

## Operational Researcher

Operational researchers use mathematics, statistics and scientific methods to help develop better systems and procedures in industry, commerce and public services. They try to give managers a scientific basis on which to make their decisions. They are sometimes called management scientists.

### The Work

You could be:

- looking at existing company methods and systems
- interviewing staff and managers, and observing staff at work
- collecting data for analysis
- working with managers to identify problems, to find out where they think improvements are needed and to discuss possible changes
- using programming techniques and analytical methods, such as scenario and decision analysis
- using statistical, mathematical and computer 'models' to analyse the data and problem scientifically, and to see where changes could be made
- presenting solutions and writing reports with recommendations
- designing and testing new systems.

### Pay

The figures below are only a guide. Actual pay rates may vary, depending on:

- where you work
- the size of company or organisation you work for
- the demand for the job.

Starting salaries for qualified operational researchers in the UK tend to be in the range £25,000 to £29,000 a year. Starting salary can be higher if you hold a postgraduate degree. Experienced researchers can earn from £40,000 to £80,000 or more a year.

A government operational researcher on the Civil Service Fast Stream programme starts on £27,000 a year. This rises to between £45,000 and £55,000 a year with experience and promotion.

### Conditions

- You would be based in an office.
- You would have to travel to other sites and business premises.
- Your basic hours would be regular, 9.00am-5.00pm Monday to Friday.
- You may sometimes need to work late or take work home to meet deadlines.
- The work is demanding and might be stressful at times.

### Getting In

- This is a small profession and entry is competitive.
- You usually need a good Honours degree in a subject such as mathematics, statistics, economics, computer science or other science subject.
- Entry requirements for degree courses are usually 4-5 Highers including Maths, and National 5 English.
- Many entrants take a postgraduate degree before entering employment as a number of employers prefer this.
- You can take a range of postgraduate courses in Operational Research at the University of Edinburgh. For entry, you need a degree in a numerate subject such as maths, physics, computer science, economics, engineering or science.
- For the Civil Stream Fast Track programme in operational research, you need a 2:1 Honours degree in a highly numerate subject or a 2:2 Honours degree with relevant experience or a postgraduate qualification.
- The Fast Stream is open to British and Commonwealth citizens. Most posts are open to European Economic Area (EEA) nationals, certain non-EEA nationals and Swiss nationals. Some posts are reserved for British citizens, especially if dealing with security and intelligence.
- You need good IT skills.

You could work in almost any type of organisation: commercial and industrial firms, retail companies, health services, defence and telecommunications companies, electricity, gas and water companies, transport, local and central government and educational institutions.

## What Does It Take

You need to be able to:

- analyse and explain large amounts of complex data
- identifying patterns in data
- identify problems and work out solutions
- pay close attention to detail
- understand how businesses and organisations work
- put forward a strong argument and provide evidence to support it.

You must be:

- confident
- organised and logical in your approach
- a creative and flexible thinker
- adaptable
- highly numerate with a strong understanding of mathematical concepts
- an excellent communicator.

## Training

- You would train and gain experience on the job with an employer. Major employers will run a well structured graduate training programme.
- If you do not already have a postgraduate qualification, you would normally study part time for one while

working.

- In addition, you would attend a variety of short training courses relevant to the work you are doing.
- The Operational Research Society provides a wide variety of training courses, seminars and conferences. The OR Society also has an Accreditation Scheme with 4 different levels of membership: Candidate Associate (CandORS), Associate (AORS), Associate Fellow (AFORS) and Fellow (FORS).

## Getting On

- You may need to move to get experience in different types of business.
- You might become a senior operational research officer for a larger company or organisation.
- You may move into general management and later into senior management.
- You may move into self-employment, and set up your own business as a consultant.

## More Information

[The Government Operational Research Service \(GORS\)](#), part of the Civil Service employs around 500 specialists who work on a range of projects across over 25 Government Departments and agencies. If you have a first or upper second class Honours degree in a numerate degree or a lower second class degree plus a numerate postgraduate degree you can apply for the GORS Fast Stream.

## Contacts

### Civil Service Fast Stream

Website: [www.faststream.gov.uk](http://www.faststream.gov.uk)

Twitter: @faststreamuk

Facebook: [www.facebook.com/faststream](http://www.facebook.com/faststream)

### Operational Research Society

Tel: 0121 233 9300

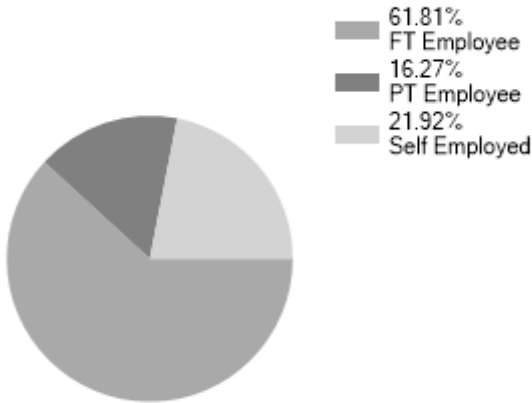
Website: [www.theorsociety.com](http://www.theorsociety.com)

Twitter: @TheORSociety

Facebook: [www.facebook.com/TheORSociety](http://www.facebook.com/TheORSociety)

Statistics

Employment Status UK %

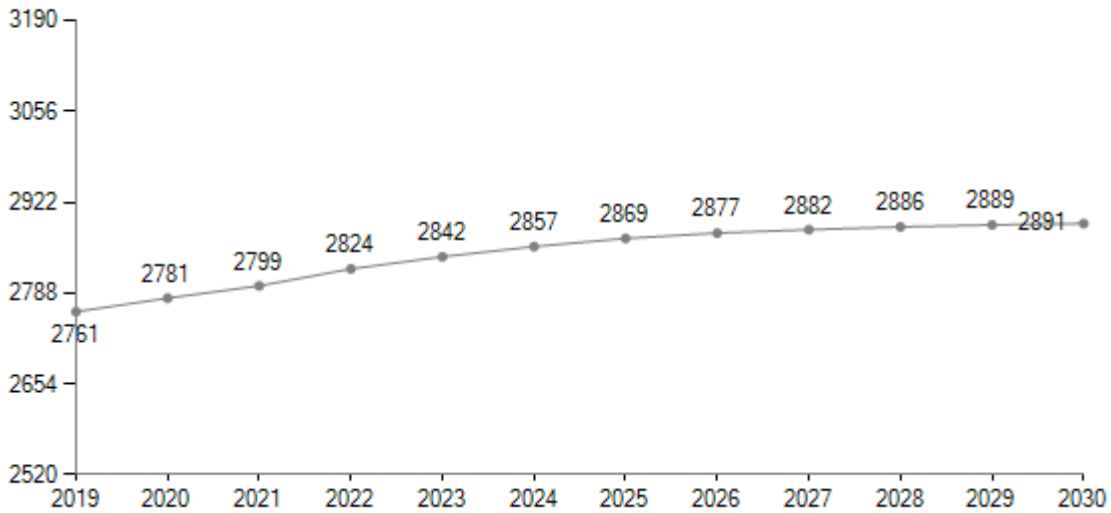


Past Unemployment - Scotland

No Claimant statistics available for Scotland.

LMI data powered by [LMI for All](#)

Predicted Employment in Scotland



LMI data powered by [EMSI UK](#)