

near term. However, over the long run, the demand for occupational therapists should continue to rise as a result of growth in the number of individuals with disabilities or limited function requiring therapy services. The baby-boom generation's movement into middle age, a period when the incidence of heart attack and stroke increases, will increase the demand for therapeutic services. The rapidly growing population 75 years of age and above (an age that suffers from a high incidence of disabling conditions), also will demand additional services. Medical advances now enable more patients with critical problems to survive. These patients may need extensive therapy.

Hospitals will continue to employ a large number of occupational therapists to provide therapy services to acutely ill inpatients. Hospitals will also need occupational therapists to staff their outpatient rehabilitation programs.

Employment growth in schools will result from expansion of the school-age population and extended services for disabled students. Therapists will be needed to help children with disabilities prepare to enter special education programs.

Earnings

Median annual earnings of occupational therapists were \$49,450 in 2000. The middle 50 percent earned between \$40,460 and \$57,890. The lowest 10 percent earned less than \$32,040, and the highest 10 percent earned more than \$70,810. Median annual earnings in the industries employing the largest numbers of occupational therapists in 2000 were as follows:

| | |
|---------------------------------------------|----------|
| Nursing and personal care facilities | \$51,220 |
| Hospitals | 50,430 |
| Offices of other health practitioners | 49,520 |
| Elementary and secondary schools | 45,340 |

Related Occupations

Occupational therapists use specialized knowledge to help individuals perform daily living skills and achieve maximum independence. Other workers performing similar duties include chiropractors, physical therapists, recreational therapists, rehabilitation counselors, respiratory therapists, and speech-language pathologists and audiologists.

Sources of Additional Information

For more information on occupational therapy as a career, contact:

► The American Occupational Therapy Association, 4720 Montgomery Ln., P.O. Box 31220, Bethesda, MD 20824-1220. Internet: <http://www.aota.org>

Optometrists

(O*NET 29-1041.00)

Significant Points

- Licensed optometrists must earn a Doctor of Optometry degree from an accredited optometry school and pass a written and a clinical State board examination.
- Competition for admission to optometry school is keen.
- Because optometrists usually remain in practice until they retire, replacement needs arise almost entirely from retirements.

Nature of the Work

More than half of the people in the United States wear glasses or contact lenses. Optometrists, also known as *doctors of optometry*, or *ODs*, provide most primary vision care.

Optometrists examine people's eyes to diagnose vision problems and eye diseases. They use instruments and observation to examine eye health and to test patients' visual acuity, depth and color perception, and ability to focus and coordinate the eyes. Optometrists analyze test results and develop a treatment plan. Optometrists prescribe eyeglasses and contact lenses, and provide vision therapy and low vision rehabilitation. They administer drugs to patients to aid in the diagnosis of eye vision problems and prescribe drugs to treat some eye diseases. Optometrists often provide preoperative and postoperative care to cataract, laser vision correction, and other eye surgery patients. They also diagnose conditions due to systemic diseases such as diabetes and high blood pressure, and refer patients to other health practitioners as needed.

Optometrists should not be confused with ophthalmologists or dispensing opticians. Ophthalmologists are physicians who perform eye surgery, and diagnose and treat eye diseases and injuries. Like optometrists, they also examine eyes and prescribe eyeglasses and contact lenses. Dispensing opticians fit and adjust eyeglasses and in some States may fit contact lenses according to prescriptions written by ophthalmologists or optometrists. (See the sections on physicians and surgeons; and opticians, dispensing, elsewhere in the *Handbook*.)

Most optometrists are in general practice. Some specialize in work with the elderly, children, or partially sighted persons who need specialized visual devices. Others develop and implement ways to protect workers' eyes from on-the-job strain or injury. Some specialize in contact lenses, sports vision, or vision therapy. A few teach optometry, perform research, or consult.

Most optometrists are private practitioners who also handle the business aspects of running an office, such as developing a patient base, hiring employees, keeping records, and ordering equipment and supplies. Optometrists who operate franchise optical stores also may have some of these duties.



Optometrists diagnose vision problems and eye diseases.

Working Conditions

Optometrists work in places—usually their own offices—which are clean, well-lighted, and comfortable. Most full-time optometrists work about 40 hours a week. Many work Saturdays and evenings to suit the needs of patients. Emergency calls, once uncommon, have increased with the passage of therapeutic drug laws expanding optometrists' ability to prescribe medications.

Employment

Optometrists held about 31,000 jobs in 2000. The number of jobs is greater than the number of practicing optometrists because some optometrists hold two or more jobs. For example, an optometrist may have a private practice, but also work in another practice, clinic, or vision care center. According to the American Optometric Association, about two-thirds of practicing optometrists are in private practice.

Although many optometrists practice alone, a growing number are in a partnership or group practice. Some optometrists work as salaried employees of other optometrists or of ophthalmologists, hospitals, health maintenance organizations (HMOs), or retail optical stores. A small number of optometrists are consultants for industrial safety programs, insurance companies, manufacturers of ophthalmic products, HMOs, and others.

Training, Other Qualifications, and Advancement

All States and the District of Columbia require that optometrists be licensed. Applicants for a license must have a Doctor of Optometry degree from an accredited optometry school and pass both a written and a clinical State board examination. In many States, applicants can substitute the examinations of the National Board of Examiners in Optometry, usually taken during the student's academic career, for part or all of the written examination. Licenses are renewed every 1 to 3 years and in all States, continuing education credits are needed for renewal.

The Doctor of Optometry degree requires completion of a 4-year program at an accredited optometry school preceded by at least 3 years of preoptometric study at an accredited college or university (most optometry students hold a bachelor's or higher degree). In 2000, 17 U.S. schools and colleges of optometry held an accredited status with the Accreditation Council on Optometric Education of the American Optometric Association.

Requirements for admission to schools of optometry include courses in English, mathematics, physics, chemistry, and biology. A few schools require or recommend courses in psychology, history, sociology, speech, or business. Applicants must take the Optometry Admissions Test, which measures academic ability and scientific comprehension. Most applicants take the test after their sophomore or junior year. Competition for admission is keen.

Optometry programs include classroom and laboratory study of health and visual sciences, as well as clinical training in the diagnosis and treatment of eye disorders. Courses in pharmacology, optics, vision science, biochemistry, and systemic disease are included.

Business ability, self-discipline, and the ability to deal tactfully with patients are important for success. The work of optometrists requires attention to detail and good manual dexterity.

Optometrists wishing to teach or do research may study for a master's or Ph.D. degree in visual science, physiological optics, neurophysiology, public health, health administration, health information and communication, or health education. One-year post-graduate clinical residency programs are available for optometrists who wish to specialize in family practice optometry, pediatric optometry, geriatric optometry, vision therapy, contact lenses, hospital-based optometry, primary care optometry, or ocular disease.

Job Outlook

Employment of optometrists is expected to grow about as fast as the average for all occupations through 2010 in response to the vision care needs of a growing and aging population. As baby boomers age, they will be more likely to visit optometrists and ophthalmologists because of the onset of vision problems in middle age, including those resulting from the extensive use of computers. The demand for optometric services also will increase because of growth in the oldest age group, with their increased likelihood of cataracts, glaucoma, diabetes, and hypertension. Employment of optometrists also will grow due to greater recognition of the importance of vision care, rising personal incomes, and growth in employee vision care plans.

Employment of optometrists would grow more rapidly were it not for anticipated productivity gains that will allow each optometrist to see more patients. These expected gains stem from greater use of optometric assistants and other support personnel, who will reduce the amount of time optometrists need with each patient. Also, new surgical procedures using lasers are available that can correct some vision problems, but they remain expensive. Optometrists will still be needed to perform pre-operative and post-operative care for laser surgery; however, patients who successfully undergo this surgery may not require optometrists to prescribe glasses or contacts for several years.

In addition to growth, the need to replace optometrists who leave the occupation will create employment opportunities. Relatively few opportunities from this source are expected, however, because optometrists usually continue to practice until they retire; few transfer to other occupations.

Earnings

Median annual earnings of salaried optometrists were \$82,860 in 2000. The middle 50 percent earned between \$60,310 and \$111,520. Median annual earnings of salaried optometrists in 2000 were \$89,460 in offices and clinics of medical doctors and \$85,470 in offices of other health practitioners. Salaried optometrists tend to earn more initially than do optometrists who set up their own independent practice. In the long run, those in private practice usually earn more.

According to the American Optometric Association, median net income for all optometrists in private practice ranged from about \$115,000 to \$120,000 in 2000.

Related Occupations

Workers in other occupations who apply scientific knowledge to prevent, diagnose, and treat disorders and injuries are chiropractors, dentists, physicians and surgeons, podiatrists, speech-language pathologists and audiologists, and veterinarians.

Sources of Additional Information

For information on optometry as a career and a list of accredited optometric educational institutions, contact:

- ▶ Association of Schools and Colleges of Optometry, 6110 Executive Blvd., Suite 510, Rockville, MD 20852. Internet: <http://www.opted.org>

Additional career information is available from:

- ▶ American Optometric Association, Educational Services, 243 North Lindbergh Blvd., St. Louis, MO 63141-7881. Internet: <http://www.aoanet.org>

The Board of Optometry in each State can supply information on licensing requirements.

For information on specific admission requirements and sources of financial aid, contact the admissions officer of individual optometry schools.