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
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Facebook: www.facebook.com/faststream

Operational Research Society
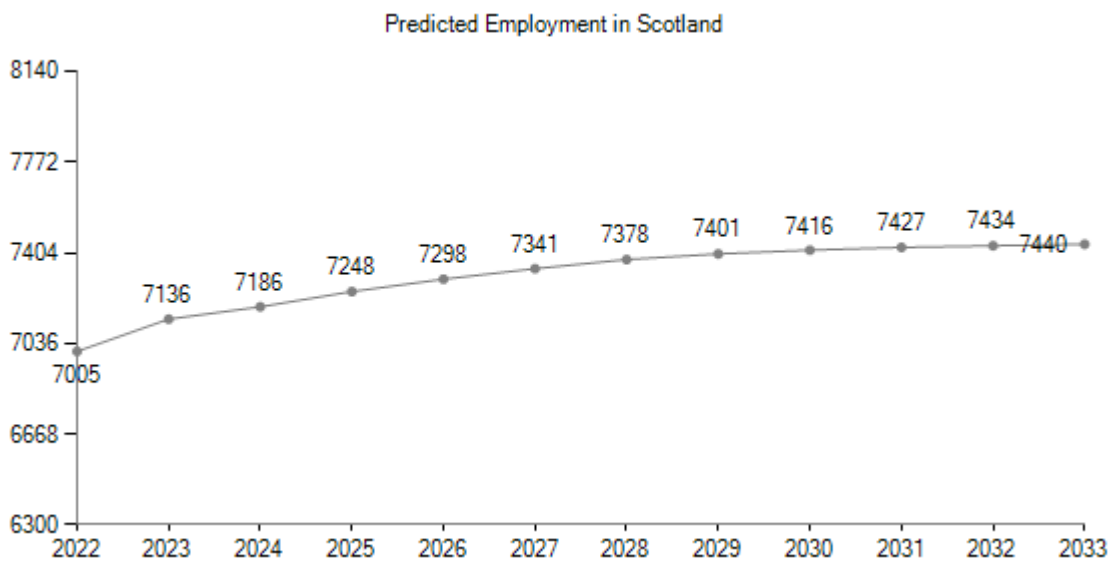Tel: 0121 233 9300
Website: www.theorsociety.com
X: @TheORSociety
Facebook: www.facebook.com/TheORSociety

Statistics

Employment Status : Not available this career.

Past Unemployment - Scotland

No Claimant statistics available for Scotland.

Predicted Employment in Scotland

LMI data powered by Lightcast