

What is AQM? A guide

Introduction

Advanced Quantitative Methods AQM stipends are worth an additional £3000 per annum and are given to selected NWDTC students whose proposed research meets the AQM criteria. A minimum of 10 such stipends will be awarded each year. It should be stressed that the AQM studentships are not a separate quota of studentships, but a top up stipend.

This document is intended for use by applicants to NWDTC and their potential supervisors to guide them on whether their applications might be suitable for the AQM stipend. The document has been produced after several rounds of consultation with pathway leaders and other interested parties within NWDTC.

The result of that consultation is a set of criteria and entailments. The expectation is that an AQM student/proposal would meet all of the criteria and would fulfil both of the entailments.

1. Methodological contribution criterion

Will the proposed research produce a contribution to quantitative methodology i.e. does it go beyond simply applying standard quantitative methods to a particular substantive research problem? This is not to say that only methodological proposals will be considered but that at least part of contribution to knowledge that the proposed research would provide would be methodological. So, for example, the application of cutting edge statistical or mathematical analyses that examine sensitivity to assumptions about missing data, measurement error, etc. would be within the scope of this criterion as would a methodological analysis of the application of an advanced quantitative method to a particular data configuration or an applied piece of research with any of the above methodological contributions as a means to an end. When considering the relative merits of proposals (of equal quality) that meet these criteria, those that propose genuine methodological innovation would be favoured over those that simply apply advanced methods.

2. Supervisor Expertise criterion

At least one member of the proposed supervision team should have specialist expertise in advanced quantitative methods (defined by them meeting criteria 1 and 3 in their own research).

3. Publication criterion

Is the proposed research of type which could **in principle** be published in a journal which **specialises** in publishing articles using or researching advanced quantitative methods? Examples of such journals are:

- Journal of the Royal Statistical Society Series A B or C
- Journal of the American Statistical Association
- Annals of Statistics
- Survey Methodology
- Demography
- Journal of Econometrics

- Econometric Theory
- Journal of Applied Econometrics
- Econometrica
- Quantitative Econometrics
- Biometrika
- British Journal of Mathematical and Statistical Psychology
- International Journal of Geographical Information Science
- Geographical Analysis
- Journal of Regional Science
- Journal of Empirical Finance
- Journal of Financial Econometrics
- the Journal of Quantitative Criminology

Note that this list is not meant to be exhaustive but provides an indicative cross-disciplinary range.

Are the criteria relative or absolute?

One key question is whether the criteria should be applied in an absolute sense or relative to disciplinary norms. There are advantages and disadvantages to both approaches. A fully relative system would have a tendency to disincentivise applications to disciplines where advanced quantitative methods are central. On the other hand a fully absolute system may exclude some worthwhile applications in disciplines which are not normally quantitative. Both these extremes would subvert the strategic aims of the AQM scheme.

The approach we have adopted is to work with a set of absolute standards but then to allow some latitude for applications from non-quantitative disciplines. However, irrespective of disciplinary context, proposals that simply apply quantitative methods set out by ESRC as fundamental expectations of basic social science training will not, be regarded as AQM.

Does AQM mean high quality?

It would be surprising if a poor quality application was classified as AQM. However, the judgement of the quality of an application is largely independent of whether it meets the AQM criteria above.

Entailments of being an AQM student

1. AQM students will be required to submit an annual report form at the end of years 1 and 2 to the AQM sub-committee. The report will comprise three sections: research undertaken (and planned), training undertaken (and planned) and outputs (and planned). This sub-committee will review the annual report to confirm that the student/research still meets the criteria for AQM and will provide recommendations to the full DTC committee regarding continuation or not of the stipend.
2. AQM students are expected to be a member of the AQM student community. It is expected that this will minimally entail attendance at 3 one day workshops (one at each institution) per year and to make presentations at least 2 during the lifetime of their studentship.

How to apply for an AQM stipend

If you think your application is eligible for AQM simply check the AQM box on your DTC application form; the application will then be automatically considered by the AQM sub-committee.

The procedure for selection of AQM studentships

Prior to the meeting of the main DTC selection committee, the AQM sub-committee will meet. The sub-committee consists of 4-5 members of staff from across the DTC with expertise in advanced quantitative methods and experience as PhD supervisors. The committee will consider all applications for the AQM stipend and will (i) decide which applications are eligible for AQM and (ii) generate a provisional ranking of those which are eligible on the basis of their methodological strength. The provisional ranking will be advisory only and will be used by the main DTC selection committee to inform their overall decision making about the allocation of awards.