Graduates face high cost of learning

Osteopathic graduates continue to face a future of paying off heavy debts incurred while gaining their education, according to a report issued by the American Association of Osteopathic Colleges.

At the same time, bills are pending at both the state and federal level aimed at easing the burdens of paying back medical student loans.

Under the Tax Reform Act of 1986, interest on consumer loans will no longer be tax deductible after 1990. Educational loans are currently classed as consumer loans. Legislation aimed at restoring the tax deduction for educational loans is currently pending in both the U.S. Senate and the House of Representatives. Two different sets of bills are currently in committee.

The average debt of a graduating osteopathic physician in 1988 was $64,700, a figure double that of only five years ago, according to a report issued by AACOM. Most loans were Stafford Student Loans, formerly called Guaranteed Student Loans. Interest on such loans is 8 percent. Yearly interest for a debt of $64,700 amounts to $5,176. The rate for the second most common loan source, Health Education Assistance Loans, is set quarterly. At the current rate of 11.5 percent yearly interest on $64,700 is $7,440.

House Resolution 747 and Senate bill 656 would restore tax deductions for interest paid on loans taken out to cover tuition and related educational expenses. An alternative proposal, submitted in the House by Michigan Representative Guy Vander Jagt, would restore tax deductions to medical professionals working in underserved areas. A similar bill is pending in the Senate.

Myron S. Magen, dean of the College of Osteopathic Medicine, has sent a letter to congressional leaders in support of H.R. 747 and S. 656.

At the state level, a bill designed to set up a program to repay debts of health professionals serving in medically underserved areas has passed the Senate and is now in committee in the House.

The bill, introduced by Senator William Sederburg, would establish a program administered by the Michigan Department of Health to repay all or part of the educational debts incurred by a professional who entered into a contract to serve at a site assigned by the

please see Debts on page 5

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**Distribution of Debts at Graduation**

- Over $100,000: 15%
- $80,000 - $100,000: 16%
- $60,000 - $80,000: 17%
- $40,000 - $60,000: 22%
- $20,000 - $40,000: 19%
- $10,000 - $20,000: 7%
- Zero debt or under $10,000: 4%
- $80,000 and over: 19%

**Average debt:** $64,700

Source: American Association of Colleges of Osteopathic Medicine.

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Project helps match programs to problems

A study undertaken by MSU of 50 substance abuse programs in Michigan will attempt to discover what types of programs help different types of substance abusers.

Funded by the State of Michigan Office of Substance Abuse, the study compares various program characteristics and attempts to link which are most successful with certain traits of people.

Programs and clients were selected randomly. Clients who attend at least one session in the chosen programs can be part of the sample. Client problems are assessed in six areas at entry into the programs: medical, employment, alcohol use, drug use, legal problems, family and social problems, and psychological problems. Follow-up assessments at six, twelve, and eighteen months gauge client improvement.

Bertram Stoffelmayer, professor of psychiatry and project leader, pointed out the purpose of the study, however, is not to simply judge programs.

"There are not good or bad programs," he said, "just some program characteristics that are more helpful to certain people."

Jerry DeVoss, project manager, noted that previous studies simply compared in-patient programs to out-patient programs.

Below and next page: charts showing an overview of early data obtained from the project.

"There's a substantial variation in programs. To simply compare outpatient vs. residential [programs] is an extremely simplistic way of going at it," DeVoss said.

This study looks at five areas for each program: goals and philosophy, agency resources, treatment services, referral networks, and the decision-making process. DeVoss said the project is one of the first in the U.S. looking at these areas.

The program sites will receive a report and follow-up data on their clients. The state will receive an overview of the successes or failures of all programs in affecting substance abuse. The state will then be able to determine which types of people are helped and which types of people need to be reached.

The project maintains the confidentiality of clients and programs, a measure DeVoss said reduced concerns that the project result would be used to justify budget decisions.

Confidentiality also improves program cooperation.

"The fundamental belief of the project is that substance abusers are more different than they are alike, and that just as people have different strengths and weaknesses, they need different treatment to deal with those needs," DeVoss said.

For example, DeVoss pointed out that a program dealing with substance abusers in inner-city Detroit was not the same as a program in Lansing. A client in Detroit is more likely to be unemployed, lack education, have multiple addictions,
have very little family or social support, and face legal problems as well. In contrast, a Lansing program may draw its clients from the MSU community, so the clients would be better educated, have family support, and would probably be employed.

"The assumption is made that programs are treating similar kinds of people, and that's not true," DeVoss said. "You get a whole different set of characteristics to deal with. You can't expect a program in Detroit and a program in Lansing to have the same results."

Stoffelmayr explained the difficulty in trying to evaluate what cures an addiction.

"People may have a problem or develop a habit because of the type of people they are," he said. The hope is that the study will provide a classification system for programs, to help referral services determine what kind of program would be more beneficial to particular clients.

DeVoss gave credit to Stoffelmayr for bringing the study to MSU. "I think in a large part it was Dr. Stoffelmayr's reputation that landed this particular contract here," he said.

Stoffelmayr noted MSU's mission to help Michigan better serve its citizens coupled with an emphasis on applied research provided an excellent background for this type of study.

"If there's anything I've learned throughout my work, it's that behavior cannot change all by itself," he said. "It has to happen in a social context that can make it happen, and it has to be accompanied by a positive change of mind."

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**Stoffelmayr active in promoting healthy lifestyles**

An expert in behavioral psychology, Bertram Stoffelmayr has been appointed to MSU-COM since 1972 and has been extremely active in various faculty and curricular committees. He is in collaboration with pediatrics, family medicine, psychiatry and other faculty.

Recently he has assisted in developing course work for COM medical students and for continuing medical education in substance abuse treatment.

In addition to the project on substance abuse, Stoffelmayr heads Worksite Wellness, an employee wellness program, sponsored by Healthy U, MSU's Health Promotion Program. Through Worksite Wellness, MSU buildings have been involved in planning their own health promotion programs. The project uses tested behavior modification techniques and group support to help participants make important changes in their health behavior.

Stoffelmayr grew up in the city of Murao, in post-World War II Austria.

He attended the University of Graz, Austria, and received his doctorate in psychology at age 25.

In the early 1960s, he began a research fellowship at the Institute of Psychiatry in London, where researchers were at the forefront of the emerging field of behavior modification.

*please see Stoffelmayr on page 5*
MR angiography proving safer, less costly

...the traditional method is to pass a catheter through the aorta from the groin up to the neck, and introduce a dye into the bloodstream...

In MR, the patient lies still in the magnet for a little over half an hour. The major complaint is claustrophobia.

A less risky, less costly method of looking inside a patient's body is the subject of an international meeting to be held in Amsterdam in August.

Joseph Pernicone of the Department of Radiology will be speaking on the clinical value of phase-contrast magnetic resonance imaging (MR) angiography at the meeting of the International Society of Magnetic Resonance Imaging.

"Magnetic resonance has been around since the fifties, but it's only been in the last eight years that it's been applied to imaging of the body," Pernicone said.

In MR angiography, radio waves and magnetic fields are used to obtain images similar to x-ray angiography, but without using the invasive techniques necessary to provide contrast for the more traditional method.

For example, to obtain images of the blood vessels in a patient's head the traditional method is to pass a catheter through the aorta from the groin up to the neck, and introduce a dye into the bloodstream that will block the x-ray radiation.

Below are two examples of MR angiograms, showing the blood vessels of the head from a frontal (left) and three-quarter view.

In MR, the patient lies still in the magnet for a little over half an hour. The major complaint is claustrophobia.

Contrast imaging angiography, as the more traditional method is called, can be uncomfortable, involves a hospital stay, and can be associated with morbidity and even death. Although the risks are very small, Pernicone said, "Why take it unless you have to?"

Current research is attempting to correlate MR angiography with more traditional methods to demonstrate that the information gained is the same. Pernicone has been working with one form of MR angiography, known as phase-contrast angiography imaging. In phase contrast, images are made by signals provided by moving tissues. This makes it very useful for examining blood vessels.

The process works by obtaining two signals from the patient. Tissues that are stationary provide the same signal both times, while the signal provided by moving tissue changes. The two images are subtracted, eliminating all identical signals. The remaining signals show the tissues which moved.

"If a tissue is moving, it provides a signal," Pernicone said. "If it is not moving, it does not.

continued next page
Blood in vessels obviously gives off a signal."

By using phase contrast, it is possible to obtain images of the entire system of vessels in the head at once. Another form of MR angiography, called time-of-flight, obtains less information, but takes about half the time.

"The advantage to time of flight is that it takes less time and you don't need a particularly well tuned instrument," Pernicone said.

Not only is MR angiography less risky than traditional methods, but it also is substantially less expensive. Dave Gift, specialist in the Department of Radiology, notes that a traditional cerebral angiogram procedure costs about $2,500, including an overnight hospital stay. The same procedure using MR angiography costs about $1,250.

"That's cheap," Gift said.

Gift said the pricing for MR angiography reflects about one and a half hours of time actually spent preparing and using the machine, plus about seven hours for the processing of the images.

"It's important to note we're probably the best equipped MRI facility in Michigan, and the least expensive place in the state to get scanned," Gift said. Pernicone noted that MSU is the only place in Michigan working with MR angiography.

Another advantage to MR angiography is that the reduced risk will enable it to be used to detect problems in patients who are susceptible to a condition but who show no symptoms.

For example, a patient who has a family history of aneurysms would be considered at risk to develop aneurysms as well, Pernicone said. "It may not be worth the risk of a contrast [x-ray] procedure to find out, but the risk isn't there with MR angiography," he said.

It will also be easier to justify getting information on larger populations, Pernicone said.

"Before MR angiography, the usefulness of information had to be balanced against the risk of procedures," Pernicone said.

MRI uses harmless energy to make its images. Pernicone said the radio waves used in MRI are the same as radio waves used by broadcast stations.

"In fact, the MRI lab has to be shielded because radio waves from radio stations can interfere with the imaging," Pernicone said. "The energy used is at such a low, low level that there's no theoretical risk, nor has there been a demonstrated risk to the patient," he said.

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**Debts**

*continued from page 1*

department. The minimum term of the contract would be two years.

According to the AACOM report, fifteen percent of graduating osteopathic medical students had debts over $100,000. The average debt of married students was nearly $4,000 more than the overall average, while unmarried students averaged $61,300.

The report also said first year medical students expect to graduate owing nearly as much, $63,300.

Last year’s graduates when entering had expected to owe $61,400, a figure which seemed high when compared to the average graduate debt of $49,600 at that time.

More than half of the seniors in the study said their choice of specialty was affected by their financial situation, and about half also said their financial situation affected their choice of location considerably.

In the 1987-1988 fiscal year, loans totaling $5,619,792 were distributed among 449 students at MSU-COM. Approximately 60 percent of those loans were Stafford Student Loans.

As students rely more upon loan programs, the problem of default becomes more important. Proposals have been made to bar schools with high default rates from participating in federal loan programs.

The default rate at MSU is roughly 6 percent, which is within acceptable levels according to Financial Aid officials.

A memo sent out by Susan Enright, MSU-COM student council president, at the end of spring term asked students to write their congressmen in support of House Resolution 747 and Senate bill 656.
Faculty & Student News

Kenneth Moore, chairperson, pharmacology and toxicology, has been elected to a three year term as secretary-treasurer of the American Society for Pharmacology and Experimental Therapeutics.

Joseph Papsidero, community health science, has been appointed to the editorial board of Aging: Clinical and Experimental Research, an international journal devoted to special articles in gerontology and geriatrics.

Psychiatry Grand Rounds, scheduled at St. Lawrence Hospital in Mercy Hall, are being given by MSU psychiatry professors. The series of presentations will deal with psychiatric emergencies. On July 12 Gerald G. Osborn spoke on delirium. On July 27 Dale A. D’Mello spoke on violence. Scheduled for August are presentations on alcoholism given by Ron Bradley on August 9 and depression and suicide given by John A. McNell on August 24.

Evangelos A. Petropoulos, visiting professor of physiology, completed his obligations with the University of Zimbabwe and returned to the United States in June. He attended the National Council of International Health meetings held in Washington D.C. in June. He also attended the "Wrap up Seminar" of the Kellogg International Fellowship Program in Health, held at the University of Virginia, June 22 through 27.

Robert D. Aranosian, clinical professor of internal medicine, was awarded the Ronald L. Krome Meritorious Service Award by the Michigan chapter of the American College of Emergency Physicians. The award is presented annually to the physician most committed to the furthering of emergency medicine in Michigan.

Alumni News

John Sealey, COM ’76, was named 1988 Physician of the Year by Michigan Health Center.

Myrail R. Robbins, COM ’76, has been board certified by the American Osteopathic Board of General Practitioners. She was recently elected to the Board of Directors of the Wayne County Osteopathic Association.

Patricia Davenport, COM ’86, has joined Lansing Internal Medicine Associates to practice internal medicine.

Christopher M. Fish, COM ’88, completed a one-year internship at Memorial Hospital in York, Pennsylvania. He will be beginning a Family Practice residency at the Michigan State University Kalamazoo Center for Medical Studies, Borgess and Bronson Hospitals.

Gregg J. Stefanek, COM ’88, and his wife Beth, announce the birth of Benjamin Augustine Stefanek, born May 26. Gregg starts a two-year Family Practice residency program associated with Doctor's Hospital in Columbus, Ohio on August 1.

Governor appoints new members to advisory board

Pedro Rivera, COM ’78, Patricia J. Roy, COM ’81, and Claud Young, clinical professor of family medicine have been appointed by Governor James J. Blanchard to serve on the Osteopathic Medicine Advisory Board. Rivera is a member of the Hispanic Task Force on AIDS and the Pesticide Advisory Board for the Department of Agriculture and will serve a term expiring in March of 1992. Roy is a family practitioner and a member of the Muskegon General Hospital board of directors. Her term will expire in March of 1994. Young, a physician at Virginia Park Medical Center and a member of the NAACP and the Detroit Economic Club, will serve a term expiring in March of 1992.

Family Medicine welcomes new residents

Two new residents have entered the Department of Family Medicine residency program. David Z. Levine is a 1988 graduate of MSU-COM and completed his internship at Flint Osteopathic Hospital. He earned a B.S. from Pacific Lutheran University in nursing in 1981, and a B.A. in anthropology from the University of New Mexico in 1969. Timothy R. Lambert is also a 1988 graduate of MSU-COM. Lambert completed his internship at Traverse City Osteopathic Hospital. He is a 1981 graduate of MSU's Lyman Briggs College.

Outgoing residents were honored with a graduation dinner in June. The graduates were John F. Greene, Holly J. Kabakovich, and Pamela A. Thompson.
Continuing Medical Education

August 4-6
Tutorial on Level II Myofascial Release Technique

Myofascial II continues to build on concepts covered in Myofascial I. Along with review of basic material, emphasis is placed on mechanics and myofascial problems above the diaphragm. Introduction of myofascial relationships to bone and joint mechanics are introduced and covered in some depth. Faculty includes Robert Ward, D.O., F.A.A.O., chairperson; Mitchell Elkiss, D.O.; and Stephen Goldman, D.O.
Co-sponsored by MSU-COM and MSU College of Human Medicine. 24 hours Category I credit. Cost is $400 or $200 for physicians in training. Will be held at The Homestead Resort, Glen Arbor.

September 9-13
Tutorial on Level I Muscle Energy Technique

This course is designed to expand previous training in manual medicine in the area of use of muscle contraction as an activating force. Concepts of muscle contraction will be taught and utilized in the treatment of the vertebral column and bony pelvis. Training in Principles of Manual Medicine is required. Limited enrollment. Faculty include Philip E. Greenman, D.O., F.A.A.O., chair; Mark Bookhout, M.S., P.T.; John Bourdillon, F.R.C.S.; David Grimshaw, D.O.; Faith Abbott, P.T.; and Edward Isaacs, M.D. Cost is $800; $400 for physicians in training. 40 hours Category I credit.

October 6-8
Tutorial on Level I Myofascial Release Technique

Intensive exposure to basic concepts of myofascial release manipulative therapy. Emphasis is placed on direct experiences, allowing participants to test forms of motion changes and palpate tissues and forms. Training in Principles of Manual Medicine is required. Limited enrollment. The chairperson is Robert Ward, D.O., F.A.A.O. Co-sponsored by MSU-COM and MSU College of Human Medicine. 24 hours Category I credit. Cost is $400 or $200 for physicians in training.

October 9-13
Tutorial on Level II Manual Medicine Techniques (Above Diaphragm)

This course presents examination, analysis and treatment of the upper extremities, cervicothoracic spine, thoracic cage, throat and jaw. Postural/structural concepts are expanded into functional and integrative analysis in terms of respiratory, circulatory, neurologic and fascial models. This course has a limited enrollment of eight due to the heavy clinical orientation. Chairperson is Edward G. Stiles, D.O., F.A.A.O. Co-sponsored by the MSU-COM and MSU College of Human Medicine. 40 hours Category I credit. Cost is $800 or $400 for physicians in training.

October 18-22
Tutorial on Level II Craniosacral Techniques

This course reviews cranial anatomy in detail, specific corrective techniques for complex articular restrictions, and teaches soft-tissue corrective techniques for membranous strain patterns. Special problems including TMJ, pediatric problems, entrapment syndromes, functional anatomy and treatment procedures will be discussed. Chairperson is Barbara Briner, D.O. Prerequisites are Principles of Manual Medicine and Tutorial on Level I Craniosacral Technique. Limited enrollment. Sponsored by MSU-COM. 40 hours AOA Category I credit. Cost is $800 or $400 for physicians in training.

October 21
Ophthalmology Update 1989: Ocular Manifestations of Systemic Disease

This is an opportunity to integrate ocular changes that can be diagnostic and prognostic of common systemic diseases. Chairperson is continued on back page

For more information or to register for any of the courses, contact the Office of Continuing Medical Education, MSU-COM, A306 E. Fee Hall, East Lansing, MI 48824-1316, or call (517) 333-9714.

Unless otherwise noted, all courses are held at the MSU Kellogg Center for Continuing Education on Harrison Road in East Lansing.
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David I. Kaufman, D.O.
Co-sponsored by MSU-COM and
MSU College of Human Medicine.
4 hours Category I credit. Cost is
$75 or $25 for physicians in training.

November 3-7
Tutorial on Joint Play
Applied to the Spine
and Extremities
A five day course in the
application of joint play diagnostic
and therapeutic techniques to the
vertebral column, upper and lower
extremities. Faculty includes
Chairperson John Mennell, M.D.;
Allen Jacobs, D.O., Ph.D.
Prerequisite is Principles in Manual
Medicine. Limited enrollment.
Co-sponsored by MSU-COM and
MSU College of Human Medicine.
40 hours Category I credit. Cost is
$600 or $300 for physicians in
training.

November 4
13th Annual Pediatrics
Seminar: Current Problems
in Office Pediatrics
Program directors are Kenneth
Mahoney, D.O. and Merrilee Okey,
D.O. Sponsored by MSU-COM
Department of Pediatrics. Separate
course brochures will be mailed
prior to the conference. Cost is $50
or $25 for physicians in training.

November 10-12
Principles of Manual
Medicine Part A
A combined lecture,
demonstration and "hands-on"
laboratory session course on the
principles of structural diagnosis and
manual medicine therapeutic
procedures. Designed for the
practitioner who has no previous
experience in the field, experienced
practitioners find it a useful review.
Successful completion of this course
and Principles of Manual
Medicine-Part B, to be held at the
Tucson Hilton East, Tucson, Arizona

January 20-22, 1990, prepare the
participant for further courses
offered by Michigan State University.
Topics include: overview of manual
medicine, principles of structural
diagnosis, screening examination of
the musculoskeletal system, review of
functional vertebral anatomy,
concepts of motion barriers (normal
and restrictive), concepts of the
manipulable dysfunction, principles
of vertebral motion (normal and
abnormal), the manipulative
prescription, principles of soft tissue
and articulatory manual medicine
procedures, principles of muscle
energy manual medicine procedures,
principles of high velocity
mobilization with impulse.
Co-directors are Philip E.
Greenman, D.O.; and Donald
Stanton, D.O. Co-sponsored by
MSU-COM and MSU College of
Human Medicine. Endorsed by the
American Academy of Physical
Medicine and Rehabilitation. Cost is
$500 or $250 for physicians in
training. 20 hours Category I credit.
To be held at Marriott River Center,
San Antonio, Texas. Housing is the
responsibility of the registrant.

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