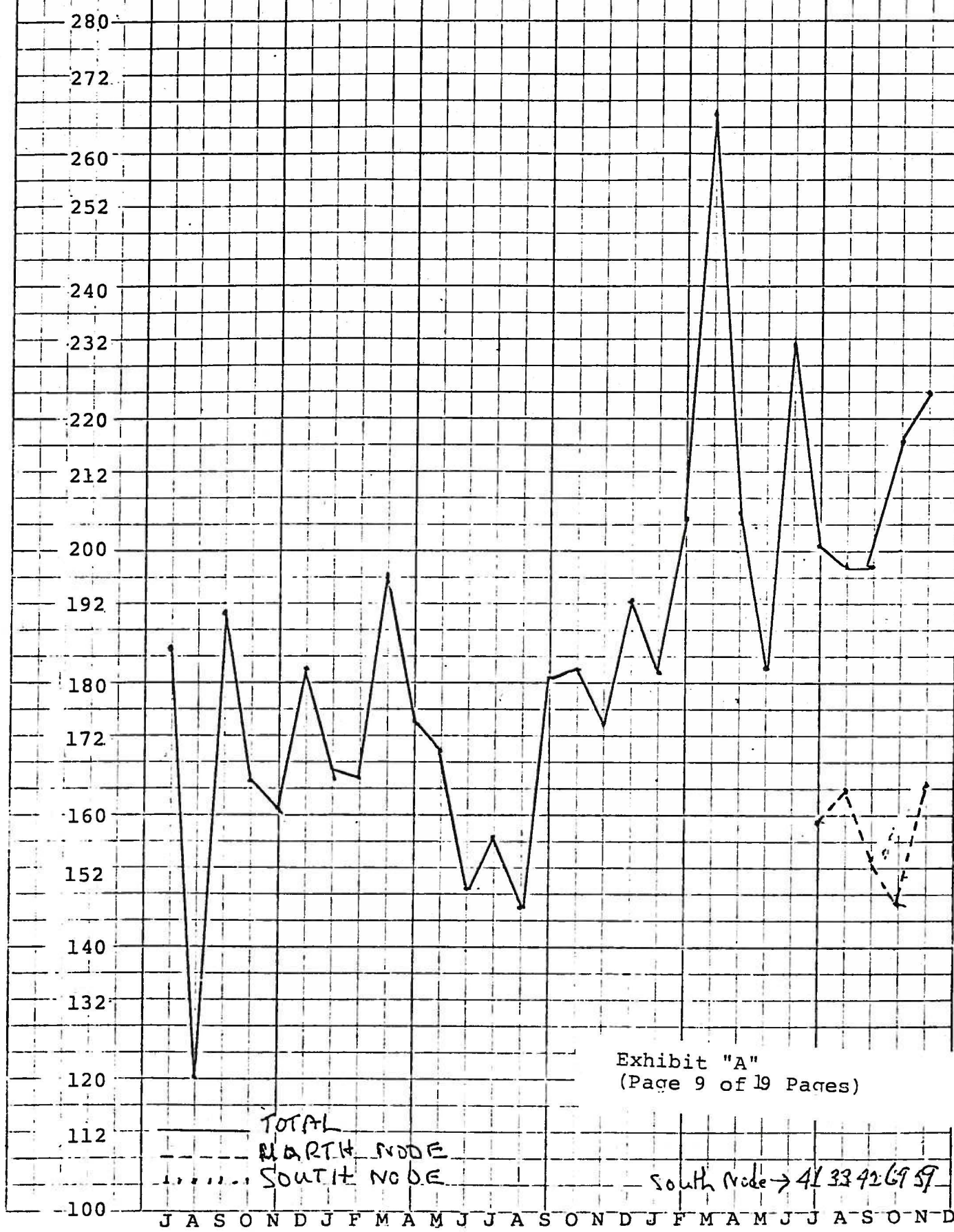


Exhibit "A"
(Page 9 of 19 Pages)

TOTAL
NORTH NODE
SOUTH NODE

South Node → 41 33 42 69 59

SYSTEM RESOURCE HOURS

NUMBER OF SYSTEM RESOURCE HOURS PER MONTH

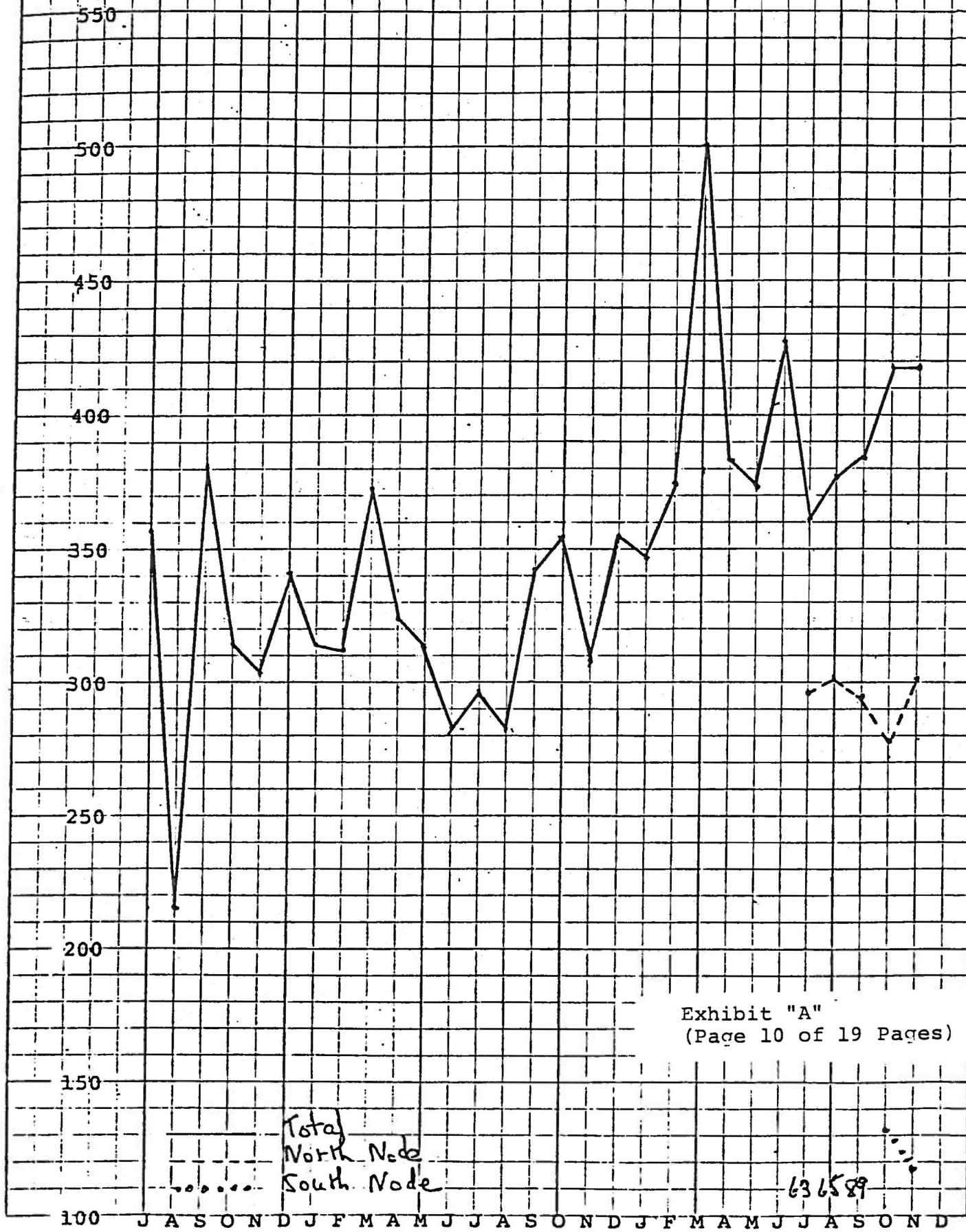


Exhibit "A"
(Page 10 of 19 Pages)

Total
North Node
South Node

636589

829

MONTHLY JOB COUNT BY PURPOSE (OCT 78)

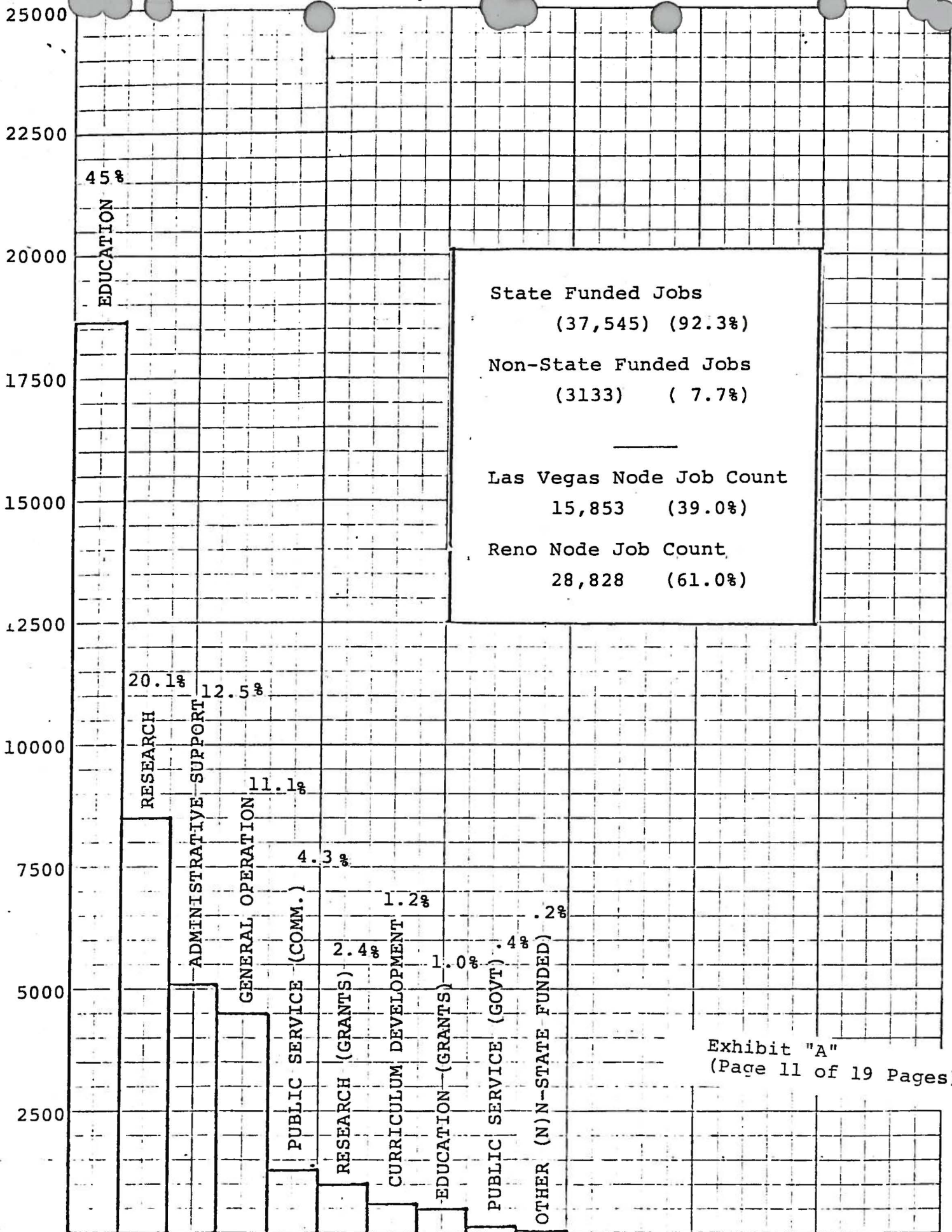
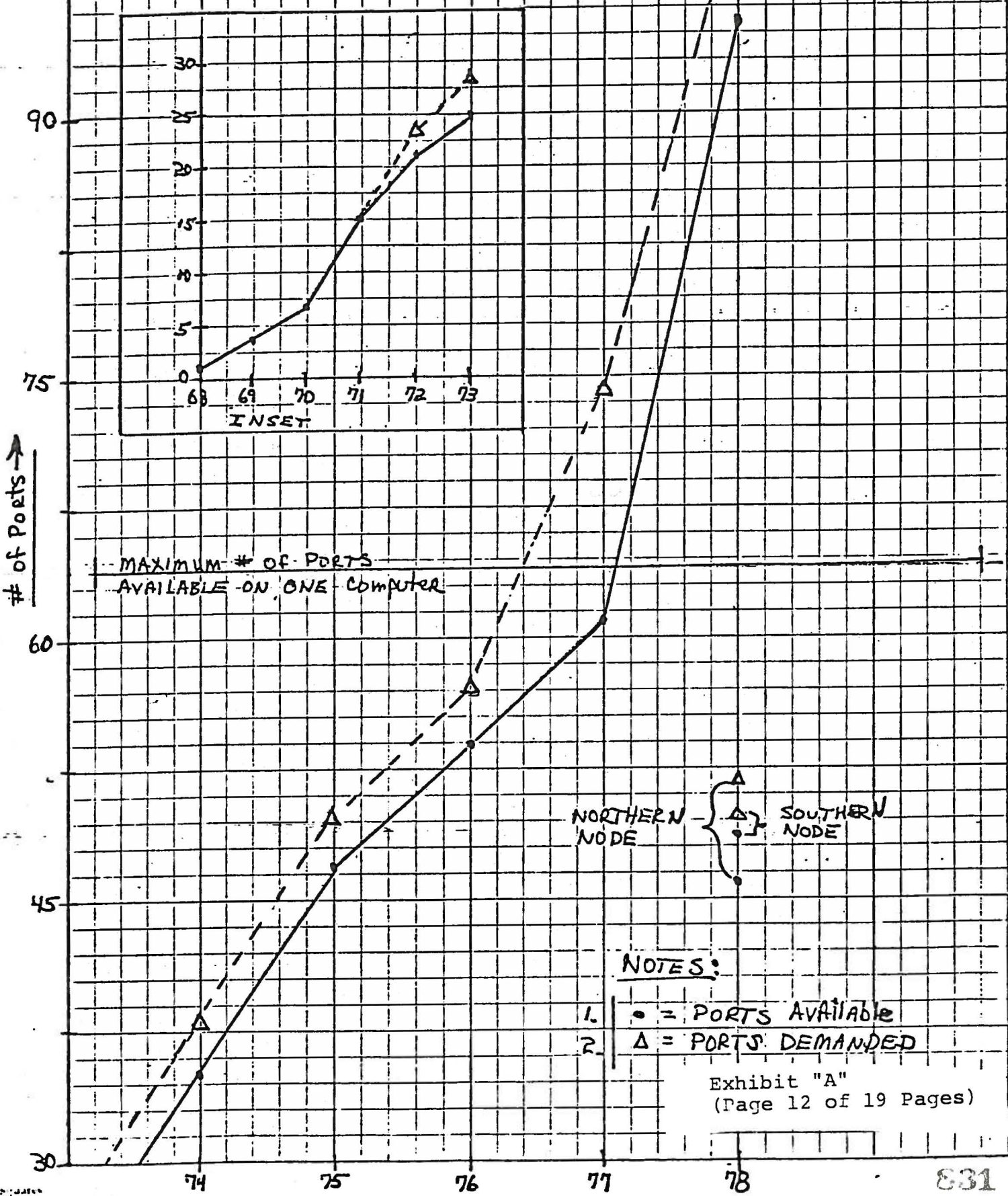


Exhibit "A"
(Page 11 of 19 Pages)

COMPUTER PORTS VS YEARS



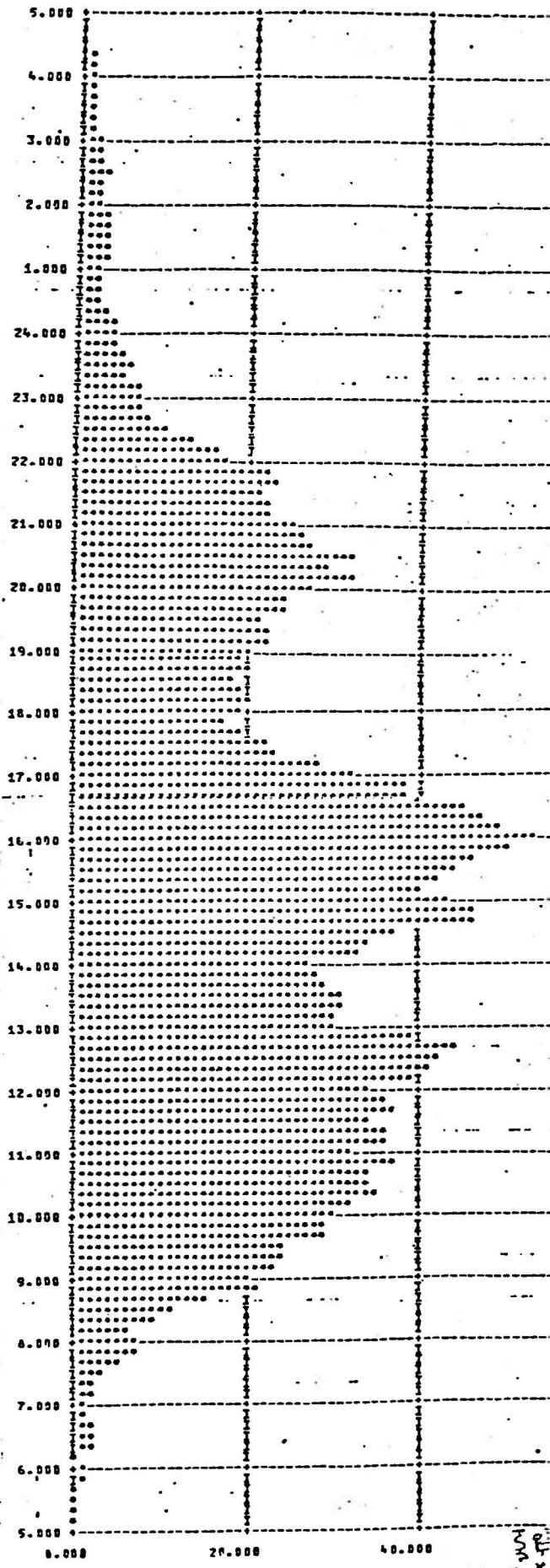
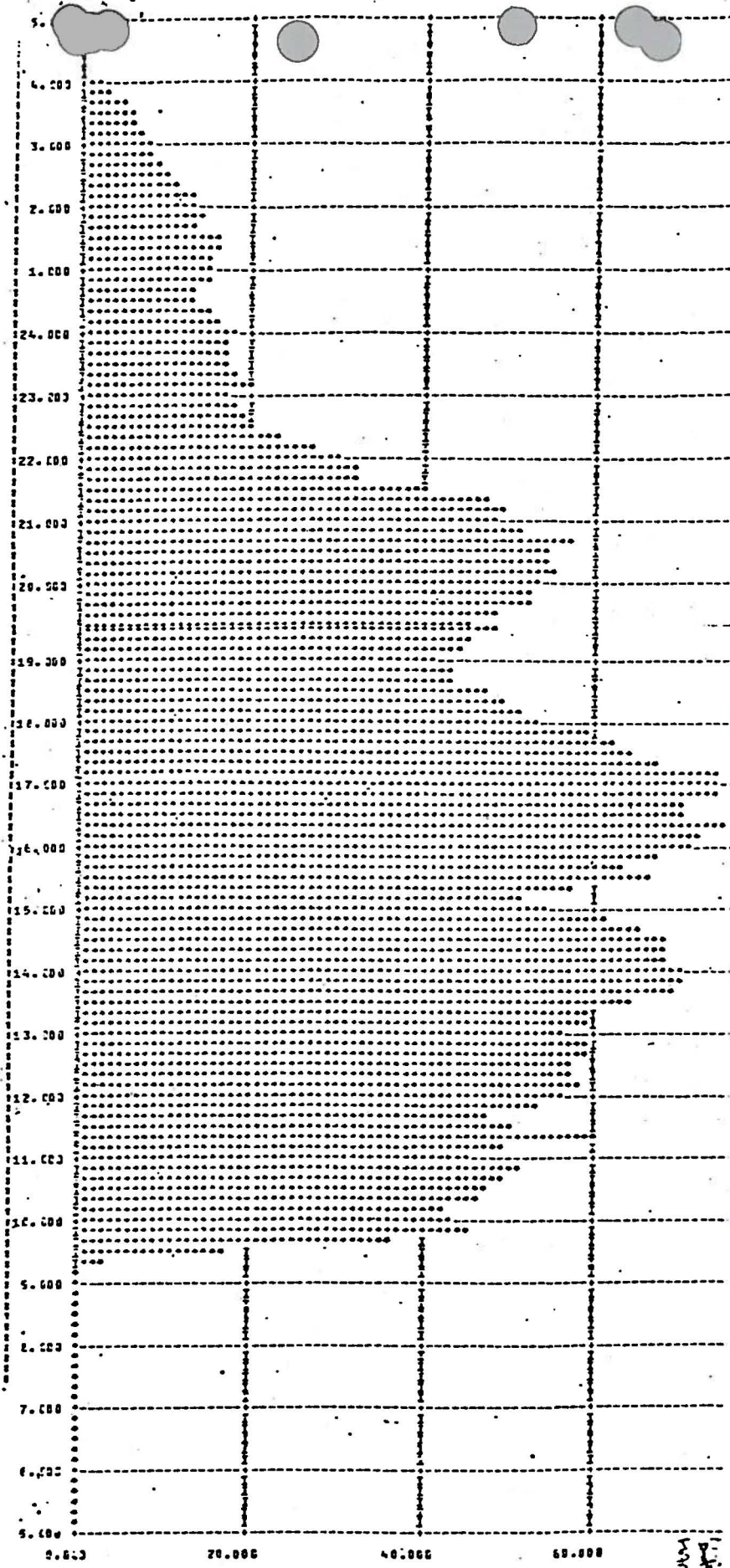


Exhibit "A"
(Page 13 of 19 Pages)

INACTIVE JOBS

037

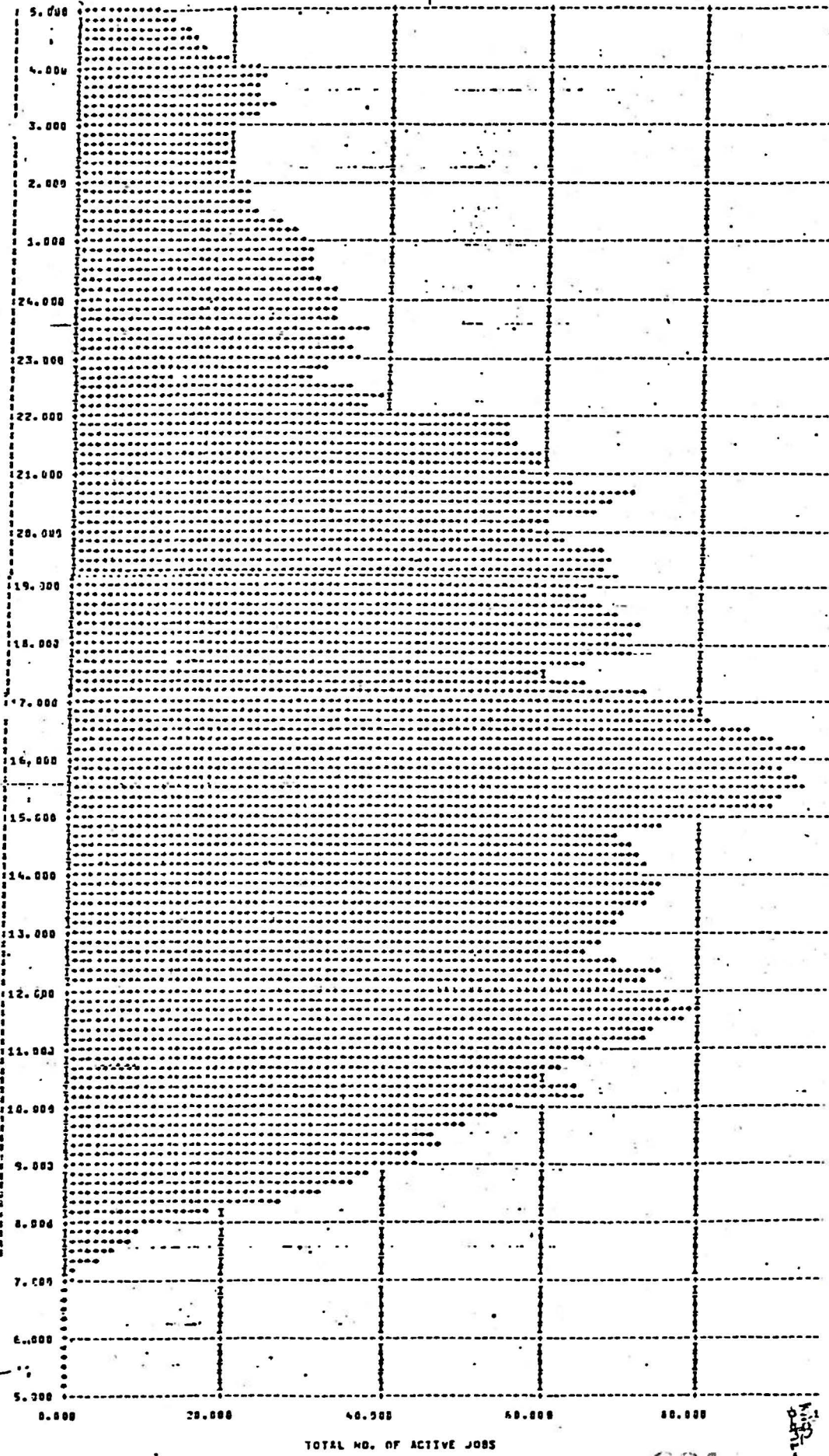


5,000 10,000 15,000 20,000 25,000 30,000 35,000 40,000 45,000 50,000

TOTAL NO. OF ACTIVE JOBS

10/10/57
WMM

UNS DAILY USAGE PLOT



TOTAL NO. OF ACTIVE JOBS

831

UN-11-14

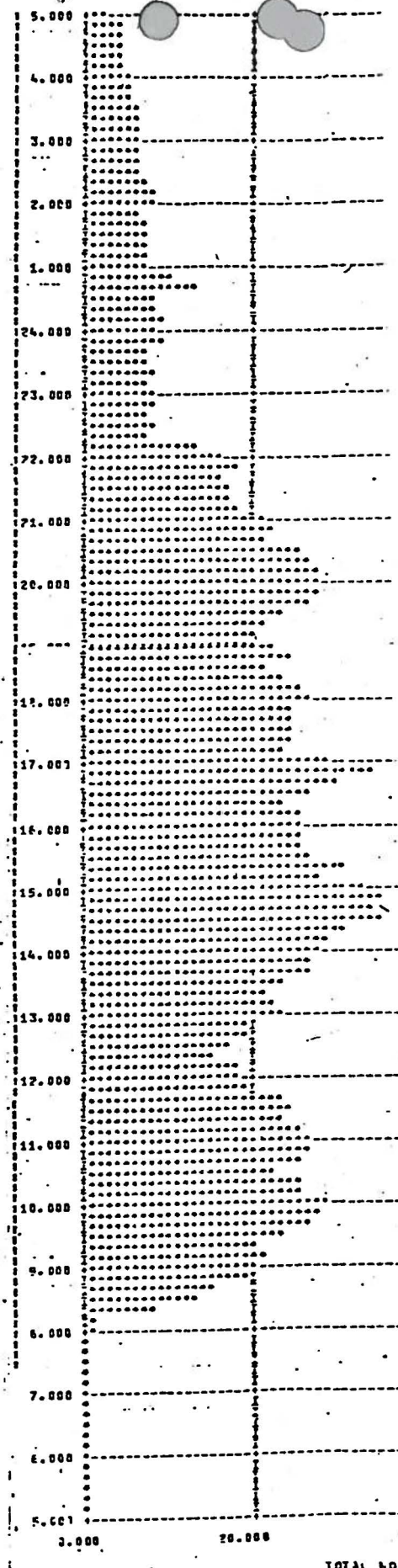
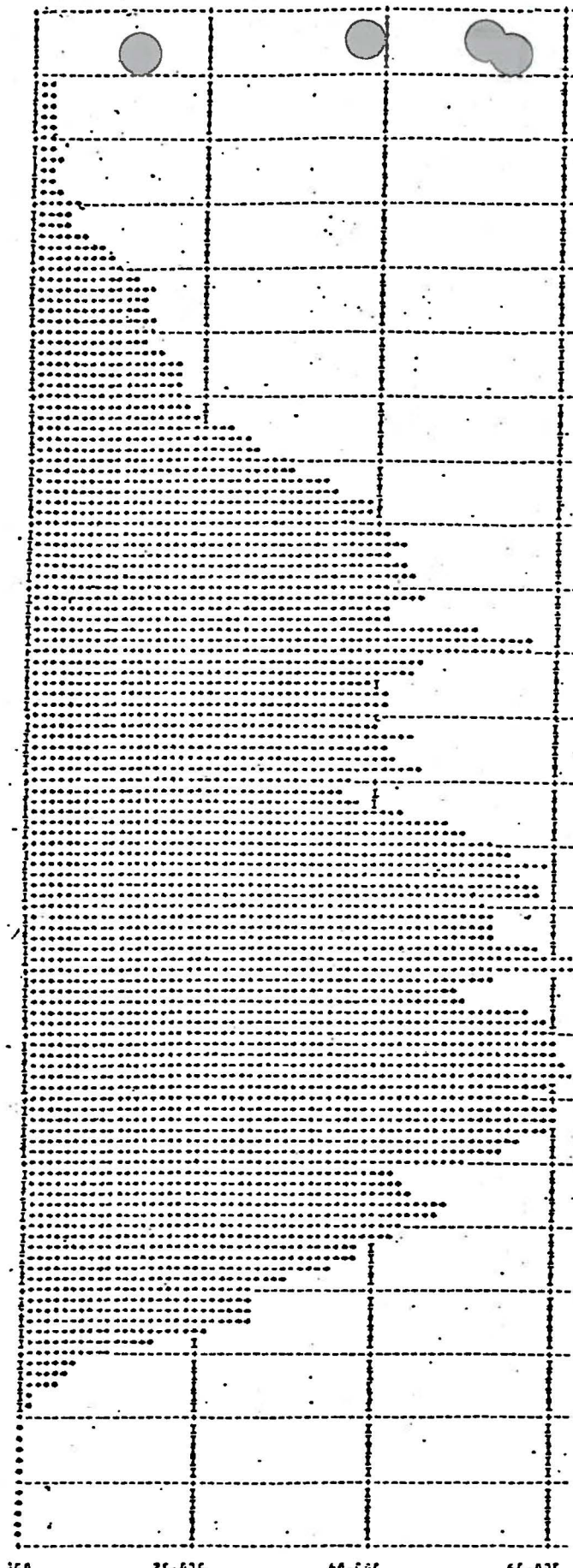


Exhibit "A"
 (Page 14 of 19 Pages)



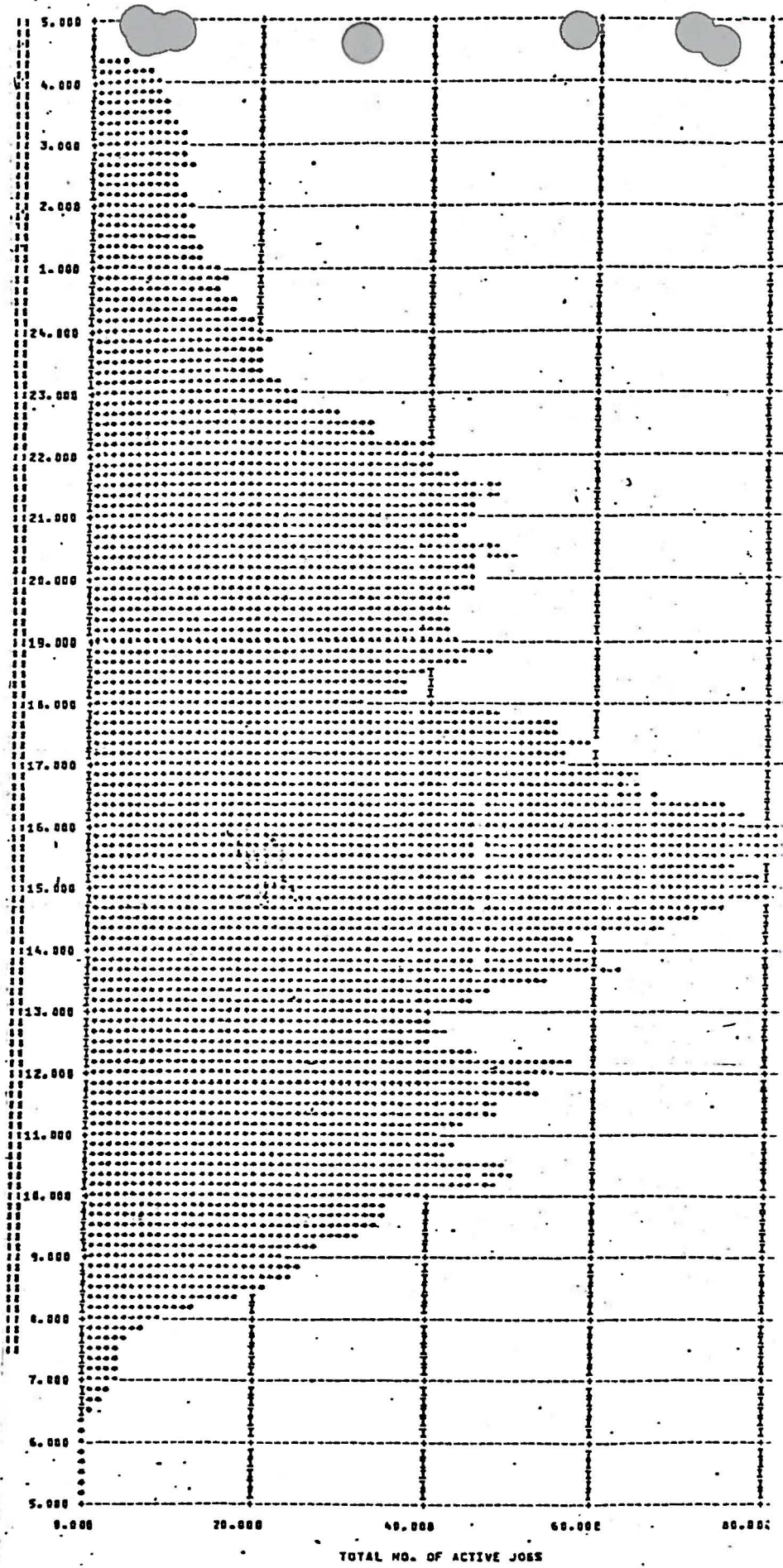
100.000 80.000 60.000 40.000 20.000 0.000

TOTAL NO. OF ACTIVE JOBS

02-78
No. of jobs

836

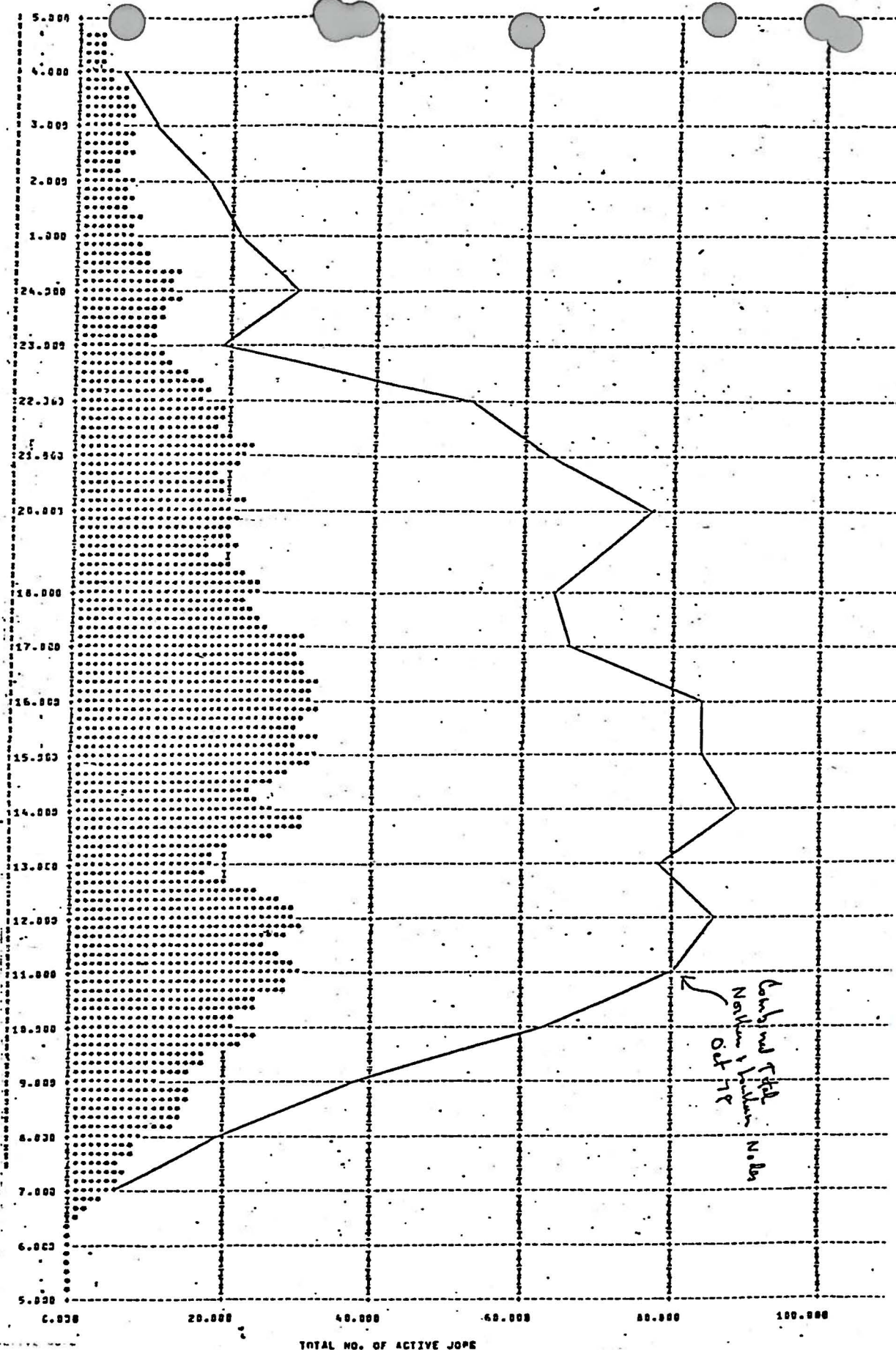
UNS DAILY USAGE PLOT



04-197

837

UNS DAILY USAGE PLOT



Southern
Northern
Oct 71

Caribbean
North America
Oct 71

NEED FOR REPORT GENERATOR PROCESSOR

A Report Generator Processor (RPG) allows students to learn to write programs for small business computers.

The University does not have such a processor. These processors are available with several different kinds of mini-computers. The University proposes to lease such a mini-computer, install it in Clark County Community College, and move the remote batch terminal now located in Clark County Community College to the Northern Nevada Community College. By using the communication network now in place a user at any System location in the State may transmit an RPG Source deck to CCCC, the mini located there will compile the RPG Source deck (convert it to machine language) and transmit the results of the compilation back to the originator. This proposal will provide training to programmers who are badly needed in the business community and will greatly expand for Elko residents, the availability of the University computing facilities.

Application Report



How the computer systems and services
Of Control Data Corporation are used in education.

Computers Link Five Campuses in University of Nevada System

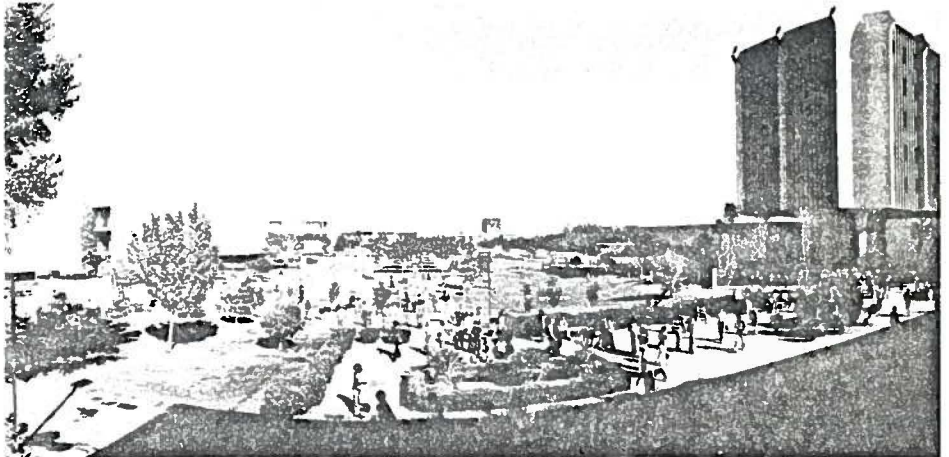
Whatever method the University of Nevada System uses to measure its 10-year growth in data processing — jobs processed, budget and staff increases, terminals added or system expansion — the resulting figure is impressive.

Since 1969, when the university established a computer center on the Reno campus with a Sigma 7 and one timesharing terminal, each succeeding year has shown increased usage, expanded services and more financial support.

"Ten years is not a particularly long time when it comes to planning and implementing these changes and additions," according to Niels H. Anderson, director of the university's computing network since it began. "But we realized early the importance of a responsive, adequate computer function in order to attract faculty, students, administrators and researchers." Anderson noted that the university's Board of Regents has consistently supported computer growth and has increased funds 242% in 10 years.

The University of Nevada System consists of major campuses in Las Vegas and Reno, three community colleges located in Carson City, Las Vegas and Elko, and the Desert Research Institute in Reno. All facilities have either timesharing terminals or remote batch terminals, or both.

Installation of the CDC CYBER 73 system on the Las Vegas campus in April, 1978 brought the most dramatic change to the university's computer operations and services, according to Brad Bowman, assistant director and deputy for the university's computer



Two remotely located Control Data computers operate as one to serve 410 timesharing terminals in the University of Nevada System, which consists of five campuses and a research institute.

operations in the Las Vegas center. The additional system not only offered a higher level of computing and relieved the nearly saturated CDC 6400 that was installed in 1973, but opened the way for improved network communications.

One of the university's requirements was that the CYBER 73 in Las Vegas and the CDC 6400 in Reno — more than 500 miles apart — communicate with one another. To accomplish this, Control Data developed special software that allows jobs to be communicated between the two systems and among terminals in the network.

"Any of the 410 terminals in the network can access either of the computers," according to Edward Allen, electronics system analyst. "Batch data entered at any site can be routed to either computer and the processed results returned to the originating site or output to any other batch printer in the system.

"Each computer operates like a remote batch terminal to the other one," said Allen, who worked with telephone company personnel to configure the new communications network. It is described in more detail on the back page of this report.

A comparison between the university's first and tenth year of computer operations looks like this:

In 1969

Equipment: Sigma 7

Terminals: one timesharing terminal

Staff/budget: 23 persons, \$409,000

Jobs Processed: 52,900

Faculty/students: 11,601

In 1978-79

CDC 6400 on Reno campus
CDC CYBER 73 on Las Vegas campus
Network of 410 timesharing terminals and
3 remote batch terminals.

60 persons, \$1,400,153

352,000

34,320

Exhibit "A"
(Page 16 of 19 Pages)

Computer Capabilities Prompt Centralized Administrative Applications

With the addition of the CYBER 73, the university is developing new administrative applications that will take advantage of the system's interactive processing. A student accounting package under development will provide on-line inquiry and update of all student records and will include a



Communications between the CDC CYBER 73 in Las Vegas and the CDC 6400 in Reno provides users with two levels of computing.

number of new data bases. The library has implemented several phases of a huge resources inventory system that will provide on-line information on the major topics in all periodicals received at the university as well as those at public libraries throughout Nevada.

Along with student records, the personnel/payroll and financial accounting systems are naturally the largest of administrative applications and are constantly scrutinized for improvement, according to Marvin Baker, assistant director for administrative uses.

"One of our biggest tasks is to combine the financial accounting systems of the community colleges and the

Las Vegas Campus — CDC CYBER 73		
Location	Speed (BPS)	No. of Ports
Local dial from Las Vegas	300	15
Local dial from Las Vegas	110	10
Local dial from Reno	300	4
Local dial from Clark County Community College	300	10
Las Vegas Campus hardwire (dedicated) line	300	1
Las Vegas Campus hardwire (dedicated) line	110	5
Reno Campus — CDC 6400		
Location	Speed (BPS)	No. of Ports
Local dial from Reno	300	19
Local dial from Reno	110	15
Local dial from Las Vegas	300	4
Private leased lines	300	3
Reno Campus hardwire (dedicated) line	110	1

university into one," he said. "This will bring about uniform reporting procedures and generally improve the economy of that function by reducing the number of programs and computer runs."

Other administrative programs developed over the past ten years include: equipment and space inventory, student loans and financial aids, student billing and fee distribution, accounts receivable, audio/visual activity, medical admissions analysis, telephone charges and indirect cost recovery.

Computer use among students, faculty and researchers is always on the increase, according to Dr. Young O. Koh, assistant director for academic and research uses. Although there are only 2,000 user numbers assigned, many of these are instructors whose classes of 50 or more students use a single number.

In the development of academic applications to serve students, faculty and researchers, the university has emphasized statistical packages, believing that these can best serve the majority of students.

Dr. Koh is the author of a large statistical software package of 80 routines that ranges from simple tests to complicated factor analysis. Called USTAT-II (Tutorial System for Statistics With Timesharing Computer), it is

used by nearly 40 colleges and universities in the United States, Europe and Australia.

The colleges of Business, Engineering and Mines are large users of the computer facilities, as well as the university's Desert Research Institute whose remote terminal is switchable between the CDC 6400 in Reno and a CDC 7600 at the National Center for Atmospheric Research in Boulder, Colo.

The speed of the "link" between the University of Nevada System's two computers is presently 4800 Baud while the five remote batch terminals operate at speeds of 2400 to 4800 Baud over both dedicated and dial telephone lines.

Time-sharing service up to 300 Baud is available on either the Reno or Las Vegas machines by dialing local numbers in the respective cities. In addition, Reno users can access the Las Vegas machine by dialing a local number and Las Vegas users can access the Reno machine the same way.

Anderson said refining existing applications and developing new ones will occupy computer center personnel for some time to come.

"Now that we have a new source of computer power and inter-network communications we will continue to expand computer services throughout the university system," he said.

This report is published by the Public Relations Department of Control Data Corporation in cooperation with the University of Nevada System, Copyright © 1979. Control Data personnel may order additional copies from Educational Services Distribution (EGNFAC). Use the order number below. For more information on Control Data hardware and software operating at this installation, write to: Control Data Corporation, Computer Systems Marketing, HQW09G, P.O. Box 0, Minneapolis, Minn. 55440.

Litho 76368172

COMPARISON OF CURRENT UNIVERSITY SALARIES
TO EQUIVALENT STATE CLASSIFIED SALARIES

	<u>University</u>	<u>State</u>	<u>Level</u>
Research Programming Advisor	\$15,479	\$19,226	38-05
Computer Consultant	18,318	19,226	38-05
Assistant Director, SSND	\$28,676	\$29,325	42-15
Manager, Network Development	22,326	26,674	40-15
Manager, System Software	23,658	26,674	40-15
Documentarian	17,295	19,226	35-09
Electronic System Analyst	18,074	21,101	38-09
Software Specialist	18,147	21,101	38-09
Assistant Director, NNCF	\$28,341	\$29,325	42-15
Assistant Director, SNCF	28,007	29,325	42-15
Assistant Director, Admin. Uses	\$29,340	30,748	43-15
Analyst/Programmer	17,550	18,354	35-09
Sr. Analyst/Programmer	21,729	24,271	38-15
Analyst/Programmer	16,953	17,524	35-07
Analyst/Programmer	16,655	16,737	35-05
Sr. Analyst/Programmer	18,744	19,226	38-05
Sr. Analyst/Programmer	21,132	24,271	38-15
Sr. Analyst/Programmer	20,535	21,101	38-09

Source: State Classified Compensation Schedule Revised March 1978

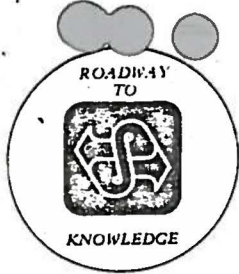
BARE BONE COST TO PROVIDE ADEQUATE
COMPUTER SERVICE TO
SOUTHERN NEVADA

On the UNLV Campus but servicing UNLV, the DRI, and
the Clark County Community College:

	<u>1st yr.</u>	<u>2nd yr.</u>
CYBER-73 Computer	\$188,981	\$195,368
Communication Equipment	4,655	-
	\$193,636	\$195,368

On the Clark County Community College but serving the
educational needs of all Community Colleges for
Report Generator (RPG) processing:

	<u>1st yr.</u>	<u>2nd yr.</u>
Mini-Computer	\$ 21,600	\$ 23,328
Professional Total, Compensation Adjustment	\$ 25,356 =====	\$ 25,356 =====
GRAND TOTAL	\$240,592	\$244,052



NORTHERN NEVADA COMMUNITY COLLEGE

901 Elm Street - Elko, Nevada 89801 - (702) 738-8493

RECEIVED
FEB 23 1979
COMPUTER CENTER

February 20, 1979

Dr. Neils Anderson, Director
UNS Computing Center
P. O. Box 9068
Reno, NV 89507

Dear Neils:

This letter is to support your request for the funding of the Computing Center. I contacted those individuals on our campus most closely related to the work of the Computing Center--the business office, Student Services, and instruction.

I have enclosed the information from each of the areas, but would like to summarize it. It is obvious from all three parties that the Computing Center serves a great need for Northern Nevada Community College. With our limited staff and the distances involved, the services rendered by your area in instruction, registration, and business are indispensable. As you read the comments from the three groups, this is very evident.

It is also evident that there is a need for even greater service at Northern. All three groups speak of the need for the remote batch terminal to be housed on the campus. Much of our work is presently dependent upon key-punching here, then sending the materials to your Center for processing, all of which involves a loss of time of anywhere from several days to several weeks. This is critical during our periods of registration. It is especially aggravating at registration when we are delayed in getting to our patrons refunds they are entitled to as a result of either cancelled classes or dropped classes. It also creates a hardship as we attempt to end the year and keep track on a day to day basis of our financial status.

We at Northern would want to support you and your request for additional funding one hundred percent.

Sincerely,

William J. Berg
President

11

Enclosures

The entire registration system is dependent on the computer system at UNR. The fee calculation of registration is handled by the business office. All fees must be keypunched on campus and then sent to UNR for processing. If there are any errors, the whole batch is sent back to us to be redone. We then have to send it back to UNR. The turn around time can be as little as four days or as long as two weeks. We are dependent on the bus to transport our batches to Reno. There have been times that our run was not put on the bus by the bus company, and also our runs have ended up in Salt Lake City and San Francisco because they were not taken off of the bus at the right stop. All runs are scheduled for a certain date in Reno, and if the run is delayed by any of the aforementioned happenings, this throws the scheduling off.

All student fee refunds are keypunched on campus and sent to UNR for processing. Refunds cannot be instigated until the computer fee runs are as close to a zero balance as possible in a given time span. We try to hold to a two-month time span on refunds. This is all but impossible with the present UNR User System. We have to spend too much time waiting for the reports to come back from Reno. If we had a Remote Batch Terminal on campus, we could do most, if not all, the computer runs right here. We would do an edit right away and any errors could be corrected immediately.

We are also asked to get financial reports for various administrative departments on campus. We are using TTY at this time to get the reports. This is an expensive and time-consuming way of getting this done. With an RBT unit this can be done easily and would benefit all departments by knowing at all times their expenditures and receipts for the fiscal year.

Business Office, NNCC

EXHIBIT B

844

Needless to say, Northern Nevada Community College is very dependent upon the services provided by the University of Nevada-Reno Computing Center. NNCC is located 300 miles from Reno, which creates serious transportation and logistics problems. All registration is processed at the computer center in Reno and transported from Reno to Elko by bus. Additional computer hardware, such as a Remote Batch Terminal, would be of tremendous value to us and increase our overall effectiveness.

The computer center currently processes our registration, which includes the fees, enrollment, and data on each student. It provides transcripts and other reports necessary for student files.

The building of the course schedule, selecting class cards, prepunched packets, enrollment, data base, fees, student transcripts, etc. all require input from us. The only way we have, at this time, to get our input documents (computer cards, etc.) to Reno is by way of the Trailways bus. We take our packages to Elko depot and they are picked up at Reno depot. We are at the mercy of the bus depot and bus drivers. Our packages have sometimes been left by the driver, have gone to Salt Lake City and San Francisco by mistake, and have been torn open through abuse. We can only schedule one run for each report a week because of turn around time. If there are errors in the reports, it takes at least another week to get a clean run.

With their expertise and assistance, the man hours involved in setting up classes, enrollment, and other preparations for registration are shortened extensively.

The computer center also issues reports that help us to furnish required information to the University System, and to State and Federal governments.

Student Services, NNCC

The following are the primary reasons that NNCC needs a remote batch terminal (RBT) to provide real-time computing and data processing for Student Services (including registration and student records), the Business Office, and educational programs in mathematics and business.

1. At the present, registration and student records data are key punched at NNCC in Elko, then sent to the UNS Computer Center in Reno by bus where the cards are run through the computer. Then, the output is shipped back to NNCC, again by bus. The process typically takes from a few days to a week. If any mistakes appear, the process must be repeated, which means it may take two weeks for the final correct copy of the report to reach NNCC after the data is available. With the proposed RBT set up at the NNCC campus, the report could be available on the same day the data is key punched. Mistakes could be corrected immediately and the final report available in a matter of days, instead of weeks.
2. Every major campus in the University of Nevada System has access to a remote batch terminal except NNCC at Elko. We are striving to overcome the image of a low-quality, shoe-string operation which accompanied our beginning as a community college more than ten years ago. The addition of the RBT would be a strong positive step in this direction.
3. Business programs are a large and growing part of the vocational area at NNCC. These include two-year programs in Business Mid-Management, Accounting Technician, and Marketing and Management, and a one-year certificate in Data Transcription Clerk. The best way to emphasize the growing importance computers have to students in these fields is to demonstrate the use of computers at the college. Eventually, students could be trained to help operate the RBT, giving them first-rate, on-the-job training.
4. The present UNS computer system at NNCC consists of only one old and very slow teletype (TTY) 33 terminal. This terminal has been used every semester for the last two years for the teaching of computer programming in a MATH 135 course. As many as 25 students in one class have used this one terminal to learn programming. This causes a long line of students waiting to get on the terminal. With the RBT students could write their programs, either key-punch them themselves or have part-time workers key-punch them, and then have their program decks run on the RBT to get their results back the same day or the next day. No more waiting. This would greatly increase the effectiveness of the programming course.
5. A major drawback in learning programming on the present TTY 33 terminal is the phone expense. During one month last year nearly \$300 worth of long distance phone time was charged against the Math department for students time-sharing over the telephone while programming. With the dedicated phone line which would accompany the RBT, these costs could be greatly reduced. Overall phone costs from Elko to Reno (to which most long distance calls are made) could also be substantially reduced using the dedicated line for both computing and business calls.

6. We would anticipate greater use of computers for research by NNCC . faculty and staff, by UNS field workers and by Elko businessmen and townspeople if the proposed RBT were set up at NNCC.



WESTERN NEVADA
COMMUNITY COLLEGE
NORTH CAMPUS

P.O. BOX 3479
RENO, NEVADA 89505

(702) 673-4666

February 26, 1979

UNIVERSITY OF NEVADA SYSTEM

RECEIVED

FEB 1 1979

COMPUTER CENTER

7000 EL RANCHO DRIVE
SPARKS, NEVADA 89431

MEMORANDUM

TO: Niels H. Anderson, Director, UNS Computer Center

SUBJECT: Requested Definition of Needs for Zero-Based Budgeting

The Computer Center 1979-81 biennial budget proposal will have a direct and important consequence in the administrative and instructional future of the Reno/Sparks Campus of Western Nevada Community College.

We are presently in the process of constructing Phase III, an additional 100,000 square feet onto our present building. This addition is scheduled for completion in spring of 1980. This space will include a planned Data Processing Lab and a Developmental Mathematics Lab. The Data Processing Lab is planning on from 12 to 24 terminals and will teach BASIC, RPG and COBOL. The Developmental Mathematics Lab is planning on from 2 to 4 terminals and will use Computer Assisted Instruction and will teach BASIC and FORTRAN.

Administrative uses are becoming oriented toward files maintained in the timeshare mode. We feel that several files and systems not presently maintained on timeshare should be adapted for such use.

An additional problem is the effect our present use is having on the telephone system at the College and possibly at the University. With additional development, this problem will be aggravated further. Some solution in this area must be sought.

We are also requesting at this time that, beginning with the summer session 1979, the Computer Center keypunch all materials for the Student Accounting System.

There are also some feelings on the Campus as we watch additional developments, proposed and underway, on the UNR and UNLV Campuses that there is a strong imbalance in assignment of resources between the Universities and Community Colleges. Examples of this are: 1.) the use of couriers on the UNR Campus with very inadequate service to WNCC, 2.) the use of data technicians at the Computer Center to correct data needed at UNR, 3.) development of demonstration and faculty areas at the Water Resources Building, 4.) consideration of a multiplexing phone line to the Ross School of Business, and 5.) assignment of four programmer/analysts to the new student records system of UNR-UNLV as opposed to the Community Colleges hiring their own when the SCT system was adopted.

P two
Niels H. Anderson
Febraury 26, 1979

Our future programs and their development are directly contingent upon your ability to provide the services necessary. We hope that expressing these needs and concerns will help you in the development of your budget proposals.

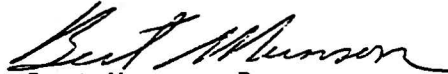
Sincerely,



Kenneth E. Johnson, Director
Admissions and Records



Allen Lewis, Instructor
Data Processing



Bert Munson, Dean
Liberal Arts

ps

cc: V. James Eardley



DESERT RESEARCH INSTITUTE

University of Nevada System

Social Sciences Center

1010 El Rancho Drive
P.O. Box 60220
Reno, Nevada 89506
(702) 673-4750

February 26, 1978

Dr. James W. Telford, Chairman
DRI Computer Users Group
Atmospheric Sciences Center
Desert Research Institute
Stead, NV.

Dear Jim;

Although the Social Sciences Center is not currently using the computer facilities, it plans to do so in the immediate future. The Center has been contracted by the Department of Energy, Nevada Operations, to conduct a cultural resource inventory on the Nevada Test Site. Since the overall research objective of this project is to collect information pertaining to prehistoric man's adaptation to his environment, it will be necessary for researchers to collect a complex data base pertaining to both environmental and cultural parameters. Our ability to interpret the events of the past will be based on our capability to quantify this data base and to demonstrate interrelationships between variables. Thus, the success of this program rests, in part, on our capability to store and retrieve literally thousands of bits of information.

Not only will the computer facilities at the University of Nevada System aid the Social Sciences Center in its investigations on the Nevada Test Site, but will increase the Center's ability to obtain contracts relating to cultural resources throughout western North America. Computers have become an essential tool in archaeological research and those institutions which demonstrate a capability in computer science will hold a definite edge over their competitors. The Social Sciences Center plans to greatly increase its use of the computing facilities and encourages support of the Computing Center.

Sincerely,

Lonnie C. Pippin,
Assistant Research Prof.

LCP:dc

EXHIBIT B

COMPUTER USAGE IN THE ATMOSPHERIC
SCIENCES CENTER - DESERT RESEARCH INSTITUTE

1. Data Being Processed: Aircraft data, model simulations, air quality data - meteorological field data, cloud seeding precipitation and operational data, chemical analysis data, cloud chamber and aerosol counter data, wind survey data.

2. Staff Using Computers:

R. Brown	50%	E. Reinhardt	20%
R. Kunkle	100%	P. Gillaspy	30%
B. Treadway	80%	A. Gertler	20%
L. Young	25%	T. Pointon	50%
J. Molenaar	10%	D. Schorran	25%
D. LaMontagne	25%	F. Rogers	40%
J. Telford	20%	C. Chen	20%
A. Vaziri	80%	J. Hudson	20%
P. Wagner	15%	W. Combs	20%
S. Chai	80%	J. Barnard	70%
M. Graham	10%	T. Cumpton	50%
S. Keck	80%	J. Peterson	50%
R. LaMontagne	30%	K. Boro	50%
E. Noveroske	75%		

3. Staff Gathering Data for Computers:

L. Young	25%	J. Hudson	80%
T. Cumpton	50%	F. Rogers	60%
D. LaMontagne	50%	B. Treadway	20%
A. Anderson	100%	E. Noveroske	25%
J. Telford	20%	J. Peterson	50%
P. Wagner	25%	K. Boro	50%
A. Vaziri	10%	G. Jones	100%
D. Lamb	10%	E. Jackson	100%
J. Hallett	10%	E. Faught	100%
J. Barnard	30%	W. Combs	80%
R. Egami	50%	W. Proctor	100%
T. Hoffer	60%	C. Chen	80%
D. Schorran	75%		

(Plus several other part time employees)

4. Other Auxiliary Computers Used in Conjunction With CDC 6400:

2 Micro Novas - Data transfer; data collection

2 Mac 16-Graphics and aircraft data display

1 Lockheed LC 728-data collection

1 PDP 8 - Data tabulation

1 CDC 732/12-Remote Batch Terminal

5. Originating Scientists:

Warburton, Telford, Kocmond, Vaziri, Hoffer, Steele, Lamb

6. Key Staff and Their Programming Usage:

J. Telford - Software development, assembler, Fortran

A. Vaziri - Numerical modeling on large machines - Fortran

S. Keck - Assembler, software development, Fortran

P. Wagner - System design, Fortran

R. Kunkle - Software development, Fortran

R. Brown - Software and hardware, assembler, Fortran

S. Chai - Fortran

T. Cumpton - Fortran

R. LaMontagne - Fortran

L. Young - Machine language, Fortran

E. Noveroske, Fortran

All other staff working with computers: Fortran

7. Future Needs:

a. Problems - Manpower needs, computing needs.

More T/S terminals

Faster T/S lines

More advanced graphics systems and terminals.

b. Data entry - Methods and medium

Key punch machine, graphics terminals, faster T/S terminals.

Possible mag tape transmission.



DESERT RESEARCH INSTITUTE
University of Nevada System

Water Resources Center

7010 El Rancho Drive
Sparks, Nevada
(702) 673-4750

Mailing Address: P.O. Box 60220
Reno, Nevada 89506

Computer Usage at the
Water Resources Center

Virtually all funded research at the Water Resources Center (WRC) uses the computing facilities of the U.N.S. computing center at some level. As a gross estimate, at least 80% of research activities depend upon the computing facility being maintained at the current level. It is not possible to predict the effect a budget cut would have on the computing habits of WRC personnel because the effects would be a function of the particular services that are cut. However, it is safe to say that almost everyone involved in computing would feel the effects in one way or another. In fact, a significant reduction in services (say 20%) would probably cost WRC more than the state would save due to the budget cut, measured in terms of man-hours spent overcoming specific problems due to the reduction in service.

In a facility such as WRC, these wasted man-hours must be taken from time that should be devoted to funded research. The resultant delays will likely cause project completion reports to be late (at the very least) and (at the worst) incomplete, due to lack of pre-budget cut anticipated computing facilities. The resulting poor performance record of WRC could seriously affect WRC's ability to secure funded research in the future.

A reduction in funds for the UNS computing center is therefore not merely an inconvenience, but a serious threat to WRC's activities.

The WRC has at least one funded project (involving the mathematical modeling of a Nevada geothermal system) that requires state-of-the-art computing facilities. Because of the lack of such facilities at UNS, it is expected that the computing portion of this work will have to be performed "out-of-house", that is, computing time will have to be purchased from computing facilities elsewhere that will support large-scale modeling programs. The WRC has the potential (in terms of personnel ability) to acquire more funding in the future which will require similar state-of-the-art computing facilities, but the pursuit of such research funds is discouraged by the lack of "in-house" computing facilities. Therefore, the WRC's ability to acquire certain types of research funding (which is otherwise has the capability of performing) is already being hampered by not increasing the capabilities of the UNS computing center.



DESERT RESEARCH INSTITUTE

University of Nevada System

Atmospheric Sciences Center

P.O. Box 60220
Reno, Nevada 89506
(702) 972-1676

February 27, 1979

Mr. Niels Anderson
Computing Center
University of Nevada System

Dear Niels,

The Desert Research Institute Computer Users Group has asked me, its Chairman, to convey to you our concern with maintaining an efficient and capable Computing Center to support our research activities. The attached summaries give a brief outline of the extent to which our research activities depend on computing support, in obtaining contracts and grants, and in maintaining our state wide and national reputation in research.

We are very concerned that budget cuts in the Computer Center may seriously diminish the current level of support at a time when computer modeling is the preferred method of study for so many of our State and National problems in resources, and to which DRI is in a strong position to make a contribution.

Sincerely,

James W. Telford, Chairman
DRI Computer Users Group

JWT;sg

Attachments

EXHIBIT B

855

BIORESOURCES CENTER

ED LIDER

Manipulating the extensive Bioresources Center files that the computer center has on line would take a large amount of time if done by hand. We are just starting to request programs from other computing facilities and have been trying to put them on the computer at UNR. This activity is fundamentally data storage and data manipulation. There are currently three contracts dependent on this support, with approximately 3 to 4 persons involved. Generally, man hours would have to be increased one man year if there was no access to the computer because of the volume of data generated, thus involving a corresponding increase in costs.

856

EXHIBIT B

Page 14 of 21

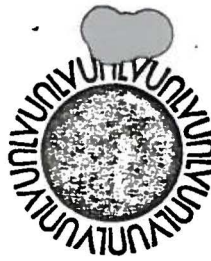
ENERGY SYSTEMS CENTER

ED HOOVER

The accepted centralized computing facility is essential to proposal preparation for project technical work in the energy center. Specifically, dynamic simulation and optimization of energy systems commonly requires large programs and extensive access. Currently, the UNS computing facilities provide the only feasible hardware support which is accessible at the Energy Center. Furthermore, extensive data reduction activities at the center require large fixed disks and magnetic tape access and storage, to the extent provided in most cases, only by the UNS Computing Facility. Finally, software support provided by the UNS Computing Facility reduces the time required by professional staff of DRI to complete the computing task. Future research contracting endeavors at the center will depend greatly on the adequate support and capability of the UNS Computing Facility.

EXHIBIT B

857



RECEIVED
MAR 2 1979
COMPUTER CENTER

DEPARTMENT OF ECONOMICS
UNIVERSITY OF NEVADA, LAS VEGAS
4505 MARYLAND PARKWAY • LAS VEGAS, NEVADA 89154 • (702) 739-3650

February 28, 1979

Mr. Neils Anderson
Director
University of Nevada System, Computing Center
University of Nevada, Reno
Reno, Nevada 89502

Computer facilities located at UNLV are of paramount importance to the future of this campus. In this era of rapidly advancing computer technology, businesses and governments are not alone in their growing reliance on the computer to perform complex tasks and reduce costs. Many academic functions of this university depend on the availability and quality of computer services.

To a great extent, a university serves to train its students for future careers. A growing number of fields in government and business require at least a working knowledge of how computers function. UNLV students, who plan technical careers in computer fields receive their training from courses in the computer sciences. Because a computer is located on the campus, these students directly learn how to manage a computer by working directly with the machine and system personnel. In the fields of science, engineering and business, UNLV students obtain practical knowledge about computers that is desired by prospective employers. It probably is not coincidental that since the installation of the computer on the campus, enrollment in beginning computer science courses has risen at the rate of 75% per semester. Considering the expected drops in university enrollment in this country, computer facilities on this campus must be maintained if we are to maintain educational quality and compete with other universities for enrollment dollars.

In several teaching related areas, the UNLV computer is being used to expand services and reduce costs. The library is expanding various computer data banks that allow easy and fast retrieval of information by researchers and students. The UNLV computer is increasingly being used as a teaching aid. For example, computer assisted homework is extensively used in the Physics Department. A computerized grading system is currently in operation that significantly saves secretarial, graduate assistant and faculty time. Using this system, one professor in the Economics Department gives, without assistance, weekly exams to introductory classes with over 200 students enrolled. During a semester, secretarial and professional time spent preparing and grading these weekly exams is estimated to be less than that spent on most classes. Further, students highly praise the speedy feedback of information possible with this grading system.

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EXHIBIT B

Neils Anderson
February 28, 1979
Page Two

Funded research is a large source of revenue to universities. In addition, the prestige of a university is profoundly affected by the level and quality of research conducted by its faculty. Many research topics cannot be contemplated without good computer facilities. Because grants and other sources of funded research are awarded on the basis of competitive bidding, adequate computer facilities located on the UNLV campus must exist if our researchers are to be cost competitive with researchers from other universities. For example, funding to the Visibility Research Center to study air pollution imagery depended on the existence of the computer being physically located on the campus.

It should be kept in mind that a good deal of research conducted at UNLV directly benefits local business and government. The geographical location and industrial mix of southern Nevada gives UNLV a comparative advantage over other universities in conducting research related to desert environments and to the gaming industry. The Biology Department, various departments in the College of Business, the Center for Business and Economic Research, and other departments have historically followed these lines of research. To a great extent, present and future research in these areas of vital interest to Nevada will depend on the quality of computer facilities available on the campus.

Sincerely,


Jeffrey Baxter, Ph.D.
Assistant Professor of Economics

JB/ws

cc: Brad Boman
Robert Smith



WESTERN NEVADA
COMMUNITY COLLEGE
NORTH CAMPUS

P.O. BOX 3479
RENO, NEVADA 89505

(702) 673-4666

UNIVERSITY OF NEVADA SYSTEM

RECEIVED

MAR 6 1979

COMPUTER CENTER

7000 EL RANCHO DRIVE
SPARKS, NEVADA 89431

March 2, 1979

MEMORANDUM

TO: Niels H. Anderson, Director, UNS Computer Center

SUBJECT: Requested Definition of Needs for Zero-Based Budgeting

On February 22, 1979 the Computer User Committee of Western Nevada Community College, South Campus met to discuss data processing needs for the biennial budget for 1979-1981.

In the fall 1980, an addition to the Carson City Campus will be completed. While no specific room is identified for data processing, there will be an area in the Business Department for data processing equipment. It is felt that a remote batch terminal or mini-computer will be needed. The Instructional Department plans on teaching BASIC, COBOL, and RPG. At the present time, the turn around ability for the South Campus is extremely slow and cumbersome. The Instructional Departments are also interested in computer assisted instruction. The administrative uses of data processing, particularly student records, would be greatly helped by a remote job entry station.

Thank you for this invitation to express our needs for the coming biennial budget.


Kenneth E. Johnson, Representative
Data Processing Policy and Planning Board

ps

cc: J. Clark Davis
Tony Calabro
Dave Wilkens
Marcia Berasain
Elliot Lima
George Tavernia

EXHIBIT B

860



UNIVERSITY OF NEVADA .RENO

RECEIVED
MAR 5 1979
COMPUTER CENTER

OFFICE OF RURAL HEALTH
SCHOOL OF MEDICAL SCIENCES
MANVILLE MEDICAL SCIENCES BUILDING
Reno . 89557
(702) ~~794-1577~~ 784-4841

March 5, 1979

MEMORANDUM

TO: Niels Anderson, Ph.D.
Director, Computer Center

FR: Beverley D. Rowley, M.A. *BDR*
Chairwoman, Computer Users Advisory Board

RE: Need for Computer Services

Attached is a priority listing of the needs seen as most necessary by the UNR Computer Users Advisory Board. The Board and thus this list of priorities is representative of the entire campus.

The Board believes all services of the Computer Center are underfunded and as a result education at the University of Nevada, Reno, suffers. All graduates of this university are entering a computerized age, yet the resources necessary to prepare students to deal with their future environment are not available. The top priorities address the need for additional programming personnel to help faculty, staff and students fully utilize the services and facilities currently available.

Unanimously the UNR Computer Users Advisory Board supports the expansion of the Computer Center budget so that services and educational functions can be brought to a level comparable with other state universities.

BDR:jd
Attachment

EXHIBIT B

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Page 19 of 21

Computer Users Advisory Board

Priority List of Computing Needs

1. Help with programming - The Center should provide additional assistance in the area of helping research, educational and commercial users with understanding and using existing computer capabilities. This would involve some active Computer Center interest at the proposal stage which is an overhead expense and some active involvement during the user software "de-bug" phases of this project.
2. Establishment of a graduate student position which would be responsive to the less complicated programing needs of students and faculty.
3. More hardware - In order to market the Computer Center as a resource, some hardware expansion would be necessary. For example, some limited graphics capabilities is needed to attract both research and commercial users. A hard copy digital plotter would find widespread use and surely return the capital investment in a short time.
4. Location of terminals and keypunch machines in one central location on campus to facilitate easy use by students.
5. Additional software including mathematic, engineering, social science, and other such specialized research software packages that are available for purchase or lease.
6. Help in developing administrative uses of the computer. It is necessary to have administrative programs available for payroll, registration, etc. as well as for use in advanced business reporting. Such software would have commercial interest. There is always a question of priority of use, i.e., administrative, teaching, research, commercial, etc., however the computer must always be designed to satisfy a balance between these various tasks; then, as priorities change, the hardware-software can be adjusted with a minimum of expense and disruption to service.

A prime example would be planning for the computerization of registration with a careful eye on the impact that such a program would have on the other tasks being performed.

7. Develop methods whereby the Computer Center as a resource could be more effectively used to generate outside revenues. This would involve the development of a cost sharing policy, expansion of computer services that would appeal to research and commercial users, and increased marketing support to advertise the computing capabilities.
8. Help in building teaching packages - There are many applications in education that the computer can make a significant contribution. With high teaching loads and limited graduate student help many professors are reluctant or simply do not have the time to adapt their needs to the computer. The Computer Center could provide some specific help in bringing to the attention of the faculty programs being used at other universities and provide the support to obtain the software and bring it up to an operational status with some help from the professor in question.



UNIVERSITY OF NEVADA, RENO

STUDENT SERVICES

March 6, 1979

FINANCIAL AID OFFICE
Second Floor - TSS
Reno, Nevada 89557
(702) 784-6584

TO: Niels Anderson
Director, UNS Computing Center

FROM: W.E. Rasmussen *W.E. Rasmussen*
Director

Subj: Continued Support for Financial Aid Processing

RECEIVED
MAR 6 1979
COMPUTER CENTER

Due to the Middle Income Student Assistance Act (PL 95-566) signed into law by President Carter November 1, 1978, students from "middle income families" (roughly, students from families with adjusted gross income between \$13,000 to \$25,000) will be provided for the first time significant amounts of student aid dollars in five federal programs. These programs are the Basic Educational Opportunity Grant, National Direct Student Loan, Supplemental Educational Opportunity Grant, and the Guaranteed Student Loan. At UNR, these changes will greatly increase the number of newly eligible students who will need to be processed through the Financial Aid Office staff.

It is projected that in 1979-80 UNR will have 3,000 total recipients in these five programs, which is a significant and overwhelming 65% increase in eligible students and an \$870,000 increase in student aid funds. The Financial Aid staff will have to winnow through approximately 4,500 applications (nearly 75% of our enrollment) to select those final 3,000 plus eligible recipients (nearly 50% of our enrollment).

The anticipated doubling of the number of applications and the projected increase in numbers of eligible student recipients during 1979-80 and beyond, will result in voluminous paper work (applications, correspondence, forms, lists, records, and a "tracking system"). My staff and I have worked diligently with the Computing Center staff during the past two years to establish the procedures and systems for more computer help to us in the processing of financial aid awards. For academic year 1979-80, the Computing Center, for the first time, will be providing computer produced notifications to students of their awarded funds (award letters) and computer produced checks from the Financial Aid Master File. Additionally, a better tracking and control system will be operational which will ensure that funds are appropriately monitored to prevent institutional liabilities.

It is essential that we receive the Computing Center's continued support of the above procedures as well as further help in identifying and eliminating archaic manual procedures. Without your continued support, it is unlikely that we will be able to effectively provide prompt and accurate awards to students which will adversely effect enrollment figures at UNR.

DB/blh

cc: Beverly Rowley
Ron Kendall

EXHIBIT B

Analysis and Recommendations Concerning Operating Budget for 1979-81

1. Full-Time to Part-time Faculty Ratio

The Executive Budget recommends 154.78 faculty positions, of which 75.15 are full-time and 79.63 are part-time. We presently have 70.75 full-time positions. The new positions in the budget are designated for Dental Hygiene, Nursing and Respiratory Therapy. This provides no new positions for full-time faculty in other occupational areas, the Arts and Sciences, and Developmental programs.

Due to enrollment increases and program development requirements, eight new full-time faculty are requested for each year of the biennium. The faculty would be hired in the following instructional areas:

Graphic Arts	Art
Drafting	English
Electronics	Political Science
Food Service	Chemistry
Real Estate	Microbiology
Air Conditioning, Heat, Refrigeration	Mathematics
Biology	Communications
Sociology-Anthropology	Psychology

Changing eight positions from part- to full-time each year would cost:

1979-80	\$ 86,584
1980-81	178,363
Total	<u>\$265,947</u>

New full-time faculty must be hired to serve new FTE students.

2. Learning Resource Center

The 1975 accreditation recommendation urged additional professional and classified personnel. We strongly recommend the increase of one professional and one classified each year of the biennium

<u>1979-80</u>		
One professional		\$ 17,741
One classified		12,000
		<u>\$ 29,741</u>
<u>1980-81</u>		
Two professionals		\$ 35,482
Two Classified		24,000
	plus	6% 1,784
		<u>\$ 61,266</u>
	Total	\$ 91,007

3. Career Development and Placement Center

The college obtained a three-year state grant in the amount of \$70,000 per year for an exemplary project, part "D" monies, to establish a Career Development and Placement Center. These funds expired in 1978. In order to maintain our strong occupational emphasis, these services are essential. We tried to respond partially by assigning the career counselor and the placement coordinator to the instructional budget.

We need three professional positions and one classified position for the operation of the Career Center.

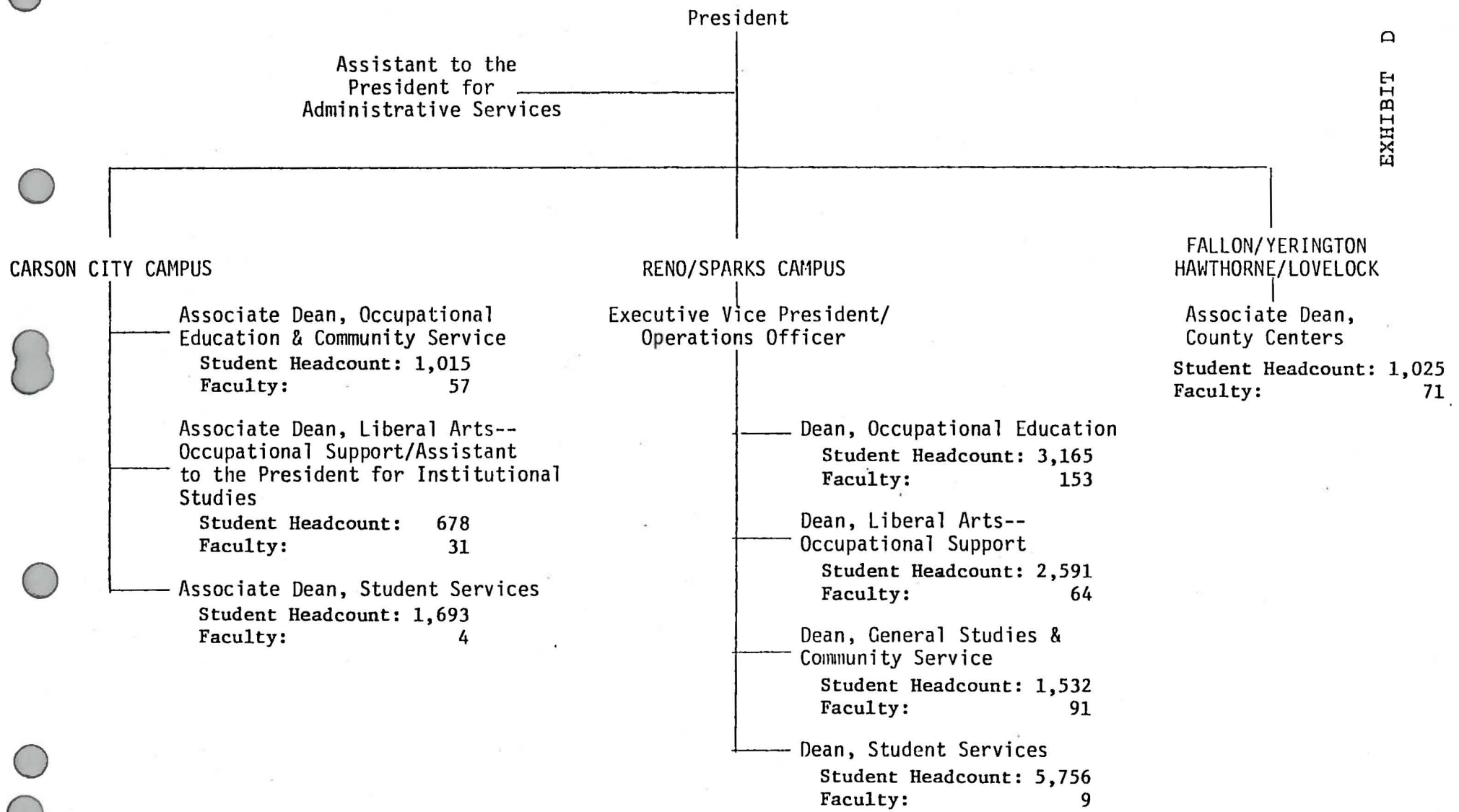
	<u>1979-80</u>	<u>1980-81</u>
Job Developer	\$17,741	\$18,805
Career Counselor	17,741	18,805
Placement Coordinator	17,741	18,805
Career Specialist	11,000	11,660
Total	<u>\$64,223</u>	<u>\$68,075</u>

\$132,298

WESTERN NEVADA COMMUNITY COLLEGE
 ADMINISTRATIVE ORGANIZATION - 1978-79

865

EXHIBIT D



WESTERN NEVADA COMMUNITY COLLEGE
1979-81 BUDGET REQUEST

Western Nevada Community College requires the following additions to the proposed Executive Budget which will allow the College to proceed with its educational mission and serve the growing student population. These additions are:

1. Instruction (230.72 - 230.73)

The Executive Budget is recommending 129.43 FTE professional positions in Instruction. This represents all WNCC health science positions at full-time and the balance of the positions at 45% full-time, 55% part-time. As WNCC matures, the ratio of full-time to part-time instructional staff needs to increase to allow for program development, service, and program stability. WNCC is requesting that all faculty other than health sciences be budgeted at 50% full-time, 50% part-time.

Full-time positions are budgeted at a salary of \$17,702 plus 8% for 1979-80 and plus 6% for 1980-81. Part-time positions are budgeted at a salary of \$6,918 plus 8% for 1979-80 and plus 6% for 1980-81. WNCC's request would increase the full-time instructional positions for 1979-80 by 5.70 FTE over the Executive Budget recommendation for 1979-80 and decrease the part-time positions by a corresponding amount. The increase for 1980-81 over the Executive Budget recommendation would be 6.34 FTE full-time faculty. The priorities for full-time instructional positions are:

WNCC - Reno/Sparks

1979-80

1. Welding Instructor
2. Drafting and Design Instructor
3. Solar/Air Conditioning Instructor
4. Hotel/Motel Management Instructor

1980-81

1. Accounting/Bookkeeping Instructor
2. Shorthand/Typing Instructor
3. Marketing Instructor
4. Radiological Clinical Supervisor
5. Developmental English Instructor

WNCC - South Campus

1979-80

1. Automotive Mechanics/Small Engine Repair Instructor
2. Welding/Metal Fabrication Instructor

1980-81

1. Agriculture/Industrial Arts Instructor

EXHIBIT E

866

E

The major reasons for the 50/50 adjustment are:

- a. College facilities in Reno/Sparks and Carson City have allowed daytime programs to grow. Nighttime high school occupational areas are now heavily used, which is another factor forcing daytime programs. There is no daytime facility space in school districts for classes. Therefore, greater demands for full-time staff are required at present College facilities.
- b. Occupational student loads have grown and matured to require the use of full-time personnel to teach and build programs. Part-time instructors teach their classes and then leave campus. Also, most of the part-time faculty teach at night because they have other full-time jobs during the day.

The additional cost over the Executive Budget to change the mix, including salary and fringe benefits, is:

1979-80 = \$78,600 - 5.70 FTE from part-time to full-time.

1980-81 = \$176,000 - Continue 1979-80 5.70 FTE, plus change
6.34 FTE from part-time to full-time.

2. Student Services

(230.74 - 230.75)

By 1980-81, WNCC's headcount students will have increased by 50% over 1977-78. Since 1977-78, WNCC has added only one professional in this area to assist the additional students. Student growth and requests for service are such that WNCC is requesting two additional professionals for each year of the biennium. The priorities are:

WNCC - Reno/Sparks

1979-80

1. Veterans/Handicapped Counselor

1980-81

1. Registrar

WNCC - South Campus

1979-80

1. Placement Counselor

1980-81

1. Counselor for Rural Areas

The additional cost above the Executive Budget for salary and fringe benefits for the two positions in 1979-80 and two more positions in 1980-81 is:

1979-80 = \$35,800 - Two Student Services professionals.

1980-81 = \$75,900 - Two Student Services persons for 1979-80, plus two additional for 1980-81.

3. Due to actual expenditures, WNCC must request additions to the Executive Budget in two areas: Operation and Maintenance of Plant Services, and Property Rental. As a result of utility and services increases and the completion of the 100,000 square foot addition to the Reno/Sparks Campus in April, 1980, an additional \$65,500 is required in 1979-80 for Services. WNCC has an agreement with the Washoe County School District that the College will operate, in lieu of building rental, the in-service education program for the District. The total cost of the program is \$70,000 each year, and an additional \$35,000 is required each year to meet this commitment. (230.77 - 230.78)

Additional cost above the Executive Budget for these items is:

1979-80 = \$100,500 - Additional utilities and property rental.

1980-81 = \$ 35,000 - Property rental only. Budget for 1980-81 utilities allocation is adequate.

In summary, the fiscal impact of all requests beyond the Executive Budget is:

1979-80 = \$214,900

1980-81 = \$286,900

Total = \$501,800 for the two years of the biennium.