

UK government funding for mathematical sciences research

A briefing paper of the London Mathematical Society

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1 Introduction: the dual support system



EPSRC programmes. This information is not easy to find from EPSRC documentation, but a very useful source of EPSRC funding information is the website belonging to Prof. Bill Lionheart (University of Manchester)⁷, in particular the table of total value of EPSRC grants held by mathematical sciences departments⁸. This uses a Perl script to extract the information from the EPSRC website each month, and lists mathematical sciences departments alphabetically and also ranks them by total value of EPSRC grants currently held.

2.2 Other RCUK funding

As noted above, it is not easy to obtain overall funding information (or at least not of a type that is particularly meaningful) from any of the RCUK websites. Grant "spend" information is collected in the Research Assessment Exercise (RAE), and the most recent information available from the RAE 2008 website is for 2006-07. In this year the amount of RCUK grant spent by mathematical sciences (i.e. the sum of the figures for pure and applied mathematics and statistics and OR) from all institutions submitting in these areas is recorded as £28.3M, which is 68% of the total spend over all categories. Other significant categories of income are: UK-based charities (with grant spend of £2.4M, or 6% of the total), other UK government bodies (£2.5M, or 6%) and EU government bodies (

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A2 England (HEFCE): research funding methodology

The Higher Education Funding Council for England (HEFCE) refers to its funding as a "quality-related research" (QR) grant, where quality is as determined by the RAE. The main research

Distribution of mainstream QR between submissions

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A3 Scotland (SFC): research funding methodology

The Scottish research funding methodology changed substantially in 2009-10, and is now very di erent from the two-stage processs used in England. There is a change in nomenclature to reflect the change in methodology: research funding is now called the Research Excellence Grant (REG) instead of QR. In Scotland the main research grant (£203M out of a total of £208M in 2009-10) is distributed in proportion to Q(YC+X), where X is a weighted combination of "other activity indicators" (postdoctoral research associates, research students and grant income). The key di erence from England is that the size of the "discipline pot" in Scotland depends heavily on X. Grant-poor subjects like the mathematical sciences are thus penalised, and this resulted in a 22% cut in funding in Scottish mathematical sciences in 2009-10 compared to 2008-09 (despite a good RAE performance and a large increase in Y). The allocation process is described briefly below, and full details are given in the "Grant Letter: General Fund" documents for 2009-10 and 2010-11 available from www. sfc. ac. uk.

Definitions:

- Research cost weight (C). The three values of C used by SFC are 1.0, 1.2 and 1.6 (UoA 4 had an intermediate rating of 1.4 in 2009-10, which was increased to 1.6 in 2010-11). The three mathematical sciences UoAs (pure mathematics, applied mathematics and statistics & OR) all have C = 1 2 (and are thus rated as proportionally cheaper subjects in Scotland than in the rest of the UK).
- Quality rating (Q). For each UoA this is a weighted average of the RAE quality profile.
 The Scottish weightings (which were unchanged in 2010-11) are based on the cube of the RAE rating and are tabulated below.

Description 4*



A5 Northern Ireland (DEL): research funding methodology