

The Journal of the Association of Schools and Colleges of Optometry

OPTOMETRIC EDUCATION

Volume 18, Number 3



Spring 1993



*DEMOGRAPHICS
OF OPTOMETRY
GRADUATES*

Association of Schools and Colleges of Optometry

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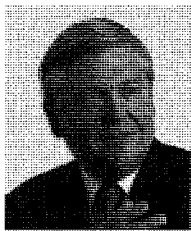


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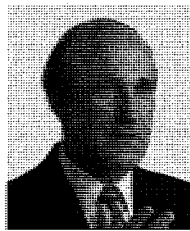
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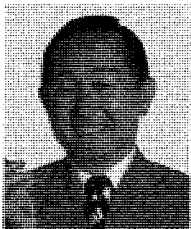
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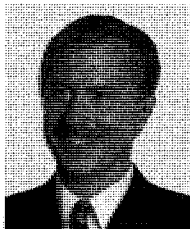
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EDITORIAL

Research In the Mind's Eye of Optometry

As a profession, optometry can be viewed in much the same way as a person, in that it is a wondrous collection of parts performing specific tasks that are interdependent and directed to the achievement of an important outcome.

Each individual's contribution within optometry has specific importance. It is our challenge to recognize and employ each contribution to enhance a successful result. So, like the early anatomists, we need constantly to discover and understand the contributions of each part of our professional being in order to comprehend the oneness of our profession that emerges from its diversity.

Follow-up conferences to the March 1992 Georgetown Summit on Optometric Education are being conducted under the sponsorship of the Association of Schools and Colleges of Optometry and the American Optometric Association. They are an attempt by the entire profession to self-evaluate our natural diversity and inter-relatedness of function. The focus of this self-examination is on performing a check-up of each system within our profession's health, with individual conferences on the scope of optometric practice, the curriculum, students, research, residencies and financing of optometric education.

The next conference, fifth in the series, will be held at the University of Alabama at Birmingham April 2-4. This is a crucial meeting because research is one area where an individual, embodying the profession, conducts significant evaluation, thus enabling the profession to refine its understanding of eye problems and their solutions. This continual evaluation of the basis of human disorders and their amelioration places research within the mind of our professional body. It has never been more important than it is now in this age of molecular understanding and supersonic technological development.

However, the present rapidity of knowledge expansion and technological change makes it imperative to consider research in another way. For if a profession is anything like a person, then the ability of that profession to look to the future with imagination is, in many ways, driven by the emphasis it places upon research. This positions research within our "mind's eye," and requires our research program, if it is to be effective, to look beyond the bottom line of its day-to-day productivity to the impulse it imparts to the profession. Like the endocrine system, optometry's research can act throughout our membership like circulating hormones to stim-

ulate and excite the profession as a whole.

And just as the person who has vision can follow it into the future, optometry's vision of its future imparts direction to its course. The source of our vision resides within our imagination, but our imagination is only as good as our collective ability to reason and to maintain the science of our profession.

Our profession's research program is a most important part of that ability. We need to foster its growth and development so that as a whole profession we can continue to have a healthy future in which we provide meaningful improvements to the society we serve.



Felix M. Barker II, O.D., M.S.
Editor

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COMMENTARY

Developing a New Breed of Clinician-Educator

Raymond I. Myers, O.D.

The current fiscal demands upon our system of optometric education are many and seem to be growing. For example, the education of our graduates to practice an ever increasing scope of optometry in a climate of reduced government support for education represents a significant challenge for private and public schools alike. In response, optometric educational institutions have found that they must continually expand the emphasis they place upon the business operations of their programs, especially clinics, as a means of increasing both productivity and revenue.

This editorial addresses one aspect of faculty development that can be helpful in the financial arena while simultaneously providing enhanced education in the concept of eye care business.

Part-time, non-tenure track clinical faculty can be an effective part of the business equation at any school or college. Although typically hired to cover gaps in the clinic staffing, experienced clinicians can also be recruited for the specific purpose of enhancing the revenue picture at the college. As accomplished optometric practitioners, these doctors would establish their primary clinical association with a school and would generate increased clinic revenues by their direct and indirect patient care activities.

They could directly enhance clinical revenues in many ways including private patient care, especially at strategic times of higher patient volume. By lending

their practical experience to improve the operation of the school clinic in its design of schedules, fees and promotions, they would also be able to influence the profitability of the clinic. Their compensation would be tied to their productivity through an incentive based practice plan.

These clinicians would be considered "entrepreneurs" as defined by Webster because they would help "organize and manage a business undertaking (the school clinic) while assuming a risk for the sake of profit (their incentive-based income)." These part-time faculty members can come from various clinical practice backgrounds and may be very creative individuals, capable of both research and teaching. However, their primary role would be to build a profitable clinical endeavor.

From an educational standpoint, there is much to be gained from the activities of these entrepreneurs.

Although traditionally considered somewhat peripheral to the core of the curriculum, part-time clinical faculty should be viewed in terms of their unique potential to contribute as educators. Their visible application of modern business practice principles within the school clinic strengthens the clinical curriculum significantly. Providing realistic role models of good business practice in the school clinic environment makes a most important contribution to student learning.

The economic growth potential

for the institution is another benefit of utilizing the entrepreneur/clinical professor. Commercialization in the health care industry now requires optometry schools to become more competitive with other profit-oriented institutes and clinical care centers.

The development of faculty intramural practice in optometry has proceeded more slowly than in medicine where full-time clinical faculty can earn an income that more closely approximates their private practitioner counterparts. Such faculty income supplementation helps the institution as well as the faculty member by relieving the strain on salary growth and by promoting tertiary referrals from the extramural practice community.

The contact lens field is an example where past success has been achieved by way of corporate funding of basic and applied research. The clinical entrepreneur can work closely with a wide variety of spectacle lens companies, pharmaceutical suppliers and ophthalmic equipment manufacturers in mutually profitable research and development programs.

The opportunities for fiscal advancement and the educational development of our school curricula are enhanced significantly by considering experienced clinicians in practice. □

Dr. Myers is an associate professor and director, contact lenses, at the Louisiana State University Eye Center. Most recently he was associate clinical professor at the University of Missouri St. Louis School of Optometry.

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INDUSTRY NEWS

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Varilux Introduces Improved Transitions Lenses

Varilux Corporation introduced a new and improved version of its Varilux Infinity Transitions progressive-addition lenses (PAL's) with adjustable tint. The new lenses darken up to twice as fast as original Varilux Infinity Transitions lenses, are more active at high temperatures, and feature an attractive warm-grey tint, according to Claire Lauhon, group product manager at Varilux. The new lenses will offer greater low light sensitivity, which means they will be more active early in the morning, on cloudy days, and in the shade.

Last year Varilux became the first PAL manufacturer to offer Transitions Optical's "Transitions," a unique lightweight plastic lens with adjustable tint, scratch-resistant coating, and ultraviolet light protection. Light-sensitive molecules are embedded in the front surface of the lens so the tint cannot be scratched or peeled off. The lenses darken when exposed to UV light and lighten as UV light is reduced.

Vistakon Promotes Yamane to Vice President

Bernard Walsh, president of Vistakon, a division of Johnson & Johnson Vision Products, Inc., announced the promotion of Stanley J. Yamane, O.D., to vice president, professional affairs. Dr. Yamane replaced Sheldon Wechsler, O.D., who retired after more than 10 years with the company. Dr. Yamane's responsibilities include serving as a liaison between Vistakon and professional organizations and directing the company's professional affairs programs and activities. He will sit on Vistakon's management board.

With Vistakon as director of professional affairs since last year, Dr. Yamane was previously a founding partner of a thriving Honolulu private optometry practice. He was 24 years of experience in private practice, clinical research and the optometric industry. According to Walsh "Dr. Yamane's experience in private practice has been invaluable in helping us understand the clinical and practical aspects of our business."

Ciba Announces Conclusion To Legal Action

Ciba Vision announced that legal action instituted in 1990 by Dial-A-Contact Lens, Inc., a California-based mail order vendor, against CIBA Vision has been favorably concluded with the result that CIBA Vision retains the right to not sell contact lenses to Dial-A-Contact Lens.

Dr. Richard Weisbarth, executive director of professional services and customer satisfaction at Ciba, said "Our long-standing commitment has always been to keep healthy eyes healthy by informing and educating eye care professionals and patients about responsible contact lens wear and care. Ciba Vision stands by its policy that contact lenses must be prescribed, fitted, dispensed and followed by licensed eye care professionals."

Allergan and ASCO Announce "Pathways in Practice"

Allergan and the Association of Schools and Colleges of Optometry (ASCO) announced a new practice management program for optometrists, "Pathways in Practice." Topics for the two-day "Pathways in Practice" program

include strong patient communications, effective external marketing and management by statistics. Specific topics, such as how to buy into a practice, how to deal with third party care, and financial goals and objectives also will be addressed.

"As the industry continues to evolve and competition increases, optometrists must not only be good practitioners, but also expert business managers and marketers," said Jim Trunick, vice president of Professional Development for Allergan, Inc. "Pathways in Practice" is an outgrowth of Allergan's highly successful "Pathways in Optometry" program, a one-day educational workshop designed to assist third-year optometry students in making a smooth transition into optometric practice.

Three dates have been set for "Pathways in Practice": Houston, Texas on May 1 and 2; Memphis, Tenn. on May 15 and 16; and Los Angeles, Calif. on June 5 and 6. Additional locations and dates will be announced later. For information, call 1-800-347-5065.

Wesley-Jessen's OptiFit Sales Increase 36%

Sales of Wesley-Jessen Corporation's OptiFit line of toric soft contact lenses were up 36% in 1992, a rate of growth significantly higher than the overall soft toric market. According to Dwight H. Akerman, O.D., W-J's director of professional services, "The success of the OptiFit line — DuraSoft 2, DuraSoft 3 and DuraSoft OptiFit Colors — is mainly attributable to peer influence as professionals share their positive experiences with OptiFit with their colleagues. With the choice of materials, broad parameter range

and consistently reliable service, we've seen our business continue to expand."

In addition, Akerman said, "More and more practitioners are recognizing that the advanced technology of OptiFit lenses makes them easy to successfully fit. As a result, more practitioners are correcting low levels of astigmatism with soft toric lenses than ever before."

Sola Optical Introduces Lens Demonstration Kit

Sola Optical is now offering a compact lens demonstration unit called the Spectralite Show & Sell Kit. The kit lets dispensers demonstrate to their patients the differences between ordinary plastic, and premium lens materials such as Sola's Spectralite high index. In designing the unit, Sola concentrated on making it compact, compatible with all office styles, and comprehensive in scope.

According to Janice de Ryss, manager, marketing communications, "We're very excited about the Show & Sell Kit. For the first time dispensers can easily show their patients the differences in looks and comfort between standard plastic and premium lens materials. This will not only help patients make a more informed lens choice, but will help dispensers increase their sales of high index lenses as well." The Spectralite Show & Sell Kit is available to dispensers through their Sola distributor.

Corning Awards Scholarships

As part of its continuing program of support for excellence in optometric education, Corning awarded \$3,000 scholarships to two top-ranking students of optometry for the academic year 1992-93. Applicants were pre-screened by participating schools and colleges of optometry, each of which could submit no more than two entries. Thirteen entries were received by Corning, and reviewed by members of the Corning Optical Products staff. Final selection was based on academic excellence, extra-curricular

activities, and an essay chosen from a list suggested by Corning of topics related to ophthalmic lenses.

First place winner was Mr. Michael Johnson of the School of Optometry at the University of California at Berkeley. His essay was entitled, "Utilizing Glass Ophthalmic Lenses in the '90s." Second place winner was Mr. Michael E. Bush of the Illinois College of Optometry in Chicago. The subject of his essay was "Matching Photocromatic Lenses to the Consumer's Wants and Needs."

Wesley-Jessen and Alcon Form Strategic Alliance

Wesley-Jessen Corporation and the Alcon Vision Care Group have formed a strategic alliance to co-promote the companies' contact lens and lens care products. Under the agreement, Wesley-Jessen's sales representatives will recommend Alcon's Opti-Free as the lens care system of choice for all DuraSoft contact lenses, and they will offer Opti-Free starter Kits to practitioners. Alcon's professional sales force will continue to sell the Opti-Free system and be the primary contact on all business issues relating to the lens care solutions.

"Wesley-Jessen is delighted to have teamed up with the Alcon Vision Care Group. Our lines complement each other, and we expect the sum of our efforts will be greater than its parts. Our alliance is not only strategic, but also synergetic. Over the coming months, we will pursue a broad range of co-promotional opportunities," said Charles M. Stroupe, Wesley-Jessen's president. Jack Weightman, Alcon's vice president and general manager of the Alcon Vision Care Group, added: "Alcon's Opti-Free currently is the leader in the solutions market of disinfecting and storage of contact lenses. By joining forces with Wesley-Jessen, Alcon looks to further strengthen and expand its market leadership position."

Bausch & Lomb Appoints New Director of clinical Research

Bausch & Lomb appointed Michael Pier, O.D., as director of clinical research. Dr. Pier has been president and managing partner of Quality Family Eye Care Associates in Warrensburg, Mo., for the last 12 years, and has over 16 years of practical clinical experience in optometric patient care. He will head up the research function and oversee new product design for Bausch & Lomb's Contact Lens Division, as well as manage the division's Contact Lens Clinic and practitioner field trial and clinical research studies.

"Dr. Pier's extensive clinical, hands-on experience with patients will be of enormous benefit to our new product development efforts and our clinical research function," said Harold O. Johnson, corporate senior vice president of Bausch & Lomb and president of the contact Lens Division. "We are very pleased to have a practitioner of Dr. Pier's reputation and standing join the Bausch & Lomb team," he added.

Vistakon Donates \$300,000 to IACLE

Vistakon announced that it will donate \$300,000 over the next two years to the International Association of Contact Lens Educators (IACLE). In addition, Vistakon will donate over 50,000 contact lenses for use in training institutions around the world.

"IACLE is an important component of the contact lens industry worldwide," said Bernard W. Walsh, president of Vistakon. "We share in IACLE's strong commitment to raising the standards of contact lens education throughout the world, especially in underdeveloped countries where support is desperately needed."

Professor Brien Holden, president of IACLE said, "Vistakon's contribution to our educational programs is very important. The industry's response to helping developing countries obtain educational resources has been outstanding."

The National Advisory Council on Health Professions Education

Purpose, Priorities and Perspectives on Relevance to Optometric Education

Edwin C. Marshall, O.D., M.S., M.P.H.

Melvin D. Shipp, O.D., M.P.H.

The National Advisory Council on Health Professions Education (NACHPE) has been a very important ally of optometric education. Unfortunately, many optometric educators and administrators did not acknowledge or appreciate the role of the Council in supporting health professions education. On October 13, 1992, the National Advisory Council on Health Professions Education went out of existence with enact-

ment of Public Law 102-408, the Health Professions Education Extension Amendment of 1992. This 1992 amendment repealed Section 702 of Title VII of the Public Health Service Act, the section that provided the authority for the National Advisory Council on Health Professions Education. According to Martin A. Wall, Executive Director of the Association of Schools and Colleges of Optometry (ASCO), "The rationale is that due to significant changes in Title VII programs a single advisory council is no longer an appropriate vehicle to address diverse issues facing so many different health professions."^a

Based on the Council's history, it is probable that a new council or other entity will be established to assume some of the responsibilities and functions of the Council. The purpose of this paper is to acquaint the optometric community with the purpose, structure and function of the Council so that

future councils may be utilized appropriately to further the goals of the profession.

Legislative and Programmatic Development

According to the amended charter of the NACHPE, the Secretary of the Department of Health and Human Services (DHHS) and, by delegation, the Administrator of the Health Resources and Services Administration (HRSA) are charged under Title VII, Part B of the Public Health Service Act "with the responsibility for administration of programs designed to provide assistance to health professions education." Assistance, in this regard, includes methods of improving the training, distribution and utilization of health professionals. Frequent examples of such assistance are institutional aid, student aid, or support for special initiatives of national priority. Schools of optometry and other health professions and other educational entities are eligible to receive such assistance.

The NACHPE was responsible for advising the Secretary on policy matters pertaining to the administration of Title VII of the Public Health Service Act, and for making recommendations regarding the funding of grant applications for programs administered by HRSA. The Council was required to submit an annual report to the Secretary by October 31 of each year. The report contained, at a minimum, a list of members and their business addresses, the Council's functions, dates and places of meeting, and a summary of Council activities and recommendations made during the fiscal year.

The Council consisted of the Secretary, or designee, and twenty-one members appointed by the Secretary. Appointments were based on education, experience, or training in matters relevant to the Council. Of the appointed members, thirteen were representatives of the schools assisted under programs authorized by Title VII, including one representative of each of the schools of veterinary medicine, optometry, pharmacy, podiatry, public health and allied health, graduate programs in health administration, and graduate departments of clinical psychology. At least six members of the Council were to be experienced in university administration, two were to be full-time students enrolled in health professions schools, and six were to be members of the general public. Some

Dr. Marshall is a professor of optometry and the associate dean for academic affairs at the Indiana University School of Optometry. Dr. Marshall was a member of the National Advisory Council on Health Professions Education from 1987 to 1991.

Dr. Shipp is an associate professor at the University of Alabama at Birmingham School of Optometry, and a fellow in the Pew Health Policy Doctoral Program at the University of Michigan. Dr. Shipp was a member of the National Advisory Council on Health Professions Education from 1991 to 1992.

members, obviously, represented more than one area (e.g., optometry and university administration).

Meetings of the Council were held three times a year for two to three days each. The public part of the agenda (i.e., the part of the meeting that is open to the general public) occurred usually during the first half of the first day. It was at this time that the public, including representatives of health professions institutions and associations who were not members of the Council, could make comments from the floor. The remainder of the meeting was closed to the public and devoted to study sessions for the review of grant applications by program staff and Council members. Usually during one of the three meetings each year, a one-day joint meeting was held with the Advisory Council on Nurses Education (ACNE) to discuss and explore issues common to both councils.

The National Advisory Council on Health Professions Education was established by the Comprehensive Health Manpower Training Act of 1971. However, several other councils served as forerunners to the current council:

- *National Advisory Council on Education for Health Professions (NACEHP)*

Established by the Health Professions Educational Assistance Act of 1963 (PL 88-129) to advise the Surgeon General in the preparation of general regulations and with respect to policy matters arising in the administration of the health professions teaching facilities construction grant program, and in the review of applications under that program.

- *National Advisory Council on Nurse Training (NACNT)*

Established by the Nurse Training Act of 1964 (PL 88-581) as a separate council, deleting the reference to nursing with respect to future appointments to the NACHPE.

- *National Advisory Council on Medical, Dental, Optometric, and Podiatric Education (NACMDOPE)*

Established by the Health Professions Educational Assistance Amendments of 1965 (PL 89-290) as a separate council to advise in the preparation of regulations and with respect to policy matters concerning basic and special improvement grants and in the review of applications for those grants.

- *National Advisory Council on Education for Health Professions (Amended)*

Authority establishing the NACEHP amended by the Veterinary Medical Education Act of 1966 (PL 89-709) to increase from 16 to 17 the number of

members appointed by the Secretary, to increase from 8 to 9 the number of those members selected from among leading authorities in the field of higher education who were particularly concerned with training in certain specified health professions disciplines, and to add the field of veterinary medicine to the existing list of disciplines.

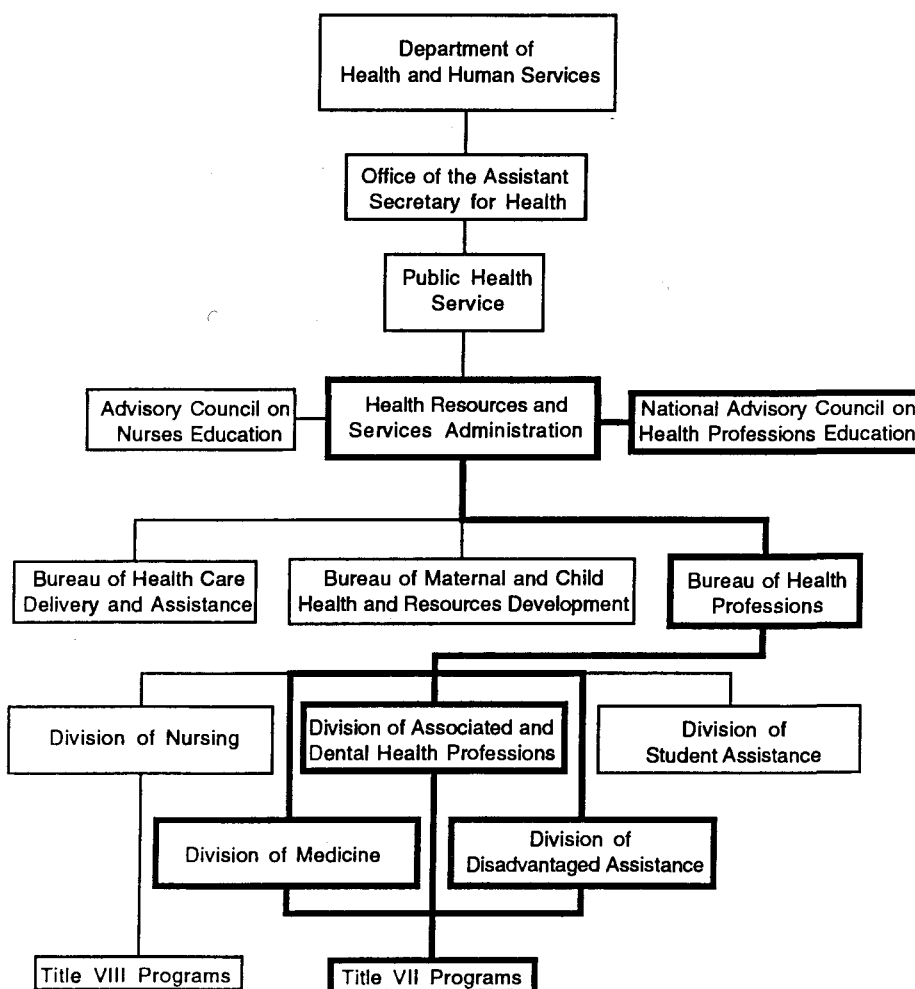
- *National Advisory Council on Health Professions Educational Assistance (NACHPEA)*

Authority establishing the NACMDOPE amended by the Health Manpower Act of 1968 (PL 90-490) to change the name of that Council to the NACHPEA, to increase the number of appointed members from 12 to 14, and to provide that appointed members of the Council shall additionally be selected from among leading authorities in the fields of pharmaceutical and veterinary education.

- *National Advisory Council on Health Professions Education (NACHPE)*

Established by the Comprehensive Health Manpower Training Act of 1971 (PL 92-157) as a new consolidated council to replace the former NACEHP and NACHPEA, to advise the Secretary in the preparation of general regulations and with respect to policy matters arising in the administration of Title VII, Part B (Grants and Loan Guarantees and Interest Subsidies for Construction of Teaching Facilities for Medical, Dental, and Other Health Personnel), Part C (Health Professions Student Loans), Part D (Grants for Family Medicine, Training, Traineeships, and Fellowships and Computer Technology Health Care Demonstration Programs), Part E (Grants and Contracts to Improve the Quality of Schools of Medicine, Osteopathy, Dentistry, Veterinary Medicine, Optometry, Phar-

Figure 1
Relationship of NACHPE to DHHS Bureaus and Divisions



macy, and Podiatry, and Health Manpower Education Initiative Awards) and Part F (Scholarship Grants to Schools of Medicine, Osteopathy, Dentistry, Optometry, Podiatry, or Pharmacy).

• *National Advisory Council on Health Professions Education (Amended)*

Authority establishing the consolidated NACHPE amended by the Health Professions Educational Assistance Act of 1976 (PL 94-484) to spell out in greater detail the groups to be represented on the Council, to add programs authorized by Subpart I (Public Health Personnel) of Part G of Title VII to the programs on which the Council was to provide advice, to provide that the Secretary could not approve or disapprove any application for a grant or contract under the amended Part F (Grants and Contracts for Programs and Projects) except after consultation with the NACHPE.

• *National Advisory Council on Health Professions Education (Amended)*

Authority establishing the NACHPE

amended by the Health Professions Reauthorization Act of 1988 (Title VI of PL 100-607) to modify the membership of the NACHPE to increase from 20 to 21 the number of members appointed by the Secretary, to increase from 12 to 13 the number of members required to be representatives of the health professions schools assisted under Title VII of the PHS Act, and to require that one of the representatives of the health professions schools be a representative of graduate programs in clinical psychology.

Programs, Priorities and Responsibilities

The health professions and nurse education programs authorized by the Public Health Service Act are supported primarily through grants from the Bureau of Health Professions (BHP). The National Advisory Council on Health Professions Education and the Advisory Council on Nurses Education

were the two public councils that had principal responsibility, under Titles VII (Health Professions Education and Training) and VIII (Nurse Education), for the review of applications to BHP grant programs.

Along with the Bureau of Health Care Delivery and Assistance (BHCD) and the Bureau of Maternal and Child Health and Resources Development (BHMCHRD), the Bureau of Health Professions (BHP) is an operating component of the Health Resources and Services Administration (HRSA) within the Public Health Service (PHS) of the Department of Health and Human Services (DHHS). While HRSA has leadership responsibility for general health service and resource issues relating to access, equity, quality and cost of care, BHP monitors and guides the development of health resources by providing leadership to improve the education, training, distribution, utilization, supply and quality of health personnel.

The major initiatives and primary areas of emphasis within HRSA and BHP are:

1) minority health and health of the disadvantaged, including minority health sciences education, patient care and personnel development; 2) traditional public health education and its interface with clinical science; 3) manpower research and analysis; and 4) service to the American public. BHP also is involved with issues of liability, accountability and professional relations. Because of its responsibility for administering over 40 different individual authorities (i.e., laws), BHP has an ongoing concern for finding ways of improving collaboration among PHS programs and authorities.

The Bureau's programs and activities relate directly to its priorities and responsibilities within HRSA, such as:

1. support of health professions education and nurse training, targeting resources to areas of high national priority;
2. funding of regional centers that provide educational services and multidisciplinary training for health professions faculty and practitioners in geriatric health care;
3. support of programs to increase the supply of primary care practitioners and to improve the distribution of health professionals;
4. development, testing and demonstration of new and improved approaches to the development and utilization of health personnel

Table 1
Divisions of the Bureau of Health Professions

<p><u>Division of Associated and Dental Health Professions (DADHP)</u></p> <p>Serves as the federal focus for the education, practice, service, research and credentialing of personnel in the fields of dentistry, optometry, pharmacy, veterinary medicine, public health, health administration and the allied health professions and occupations.</p>
<p><u>Division of Medicine (DM)</u></p> <p>Serves as the federal focus for programs and activities with regard to medical personnel education, practice and research with special emphasis on allopathic and osteopathic physicians, podiatrists and closely associated assistants, particularly physician assistants.</p>
<p><u>Division of Nursing (DN)</u></p> <p>Serves as the federal focus for nursing education and practice.</p>
<p><u>Division of Disadvantaged Assistance (DDA)</u></p> <p>Serves as the federal focus for programs to increase the number of individuals from disadvantaged backgrounds in the health and allied health professions and for advancing excellence in health professions education in selected and specific categories of educational institutions.</p>
<p><u>Division of Student Assistance (DSA)</u></p> <p>Administers health professions and nursing student loan programs, the scholarship program for first year students of exceptional financial need, the program of financial assistance for disadvantaged health professions students, the health education assistance loan (HEAL) program and loan repayment and cancellation programs.</p>

- within various patterns of health care delivery and financing systems;
5. assistance to financially needy students in their pursuit of health careers;
 6. funding of programs designed to assure equity in access to health services and health careers for the disadvantaged;
 7. support of efforts to increase the number of disadvantaged and underrepresented minority individuals who become health or allied health professionals;
 8. collection and analysis of data and dissemination of information on the characteristics and capacities of US health training systems; and
 9. assessment of the nation's health personnel work force, forecasting supply and requirements under a variety of utilization strategies.

The programs of BHP_r are administered through its five divisions: 1) the Division of Associated and Dental Health Professions; 2) the Division of Medicine; 3) the Division of Nursing; 4) the Division of Disadvantaged Assistance; and 5) the Division of Student Assistance (Table 1). Some of the grant programs administered by BHP_r, particularly the formula grants (e.g., Public Health Traineeships, Health Administration Traineeships) and those of the Division of Nursing (e.g., Nursing Faculty Fellowships, Nursing Special Projects, Nurse Disadvantaged Assistance, etc.), were not subject to action by the NACHPE. The Advisory Council on Nurses Education has responsibility for the grant programs specific to nursing education. In addition to the NACHPE and the ACNE, the recently established Commission on the National Nursing Shortage has responsibility for advising the Secretary on projects implementing the recommendations of the Secretary's Commission on Nursing. The grant programs that were subject to review and action by the NACHPE and their respective division affiliations are listed in Table 2.

As part of the funding process, the NACHPE assisted BHP_r in making grant award decisions for Title VII programs. Prior to review by Council, grant applications were reviewed by the Grants Management Branch and program staff for eligibility, completeness, and technical sufficiency. For each program, and according to published criteria, individuals with expertise in the respective program or subject area are selected by program administrators as merit (peer) reviewers to assess the

quality of the grant applications. A priority score, indicating the merit of each application, is assigned to approved applications by the peer reviewers. Following the process of merit review, the applications and their written merit reviews were presented to the Council for its review and recommendation. The Council's recommendations for approval and disapproval were then forwarded to the Secretary for final consideration and action.

An important, and often misunderstood, aspect of the review process is the application of funding factors. Three types of funding factors are relevant to the consideration of BHP_r programs:

- *Funding Preference Factor* funding of a specific category or group of approved applications ahead of other categories or groups of applications;

- *Funding Priority Factor* favorable adjustment of the technical score of an approved application when specific criteria are met; and

- *Special Consideration Factor* enhancement of priority scores, by individual merit reviewer.

Funding factors are applied only to approved applications to emphasize areas of high national priority. One of the more frequent examples of the application of a funding preference is the funding of noncompeting continuation proposals prior to the funding of new proposals. Other funding priorities and/or preferences are applied to approved proposals that meet criteria in areas of specific emphasis. All of the priorities and preferences emphasized by BHP_r may not be applicable to every program within the Bureau. However, each program supported by BHP_r is

Table 2
Grant Programs Subject to Review and Action by the
National Advisory Council on Health Professions Education

Focus	Program	Division
Multidisciplinary Education Assistance	Geriatric Education Centers (GECs)	DADHP
	Grants for Model Education Projects for Health Professions	DADHP
	Grant Program for Interdisciplinary Training for Health Care for Rural Areas	DADHP
	AIDS Education and Training Centers (ETCs)	DM
	Area Health Education Centers (AHECs)	DM
	AHEC Border Initiatives	DM
Disadvantaged Education Assistance	Centers for Excellence in Minority Health Education and Care	DDA
	Health Careers Opportunity Program (HCOP)	DDA
Primary Care Education Assistance	Residency Training and Advanced Education in the General Practice of Dentistry	DADHP
	Establishment of Departments of Family Medicine	DM
	Faculty Development in Family Medicine	DM
	Graduate Training in Family Medicine	DM
	Pediatric Training in Family Medicine	DM
	Residency Training in General Internal Medicine and General Pediatrics	DM
	Faculty Development in General Internal Medicine and General Pediatrics	DM
	Residency Training in Podiatric Medicine	DM
	Physician Assistant Training	DM
Public Health and Related Education Assistance	Graduate Programs in Health Administration	DADHP
	Public Health Capitation	DADHP
	Public Health Special Projects	DADHP
	Preventive Medicine Residency Training	DM
Other Discipline-Specific Education Assistance	Allied Health Project Grants	DADHP
	Grants for Two-Year Programs of Schools of Medicine or Osteopathy	DM
Traineeships and Fellowships	Faculty Training Projects in Geriatric Medicine and Dentistry	DM

subject, for the purposes of a funding priority and/or preference, to at least one of the following areas of emphasis: 1) enhancing minority representation; 2) HIV/AIDS; 3) geriatrics; 4) quality assurance and risk management; 5) access and special population concerns; and 6) conditions and/or characteristics of populations in frontier, border or rural areas.

Council on Graduate Medical Education

In addition to its liaison with the Advisory Council on Nurses Education, the NACHPE exchanged minutes of meetings and maintained liaison with the Council on Graduate Medical Education (COGME). COGME is required by statute to provide advice and make recommendations to the

Secretary of the Department of Health and Human Services, the Senate Labor and Human Resources Committee, the Senate Finance Committee, the House Energy and Commerce Committee and the House Ways and Means Committee with respect to the following:

1. the supply and distribution of physicians in the US;
2. current and future shortages or excesses of physicians in medical and surgical specialties and subspecialties;
3. issues relating to foreign medical school graduates;
4. appropriate federal policies with respect to physician resources in the US, including policies concerning changes in the financing of undergraduate and graduate medical education programs and changes in the types of medical

education training in graduate medical education programs;

5. appropriate efforts to be carried out by hospitals, schools of medicine, schools of osteopathy, and accrediting bodies with respect to physician resources, including efforts for changes in undergraduate and graduate medical education programs; and
6. deficiencies, and needs for improvements, in existing data bases concerning the supply, distribution of, and post-graduate training programs for physicians in the US and steps that should be taken to eliminate those deficiencies.

Early in its development, COGME adopted ten principles to help guide its actions and serve as a checklist for evaluating its conclusions and recommendations. Of particular relevance to optometry is principle #4, as listed in Table 3. After being reminded of the Secretary's charge to the Graduate Medical Education National Advisory Committee (GMENAC) in 1976 and the subsequent inappropriateness of the GMENAC recommendations regarding optometric and podiatric manpower, the National Advisory Council on Health Professions Education was compelled to send the following message to COGME in a letter, dated February 15, 1989:

COGME should consider that the impact of its recommendations is not restricted to physicians. Should COGME determine the need to address health professionals other than physicians, the NACHPE should specifically be consulted.

Consultation by the NACHPE on matters within the COGME agenda that pertain and/or lead to recommendations involving nonphysicians (i.e., primary health care practitioners other than allopathic and osteopathic physicians) helped insure the involvement and input of other professions, particularly those most affected by the recommendations (e.g., optometry).

Resolutions and Deliberations

A major responsibility of the National Advisory Council on Health Professions Education was to provide the Secretary of the Department of Health and Human Services with advice and recommendations regarding issues that are relevant to the mission of the

Table 3
Principles Adopted by the Council on Graduate Medical Education

1	The primary concern of the Council must be the health of the American people. There must be assured access for all to quality health care. Concern for the well-being of the health professions, medical schools, and teaching hospitals, while important, must be secondary to the above concerns.
2	The Council should consider the diverse needs of the various geographic areas and segments of the population, such as rural and inner city areas, and minority and disadvantaged populations.
3	A goal of the Council is increased representation of minorities in the health professions. Targeted programs are appropriate and a necessary means of achieving this objective.
4	The Council must consider the interrelationships between services provided by physicians and those provided by other health professions.
5	The Council will favor the use of private sector solutions, recognizing that government or other interventions have been and may continue to be needed to address specific problems of distribution, quality, and access to health care.
6	The Council should be concerned about effects on total health care costs in the Nation. The Council must also take into account the financial and programmatic impact of its recommendations on the Federal budget in both the short and long term.
7	The Council recognizes that health care in the US is not a "closed" system, and therefore its deliberations must be guided by an international perspective.
8	The Council must take into account changes in demographics (e.g., the aging population), disease patterns (e.g., increasing prevalence of AIDS), patterns of health care delivery (e.g., increased emphasis on ambulatory care), and the unmet needs for prevention and care.
9	The Council believes that a strong system of medical education must be maintained in order to expand medical knowledge and provide access to quality medical care through an adequate supply of appropriately educated physicians.
10	American medical education should provide a basis for physicians of the future to be able to deliver continually improving patient care through a better understanding of disease processes and their clinical manifestations. The education system should prepare physicians to appropriately apply new techniques of diagnosis, treatment, and prevention in a compassionate and cost-effective manner.

Council. To express a point of view, convey a concern or put forth a recommendation to the Secretary, the Council could prepare and submit resolutions to the Assistant Secretary for Health for transmittal to the Secretary. The Secretary could act upon the resolution in whatever manner considered appropriate under the circumstances. Since 1979 the Council has issued approximately 40 different resolutions on such diverse issues as:

1. the reduction in capitation support to medicine, dentistry and osteopathy;
2. the need for special administrative actions to provide assistance to institutions deeply involved in the professional education of minority citizens in the field of health;
3. the need for professional and resource support to podiatry in its efforts to increase the number of graduates;
4. the level of budgetary support to the Bureau of Health Professions;
5. financial distress authorization to health professions institutions;
6. the continuation of the National Health Service Corps;
7. the delinquency rate within the Health Professions Student Loan (HPSL) program;
8. support of general practice residency training in dentistry;
9. curriculum development and interdisciplinary training in disease prevention and health promotion;
10. the definition of "humanistic health care;"
11. information on the distribution of allopathic and osteopathic physicians in the US;
12. the preservation, reassessment and drafting of funding preferences;
13. the authorization level for the Health Education Assistance Loan (HEAL) program;
14. the cost of clinical education and the determination of indirect costs reimbursement by the Health Care Financing Administration (HCFA);
15. the continuation of funding levels for health professions education;
16. the deductibility of interest paid on educational loans;
17. budget reductions from reprogramming to meet anticipated deficits in the HEAL program; and
18. the use of health professionals funds to support financially distressed hospitals.

Some of the more vibrant discussions of the Council during the past few years have dealt with the Health Care Quality Improvement Act and the National

Practitioner Data Bank, the Disadvantaged Minority Health Improvement Bill, student assistance programs, health professions training bills, debriefings of meetings with the Secretary and with members of COGME, and fiscal year appropriations for health professions training.

One of the priorities of HRSA and BHP is the support of research and analysis on the supply and need for health professionals. Input received by the Council (such as that which may have been received from optometry) could be used to help direct Congress with respect to the scope and level of health professions funding. The Council adopted into its agenda a rotating four-year cycle for the scheduling of presentations from those health professions represented on the Council. It was extremely important for optometry to take every opportunity to submit commentary on the status of the profession and the need for additional resources.

Current & Evolving Issues

Presently, an area of critical importance to HRSA is HIV and AIDS care, particularly in relationship to health professions training. The FY 92 budget and the Ryan White AIDS care and training legislation provided a substantial \$160 million increase in funding to HRSA for these purposes. This new legislation is being implemented primarily through the expansion of AIDS Education and Training Center activities. The FY 92 budget also included further expansion of some minority health profession activities, an expansion of the National Health Service Corps and the implementation of an infant mortality prevention program called "Healthy Start." This program provides grant support to roughly ten rural and urban areas, with a goal of reducing infant mortality by at least 50% within the next five years.

An important ongoing process within HRSA is "Primary Care 200 — HRSA's Long Range Plan for Health Professionals." This initiative is in response to an invitation by the Assistant Secretary for Health for input from HRSA for a cogent policy on the future direction of the health professions. In particular, the impact of various ongoing training programs for health professions, relative to staffing in underserved areas, must be addressed. Primary care will receive particular attention due to its broad-based approach to meeting health care

needs and because of its importance in cost containment.

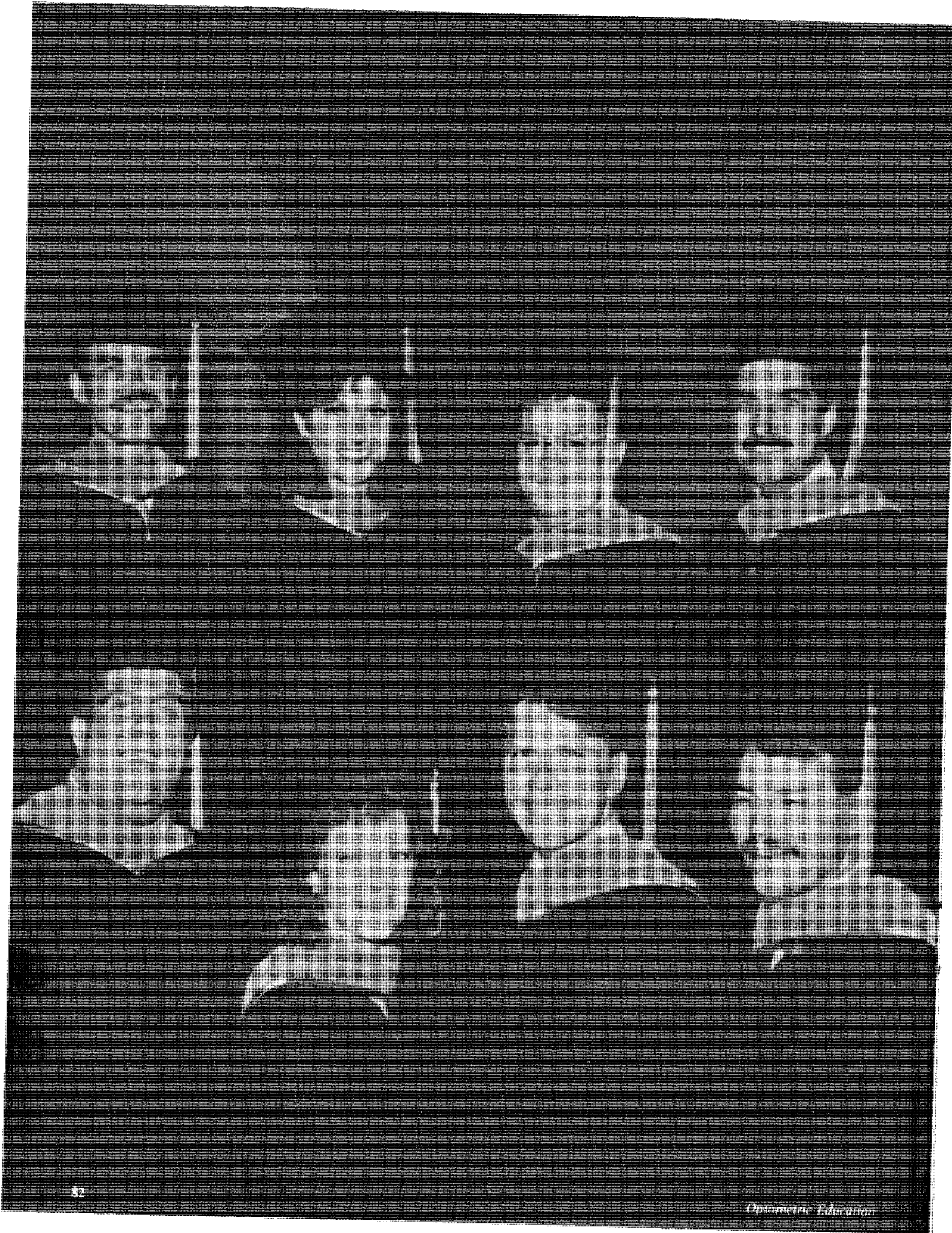
On October 13, 1992, Public Law 102-408, the Health Professions Education Extension Amendment of 1992, was enacted. This law amended and extended health professions education and training under Title VII of the Public Health Service Act. Among its many provisions and in addition to its repeal of Section 702, the Act added new authority for grants to, or contracts with, schools and colleges of optometry to plan, develop and operate postgraduate geriatric care training projects and geriatric optometry faculty training projects. This new authority would provide financial assistance to participants (i.e., residencies, traineeships and fellowships), and support cooperative affiliations with nonprofit private entities providing geriatric care. PL 102-408 authorized a total of \$1.2 million (\$400,000 per year for three years) for this program, however, to date, funds have not been appropriated by Congress.

Conclusion

The National Advisory Council on Health Professions Education was an excellent resource for receiving and sharing information, communicating ideas and recommendations, and effecting change in direction and policy regarding health professions education. Optometric education was served most efficiently through consultation, exchange of information and a general rendering of assistance by those who had the future of optometric education as a priority concern. The mission, priorities, responsibilities and activities of the National Advisory Council on Health Professions Education were important and vital events in the development of optometric education and, as such, they must be acknowledged, appreciated and used effectively by the optometric community. The Association of Schools and Colleges of Optometry and the American Optometric Association must continue their efforts to ensure optometry's involvement and representation on future Bureau of Health Professions advisory councils. □

Footnotes

- a. Personal correspondence from Mr. Martin A. Wall to Dr. Melvin Shipp, October 31, 1992.



Professional Demographics of 1984-1988 Graduates of the University of Missouri-St. Louis School of Optometry

W. Howard McAlister, O.D., M.A., M.P.H.

Timothy A. Wingert, O.D.

Sharon L. Davis

Valerie Short, O.D.

Kathy Heller, O.D.

Introduction

In 1968 the Missouri Optometric Association first recommended that an optometry school be established in the state of Missouri. An optometric work force study was completed in 1976 as part of the Health

Manpower Planning Project. This study documented the need for an increased number of optometrists in Missouri, Kansas, Iowa, and Nebraska. The University of Missouri-St. Louis School of Optometry officially came into existence on June 1, 1980. The school is state supported and therefore reserves approximately half of its forty available positions for Missouri residents. The remaining places are allocated to residents of other states, with some preference given to applicants from states which have made contractual arrangements.¹

This survey was undertaken in order to provide information regarding the professional and demographic characteristics of the UM-St. Louis School of Optometry graduates from 1984 to 1988. The survey will be useful in providing a means for evaluating the status of optometry graduates, as well as the optometry curriculum.

Dr. McAlister is assistant professor of optometry and teaches the public health and community optometry courses at the University of Missouri-St. Louis School of Optometry.

Dr. Wingert is assistant professor of optometry and director of the pre-clinical course sequence at the University of Missouri-St. Louis School of Optometry.

Ms. Davis is coordinator of student services and records at the University of Missouri-St. Louis School of Optometry and is coordinator of the Optometry Practice Information Program, a nationwide placement service for optometrists.

Dr. Short is a 1990 graduate of the University of Missouri-St. Louis School of Optometry and is in private practice in Spring Green, Wisconsin.

Dr. Heller is a 1990 graduate of the University of Missouri-St. Louis School of Optometry and is in practice in St. Louis, Missouri.

Methods

Graduates from the classes of 1984 to 1988 were located through the UM-St. Louis School of Optometry Office of Student Affairs, and were sent questionnaires* with an explanatory cover letter on December 15, 1988. Questions concerning practice location, licensure, mode of practice, professional affiliations, diagnostic and therapeutic drug certification and usage, post-graduate training, student loan debt, and income were asked. The graduates were also asked to evaluate the optometry curriculum. Demographic characteristics examined in the survey included age, sex, race, and marital status.

The questions had multiple choice and fill-in-the-blank responses. Of the 147 surveys sent 93 were completed and returned, representing a 63.3% response rate.

Results

Seventy-three percent of the survey respondents were male, and 27% were female. Caucasians accounted for 98% of the respondents. The remaining 2% were black, with no other racial groups responding to the survey. Sixty-seven percent of responding graduates were married, with 28% single and 5% divorced. The ages of all respondents ranged from 24 to 42 years, with a median age of 29 years.

Seventy-nine percent of graduates returned to their initial state of residence following graduation, while 21% did not return to the state in which they resided prior to attending optometry school. Of those students who were not originally Missouri residents, 39% remained in Missouri to practice following graduation (Figure 1).

In choosing their current practice location, 36% of graduates cited family reasons as important. Twenty-eight percent chose their home town as a practice location, while 18% listed climate/recreation opportunities as a factor in selecting a location. The number of private optometrists in the area influenced 11% of respondents. The number of commercial optical outlets and the number of practicing ophthalmologists in the area were concerns of only 4% and 3% of graduates, respectively.

Sixty-one percent of graduates practice in the state of Missouri (Figure 2), with 38% practicing in other states and 1% not currently in practice. Forty-nine

*For a copy of this questionnaire please call Dr. McAlister at 1-314-553-5607.

percent of graduates are practicing in an urban setting, while 30% are in a small community. Twenty-one percent practice in a rural setting (Figure 3).

Thirty-four percent of graduates hold a license in more than one state, with 75% of these licensed in two states and 25% licensed in three or more states. Sixty-six percent hold a license in only one state.

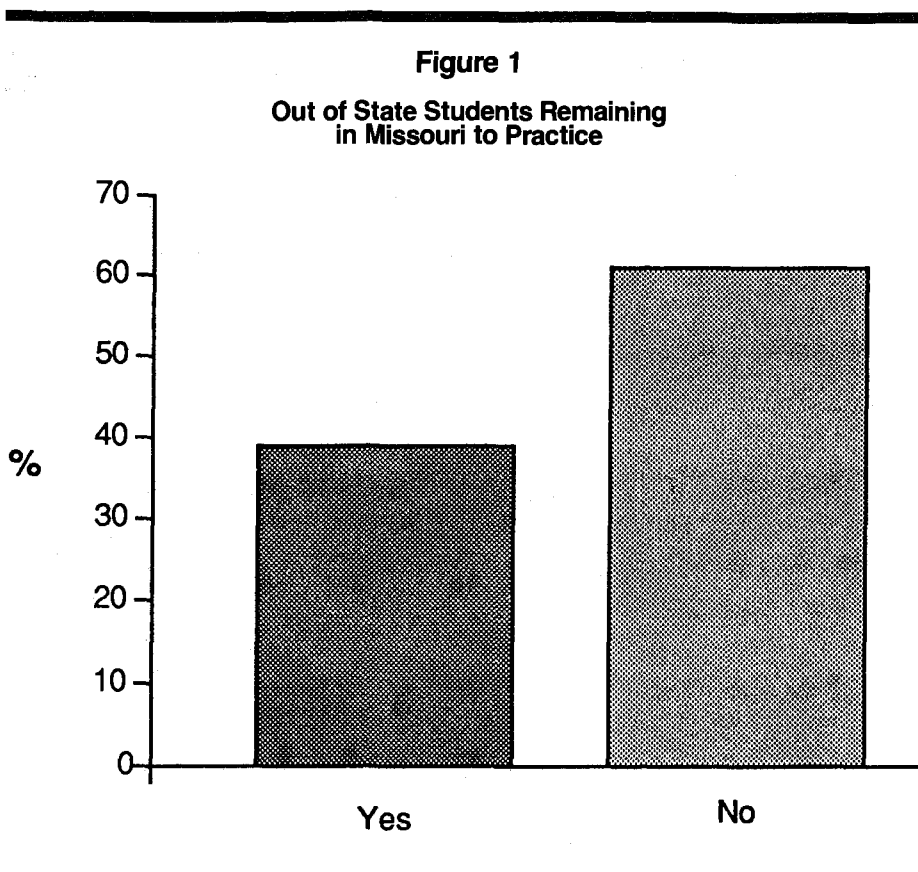
Of all five classes combined, private associateship/partnership is the major mode of practice for 25% of respondents. Twenty-four percent of graduates are in private solo practice, while 21% percent are employees of commercial practices. HMO's employ 6% of graduates. Four percent are in private group practice, and another 4% are commercial franchisees. Three percent each are employed by ophthalmologists, an associate/partner of an ophthalmologist, employed by a VA hospital, or are involved in education/research. The military employs 2% of graduates, and another 1% are employed in health clinics. The class of 1987 was an exception to the general trend for major modes of practice. Forty percent of respondents are employees of commercial practices, by far the highest percentage for this mode of practice of all five classes.

In addition to their full-time position, thirty-five percent of all graduates currently hold part-time optometry positions. These positions include teaching, association with an optician, employment by an ophthalmologist, employment by a private or commercial practice, commercial insurance contractor to nursing homes, staff optometrist at a correctional center, and union contractor for eye care.

Forty-two percent of all graduates have not held any part-time optometric positions since graduation. Twenty-nine percent have held one part-time position, 11% have had two positions, and 9% have had three. Five percent have had four part-time positions and 1% have held five. Two percent and 1% have had six and eight part-time optometric positions, respectively.

Only one full-time position since graduation from optometry school has been held by 67% of the graduates. Twenty-two percent have had two full-time positions, and 11% have had more than two changes in full-time optometric positions following graduation.

Of the graduates replying to the survey, 36% are currently desiring a change in their practice situation. Of these, 49% are interested in a change in the type of practice in which they



are currently involved. Twenty-four percent of those in private practice desired a change in practice mode, as opposed to 67% of those who described their major mode of practice as commercial. Seventeen percent desire a change in location and/or community,

and 34% would like a change in economic opportunity.

The majority of graduates are members of the American Optometric Association, with 55% stating that they hold membership. Five percent are fellows of the American Academy of

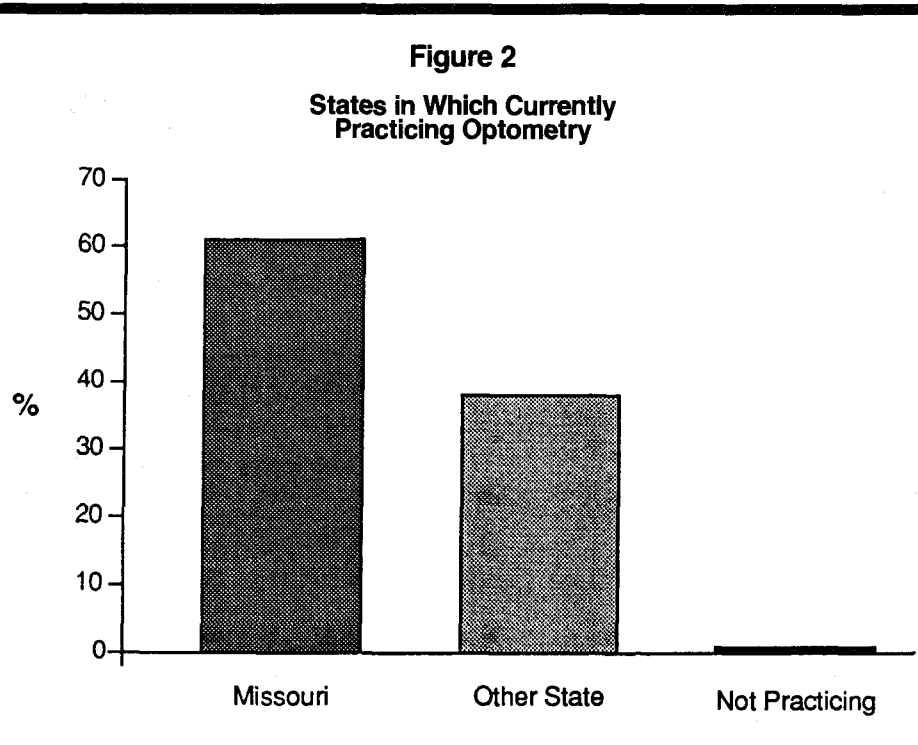
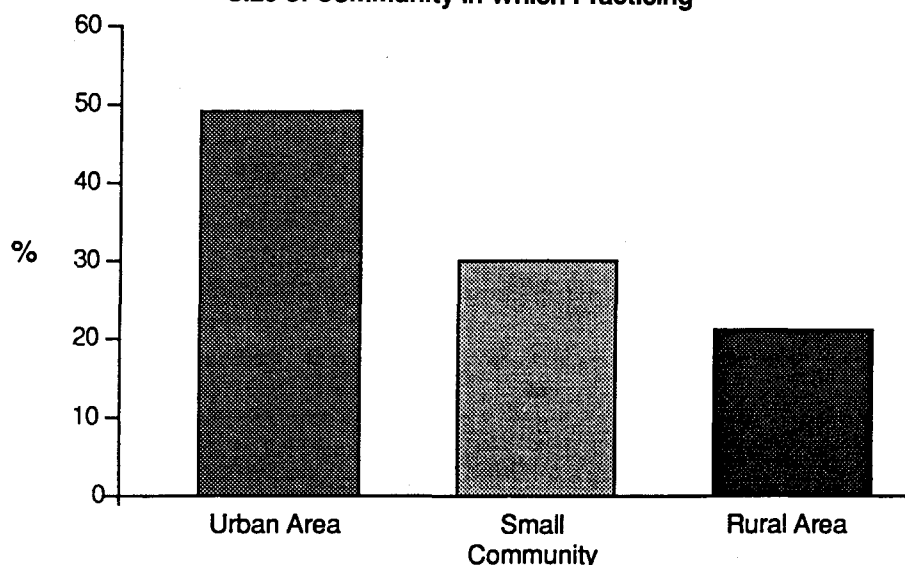


Figure 3

Size of Community in Which Practicing



Optometry and 1% are members of the Optometric Extension Program. None of the respondents stated that they were fellows of the College of Optometrists in Vision Development. Thirty-

four percent cited membership in other optometric organizations, such as local optometric societies. Five percent stated that they were not members of any optometric organizations.

Ninety-seven percent of graduates were certified to use diagnostic pharmaceutical agents. Forty percent stated that they used DPA's on most patients. Thirty-two percent reported that they used DPA's frequently, while 22% used them occasionally. Four percent used them infrequently and 2% said that they never use diagnostic agents.

Of those graduates residing in a state which allows the use of therapeutic pharmaceutical agents, 85% were certified to practice at this level. Of those certified, 19% stated that they used TPA's whenever necessary. Thirty percent cited frequent TPA usage, while 45% stated that they used TPAs infrequently. None of the TPA certified graduates stated that they never used therapeutic agents.

Ten percent of graduates indicated that they had completed some type of post-graduate training following optometry school. Of these, 56% completed VA residency programs. The remaining 44% were divided equally between primary care residencies, contact lens residencies, low vision certification from the Light House program, and a Master's degree in physiological optics.

Figure 4

Median Income of Each Class

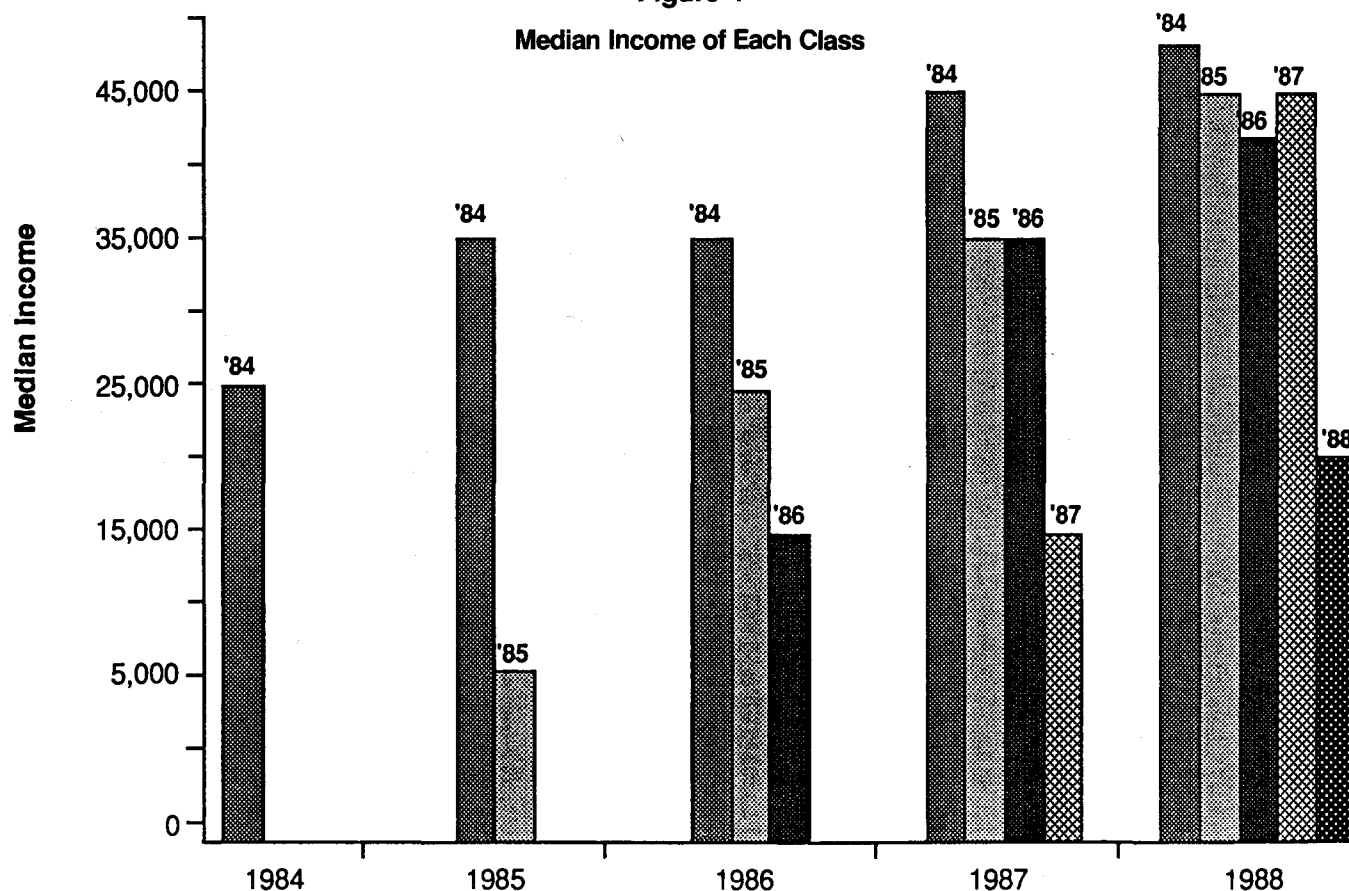
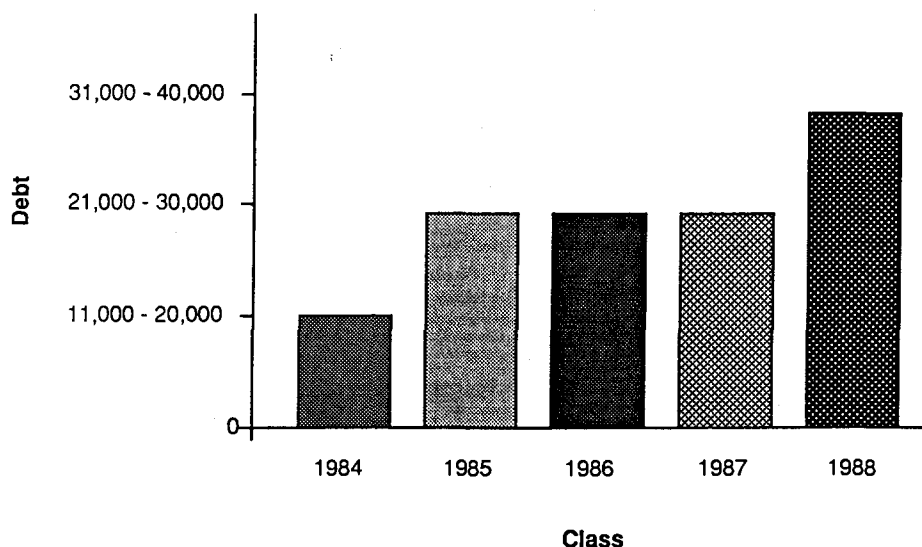


Figure 5

Median Student Loan Debt by Class



Responses to the question concerning average yearly income varied widely. In 1988, the income for the class of 1984 ranged from \$30,000-98,000. The median income was \$48,000 with a semi-interquartile range of \$15,750.

In 1988, the median income for the class of 1985 was \$45,000 with a semi-interquartile range of \$14,000. The income ranged from \$22,000 to \$80,000.

The income range in 1988 for the class of 1986 was \$25,000-65,000. The median

income was \$42,000 with a semi-interquartile range of \$11,125.

The median income for the class of 1987 in 1988 was \$45,000 with a semi-interquartile range of \$10,812. The incomes reported ranged from \$25,000-68,000.

In 1988, the class of 1988 reported a median income of \$20,000 with a semi-interquartile range of \$12,562. The incomes reported ranged from \$11,000 to \$50,000 (Figure 4).

Eight percent of all graduates stated that they had no student loan debt upon graduating from optometry school. The mean debt from student loans of all five classes was \$28,252 with a standard deviation of \$15,998.

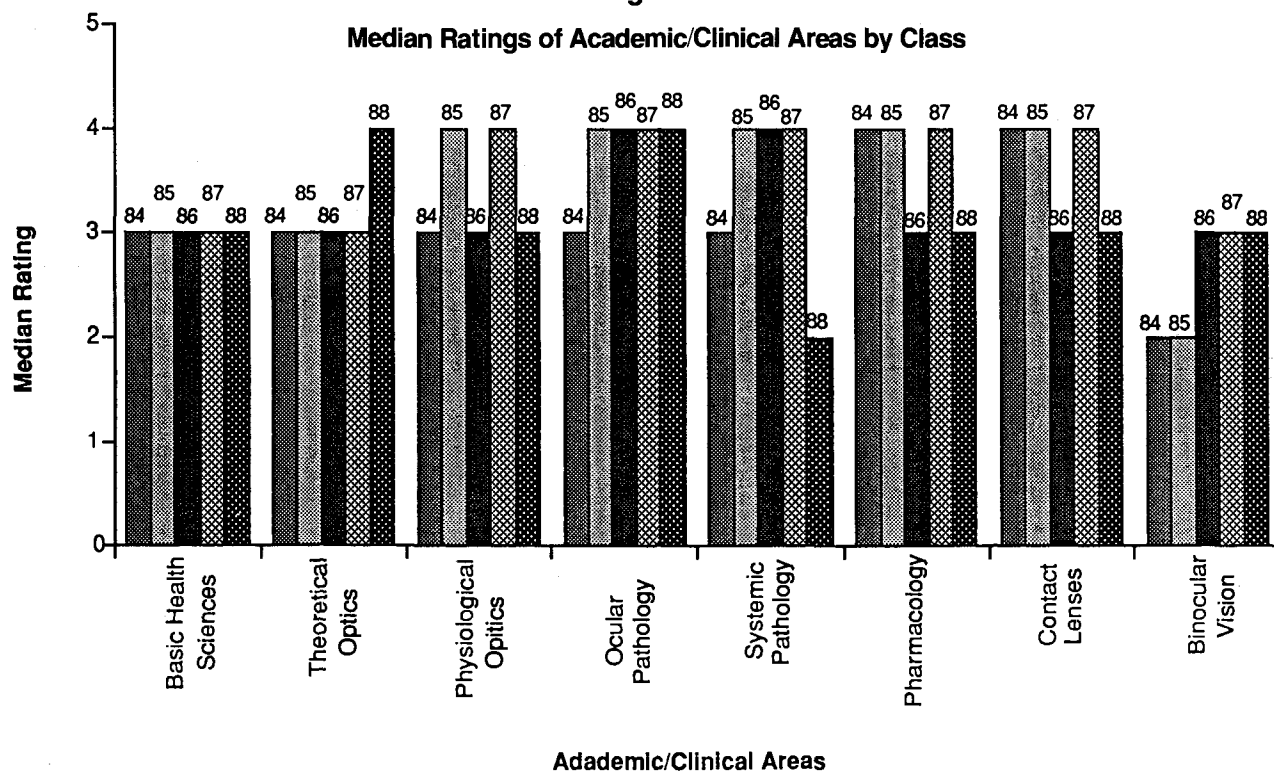
The median student loan debt for the class of 1984 was \$11,000-20,000. The classes of 1985, 1986, and 1987 each had a median debt of \$21,000-30,000. The class of 1988 had a median student loan debt of \$31,000-40,000 (Figure 5).

Thirty-nine percent of respondents stated that student loan debt had a major impact on their choice of practice type and/or location. Sixty-one percent of graduates reported that their student loan debt did not influence this decision.

A Fisher test applied to the data by gender showed no significant difference

Figure 6

Median Ratings of Academic/Clinical Areas by Class



KEY: 5=excellent 4=very good 3=good 2=adequate 1=fair 0=poor

in income, community size in which they practiced, practice type, or desire for a change in mode of practice between males and females.

Graduates were asked to rate how well prepared they were in various academic/clinical areas following their education at the University of Missouri-St. Louis School of Optometry. These areas were rated with the following scale: 5 = excellent, 4 = very good, 3 = good, 2 = adequate, 1 = fair, and 0 = poor. Very little variation was found among the responses for each class.

Basic health sciences received a mean rating of 3.0, while theoretical optics had a mean rating of 3.2. Physiological optics received a mean rating of 3.4. Ocular pathology was evaluated with a mean rating of 3.8, with systemic pathology receiving a mean rating of 3.4. Pharmacology and contact lenses both received a mean rating of 3.6. Binocular vision received a mean rating of 2.6. Geriatrics, pediatrics, low vision, and dispensing each received a mean rating of 2.8. Practice management was evaluated with a mean rating of 0.4, while primary care received a mean rating of 3.6 (Figure 6).

Twenty-five percent of respondents indicated that the fourth year of optometry school would best be

enhanced by increasing primary care experience at the school. Thirty-two percent of graduates felt that an increase in speciality clinic experience such as contact lenses, binocular vision, pediatrics, and low vision would most improve the fourth professional year. Private practice externships and changes in currently available externships were cited as important by 37% and 6%, respectively.

Discussion and Conclusion

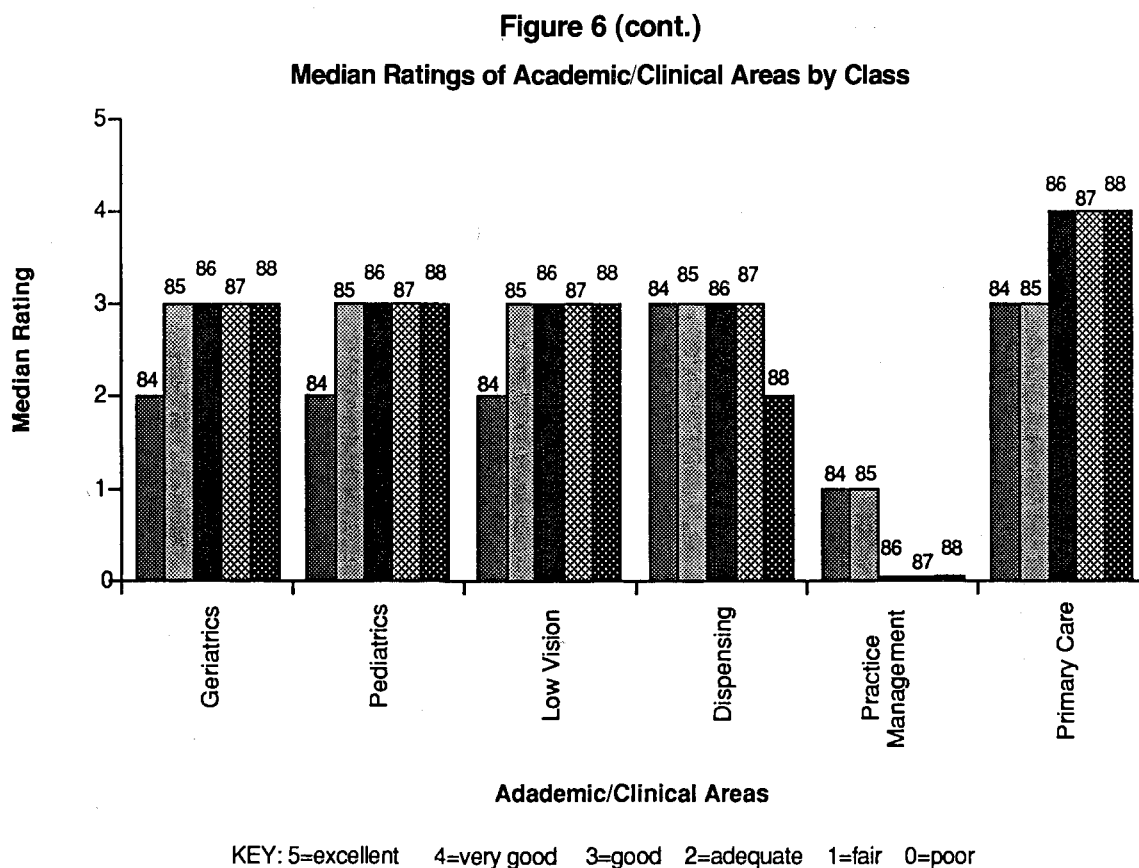
Few of the respondents let the presence of competitive forces (other optometrists, ophthalmologists, and commercial chains) impact on their choice of practice location. This appears to be somewhat naive and may account in part for the fact that over a third of them are desirous of a change in their current practice situation. Family concerns represented the largest single factor in choice of practice location. Many married students have working spouses, who have established careers in the St. Louis area during their time in optometry school. This may account for the large number of out-of-state students who remain in Missouri following graduation.

The majority of those responding to the survey are in a private practice setting. There are, however, a significant number in commercial environments. This is likely due to high student debt and changes, by some, in perceptions of this practice mode.^{2,3,4} Income statistics for practitioners nationally, having graduated within five years, were comparable to those of the respondents.⁵

When asked to rate their education by subject area from excellent to poor (on a scale of 0-5) all areas were rated around 3 (good) with the exception of practice management. The practice management program is currently being revised along the guidelines of ASCO and will hopefully be rated higher by future graduates. □

References

1. UMSL School of Optometry Bulletin, p. 12, 1989.
2. Mackin RC, Egan DJ, Garzia RP. Practice profile of University of Missouri-St. Louis optometry graduates. *J Am Optom Assoc* 1990; 61(8): 623-7.
3. Walter SK. Annual report of the ophthalmic industry. 20/20 1989; 16(12):51-66.
4. Chiaramonte C. Alternatives to private practice. *Optom Manage* 1988; 24(1):54-60.
5. Nicholas C. Annual income survey: Doctors bring home a better bottom line. *Rev Optom* 1988; 125(12):43-44.



Do Grades Affect Faculty Teaching Evaluations?

Linda R. Trick, O.D.

Stephen Lehmkuhle, Ph.D.

Raymond Myers, O.D.

Julie Graham, B.A.

Sharon L. Davis

Abstract

The majority of schools and colleges of optometry utilize teaching evaluations in which the students assess their instructor's teaching ability. Opponents to this method of evaluation feel that the students are often unable to make objective assessments. This study evaluates the effect of course grade upon teaching evaluations over a five year period at the University of Missouri-St. Louis, School of Optometry. The results indicate that there is a small but statistically significant correlation between course grade and instructor rating ($r = .288, p < .0001$). Other factors influencing the evaluations, as well as possible alternative explanations regarding the interactions between grades and evaluations, are discussed.

Key Words: teaching evaluations, grades, assessments

Introduction

The subject of teaching evaluations is a controversial one. At most institutions, evaluations are meant to serve several purposes: 1) they are meant to provide feedback to the instructor thereby facilitating improvement in teaching; 2) they are used as a means of evaluating

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Dr. Myers is an associate professor and director of contact lens care and clinical research at the Louisiana State University Eye Center. He was formerly at the University of Missouri-St. Louis School of Optometry.

Ms. Graham is an administrative associate at the University of Missouri-St. Louis School of Optometry.

Ms. Davis is the coordinator of student services and records at the University of Missouri-St. Louis and coordinator of a nationwide optometric practice information program.

the faculty member for promotion, tenure and salary considerations; and 3) at some institutions, the results of the evaluations are made available to the student body who use them as an aid in deciding which courses/instructors they wish to take. While it is generally agreed that some form of evaluation is necessary, the type and content of the optimal evaluation is subject to debate. There are three general types of evaluations in common usage: 1) peer evaluations in which fellow faculty members rate teaching performance following one or more announced or unannounced classroom visits, 2) evaluations by university administrators and 3) student evaluations.

Unfortunately, each type of evaluation is fraught with problems. Evaluations performed by faculty colleagues and administrators are usually based upon very limited classroom exposure. In addition, it has been suggested that they may be biased by friendships and hearsay. Evaluations by administrators are also potentially problematic since the administrator making the evaluation is often the same person responsible for making salary recommendations. Many faculty prefer a more independent evaluation. Student evaluations of teaching are likewise regarded with great concern despite the fact that several studies have demonstrated the stability and reliability of student evaluations. Student ratings are reliable over courses, instructors and students¹. In addition, student evaluations appear to be stable over time². While many authors argue that the students (i.e. consumers) are the group with the most information upon which to base an evaluation³, others argue that student evaluations are biased by a number of factors.

A study by Marsh and Overall⁴ asked faculty members to indicate which factors they felt were responsible for substantial bias in student evaluations. Their responses listed in descending order were: course difficulty (72%), grading leniency (68%), instructor popularity (63%), student interest in subject prior to course (62%), course workload (60%), class size (60%), reason for taking course (55%) and student grade point average (GPA) (53%).

We were most interested in studying the effect of grades upon student evaluations of teaching. Since to our knowledge, this subject has not been previously investigated at the schools and colleges of optometry, the present study was conducted.

Methods

At the University of Missouri-St. Louis, student appraisals of teaching are conducted each semester. Approximately two weeks prior to the end of the semester, a 17 item questionnaire is distributed during class to the students by a staff member from the Dean's office (table 1). The students are asked to anonymously rate the instructor (on a scale of 1-7) on each item, giving the highest score for unusually effective performance. The evaluations are then collected by the staff person who tallies the results. In addition, students are asked to comment on the best and worst features of the course, to make suggestions for improving the course, and for any additional comments they wish to make.

In order to determine whether grades affect teaching evaluations at the UM-St. Louis School of Optometry, we obtained the mean teaching evaluation results from the Dean's office for each course for each faculty member, for the last five years. In courses which are team taught, each faculty member is evaluated individually by the students. There are therefore 255 mean evaluations representing the various combinations of faculty members and courses taught over the last five years. Each of the evaluations was coded by a staff member in the Dean's office in order to respect the confidentiality of this information. Courses were identified by letter and faculty were identified by number. In addition, the year and semester in which the course was taught was preserved. The mean grade for each course was calculated and this information was entered into a spreadsheet along with the evaluation data.

Course grades were derived by assigning each letter grade a number (A=4, B=3, etc.) and then calculating the mean grade for each course. Only didactic courses were included in this analysis. The evaluation form used at UM-St. Louis is shown in Table 1. It was developed by the optometry faculty at the University of Alabama, a number of years ago and is based upon, among other things, a study done at the Berkeley Center of Higher Learning⁵.

Although the primary goal of this investigation was to determine whether grades affect faculty teaching evaluations, a secondary goal was to determine which of the 17 factors listed on the evaluation form were felt by optometry students to be the most important to good teaching. Finally,

Table 1
This questionnaire is administered in each course to each student for his/her completion during class time by a staff member from the Dean's office.

School of Optometry
University of Missouri-St. Louis
Student Appraisal of Teaching

Instructor: _____ **Course:** _____

Thoughtful student evaluation can help improve teaching effectiveness. This questionnaire is designed for that purpose. Please do not sign your name. Use the back of the form for any further comments you might want to express. Your assistance is appreciated.

DIRECTIONS: Rate the instructor on each item, giving the highest score for unusually effective performances. Place in the blank before each statement the number that most nearly expresses your view:

7	6	5	4	3	2	1	X
Highest			Average			Lowest	Don't know

- _____ (Instructor's initials, if evaluating more than one instructor)
- _____ 1. How well are class presentations planned and organized?
- _____ 2. Have the major objectives of the course been made clear?
- _____ 3. Is the instructor actively helpful when students have difficulty?
- _____ 4. Does the instructor make students feel free to ask questions, disagree, express their ideas, etc.?
- _____ 5. Is the instructor interested and enthusiastic about the subject?
- _____ 6. How would you judge the instructor's mastery of the course content?
- _____ 7. Are important concepts clearly explained using appropriate aids effectively?
- _____ 8. Does the instructor present the material from a variety of viewpoints using adequate examples or illustrations?
- _____ 9. If the course has laboratories, are they well organized?
- _____ 10. Are the examinations fair and representative of the course content?
- _____ 11. Does the instructor generate interest in the subject area?
- _____ 12. Does the instructor stimulate critical thinking and analysis?
- _____ 13. Are the major points emphasized and summarized?
- _____ 14. Does the instructor seem interested in students as individuals?
- _____ 15. Is the instructor's speech conducive to note-taking?
- _____ 16. Overall course rating.
- _____ 17. Overall instructor rating.

since prevalent opinion suggests that grades do affect teaching evaluations, and since teaching evaluations are one factor which is used in salary and tenure considerations, an analysis of grade trends over time was conducted.

Results

To determine whether faculty who give higher grades receive higher evaluations, the correlation between course grade and instructor rating was examined (Fig. 1). There is a significant ($P < .0001$) positive correlation between these factors ($r = .288$). Although the

correlation between course grades and evaluations is statistically significant, the low slope of the best fitting regression line and the variability of the course ratings, indicates that the relationship is marginal at best. For example, if an instructor raised the average course grade by a letter, the instructor might expect his or her evaluation to improve by only 0.7 on a scale of 0 to 7. Moreover, because of the variability of the course ratings, the instructor should not be very confident that his evaluation will improve even this amount.

In order to determine which factors correlate most highly with positive teaching evaluations a Pearson's correlational matrix was performed. The results revealed that each of the 15 factors was significantly positively correlated with the instructor's teaching evaluations. Figure 2 lists each of the 15 factors in descending order according to correlational value. The most highly correlated items were "important concepts clearly explained", "major points emphasized and summarized", "instructor generates interest" and "presents the material from a variety of viewpoints". The factor which had the weakest correlation was grades. Despite its last place position, grades had an r value of .288 and is significant at the $p < .0001$ level.

Also of interest is the interaction between grades and course rating as compared to grades and instructor rating (Fig. 3). An evaluation of this interaction revealed an extremely high correlation $r = .923$ which is significant at the $p < .0001$ level. This indicates that when completing the evaluations, the students do not make a distinction between the quality of the instructor and the quality of the course. They do not for example, feel that they may have a good instructor teaching a poor course or visa versa. The correlational matrix pointed out that most of the items on the questionnaire are highly intercorrelated. The high degree of intercorrelation would suggest that a simplified version of the evaluation form would provide the same overall information and would take less time to administer.

Since many faculty are of the opinion that giving higher grades results in higher evaluations, and since teaching evaluations are taken into consideration when decisions on salary, tenure and promotion are made, an examination of grades and grade trends was undertaken. For this evaluation, the mean grades given each semester from fall 1984 through winter 1989 were plotted. The results revealed a highly significant increase in grades over this period of time (Fig.4). In order to determine whether higher grades are being given because a higher calibre of student is being admitted, we correlated performance on entrance examinations (OCAT pre 1988, OAT 1988, 1989) with the mean course grades for the first semester first year classes for each class of students. In order to make a meaningful comparison between OCAT and OAT scores, we converted the average test value for each entering

Figure 1
The correlation between mean course grade and instructor rating for all didactic courses taught at UM-St. Louis over a 5 year period.

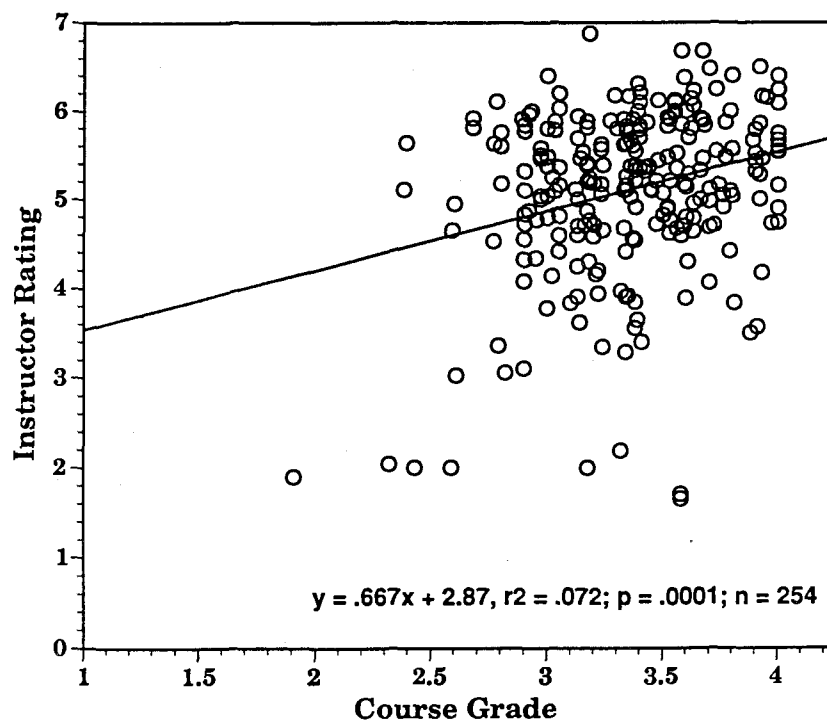


Figure 2
The correlations between instructor ratings and items evaluated by the students on the teaching evaluation form are shown in descending order.

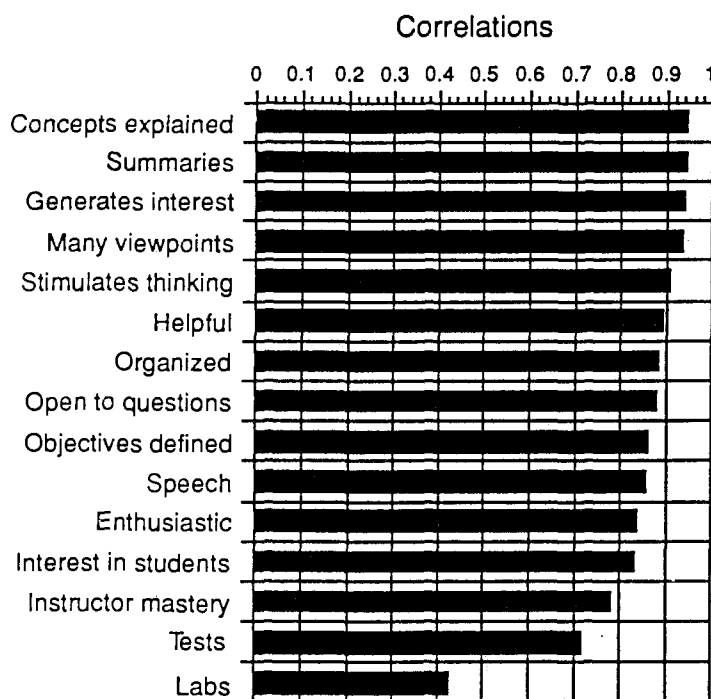


Figure 3
An extremely high correlation exists between instructor rating and course rating ($r=.923$).

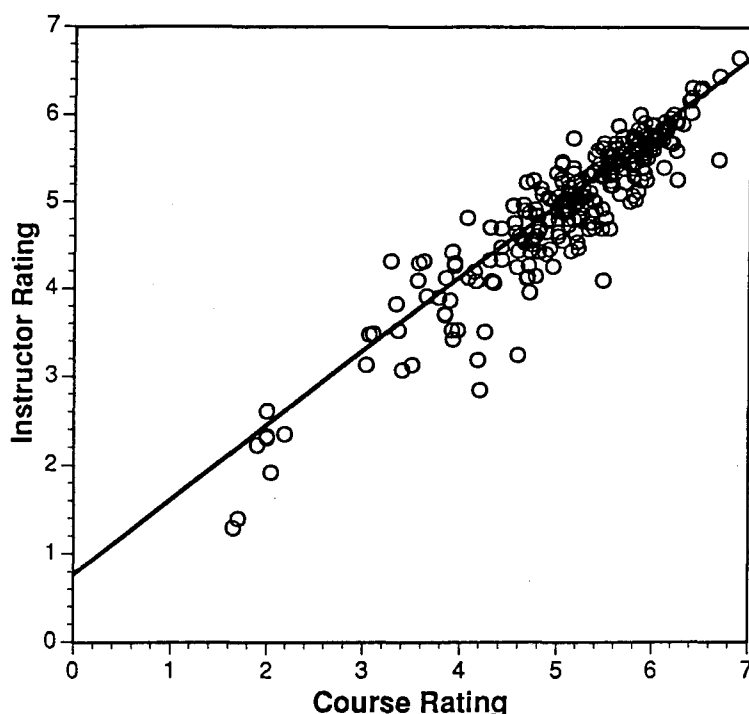
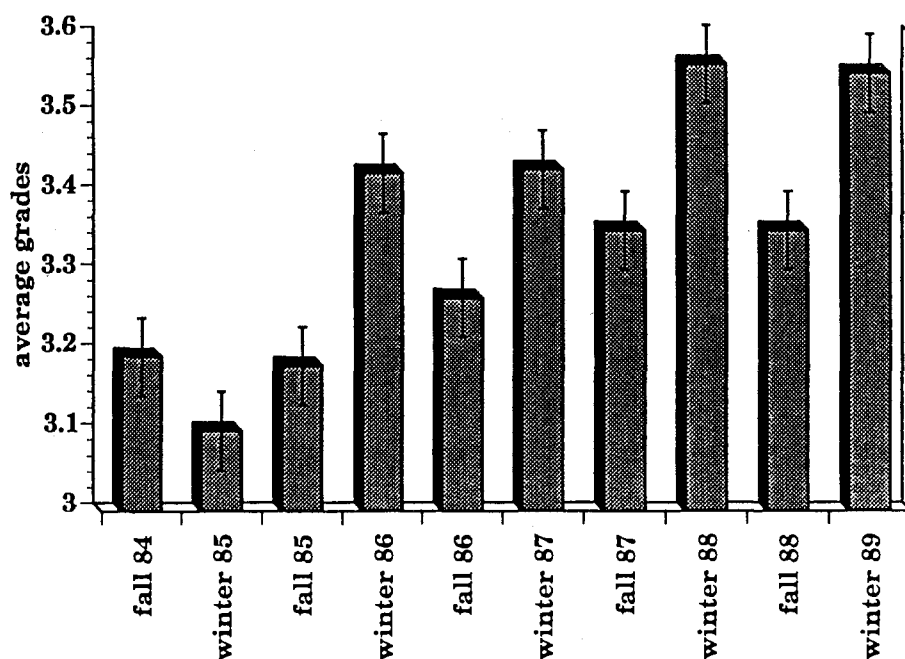


Figure 4
A general increase in course grades occurred at UM-St. Louis over the five year period from fall 1984 through winter 1989.



class into a percent possible score. At least for this limited sample, mean entrance examination scores do not appear to account for differences in average first semester first year grades.

Discussion

Do grades affect faculty teaching evaluations? Yes, they do, but at our institution the magnitude of the effect is relatively small. This finding, which is in agreement with reports by others^{6,8}, is not surprising. Interpreting the result and determining its exact nature and attendant implications is more challenging. Marsh⁹ points out the fallacy in assuming that factors which correlate necessarily have a causal relationship. He suggests that there may be other reasons that students who receive higher grades (or expect to receive higher grades) give higher ratings. One explanation the "validity hypothesis" proposes that better grades reflect better learning and that students who learn more give higher ratings. The "student characteristic" hypothesis suggests that other variables such as student interest in a subject prior to taking the course affects not only student performance but also grades received and the evaluation he or she completes at the conclusion of the course.

In contrast to these arguments is the contention that there is a causal relationship between higher grades and better teaching evaluations¹⁰. This suggests that it is possible for faculty to "buy" better evaluations by giving higher grades. McKenzie's theory states that faculty may alter their grading criterion in order to receive better evaluations and consequently higher salary increases¹¹. He further states that this behavior can distort the entire student rating system. Zangenehzadeh likewise believes that grade inflation is the result of the student evaluation process¹². He suggests that when student evaluations are to be used for purposes of salary increases, promotion or tenure, the ratings should be adjusted for a number of factors including grade expectations and the attitude of the student toward both the course and the instructor prior to the beginning of the class. Similarly, Costin feels that when the evaluation process is to be used as a means of determining the instructor's ability, comparisons should be made only among courses in the same general category¹ i.e. level (introductory, intermediate, advanced), format (lecture, laboratory, seminar) or

by required vs. elective status.

While grades do affect teaching evaluations, the literature points out that a multitude of other factors make even greater contributions^{12,15}. This study, which is in agreement with previously published works, confirms those results. Despite a general agreement that such basic factors as clearly explaining concepts, summarizing the material and generating interest are primary, questions exist regarding the role of secondary factors. A number of secondary or "background factors" including expected grades, workload/difficulty, prior subject interest and the instructors entertainment value have been identified which appear to play a role in student evaluations. McKenzie¹¹ suggests that student evaluations are an indication of how closely matched the student's preferences for such factors as "grades, leisure, course content . . . and entertainment value" are to the course in which he is enrolled. Others have also considered the instructor's entertainment value as a possible contaminant of student teaching evaluations^{2,16}. In an attempt to evaluate the effect of entertainment value upon student evaluations, an experiment was performed in which an actor was hired to present a lecture¹⁷. Prior to the lecture he was coached on the lecture content which was designed to provide very little information and was told to deliver the lecture enthusiastically. The actor was introduced to the students as Dr. Fox and a long list of his credentials was read. Despite the shallow content of the lecture, the student ratings were quite high. The "Dr. Fox study" as it came to be known was widely criticized for its design flaws. A series of better designed studies, however arrived at similar results^{18,21}. In subsequent publications, the authors note that the variability in student ratings was better explained by instructor expressiveness than by course content^{22,23}. Several reanalyses of the Dr. Fox studies have produced differing results^{24,25}.

In conclusion, a variety of factors play a role in affecting teaching evaluations. While primary factors such as clear explanations and summaries of key concepts are the most influential determinants, a number of secondary or background factors including grades, prior subject interest, expectations and entertainment value also appear to affect student evaluations of their teachers. While this study found that grades do have a statistically significant impact upon evaluations, the magni-

tude of the effect is relatively small when compared to the primary factors. Of greater concern is whether the perception by some faculty that grades have a large effect upon evaluations has become at least partially responsible for grade inflation. In addition, the potential influence of background factors should be considered when the evaluations are being used as a means of judging the ability of faculty members.

References

References

- Costin F, Greenough WT, Menges RJ. Student ratings of college teaching: reliability, validity, and usefulness. *Review of Educational Research* 1961; 41(5):511-531.
- Guthrie ER. The evaluation of teaching: A progress report. Seattle: University of Washington, 1954.
- McKeachie WJ. Student rating of faculty. *AAUP Bulletin* 1969; 55:439-444.
- Marsh HW, Overall JU, Kesler SP. Validity of student evaluations of instructional effectiveness: A comparison of faculty self evaluations and evaluations by their students. *Journal of Educational Psychology* 1979; 71:149-160.
- Jerry L. Christensen, O.D., Ph.D. Personal communication.
- Spencer RE. The Illinois course evaluation questionnaire: Manual of interpretation (Rev. ed.) Research report No. 270. Champaign, IL: University of Illinois, Office of instructional resources, measurement and research division 1968.
- Treffinger DJ and Feldhusen JF. Predicting students' ratings of instruction. *Proceedings of the 78th annual convention of the American Psychological Association* 1970; 5:621-622.
- Walker BD. An investigation of selected variables relative to the manner in which a population of junior college students evaluate their teachers. *Dissertation abstracts* 1969; 29(9B):3474.
- Marsh HW. Students' evaluation of university teaching: Dimensionality, reliability, validity, potential biases and utility. *Journal of Educational Psychology* 1984; 76(5): 707-754.
- Siegfried JJ and Fels R. "Research on teaching college economics: a survey". *Journal of economic literature*. 1979 Sept; 17:923-69.
- McKenzie RB. The economic effect of grade inflation on instructor evaluations: a theoretical approach. *Journal of economic education*. 1975 Spring; 99-106.
- Zangenehadeh H. Grade inflation: A way out. *Journal of economic education*. 1988 Summer; 217-226.
- Kelly A. Uses and abuses of course evaluations as measures of educational output. *Journal of economic education* 1972 Fall; 13-18.
- French GM. College students' concept of effective teaching determined by an analysis of teacher ratings. *Dissertation abstracts* 1957; 17:1380-1381.
- Musella D and Rusch R. Student opinion on college teaching. *Improving college and university teaching*. 1968; 16:137-140.
- Royce JD. Popularity and the teacher. *Education* 1956; 77:233-237.
- Naftulin DH, Ware JE, Donnelly FA. The Doctor Fox lecture: A paradigm of educational seduction. *Journal of Medical Education* 1973; 48:630-635.
- Ware JE and Williams RG. The Dr. Fox effect: A study of lecturer expressiveness and ratings of instruction. *Journal of Medical Education* 1975; 5: 149-156.
- Ware JE and Williams RG. Discriminant analysis of student ratings as a means of identifying lecturers who differ in enthusiasm or information giving. *Educational and Psychological Measurement* 1977; 37: 627-639.
- Williams RG and Ware JE. Validity of student ratings of instruction under different incentive conditions: A further study of the Dr. Fox effect. *Journal of Educational Psychology* 1976; 68:48-56.
- Williams RG and Ware JE. An extended visit with Dr. Fox: Validity of student ratings of instruction after repeated exposures to a lecturer. *American Educational Research Journal* 1977; 14:449-457.
- Ware JE and Williams RG. Seeing through the Dr. Fox effect: A response to Frey. *Instructional Evaluation* 1979; 3:6-10.
- Ware JE and Williams RG. A reanalysis of the Doctor Fox experiments. *Instructional Evaluation* 1980; 4:15-18.
- Marsh HW and Ware JE. Effects of expressiveness, content coverage, and incentive on multidimensional student rating scales: New interpretations of the Dr. Fox effect. *Journal of Educational Psychology* 1882; 74:126-134.
- Abrami PC, Leventhal L, Perry RP. Educational seduction. *Review of Educational Research*. 1982; 52:446-464.

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IN REVIEW

Visual Fields - Clinical Case Presentations

John C. Townsend, Gerald J. Selvin, John R. Griffin, George W. Comer, Butterworth-Heinemann, 490 pages including index, hardbound, illustrated with color photographs and visual field printouts, \$125.00.

Using detailed case studies, the authors systematically review visual field disorders produced by structural abnormalities in the ocular and neural tissues which contribute to the mechanisms of vision. Specific clinical case studies for patients with opacities of the media, disorders of the retina and choroid, diseases of the optic nerve, glaucoma, and chiasmal and post-chiasmal lesions are among the patients which are presented. In later chapters an emphasis is placed on more complex cases involving multiple ocular or neural ophthalmic disturbances and their impact on the visual field.

Each case is illustrated with at least one type of visual field documentation including results of arc perimetry, tangent screen measurement, Amsler grid utilization, visual fields screening techniques and devices, computerized perimeters and quantitative perimetry. Many cases also have illustrations of computed tomography or magnetic resonance imaging of the brain. Where important in the diagnosis, electrodiagnostic test results are presented in graphical form. Color vision testing as appropriate to the diagnosis is included for many cases. Each case is presented in a traditional SOAP format which allows the clinician to follow the patient care activity as one would approach actual patient care. The clinical cases are preceded by a generalized discussion of the

importance of visual field testing, including a discussion of modern and historical instrumentation to do perimetry, classification of visual fields, anatomy and visual field diagnosis, current testing techniques and strategies using modern automated perimetry and automated static threshold perimetry. Learning is encouraged through the discussions of each case as they are specifically presented.

This book represents an excellent collection of clinical examples where visual fields play an important role in diagnostic interpretation. The cases are well presented in SOAP format and the color photographic illustrations are very representative. This book would be an excellent choice for the clinician who enjoys learning through case examples.

All ophthalmic texts with color photographs today are expensive, and this is no exception. The case examples chosen, while well done, appear to be top heavy on the retinal and choroid end. Since the retina and choroid can be specifically viewed, visual fields do not generally provide as much additional diagnostic information as they do in more subtle presentations such as glaucoma or neural optic pathway disorders in back of the retina. In fact, there are only 24 case examples of diseases posterior to the retina.

While the beginning of the book does deal with theory and strategies that are currently utilized, it is far from a complete description of these topics. It does deal with those that are most generally used for most of the patients most of the time. Optometrists who are sticklers for comprehensive and complete information will find this a distraction, although most clinicians would find this an advan-

tage because it deals very directly with the patient care issues the optometrist must address.

Guest Reviewer:

Dr. Arol Augsburg
The Ohio State University
College of Optometry

Contact Lenses: Procedures and Techniques

Second Edition, Gerald E. Lowther, Christopher Snyder, Butterworth-Heinemann, Stoneham, MA, 414 pages, hardbound, \$65.00.

Contact Lenses: Procedures and Techniques is a much awaited second edition to the excellent first text published in 1982. It is intended for individuals new to the contact lens field (i.e. students in a technician program, assistants, industry, beginning text for optometry students). It is not intended to be a complete text on theory, corneal physiology, etc. This book is divided into chapters which discuss the following topics: history, terminology, optical principles, anatomy and physiology, preliminary evaluation, fitting, verification, modifications, solutions, patient education, follow-up, special cases, and office procedures. In particular, the chapters on contact lens terminology and types, preliminary examination and consultation and inspection and verification are outstanding. It is evident that this text would be a beneficial adjunct to hands-on experience in learning lensometry, radioscope use, keratometry and patient handling of contact lenses.

This text is easy to read and understand, although not too simple for the beginning optometric contact lens student. There are over 260 illustrations, almost all of which are of excellent quality. The diagrams/photographs of patient

handling, tear lens optics, and radioscope use are particularly good. It is a very beneficial reference text with appendices on radius to surface power, vertex distance, extended range of the keratometer and keratometer reading conversion to convex and concave radii. Self-assessment questions are provided at the end of each chapter. The most useful questions pertain to the tear lens and toric problems provided at the conclusion of the optical principles of contact lenses chapter. Although ongoing changes occur in the contact lens industry and this is not an updatable text, the authors minimize this problem by making few references to specific product names and more to general concepts (i.e., hydrogen peroxide, RGP lenses, etc.).

Although costly, the use of color photographs would have been beneficial, especially for illustrating corneal topography, fluorescein patterns, corneal complications and tear B.U.T., although the black and white photos are of good quality. In addition, there was only a very superficial overview of special cases such as extended wear, high astigmatism, aphakia, presbyopia and irregular cornea, although it is likely that the authors intended for the reader to refer to more comprehensive/advanced texts for this information.

In summary, *Contact Lenses: Procedures and Techniques* - Second Edition is an easy-to-read, informative contact lens text. I recommend it highly to all eyecare professionals interested in increasing their knowledge and expertise in contact lens applications, care and inspection.

Guest Reviewer:

Dr. Edward S. Bennett
University of Missouri-St. Louis
School of Optometry

The New Medicine and the Old Ethics, Albert R. Jonsen, Harvard University Press, Cambridge, MA, 158 pages, \$9.95

Every so often one reads a book that, although it presents little that is new to the reader, is organized and written so well that it

helps the readers to clarify their thoughts and beliefs. This is such a book. The author, a professor and chairman of the Department of Medical History and Ethics of the University of Washington in Seattle, presents the ethical dilemmas of the modern practitioner (optometrist, dentist, podiatrist, etc., could often be substituted for "physician."

He discussed how so many of the ethical problems result from conflicts or competing loyalties between: patient v. payer, patient v. patient, patient v. society, doctor v. society, and most frequently, altruism v. self-interest. Dr. Jonsen states that "scarcely a physician today has failed to experience some conflict between the principle of service to the sick and the solvency or profitability of the institution or practice in which he or she works. Allocation of resources is not only a philosophical problem of justice, not only a political problem of health policy; it is, or should be, a problem of conscience for the practitioner." One need only to consider the conflict that may be present when the practitioner is presented with a patient in need sponsored by a payer who reimburses at a fraction of his/her usual and customary fees. If a decision is made in favor of providing the care for one this solves this specific dilemma. However, this may later be confounded by the existence of a large pool of patients needing care with this same reduced reimbursement.

The book also taught me something else that I had not realized. The origin of the term triage was derived from the decision making in the battlefield in which the surgeon chose to treat first those soldiers who can most quickly be restored to battle, not the most seriously injured as depicted in M.A.S.H. and practiced in hospital emergency rooms.

While the author utilizes the writings of a number of philosophers, including Hippocrates and Aristotle, as the theoretical basis of medical ethics, he is of the opinion that bioethics as we know it today truly started in Seattle on March 9, 1990, with the advent of

kidney dialysis. Here was an exotic well publicized device capable of expanding the life of the patient. However, there were an insufficient number of these machines available, and a lay committee had to be established to choose who should live and who should die. Variations of rationing of care have been subject to debate ever since.

I found the book interesting, one that should be read by all those who teach or are interested in the topic of bioethics. It certainly should be part of the collection in optometric school libraries.

Reviewer:

Dr. Leonard Werner
S.U.N.Y. State College of
Optometry

Optics and Refraction, a User-Friendly Guide, David Miller, Gower Medical Publishing, distributed by Raven Press, New York, 320 pages, 1991, \$85.00.

This is the first volume of a ten-volume series entitled *Textbook of Ophthalmology*, edited by Steven M. Podos and Myron Yanoff. The stated goal of the series is to integrate the basic visual science and clinical information of each subspecialty in a separate volume, and to make each volume manageable and readable for the "ophthalmic expert as well as the neophyte."

Volume 1, *Optics and Refraction*, contains 14 chapters of which David Miller, M.D., wrote 11. Topics covered include the nature of light, the ocular media and retinal photoreceptors, physical optics for the clinician, light damage to the eye, lasers, light units, optics of the normal eye, epidemiology of refractive errors, optics of intraocular lens implants, optics of corneal refractive surgery, and ophthalmic instruments. The three other chapters are written by well known guest authors: "Subjective Testing of Refraction" by Irvin Borish, O.D., "Spectacle Lenses" by Benjamin Milder, M.D., and "Contact Lenses" by Robert Koetting, O.D. At the end of the book, there is a list of references organized by chapter.

The stated strategies used to make the book "user friendly" include a conversational style, the use of clinical applications whenever possible in order to explain a principle or equation, and historical stories about some of the famous scientists involved in fundamental discoveries. The book is mostly qualitative, although there are some equations and some numerical examples.

This book contains a wealth of qualitative information relating basic optics and visual science to clinical optics. This information is presented in an interesting manner. The colored diagrams and photographs are well done, and are a definite strong point of the book.

My concerns fall into several areas. First, there is some fundamental information that is missing. In the chapter on "Optics of the Normal Eye," the topics covered include a significant section on depth of focus of the eye, and a short discussion on how the gradient index of the crystalline lens helps to minimize the eye's

spherical aberration. However, there is no explicit discussion of accommodation. References to accommodation appear in the book, but no definition of accommodation appears. In the chapter on epidemiology of refractive errors, the distribution of myopia and hyperopia are discussed, but nowhere re myopia and hyperopia defined. Similarly, although the book has discussions on the nature of light and on basic physical optics, many fundamentals of geometric optics are missing. There is no fundamental discussion on how a lens forms an image. The geometric optics law of refraction, variously known as either Snell's Law or Descartes' Law, is not mentioned. Diopters and prism-diopters both appear, but neither are defined. The only fundamental mention of the action of a prism is that it breaks light into colors, but this is not the reason for the use of ophthalmic prisms. While Newton, Young, Maxwell, Einstein and a host of other historical figures are mentioned, there is no reference to the

multi-talented genius Gauss who gave us the basic thin lens equation in the form most commonly used, and only a passing reference as an adjective to Gullstrand who is the only ophthalmologist to win the Nobel Prize in Medicine and Physiology (for his work on optics of the eye).

Because of the above concerns, I do not recommend *Optics and Refraction, a User-Friendly Guide* as a basic textbook for students. Yet, *Optics and Refraction* does contain a wealth of relevant information that is presented in an interesting manner. Therefore this book could be used, with care, as a supplement to a main textbook, or as a reference book for particular topics. This book is "user friendly" in the sense that clinicians would find many sections of this book informative and perhaps even fun to read.

Guest Reviewer:

Dr. Michael P. Keating
Ferris State University
College of Optometry

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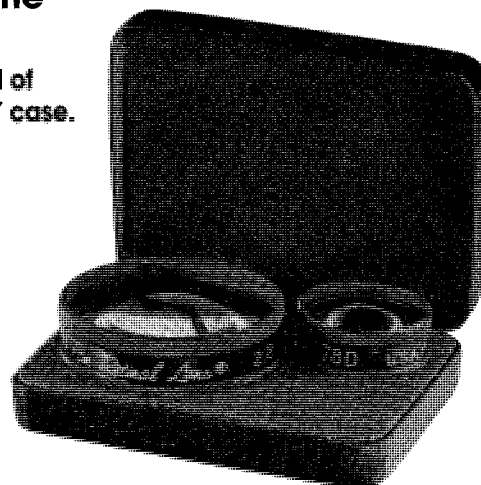
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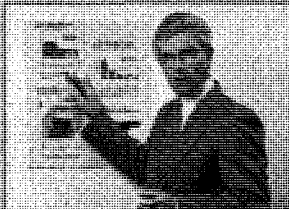
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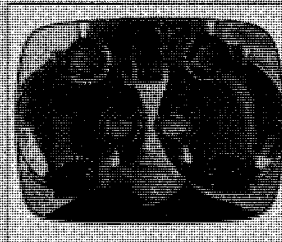
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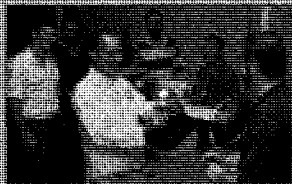
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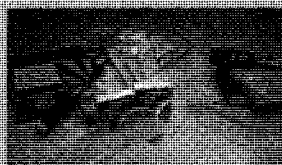
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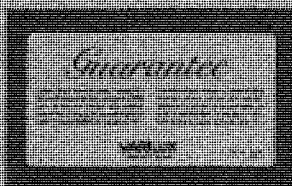
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