Business and Financial Operations

Cost Estimators

Cost Estimators develop the cost information that business owners and managers need to make a bid for a contract or to decide on the profitability of a proposed new project or product. They determine which endeavors are making a profit. Estimators collect and analyze data on all of the factors that can affect costs, such as materials, labor, location, duration of the project, and special machinery requirements, including computer hardware and software.

The methods for estimating costs can differ greatly by industry. A construction cost estimator prepares a cost summary for the entire project, which includes the costs of labor, equipment, materials, subcontractors, overhead, taxes, insurance, markup, and any additional costs that may affect the project. The chief estimator then prepares the bid proposal for submission to the owner. In the manufacturing industry, cost estimators must accurately estimate the costs associated with developing and producing products.

Computers play a vital role in cost estimation because the process often involves complex mathematical calculations and requires advanced mathematical techniques. New and improved cost estimating software has lead to more efficient computations, leaving estimators more time to visit and analyze projects.

Estimators spend most of their time in offices, but visits to construction worksites and factory floors are often needed for their work. In some industries, there may be frequent travel between a firm's headquarters, its subsidiaries, and subcontractors. They usually work a 40-hour week, but overtime is common. Cost estimators often work under pressure and stress, especially when facing bid deadlines. Inaccurate estimating can cause a firm to lose a bid or to lose money on a job that was not accurately estimated.

Education/Training

How to Obtain:

Construction and manufacturing industry employers prefer to hire cost estimators with a bachelor’s or master’s degree in a related field, although it is possible for someone with years of experience (especially in the construction industry) to become a cost estimator. Hiring requirements vary by company with some accepting workers with experience comparable to that of a degree holder.

In the construction industry most employers prefer to hire cost estimators with a bachelor’s or master’s degree in construction management, building science, construction science, or in a related field and considerable construction experience gained through work in the industry of education programs. Knowledge in construction materials, costs, and procedures is an advantage for candidates seeking employment is a cost estimator in the construction industry.

In the manufacturing industry employers prefer candidates with a bachelor's degree in engineering, physical science, operations research, mathematics, statistics, accounting, finance, business, or economics, and with experience in quantitative techniques.

Certification as a cost estimator is voluntary but may be beneficial because it provides the candidate professional recognition of the estimator's competence and experience. Some employers may require this certification for employment. Certification can be obtained through the American Society of Professional Estimators (ASPE), the Association for the Advancement of Cost Engineering (AACE International), or the Society of Cost Estimating and Analysis (SCEA).

Requirements for certification as a cost estimator vary by organization but generally include:

- Having between 2 and 8 years of experience as a cost estimator
- Having passing scores on a written examination
- Publication or writing a paper or an article in the field.

More Information on Certification:

- American Society of Professional Estimators (ASPE): http://www.aspenational.org/Default.aspx
- Association for the Advancement of Cost Engineering (AACE International): http://www.aacei.org/
- Society of Cost Estimating and Analysis (SCEA): http://www.sceaonline.org/

Average Costs:

Tuition and fees for a master's degree earned at an accredited public university in an area such as engineering/mathematics, including construction science or construction management costs an average of $12,800* per year. Completion time is generally 2 years.

* Note: This figure does not include federal, state, or university financial aid resources such as grants, fellowships, scholarships or work study. It also does not include vocational rehabilitation or other state resources available specifically to people with disabilities. The out-of-pocket expense may be significantly less.