

## Education, Training, Library, and Museum Occupations

### Archivists, Curators, and Museum Technicians

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#### Significant Points

- Employment usually requires graduate education and related work experience.
- Keen competition is expected because qualified applicants outnumber the most desirable job openings.

#### Nature of the Work

Archivists, curators, and museum technicians search for, acquire, appraise, analyze, describe, arrange, catalogue, restore, preserve, exhibit, maintain, and store valuable items that can be used by researchers or for exhibitions, publications, broadcasting, and other educational programs. Depending on the occupation, these items include historical documents, audiovisual materials, institutional records, works of art, coins, stamps, minerals, clothing, maps, living and preserved plants and animals, buildings, computer records, or historic sites.

Archivists and curators plan and oversee the arrangement, cataloguing, and exhibition of collections and, along with technicians and conservators, maintain collections. Archivists and curators may coordinate educational and public outreach programs, such as tours, workshops, lectures, and classes, and may work with the boards of institutions to administer plans and policies. They also may research topics or items relevant to their collections. Although some duties of archivists and curators are similar, the types of items they deal with differ. Curators usually handle objects found in cultural, biological, or historical collections, such as sculptures, textiles, and paintings, while archivists mainly handle valuable records, documents, or objects that are retained because they originally accompanied and relate specifically to the document.

*Archivists* determine what portion of the vast amount of records maintained by various organizations, such as government agencies, corporations, or educational institutions, or by families and individuals, should be made part of permanent historical holdings, and which of these records should be put on exhibit. They maintain records in their original arrangement according to the creator's organizational scheme, and describe records to facilitate retrieval. Records may be saved on any medium, including paper, film, videotape, audiotape, electronic disk, or computer. They also may be copied onto some other format to protect the original, and to make them more accessible to researchers who use the records. As computers and various storage media evolve, archivists must keep abreast of technological advances in electronic information storage.

Archives may be part of a library, museum, or historical society, or may exist as a distinct unit within an organization or company. Archivists consider any medium containing recorded information as documents, including letters, books, and other paper documents, photographs, blueprints, audiovisual materials, and computer records. Any document that reflects organizational transactions, hierarchy, or procedures can be considered a record. Archivists often specialize in an area of history or technology so they can better determine what records in that area qualify for retention and should become part of the archives. Archivists also may work with

specialized forms of records, such as manuscripts, electronic records, photographs, cartographic records, motion pictures, and sound recordings.

Computers are increasingly used to generate and maintain archival records. Professional standards for use of computers in handling archival records are still evolving. However, computers are expected to transform many aspects of archival collections as computer capabilities, including multimedia and worldwide web use, expand and allow more records to be stored and exhibited electronically.

*Curators* oversee collections in museums, zoos, aquariums, botanical gardens, nature centers, and historic sites. They acquire items through purchases, gifts, field exploration, intermuseum exchanges, or, in the case of some plants and animals, reproduction. Curators also plan and prepare exhibits. In natural history museums, curators collect and observe specimens in their natural habitat. Their work involves describing and classifying species, while specially trained collection managers and technicians provide hands-on care of natural history collections. Most curators use computer databases to catalogue and organize their collections. Many also use the Internet to make information available to other curators and the



*Curators sometimes must sort through artwork to select items for exhibition.*

public. Increasingly, curators are expected to participate in grant-writing and fundraising to support their projects.

Most curators specialize in a field, such as botany, art, paleontology, or history. Those working in large institutions may be highly specialized. A large natural history museum, for example, would employ specialists in birds, fishes, insects, and mollusks. Some curators maintain the collection, others do research, and others perform administrative tasks. Registrars, for example, keep track of and move objects in the collection. In small institutions, with only one or a few curators, one curator may be responsible for multiple tasks, from maintaining collections to directing the affairs of museums.

*Conservators* manage, care for, preserve, treat, and document works of art, artifacts, and specimens. This may require substantial historical, scientific, and archaeological research. They use x rays, chemical testing, microscopes, special lights, and other laboratory equipment and techniques to examine objects and determine their condition, the need for treatment or restoration, and the appropriate method for preservation. They then document their findings and treat items to minimize deterioration or restore items to their original state. Conservators usually specialize in a particular material or group of objects, such as documents and books, paintings, decorative arts, textiles, metals, or architectural material.

*Museum technicians* assist curators by performing various preparatory and maintenance tasks on museum items. Some museum technicians also may assist curators with research. Archives technicians help archivists organize, maintain, and provide access to historical documentary materials.

*Museum directors* formulate policies, plan budgets, and raise funds for their museums. They coordinate activities of their staff to establish and maintain collections. As their role has evolved, museum directors increasingly need business backgrounds in addition to an understanding of the subject matter of their collections.

### Working Conditions

The working conditions of archivists and curators vary. Some spend most of their time working with the public, providing reference assistance and educational services. Others perform research or process records, which often means working alone or in offices with only a few people. Those who restore and install exhibits or work with bulky, heavy record containers may climb, stretch, or lift. Those in zoos, botanical gardens, and other outdoor museums or historic sites frequently walk great distances.

Curators who work in large institutions may travel extensively to evaluate potential additions to the collection, organize exhibitions, and conduct research in their area of expertise. However, travel is rare for curators employed in small institutions.

### Employment

Archivists, curators, and museum technicians held about 21,000 jobs in 2000. About 34 percent were employed in museums, botanical gardens, and zoos, and 18 percent worked in educational services, mainly in college and university libraries. Nearly one-third worked in Federal, State, and local government. Most Federal archivists work for the National Archives and Records Administration; others manage military archives in the U.S. Department of Defense. Most Federal Government curators work at the Smithsonian Institution, in the military museums of the Department of Defense, and in archaeological and other museums managed by the U.S. Department of Interior. All State governments have archival or historical records sections employing archivists. State and local governments have numerous historical museums, parks, libraries, and zoos employing curators.

Some large corporations have archives or records centers, employing archivists to manage the growing volume of records created or

maintained as required by law or necessary to the firms' operations. Religious and fraternal organizations, professional associations, conservation organizations, major private collectors, and research firms also employ archivists and curators.

Conservators may work under contract to treat particular items, rather than as regular employees of a museum or other institution. These conservators may work on their own as private contractors, or as an employee of a conservation laboratory or regional conservation center that contracts their services to museums.

### Training, Other Qualifications, and Advancement

Employment as an archivist, conservator, or curator usually requires graduate education and related work experience. Many archivists and curators work in archives or museums while completing their formal education, to gain the "hands-on" experience that many employers seek when hiring.

Employers usually look for archivists with undergraduate and graduate degrees in history or library science, with courses in archival science. Some positions may require knowledge of the discipline related to the collection, such as business or medicine. An increasing number of archivists have a double master's degree in history and library science. There are currently no programs offering bachelor's or master's degrees in archival science. However, approximately 65 colleges and universities offer courses or practical training in archival science as part of history, library science, or another discipline. The Academy of Certified Archivists offers voluntary certification for archivists. Certification requires the applicant to have experience in the field and to pass an examination offered by the Academy.

Archivists need research and analytical ability to understand the content of documents and the context in which they were created, and to decipher deteriorated or poor quality printed matter, handwritten manuscripts, or photographs and films. A background in preservation management is often required of archivists because they are responsible for taking proper care of their records. Archivists also must be able to organize large amounts of information and write clear instructions for its retrieval and use. In addition, computer skills and the ability to work with electronic records and databases are increasingly important.

Many archives are very small, including one-person shops, with limited promotion opportunities. Archivists typically advance by transferring to a larger unit with supervisory positions. A doctorate in history, library science, or a related field may be needed for some advanced positions, such as director of a State archive.

For employment as a curator, most museums require a master's degree in an appropriate discipline of the museum's specialty—art, history, or archaeology—or museum studies. Many employers prefer a doctoral degree, particularly for curators in natural history or science museums. Earning two graduate degrees—in museum studies (museology) and a specialized subject—gives a candidate a distinct advantage in this competitive job market. In small museums, curatorial positions may be available to individuals with a bachelor's degree. For some positions, an internship of full-time museum work supplemented by courses in museum practices is needed.

Curatorial positions often require knowledge in a number of fields. For historic and artistic conservation, courses in chemistry, physics, and art are desirable. Since curators—particularly those in small museums—may have administrative and managerial responsibilities, courses in business administration, public relations, marketing, and fundraising also are recommended. Similar to archivists, curators need computer skills and the ability to work with electronic databases. Curators also need to be familiar with digital imaging, scanning technology, and copyright infringement, since many are responsible for posting information on the Internet.

Curators must be flexible because of their wide variety of duties. They need to design and present exhibits and, in small museums, manual dexterity to build exhibits or restore objects. Leadership ability and business skills are important for museum directors, while marketing skills are valuable for increasing museum attendance and fundraising.

In large museums, curators may advance through several levels of responsibility, eventually to museum director. Curators in smaller museums often advance to larger ones. Individual research and publications are important for advancement in larger institutions.

When hiring conservators, employers look for a master's degree in conservation, or in a closely related field, and substantial experience. There are only a few graduate programs in museum conservation techniques in the United States. Competition for entry to these programs is keen; to qualify, a student must have a background in chemistry, archaeology or studio art, and art history, as well as work experience. For some programs, knowledge of a foreign language is also helpful. Conservation apprenticeships or internships as an undergraduate can also enhance one's admission prospects. Graduate programs last 2 to 4 years; the latter years include internship training. A few individuals enter conservation through apprenticeships with museums, nonprofit organizations, and conservators in private practice. Apprenticeships should be supplemented with courses in chemistry, studio art, and history. Apprenticeship training, although accepted, usually is a more difficult route into the conservation profession.

Museum technicians usually need a bachelor's degree in an appropriate discipline of the museum's specialty, museum studies training, or previous museum work experience, particularly in exhibit design. Similarly, archives technicians usually need a bachelor's degree in library science or history, or relevant work experience. Technician positions often serve as a stepping stone for individuals interested in archival and curatorial work. With the exception of small museums, a master's degree is needed for advancement.

Relatively few schools grant a bachelor's degree in museum studies. More common are undergraduate minors or tracks of study that are part of an undergraduate degree in a related field, such as art history, history, or archaeology. Students interested in further study may obtain a master's degree in museum studies. Colleges and universities throughout the country offer master's degrees in museum studies. However, many employers feel that, while museum studies are helpful, a thorough knowledge of the museum's specialty and museum work experience are more important.

Continuing education, which enables archivists, curators, and museum technicians to keep up with developments in the field, is available through meetings, conferences, and workshops sponsored by archival, historical, and museum associations. Some larger organizations, such as the National Archives, offer such training in-house.

### Job Outlook

Competition for jobs as archivists, curators, and museum technicians is expected to be keen as qualified applicants outnumber job openings. Graduates with highly specialized training, such as master's degrees in both library science and history, with a concentration in archives or records management, and extensive computer skills should have the best opportunities for jobs as archivists. A curator job is attractive to many people, and many applicants have the necessary training and subject knowledge; but there are only a few openings. Consequently, candidates may have to work part time, as an intern, or even as a volunteer assistant curator or research associate after completing their formal education. Substantial work experience in collection management, exhibit design, or restoration,

as well as database management skills, will be necessary for permanent status. Job opportunities for curators should be best in art and history museums, since these are the largest employers in the museum industry.

The job outlook for conservators may be more favorable, particularly for graduates of conservation programs. However, competition is stiff for the limited number of openings in these programs, and applicants need a technical background. Students who qualify and successfully complete the program, have knowledge of a foreign language, and are willing to relocate, will have an advantage over less qualified candidates.

Employment of archivists, curators, and museum technicians is expected to increase about as fast as the average for all occupations through 2010. Jobs are expected to grow as public and private organizations emphasize establishing archives and organizing records and information, and as public interest in science, art, history, and technology increases. Although overall museum attendance is increasing, public interest in smaller, specialized museums with unique collections is expected to increase faster. However, museums and other cultural institutions are often subject to funding cuts during recessions or periods of budget tightening, reducing demand for archivists and curators. Although the rate of turnover among archivists and curators is relatively low, the need to replace workers who leave the occupation or stop working will create some additional job openings.

### Earnings

Median annual earnings of archivists, curators, and museum technicians in 2000 were \$33,080. The middle 50 percent earned between \$24,740 and \$45,490. The lowest 10 percent earned less than \$19,200, and the highest 10 percent earned more than \$61,490.

Median annual earnings of archivists, curators, and museum technicians in 2000 were \$31,460 in museums and art galleries.

Earnings of archivists and curators vary considerably by type and size of employer, and often by specialty. Average salaries in the Federal Government, for example, are usually higher than those in religious organizations. Salaries of curators in large, well-funded museums can be several times higher than those in small ones.

The average annual salary for archivists in the Federal Government in nonsupervisory, supervisory, and managerial positions was \$63,299 in 2001; museum curators, \$64,616; museum specialists and technicians, \$44,711; and archives technicians, \$33,934.

### Related Occupations

The skills that archivists, curators, and museum technicians use in preserving, organizing, and displaying objects or information of historical interest are shared by artists and related workers; librarians; and anthropologists and archeologists, historians, and other social scientists.

### Sources of Additional Information

For information on archivists and on schools offering courses in archival studies, contact:

- ▶ Society of American Archivists, 527 South Wells St., 5th floor, Chicago, IL 60607-3922. Internet: <http://www.archivists.org>

For general information about careers as a curator and schools offering courses in museum studies, contact:

- ▶ American Association of Museums, 1575 I St. NW., Suite 400, Washington, DC 20005. Internet: <http://www.aam-us.org>

For information about conservation and preservation careers and education programs, contact:

- ▶ American Institute for Conservation of Historic and Artistic Works, 1717 K St. NW., Suite 301, Washington, DC 20006. Internet: <http://palimpsest.stanford.edu/aic>