



JANUS

A FACULTY JOURNAL

The University of Montana

Number 6

SPRING 1995

IN THIS ISSUE:

- Nancy Keenan.....Page 1
Who Will Speak for the Children?
- Tom Morera.....Page 3
Getting Into the Internet
- Rudy Gideon.....Page 9
Welfare of the University: Are the Sciences to be
Part of the University of Montana in the Future?
- Thomas Payne.....Page 13
Faculty Salaries at the University of Montana
- Mark Behan.....Page 17
UM's Native Plant Garden
- Variable Investment Yields.....Page 19
- Issues Affecting Older Employees and Retirees...Page 21
- Howard Reinhardt.....Page 24
Reading with Friends

DEPARTMENTS

- Faculty Abroad.....Page 16
Roger Dunsmore on The Russian Woman
- Reflections.....Page 20
Faculty Senate on Emeritus Faculty (1975)
- Did You Know?.....Page 22,23
Age and Gender Distribution in the Faculty

JANUS, the work of a small group of partly retired and retired faculty, is designed to provide a continuing forum to all faculty and others interested in the welfare of the university. While the editorial board solicits manuscripts on specific topics, unsolicited manuscripts are very welcome. In fact, the existence of the journal is dependent on all sources of manuscripts. To take advantage of low cost we ask that all manuscripts be limited to ten pages singly spaced and be camera ready without pagination. For submission of manuscripts or for further information please call one of the following on campus or at home: W. Ballard, M. Behan, M. Chessin, J. Cox, D. Hampton, T. Payne, H. Reinhardt or R. Smith. JANUS is funded with the help of the University of Montana Faculty Senate. (The deadline for manuscripts for the next issue will be announced through campus mail.)

WHO WILL SPEAK FOR THE CHILDREN?

By Nancy Keenan, Superintendent of Public Instruction

When Governor Marc Racicot created the Task Force to Renew Government, he asked its members to find ways of streamlining Montana's government. One idea he asked the task force to consider was a proposal to combine two educational agencies into one "superagency" under the office of the governor.

I respect the governor's efforts, as we must constantly look for ways to make government more efficient. In fact, Governor Racicot and I agree on many issues affecting children and education. We have had a good working relationship over the last two years, and we both believe Montana benefits from this kind of cooperation.

However, thoughtful, reasonable people can come to different conclusions about the task force's recommendations. And on the issue of consolidating the Office of Public Instruction with the Commissioner of Higher Education, the governor and I have indeed come to very different conclusions.

The governor's proposal, which is now being considered by the 1995 Legislature, would not affect me personally (because of term limits), since the proposal would not take effect until 2001. However, it could have significant negative impacts on Montana's children. In a nutshell, the question is this: Do Montanans want an *advocate* for school children, or a *bureaucrat*?

The Office of Public Instruction exists to serve children in kindergarten through grade 12. We also serve their parents, teachers, school board members, and administrators. It is OPI's mission to work with local schools in providing a quality education for all Montana children.

In 1972, delegates to Montana's constitutional convention debated whether to continue the tradition of electing a state superintendent of public schools or change it to a governor-appointed position. The delegates ultimately decided to retain the state superintendent as an elected position. Transcripts of the convention make it clear that delegates chose this path because they wanted Montanans to have a separate, autonomous voice for K-12 education—someone with direct accountability to the voters. Because education is so important to Montanans, the delegates wanted citizens to retain the power to elect the superintendent of public instruction.

The governor's proposal would take that power away from Montana citizens. It would amend the state constitution to remove the position of superintendent of public instruction, consolidating all functions of education into a new Department of Education under the governor.

This may not pose a problem as long as Montana has a governor who supports K-12 education. Under a governor who is less concerned about K-12 schools, however, who would speak for the children? It is highly unlikely that the governor's appointed director would oppose the governor's position. The current separation of powers would be gone, and Montana's children would lose their autonomous advocate.

Furthermore, while higher education has an equally important mission, it is a very different mission from that of K-12 schools. If the governor's proposal is adopted, what will happen when the debate over dollars for education takes place? Will the voice of university professors drown out the voice of small children? That's

exactly what has happened in other states which have consolidated K-12 education with higher education. In some of these states, the voice of young children has been silenced, and K-12 education has indeed become the stepchild of higher education.

Ironically, the intent of the governor's proposal is to decentralize government and bring it closer to the people of Montana. Instead, the proposal centralizes government and further removes it from the people by creating more bureaucracy and bigger government. Rather than having two officials to preside over K-12 education and postsecondary education, as we have now, Montana would have *three* officials: a director of the Department of Education, a deputy director for K-12 education, and a deputy director for postsecondary education. This structure could cost taxpayers even more than the present system.

In addition, Montana children would lose their voice on the State Land Board. Currently, the superintendent of public instruction serves on this board as a steward for public education. Because state lands were set aside to earn revenue for public schools, it has been the superintendent's job to make sure these lands reap the maximum benefit for K-12 school children.

Perhaps my greatest concern is that the governor's proposal does nothing to address the *real* needs of Montana's school children; it only shuffles boxes around on paper. Enrollment in Montana's schools has grown by 13,000 students in the last five years. Classrooms are overcrowded. State per-pupil support has declined steadily over the past several years. This has forced local taxpayers to make up the difference if they want to maintain the quality of their local schools. State funding for special education has been frozen for six years, while the number of children needing special education services has grown, forcing local schools to raid their "regular" education

budgets. Cuts in state services have placed more children with emotional disorders in our classrooms. Without the resources to deal with these children, schools face classroom disruptions that affect other students' learning. They also face potential safety problems.

Furthermore, if we want Montana students to compete with others for high-paying, high-skill jobs, we must provide them with access to technology, such as computers. And we must make sure all of our students leave high school prepared for the next step in their lives, whether it be college, technical education, a job, or some other chosen path. This will require some changes in our school system.

These are some of the real issues facing our children today. They are the issues identified by the state's education community as the top priorities for this legislative session.

I fully agree with Governor Racicot and the Task Force to Renew Government on the need for a coordinated, seamless web of educational services for children, from kindergarten through graduate school. I am pleased to report that Commissioner of Higher Education Jeff Baker and I have been working together toward that same goal, with significant success.

Ultimately, if the legislature adopts the governor's proposal, the people of Montana will decide whether or not to amend the constitution, and that's as it should be. That's where the debate should rightfully take place.

We can and must improve education. But we must do it without taking away the right of Montanans to have a direct voice in their public schools. We must not remove the direct accountability and the separation of power that the framers of our state constitution so carefully crafted.

Getting Into the Internet

Thomas A. Morarre

A worldwide network of more than three million computers, the Internet is exploding on many fronts. No longer the exclusive domain of government and university researchers, the Net is now open to all levels of society. Organizations and individuals of every ilk are flocking to the Net, which is changing the nature and culture of the Internet. Commercial activity in particular is booming as businesses of every size go online. New tools and technologies also are emerging at a rapid rate to make it easier to join and navigate the Internet.¹

Even though *Information Super Highway*, and *Internet*, are terms most of us now encounter daily we may feel somewhat bewildered by the various ways they are bantered about in the press and other media. Since most of us still spend the majority of our time doing things pretty much the way we always have, It may also occur to us to wonder what we might be missing out on. Even though adventures in cyberspace might sound intriguing to us, we still suspect that there is a lot of hype in the ravings of those who tout the birth of a new era. What's really going on here anyway?

In the early 70's the Advanced Research Projects Agency (ARPA), a research agency of the Defense Department, began deploying a nationwide network between select institutions of higher learning and certain D.O.D. research installations. This network, known as the ARPANET was experimental, but soon proved so useful that the experiment became a utility depended upon by many top scientists to connect them to one another and research materials that were located around the country. The demand for access was not adequately anticipated, and the software that allowed computing platforms of multiple vendors to communicate readily with one another had to be modified several times simply to allow for the ever increasing number of participants or *nodes* in the network².

In the last twenty-five years what was once the ARPANET has grown and divided into NSFNET and MILNET eventually evolving into what would be known as the Internet. The Internet, or Internet is a network of networks that now spans the globe connecting all

¹ Neubarth, Michael; excerpted from Conference Program and Reference Information for *Internet World 95*, p 3.

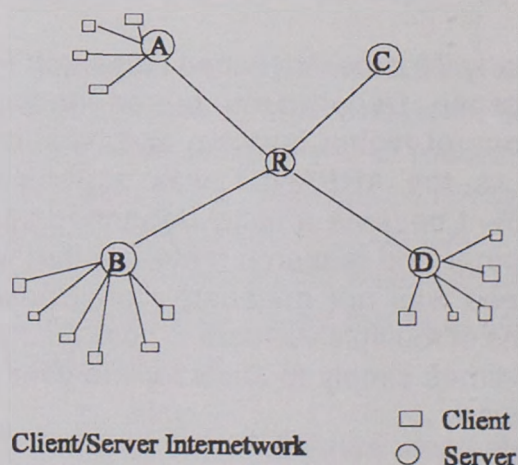
² A network node derives its name from topology. The alternative term for a node on a network is *host*. For effective communication, each node or host must have a unique address. With economy in mind, the initial address space was set to 2^8 , the maximum number that can be represented by a computer byte. Obviously, it didn't take long for demand to exceed the original 256 node limit of the network once work got around about the communication benefits it promised. Even though the current address space available to the Internet provides for 256^4 (4,294,967,296) hosts, we are once again running out of address space!

manner of disparate networks and computers by using a common communication protocol dubbed Transmission Control Protocol/Internet Protocol (TCP/IP). The uses have expanded from research and tactical communication to information services, including weather forecasts and maps, satellite images, library catalogues, interactive games and even virtual new car showrooms. Resources available include exhibits from the Smithsonian and the Louvre (as well as many other collections), music archives, grant data bases, the White House, On-line Journals, and full texts of books from Moby Dick to the writings of Augustine. The resources and topics are extensive and increasing daily.

A prominent factor in the success of the Internet is its distributed nature. The typical model for an information server in a computer (or other) network has been centralized. That is, one more powerful computer (the server) provides storage and other services for several less powerful or special purpose computers (the clients). The Internet has expanded this model by providing the potential for connecting all of the servers and all of the clients so that while each maintains its functional role, communication between widely dispersed and independent servers can support clients from any place in the world. Thus each participating network (Both clients and servers) becomes a thread woven into the tapestry of networks that is the Internet. The distinction between client and server becomes purely functional and clients can interact with one another as well as their servers.

As can be seen in the simplified diagram on the right, a virtual connection between server D and one of the clients behind server A can be established through the potential physical connection going through server R between A and D. Several clients can have access to any server through R simultaneously. Because of the efficiency of this model there are many more potential virtual connections than there are actual physical connections. Perhaps more importantly, at least from the standpoint of our discussion is that any services or

resources available from any server, say B, can be accessible to any client with a potential connection to R. Actual network topologies, of course, are more sophisticated, but the concept of distributed services is maintained throughout the Internet.



Of course, all of this is irrelevant unless the services are easily available for the human component of these networks to utilize. In fact, one of the major obstacles for the Internet to overcome was (is?) of access. Work at several institutions and corporations, notably The University of Minnesota Gopher team, and The National Center for Supercomputing Applications (NCSA) MOSAIC group, the World-Wide Web (WWW) development group at the European Particle Physics Laboratory (CERN) in Geneva, and the interesting Wide Area Information Servers (WAIS) consortium of Thinking Machines

Corp., Apple Computer, Dow Jones, and KPMG Peat Marwick helped develop Internet navigation tools. These tools help make the volumes of information existing on Internet servers more accessible to would be users. The tools have both a client and a server component that communicate with one another. Some of the network navigation tools can interact with others helping to provide continuing viability for the servers developed by early adopters. For instance, MOSAIC, the most graphical network browser, can access Gopher, FTP, and WAIS servers as well as WWW servers.

One of the hottest areas on the Net is the World-Wide Web, on which thousands of individuals and organizations are launching home pages, storefronts, malls, and publishing ventures. Another important trend involves the development of systems to enable secure commercial transactions on the Internet. All of these developments are making the Internet a key cultural and commercial locus of world society.³

For several years The University of Montana has provided access to the Internet for academic pursuits of the campus community. Some of the most utilized services include e-mail, remote file accesses, Internet News, Gopher, WAIS, and Mosaic network information browsers. Via the extensive fiber optic network on campus one can connect a PC or MAC to the Internet. Requirements include access to building wiring (not all building wiring has been completed), an ethernet card, an IP address (assigned by Network Services) and Internet software (much of this is available for no charge).

UM operates several Gopher Servers which connect us to other Gopher Servers world wide and provide information that is unique to UM to others on the Internet. In particular on the main Gopher server one finds information ranging from events schedules to the UM phone book. The Health Services operates a Gopher known as *Health Line*, which is visited regularly by Internet surfers around the world. In addition one can access the UM library network known as *Griznet* and obtain access to the online catalogue and the CD ROM library (*Lasernet*).

UM also supports FTP servers (for file transfers), and Mosaic Servers. There are currently three public Mosaic servers on campus: one in Computer Science, one in Math, and one in Forestry. These servers provide graphical hyper-text based access for those running a mosaic client on either Macs or PCs with Windows. They are also accessible via text-based clients such as *Lynx* that operate in text-only mode from terminals and older PCs. Soon there will be a UM Home Page that will provide the curious with virtual access to any department on campus that cares to participate by posting departmental information on the Mosaic server network. The Kaimin is already available on line, and electronic journals are becoming quite popular. Who knows? Soon *Janus* may also be available electronically.

UM is a member of the regional network known as NorthWestNet, one of the several

³ Neubarth, *ibid*.

Regional Networks that provide organization and administration for the Internet in the USA. Until recently the members of these Regional Networks were almost exclusively Universities. Now one can find new members ranging from K-12 schools to commercial organizations such as Microsoft Corporation and even car dealerships. The network growth is phenomenal, and with the growth the character of the network is changing. It's not clear that anyone is fully ready for such rapid development. However, at UM we are scrambling to get ready.

UM faculty and staff are currently participating in general outreach programs to help develop the state network and provide access to Internet (as well as local) information resources for the K-12 community. Network Montana, a project directed by Lynn Churchill of the UM Mathematics Department, is initiating pilot connection projects between UM and selected local schools. US West is a collaborator in the project and is providing much needed financial assistance. Additional funds are expected from NSF. And we anticipate this project growing to include all K-12 schools in Montana. Other public facilities we expect to see connected to the Internet in the near future include public libraries, medical facilities, and government agencies.

Of course to support these projects, UM must expand its support staff. At present it appears that the majority of startup resources will come from grants and new partnerships. We hope that the new statewide network known as Summitnet will provide the infrastructure on which many projects can be built. Summitnet will utilize frame relay technology recently deployed in major Montana cities by US West. It will be directed by a coalition of State telecommunications Services, the Montana University System, and the State Office of Public Instruction. This network should be fully deployed in the 1996/97 time frame. The following map depicts the Summitnet infrastructure and shows how state agency and educational facilities will be interconnected.

As Internet services become more well defined and as the support for the Internet passes from the government to the private sector, we expect to see access to the Internet become as available as telephone service is today. I tell folks that it is likely that affordable universal Internet access from their homes is no more than three to five years away. The Telcos and the Cable TV companies are already jockeying for market position. US West, AT&T, MCI, and Sprint have already begun laying the groundwork for network services in Montana. Before long the Internet will be as close as your TV or your telephone, since the major telecommunications providers are preparing to initiate Internet access as one of the services to which their customers can subscribe.

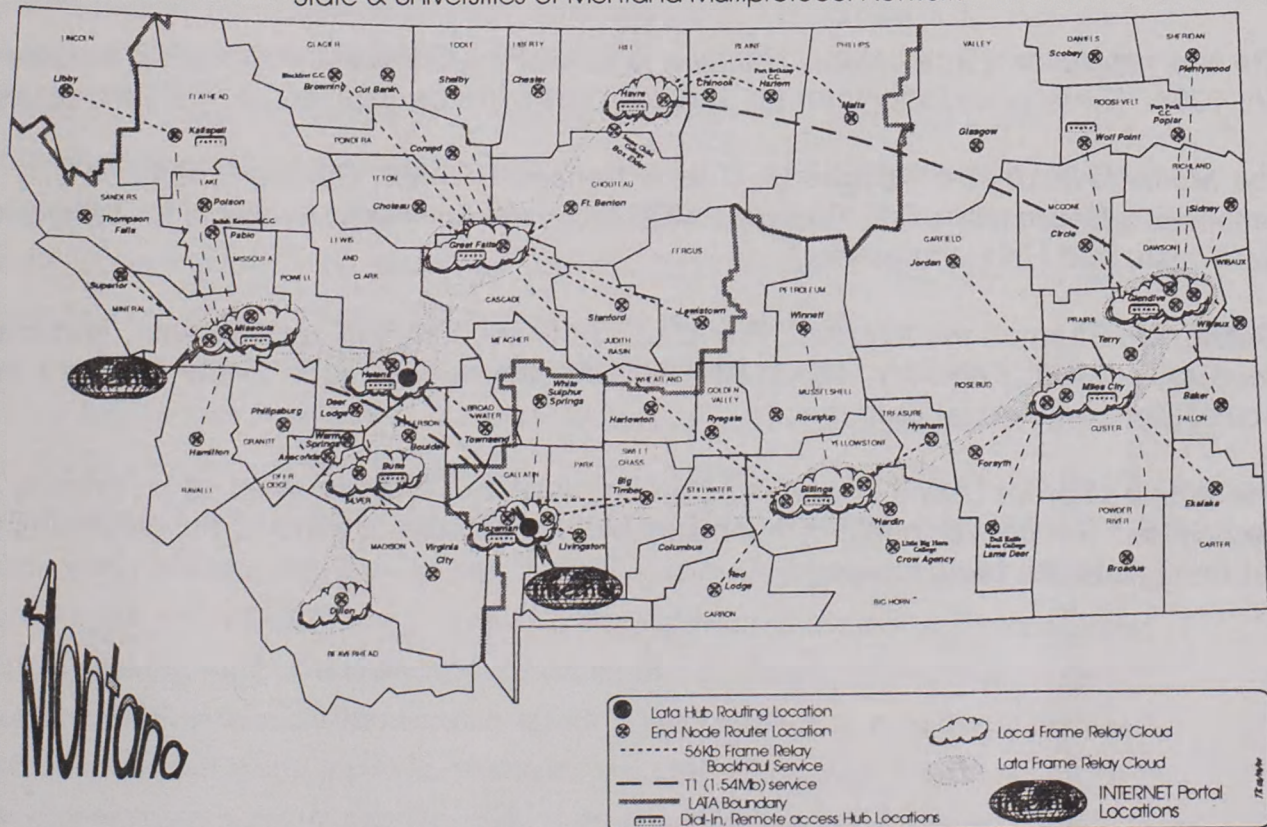
In the interim, there are ways for individuals and small businesses to get access to the Internet that are quite functional. My first recommendation is to investigate one of the startup companies that contract with large service providers to set up and manage Internet gateways. One such company is Montana Online who provides customers with unlimited access to the Internet for about \$200.00 per year. All you need is a PC (MAC or Windows) and a modem. Blackfoot Telephone has an arrangement with Montana Online, that allows them to offer Internet access for a very small fee. Sprint will also provide access to SprintLink, their network services, for a minimal fee. Other methods

of access include Compuserve, America Online, and Delphi, but these services are not local operations and offer somewhat limited Internet access as part of a broader service menu. Moreover, they can be quite expensive since they have a time based component in their charge schemes.

In any event, once you have a Windows PC or a Macintosh, the software, a high speed modem, a phone, and arrange for an Internet service provider, you can start surfing the Information Super Highway right away. The references provided at the end of this article should help you get going in the right direction with minimum travail. There is one more resource you will need however: that is time, and plenty of it. There's a world of information out there waiting for exploration. And it can be addicting!

SummitNet 96-97

State & Universities of Montana Multiprotocol Network



A Selected Reading List

"Building The Data Highway"; Reinhardt, Randy; *BYTE*, V. 19, #3, March 1994. [Excellent overview of the Information Superhighway from several perspectives.]

"Communications, Computers, and Networks"; Various Authors, *Scientific American*, Special Issue, V. 265, #3, September 1991. [Well written articles on various topics including theory, infrastructure, the work place, products and services, law and civil liberties.]

The Internet Complete Reference, Hahn, Harley and Stout, Rick; Osborne McGraw Hill, Berkeley, CA, 1994. [Comprehensive guide to the Internet-- readable.]

The Internet Passport, NorthWestNet's Guide to Our World Online. 4th ed., Kochmer, Jonathon; NorthWestNet and Northwest Academic Computing Consortium, Inc.; Bellevue, WA; March 1993. [A comprehensive introduction and guide to NorthWestnet and the Internet.]

The Internet Yellow Pages; Hahn, Harley and Stout, Rick; Osborne McGraw Hill, Berkeley, CA, 1994. [Reference list of Internet Services, newsgroups, lists, and e-mail addresses.]

The Mosaic Handbook; Dougherty, Dale & Koman, Richard; October 1994; O'Reilly & Associates; Sebastopol. CA. [Includes MOSAIC client software. Available for Windows, Macintosh, and Unix computers.]

"Setting Up Shop on the Internet", Frentzen, Garfinkel, Eamonn, and Sullivan, *Windows Sources*, p.66 ffl; February, 1995; Ziff-Davis Publishing Co., L.P. [How to utilize the Internet for commercial purposes.]

The Whole Internet User's Guide and Catalog; Krol, Ed; 2nd Ed.; April 1994; O'Reilly & Associates. [An encyclopedic compendium of all the places to explore, the short-cuts to get there, and the tools to use.]

The following speech was given to the University of Montana Faculty Senate on Thursday January 26, 1995. The references to Newspaper articles from the Kaimin and Missoulain appeared on the preceding weekend or later. Some people who heard the speech thought that it had a wider appeal than its title which just referred to the Sciences and they suggested that others should have the opportunity to read it. The Provost made a few comments after my speech and, if anything, they reinforced my thoughts rather than alleviate my worries. Any comments can be sent to

Rudy Gideon in the Mathematics Department or email: gideon@selway.umt.edu

THE WELFARE OF THE UNIVERSITY; ARE SCIENCES TO BE A PART OF THE UNIVERSITY OF MONTANA IN THE FUTURE?

In reading the news and listening to what the Commissioner of Higher education, the Board of Regents, our President have said, what they have done, and what they are planning to do, I have come to believe that they do not understand the nature of science and the training that it takes to educate a science student. My opinion is that they see higher education as a assembly line and a professor as an assembly line worker. They seem to not realize that we see ourselves as people trying very hard to stay abreast of a very fast changing science scene and trying to pass on our knowledge to our students. The number of graduates that a department or program produces is apparently the only factor that counts in the formulation of the programs that constitute this University. The content of courses, the long term needs of society, and even costs are not considered.

There seem to be exceptions to the assembly line principle: the Law School and the intercollegiate sports programs. If we science faculty and our students want to see how we are respected relative to coaches and Law Faculty, we need only to examine our recent Union contract, which I believe is very bad one for science students. I do not believe that science students can carry the academic or credit load required in our contract and continue to work part-time and full-time jobs and learn a reasonable amount of skills for a degree. I have a growing number of mathematics students that drop math courses because they do not have the time to make the necessary effort. When I read the story in the Missoulain about the football teams' trip to the midwest for the NCAA playoffs I was envious of the number of coaches and trainers they had. If the ratio of number of students to faculty in the Math Dept. was as small as the football program we could actually have students really learn mathematics rather than be bench warmers. Instead of helping our program, our President and Board of Regents last year passed a tax on our students to help the athletic programs, effectively making it more difficult for our students. With inadequate number of regular faculty, and students who have to work too many hours, our program has now come under attack as being a program not producing enough graduates.

In the first two years of our program, the Math Dept. is not funded or supported as well as most community colleges. At the beginning level we are forced to hire a large number of temporary people. Our Dept. has the same number of regular faculty as it had over 20 years ago with at least 2500 fewer students. In reading last Saturday's newspaper I read that the Law School and the athletic coaches received rewards for their good work because they were well supported by our administration. However, the same newspaper reported that "there has been little outcry from the University of Montana concerning the eight programs on Baker's list that have been targeted for elimination." Evidently besides being underfunded, our science programs are not supported by our own administration.

In this age of communication, it seems that our administration does not communicate to the Commissioner's office any information about the value of our scientific academic programs on this campus; apparently, our administration does not value our scientific programs, nor do they understand the time and energy it takes for our students to master difficult science courses. Many of us in the Math Dept. are appalled at the level of understanding and ability of our beginning students in math courses. Yet our new contract, that is being hailed as a breakthrough, neglects this concern and even tells us not to advise students to change majors, even when a faculty member knows that students are in the wrong field for their abilities. There was a very good letter about this subject by an English/Journalism major in Tuesday's Kaimin-- she blasted our narrow focus-- rightfully so!!! There have been other good letters to the Kaimin by our students.

Some of us in the Math Dept. are very upset and discouraged about the lack of concern by upper levels of administration for our advanced math programs and in general about the growing numerical illiteracy in our society. No one outside of our programs seems to understand the need for more, not less, mathematical knowledge in our students. The world is not going to become less mathematical because the Commissioner decrees it; he is only going to decree that Montana graduates are less mathematically talented. The Math Dept. has had its first two years of its programs amputated, its legs; now the Commissioner wants to cut off its graduate programs, its arms. Can our University with its other masters and Ph.D. programs in the sciences do well with a quadriplegic Mathematics program? Do the many industries in Western Montana that rely on consulting and interaction with the advanced knowledge that our science faculty have, want this knowledge resource to disappear? There certainly is no strong advocate for the sciences on this campus. There only appears to be advocates for larger football stadiums.

Let me connect the poor management policy of this University with the newspaper statement by Regent Johnson, "The purpose of this is to look at what we are doing in the system so that campuses can reallocate resources....to better meet the needs of the

students." My field is statistics and the statisticians in the Math. Dept. have for all of the 25 years that I have been here, taught courses for our own Math students and applied courses for the applied fields around the campus. Some faculty who teach statistics in other dept.'s could possibly disagree with me on my comments, but my main point is that the decision makers do not even understand our disagreements and by making their decisions without knowledge of the issues, they could be doing a great disservice to our students. The reason the Math. Dept. teaches applied courses in statistics and other mathematical areas is that statistics and say, differential equations and operations research, are used in many fields. It is more economical to service a variety of such applied students in our classes in the Math Dept. rather than to have many small courses around the campus. In addition these applied students get the benefit of seeing the use of the mathematical sciences in other areas and to have faculty who are devoted to keeping abreast of the latest new statistical or mathematical concepts. For example, two years ago, I had a mathematics class analyze some data for a Master's student in an applied area and I found out that her advisor did not know about the wide use of Box plots. Currently, this semester I am teaching the 2nd semester of our beginning applied statistics sequence, 345, to 12 students. Last semester, I had 40 students in 344 but most of them dropped 345 to take a similar class which is being taught by a professor in another discipline. Possibly the Math. Dept. should drop 345 because of this duplication, but the 12 remaining students come from areas that preclude their interest in only the examples of the other discipline. In addition to the beginning course in statistics, we teach, for example, an applied nonparametric course for graduate students around the campus. If we lose our graduate programs, this course may not be taught. In reading the newspaper articles, it is very apparent that the Board of Regents has not been informed of one of the main purposes of our programs, our interaction with students in other fields. With the current University management style in this "age of the information superhighway" I find that decision makers have no real information.

It appears that the document that the Mathematics faculty prepared concerning our program review has not been read by those people being quoted in the newspaper, and yet commissioner Baker is quoted saying that "it has been a thorough review process involving all the campuses." If the State of Montana is going to a top-down management system for the Universities that only uses the latest political thought to make academic decisions, then it is truly a waste of time for this University to have a Faculty Senate. William Demning was a very famous mathematical statistician who went to Japan 30 or so years ago and turned the Japanese economy around with a management system for all of their industries that is just the opposite of our management system, TQM. I heard him talk a year ago last summer just 6 months prior to his death. He was very upset with the

industries and schools with the old management systems that ignored the input of the worker producing the product.

Again from what I read in newspapers, it appears that in the future over 100 programs are going to have decisions made about them and after the decision is made, the public input will be taken; I am essentially quoting the Regents from the Newspaper: Quote by Regent Johnson, "I believe that the committee will pretty much go along with the recommendations of the commissioner unless someone can persuade us differently" and Regent Boylan, "wanted to make sure that the public had every opportunity to comment on the proposal." Note that the Regent did not say they would take any opinions of faculty! If this is the case then I believe the faculty senate should be disbanded because we really do not have anything of interest to do.

I would welcome the opinion of other members of the Faculty Senate.

**An Act to Establish, Locate, Maintain, and Govern
the University of the State of Montana**

...

Section 9 Tuition shall ever be free to all students who shall have been residents of the State for one year next preceding their admission, except in the Law and Medical Departments, and for extra studies.

...

Approved Feb. 17, 1893

From UTU Collaborative Bargaining Language

Assumptions

@ The funding for the plan assumes no increase in state general fund appropriations beyond FY 2000 except those increases associated with the state pay plan. Revenues derived from the six mill levy are projected to increase at the rate of 3% a year beginning in FY 2001.

@ Although the parties believe that too much reliance on tuition reduces Montana's historic commitment to provide the broadest possible access to higher education, they realize that the national trend is to increase the burden on students and their families. Beginning in FY 96, tuition rates are expected to increase at an average of 6.5% per year to a level consistent with tuition levels in the comparator states. By the end of the planning period, resident students will pay 30% of the cost of education; non-resident students will pay 100% of education beginning FY 1995.

FACULTY SALARIES AT THE UNIVERSITY OF MONTANA

by Thomas Payne

Professor Emeritus of Political Science

The University of Montana

May, 1994

Faculty salaries at The University of Montana have been notoriously low for some years. How low is evident from the data summarized below, in which average salaries for the tenured ranks, Professor and Associate Professor, prevailing at public institutions of higher education in the U.S. for the 1993-1994 academic year are compared. All data presented here were derived from "The Annual Report on the Economic Status of the Profession-1993-1994" published in Academe: Bulletin of the American Association of University Professors, March/April 1994. This analysis and its dissemination are solely the responsibility of the author.

Salaries for the various classes of institutions of higher education are referred to below. The University of Montana belongs to the category of Class I public universities, those which offer doctoral degrees. Some data is also presented for Montana State University, which is compared with that for other so-called land grant institutions. Other categories include classes II, IIA, IIB, and III. Class III institutions, do not offer full, four-year undergraduate programs.

From the salary data presented for the University of Montana, as well as the limited data presented for Montana State University, one may infer that some Montanans and some political leaders place a low value on higher education and its significance for the future of the state. Average salaries for Professors at UM rank last among average professorial salaries at Class I public universities and those for UM's Associate Professors rank next to last. Average salaries for UM's Professors rank below 84 percent of all full Professors' salaries in the U.S. and those for Associate Professors at UM fall below 80 percent of all Associate Professor salaries in the U.S.

The University of Montana and its faculty do not deserve the status accorded them by our state's niggardly support. Our University has excelled in its productivity. It has produced a Nobel laureate, 27 Rhodes Scholars, and countless nationally renowned scholars, scientists, educators, jurists, public servants, journalists, and business leaders. Through public service and outreach activities, it has enriched the state's people and institutions. There is wide agreement that investment in higher education and infrastructure has been the most effective strategy by which a state can enhance its economic development and the prosperity of its citizenry.

Montana has the resources to increase its investment in higher education sufficiently to lift its institutions of higher education above their present last place standing in funding. We like to boast that Montana is "The Last Best Place." We are in danger of losing that title. Will our new rank be "Last Place"? Let us determine that The University of Montana and our other public institutions of higher education shall be restored to their rightful levels of support.

1. Average Salaries for Professors at 49 Class I State Universities

<u>Salary</u>	<u>State Universities by State</u>
Over \$75,000	(4) CA, MI, NJ, VA
\$70,000-74,999	(10) DE, HI, IA, MD, MA, NY, NC, OH, PA, TX
\$65,000-69,999	(8) AK, CO, IL, IN MN, NE, WA, WI
\$60,000-64,999	(12) AL, AZ, FL, GA, KY, MO, NV, OK, RI, TN, UT, VT
\$55,000-59,999	(8) AR, KS, LA, ME, MS, NH, NM, OR, SC
\$50,000-54,999	(3) ID, WV, WY
\$45,000-49,999	(2) ND, SD
Under \$45,000	(1) MT (UM Ave. Prof, salary = \$44,600

2. A Comparison of Average Salaries for Associate Professors at 49 Class I State Universities

<u>Salary</u>	<u>State Universities by State</u>
Over \$50,000	(12) AK, CA, DE, HI, IA, MA, MI, NJ, NY, NC, PA, VA
\$45,000-49,999	(18) AZ, CO, IL, IN, KY, MD, MN, MO, NE, NV, NH, OH, RI, TN, TX, VI, WA, WI
\$40,000-44,999	(16) AL, AR, FL, GA, ID, KS, LA, ME, MS, NM, OK, OR, SC, UT, WV, WY
\$35,000-39,999	(3) MT \$36,500, ND \$39,100, SD \$36,400

3. Faculty Salaries at Montana State University Compared with Those at 21 Other "Land Grant" Public Universities

Professor-level Average Salaries at MSU (\$47,300) rank MSU 21st among 22 comparable institutions (Only ND is lower)
Associate Professor-level Average Salaries at MSU (\$37,100) rank MSU 21st among 22 comparable institutions (Only ND is lower)

4. Average Salaries for all Class I Public Universities Combined:

Professor-\$64,860; Associate Professor-\$47,170
 UM " -\$44,600; " " \$36,500

5. Average Salaries, Classes I, IIA, IIB, III (2yr) Public Higher Education Institutions Combined:

Professor-\$59,770; Associate Professor-\$45,330
 UM " \$44,600; " " \$36,500

6. Average Salaries, All Class I Mountain West Public Universities Combined:
 Professor-\$59,040; Associate Professor-\$44,570
 UM " \$44,600; " " \$36,500
7. Average Salaries, Classes I, IIA, IIB, III (2yr) Public Higher Education
 Institutions, Mountain West, Combined:
 Professor-\$57,310; Associate Professor-\$44,020
 UM " \$44,600; " " \$36,500
8. Percentage of Individual Faculty Members for all Institutions Where Average
 Salaries are above level here specified
 Professor, \$45,000 and over; 84.1 percent of all salaries
 UM Professor, \$44,600 average Salary
 Associate Professor, \$37,000 and over; 79.7 percent of all salaries
 UM Associate Professor, \$36,500 Average Salary

CHRONICLE OF HIGHER EDUCATION ALMANAC

Montana is the only state where the average faculty salary in 1992-93 was less than \$40,000 (\$39,797). West Virginia was next at \$41,606. The national average was \$49,906.

Montana per capita income in 1993 was \$17,322. The following states ranked lower: Alabama, Arkansas, Kentucky, Louisiana, Mississippi, New Mexico, Oklahoma, South Carolina, Utah, and West Virginia. All these states pay higher salaries to university faculty members.

The following states charged less (in 1992-93) student tuition and fees than Montana universities: Alaska, Arizona, Arkansas, Florida, Hawaii, Idaho, Kansas, Kentucky, Nevada, New Mexico, North Carolina, Oklahoma, Tennessee, Texas, West Virginia, and Wyoming. All these states pay higher salaries to university faculty members.

Only two states (North Dakota and Mississippi) have higher proportions of college students who are enrolled full time than Montana (1992 data).



Faculty Abroad

THE RUSSIAN WOMAN

Roger Dunsmore
Professor Emeritus, Humanities

She told me that all the historians in Russia, all the history teachers, or anyone even interested in history, were put into the labor camps, that her generation was tired-- "We have worked so very hard just to keep going and we know, very clearly, what we have lost in the last seventy years." We often sat in her apartment, below mine in the foreign expert's residence, listening to the music of Mozart and eating Shanghai junk food. She loved Mozart more than anything else, except for her youngest son, and always said, at the end of an evening, "I never want it to stop, this music of Mozart." She believes it will take Russia over hundred years to recover. She does not believe in Gorbachev or in Yeltsin. She believes in the generation of her young son, but the schools in Russia are "filled with tragedy," she says. And she is a teacher, middle-school. Her son, in his first year at school, in a class of thirty, had a classmate, the son of a painter, who loved to paint. Whenever there was a break, instead of playing with the other boys he'd bring out his painting and drawing things and work at his desk. The other boys resented this--so some of them held him while others, how do you say, she asked, beat him up? Yes. Since he had no other way of defending himself, he spit at them, spit on them. When their teacher discovered this incident, she decided to punish him. She had him stand at the front of the class and required each of the other students to come forward and spit on him. This Russian woman's son was the only one who refused to spit on this boy, and so he was locked in a dark closet for two hours. When she came after school to pick him up the teacher lectured her on how she had not taught him to be a good person, had not taught him to act collectively. The Russian woman withdrew her son from that school, and the boy who was a painter also changed schools, but he was sick for a long time after--something was wrong with his heart. The Russian woman says this kind of treatment is commonplace and many very young students still today commit suicide. "We are all very tired," she said. "Every bit of information in the underground network has to be typed out. The photo copy machines are all watched very closely. Every evening and every morning the paper in these machines is counted by a party functionary. If any paper is missing, an investigation ensues. It will take one hundred years."

Then suddenly, after three years in Shanghai, she was gone with over twenty-five pieces of luggage, and nine or ten Chinese to help her pack it into the bus that was used to take us back and forth to school: all sorts of clothes and appliances for her relatives in Russia where, she said, "there is nothing." Her apartment was a shambles, pieces of scrap paper and discarded books or dishes scattered on the floor. She was hurried, but pressed my hands warmly while I gave her my address, and shouted over her shoulder that one of the other Russians would get me her address and phone number, and then she was gone with all nine Chinese in the bus piled with baggage. For her, and for Russia, I hope Mozart's music never stops.

UM'S NATIVE PLANT GARDEN

Mark Behan
Professor Emeritus, Division of Biological Sciences

A dedication was held recently to honor the founders of UM's Native Plant Garden, Klaus Lackschewitz and Sherm Preece. The garden surrounds the south end of the botany annex (west of the UC), including its attached small greenhouse. My office window overlooks the garden, and from this vantage I can observe seasonal changes in the garden, and the large number of people who share that pleasure by stopping by for a look. The native plant garden is one of several contributions in the development of an educational and aesthetically pleasing campus landscape. It has a unique history.

Klaus Lackschewitz began development of the garden in 1967. His interest in native plants began as a child. He recalls his father's voice with clarity even today as he asked, after collecting a forest flower: "*Papa, was ist das?*"; and his father, a forester, replied: "*Das ist eine Pyrola mein Kind*".

Klaus immigrated to the U. S. in 1952 after serving five years in the German army on the Russian front during WWII, followed by two years as a Russian POW. He acquired botanical skills through school and employment in the Baltics. Most students, including Klaus, belonged to academic clubs, and the natural science club that Klaus belonged to was devoted to learning the natural fauna and flora of the region. The combination of formal education, family history in forestry, and interest in native flora, was supplemented by employment in U. S. landscape and greenhouse firms after immigration.

In 1960 his wife, Gertrude, obtained a position in UM's Foreign Language Department. After their move to Missoula, Klaus discovered the Bitterroot Mountains, and with nostalgia found these forests similar in appearance to those of his childhood. He even discovered the *Pyrola* (wintergreen) of his childhood while collecting in the Bitterroots. His interest in learning the flora was rekindled, and thus began several years of exploration and plant collection in the Bitterroots, Pintlars, Beartooth Plateau, and other mountain ranges. Exploration resulted in 12,000 herbarium sheets, including two new species (*Agroseris lackschewitzii* and *Lesquerella klausii*). Another contribution was publication of his guidebook *Vascular Plants of West Central Montana* by the U. S. Forest Service.

Sherm Preece, then botany department chairman, employed Klaus's botanical skill and dedication to supervise greenhouses, collect specimens, and maintain the herbarium. A few Missoula residents also asked Klaus for assistance in landscaping their homes with native plants, and with this fusion of interests, he began development of the native plant garden. The objectives of the garden were to test the horticultural possibilities of native plants, provide living plant specimens for study by students and others, and to display native plant landscaping. Klaus reported that he had most success with plants native to the more arid environments of both of mountains and plains.

The physical development of the garden took a surge each Aber Day when botany faculty, students, and friends were enlisted to collect and place rocks, soil, and specimens collected for transplant. Volunteers and work-study students continued the work after the Aber Day surge.

During the 1970's and 80's Sherm Preece offered an elective course on trees and shrubs. In order to support the course and diversify the campus landscape, he and Klaus arranged for the transplant of woody specimens from subalpine, montane, riverian, and other habitats around the botany building as instructional resources. These plantings, along with the native plant garden, are used by students today, principally forestry students learning to identify habitat indicator species, and students in plant identification classes.

Klaus's retirement in 1976 ended most of the experimental activity in the garden. The garden was maintained for some years by Klaus's successor, but in 1989 when that position was deleted, the garden became overgrown with unwanted plants. Members of the Montana Native Plant Society, principally Jean Parker and Jean Pfieffer, proposed to the society that it take over management of the garden as a project. MNPS agreed, and since then the experimental objectives of the garden have been restored, with new introductions attempted each year.

The garden is divided into areas representing Montana habitats, e.g., a moist shady area characteristic of northwest Montana on the northeast corner of the garden and an arid grassland on the south. Volunteers caretakers provide for each area, and in addition to Jean Parker and Jean Pfieffer include Sheila Morrison, Lois Puckett, Kelly Oats, Chin Wan Reinhardt, Peter Stickney, Madeline Mazurski, and Molly Galusha. Materials for new introductions are obtained by seed and seedling purchase (there are several firms that specialize in supplying native plants) and a few by transplant from the wild, especially from areas about to be disturbed by logging, road building, etc.

Current activities of this group include preparation of a species list for the garden and a map of its plantings. Negotiations are in progress between MNPS and UM's administration to develop a memorandum that delineates the responsibilities of each group. If you have an interest in contributing time to the garden you would be welcomed by calling Jean Pfieffer at 549-0570.

The Native Plant Garden certainly provided stimulus to other botanical developments on campus. These include the designation of the Diettert Experimental Plant Garden near the golf course, labels placed on many campus trees and shrubs by the Nature Conservancy, the designation and identification of a tree or shrub representing each county during UM's centennial celebration, and the designation of the campus as the State Arboretum. Carl Fiedler is the current chair of the Campus Arboretum Committee, and a pending project of that group is the publication of a map that locates and names campus trees and shrubs. The contributions of these groups continues to provide a rich botanical resource on UM's campus that can only become more valuable as development continues.

**Annual Report of the Variable Investment Accounts
for UM Tax Sheltered Annuity Options for 1994**

The following are the percent returns for the various mutual funds available as tax sheltered annuities for UM faculty for the one-year period ending December 31, 1994. Funds are listed by company for the six companies which are authorized supplementary retirement account managers for the University.

METLIFE

MetLife Stock Index Division +.23
Fidelity Growth Division -.95
Fidelity Overseas Division +.76
Fidelity Equity Income Division +5.46
Fidelity Investment Grade Bond division -4.70

Fidelity Asset Manager Division -6.98
Calvert Socially Responsible Division -4.18
Calvert-Ariel Division -10.85

SCUDDER INVESTORS

Short Term Bond Fund -2.87
GNMA -3.11
Income -4.43
Short Term Global Income -1.13
Global Small Company -7.68
Japan +10.03
International Bond -8.61
Balanced -2.39
Zero Coupon 2000 -7.92
Quality Growth -1.34
Growth & Income +2.6
Capital Growth -9.97
International -2.99
Global -4.20
Development -5.34
Gold -7.46
Value +1.65
Pacific Opportunities -17.12
H Latin American Fund -9.41
Emerging Market Bond Fund -8.06

VALIC

Stock Index Fund -30
MidCap Index Fund -4.70
Small Cap Index Fund -4.30
H International Equities Fund +6.90
Social Awareness Fund -2.42
Times Opportunity Fund -2.29
Capital Conservation Fund -7.04
Government Securities Fund -5.44
International Government Bond Fund -3.42

VARIABLE INVESTMENT ACCOUNTS

T. ROWE PRICE

Income Funds:
Stability:
Prime Reserve +3.74
U.S. Treasury Money +3.53

Conservative Income:
Adjustable Rate US Govt. -.63
Short-Term Bond -2.92
U.S. Treasury Intermediate -2.25
Short-Term Global Income -2.92

Income:
GNMA -1.63
New Income -2.22
Spectrum Income -1.94
US Treasury Long-Term -5.75
Global Government Bond -3.06

Aggressive Income:
High Yield -8.00
International Bond -1.84

Stock Funds:
Conservative Growth:
Balanced -2.05
Capital Appreciation +3.80
Dividend Growth +2.16
Equity Income +4.53
Growth & Income -1.15
Spectrum Growth +1.40
Equity Index* +1.01

Growth:
Growth Stock +.89
Mid-Cap Growth +.29
New Era +5.17
Small Cap Value -1.38
European Stock +4.06
International Stock -.76
Japan +15.09

Aggressive Growth:
New America Growth -7.43
New Horizons +.30
OTC +.08
Science & Technology +15.79
International Discovery -7.63
New Asia -19.15

TIAA/CREF

CREF Money Market +5.71
CREF Stock -.12
CREF Bond Mkt. Acct. -.38
CREF Social Choice -1.31
CREF Global Equities -.46

TIAA Fixed Income +7.50

AETNA

AETNA Variable Fund-Growth Stock -2.19
AETNA Income Shares-Bone -4.99
AETNA Variable Encore-Money Market -2.8
AETNA Investment Advisers-Managed -1.59
20th Century Growth-Stock -2.39
Scudder's Managed International -2.08
Neuberger & Berman Growth-Stock -6.14
Calvert Socially Responsible-Stock -4.37
Franklin Government Securities -4.92
Lexington Natural Resources -6.65
Alger American Small Cap -5.23
Janus Aspen Series, Aggressive Growth +14.9
Janus Aspen, Flexible Income -2.12



Reflections

UNIVERSITY OF MONTANA

DATE: March 6, 1975
TO: Faculty Senate
FROM: Executive Committee of the Faculty Senate
RE: Seconded motion on Emeritus Status

A faculty member who draws a stipend from the teacher's retirement system shall be eligible for emeritus rank provided:

1. He or she held tenure at one of the professional ranks in one of the academic units of the university.
2. His or her last full-time teaching position, prior to beginning participation, in the TRS was at the University of Montana.

It is the responsibility of the school or department concerned to nominate the person to the Board of Regents for emeritus status. The emeritus rank should be the same as the highest regular rank held by the person. Nomination for the rank should be automatic for any person who held a tenured position at the University of Montana (in particular, there should be no special terminal degree qualifications).

The privileges of a person of emeritus rank should include, but not necessarily be limited to the following:

1. Access to library materials, computer facilities, appropriate laboratory supplies and secretarial assistance for matters relating to continued scholarly activity.
2. Free admission (for two persons) to university-sponsored events.

The university should attempt to make office space or, at least, library carrel space available to its emeritus faculty, and should use, as academically appropriate, emeritus faculty to teach occasionally courses. There are two circumstances in which this would be particularly appropriate: (1) Advanced courses in the person's field of expertise and, (2) other courses in which there is exceptional unanticipated demand.

AN UPDATE ON ISSUES AFFECTING OLDER UM EMPLOYEES AND RETIREES

A guest editorial entitled **Treatment Of Older Employees: Does UM Have A Problem?** by Rustem S. Medora appeared in the CAMPUS NEWSLETTER on March 8, 1993. Medora received numerous inquiries and phone calls asking what the administration was going to do regarding concerns discussed in the article. The editorial suggested that in some instances there was subtle and even unconscious pressure on older employees to retire early. This in the author's opinion was an outcome of stereotyping older employees as unproductive and complacent-lacking motivation, using resources and space, and clogging the promotion pipeline. An employee after a lifetime of dedicated service was disheartened and often severed the relationship with the university altogether. Medora stated, "The University loses a friend and a valuable resource, a resource which if nurtured and harnessed properly would provide many more years of dedicated service, not to mention years of volunteer service after retirement." Sheila Stearns, who was VP University Relations at that time said, "We aren't sure of the extent of the problem, but if even one UM employee feels diminished because of age discrimination, even if subconscious or unintended, then we are all poorer." Further, she suggested that the UM Building Community Task Force investigate these issues and try to find solutions to the problem.

In response to this editorial, the UM Building Community Task Force (BCTF) was asked to identify issues that affect older UM employees and retirees. President Dennison provided (the Building Communities Through Subcommunities a subcommittee of BCTF) funds to initiate an inquiry about issues affecting older UM employees and retirees. As the chairman of this subcommittee Medora met with an ad hoc group composed of Dorothy Bompert (a gerontologist), John McQuiston (a sociologist and a statistician) and James Cox (an advocate of retired faculty) to determine the best way to achieve the above goal.

The ad hoc group recommended:

1. That older UM employees and retirees meet for lunch and discuss the various issues that affect them.
2. That the results of the luncheon meeting be transcribed and studied by the ad hoc group.
3. That the committee meet and recommend to the UM administration the next course of action.
4. That the university community be kept informed about the progress of our efforts through JANUS, the UM faculty publication.

With assistance from John McQuiston, a random sample of forty older UM employees and retirees were picked and invited to a hosted luncheon at the Village Red Lion Inn, on June 14, 1994. Ten facilitators who were either current UM

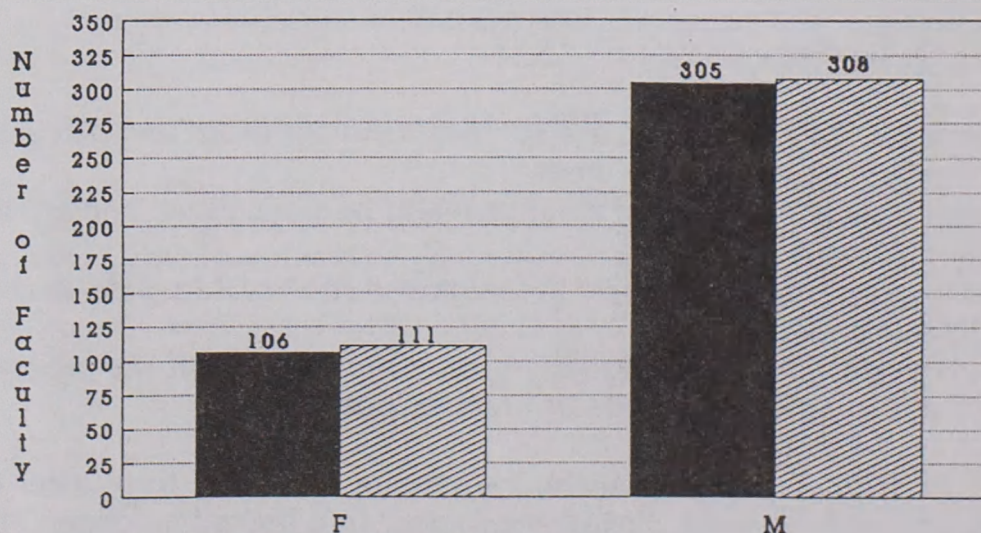
employees or retirees were also invited to the luncheon and were asked to lead a discussion on issues affecting older UM employees and retirees. Notes from ten discussion groups were transcribed by McQuiston and presented as a report to the ad hoc committee. In his report McQuiston stated: "There is enough in the present data to preclude the need for further study unless such a study were for scientific use in its own right. The university would be better served to use the balance of our funding in developing programs and policies tailored to reduce or eliminate these practices and environments."

An ad hoc committee (Jim Cox, Gordon Cox, Ray Gold, Jim Lopach, John McQuiston & Rustem Medora) studied the transcribed report and met to discuss it on January 31, 1995, and came up with the following recommendations.

- A. That a new committee, "Committee On Retirement Policy and Process (CRPP)" be appointed.
- B. That the latest revision of the "UM Retirement Manual" address some of the issues and concerns brought up at the luncheon.
- C. That CRPP come up with recommendations and suggestions on how best to resolve the issues that were brought up at the luncheon.
- D. That the CRPP have nine members to include:
 - i. one liaison from each of the offices of the Provost, VP Administration & Finance and Director of Human Resource Services.
 - ii. three members each of (older or retired) faculty and staff.

Medora has forwarded these recommendations to President George Dennison and awaits his advice.

Gender Distribution In Instruction Pgm Full-Time Faculty



Source: Institutional Research

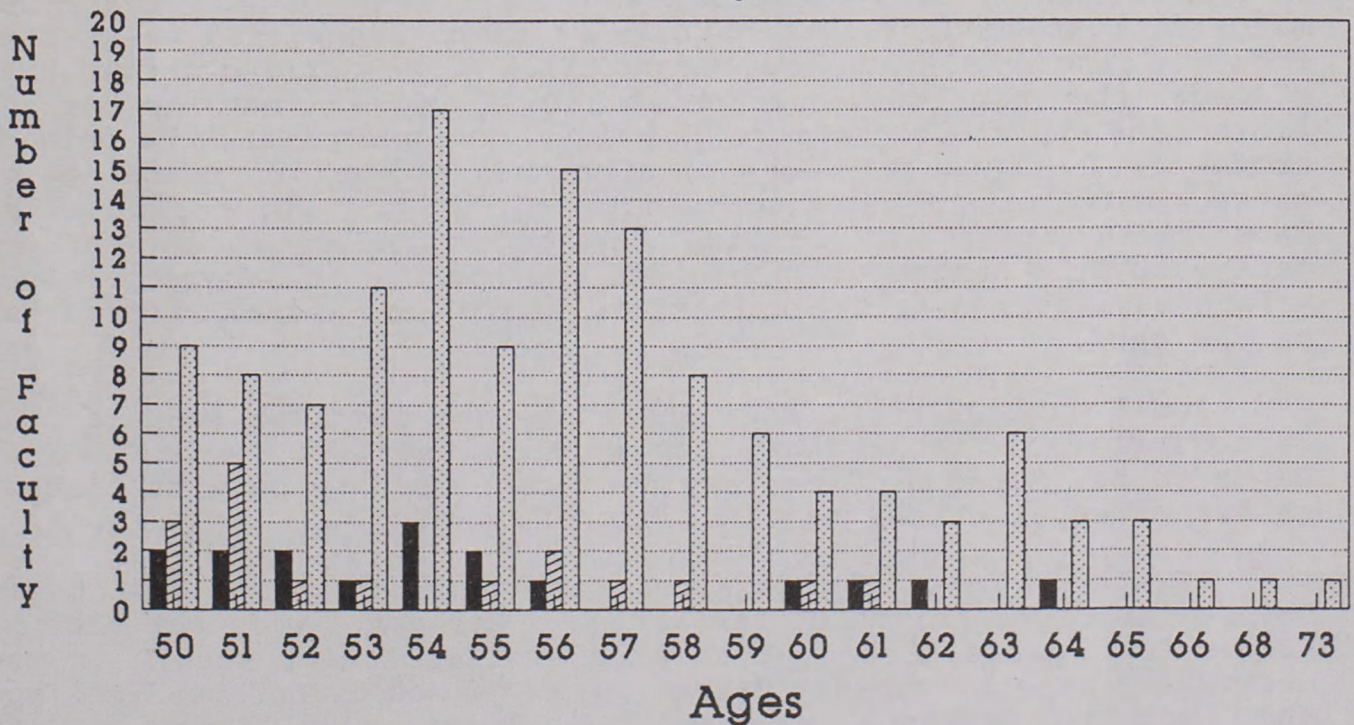
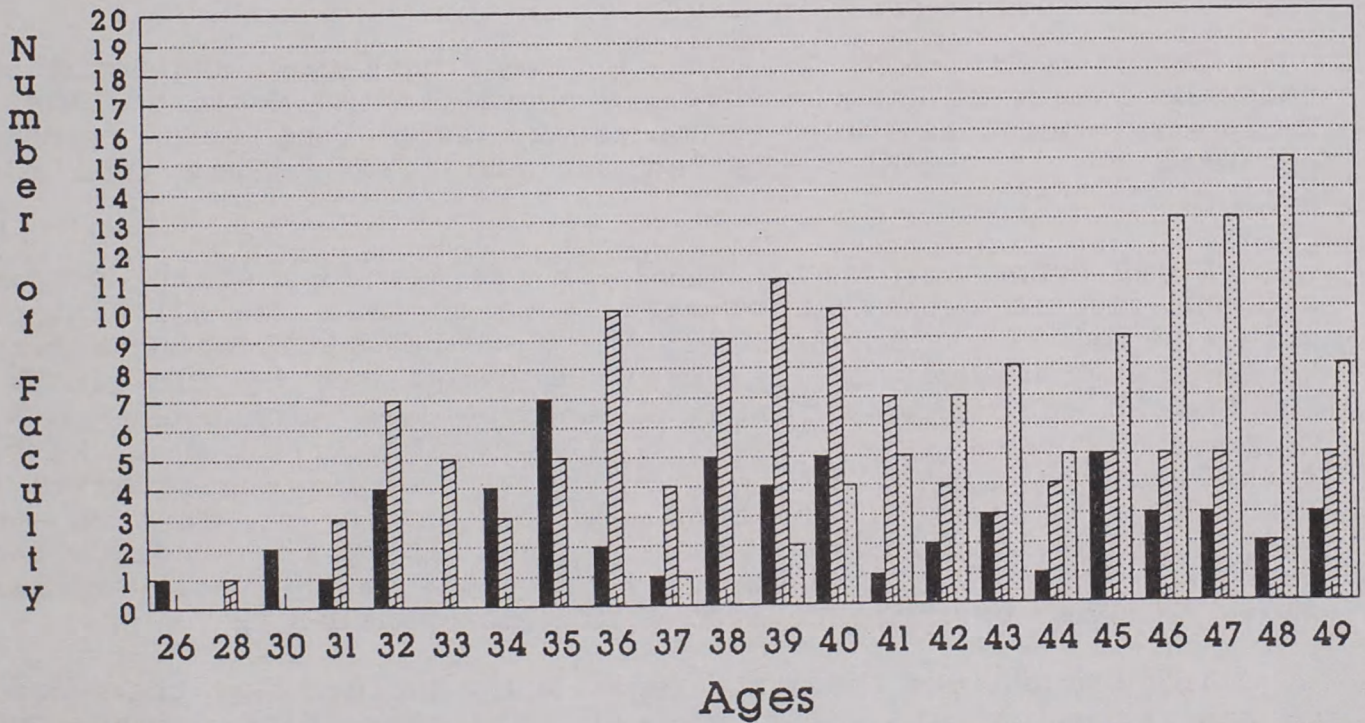
■ Spring 1994 ▨ Autumn 1994

(A similar graph in our last issue showed only the part of the bars above 75, violating the dictum that bar graphs should have areas proportional to numbers. When the dictum is violated, one may get an incorrect impression and an editor may be appropriately chastised. The editor was, in fact, just plain wrong, but pleads that there was no hidden agenda, just dependence on the default position of a computer program.--H.R.)



Did you know?

Age Distribution In Instruction Program F/T Faculty - Autumn 1994



Non-Ten Prob-Ten Tenured

Reading with Friends

Howard Reinhardt

I started reading voraciously as a child after an eye doctor fitted me with glasses for my myopic eyes and recommended that I read only what was required of me in school. Books became forbidden fruit and I have feasted gladly--and with little apparent harm.

Two friends, whose judgment I trust, have been urging me to read the novels of Anthony Powell's "Dance to the Music of Time". Retirement provides time to undertake such long term reading projects so I recently checked out the first volume from the university library.

I was surprised, and pleased, to see how many of the people who had checked out the book were known to me. The circulation card carried 21 entries beginning in December 1961, when Seymour Betsky (a professor of English only remembered by old-timers) checked it out. Among the names on the card were those of N. Carpenter, Eleanor Lawry (identified as faculty wife), W. N. King, F. McGlynn, W. R. Ballard, and Elizabeth Lawry (identified as a high school student). The book was once on two-day reserve and went once by interlibrary loan to Dillon. Very few students had borrowed the book. The last entry (in 1982) was a faculty member whose name had been obliterated with a wax pencil.

Along in the 80s the state legislature decided that the record on a circulation card might represent an invasion of privacy and mandated (unfundedly) that borrowers' names henceforth be excised from the records. Hence the wax pencil. (Computerized circulation records now provide confidentiality from all but authorized librarians and clever hackers.) While I can understand the privacy argument, I regret the loss of archival information contained on these cards. Little harm comes from my knowing which people had made false starts in reading the book (indicated by entries separated by a number of years) and who had let it become overdue. A future historian of the university might find useful information on the card.

And I would like to know who that last borrower was. I find it comforting to know that I am with friends as I embark on "A Dance to the Music of Time," as I am comforted to be with friends in our personal dances to the music of time.

(Truth in reporting requires that I admit that I didn't get beyond the first volume of the series. Perhaps I will get back to it at some future time, but no archivist will ever know. In the meantime I happily explore Barsetshire, guided by Anthony Trollope and in the company of Lucille Speer, Ed Marvin, Joan Christopherson, Leo Lott and Mavis McKelvey.)

WILLIAM R BALLARD
5120 LARCH

MISSOULA

MT 59802