

## **Submission from Royal Statistical Society to Review of the ESRC Doctoral Training Network, 2 April 2014**

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### **0. Background**

0.1. As a learned and professional society for whom research training in quantitative methods is crucial, the Royal Statistical Society (RSS) is glad to contribute to the review of the ESRC Doctoral Training network. The response below follows consultation with statisticians and quantitative social scientists, all RSS Fellows, who are involved in supervision and quantitative methods training at five Doctoral Training Centres (DTCs).

### **1. Strengths of the current DTC network model**

1.1. There was general enthusiasm for the network model:

1.1.1. The network model focuses resources in specific institutions, allowing for the targeting and specialisation of PhD training. For example, advanced quantitative methods (AQM) pathways enable institutions to provide training and development in key skills that was more difficult before.

1.1.2. Subject to academic criteria, the allocation of studentship quotas to DTCs allows strategic recruitment to further strengthen existing areas or build capacity in new areas. Examples include increased numbers of students using AQM, and the creation and expansion of quantitatively-focused MSc programmes.

1.1.3. For DTCs involving more than one HEI, the creation of DTCs has led to some collaboration between institutions with joint supervision and training events. There are also examples where Masters' modules have been shared, and students have access to specialist short courses at partner institutions.

1.2. The decision to award 10% of all studentships to those using AQM was universally welcomed, with the following benefits noted:

- The AQM steer strengthens the value of statistics as a discipline.
- There has been a large increase in studentships awarded to quantitative social research, with a fixed number of studentships guaranteed a year. This has enabled institutions to move towards building a critical mass of quantitative researchers.
- The ability to recruit non-UK students to AQM studentships has been important, given the well-known shortage of suitably qualified (and interested) undergraduates.
- The emphasis on methodological training has helped to improve internal support for staff involved in methods teaching and research.
- The AQM steer has helped to increase collaborations between statisticians and social scientists through joint supervision arrangements.



## **2. Weaknesses of the current DTC network model**

2.1. In general, in spite of some difficulties, no weaknesses were seen as so great as to indicate a move away from the DTC network model. It is important to build on the current model rather than to try something new.

2.2. Several areas for improvement of the network model were identified:

2.2.1. There is inadequate ESRC funding for DTCs, especially multi-HEI DTCs. This has led to increased burden on both administrative and academic staff, and has proved to be a major barrier to the effective running of the DTCs. With such limited support the benefits of the large-scale groups (common advertising, large pool of recruiting students etc.) are not fully realised.

2.2.2. The ESRC's steer towards collaborative multi-HEI DTCs creates more barriers. The rationale, it is presumed, is that resources can be pooled, but there can be tensions between HEIs within the same DTC that make it difficult to achieve the aims of streamlining administration and training. The logistical difficulties (i.e. students from one HEI travelling to another for advanced training) appear to have not been thought about or ignored. This is exacerbated by the lack of ESRC funding, e.g. no travel budget.

2.2.3. Guidance from the ESRC on how DTCs should allocate studentships is contradictory. For example, some DTCs have interpreted the ESRC's advice as forbidding quotas for departments within DTCs (despite the ESRC itself allocating to DTCs using a quota system). This leads to competition rather than co-operation between departments, or favours tactical and political behaviour by departments with shared aims, so contradicting the ESRC's stated aims of recruiting to academic standards. However, quotas within DTCs can yield the same benefits that are apparent for quota allocation to DTCs by the ESRC provided that consistent academic standards are maintained.

2.3. The following concerns relate specifically to social statistics and quantitative methods:

2.3.1. The eligibility criteria for AQM awards are unclear, which has led to differences in interpretation across disciplines and institutions. In particular the criterion that training should be "at a level over and above ... subject-specific methods requirements" suggests that students in social statistics who are developing as well as applying advanced methods are ineligible because their research is not at a level above that expected in statistics; others would argue that, by definition, a statistics student is using AQM. While efforts to increase the number of quantitative social scientists are welcomed, there is also an urgent need to increase the number of statisticians working in the social sciences (see also 3.6 below).

2.3.2. Devolving the award of AQM grants to DTCs may well have been preferable to the previous national competition system which was dogged by the need to define 'advanced' differently in different disciplines. However, based on the recent audit of AQM awards this year, it is not clear that DTCs are using their AQM awards well. The situation is not helped by the lack of clear eligibility criteria for AQM.

2.3.3. It is very difficult to recruit social statistics students, especially 1+3 students due to a lack of evidence of sufficiently strong quantitative skills in undergraduate degrees. Hopefully this will improve with the Q-Step initiative.

## **3. Key points to consider when developing and commissioning a new DTC network in relation to the disciplinary area that you represent.**

3.1. Better support frameworks to allow DTCs to provide the support required by academic staff should be developed.

- 3.2. There is a need for greater co-ordination of advanced training to avoid duplication of effort and to ensure that training needs are met.
  - 3.3. It should be ensured that there is an explicit link between the undergraduate developments in quantitative methods training through Q-Step centres and postgraduate training provided by DTCs. Some Q-Step centres will introduce Masters courses in quantitative methods which will increase the need for co-ordination in postgraduate QM training.
  - 3.4. It would be helpful to have some statement of a common minimum standard in quantitative methods training to be expected of any ESRC funded student, regardless of topic or discipline.
  - 3.5. The eligibility criteria for AQM awards should be tightened.
  - 3.6. Statistics, Methods and Computing should be identified as a priority area. While one approach would be to clarify AQM eligibility criteria to include social statistics, it would be preferable to have a separate quota for DTCs that can provide training in this area. Including statistics with AQM is likely to lead to competition for studentships with disciplines that do not have a strong quantitative tradition. The case for an additional stipend to encourage people into social statistics is certainly stronger than for economics, where there is little evidence of a shortfall in applications. It is important to train statisticians, not only quantitative social scientists. Methods that are now considered as standard were developed by statisticians, so it is vital to enhance investment in statistics as a discipline.
- 4. Current priorities in postgraduate training of the disciplinary area you cover**
- 4.1. BSc/MSc QM teaching on social science degrees continues to be weak. This should improve as Q-Step beds in, but it might be sensible to consider training in more fundamental quantitative skills (i.e. refresher courses in statistics and mathematics for social scientists of the type offered at the Essex Summer School).
  - 4.2. It must be recognised that AQM training designed for quantitative social scientists is not always sufficiently specialist for statisticians. For these students, it is important to consider types of training other than face-to-face courses (e.g. mentoring, self-study, visits to international experts)
  - 4.3. Priorities for social statistics should be set by NCRM, in consultation with academics in the area.
  - 4.4. The pool of UK and EU students from which we can recruit needs to be reinforced

*The RSS thanks the following Fellows for their advice on this response.*

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