

CAREER FACT SHEET

Civil Engineering Professionals

Snapshot

Civil Engineering Professionals design, plan, organise and oversee the construction of civil engineering projects such as dams, bridges, pipelines, gas and water supply schemes, sewerage systems, roads, airports and other structures; analyse the likely behaviour of soil and rock when placed under pressure by proposed structures and design structural foundations; analyse the statistical properties of all types of structures and test the behaviour and durability of materials used in their construction; plan and develop transportation systems; and estimate and monitor the construction costs of projects.

How many are employed in this occupation?	78,100
What are the average weekly earnings for full time workers?	\$2,211
How does unemployment compare with other occupations?	Above Average
What are the job prospects for this occupation?	Medium
What will be the likely future employment growth for the next five years?	Strong Growth

Main employing industries

Professional, Scientific and Technical Services; Construction; Public Administration and Safety; Electricity, Gas, Water and Waste Services

Tasks

This occupation may include associated occupations with varying tasks.

- determining construction methods, materials and quality standards, and drafting and interpreting specifications, drawings, plans, construction methods and procedures
- organising and directing site labour and the delivery of construction materials, plant and equipment, and establishing detailed programs for the coordination of site activities
- obtaining soil and rock samples at different depths across sites and testing samples to determine strength, compressibility and other factors that affect the behaviour of soil and rock when a structure is imposed and determining the safe loading for the s
- studying architectural and engineering drawings and specifications to estimate total costs, and preparing detailed cost plans and estimates as tools to assist in budgetary control
- monitoring changes to designs, assessing effects on cost, and measuring, valuing and negotiating variations to designs
- analysing structural systems for both static and dynamic loads
- designing structures to ensure they do not collapse, bend, twist or vibrate in undesirable ways
- assessing present and future travel flow patterns taking into account population increase and needs change
- designing the physical aspects of transportation systems such as highways, railroads, urban transit, air transportation, logistical supply systems and their terminals

INDUSTRY OVERVIEW

Professional, Scientific and Technical Services

If you aspire to hold a highly responsible, skilled, professional position then you should explore the possibilities to be found in the Professional, Scientific and Technical Services Industry. This diverse industry primarily supports other services by providing a range of specialist, formal skills. However, you don't need to jump right into becoming a fully certified Accountant or Solicitor straight away. Many successful employees in these occupations worked their way up to becoming fully qualified; combining work experience in support roles with on-the-job training to gain a thorough understanding and skills base for their chosen profession. Legal and Accounting Services as well as Computer System Design are some of the fields in this sector predicted to have strong job prospects.

Possible job pathways

- Barristers
- Architects and Landscape Architects
- Accounting Clerks
- Auditors and Company Secretaries
- Bookkeepers
- Economists
- Finance Managers
- Financial Investment Advisers and Managers
- Actuaries, Mathematicians and Statisticians
- Conveyancers and Legal Executives
- Court and Legal Clerks
- Human Resource Managers
- Office Managers
- Solicitors
- Cartographers and Surveyors
- Construction Managers
- Computer Network Professionals
- ICT Managers
- ICT Support Technicians
- Software and Applications Programmers
- Telecommunications Engineering Professionals
- Civil Engineering Draftspersons and Technicians
- Civil Engineering Professionals
- Electrical Engineers
- Engineering Managers
- Industrial, Mechanical and Production Engineers
- Mining Engineers
- Mechanical Engineering Draftspersons, Technicians
- Science Technicians
- Marine Transport Professionals
- Veterinarians
- Artistic Directors, Media Producers & Presenters
- Photographers
- Public Relations Professionals
- Environmental Scientists
- Life Scientists
- Interior Designers
- Multimedia Specialists and Web Developers



Professional, Scientific and Technical Services

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