

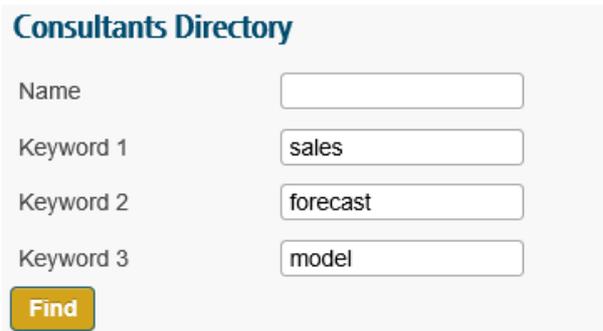
Royal Statistical Society Consultants' Directory Search Guidance

Thank you for using the Statistical Consultants Directory of the Royal Statistical Society. We want to ensure that you are able to find the right consultant for your organisation and this guidance will show you how you can do this.

How to Use Keyword Search

The search engine uses exact text matching to include consultants in its search results. So if you were to enter “sales forecast model”, any consultant that uses at least one of these words (with the exact same spelling) anywhere in their profile will be returned.

There are two ways of using the keyword search facility. The first is to separate each keyword as shown in the graphic here. This will return any consultant that uses at least one of these 3 words anywhere on their profile. Highest priority is given to consultants that use all 3 words, lowest to those who only use 1 word. If a consultant does not use any of these words, then their profile will not be returned.



Consultants Directory

Name

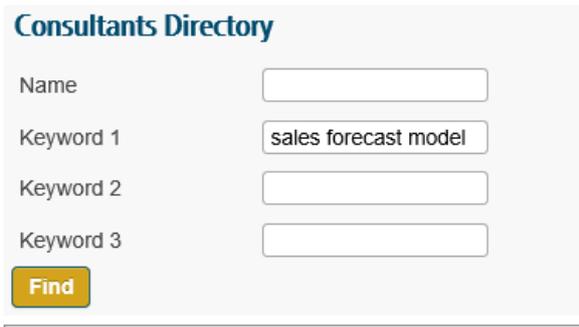
Keyword 1

Keyword 2

Keyword 3

Find

The second way is shown in the next graphic below. In this instance only consultants that use these 3 words in this exact consecutive order will be returned. This allows you to make a more precise search if you find that you are getting too many results.



Consultants Directory

Name

Keyword 1

Keyword 2

Keyword 3

Find

Since the search engine uses exact text matching, it is worth shortening some words to get more results. In the graphics shown here you will see that the word “model” has

been used instead of the words “models” and “modelling”.

Which Keywords Should You Use?

All consultants have been encouraged to use terminology that you would use as a client rather than terminology that a statistician would use in an academic paper.

This means that if you use and spell correctly words that are in common usage, you will be more likely to find the consultant you need.

So what words and phrases should you use? The most important fact to keep in mind is that statisticians solve data-related PROBLEMS. Therefore, your search terms should be related to the PROBLEM that you are trying to solve rather than the industry you work in. Whilst different industries may use different terminology, the statistical concepts being used are the same and the statistical issues will be the same. Indeed, an advantage of using a statistical consultant is that they can often introduce data-related ideas from one industry that are applicable to another industry.

We believe the most helpful way to classify problems is to use the RSS's strapline of "Data – Evidence – Decisions". Statisticians view this as a continuous spectrum whereby data is collected, it is then analysed, the analysis leads to conclusions and from the conclusions, decisions are made. A fuller description of the 3 words would be as follows:

- **DATA** – any problem that involves either; the collection of data via samples & surveys; the design of measurements & questionnaires; the cleaning, coding, checking & organisation of the collected data; summaries of the cleaned data in the form of charts & tables. If your problem involves a lot of questions that start with the words WHAT, WHEN or WHERE, then your problem is more likely to be a DATA problem since these questions often reflect a desire to measure the current state of affairs.
- **EVIDENCE** – any problem that involves the analysis of data with the aim of drawing conclusions in order to answer questions which often start with the words HOW, WHO or WHY. Such questions often reflect a desire to understand the causes of the current state of affairs and/or to seek evidence that the current state of affairs is due to certain effects which is why we describe these as EVIDENCE problems.
- **DECISIONS** – any problem that seeks to predict or plan for the future, find the optimal solution to an existing problem or to identify the criteria under which future decisions will be made. If your problem often requires answers to questions that uses the words "Should we..", "Which...", "Can we ...", "If ... then ... else ...", then your problem will be a DECISION problem.

There is rough correlation between the various methods that statisticians use and the type of problems they are trying to solve. The table below gives a list of commonly used terms that you could use in your searches.

DATA	EVIDENCE	DECISIONS
Sample size calculation	Survey analysis	Statistical Process Control
Sample design	Design of Experiments	Quality control
Survey design	Modelling	Forecasting
Questionnaire design	Study design	Risk analysis
Measurement system analysis	Trial design	Optimisation
Data management	Analytics	Acceptance sampling
Data coding	Simulation	search engine optimisation
Data quality	process improvement	strategic planning
Business intelligence	model building	bayesian analysis
Exploratory data analysis	market research	
Data summaries	customer segmentation	
Big data	epidemiology	
Open data	expert witness	
market intelligence	demographic analysis	
Classification models		

We have already stated that we think there is no need to specify the industry in your searches as most industries face similar problems. However, we appreciate that there is a difference say between forecasting future sales of a product and forecasting the weather and any consultant is likely to be stronger in one of these areas. Instead of using an industry, we would recommend that you think in terms of DEPARTMENTS that might exist within an organisation. So the two forecasting examples given could be distinguished in your searches by using “sales forecasting” and “weather forecasting”.

So to complete our guidance for your searches, we recommend that you combine words from the above DATA-EVIDENCE-DECISIONS table that describe your PROBLEM with words relating to a DEPARTMENT rather than an industry. The table below gives a few examples of departments but this is by no means an exhaustive list.

OPERATIONAL	SUPPORT	SPECIALIST
procurement	finance	weather
logistics	hr	fraud
sales	training	sensory
marketing	r&d	medical
manufacturing	pr	sport