

Getting started with Research Fortnight Benchmarking

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*Please also refer to the extensive FAQ and other resources online at
<http://www.ResearchResearch.com/Benchmarking>*

Contents

1. Navigation	2
2. Benchmarking	3
3. Tuning.....	6
4. Exporting & Charting data.....	9
5. Mainstream QR allocations: Actual & Modelled	11
6. Key.....	17

1. Navigation

Back with the breadcrumbs

There is no back button!

Use the breadcrumbs at the top of the screen to navigate up the hierarchy of screens.

Forward with the names

You can generally navigate forwards by clicking on the names of the items in the list. For example, when looking at a table of data for the Russell Group of universities, click on the name of the university to view a screen of data for that institution.

Split between Benchmarking and RAE 2008 screens

The application is split between two sets of screens

- Green Benchmarking screens drawing on the grants data provided by research councils and other funders
- Red RAE 2008 screens

Each set has its own home screen. You can switch between the two with the first button on each home screen.

Menu

The menu allows you to print screens and to navigate to the Tuning window.

2. Benchmarking

You can use Research Fortnight Benchmarking to flexibly compare the performance of individual organisations or groups of organisations. You can also compare individual organisations against groups of organisations. All the comparisons can be done across all the data in Research Fortnight Benchmarking, currently grants data and RAE data. You do this using Comparator Sets and Collections.

- A comparator set is a list of organisations, eg all the universities in the Russell Group or all the organisations in the London region.
- A collection is a list of comparator sets, eg all the regions in the UK.

A number of comparator sets and collections have been pre-defined for you, or you can create your own.

Canonical list of organisations

Research Fortnight Benchmarking contains a list of over 300 organisations, comprising all those that have received funding during the years covered.

Importantly, the list is updated as organisations merge or split. So, for example, all grants received by UMIST in the past are now listed under the University of Manchester. Also, we maintain a record of the various different components of organisations and the different names in use, so that funding recorded by the funder as going to "Bretton Hall" is listed under the University of Leeds, which has incorporated Bretton Hall. Such measures ensure that the figures in the application are genuinely comparable.

Basics of Comparator Sets and Collections

Viewing a Comparator Set

Go to Benchmarking > Comparator Sets

Select the kind of Comparator Set you are interested in from the drop down menu. (Comparator Sets you create are listed under the final User category).

Click on the Comparator Set to view it.

Viewing a Collection

Go to Benchmarking > Collections

Click on the Collection to view it.

Making a new Comparator Set afresh (point & click method)

Go to Benchmarking > Comparator Sets

Choose the My Comparator Sets tab

Click the New Comparator Set button

(Comparator Sets you create are saved in the User category)

Making a new Comparator Set afresh (query method)

Go to Benchmarking > Search Organisations

Using the search criteria, select the range of organisations you want

Use the Sort button to order them. For finer control within the sort options panel, select the option "Current table (Organisations)" and then select as follows:

- Order by cash awarded in most recent year, *alpha £ 1*
- Order by market share in most recent year, *alpha sh1*
- Order by RAE Weight, *Weight 2008*.

Click the Make Comparator Set button

(Comparator Sets you create are saved in the User category)

Making a new Comparator Set on the basis of an existing Comparator Set

Go to Benchmarking > Comparator Sets

Choose the My Comparator Sets tab

Click on the Comparator Set you are interested in

Select the Duplicate Comparator Set button

(Comparator Sets you create are saved in the User category)

Making a new Collection afresh

Go to Benchmarking > Collections

Choose the My Collections tab

Click the New Collection button

Give the Collection a name

Select the kind of Comparator Sets you are interested in from the drop down menu. (Comparator Sets you create are listed under the final User category).

Making a new Collection on the basis of an existing Collection

Go to Benchmarking > Collections

Choose the My Collections tab

Click on the Collection you are interested in

Select the Duplicate Collection button

Editing Comparator Sets and Collections

You can edit Comparator Sets or Collections that you create by going to the My Comparator Sets or My Collections tab, finding the one you are interested in and clicking through.

You cannot edit Comparator Sets or Collections that have been pre-defined.

Comparing your institution against comparators

Comparing against comparators one-by-one

View a Comparator Set containing your institution.

Comparing against a group of comparators

Note: There is a Blipcast that demonstrates on screen how this is done.

Go to Benchmarking > Collections

Choose the My Collections tab

Click the New Collection button

Give the Collection a name

From the drop down menu, select Hosts

Choose your institution

Add other Comparator Sets

3. Tuning

The Tuning selections you make will apply generally across all the screens in the application, including both Benchmarking and RAE screens.

Open the Tuning screen from the application Menu at the very top of your screen. It is often convenient to keep two windows open at the same time, one for Tuning and one to display data.

Always click the button to Apply your tuning settings.

Tuning settings persist until you change them, but are always restored to their default values when the application is closed and opened again.

You can restore the default settings at any time by clicking the Lift all Restrictions... button on the main Tuning screen.

RAE tuning

RAE tuning options only affect calculations based on data from the Research Assessment Exercise.

Changing profile weightings

The profile weightings determine how the 2008 RAE profiles are converted into the Research Fortnight Quality Index and hence rankings in dynamic Quality league tables. Along with the number of staff submitted, the Quality Index in turn determines Power and Market Share, and hence rankings in dynamic Power league tables.

For English universities, Market Share in turn determines the share of the available funding within a Unit of Assessment is divided between submissions.

So adjusting the Profile Weightings will affect both league tables and funding in England scenarios.

For example, to base Quality, Power and Funding calculation solely on results in the 4* category, enter the weightings [1 0 0 0 0].

Changing Cost Bands for Units of Assessment

The Cost Bands affect only how the Funding in England scenarios are calculated.

Along with the number of staff submitted in a UoA, the Cost Bands determine the share of Mainstream QR allocated to a UoA.

Given that the UoAs have changed since 2001, the default Cost Bands maintain as closely as possible the values given to the

different subjects in the current Mainstream QR allocations from HEFCE.

Restricting Units of Assessment

You can limit your analysis to individual UoAs or groups of UoAs.

For comparisons with 2001, you can check which 2001 UoAs are included by clicking on the View 2001 mapping tab.

Note: Restriction of UoAs does not affect Browse by Subject screens in the RAE screens.

Example: Comparing the Russell Group in Medicine

Go to Benchmarking > Comparator Sets

Choose University Groupings from the drop down menu

Select the Russell Group

Go to the RAE tab

Open the Tuning window

Click the Restrict Units of Assessment button

Select the by Super Panel tab

Select Medicine (the selected UoAs are then displayed in the Tuning window)

View the results in the main Grants window

All data, including submissions, FTE staff, quality and power ratings and comparisons with 2001 are now limited to only the medical UoAs.

Grants tuning

Restricting funders

You can adjust the funders included in the Grants totals.

Note: The default setting excludes the Department of Health's funding programme in England, to ensure comparability between all parts of the UK.

Adjusting the market

The can define the range of the market to be used in market share calculations. Typically, this can be used to exclude certain kinds of institutions from the calculations.

The case of the UKAEA explains why some users will want to do this. The UKAEA receives grants from the EPSRC. Each of these follows the conclusion of the previous one and covers a period of two years. Due to the timing of the EPSRC's allocation processes, there is an award for over £40m in the year 2006-7 (made at the start of the year) and another in 2007-8 (made at the end). But there is no comparable award in 2005-6 and there will be no comparable award in 2008-9. So restricting the market to HEIs stops these bumps in UKAEA funding disrupting consideration of trends in market share between universities.

Note: The default setting excludes all but HEIs from the market share calculations.

Speed issues

Changing tuning settings changes the calculations that generate the final numbers displayed on screen. These changes will be applied to your existing screen. So there may be a delay after you apply tuning while these calculations are done, though how long will depend on what data is currently being displayed.

Screens not affected by Tuning

Certain screens are composed of static data that is not affected by Tuning. These are the static league tables that show results in the official Research Fortnight rankings, both on screen and in PDF form.

In addition, throughout the application, the Mainstream QR allocation for 2008-9 for English universities is not affected by Tuning.

4. Exporting & Charting data

Exports

Some screens allow you to export the data you can see, so that you can work with it in Excel for example. Look for the Export button in the top right corner. To export your preferred data, navigate to the correct tab and then click the Export button.

You can choose from several different file formats. Generally, we have found that tab or csv formats import successfully into Excel.

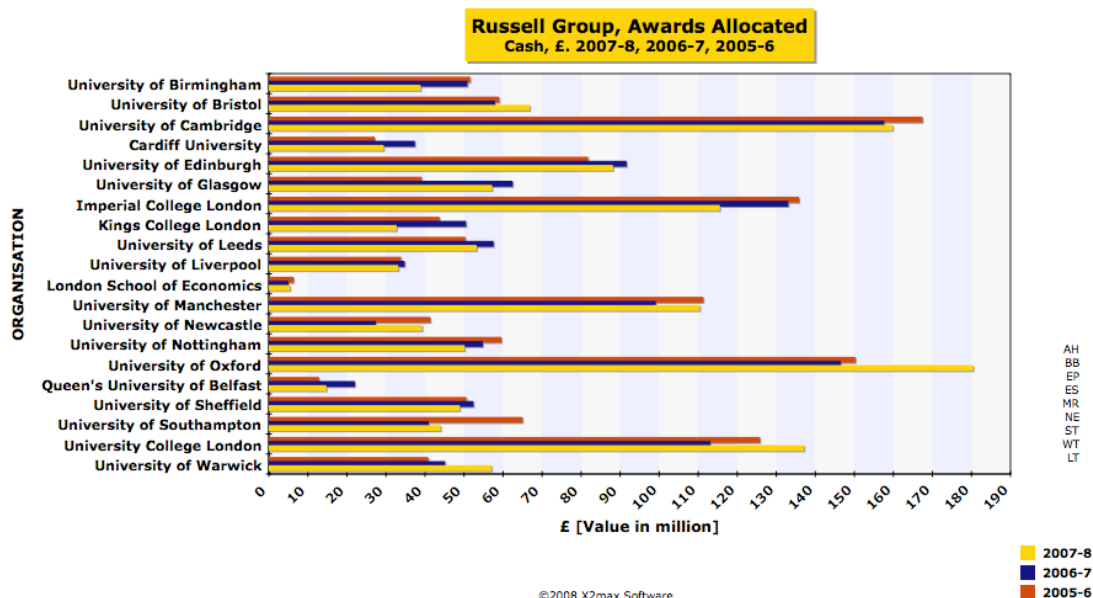
Charts

Within the red RAE screens, charts are generated inside the tabs on the main screen.

For the green Benchmarking screens, the charts are generated in a pop-up window using the buttons provided. Benchmarking charts can be exported as PDF files.

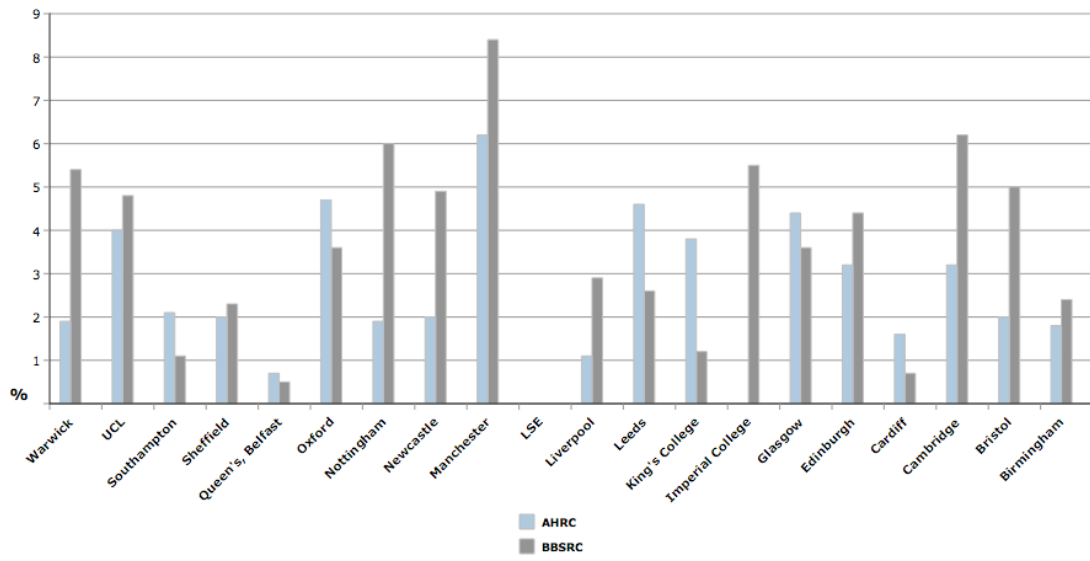
You can compare cash or market share for the members of either a comparator set or a collection in two ways:

- To compare cash or market share for all the selected funders **as a whole**, go to, eg, Comparator Sets > Grants > Cash



- To compare cash or market share for all the selected funders **with each funder shown separately**, go to, eg, Comparator Sets > Grants > Funder-by-Funder

Russell Group
Market Share in 07-08



5. Mainstream QR allocations: Modelled & Actual

Note: 10 March 2009 – Although HEFCE has announced allocations to institutions, it has not yet provided a submission-by-submission breakdown of QR funding. Also, we await funding decisions from the other parts of the UK. Incorporation of actual QR allocations is therefore waiting for the rest of this data to come through.

The remainder of this section deals with modelling issues.

The application models the future division of Mainstream QR in England using the same basic approach as HEFCE uses currently.

5.1 The previous HEFCE formula for Mainstream QR

Mainstream QR in 2008-9 amounts to £919,106,948. Of this, 94 per cent is allocated according to the results of the 2001 RAE, with the rest depending on other indicators such as postgraduate numbers updated each year. If the 2008 RAE persists in dominating allocations to the same extent for the coming five years, then approximately £5 billion will be allocated according to the mechanism decided on in the coming weeks by HEFCE and DIUS.

The extant formula divides the available funds in two steps: first, divide the total cake into a slice for each Unit of Assessment; second, divide each slice between the RAE submissions in that UoA.

We make the simplifying assumption in the model that all Mainstream QR is allocated according to RAE results, ignoring the factors that account for the remaining 6 per cent. We do not take account of the other data going into the Mainstream QR formula at all.

Dividing Mainstream QR between subjects

Two factors are taken account of: the number of staff submitted in the RAE and the Cost Band allocated to the subject (between 1.0 and 1.6). The size of the slice of cake given to each UoA is determined as follows:

$UoA\ Weight = (\text{Sum of the FTE in the UoA}) * (\text{Cost Band of the UoA})$

Then $UoA\ Share = UoA\ Weight / \text{Sum of all UoA Weights}$

Then $UoA\ Allocation = UoA\ Share * \text{Mainstream QR Total}$

Dividing subject slices between submissions

The division between submissions is a similar process. It also takes account of two factors, though in this case it is volume (FTE) combined with quality as measured by the RAE. But since the

method of assessing and reporting quality has changed, the details of the current methodology are not so relevant.

5.2 The Research Fortnight Benchmarking model

Research Fortnight Benchmarking allows us to model new funding formulae, albeit within a given framework. So Research Fortnight Benchmarking divides the allocation of Mainstream QR into the same two steps as at present: first divide into subject slices; then divide between submissions. It also does each of the two steps using the same basic methodology as at present.

Modelling the new division between subjects

The division between the subjects into *UoA Allocations* is calculated in the same way as at present, but using the FTE numbers from the 2008 exercise and Cost Bands set by the user.

In the FTE numbers, we include only staff in Categories 4*, 3* and 2*.

(Research Fortnight has set default Cost Bands for each UoA, based on a natural updating of those currently in place for the old schema of UoAs set in 2001 but still used today for funding allocations. These, for example, give a value of 1.6 to most of the medical UoAs.)

Modelling the division of subject slices between submissions

Two factors are taken account of: the number of staff submitted in the RAE and the Research Fortnight Quality Index of the submission. The size of the division given to each submission is determined as follows:

Submission Weight = FTE * Quality Index

Then *Submission Share* = Submission Weight / Sum of all Submission Weights

Then *Submission Allocation* = Submission Share * UoA Allocation

Aggregating the modelling into institutional results

Then *Institution Allocation* = Sum of all Allocations for Submissions made by the institution.

The Institution Allocation is the figure shown in the screenshots in this document. It can be summed again to provide a figure for a group of institutions.

5.3 The new HEFCE formula for Mainstream QR – recent guidance

The guidance by HEFCE and David Eastwood on the new formula can be summarised as follows:

- * Basic two-step approach retained
- * Existing Cost Bands retained, but...
- * ... STEM subjects to be “ring fenced”
- * Only staff in Categories 4*, 3* or 2* to be counted in dividing the whole pot between UoAs
- * No other components to be used in the volume indicator
- * Weightings to be [7 3 1 0 0]
- * Mainstream QR for 2009-10 to be £1,106 million, including London weighting
- * £20m has been set aside to ameliorate the impact on institutions suffering a big fall in income

Dividing Mainstream QR between subjects

Step 1

Use the [7 3 1 0 0] weightings and the Research Fortnight default cost bands (which migrate the 2001 cost bands to the 2008 UoAs in a natural way) to give an initial division between the UoAs.

Step 2

To take account of HEFCE’s decision to ring fence funding for STEM subjects, we then look at the share of the total pot at the Main Panel level. There are other ways of doing this, but we believe the Main Panel approach most effectively combines the need to achieve a real impact while avoiding perverse results.

Of the STEM main panels A-G, only panels D (Life Sciences), E (Physical Sciences) and G (Engineering) show a loss of share. However, panels C (Allied to Medicine) and F (Maths, Stats & Computing) are only marginally up. And when the ring fenced funds are deducted, they then also fall into loss, and hence also need to be ring fenced.

We then divide the total pot into six subpots:

1 – Panel D – £94,565,279

- 2 – Panel E – £101,214,751
- 3 – Panel G – £118,693,319
- 4 – Panel C – £48,596,502
- 5 – Panel F – £ 78,781,694
- 6 – The remaining panels – £477,255,403

Between the UoAs in each subpot, the subpot is divided according to the combination of Cost Band and FTE described above.

One uncertainty in this exercise is over the level of funding that HEFCE determines has to be ring fenced for each main panel. This in turn depends on which submissions from the 2001 exercise HEFCE chooses to map into the each of the 2008 UoAs involved. This is especially unclear in medicine, and hence for Panel C.

Step 3

Allocate the £20m smoothing fund as a safety net to eliminate losses in institutions that would otherwise suffer a fall in cash allocation in 2009-10.

Table of data

A table showing the results of these calculations step by step is available at RAE > League Tables > Dynamic > Funding. Go there and then click the button to View Table.

5.4 Following the calculations through on screen

The QR outcomes modelled are shown under the Funding tab on various screens. There are currently two distinct subtabs modelling the likely outturn in England.

Funding in England – Fixed

This takes account of the [7 3 1 0 0] weightings, ring fencing and other factors announced by HEFCE.

The results are not affected by Tuning.

The tables display quickly.

Funding in England – Tuned

This uses the weightings you set in Tuning for weightings and cost bands.

No ring fencing is applied.

The tables display slowly.

Note: The calculations get progressively slower as the amount of aggregation increases. So the overall league table and Comparator Sets or Collections with many members are the slowest.

To check the length of time such calculations will take to complete, first run the test on the league table screen.

Go to RAE > League Tables > Dynamic > Funding.

Viewing the results at different levels of aggregation

Viewing the split between UoAs

Go to RAE > Tables of Subjects > Funding

Viewing the split within a UoA

Go to RAE > Browse by Subject > [Select UoA] > Funding

Viewing the UoA-by-UoA components of an institution's allocation

Go to RAE > Browse by Institution > [Select Institution] > Funding

Viewing the allocations to all institutions (or a subject)

Go to RAE > League Tables > Dynamic > Funding in England

Comparing the allocations within a Comparator Set

Go to Benchmarking > Comparator Sets > [Select Comparator Set] > RAE > Funding

Comparing the allocations within a Collection

Go to Benchmarking > Collections > [Select Collection] > RAE > Funding

5.5 Checking your computer's performance

If you are concerned that your computer may be running the funding calculations too slowly, then please follow the following procedure.

Go to Tuning and Remove All Restrictions

Then go to RAE > League tables > Dynamic > Funding > Notes and limit the selection to England

Then run the time estimate. This will tell you what to expect if you click through to the Results tab.

Then click the Export direct from the Notes tab, ie do NOT click through to any other tab. Specify a file name and begin the export. You will now get a progress bar indicating how far through the process you are.

Following these steps will confirm that your computer is capable of running the Funding in England calculations, and give you a clear picture of how long the calculations will take.

6. Key

General

Column headings

Hover over column headings for tip text about the data shown in the column.

Blank entries

Values of "0" are not displayed in most tables and the cell in the table appears blank.

∂

The change in a measure.

%

The change, reported as a percentage.

Grants terms

Grants > Cash

Funding allocated to the organisation/comparator set by the funders in the relevant year

Grants > Market share

Percentage of the total allocated to the organisation/comparator set by the funders in the relevant year

∂

The change between the two most recent years

Combined terms

In the Comparator Set and Collections screens, on the Combined tab...

£ 3-year grants

Total of grants awarded over the three years

RAE Weight

Weight as defined above

Index

£ 3-year grants / RAE Weight

RAE terms

Quality

In 2008, the Research Fortnight Quality Index for the organisation/comparator set. For a definition of the Quality Index, go to RAE > Definitions

In 2001, Quality can be displayed in one of two ways. For individual submissions, it is displayed as originally reported, eg as "5*" or "3b". But for aggregated scores, a mark out of 7 is used where "5*" = 7, "5" = 6, "4" = 5, "3a" = 4, "3b" = 3, "2" = 2, "1" = 1.

FTE

Staff submitted

Weight

In 2008, the Quality Index * FTE

In 2001, the mark out of 7 * FTE

Market share

Weight of submission / Total of weights for all submissions

Percentage

Power

Weight / Largest weight within the UoA the submission with the largest weight always has a Power of 1

Note: Weight, market share and power are all different ways of looking at essentially the same thing.

Submissions

Number of submissions made

4* etc

Percentage of submission classified in the relevant category

Aggregation

The above values may be aggregated to institution level, or to a group of institutions. In such cases, a weighted average is produced for elements such as the Quality Index, where the scores in the component UoAs are weighted according to the number of staff in the UoA to produce the average score.

Data notes

Notes on the data provided by each funder are provided at Benchmarks > Funders > Data notes, and under each funder's individual record.