

### Related Occupations

Occupational health and safety specialists and technicians ensure that laws and regulations are obeyed. Others who enforce laws and regulations include agricultural inspectors, construction and building inspectors, correctional officers, financial examiners, fire inspectors, police and detectives, and transportation inspectors.

### Sources of Additional Information

Information about jobs in Federal, State, and local government as well as in private industry is available from the States' employment service offices.

For information on a career as an industrial hygienist and a list of colleges and universities offering programs in industrial hygiene, contact:

► American Industrial Hygiene Association, 2700 Prosperity Ave., Suite 250, Fairfax, VA 22031. Internet: <http://www.aiha.org>

For a list of colleges and universities offering safety and related degrees, including correspondence courses, contact:

► American Society of Safety Engineers, 1800 E Oakton St., Des Plaines, IL 60018. Internet: <http://www.asse.org>

For information on the Certified Safety Professional credential, contact:

► Board of Certified Safety Professionals, 208 Burwash Ave., Savoy, IL 61874. Internet: <http://www.bcsp.org>

For information on the Certified Industrial Hygiene credential, contact:

► American Board of Industrial Hygiene, 6015 West St. Joseph, Suite 102, Lansing, MI 48917. Internet: <http://www.abih.org>

For information on the Occupational Health and Safety Technologist credential, contact:

► Council on Certification of Health, Environmental, and Safety Technologists, 208 Burwash Ave., Savoy, IL 61874. Internet:

<http://www.cchest.org>

For additional career information, contact:

► U.S. Department of Health and Human Services, Center for Disease Control and Prevention, National Institute of Occupational Safety and Health, Hubert H. Humphrey Bldg., 200 Independence Ave. SW., Room 715H, Washington, DC 20201. Internet: <http://www.cdc.gov/niosh/homepage.html>

► U.S. Department of Labor, Occupational Safety and Health Administration, 200 Constitution Ave. NW., Washington, DC 20210. Internet:

<http://www.osha.gov>

Information on obtaining positions as occupational health and safety specialists and technicians with the Federal Government is available from the Office of Personnel Management through a telephone-based system. Consult your telephone directory under U.S. Government for a local number or call (912) 757-3000; Federal Relay Service: (800) 877-8339. The first number is not tollfree, and charges may result. Information also is available from the Internet site: <http://www.usajobs.opm.gov>.

## Opticians, Dispensing

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### Significant Points

- Most dispensing opticians receive training on-the-job or through apprenticeships lasting 2 or more years; 22 States require a license.
- Projected employment growth reflects steadfast demand for corrective lenses and trends in fashion.
- The number of job openings will be relatively small because the occupation is small.

### Nature of Work

Dispensing opticians fit eyeglasses and contact lenses, following prescriptions written by ophthalmologists or optometrists. (The work of optometrists is described in a statement elsewhere in the *Handbook*. See the statement on physicians and surgeons for information about ophthalmologists.)

Dispensing opticians examine written prescriptions to determine lens specifications. They recommend eyeglass frames, lenses, and lens coatings after considering the prescription and the customer's occupation, habits, and facial features. Dispensing opticians measure clients' eyes, including the distance between the centers of the pupils and the distance between the eye surface and the lens. For customers without prescriptions, dispensing opticians may use a lensometer to record the present eyeglass prescription. They also may obtain a customer's previous record, or verify a prescription with the examining optometrist or ophthalmologist.

Dispensing opticians prepare work orders that give ophthalmic laboratory technicians information needed to grind and insert lenses into a frame. The work order includes lens prescriptions and information on lens size, material, color, and style. Some dispensing opticians grind and insert lenses themselves. After the glasses are made, dispensing opticians verify that the lenses have been ground to specifications. Then they may reshape or bend the frame, by hand or using pliers, so that the eyeglasses fit the customer properly and comfortably. Some also fix, adjust, and refit broken frames. They instruct clients about adapting to, wearing, or caring for eyeglasses.

Some dispensing opticians specialize in fitting contacts, artificial eyes, or cosmetic shells to cover blemished eyes. To fit contact lenses, dispensing opticians measure eye shape and size, select the type of contact lens material, and prepare work orders specifying the prescription and lens size. Fitting contact lenses requires considerable skill, care, and patience. Dispensing opticians observe customers' eyes, corneas, lids, and contact lenses with special instruments and microscopes. During several visits, opticians show customers how to insert, remove, and care for their contacts, and ensure the fit is correct.

Dispensing opticians keep records on customer prescriptions, work orders, and payments; track inventory and sales; and perform other administrative duties.

### Working Conditions

Dispensing opticians work indoors in attractive, well-lit, and well-ventilated surroundings. They may work in medical offices or small stores where customers are served one at a time, or in large



*A dispensing optician ensures that eyeglass frames fit properly and comfortably.*

stores where several dispensing opticians serve a number of customers at once. Opticians spend a lot of time on their feet. If they prepare lenses, they need to take precautions against the hazards associated with glass cutting, chemicals, and machinery.

Most dispensing opticians work a 40-hour week, although some work longer hours. Those in retail stores may work evenings and weekends. Some work part time.

### Employment

Dispensing opticians held about 68,000 jobs in 2000. Almost half worked for ophthalmologists or optometrists who sell glasses directly to patients. Many also work in retail optical stores that offer one-stop shopping. Customers may have their eyes examined, choose frames, and have glasses made on the spot. Some work in optical departments of drug and department stores.

### Training, Other Qualifications, and Advancement

Employers usually hire individuals with no background in opticianry or those who have worked as ophthalmic laboratory technicians and then provide the required training. (See the statement on ophthalmic laboratory technicians elsewhere in the *Handbook*.) Most dispensing opticians receive training on-the-job or through apprenticeships lasting 2 or more years. Some employers, however, seek people with postsecondary training in opticianry.

Knowledge of physics, basic anatomy, algebra, geometry, and mechanical drawing is particularly valuable because training usually includes instruction in optical mathematics, optical physics, and the use of precision measuring instruments and other machinery and tools. Dispensing opticians deal directly with the public, so they should be tactful, pleasant, and communicate well. Manual dexterity and the ability to do precision work are essential.

Large employers usually offer structured apprenticeship programs, and small employers provide more informal on-the-job training. In the 22 States that require dispensing opticians to be licensed, individuals without postsecondary training work from 2 to 4 years as apprentices. Apprenticeship or formal training is offered in most States as well.

Apprentices receive technical training and learn office management and sales. Under the supervision of an experienced optician, optometrist, or ophthalmologist, apprentices work directly with patients, fitting eyeglasses and contact lenses. In the 21 States requiring licensure, information about apprenticeships and licensing procedures is available from the State board of occupational licensing.

Formal opticianry training is offered in community colleges and a few colleges and universities. In 2000, the Commission on Opticianry Accreditation accredited 25 programs that awarded 2-year associate degrees in opticianry. There also are shorter programs of 1 year or less. Some States that offer a license to dispensing opticians allow graduates to take the licensure exam immediately upon graduation; others require a few months to a year of experience.

Dispensing opticians may apply to the American Board of Opticianry (ABO) and the National Contact Lens Examiners (NCLE) for certification of their skills. Certification must be renewed every 3 years through continuing education. Those licensed in States where licensing renewal requirements include continuing education credits may use proof of their renewed State license to meet the recertification requirements of the ABO. Likewise, the NCLE will accept proof of license renewal from any State that has contact lens requirements.

Many experienced dispensing opticians open their own optical stores. Others become managers of optical stores or sales representatives for wholesalers or manufacturers of eyeglasses or lenses.

### Job Outlook

Employment of dispensing opticians is expected to increase about as fast as the average for all occupations through 2010 as demand grows for corrective lenses. The number of middle-aged and elderly persons is projected to increase rapidly. Middle age is a time when many individuals use corrective lenses for the first time, and elderly persons generally require more vision care than others.

Fashion, too, influences demand. Frames come in a growing variety of styles and colors—encouraging people to buy more than one pair. Demand also is expected to grow in response to the availability of new technologies that improve the quality and look of corrective lenses, such as anti-reflective coatings and bifocal lenses without the line visible in old-style bifocals. Improvements in bifocal, extended wear, and disposable contact lenses also will spur demand.

The need to replace those who leave the occupation will result in additional job openings. Nevertheless, the total number of job openings will be relatively small because the occupation is small. This occupation is vulnerable to changes in the business cycle because eyewear purchases often can be deferred for a time. Employment of opticians can fall somewhat during economic downturns.

### Earnings

Median annual earnings of dispensing opticians were \$24,430 in 2000. The middle 50 percent earned between \$19,200 and \$31,770. The lowest 10 percent earned less than \$15,900, and the highest 10 percent earned more than \$39,660. Median annual earnings in the industries employing the largest numbers of dispensing opticians in 2000 were as follows:

Offices and clinics of medical doctors .....	\$28,220
Retail stores, not elsewhere classified .....	25,120
Offices of other health practitioners .....	22,670
Department stores .....	21,410

### Related Occupations

Other workers who deal with customers and perform delicate work include camera and photographic equipment repairers, dental laboratory technicians, jewelers and precious stone and metal workers, locksmiths and safe repairers, ophthalmic laboratory technicians, orthotists and prosthetists, and watch repairers.

### Sources of Additional Information

For general information about a career as a dispensing optician and about continuing education, as well as a list of State licensing boards for opticianry, contact:

- ▶ Opticians Association of America, 7023 Little River Turnpike, Suite 207, Annandale, VA 22003. Internet: <http://www.opticians.org>

For general information about a career as a dispensing optician and a list of accredited training programs, contact:

- ▶ Commission on Opticianry Accreditation, 7023 Little River Turnpike, Suite 207, Annandale, VA 22003. Internet: <http://www.coaccreditation.com>

For general information on opticianry and a list of home-study programs, seminars, and review materials, contact:

- ▶ National Academy of Opticianry, 8401 Corporate Dr., Suite 605, Landover, MD 20785. Internet: <http://www.nao.org>

To learn about voluntary certification for opticians who fit spectacles, as well as State licensing boards of opticianry, contact:

- ▶ American Board of Opticianry, 6506 Loisdale Rd., Suite 209, Springfield, VA 22150. Internet: <http://www.abo.org>

For information on voluntary certification for dispensing opticians who fit contact lenses, contact:

- ▶ National Contact Lens Examiners, 6506 Loisdale Rd., Suite 209, Springfield, VA 22150. Internet: <http://www.abo.org>