Industry insight - Construction

In a nutshell

- Construction covers public and private housing, public buildings like hospitals and schools, commercial and industrial buildings, and infrastructure such as roads, bridges and power plants.
- The industry repairs, maintains and refurbishes existing buildings and installs services such as power and ventilation in new and existing buildings.
- An industry report in January 2011 said, ‘the sector is expected to contract by 1% during 2011. This could have a detrimental impact on an industry... already struggling to deal with the effects of a prolonged downturn.’ (Construction Skills Network Labour Market Intelligence Reports, January 2011).
- This report anticipates output growth between 2013 and 2015, reaching 6.2% above 2011 levels by 2015. The annual recruitment forecast for 2015 is around 43,000 workers at all levels.

What kind of work can I do?

The industry employs people with various skill levels, including operatives, skilled craftspeople, technicians and professionals such as civil engineers and surveyors. They are involved in all aspects of construction and can be divided into several main areas:

- **planning, design and architecture** - working on new or existing buildings, regeneration, renovation, conservation, and major redevelopment schemes;
- **civil and structural engineering** - covering coastal and marine work, environmental, geotechnical, structural, highways, bridges, rail, tunnelling, airports/ports, transport planning, power, water, public health, and risk management;
- **construction and building services** - including construction and project management, design and build, facilities management, repairs and maintenance, building services management and inspection;
- **engineering construction** - including air, power, water, oil, gas and nuclear facilities, chemical process plants and infrastructure;
- **surveying** - including building, structural, quantity, rural practice, land, and a variety of specialist surveying roles.

Graduates with non-technical degrees can work in areas such as HR, finance and contract law with construction companies.
What’s it like working in this industry?

The industry is fast moving. New methods, techniques and technology develop rapidly and legislation is always changing.

Construction is project based and good teamwork, forward planning and organisation skills are essential. Work involves collaboration with many specialists across the sector, with clients and the general public. Most construction workers enjoy the variety the sector offers, as well as being able to get out and about, and being able to see the finished product of their work.

Salaries vary widely across the sector depending on occupation within the sector, size of employer and regional variations. Average graduate starting salaries are around £24,500, with higher salaries offered by international companies and consultancies (The Graduate Market in 2011, High Fliers). Lower salaries are found in roles in regional and UK-wide contractors and local authorities.

Many people in the construction industry work a 37 hour week, but in certain markets there are opportunities for overtime. On major projects working hours are longer, including weekends. Working conditions vary from office based roles, to on site work, which can be outside in all weathers.

The industry aims for a more diverse workforce through a range of developments such as the creation of employer diversity policies. Organisations such as Construction Skills offer initiatives to increase the number of non-traditional entrants to the sector. Despite these measures, there has been only a marginal increase in the number of women and minority ethnic groups employed in construction compared with ten years ago. In 2009, women accounted for 14% of employees but only 2.4% of self-employed construction workers. Minority ethnic workers formed 4% of the workforce (Construction Statistics Annual 2010).

How big is this industry?

Despite the recession from 2008, construction is a huge sector, employing 2,128,000 people at the beginning of 2011 (Office for National Statistics, May 2011). Growth is anticipated from 2013, though the number of construction workers in 2015 is expected to be 3.7% lower than at its peak in 2007 (Construction Skills Network, 2011).

Where can I work?

Construction work occurs throughout the UK. Employment growth for 2011-15 is forecast at 7.8% for the UK, but with variations from 12.2% in South East England to 3.7% in North West England (Construction Skills Network, 2011). For Wales the estimate is just over 5%, while Scotland and Northern Ireland expect employment growth of 8.3% and
8.5% by 2015. Prospects in regions which rely more on public spending - particularly the devolved nations - may be affected by public sector cuts.

For information on working overseas, see Opportunities abroad.

---

**Entry and progression**

**How do I find a job?**

Jobs are advertised in local and national press, specialist construction publications, recruitment fairs and networking events. Websites of professional bodies, public sector organisations and construction firms are also an essential source of vacancies.

Larger graduate recruiters tend to use online applications, while smaller ones usually ask for a CV and covering letter. Speculative applications for lower level positions are common, although most senior or professional posts are advertised.

Graduate, apprentice and management training schemes remain common despite the uncertain economic climate. Intakes for graduate schemes are typically in the autumn and spring, although many national and international organisations recruit all year round.

Fixed term contracts, short term placements and temporary work through agencies are useful entry points, especially in a depressed economic market where employers are reluctant to recruit permanent staff.

Private sector new build was affected most by the recession, but with on-going public sector cuts the balance may shift as programmes for building new schools and social housing are postponed. Nevertheless, there are still opportunities in all areas of the industry, including repairs and maintenance, refurbishment and infrastructure projects such as Crossrail and the Forth replacement bridge. Repairs and refurbishment sound less glamorous than new build, but those services are twice as labour intensive as new construction projects (Construction Skills Network, 2011).

Find out more about [job application advice](#).

**What skills do I need?**

Employers expect sound technical knowledge in a relevant degree, typically with a minimum grade of 2:2. Some larger employers ask for a 2.1 minimum and some also request minimum A-level grades.
It is possible to enter the profession at any level and advance to senior positions after gaining experience and qualifications. Some craft or operational jobs may not require entry qualifications.

In addition to academic requirements, graduate recruiters in construction look for:

- planning, organisation and management skills
- communication and interpersonal skills
- analytical ability
- creative problem-solving
- up-to-date knowledge of relevant technology
- commercial awareness
- good IT skills
- ability to interpret maps, plans and graphs
- teamwork and leadership skills
- strong motivation to succeed when confronted with challenges
- technical skills

Many academic courses develop these attributes, but there are other ways to gain them. Work experience, especially that gained during an industry placement, involvement in student clubs/societies, student newspapers, events organisation or course and halls committees, may develop useful skills.

**Where can I find work experience?**

Employers value work experience across all levels and job roles. Many graduates gain experience through industrial placements or similar work experience with a construction employer. Successful placements may lead to a conditional job offer.

If your degree does not offer a sandwich year, it is even more important to apply for vacation work experience. This shows potential employers evidence of initiative, commitment and enthusiasm - attractive attributes for a construction recruiter.

Temporary and voluntary positions are useful, although these are rarely advertised and may require speculative letters, applications, and networking. Some construction companies advertise gap year opportunities on their websites. Specialist agencies such as the Year Out Group and Year in Industry have details of gap year organisations and companies. IAESTE UK, an international work experience scheme for student scientists, engineers and architects, offers challenging vacation placements overseas.

**Is postgraduate study useful?**

Whilst postgraduate study is not usually essential to enter most jobs in this sector, in a competitive jobs market it is certainly useful. The industry supports further study whilst
working and good employers provide opportunities to work towards professional status, awarded by an institution.

Acquiring professional status usually takes two years of working and studying, and requires verified achievement of specific competencies within the area of work. The process typically involves keeping a log of experiences and a final interview and/or presentation.

**How can my career develop?**

Gaining chartered membership of the appropriate institution and undertaking agreed levels of continuing professional development (CPD) is a key part of career development, enabling progression to more senior posts. Most employers fully support graduates during this process through mentoring, training courses and graduate networking events. Bigger companies usually offer tailored career pathways.

Promotion often depends on gaining professional qualifications and appropriate practical experience. This can also lead to opportunities to move to a larger organisation or to seek employment internationally.

Other career paths include university lecturing, research and development roles or consultancy, which can provide scope for development of personal interests. There are also many opportunities for employment overseas.

---

**Typical employers**

The UK construction sector consists of over 250,000 firms and is an extremely diverse industry, composed of contractors, consultants, building materials and product producers. It is dominated by small to medium sized enterprises (SMEs) with a relatively small number of large companies.

**Big players**

The top three companies in the UK construction industry in 2010 were:

**Balfour Beatty** - Areas of specialisation include: architectural technology, building management, building services, construction management, design and build, geotechnology engineering, project management, quantity surveying, and structural engineering.

**Carillion** - Recruits into building management, building surveying, civil engineering, construction management, geotechnology engineering, project management, quantity surveying, structural engineering, and surveying.
Laing O'Rourke - Offers a range of engineering, construction and specialist services with operations in eight core sectors: lifestyle; business; social infrastructure; transport; power; mining and natural resources; oil and gas and utilities and waste.

Other major employers with global businesses include:

Atkins - Recruits graduates into various areas including: architecture, building control, building surveying, civil engineering, commercial management, facilities management, planning, quantity surveying, and structural engineering.

Bechtel - Company portfolio includes energy, transportation, communications, mining, oil and gas, and government services.

Mott MacDonald - A management, engineering and development consultancy delivering solutions for public and private clients world-wide. Services include large infrastructure such as bridges, tunnels, highways and railways plus expertise in energy and environmental engineering and transport planning.

The industry is served by a number of professional bodies and institutions for various professions in the sector including the Royal Institute of British Architects (RIBA), the Institution of Civil Engineers (ICE) and the Royal Institution of Chartered Surveyors (RICS).

Small to medium-sized enterprises (SMEs)

SMEs are organisations with less than 250 employees and an annual turnover of up to 50 million Euros. Working for a smaller company can be rewarding because you are more likely to forge a path for yourself within the company, although opportunities to try other departments may be limited.

SMEs are unlikely to use the testing and assessment techniques of larger companies, or follow lengthy recruitment procedures. SMEs are more likely to advertise their vacancies through the local press, university careers service bulletins, local graduate vacancy listings, jobcentres, and word of mouth, rather than rely on their reputation and a presence at graduate recruitment fairs.

Your careers services should have listings of jobs with small firms. See also Department for Business, Innovation and Skills (BIS) For Scotland see Talent Scotland. For Wales look at GO Wales Jobs. For Northern Ireland and Eire see gradireland.

The variety and scope of work might be narrower and opportunities for overseas working fewer with SMEs. Try to look past the salary package and consider the organisation as a whole and what opportunities it offers.
Self-employment

38% of construction workers were self-employed in 2009 and that trend may have increased during the recession due to redundancies (Office for National Statistics, 2010). Self-employment is not usually possible in this sector until graduates have several years’ experience and are professionally qualified.

Find out more about self-employment

Opportunities abroad

If you want to work overseas, this is definitely an industry to consider. There is always construction going on in virtually every part of the world. While some countries have been affected by the economic climate, many still have an active construction market.

The World Construction Network website and e-bulletin give news of projects worldwide.

Will my qualifications be recognised?

For skilled, technical or managerial positions, potential employers will consider your educational background. A degree in a construction related subject improves your chances of landing a higher paid job abroad.

While there are no European-wide construction qualifications, UK qualifications and institutional membership or chartered status are widely accepted and respected by construction organisations throughout the world. While overseas companies tend to favour experienced graduates, many multinational and voluntary organisations take on more recently qualified graduates.

Future trends

The future skills needed for the industry have been spelled out by the Construction Skills Network, bearing in mind the following developments (Construction Skills Network, 2011).

Carbon reduction targets

The UK Government's Carbon Reduction Commitment has set a legally binding emission reduction target of 34% for 2020, which may force changes in construction. An even higher target of 42% in the reduction of carbon emissions by 2020 has been set by the Scottish Government.

Sustainability
Sustainability is an important business issue for construction companies. The Construction Industry Council recognises that 'protection of the environment and the pursuit of sustainable development are amongst the greatest challenges facing humanity. CIC and its members have an individual and collective responsibility to advise clients on strategies that are consistent with their immediate needs, and with the longer term benefits of a sustainable approach.' (Construction Industry Council, 2011). Compliance with regulations and efficiency savings through better waste management will progress the aim of sustainable construction.

**Impact of technology**

Technological improvements to building services and construction are continuously sought. This may include breaking new ground or researching the best way to apply new technologies, techniques and processes.

Examples include renewable energy generation by ever more efficient wind turbines on land and in the sea and solar energy installations, while air and ground sourced heat pumps replace traditional boiler installations. There are also advances in new building materials, enabling buildings to be constructed more efficiently or economically.

**Growth and reduction**

Despite public spending cuts, there will be some high profile infrastructure projects in the UK over the next four years. These include the Thameslink expansion, Crossrail and Underground developments in South-East England, the new Forth Road crossing in Scotland and the Titanic Quarter in Belfast.

Money for public housing for 2011-15 will be reduced by 50% compared with 2008-11, but expenditure on private housing is expected to grow during 2013-15. There will also be a significant reduction in the funds available for public non-housing construction, such as schools and hospitals. Unless there is a double-dip recession, modest growth in commercial and industrial building is expected by 2013-15 (Construction Skills Network, 2011).

**Demographic changes**

The population in the UK is ageing, with there being more people of pensionable age than children under 16. The ageing population not only affects building design and structure; it also has a serious impact on the construction workforce. The construction industry must take account of the changing needs of the population, as the age distribution in the industry means that a great deal of knowledge and skills will be lost in the next decade, with fewer professionals lined up as replacements. For those who remain, Government plans to increase the retirement age have a big impact on an industry in which many occupations require significant physical effort, often in remote locations.
Jargon buster

- **APC** - Assessment of Professional Competence. A period of structured, practical training, ending with a final assessment to assess a chartered surveyor’s competence to practise.
- **Building process** - a term used to express every step of a construction project from its conception to final acceptance and occupancy.
- **Consultant** - those who plan, design, and supervise projects on behalf of a client.
- **Construction documents** - a term used to represent all drawings, specifications, and other pertinent construction information associated with the construction of a specific project.
- **Contract administration** - the contractual duties and responsibilities of the architect and engineer during the construction phase of a specific project.
- **Contractor** - those who undertake the construction process and complete the project.
- **Design and Build (D&B)** - a process in which a single contractor is responsible for both the design and construction of a building project.
- **Infrastructure** - a term usually associated with contracts relating to transport, power and utilities projects.
- **PFI/PPP** (Public Finance Initiatives/Public Private Partnerships) - the trend towards major projects that are part-funded by public and private investors.
- **Procurement** - the whole process of acquiring goods, works, and services from third party providers at the right price.
- **R & M** - repair and maintenance of properties and infrastructure.
- **Specifications or Specs** - written to supplement working drawings; a narrative list of materials, methods, model numbers, colours, allowances, and other details.
- **Subcontract** - a written form of agreement between the prime or main contractor and another contractor or supplier.
- **Subcontractor** - a general or speciality contractor who works for another general contractor.
- **Sustainability** - taking steps towards minimising the negative impact of projects on the environment, e.g. through the use of renewable materials and energies.