

# Career Spotlight

## Cost Estimator

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*Cost estimators figure out how much a project or product will cost. This helps business owners and managers decide whether to build a structure or manufacture a product. If a business doesn't think it can make enough money, it will not proceed. Cost estimators also find out which jobs are making a profit. The exact method of figuring out the cost varies, depending on the industry in which you work. Cost estimators study information on all of the things that can change the cost of a project. This includes supplies, labor, location, and special equipment, like computer hardware and software.*



### EDUCATION

Employers prefer to hire individuals with a degree in mathematics, statistics, engineering, physical science, or operations research. They can also have a degree in accounting, finance, business, economics, or a related subject. Math and computer skills are very important. Strong communication and analytical skills are also important.

### WHEN MATH IS USED

Cost estimators compile and analyze data on all of the factors that can influence costs. The estimator's goal is to accurately estimate the costs associated with making products, constructing a building, etc. They are able to do this through asking for pricing information from outside vendors, mathematically determining the cost of each component, and preparing time-phase charts and learning curves. Using all of this information, the estimator then calculates the hours necessary to produce a specified number of units. These hours are then converted to dollar values. The estimator then compares the total cost of purchasing with the total cost of manufacturing to determine which is cheaper.

### POTENTIAL EMPLOYERS

About 62 percent of estimators are in the construction industry, and another 15 percent are employed in manufacturing. The remainder work in a wide range of other industries. Cost estimators work throughout the country, usually in or near major industrial, commercial, and government centers and in cities and suburban areas undergoing rapid change or development.

### FACTS

The United States' Central Intelligence Agency (CIA) employs cost estimators in order to perform a wide range of acquisition activities for large space system development and acquisition programs, design and execute analytic studies to offer insights into programs and activities, and estimate the full costs for selected new initiatives and expanded projects.

### CITATIONS

<http://www.bls.gov/k12/math05.htm>

<http://www.bls.gov/oco/ocos006.htm>

<http://www.bls.gov/oes/current/oes131051.htm>

<https://www.cia.gov/careers/opportunities/support-professional/nro-acquisiton-cost-estimator.html>

### MATH REQUIRED

- College Algebra
- Trigonometry
- Calculus I, II, III
- Ordinary Differential Equations
- Linear Algebra

Low-end Salary: \$34,100/yr

Median Salary: \$57,860/yr

High-end Salary: \$95,620/yr