STATE LICENSURE AND DISCIPLINE OF OPTOMETRISTS

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EXECUTIVE SUMMARY

PURPOSE AND OBJECTIVES

The overall aim of this inspection was to promote a better understanding of State licensure and discipline practices concerning dentists, chiropractors, optometrists, and podiatrists. In regard to these practices, it sought to identify the extent and type of changes occurring, the major issues being addressed, and the kinds of improvements that might be made.

BACKGROUND

The inspection follows up on a similar inquiry that was conducted by the Office of Inspector General in 1985 and 1986 that addressed medical licensure and discipline. It is based primarily on three lines of inquiry: (1) telephone discussions with board members or staff of State licensure and discipline bodies in the four professional areas noted above, (2) a review of pertinent literature and data bases, and (3) discussions with representatives of national professional associations.

This report focuses on the licensure and discipline of optometrists. It is the fourth and final report issued as part of this inspection. Its organization and presentation closely parallel that of the previous reports concerning dentists, chiropractors, and podiatrists. A number of the findings and recommendations also parallel those set forth in the previous reports.

FINDINGS

In both the licensure and discipline realms, State board officials tend to feel that they are understaffed and that, as a result, the effectiveness of both licensure and discipline operations is compromised.

Licensure

- Optometric practice acts vary widely from State to State. During recent years, this diversity appears to have increased as a number of States have passed laws allowing optometrists to use therapeutic pharmaceutical agents.
- The considerable variation among State laws governing the use of pharmaceutical agents has inhibited the use of reciprocity agreements among State boards, thus limiting the interstate mobility of practicing optometrists.
- Clinical testing of licensure candidates is a major focus of State optometry boards. The contents of these tests vary as do the determinations of acceptable performance.

• Among State optometry board officials, particularly in the larger States, there is an increasing sense of vulnerability about the adequacy of the information they review on applicants for licensure.

Discipline

- As of May 1987, all boards had the right to revoke a license and 48 had the right to suspend a license. Most boards, however, lacked the authority to invoke probation, issue reprimands, impose censure, apply restrictions on optometric practice, or levy fines.
- Most State boards lack the authority to issue subpoenas or to suspend immediately the license of an optometrist who poses a clear and present danger to the public.
- From 1984 to 1986, the annual number of State board disciplinary actions has increased moderately. For the 46 States from which we obtained data, the number rose from 157 in 1984, to 209 in 1985, to 224 in 1986. In 1987, however, about 40 percent of all the disciplinary actions were in just one State. Ten States disciplined no optometrists during the period 1984-1986.
- The more serious types of disciplinary actions--revocations, suspensions, and probations--account for a minority of the disciplinary actions taken against optometrists. In the 1984-1986 period, they composed 42 percent of all reported actions.
- Higher rates of disciplinary action appear to be closely associated with above-average licensure renewal rates. Among the 10 boards with the highest rate of disciplinary action between 1984 and 1986, 8 had 1987 renewal fees equal to or above the median renewal of \$50.
- About two-fifths of the 49 State boards we contacted cited "unprofessional conduct" as
 the most common type of violation upon which disciplinary action was taken. Under
 this category, the most frequent specific violations cited were unlawful use of
 therapeutic pharmaceutical agents and unlawful delegation of authority to opticians and
 other personnel.
- Consumer complaints are the major source of referrals for disciplinary actions taken against optometrists. Only three States reported referrals from professional societies as the first or second most important source of referrals.
- About three-fifths of the 49 State boards we contacted identified some problems
 associated with the disciplinary process. Most of these concerned the amount of time
 required to complete a case or the lack of trained investigatory staff with knowledge of
 optometry.

• Many State board officials expressed support for the national data bank to be established under the Health Care Quality Improvement Act of 1986 and the Medicare and Medicaid Patient and Program Protection Act of 1987. However, they and others raised concerns involving the accuracy, confidentiality, accessibility, and timeliness of the data, as well as the time and cost burdens associated with the reporting process.

RECOMMENDATIONS

- State governments should ensure that State optometry boards have sufficient resources to carry out their responsibilities effectively.
- State governments should ensure that State optometry boards have sufficient enforcement authority and a full range of disciplinary options available to them.
- State optometry boards should move toward the development of a high-quality, standardized national clinical examination.
- State optometry boards should shore up their credentials verification procedures.
- The International Association of Boards of Examiners in Optometry (IAB) should accumulate and, on a regular basis, disseminate to State optometry boards: (1) changes in State practice acts and regulations, and (2) best practices concerning State licensure and discipline approaches.
- The American Optometric Association (AOA) should encourage more extensive and effective interaction between its affiliated State associations and State optometry boards.
- The Public Health Service (PHS) should assist the IAB to carry out a more effective leadership role in working with the State optometry boards.

COMMENTS

The PHS concurred with the recommendation directed to it. The AOA and IAB expressed general support for the recommendations directed to them. The full comments of these organizations and of the Health Care Financing Administration and the National Board of Examiners in Optometry as well as our responses to them appear in appendix IV.

INTRODUCTION

In June 1987, the Office of Inspector General began an inspection on State licensure and discipline practices concerning dentists, chiropractors, optometrists, and podiatrists. The overriding purpose of the inspection was to provide the Federal and State governments and the respective professional communities with a better understanding of these practices. More specifically, it sought to identify the extent and type of changes taking place, the major issues being addressed, and the kinds of improvements that might be made. (For more background on why the study was undertaken, see appendix II.)

This report, which focuses on the optometry profession, is the third in a series to be issued as part of the above-noted inspection. It is based on three major lines of inquiry: (1) telephone discussions with board members or staff associated with optometry licensure and discipline bodies in 49 States; (2) a review of pertinent literature and data bases, including journal articles, studies, prepared speeches, and statistical compilations of public and private organizations; and (3) discussions with representatives of various professional associations. These include the American Optometric Association (AOA), the National Board of Examiners of Optometry, the International Association of Boards of Examiners in Optometry (IAB), the Council on Optometric Education (COE), and the Association of Schools and Colleges of Optometry (ASCO). (For more methodological background, see appendix III.)

Optometrists are a growing presence on the national health care scene. In 1986, there were 24,500 practicing optometrists in the United States, an increase of 4,100 from 1975. Under the Federal Medicare program, the role of optometrists, although limited, is increasing. Treatment eligible for coverage, once limited to examinations of aphakic patients (patients without lenses), was expanded in April 1987 to include examination and treatment of specific medical conditions. Prescriptions for eyeglasses, with the exception of eyeglasses for post-cataract surgery patients, are not covered. Although data are not yet available to reflect the expanded coverage, Medicare reimbursement to optometrists is increasing. Medicare Part B expenditures for optometry services increased from \$5.3 million in Fiscal Year (FY) 1984 to \$16.7 million in FY 1985. A 1987 survey of optometrists in both solo and group practice indicated that Medicare expenditures represented 3.1 percent and 7.9 percent of their total revenues, respectively.

Under Medicaid, the role of optometrists and the level of expenditures are more difficult to determine. As of 1984, 48 States covered optometric services as an option, and 19 of these limited the coverage to the categorically needy. Surveys of optometrists in group and solo practice indicated that in 1986 Medicaid fees represented 5 percent and 5.8 percent of their total revenues, respectively.

This report starts out with brief overviews of optometry practice and State optometric boards. It then turns to an examination of the major changes and issues affecting licensure and discipline. It closes with some suggested areas of action directed primarily to State boards of optometric examiners.

THE PRACTICE OF OPTOMETRY

The American Optometric Association defines doctors of optometry as:

primary care health professionals who are specifically educated, clinically trained, and state licensed to examine the eyes and vision system, diagnose problems or impairments, and prescribe and provide treatment. Among the types of treatment used are prescription glasses, contact lenses, vision therapy, low vision aids, and in many states, pharmaceutical agents for therapeutic purposes.⁷

Some optometrists, especially those in group practices, are electing to focus on a specific area of vision care or on a specific patient population. For example, some optometrists are specializing in occupational vision needs, sports vision needs, or the specific vision needs of the elderly, children, or those with low vision. Of all private practitioners, approximately 60 percent practice in solo settings, but group practice and specialization appear to be increasing. The Association of Schools and Colleges of Optometry and the American Optometric Association are promoting specialties and group practice in the belief that these practices offer the highest quality of care. Accordingly, they have developed through a joint effort a practice management curriculum and are encouraging schools to implement it.

For those optometry school graduates seeking specialized training, there are currently about 50 optometry residency positions available in the United States. This represents only 6 percent of the most recent graduating class of optometrists in the country. However, only 8 percent of third- and fourth-year optometry students surveyed expressed an interest in a residency after graduation.

One of the most striking characteristics of optometry practice today is the rapid change occurring in service delivery settings. Although private practice continues to dominate, an increasing proportion of optometrists is employed by optical chains and health maintenance organizations (HMOs). In 1986, 73 percent of the 24,500 active optometrists practiced in private settings, representing a 10 percent decrease over the past decade. The number of optometrists working for optical chains more than doubled in 10 years and by 1986 they represented 17 percent of all practicing optometrists. The number of those employed by HMOs followed a similar trend, composing 6 percent of practicing optometrists in 1986. It appears that this trend will continue at least into the 1990's as new graduates facing education loan payments are likely to prefer to work for optical chains rather than start from scratch in a private practice. A survey revealed that optometrists who graduated in 1980 went into private practice twice as often as those who graduated in 1984. Over 12 percent of 1984 graduates worked for optical companies and 10 percent of 1987 graduates who were recently surveyed anticipate doing so. 11

Accordingly, private practitioners' share of the market has gradually been decreasing. In 1986, private optometrists accounted for 27.6 percent of the ophthalmic market (i.e., optometrists, ophthalmologists, and opticians), a 1.2 percent decrease from 1985, and a 16.4 percent decrease from 1976. In contrast, HMOs and optical chains experienced the most

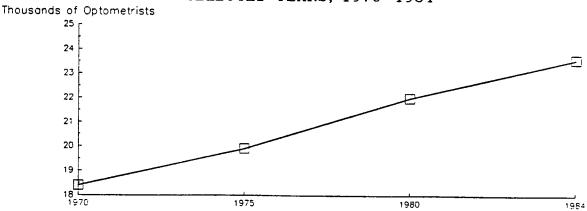
growth over the decade, controlling 28.5 percent of the ophthalmic market by 1986. In response to this development, many private practitioners have formed buying groups in which participants receive discounts on ophthalmic supplies and equipment so that they can compete more effectively with optical chains. A recent survey revealed that 72 percent of optometrists belong to one or more buying groups. ¹²

Some optometrists are concerned that increased competition may have an adverse effect on their income prospects. Their concerns are reinforced by the fact that over the last decade their income has not kept pace with the rise in inflation. More recently, however, it appears that optometrists' financial situation has improved. In 1986, the most recent year for which income data are available, the median income of optometrists increased to \$58,200; this represents a 6 percent increase from 1985--about twice the national rate of inflation in that period. ¹⁴

Income varies considerably by the type of optometric practice. A 1986 nationwide survey of 350 optometrists revealed that those in group or partnership practices net the highest annual income, reach their income peak earlier in their careers, and maintain a higher level of earnings longer than salaried or solo practitioners. Specifically, group practitioners' average net income in 1986 was \$78,000, which was \$12,500 more than solo practitioners and \$26,000 more than salaried practitioners. ¹⁵

The number of active optometrists has increased moderately in recent years. Between the years 1970 and 1984, the number of active optometrists has increased from about 18,400 to about 23,600 (figure I) or from 8.9 per 100,000 population to 9.9. The U.S. Public Health Service projects that the national need for optometrists will reach 30,400 or 11.3 per 100,000 population by the year 2000, roughly the same as its projection for supply that year. On the other hand, the AOA maintains that a "reasonable rate" of optometrists per 100,000 of population is 14.3 and estimates a need for 36,000 optometrists in 1990, 5,600 more than the Public Health Service's year 2000 projection.

FIGURE I
ESTIMATED NUMBER OF ACTIVE OPTOMETRISTS:
SELECTED YEARS, 1970-1984



Source: FIFTH REPORT TO THE PRESIDENT AND CONGRESS ON THE STATUS OF HEALTH PERSONNEL, March 1988

Optometry is becoming populated by ever younger professionals. Sudden increases in graduates in the mid-1970's and the gradual increase in subsequent years until 1984 lowered the median age of the profession from 48 to 42 years. In 1984, the number of newly graduating optometrists exceeded the number of optometrists leaving the profession by 50 percent. The median age will continue to decrease as large numbers of optometrists retire. As in other health professions, the percentage of women entering optometry has significantly increased. In 1984, women represented 27.4 percent of optometry graduates, a higher proportion than those in dentistry and podiatry.

The distribution of optometrists has remained uneven. In 1984, for instance, there were 11.8 optometrists per 100,000 population in the West, 11.1 in the Midwest, 9.9 in the Northeast, and 8.0 in the South. Ten States, 9 of them southern, have what AOA terms a "critical ratio" of less than 7 practicing optometrists per 100,000 population. Only 7 States, 3 of them western, have an "acceptable ratio" of more than 13 optometrists per 100,000 population. 22

The location of schools of optometry is a prime factor in determining where optometrists practice. Nearly three-fourths of optometrists under 45 who practice in States that have an optometry school graduated from the in-State school. The proportion of all active optometrists who graduated from a school within their State of practice is more than 93 percent in Illinois, 82 percent in California, and 80 percent in Massachusetts.²³

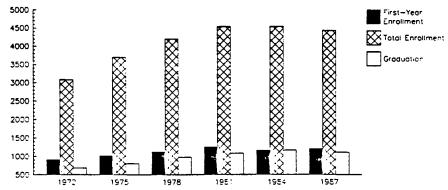
Since 1981, the number of optometry schools has grown. In the years 1981-1982, three schools opened²⁴ and one--in Florida:-is anticipated to open in the near future. Currently 18 schools of optometry are accredited by the Council of Optometric Education. Three of these, the University of Waterloo, the University of Montreal, and the Puerto Rican Inter-American University of Optometry, are located outside of the continental United States. Five of the schools are free-standing, and 10 are university-affiliated.²⁵ All received a portion of the cumulative \$75 million of Federal aid distributed to optometry schools between the years 1965 and 1980 under the authority of the Health Professions Education Act.²⁶

The 1970's were the major growth years for enrollment in optometry schools. During the 1971-1981 period, total enrollment in optometry schools rose by about 60 percent. However, since the peak year of 1981, enrollments have been declining, albeit slightly (see figure II).

FIGURE II

GENERAL TRENDS FOR FIRST-YEAR AND TOTAL
ENROLLMENTS IN, AND GRADUATION FROM, U.S.

OPTOMETRY SCHOOLS, SELECTED YEARS, 1972-1987



STATE BOARDS OF OPTOMETRY

Two decades ago, State optometry boards, like State medical boards, were little noticed entities of State Government and were dominated almost completely by optometrists. Most were independent bodies, having little operational interaction with other professional boards or even with optometry boards in other States. Although their responsibilities typically covered licensure and discipline, they focused primarily on the former and in particular on the development and administration of their own licensure examinations. They would discipline optometrists periodically, but their authority and readiness to do so were quite limited.

Now, the picture is somewhat different. With the changing scope of optometry practice, a growing emphasis on continuing education in optometry, the development of the consumer movement, and the heightened concerns about the cost and quality of health care, optometry boards function in a more visible environment with a greater degree of public accountability. Although the scope and the intensity of the changes have not been as great as for State medical boards, they have still been significant.

About 60 percent of State optometry boards are now part of a centralized State agency, and at least 70 percent have one or more nonoptometrist members on their board of directors. Nearly all (96 percent) have responsibility for both licensure and discipline, but the number and type of licensure examinations administered by boards vary considerably by State.²⁷

The staff and financial resources available to the boards are not readily determined. Twenty-five States reported they have less than one full-time equivalent staff member assigned to the optometry board, but in many cases this does not include staff reporting to a central agency that may provide some assistance to the board. Similarly, the budget of a board is often obscured within the budget of a larger agency.

It is clear, however, that in nearly all States, the board revenues derive entirely from fees imposed on optometrists. These include application, examination, and various other fees. The major source of revenue is the annual renewal fee imposed on practicing optometrists. It ranges from \$20 to \$250, the median being \$50.²⁸ Fifty-five percent of the boards either imposed fee increases during 1986 or 1987 or scheduled them for 1988. Yet because boards typically are part of the State budget process and subject to the same budgetary and personnel controls as other State agencies, fee increases do not necessarily mean increased resources for the boards. Thus, even though optometric licensure and discipline has grown to become an estimated \$2 million a year enterprise, many board representatives feel they are seriously underfunded in carrying out their extensive responsibilities.

LICENSURE

State boards of optometry have come to judge licensure applicants on the basis of three major requirements: (1) graduation from an accredited or approved optometry school; (2) passage of a National Board of Optometry Examination (NBOE) or State-written examination; and (3) passage of a State clinical examination.

Of these three requirements, the first is the most uniformly applied. All State boards except one require that those who attended optometry school in the United States be graduates of a school accredited by the Council on Optometric Education (COE). The one exception will evaluate the equivalency of a licensure applicant's education to State standards if that applicant has not graduated from a COE-accredited school. For those seeking a State license who are graduates of nonaccredited foreign schools, eight State boards contract with particular accreditation services to determine the adequacy of the training offered. 30

The second requirement, concerning written examinations, is much more varied in its application. Sixteen States require the examination prepared and administered by the National Board of Examiners of Optometry in lieu of a State written examination; 16 require the National Board examination in addition to a State written examination; and 6 do not accept the National Board examination at all but require applicants to take State-specific written examinations. The remaining States may delegate an examination at the discretion of the board or contract with a third party to construct and administer an examination. Forty-six States require evidence of board-approved continuing education courses for licensure renewal. 32

Because 40 States require a written examination and 32 States consider the National Board written examination scores for licensure, approximately 4,000 candidates take the National Board examination each year. The National Board's test is a criterion-referenced examination. With this procedure, which was first implemented by the National Board in 1981, grading on the basis of a curve was eliminated and was grounded instead on a performance index for each test item administered. 33

In 1987, the National Board implemented a new content outline, which consolidated the previous nine sections of the examination into two parts, basic science and clinical science. A third part covering patient care, now being developed by the National Board, will replace the retired clinical assessment section of the past examination in 1989. Eligible candidates for part I are those students who are at least in the second half of their second professional year in an accredited school, and eligible candidates for part II are those in the second half of their third year.

The third requirement for licensure, a practical examination, is the most inconsistently applied among States. Twenty-eight States require such an examination, and nine consider it optional. The remaining States do not require a practical examination.) These examinations seek to determine the clinical readiness of a candidate, although the content and standard of acceptable performance vary by State.

In addition to the 3 core requirements for licensure, 42 States require the applicant to be in good moral standing, 39 have a minimum age requirement, 9 require U.S. citizenship, 5 require an oral examination (11 consider it an option of the board), 2 require a post examination internship of 6 months, and 3 require State residency.³⁵

Over the past 3 to 4 years State licensure requirements have been the focus of much attention. Forty percent of the States (23) reported legislative or regulatory changes and 75 percent of these changes involved the scope of optometry practice. Two major consequences of these changes have been increased diversity in the scope of practice from State to State and thus reduced inter-State mobility for practicing optometrists. Two other less prominent consequences have been an increased emphasis on State clinical examinations and more attention to the adequacy of background information on applicants.

THE DIVERSITY IN THE SCOPE OF PRACTICE

Although the definition of optometrists is by and large similar from State to State, the scope of optometry practice is becoming more diverse as a result of changes in State optometry practice acts during the past 3 to 4 years. About half of the States report such changes, nearly two-thirds of which involve the use of pharmaceutical agents (drugs). Currently, 50 States specifically permit the optometric use of pharmaceuticals for diagnostic purposes and 23 States permit their use for both diagnostic and therapeutic purposes. Sixteen of these States have allowed the use of therapeutic pharmaceutical agents (TPA) since 1985. Only one State, Maryland, does not have any provision either providing for or prohibiting pharmaceutical agents.

Optometric practice acts vary widely from State to State. North Carolina, one of the first to authorize diagnostic treatment of eye disease, defines the practice of optometry to be:

- a. The examination of the human eye by any method other than surgery to diagnose, to treat, or to refer for consultation or treatment any abnormal condition of the human eye and its adnexa;
- b. The employment of instruments, devices, pharmaceutical agents and procedures, other than surgery, intended for the purpose of investigation, examining, treating, diagnosing, or correcting visual defects or abnormal conditions of the human eye or its adnexa;
- c. The prescribing and application of lenses, devices to correct, relieve, or treat defects or abnormal condition of the human eye or its adnexa.³⁷

In contrast, Wisconsin law states that optometrists cannot give medical treatment or prescribe therapeutic drugs and defines the practice of optometry as follows:

a. The employment of any optometric means, including topical ocular diagnostic pharmaceutical agents, to determine the visual efficiency of the human visual sys-

tem, including refractive and functional abilities or preliminary diagnosis of the presence of ocular disease or ocular manifestations of systemic disease and other departures from normal.

b. The diagnosis and treatment of the refractive and functional ability of the visual system and enhancement of visual performance by prescribing, furnishing, fitting, or employing ophthalmic lenses, contact lenses, frames, aids, or prosthetic materials or administering visual training, orthoptics, visual therapy or any other optometric means.³⁸

Because authorization of TPA use is a growing trend, some State board officials predict it will be permitted nationwide within 5 years. However, even in States where TPA legislation has been passed, it has been a controversial issue. One-third of the significant media coverage of licensure practice reported by State board officials involved new TPA legislation. Improper prescribing by optometrists who lack TPA certification is a major concern expressed by officials in States where the legislation has passed or is pending. And the use of TPAs by optometrists has also created uneasiness among ophthalmologists who see them as invading what has traditionally been the ophthalmologists' domain.

The inconsistent authorization of TPA use nationwide has complicated State board licensure procedures, adding an additional step to the licensure process in the States where it has passed. Fourteen States now require applicants to pass the International Association of Boards of Examiners in Optometry (IAB) examination in Treatment and Management of Ocular Disease. This examination documents an applicant's entry-level competence in the use of drugs for therapeutic purposes. Six States, two of which do not require IAB's examination, require extensive continuing education credits (an average of 5 hours annually) or completion of board-approved courses for certification in the use of TPA.

The verification and application process has also become more complex as States seek to determine applicants' ability to prescribe for therapeutic purposes. Fifty percent (8) of the States reporting changes in application procedures referred to the need for more extensive documentation of course transcripts and test scores in this area. The Continuing Optometric Education Classification System developed by the IAB and funded by the Public Health Service has done much to standardize course names and contents. Despite these efforts, however, many State boards lack adequate resources for their increasingly complex administrative functions. One board official said he "doesn't feel comfortable with continuing education since the department lacks the resources to help the board. The board approves courses, but it has no way of monitoring attendance." One-fifth of the boards reported insufficient funds and staff as a primary vulnerability in their licensure practices.

RECIPROCITY

The considerable variation among State laws governing the use of pharmaceutical agents has inhibited the use of reciprocity agreements among State boards, thus limiting the inter-State mobility of practicing optometrists. Reciprocity applies when two or more State boards deter-

mine that their licensure standards are equivalent and enter into contractual agreements granting licenses to applicants from one another's State. Another practice, endorsement, is less restrictive in that a State board assesses the equivalency of any applicant's credentials to the State's own standards regardless of contractual agreements.

Forty States recognize out-of-State licenses (16 by endorsement, 24 by reciprocity). But in actual practice, the licenses recognized are limited by variations in the scope of practice authorized in the States. For example, half of the 16 States with TPA authorization that either grant reciprocity or endorse licenses will do so only for applicants who have TPA certification, even though already licensed, non-TPA certified optometrists practice in the State. Some States, such as South Dakota, have passed laws narrowing reciprocity to only those optometrists with TPA certification. Others, in the words of one board official whose State had yet to grant a license under its reciprocity agreements, simply noted that it "is difficult to get a license with reciprocity because older practitioners must have the same skills as new ones."

State boards that endorse licensure by credentials can save an applicant from having to take the National Board examinations a second time. But at least nine States (seven license by endorsement, two have reciprocity agreements) require clinical examinations before licensing out-of-State applicants. Acceptance of the National Boards encourages these limited agreements, as five of the six States not accepting the National Boards do not license by credential or grant reciprocity. However, many States recognize the National Boards only if the applicant has taken them within the past 5 years.

The overall effect of inconsistent State authorization of TPA and the subsequent emphasis on clinical testing by some States has been, in the words of one board official, "to make reciprocity a thing of the past." As a result, optometrists' mobility has become more and more restricted. In addition, optometrists with TPA certification are less likely to move to a State in which the practice of treating diseased eyes is not allowed. Consequently, 85 percent of States with TPA authorization have an optometrists-to-population ratio above the national average. In contrast, the availability of optometrists in States without TPA authorization is limited. For example, 8 of the 10 States with a critical ratio of less than 7 optometrists per 100,000 population do not have TPA authorization.

A representative of AOA recognized reciprocity as an "emotional issue" and stated that as long as States remain in transition toward a more unified scope of practice, the trend against reciprocity will persist. During the last 3 to 4 years, 7 of the 10 States reporting changes in reciprocity restricted the practice to varying degrees. Two States eliminated reciprocity completely, three restricted it to TPA-certified optometrists only, and two limited the number of years the National Boards will be recognized after passage. The remaining three States incorporated the National Boards into their reciprocity agreements.

EMPHASIS ON CLINICAL TESTING

Testing, specifically clinical testing, has been a major focus of State optometry boards. Of the 24 State boards that identified a licensure activity as an exemplary practice, almost half (11) cited the content and comprehensiveness of their clinical examination. Each of these examinations seeks to assess the clinical readiness of candidates, and some require them to conduct procedures on patients. However, the contents of the tests vary as do the determinations of acceptable performance. The coverage of comprehensive tests, as reported by board officials, ranged from five to eight different skill areas, and one State introduced a laser video examination with no grades involved at all. Many States reported they constantly review and revise their examination.

Because of these dynamics, the National Board of Examiners in Optometry (NBEO) has taken the lead in standardizing the clinical examination. Revisions of the 1979 Manual for the Assessment of Entry-Level Clinical Skills include a greater number of clinical modules in which patients are used to evaluate the candidate's skill in conducting pretest optometric procedures, administering optometric tests, and presenting the outcome data. The manual stresses processoriented assessment methodology and provides checklists for each module. Although the manual was well- received in 1979, NBOE has recently sponsored workshops for 11 State boards to promote its use and help States develop a representative sampling procedure for determining skill areas to be tested for each applicant. Accordingly, Oregon, one of the States visited by the NBOE, has made a concerted effort to standardize its practical examination in response to public concern over its validity. In a similar effort, Pennsylvania has contracted with the International Association of Boards of Examiners (IAB) in Optometry for the administration of a clinical skills examination developed by the IAB. However, specific scoring, standard setting and training of examiners remain the responsibility of individual States.

BACKGROUND VERIFICATION

During the early 1980's, State medical boards were severely shaken by scandals involving fraudulent credentials from two Caribbean medical schools and by breaches of security on some medical licensure examinations. State optometry boards have not had to face any comparable developments. Yet there is an increasing sense of vulnerability, particularly in larger States, about the adequacy of information they review on applicants for licensure. The validity of credentials has not been a major issue, but completeness of information bearing on the applicant's professional conduct is becoming more of a concern.

In the past 3 to 4 years, one-third of the States have introduced changes that call for more detailed information on applicants. Over half of these changes require proof of TPA certification or passage of the National Board examinations. The remaining changes require more extensive references or fuller accounts of the applicants' past, including the record of their practice in other States or any discipline problems they may have had.

Overall, however, the scope of these changes is limited, and many board officials suggest, inadequate. Because information on recent graduates can be readily obtained from their optometry schools, board officials feel that the greatest problem lies in the inadequacy of information provided by already licensed out-of-State applicants. Boards are compelled to accept this information at face value, with the possibility of omissions increasing their uneasiness over its reliability. At least one-third of the State boards contact other States where applicants have listed being licensed. One board representative expressed concern over the inadequacy of this system primarily because the board "doesn't see quality practitioners coming in."

More and more States, particularly the larger ones, are calling for a better tracking system. California, for example, emphasizes the need for better coordination between States in order that the board can obtain information on the 2,000 optometrists who are licensed in California but not currently practicing in the State. Although other State boards are the primary source of information on out-of-State applicants, some board representatives believe communication problems between States have made it increasingly difficult to track applicants in this manner.

A second factor that inhibits more effective board action in reviewing applicant backgrounds is the widely perceived inadequacy of the national disciplinary action clearinghouse maintained by the International Association of Boards of Examiners in Optometry (IAB) and the National Clearinghouse on Licensure, Enforcement, and Regulation (CLEAR). In their responses to us, only six States reported using CLEAR, and only two have used IAB to obtain information on licensure applicants. The majority feel that contacting State boards directly provides more timely and accurate information at less cost. Some CLEAR members expressed doubts that complete information is distributed to the States and others said that the lack of participation by all 51 States limits the usefulness of the information. Up until September 1987, in fact, IAB, on the advice of its counsel, would not release disciplinary information it had been collecting on a quarterly basis. But, IAB is now taking a more active though still limited role as a disciplinary clearinghouse. It provides the name of the State in which a practitioner has been disciplined and refers the request for information to a board official within that State for more details. Changes are in order if either clearinghouse is to be more effective. Four States were unaware of their services altogether, and others did not know how to gain access to the information.

DISCIPLINE

Over the years, the authority of State boards to discipline optometrists has gradually been increasing with respect to both the grounds upon which they can take disciplinary action and the type of action they can take. During the past 3 to 4 years, about one-third of the boards have experienced some legislative or regulatory change concerning their disciplinary authority. Nearly all the changes have increased that authority, either enhancing their range of options or expanding the number of areas in which they can take action. However, a rule recently proposed by the FTC ("Eyeglass II"), would disallow State restriction of commercial optometry. When promulgated, this rule will preclude State boards from: placing prohibitions on employer-employee agreements between optometrists and persons who are not optometrists, prohibiting the use of trade names, limiting the number of branch offices that optometrists may operate, or prohibiting the practice of optometry in commercial locations such as shopping malls. 46

As of May 1987, all boards had the right to revoke a license and 48 had the right to suspend a license. In most States, however, the other types of disciplinary action that could be imposed were limited: 11 States had the right to invoke probation, 8 States could issue reprimands, 6 States could impose censure, 4 States could apply restrictions on an optometric practice, and 5 States (with the recent addition of California) could levy fines. These numbers are increasing as more States gain a greater range of disciplinary actions. Yet most still lack a full complement of options as well as basic authorities, such as the power to issue subpoenas or to suspend immediately the license of an optometrist who poses a clear and present danger to the public.

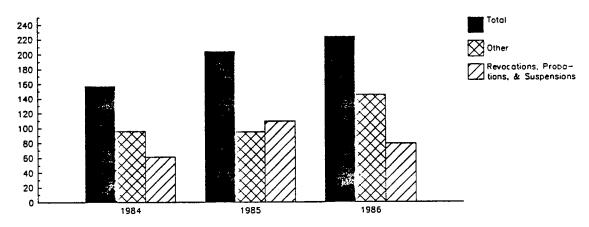
INCIDENCE AND TYPE OF DISCIPLINARY ACTIONS

How many and what type of disciplinary actions are being taken against optometrists in the United States? This question is a basic one, but one that we learned could not be readily answered. The existing information bases were too limited, even to provide reasonable estimates.

Accordingly, in discussions with representatives of 49 State boards, we asked them to indicate the number and type of disciplinary actions imposed on optometrists during each of the past 3 years. We received data from 47 States. The result was a nearly complete picture of the extent and nature of disciplinary actions taken in 1984, 1985, and 1986.

During this 3-year period, there was a moderate increase in the annual number of disciplinary actions taken (see figure III). In 1984 and 1985 the number of actions reported was 157 and 204, an increase of 30 percent. The following year 224 actions were reported, an increase of only 10 percent. However, in 1986, 1 State reported almost 100 disciplinary actions, accounting for 40 percent of the total for that year. If that State's rate of disciplinary actions had remained constant with its rate for the 2 preceding years, the total national disciplinary actions reported between the years 1985 and 1986 would have decreased by 10 percent.

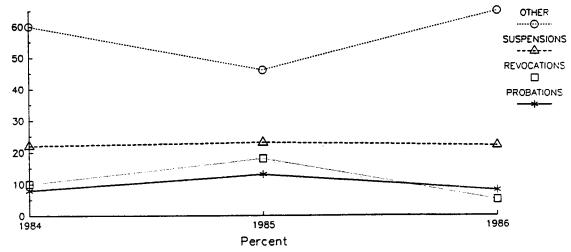
FIGURE III
NUMBER OF STATE DISCIPLINARY ACTIONS, 1984-1986



Source: State Optometry Boards as Reported to the Office of Inspector General

In this 3-year period, tier 1 actions—the more serious ones involving revocation, probation, or suspension—accounted overall for 42 percent of the reported actions. They composed 38 percent of the actions in 1984, 54 percent in 1985, and 35 percent in 1986. The tier 2 actions involving less serious actions such as reprimands and fines (and designated in figure IV as "other") accounted for somewhat over half of the actions reported for the 3 years. However, actions taken by just one State board of optometrists made up half of the tier 2 actions during this period.

FIGURE IV
TYPE OF DISCIPLINARY ACTIONS, AS A PERCENTAGE
OF ALL REPORTED ACTIONS, 1984-1986



Source: State Optometry Boards as Reported to the Office of Inspector General

Suspensions accounted for 52 percent of all tier 1 actions reported. Probation, a disciplinary option for only 11 boards and considered an exemplary practice by 1 board, represented 23 percent of tier 1 actions and 8 percent of all disciplinary actions reported. Compared to other State professional boards, optometry boards make much less use of probation as a disciplinary tool. State dental boards and chiropractic boards imposed probation in 25 percent and 20 percent of the reported cases, respectively, during 1984-1986.

When the disciplinary performance of State optometric boards is compared to that of State medical boards and dental boards, other notable differences emerge. Within the tier 1 category, the medical doctors have been more inclined to impose the severest action of all: the revocation of a license. While revocation accounted for 19 percent of all disciplinary actions taken against medical doctors in 1984 and 1985, it represented 14 percent of actions against optometrists by optometry boards and 9 percent of actions against dentists by dental boards during the same 2 years.

Still other differences exist. First, optometry boards have been more active in disciplining members of the profession than both State dental boards and State medical boards. In 1985, the latest year for which comparative data are available, optometry boards disciplined 8.5 optometrists per 1,000 active optometrists, dental boards disciplined 5.4 dentists per 1,000 active dentists, and medical boards disciplined 4.2 doctors per 1,000 active doctors. It is important to recognize, however, that the differential has been decreasing and that since a much smaller proportion of optometrists and dentists are subject to hospital peer review practices, the reviews of the State optometry and dental boards may be of somewhat greater overall importance.

The variations in disciplinary performance are no less apparent when State optometry boards are compared among themselves. During the years 1984-1986 for which we collected data, we found that two States disciplined optometrists at a rate far exceeding that of any other States. In fact, in one of these States disciplinary actions accounted for 40 percent of all actions taken in 1986, 21 percent in 1985, and 27 percent in 1984. At the other extreme, 10 States (out of the 47 which reported) disciplined no optometrists at all during the 3-year period. Thus, the State boards' rates varied from a low of zero to a high of 41 actions per 100 licensees. The national average was 3.6 actions and the median was .78 actions per 100 licensees.

Substantial variations among the boards are also apparent when their rate of disciplinary activity is correlated with size and location. Since year-to-year fluctuations may be misleading, we aggregated and analyzed the data over a 3-year period, 1984 to 1986. Our examination made it clear that the rate of disciplinary actions against optometrists tends to be much lower in the States with the largest numbers of practicing optometrists than in States with the smallest numbers. Thus, among the four categories of States (ranked according to their number of active civilian optometrists), the top two categories, which accounted for 61 percent of all active civilian optometrists in the United States, represented only 28 percent of all reported disciplinary actions imposed on optometrists from 1984 to 1986 (see figure V).

FIGURE V

PERCENT DISTRIBUTION OF ACTIVE CIVILIAN
OPTOMETRISTS (1984) AND OF REPORTED DISCIPLINARY
ACTIONS (1984-86), BY SIZE RANKING OF STATES



Source: FIFTH REPORT TO THE PRESIDENT AND CONGRESS ON THE STATUS OF HEALTH PERSONNEL and State Optometry Boards as Reported to the OIG

With respect to regional comparisons, the disciplinary action rate was highest in the Northeast and the South, and lowest in the West. Although the Northeast and the South collectively had 48 percent of the active civilian optometrists, they were responsible for 71 percent of the reported disciplinary actions (see figure VI). On the other hand, the comparable figures for the Western States were 24 percent and 9 percent (figure VI).

FIGURE VI

PERCENT DISTRIBUTION OF ACTIVE CIVILIAN OPTOMETRISTS (1984) AND REPORTED DISCIPLINARY ACTIONS AGAINST OPTOMETRISTS (1984-86) BY REGION



Source FRITH REPORT TO THE PRESIDENT AND CONGRESS OF THE STATUS OF HEALTH PERSONNEL and State Optometry Boards as Reported to the Old

Why is the rate of disciplinary actions higher in some States than in others? Is it because practicing optometrists in some States are more incompetent, dishonest, or unprofessional than in others? Is it because of differing levels of board commitment to take action? Is it because of operational constraints associated with inadequate authority or insufficient resources? Each of these factors may be explanatory to some extent, but in the case of one--insufficient resources --we have some data to suggest an association.

We found that of the 10 boards with the highest rate of disciplinary actions between 1984 and 1986, 8 had renewal fees equal to or above the median annual renewal fee of \$50 in 1987. At the other end, however, the association was not as strong. Of the 10 boards with the lowest rate of disciplinary actions, 5 imposed fees equal to or exceeding \$50, and 5 had lower fees. Thus a comparatively high renewal fee, although closely associated with above-average disciplinary performance, in itself is no guarantee of a higher level of disciplinary activity.

Finally, it is important to recognize that State optometry boards are not the only forums for disciplining optometrists. Another, as noted in appendix I, is the Office of Inspector General (OIG) which can impose sanctions on professionals who have committed fraud or abuse. During the past 5 years OIG sanctions against optometrists have averaged 2.2 percent of all OIG sanctions imposed, rising from 3 in FY 1982 to 11 in FY 1986.

TYPE OF VIOLATIONS

In our prior review of State medical boards, we found that the inappropriate writing of prescriptions was by far the most common violation upon which disciplinary actions against medical doctors were based. This was followed by violations concerning self-abuse of drugs and alcohol. Despite the sharp rise in medical malpractice cases in recent years, very few actions were based on inadequate clinical performance.

For optometrists, the information available is less definitive, but judging from our discussions, it appears that the pattern is quite different. Among the 49 boards we contacted, 38 percent cited unprofessional conduct as the most common type of violation upon which disciplinary action was based. The most frequent specific violations cited by respondents for this category included unlawful use of TPAs, unlawful delegation of authority to opticians and other personnel, and inadequate patient examinations. Not one board representative reported self-abuse of alcohol and drugs as the most common type of violation. Ten percent of the respondents cited clinical misjudgment as the most common type of violation, and 17 percent as the second most common type.

The greatest discrepancy appears to be in the propensity to take action because of poor clinical performance. In the case of medical doctors we cited three factors that seemed to account for minimal actions taken: (1) the complexity, length, and cost of such cases, (2) the substantial burden of proof required, and (3) the considerable variations among doctors themselves about what constitutes acceptable practice. In the case of optometry, the use of minimum patient examination requirements makes it easier for boards to take action against optometrists. The four States (South Dakota, Florida, Ohio, New Jersey) that reported having such a requirement believe it to be an effective investigatory tool and an exemplary disciplinary practice. More proactive in nature, investigators in these four States can check the optometrist's records to see if the minimum examination requirement has been met. In another technique, Illinois randomly selects a 10 percent sample of optometrists during relicensure. Minimum test requirements and proof of diagnostic pharmaceutical agent certification are priorities of the investigation.

Although representatives of the four State boards with minimum patient examination requirements reported disciplining at least one optometrist on the basis of clinical misjudgment, officials from half of the State boards reported no such action. Overall, the ability to discipline on the basis of clinical misjudgment seems related to the number of optometrists in the State. Among the 17 smallest States, in terms of the number of active civilian optometrists, 3 (17 percent) reported taking such disciplinary actions during the past 3 to 4 years. This compares with 45 percent of the States in the medium category, 81 percent in the large category, and 100 percent in the largest category. The reason for these differentials are not readily apparent.

There has been some discussion in States in the smallest two categories about the kind of action needed to avert the poor clinical performance that can lead to disciplinary violations. Board officials from the majority of these States believe that mandatory education works well, and one State official expressed the need for a reexamination policy to determine clinical competency during relicensure. The effectiveness of investigatory site visits was also noted. One State that conducts such visits--Mississippi--offers a temporary license to new practitioners, and each board member, responsible for a congressional district, will periodically investigate to see if equipment and records meet the board's standards.

SOURCE OF DISCIPLINARY ACTIONS

Consumer complaints are the major source of disciplinary actions against optometrists. In 80 percent of the States, optometry board representatives reported that such actions are attributable to consumer complaints more than to any other source. This pattern holds regardless of a State's size or region. In the remaining States, board representatives reported other optometrists to be the primary source of complaints. Of the 35 States indicating a second most common source, 30 percent reported other optometrists and ophthalmologists. These complaints are often prompted by the competitive situation and relate most often to advertising practices or substandard office practices. Sixty percent of all eye surgery is now being done by 25 percent of all ophthalmologists. Some optometry board officials suggested that as a result some complaints come from ophthalmologists whose surgical practices may be suffering owing to insufficient referrals from optometrists.

In contrast, only three States reported referrals from the professional societies as the first or second most common source of referrals, and in each case these referrals were considered a second most common source. Board-initiated cases, representing 10 percent of the second most common source of complaints, derived mostly from those boards which make automatic site visits and impose sanctions for tardy license renewal.

One-fifth of the States have provisions allowing other agencies to report possible violations to the optometric boards. The majority of these relate to malpractice cases, but these referrals often serve as a flagging mechanism since in many instances the boards are restricted from initiating a complaint based on the case's outcome and process.

ADMINISTRATIVE PROCESS

Board representatives in 30 States identified some vulnerability or constraint in the disciplinary process. One-third of the comments pointed to the considerable length of time required to initiate and complete a case, citing the complexity of the hearing process and dependence on State attorney general offices as key factors. An additional 30 percent of the responses specifically mentioned the lack of trained investigatory staff with knowledge of optometry. All the States in the large category (based on the number of active optometrists) reported problems in the hearing and investigatory process. In many States, staffing and budget limitations increase the severity of these problems.

Board representatives from 14 States reported that changes have been made in recent years with the intent of expediting the boards' investigatory and review procedures. Most prominent of these changes was the hiring of additional investigators and reorganization of the board to place an increased emphasis on investigation. Nearly one-third of the States have, in accordance with the American Optometric Association's model optometry act, "The Components of an Optometry Act," made changes that to varying degrees separate the investigatory process from the board itself. Examples of these changes are the naming of investigation teams with a board representative, the appointment of a complaint and hearing officer, the use of consultants, or the establishment of a new investigatory division. Although some representatives of these States consider the separation of the investigatory function to be an effective device, saying it warrants widespread consideration, others look upon it as a constraint and would like to see the function returned to the board. Other changes made to improve the efficiency and effectiveness of the judicial and investigatory processes are worth noting:

- At least four States--Maryland, Georgia, Wisconsin, and Mississippi--are using more and more prehearing settlement conferences which, in the words of one representative, "provide real incentive for the licensee to shape up."
- At least two States--Virginina and California--have a computerized complaint tracking system which encourages expeditious processing and follow-up of complaints.
- New York publishes guides for investigators to use in optometric investigations.
- Illinois now can use all fees collected from examinations and license renewals for board purposes. The board has been able to hire an additional investigator as a result.

INFORMATION SHARING

Information on optometrists who have been disciplined should be computerized and made available to all State boards.

This comment made by a State optometry board official suggests the current limitations of the disciplinary action clearinghouses maintained by the National Clearinghouse on Licensure, En-

forcement, and Regulation (CLEAR) and the International Association of Boards of Examiners in Optometry (IAB). Simply put, most optometry boards discount the clearinghouses as relatively ineffective mechanisms and tend to rely more heavily on communication among themselves.

In our review, 21 of the boards reported that they are regularly sending information on disciplinary action to CLEAR and/or IAB: 11 to CLEAR only, 8 to IAB only, and 2 to both. Half of the States not participating in the clearinghouses either offered no reason for not participating or saw no need to do so. The remainder were not aware of the services or felt that the clearinghouses did not provide substantive information.

In addition to the low levels of State participation, several other factors severely limit the effectiveness of the two clearinghouses. State boards typically do not report informal actions which account for an increasing percentage of board actions. Many do not report in a timely manner, sometimes waiting for months before sending the data to a clearinghouse. For example, IAB, of which all States are members, had information on only 19 final actions taken by State optometry boards during the first 6 months of 1987: 5 revocations, 6 probations, 7 licenses voluntarily withdrawn, and 1 fine related to an advertising violation.

When a report is made, information on the applicant can be limited, often not including the Social Security number, the date of birth, or the name of the optometry school attended. Although the reports usually specify the type of disciplinary action taken, they reflect widespread inconsistencies in how the underlying violations are described and the type of disciplinary actions imposed. Within individual States, only seven boards noted that they have a clearly defined set of guidelines for determining an appropriate level of disciplinary action.

Many of the board officials with whom we spoke expressed support for the soon-to-be established national data bank under the Health Care Quality Improvement Act of 1986 (title IV), and the Medicare and Medicaid Patient and Program Protection Act of 1987 (section 5). They tend to see it as a helpful national response to the need for better information sharing of disciplinary actions and the reasons for them. At the same time, however, they and others raise a number of questions that reflect concerns associated with the implementation of the data bank. These concerns involve the accuracy, confidentiality, accessibility, and timeliness of the data as well as the time and cost burdens associated with the reporting process.

Finally, it is important to recognize that the information sharing that occurs within a State is also significant. Thirty-two States reported sharing optometric disciplinary actions, the primary means of dissemination being a newsletter or publication sent to optometry licensees or other health professionals. However, almost one-third of the States (9) that publish disciplinary actions do so in the form of a press release to the general media or specifically to newsletters in the communities where sanctioned optometrists practice. Fewer States send the information to State insurance agencies, welfare agencies or attorney general offices.

RECOMMENDATIONS

Given the situation described so far, we offer two primary recommendations. First:

• State governments should ensure that State optometry boards have sufficient resources to carry out their responsibilities effectively.

In most States this is not now the case. In both the licensure and discipline realms, resource limitations (mainly staff limitations) are undermining the capacity of the boards to do their jobs. With the forthcoming implementation of the national data bank and the additional responsibilities it will place on the State boards, the strains generated by the current resource shortfall are likely to become even greater.

Since most of the revenue of the State boards derives from fees charged to practicing optometrists, they are probably the best source for generating additional revenue. As noted earlier, the median annual revenue fee in 1985 was only \$50.

Our second primary recommendation is this:

• State governments should ensure that State optometry boards have sufficient enforcement authority and a full range of disciplinary options available to them.

Most boards, as noted, have few if any disciplinary options beyond revocation or suspension available to them. To operate effectively they must be able to draw upon a full complement of disciplinary actions including revocations, suspensions, probations, practice restrictions, fines, censures, and reprimands. With such a range to choose from, they can gain valuable flexibility in determining how best to respond in particular cases.

No less important is the boards' having the power to issue subpoenas and to suspend immediately the license of an optometrist who poses a clear and present danger to the public. Such authority can enhance their enforcement capability and enable them to conduct more rigorous and effective oversight on behalf of the public.

In addition to these two primary recommendations, some other important ones are directed to State optometry boards, the International Association of Boards of Examiners in Optometry, the American Optometric Association, and the U.S. Public Health Service.

State Optometry Boards

• State optometry boards should move toward the development of a high-quality, standardized national clinical examination.

Among State optometry board officials, this is a sensitive topic because it involves States' rights and prerogatives. Yet, from a 51-State perspective, the existence of separate clinical examinations appears to be increasingly counter-productive. It restricts mobility of practicing optometrists. It suggests that the professional community cannot agree on the minimum level of knowledge and skills necessary to practice optometry. It results in a duplication of resources devoted to testing. And it diverts State board attention and resources that might otherwise be devoted to enforcement and discipline activities. Other professional boards have successfully established a national clinical licensure examination; it would appear to be constructive for State optometry boards to do the same.

State optometry boards should shore up their credentials verification procedures.

A number of boards have already moved in this direction. But, as some State board officials indicate, more must be done in terms of the extent and type of (1) information requested of licensure applicants and (2) verification undertaken by board officials. Without these safeguards, many boards will remain too vulnerable to irregularities that could result in some undeserving individuals receiving an optometry license and in an undermining of public confidence in the licensure process.

International Association of Boards of Examiners in Optometry

• The IAB should accumulate and on a regular basis disseminate to State optometry boards changes in State practice acts and regulations and best practices concerning State licensure and discipline approaches.

For many years, the American Optometric Association has been disseminating information to State boards and other entities on the changes in State practice acts and regulations and on pertinent court cases. This appears to have been a useful service. In the years ahead, however, we feel it would be desirable for the IAB, as the organization directly representing State boards of examiners in optometry, to assume more of this information dissemination responsibility. In this context, it should be particularly attuned to identifying and sharing information about especially effective approaches to licensure and discipline.

The American Optometric Association

• The AOA should encourage more extensive and effective interaction between its affiliated State associations and State optometry boards.

Such action is important because most State optometry associations appear to make few referrals to State optometry boards. We urge that the AOA explore why that is the case and what might be done to encourage more extensive and effective communication between the associations and the boards.

The Public Health Service

• The Public Health Service should assist the IAB to extend and improve its technical assistance and information dissemination activities.

The PHS has long provided such assistance to professional bodies, but in recent years it has had minimal interaction with IAB, the national body that is most closely and directly tied to the State optometry boards. It is now an opportune time to extend whatever support is available to IAB to help it play a more effective leadership role vis-a-vis its member boards. This is particularly important with respect to the enforcement and discipline areas, where the need for such leadership is compelling.

APPENDIX I

COMMENTS ON THE DRAFT REPORT AND OIG RESPONSE

Within the Department of Health and Human Services, we received comments on the draft report from the Public Health Service and the Health Care Financing Administration (HCFA). In addition, we received comments from a number of organizations outside of the Department: The American Optometric Association (AOA), the International Association of Boards of Examiners in Optometry (IAB), and the National Board of Examiners in Optometry (National Board).

Following are the comments, in full, of each of the above parties and our response to them.

PHS COMMENTS

We concur. PHS through the Health Resources and Services Administration, will provide technical assistance to the International Association of Boards of Examiners in Optometry as part of its professional collaboration with the organization. Limited funds, as available, will be used to extend PHS support in the enforcement and disciplinary activities of IAB.

OIG Response

We are pleased with PHS' readiness to extend assistance to the IAB and expect it will facilitate a more effective leadership role by that organization.

HCFA COMMENTS

We have reviewed the draft report which focuses on State licensure and discipline practices concerning optometrists. The major finding in the report is that in both licensure and discipline realms, State board officials tend to feel they are seriously understaffed and, as a result, the effectiveness of both licensure and discipline operations is compromised. Since none of the recommendations in the report require action by HCFA, we have no specific comments to offer.

We concur with the report's findings and recommendations, and we support the efforts of the OIG to improve the current State practices. Thank you for the opportunity to comment on this report.

AMERICAN OPTOMETRY ASSOCIATION COMMENTS

you sent to Earle L. Hunter, O.D., Executive Director of the American Optometric Association, has been referred to me (Thomas E. Eichhorst, J.D.), as Director of the State Legislation Center, for reply. The American Optometric Association appreciates the opportunity to review

this draft report and to comment on it. We also appreciate that you have extended the time for us to comment, because there was some delay in our receipt of the draft report.

The comments of the State Legislation Center of the American Optometric Association, are as follows:

- Page 2: It should be noted that the AOA definition of Doctors of Optometry now says, in line 7, "many states" rather than "some states," as there are presently 23 states in which optometrists are authorized to use pharmaceutical agents for therapeutic purposes.
- Page 7: In the second paragraph, line 7, it should state "COE-accredited school" rather than "COE-approved school." (This is the sole comment that Joyce Urbeck, staff of the Council on Optometric Education, who also received a copy of the draft report, asked me to include in our comments.)
- Page 8: Further updating the figures, in the first paragraph in the section entitled "THE DIVERSITY IN THE SCOPE OF PRACTICE," there are now 49 states, the District of Columbia and the Territory of Guam, which specifically permit the optometric use of pharmaceuticals for diagnostic purposes and 23 states which permit their use for both diagnostic and therapeutic purposes. Thus, 16 of these states have allowed the use of therapeutic pharmaceutical agents (TPA) since 1985. Only one state, Maryland, does not have a provision for any pharmaceutical use. Incidentally, diagnostic pharmaceutical agent (DPA) legislation in Maryland was passed by the legislature in 1988 but was vetoed by the governor. We understand that an effort will be made in 1989 to override the governor's veto and enact this legislation. Alaska did enact DPA legislation in 1988.
- Page 9: In regard to the Wisconsin law used as an example, it should be noted that TPA legislation was introduced in 1987, and we understand that it will again be introduced in 1989.
- Page 11: In regard to the phrase in the first full paragraph relating to the mobility of optometrists, it should be noted that the optometric utilization of pharmaceutical agents for therapeutic purposes has been recognized as a cost-effective mode of providing such treatment in the 23 states with TPA authorization.
- Page 13: In the first paragraph relating to "DISCIPLINE," please be advised that Eyeglasses II at this time is a proposed FTC trade regulation rule, and is not a "case." It has not yet been promulgated (it will not be "enacted"). When it is promulgated by the Federal Trade Commission, the rule will be subject to judicial review. The American Optometric Association plans to appeal any FTC trade regulation rule which purports to preempt the state consumer protection laws which were enacted to preserve the doctor-patient relationship and prevent abuses in the eye care field. The position of the AOA is that the FTC does not have the power to strike down

valid state laws in the health care field and that the rulemaking record does not support the proposed Eyeglasses II rule.

- Page 19: Last sentence of the first paragraph, in reference to Illinois, "TPA" should be "DPA".
- Page 20: In the second paragraph under "ADMINISTRATIVE PROCESS," the reference to the "Model Optometry Act" should be to its correct title, the "Components of an Optometry Practice Act." In addition, the American Optometric Association State Legislation Center's Licensure and Regulation Committee, composed of several members who have had experience as members of state optometry boards, is developing a Guidebook on Optometric Discipline, which, like the Components, will be shared with the members of the International Association of Boards of Examiners in Optometry and others interested in the licensure and regulation of the profession of optometry.
- Page 24: In regard to the recommendation to the IAB, it should be noted that for the last 23 years, the American Optometric Association, mindful of the financial limitations and shortage of staff of the IAB, has attempted to disseminate information to the profession and to governmental officials on the changes in state practice acts and regulations. As previously noted, the extensive study of the components of an optometry law and the guidelines for the discipline of licensees are current examples of these public-spirited efforts to help protect the visual welfare of the American people.
- Page 24: When this report is made public, the Licensure and Regulation Committee of the State Legislation Center of the American Optometric Association will be pleased to assist in its dissemination and to participate in the laudable efforts to further improve the licensure and regulation of the profession of optometry. In that regard, the committee will then consider appropriate efforts to implement the recommendation encouraging more extensive and effective interaction between state optometric associations and state optometry boards. It should be noted that the word "affiliated" should be inserted between the words "its" and "State association," as the American Optometric Association is a federation of autonomous affiliated state optometric associations.

Again, we appreciate the opportunity to have received a copy of the draft report and to make these comments. If there is any other way in which the American Optometric Association State Legislation Center can be of assistance to you in your studies of the profession of optometry, please let me know.

OIG Response

We appreciate AOA's readiness to help disseminate the final report and its willingness to consider the matter of more extensive and effective interaction between

State optometric associations and State boards. We also appreciate its many help-ful suggestions. In each case we have made changes that are responsive to the suggestions.

Of particular note is AOA's comment about its long-established efforts to disseminate information on State practice acts. In recognition of that and of IAB's interest in playing a more active role in this area (as expressed in its comments), we have completely revised the paragraph elaborating on our recommendation directed to IAB. Since IAB is the organization representing the State boards, we feel that over time it would be more appropriate for it, rather than the organization representing the profession of optometry, to emerge as the leading agent for disseminating information to State boards.

Finally, we have made the corrections and/or clarifications called for on pages 2, 7, 8, 9, 11, 13, 19, and 20.

INTERNATIONAL ASSOCIATION OF BOARDS OF EXAMINERS IN OPTOMETRY COMMENTS

On September 20, 1988, the International Association of Boards of Examiners in Optometry received a copy of the above-captioned Draft Report, prepared under the direction of Mark R. Yessian, Ph.D., Regional Inspector General for Analysis and Inspections in your Boston office. The IAB was invited to comment on this draft, and it was indicated that such comments would be taken into account in preparing the final report. Please forgive our tardiness in responding, which is related to the fact that we moved our office in Washington and acquired a full-time Executive Director, Kenneth G. Crosby, Ed.D., during the specified comment period.

On behalf of the IAB, I wish first to compliment your office on the insightfulness and quality of the draft report. We do believe, however, that certain areas and items need to be brought up to date or clarified in order to ensure its overall accuracy and completeness.

The IAB has been striving diligently for the last four years to develop the basis for a high-quality, standardized, validated, and psychometrically sound clinical skills assessment that can be used by state boards of optometry for licensure purposes. A contract has just been signed by the IAB and the Commonwealth of Pennsylvania for the first administration of the resultant examination, which will occur in July of 1989. Several other states in the northeast have requested the IAB to develop this test further for a standardized, regional, clinical skills assessment, the results of which will be recognized by at least three or four states in the region beginning in July, 1990. The IAB anticipates that additional states in the northeast will join with the original ones to form a larger group, as the results and reputation of the examination become evident. In addition, several states in the central, mid-west region have indicated an inclination to follow a similar path.

The IAB's development of its own office, professional staff, and facilities places it in a much improved position to service its constituency--the state boards of optometry--and other regulatory agencies. A computerized program for classifying continuing education and verifying attendance at meetings for this purpose will be integrated into a national data bank on licensed optometrists, which will begin to meet the needs and demands established under the Health Care Quality Improvement Act of 1986 and the Medicare and Medicaid Patient and Program Protection Act of 1987. We look forward to working with the Public Health Service to solve problems concerning the accuracy, confidentiality, accessibility, and timeliness of the data, as well as the time and cost burdens associated with the reporting process. Provision of assistance to state boards in the sometimes overwhelming administrative task of maintaining and sharing information regarding disciplinary actions, along with verifying, classifying and credentialling of continuing education for relicensure, and the credentialling of candidates on the entry level, is a necessary, appropriate, and ongoing goal of the IAB. Development and use of a national data base will help eliminate or reduce many of the ineffective and inefficient procedures currently being employed in this area.

The IAB has cooperated and worked with the American Optometric Association (AOA) on many programs and in many areas. In these efforts, the IAB has recognized the need for each organization to maintain its independence, so as to be able to meet its own responsibilities to state and regulatory agencies, the public, and the optometric profession. The IAB looks forward to a time in the near future when it can administratively be solely capable of accumulating and disseminating to state boards, on a regular basis, changes in state practice acts and regulations, along with recommendations tooncerning state licensure and discipline approaches. We concur with the recommendation hat the AOA should encourage more extensive and effetive interaction between its state associations and state optometry boards concerning certain topics only, such as disciplinary actions, ethics, and appropriate standards of professional care. Greater communication between state associations and state boards in this area can enable practitioners to be better educated and advised as to what is appropriate and acceptable professional behavior and what is not. However, the IAB believes that such interaction should not go beyond the limits necessary to maintain the independence of action by state boards that is required to fulfill their responsibilities for the public welfare and to appropriate state and federal regulatory agencies. The IAB will welcome the assistance of the Public Health Service in improving and extending its dissemination activities. It should be noted that the PHS previously provided much needed and appreciated support for development of the IAB's Continuing Education Classification System.

The IAB is most appreciative of this opportunity to comment on the draft report, and it hopes that its contribution can be used constructively in preparing the final version.

OIG Response

We agree with the IAB that while greater communication between State associations and State bords is desirable, it is important to assure that State boards retain the necessary independence to fulfull their public responsibilities. Also, we are pleased that the IAB looks forward to a more active role in accumulating and dis-

seminating information to State boards. Finally, we have noted in our final report the contract signed by the IAB and the Commonwealth of Pennsylvania.

NATIONAL BOARD COMMENTS

This is in response to the letter dated September 20 I received from Richard P. Kusserow, Inspector General, Department of Health and Human Services, with the draft report entitled, "State Licensure and Discipline of Optometrists."

First, let me point out that this is not a formal response from the National Board of Examiners in Optometry. The National Board provides a national standardized examination for optometric state boards to accept, voluntarily, as part of the licensure process in the various states. In addition to the National Board written examination which is accepted by all but five of the 53 licensing jurisdictions in the United States and its territories, optometric state boards administer additional examinations within the state prior to licensure. Consequently, my remarks are those of the Executive Director of the National Board and address the factual content of the report regarding your mention of the National Board, and raise one or two questions on certain issues that I trust will be useful.

On page 2 you state that "optometrists are *specializing* (my emphasis) in occupational vision needs, sports vision needs, or the specific vision needs of the elderly, children, or those with low vision." Given that no recognized specialty certifying bodies exist in optometry, I am concerned that your use of the word "specializing" may be misplaced. If you have found from your studies that optometrists do specialize in these areas of eye care, then the word "specializing" should remain. This is an important issue for the future of the profession, particularly in areas that require additional training and/or expertise to provide care to special categories of patients or in special technical areas of optometric practice. Similarly, the statement that "group practice and *specialization* (my emphasis) are increasing" is an important statement that should not be allowed to stand without further review.

On page 7, your use of the "NBOE" (note order of letters) and "National Board of Optometry Examination" is incorrect. The National Board of Examiners in Optometry is a 501(c)(3) tax exempt corporation, providing testing services to the profession of optometry. It does not use an acronym, or a combination of initials (such as NBEO or NBOE). If a shortened form of its full name is to be used we prefer to be referred to as the "National Board." Further on page 7, in the fourth paragraph, you make the statement "Between the years 1981 and 1986 an average of 79% of the candidates taking the examination met or exceeded the passing score of 75." I am not sure I understand where you obtained these data. The National Board's examinations during the period under study (1981-86), were administered in three parts; Part I, Part IIA and Part IIB. The passing score for each Part is a scaled score of 300, on a scale of 100 - 900. Consequently, the use of the passing score of "75" (note also that no indication is given as to whether this is a scaled or a percentage score) is totally inaccurate. To be sure that you quote the National Board standards accurately, I suggest that you contact me by telephone so that I can discuss this with you directly. To imply that the National Board, which was the first national board of a licensed health profession to institute criterion-referenced standard set-

ting in 1981, uses 75 as a passing score, does not add to the quality of your report nor the reputation of the National Board. This is an issue that is often not well understood by government officials. Because of the importance of your report we are willing to take the time to be sure your statements are correct.

On page 24, your recommendation that "The AOA should encourage more extensive and effective interaction between its State associations and State optometry boards" suggests the beginning of a new direction for the Federal Government. It has been commonly understood in the credentialing community, and particularly with those of us who deal with the licensure of candidates for practice in the health professions, that the state associations which represent the vested business and professional interests of the *practitioners* should *not* influence the decision-making of the state regulatory boards which are charged with protecting the health, safety and welfare of the *public*. To recommend in an Inspector General's report that state associations should "effectively interact" with the state boards, undermines much of the work over the past two decades to assure independence of state board action. If this is truly the Inspector General's recommendation, then let it stand. However, if this is a statement that has been not given full consideration then I recommend that this be reconsidered prior to printing the final report.

I appreciate the opportunity to react to your report. Again, please understand that this letter is not an official position of the National Board of Examiners in Optometry. It is nothing more than the reflections of its Executive Director after having read through the draft copy of the Inspector General's report you provided.

OIG Response

The National Board stresses the importance of the independence of State boards. As noted in our previous comment, we concur. Yet, such independence does not include more effective coordination between State boards on matters concerning the referral of cases to the Boards. Such interaction takes place between State boards and professional associations in many other fields. It would appear to be warranted in the field of optometry as well.

With respect to the technical connections suggested by the National Board, we have made the suggested changes in the final report.

APPENDIX II

BACKGROUND

The licensure and discipline of health care professionals is a traditional function of State Government. It dates back to the pioneering efforts of the American colonies in the 1600's. But it did not gain permanence until the late 1800's, when Texas passed the first modern medical practice act (1873) and the U.S. Supreme Court upheld West Virginia's act as a valid exercise of State police powers (1889).

In recognition of this traditional State role, Congress, when it established the Medicare and Medicaid programs in 1965, left it to the States to determine whether physicians and other health care professionals were legally authorized to participate in these programs. Subsequently, Congress has empowered the Department of Health and Human Services (HHS) and its predecessor (Health, Education and Welfare) to impose sanctions on those professionals (and other provider groups) who have abused or defrauded these programs. However, the Federal Government has continued to depend on the States to serve as the disciplining agent for transgressions that do not directly relate to the Medicare or Medicaid programs.

Thus, States have been providing an important front line of protection for beneficiaries of these two Federally funded programs. This protection has been at no cost to the Federal Government and at only minimal cost to State Government. Nearly all the costs have been covered by licensure fees imposed on the health care professionals.

As Medicare and Medicaid expenditures have grown to a point where they now account for more than one-fourth of United States health care expenditures, Federal interest in the effectiveness of State licensure and discipline practices has increased. For the most part, this heightening interest has focused on those practices concerning medical doctors. In essence this is because they are the most prominent of the health care professionals and because they account for a larger share of Medicare and Medicaid expenditures than any of the other groups. More specifically, serious concerns about the adequacy of State medical licensure and discipline practices were raised by General Accounting Office reports, media investigations, and scandals involving fraudulent medical credentials from two Caribbean medical schools.

Accordingly, in 1985 and 1986, the Office of Inspector General conducted an inspection examining the activities of State medical boards. Based primarily on visits to 14 State boards and telephone discussions with the executive directors of another 10, the inspections sought to provide an overview of the major developments and issues facing the boards. The final report, issued in June 1986, received widespread publicity and helped generate reforms to improve the effectiveness of State medical boards, particularly with respect to their disciplinary practices.

Given the positive response and effects of that inspection, the OIG decided that a similar one directed to other health care professionals eligible for Medicare or Medicaid reimbursement

would also be warranted. For these other professionals no less than for medical doctors, State licensure and discipline boards offer a vital front line of protection for the beneficiary.

We chose dentists, podiatrists, chiropractors, and optometrists as a focus because, like medical doctors, they are direct care professionals who have diagnosing and prescribing responsibilities, who can receive direct Medicare reimbursement, and who, overall, represent a major presence on the health care scene. Dentists, podiatrists, chiropractors, and optometrists together with doctors of medicine and osteopathy are the six groups of health care professionals defined as "physicians" under Medicare law.

Recognizing the value of obtaining a better national picture of the licensure activities of these and other health care professions, HHS (through the Public Health Service) awarded a 3-year contract in July 1984 to the Council of State Government (CSG) and the National Clearinghouse on Licensure Enforcement and Regulation to develop a composite State-by-State information system on the credentialing of health professions. The project generates informational reports on the various professions, drawing primarily on State practice acts and State board regulations. The reports present data in separate tables that address such matters as the organizational pattern of the State boards, the administrative and enforcement functions of the boards, the types of examinations required, and the fees imposed. Overall, the descriptive information provided focuses more on licensing than on disciplinary activity. The CSG and CLEAR have published reports on each of the four groups to be addressed in this inspection-chiropractors (1986), podiatrists (1986), dentists (1987), and optometrists (1987).

The CLEAR, which is composed of State officials involved with occupational licensing and regulation issues, also runs the National Disciplinary Information System (NDIS). This is an interstate service that provides participating State agencies with bimonthly reports on disciplinary actions taken against licensed professionals in a number of professional disciplines. Dentists, podiatrists, chiropractors, and optometrists are among the occupation groups included in the system. The disciplinary actions taken against these and other groups are sent to NDIS on a voluntary basis and at this point involve only 32 States. The Federation of State Medical Boards operates a similar but more detailed and complete system that focuses on disciplinary actions taken against medical doctors.

Two recent congressional actions provide an important stimulus toward the further sharing of data on disciplinary actions. First of all, the Health Care Quality Improvement Act, (P.L. 99-660), passed in 1986, calls for the establishment of a national data bank to be run by the HHS Secretary (or a designee thereof). It stipulates that entities making malpractice payments associated with the work of physicians and other licensed health care professionals must report pertinent information concerning those payments to the data bank. Similarly, it mandates the reporting of disciplinary and peer review actions taken against medical doctors, osteopaths, and dentists. The information maintained in the data bank is to be available, upon request, to State licensure and discipline boards, health care entities, attorneys who filed a malpractice complaint with a court against a specific practitioner, and individuals interested in records on themselves.

The second pertinent congressional action (P.L. 100-93) is the Medicare and Medicaid Patient and Program Protection Act. Passed in 1987, this legislation includes a provision that would extend the national reporting responsibility of State licensure and discipline boards to encompass disciplinary actions taken against podiatrists, chiropractors, optometrists, and other licensed health care practitioners.

Thus, on the basis of the authority provided by these two acts, State boards will be able to draw upon a national data bank to determine if any disciplinary actions have been taken against an applicant for licensure. It is expected that this data bank will be operating in the near future.

Finally, with respect to optometrists, on whom this report focuses, it is important to add that since 1984, the International Association of Boards of Examiners in Optometry has collected information on the disciplinary actions of State optometry boards on a quarterly basis. All 51 States (DC included) are members of the IAB. Yet for the last 2 years, an average of only 25 percent have actually reported to IAB. Up until September 1987, IAB, on the advice of its counsel, did not release disciplinary information to State boards. However, in anticipation of the establishment of a national data bank, IAB is taking a more active role as a disciplinary clearinghouse. It now provides the name of the State in which a practitioner has been disciplined and refers a request for information to a State board official within that State.

APPENDIX III

METHODOLOGICAL NOTES

We held discussions with representatives of 49 State boards. (New Hampshire and the District of Columbia did not participate.) Usually, we talked with the executive director of the board, and often with a chairman or other member of the board. Our aim was to obtain information and discuss issues with a board representative who was well informed about board activities both at the time and over the previous 3 to 4 years.

The major area in which we sought quantitative information concerned the disciplinary actions taken by the boards against optometrists in 1984, 1985, and 1986. Here, we asked for the number of formal actions taken and a breakdown of the type of actions--whether as revocation, suspension, probation, or other.

Forty-seven of the boards were able to provide us with totals for disciplinary actions taken in each of the 3 years. (Georgia and Missouri were the exceptions.) Two State boards that participated in the interviews could not provide the data within the sufficient time period.

We cannot confirm that the information is all-inclusive or completely accurate. However, we did stress that we sought all board disciplinary actions against optometrists, and we often checked back when we suspected there might be errors. The board officials, typically, were quite responsive in checking their records and providing the data in a timely fashion.

In analyzing the differential performance of the States in disciplining optometrists, we decided to aggregate the disciplinary data over the 3-year period. We felt that comparisons over only a 1- or 2-year period would be of questionable value because of distortions that might arise because of year-to-year fluctuations.

In this context, we treated performance as a dependent variable and considered two major independent variables: size and region. With respect to size, first of all, we identified the number of active civilian optometrists in each State and, then, using variance analysis, identified four clusters of States differentiated on the basis of the number of active civilian optometrists. The clusters and associated States are as follows: (1) small (DE, DC, VT, AK, WY, ND, SD, HI, NV, NH, UT, RI, MT, ID, NM, MS, NB, ME, and WV); (2) medium (SC, CT, AZ, AR, KS, AL, CO, MD, KY, GA, OK, OR, IA, NJ, VA, MO, MN, NC, WA, and LA); (3) large (TN, WI, IN, MA, FI, MI, OH, TX, PA, IL, and NY); and (4) extra large (CA).

With respect to region, we used U.S. Bureau of the Census categorizations to identify four regions of the country. The categorizations and associated States are as follows: (l) Northeast (CT, ME, MA, NJ, NH, NY, PA, RI, and VT); (2) South (AL, AR, DE, DC, FL, GA, KY, LA, MD, MS, NC, OK, SC, TN, TX, VA, and WV); (3) Midwest (IA, IL, IN, KS, MI, MN, MO, NE, ND, OH, SD and WI); and (4) West (AK, AZ, CA, CO, HI, ID, MT, NV, NM, OR, UT, WA, and WY).

APPENDIX IV

ENDNOTES

- 1. For the 1975 data, see U.S. Department of Health and Human Services, Public Health Service, The First Report to the President and Congress on the State of Health Personnel in the United States, March 1986, pp. 6-13 and for the 1986 data, see Irving Bennett, O.D., Advisory Enterprises, State of the Ophthalmic Industry: 1987, 1987, p.6.
- 2. "Spread the Good News," Review of Optometry, March 1987, p. 47.
- 3. U.S. Department of Health and Human Services, Health Care Financing Administration, Health Statistical Information Service, phone interview.
- 4. "Annual Income Survey: How Do You Compare?" *Optometric Management*, July 1987, p. 42.
- 5. Commerce Clearinghouse Medicare and Medicaid Guide, vol. 3, section 15, 504 1984.
- 6. "Annual Income Survey: How Do You Compare?" p. 42.
- 7. Council of State Governments, State Regulation of the Health Occupations and Professions, June, 1987 p. 48. As noted in the American Optometric Association's (AOA's) comments in appendix IV, the AOA's definition was recently revised to indicate that "many" rather than "some" States use pharmaceutical agents for therapeutic purposes.
- 8. American Optometric Association, Optometry Today, 1985, pp. 8-17.
- 9. "Students Forecast Their Futures," Review of Optometry, May 1987, p. 92.
- 10. State of the Opthalmic Industry, pp. 1-6.
- 11. "Students Forecast Their Futures."
- 12. State of the Opthalmic Industry, pp. 1-16.
- 13. Ibid., p. 6.
- 14. Annual Income Survey: How Do You Compare?" pp. 30-42.
- 15. Ibid., p. 42.

- 16. U.S. Department of Health and Human Services, Public Health Service, The Fifth Report to the President and Congress on the State of Health Personnel in the United States, March 1986, pp. 1-10.
- 17. Optometry Today, p. 7.
- 18. Fifth Report to the President, p.10.
- 19. Ibid., p. 6, 1.
- 20. As provided to the Health Resources and Services Administration by the American Optometric Association and the Association of Schools and Colleges of Optometry.
- 21. Fifth Report to the President, p. 6; 2.
- 22. Optometry Today, p. 7.
- 23. Fifth Report to the President, p. 6, 5.
- 24. Ibid., p. 4.
- 25. Optometry Today, p. 6.
- 26. The International Association of Boards of Examiners in Optometry, A Continuing Optometric Education Classification System, May 1985, p. 6.
- 27. Here and elsewhere in this report, unless otherwise noted, the data are derived from our survey of the 49 States. See appendix IV.
- 28. State Regulation of the Health Occupation, p. 62.
- 29. We developed the \$2 million estimate as follows: For each State, we multiplied the total number of licensed optometrists in 1984 by the renewal fee that year. That resulted in a total of \$1.6 million. We then assumed that renewal fees accounted for two-thirds of overall fee income from optometrists and, accordingly, added one-third to the total. This resulted in a new total of \$2.1 million.
- 30. State Regulation of the Health Occupations, pp. 60-61.
- 31. National Boards of Examiners in Optometry, Candidates Guide, 1987. p. 75.
- 32. State Regulation of the Health Occupations, pp. 49-59.

- 33. National Board of Examiners in Optometry, An Era of Achievement 1980 -1986, pp. 14-15.
- 34. Council of State Governments, p. 47.
- 35. Council of State Governments, p. 59.
- 36. International Association of Board of Examiners of Optometry, *State Board Forum*, February, 1987 and updated information provided by the American Optometric Association.
- 37. Council of State Governments, p. 47.
- 38. Ibid., p. 47. TPA legislation was introduced in Wisconsin in 1987 and is expected to be introduced again in 1989.
- 39. State of the Opthalmic Industry, p. 5.
- 40. International Association of Boards of Examiners in Optometry, Candidates Guide; Examination in Treatment and Management of Ocular Disease, November 1987, and April 1988.
- 41. Council of State Governments, p. 64. and the International Association of Boards in Optometry Candidates Guide; Examination in Treatment and Management of Ocular Disease, November 1987 and April 1988 p. 7.
- 42. Ibid., pp. 58-68.
- 43. Ibid., p. 58.
- 44. An Era of Acheivement, p. 11.
- 45. International Association of Boards in Optometry, Assessment of Entry Level Skills 1987, p. 10.
- 46. State of the Opthalmic Industry, p. 15. The AOA, in its comments in appendix IV, notes that when the rule is promulgated, it plans to appeal it.
- 47. Council of State Governments, pp. 56-57.
- 48. The national data bank now being established under title IV of the Health Care Quality Improvement Act of 1986 will provide a basis for answering this question in the years ahead.

- 49. From Federation of State Medical Boards and Office of Inspector General discussions with State optometric boards and State dental boards.
- 50. See Federation of State Medical Boards and *Fifth Report to the President*, p. 6,14. The actual rate of discipline is probably slightly less that that indicated in the text, because in a few instances, the discipline action totals involve actions against the same optometrist, dentist or medical doctor. Also, to arrive at a 1985 estimate of the number of active optometrists, we assumed that the increase from 1984 (the latest date for which national data were available) and 1985 equaled the average increase of 315 that applied between 1980 and 1984.
- 51. "Opthalmology's Fragmented Future," Review of Optometry, February, 1987, p.55.