

---

# Environmental Engineers

---

(0\*NET 17-2081.00)

---

## Nature of the Work

Using the principles of biology and chemistry, environmental engineers develop solutions to environmental problems. They are involved in water and air pollution control, recycling, waste disposal, and public health issues. Environmental engineers conduct hazardous-waste management studies in which they evaluate the significance of the hazard, offer analysis on treatment and containment, and develop regulations to prevent mishaps. They design municipal water supply and industrial wastewater treatment systems. They conduct research on proposed environmental projects, analyze scientific data, and perform quality control checks.

Environmental engineers are concerned with local and worldwide environmental issues. They study and attempt to minimize the effects of acid rain, global warming, automobile emissions, and ozone depletion. They also are involved in the protection of wildlife.

Many environmental engineers work as consultants, helping their clients to comply with regulations and to clean up hazardous sites.

## Employment

Environmental engineers held about 47,000 jobs in 2002. Almost half worked in professional, scientific, and technical services and about 15,000 were employed in Federal, State, and local government agencies. Most of the rest worked in various manufacturing industries.

## Job Outlook

Environmental engineering graduates should have favorable job opportunities. Employment of environmental engineers is expected to increase much faster than the average for all occupations through 2012. Much of the expected growth will be due to the emergence of this occupation as a widely recognized engineering specialty rather than as an area that other engineering specialties, such as civil engineers, specialize in. More environmental engineers will be needed to comply with environmental regulations and to develop methods of cleaning up existing hazards. A shift in emphasis toward preventing problems rather than controlling those that already exist, as well as increasing public health concerns, also will spur demand for environmental engineers. However, political factors determine the job outlook for environmental engineers more than that for other engineers. Looser environmental regulations would reduce job opportunities; stricter regulations would enhance opportunities.

Even though employment of environmental engineers should be less affected by economic conditions than that of most other types of engineers, a significant economic downturn could reduce the emphasis on environmental protection, reducing employment opportunities. Environmental engineers need to keep abreast of a range of environmental issues to ensure their steady employment because their area of focus may change frequently—for example, from hazardous waste cleanup to the prevention of water pollution.

## Earnings

Median annual earnings of environmental engineers were \$61,410 in 2002. The middle 50 percent earned between \$47,650 and \$77,360. The lowest 10 percent earned less than \$38,640, and the highest 10 percent earned more than \$91,510. Median annual earnings in the industries employing the largest numbers of environmental engineers in 2002 were:

Architectural, engineering, and related services .....	\$58,620
Management, scientific, and technical consulting services .....	57,800
State government .....	54,160

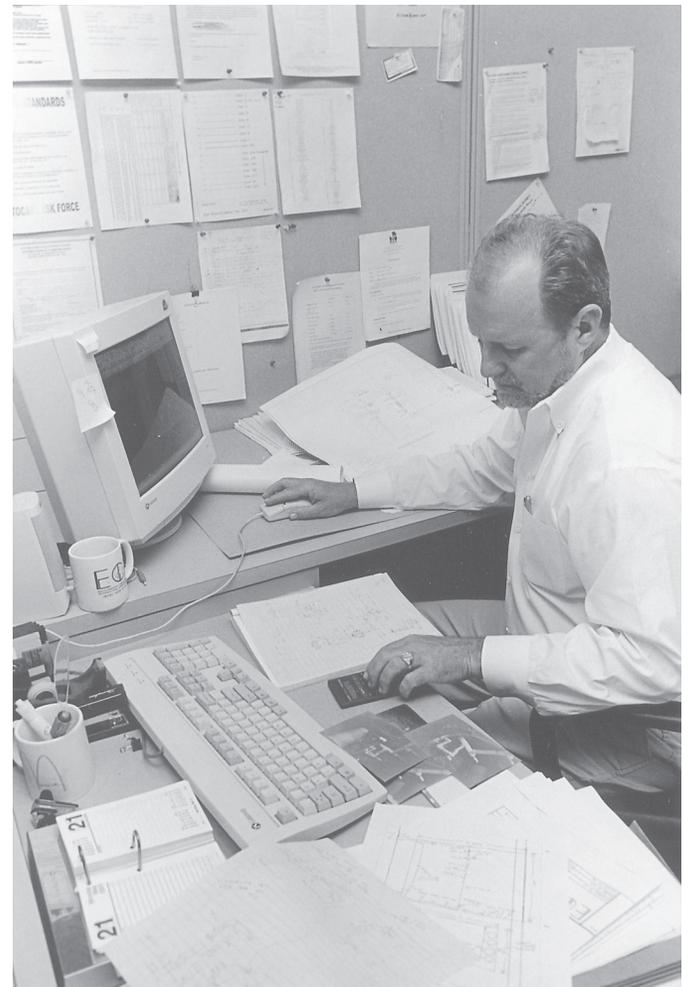
According to a 2003 salary survey by the National Association of Colleges and Employers, bachelor's degree candidates in environmental/environmental health engineering received starting offers averaging \$44,702 a year.

## Sources of Additional Information

Further information about environmental engineering careers, training, and certification can be obtained from:

► American Academy of Environmental Engineers, 130 Holiday Court, Suite 100, Annapolis, MD 21401. Internet: <http://www.aace.net>

See the introduction to the section on engineers for information on working conditions, training requirements, and other sources of additional information.



*Many environmental engineers work as consultants, helping their clients to comply with regulations and to clean up hazardous sites.*