



Notes for guidance for applicants for Chartered Scientist (CSci) status

Chartered Statisticians are entitled, and are welcome, to apply for Chartered Scientist status (CSci). Throughout what follows, the title "Chartered Statistician" includes Members and Fellows of the former Institute of Statisticians (holders of MIS and FIS).

Full information about CSci is available on the Science Council website at <http://sciencecouncil.org/scientists-science-technicians/which-professional-award-is-right-for-me/csci/>. According to the Science Council "The Chartered Scientist qualification (CSci) reflects best practice in science and is set at a benchmark level throughout the science professions. With increasing focus on the interdisciplinarity of science it is vital for scientists to have professional recognition that is applicable across a range of scientific disciplines". The Royal Statistical Society concurs with this opinion and encourages Chartered Statisticians to consider applying for this wider attestation of their professionalism. Application is made through the Royal Statistical Society.

Chartered Statisticians possess both an academic qualification and appropriate professional training and experience that have been approved by the Society¹.

The Society recognises academic qualifications at both bachelor's level (typically BSc degrees) and master's level (typically MSc degrees, and for the present purpose also including integrated master's degrees of MMath type). Provided that the statistical content of such degree programmes meets the Society's criteria, and provided that at least Second Class Honours has been achieved in the case of bachelor's level qualifications, the academic requirements for award of Chartered Statistician status have been met². Some degree programmes are formally accredited by the Society; graduates from non-accredited programmes are also considered, on an individual basis. Award of CSci status requires **master's level equivalence**.

CSci application process for those who already hold CStat status

Applicants whose award of Chartered Statistician status was based on a recognised master's level qualification have, obviously, already achieved master's level and have nothing further to do in this regard. This may also apply in the case of applicants who were admitted as Chartered Statisticians on the basis of a bachelor's level award but who have subsequently achieved a master's level award (or, exceptionally, a doctorate) that the Society recognises as having substantial statistics content. Such applicants will need to satisfy the Society that their master's level award is indeed acceptable and are invited to seek individual advice from us (by e-mail to qualifications@rss.org.uk) before applying for Chartered Scientist status.

Applicants whose award of Chartered Statistician status was based on a bachelor's level qualification and who have not subsequently achieved an acceptable master's level award may demonstrate master's level equivalence by submitting a satisfactory additional paper of around 1000 words, as described in the section "Master's equivalence report" below.

Applicants for CSci will also be required to demonstrate their competence across 5 areas by completing a competence report giving examples from their working life within the last five years. [Guidance on what the assessors will be looking for under each competence](#) is provided but the examples are just indicative - there will be many other valid examples you can choose.

Please contact us at qualifications@rss.org.uk for individual advice on how to apply and for the appropriate application form.

¹ There are a few Chartered Statisticians who have been admitted to that status through what is now called Criterion 4, previously sometimes referred to as "the ten-year rule", by virtue of exceptional experience over a distinguished career, but possibly without an approved academic qualification. Such persons are entitled to apply for CSci status on the same basis.

² This may occasionally also apply for applicants whose main or only statistical qualification is a doctorate (PhD).

CSci application process for those applying for CStat and CSci simultaneously

The Society has a web based system for submitting CStat applications accessed via <http://www.rssprofmembership.org.uk>. The application process incorporates a separate competence report task for those wishing to apply for CSci in addition to CStat status. The Professional Affairs Committee will consider the CStat and CSci applications in parallel. Applicants who do not hold a masters level qualification in statistics are asked submit an additional paper of around 1000 words, as described in the section "Master's equivalence report" below.

The award of CSci status also requires applicants to demonstrate competence in their professional working life across five areas:

Application of knowledge and understanding
Personal responsibility
Interpersonal skills
Professionalism
Professional standards

[Guidance on what the assessors will be looking for under each competence](#) is provided but the examples are just indicative - there will be many other valid examples you can choose.

Here are some tips you should bear in mind when compiling your application:

When you are thinking about how to structure your answers, you will need to think of examples of your experiences in terms of what you did, how you went about it and why you did it.

You should think about using examples that are fairly recent i.e. from the last three years, although you can also draw on relevant experience from further back in your career.

You can use and refer to a particular example more than once, but do ensure you make it clear how and why it applies to a competence.

You can use examples from broad professional experiences, but you must be able to show how you have applied the skills developed in your job role.

We expect that in a typical application, 200-300 words will be sufficient for each competence.

Continuing professional development and annual revalidation of CSci

The initial award of CSci status requires evidence of continuing professional development (CPD) at an appropriate level, in the form of a signed attestation that this is being engaged in. The application form for CSci includes the statement "I affirm that, as a Chartered Statistician and Chartered Scientist, I engage in continuing professional development at the appropriate level in accordance with the Royal Statistical Society's CPD Policy", against which a signature is required.

The Science Council requires a formal system of annual revalidation of CSci status on the basis of compliance with the Society's continuing professional development (CPD) policy. For Chartered Statisticians who hold CSci status, undertaking the CSci revalidation process serves the revalidation needs of both CSci and CStat. Details of the approach to revalidation can be found at http://www.rss.org.uk/csci_revalidation

Some examples of one-year CPD profiles for statisticians at various stages of different careers are available for download from <http://www.rss.org.uk/cpdprofiles>.

As CSci is predicated on master's level equivalence, it is necessary that the CPD must be at (or above) master's level. The Society does not anticipate that this will present difficulties: professional statistical work is commonly such by its very nature³.

The remaining three pages of these Notes for Guidance cover the master's equivalence report. Please read these pages if you think they may apply to you.

³ Holders of CSci in the teaching profession, including university academics, may be concerned that the material they are teaching may be below master's level. The Society and the Science Council recognise that the skills in undertaking teaching are open to assessment as at master's level no matter what the level of the material.

Master's equivalence report

A report of this nature needs to be submitted **only** by those applicants for CSci whose award of Chartered Statistician status was (or will be) based on a recognised bachelor's level qualification and who have not subsequently achieved a master's level award as described above.

The report should be approximately 1000 words long. The maximum acceptable length is **2000 words**. Longer submissions **will not be considered** and will be returned to the applicant for editing. The word count includes any appendices.

Submission of extensive datasets or of extended mathematical arguments in support of a report is not expected to be needed. If necessary a report may contain references to a website where such datasets or mathematical arguments are to be found, but the report must be free-standing without following up such references.

On the other hand, it is recognised that some reports may by their nature be essentially mathematical in developing statistical theory. Such reports may be submitted. It is emphasised that the mathematics must be in support of statistics and not pursued for its own sake. There may also be reports in which it is natural for diagrams to be included. In either of these cases, a word count may be inappropriate and length should be determined instead in terms of numbers of pages at an equivalence of around 500 words per page. This applies also to the guidelines for sections of the report set out below. The maximum acceptable length in such cases is **five pages** (this is intended to allow an element of flexibility regarding diagrams in particular); longer submissions will not be considered. References to a website are permissible, but again the report must be free-standing without following up such references.

Notes for guidance for completing the report are given here. A Word document containing a template for completion by an applicant is available from the Society.

Applicants must attest that the report represents their own work. Collaborative work with others may also be the basis for the report, but applicants must clearly acknowledge the contributions of their colleagues and also clearly indicate what part of the work was their own. It is the applicants' own contributions to the work that will be assessed for master's equivalence.

Applicants are encouraged to use past reports written as part of their professional development if this is appropriate. It is not the Society's intention that applicants should need to rewrite suitable work that already exists. It may therefore be that there is no need to use the full template; a past piece of work could be submitted. As examples, this might be a paper in a peer-reviewed academic journal or an internal technical report. In such cases, the maximum acceptable length of 2000 words will not apply. A separate supplementary note to explain the applicant's exact involvement and role will almost certainly be needed. Such a supplementary note is unlikely to need to be more than about 200 words long, and the maximum acceptable length is 500 words. Submissions with longer supplementary notes **will not be considered** and will be returned to the applicant for editing.

A master's equivalence report needs to indicate clearly that the applicant has undertaken work at a technical statistical level similar to or exceeding that of an MSc dissertation. The following are suggested as examples of the sorts of projects that may be the basis of reports. This list is intended only to be indicative; it is not exhaustive, and there is no suggestion of an order of preference.

A piece of academic research, perhaps published in a peer-reviewed journal or as an internal technical report

A piece of consultancy work (provided confidentiality is not an issue)

Statistical aspects of the design and analysis of a scientific or engineering experiment

Statistical aspects of the design and use of a system for quality management in an industrial organisation

Statistical design of a clinical trial in new drug development

Statistical analysis of existing and new products in the finance sector

Design and analysis of a sample survey, perhaps in an official statistics context or in market research

Designing and implementing a statistical database and its associated reporting system

While in many cases a single project will be enough to demonstrate master's level equivalence, there are likely to be other cases where several statistical analyses taken together are sufficient even though no one of them would be likely to be on its own. Such cases might also include situations where an applicant has passed some courses that do not themselves constitute a master's degree but are, individually, at master's level. Master's equivalence reports may be framed in such a way as to cover such cases. The standard length guidelines, including the absolute maximum, will apply.

As a guideline, a report will often contain sections as follows. The Society appreciates that the nature of the work may mean that not all of these sections are appropriate and there may be other sections that should also be included. Guidelines for lengths of the sections are offered, but these should be read in the context of the guideline of around 1000 words (and the absolute maximum of 2000) for the report as a whole. The section guidelines should not be rigidly adhered to; some of the sections may well naturally be shorter.

1. Aims of the project

A description of what the project was intended to achieve. A guideline for length is around 200 words

2. Design and analysis of the investigation

A description of how the investigation (survey, experiment, etc) was set up and the statistical analysis that the applicant undertook. A guideline for length is around 500 words

3. Results

The results of the analysis should be discussed and interpreted in the context of the original aims. A review of the project and suggestions for future work or improvements may also be appropriate. A guideline for length is around 500 words

4. Professional development and evaluation

A description of how the applicant developed skills and knowledge, at least up to the equivalent of master's level, to meet the needs of the project. A self-evaluation of this professional development should be included. A guideline for length is around 400 words

The report will be assessed for master's equivalence by members of the Professional Affairs Committee, all of whom are Chartered Statisticians. The assessors will report to the Committee, which will make the final decision.

The assessment will be made against generally accepted master's-level descriptors that are in the public domain. Attention is drawn particularly to the following.

- (i) The framework for qualifications in the European Higher Education Area published by the Bologna Working Group on Qualifications Frameworks in 2005 in support of the Bologna Process, commonly referred to as the "Dublin Descriptors". The master's level is referred to as the "second cycle". See http://www.bologna-bergen2005.no/Docs/00-Main_doc/050218_QF_EHEA.pdf. The descriptor for this level is at pages 67 to 68. It is especially helpful in terms of professional awards by virtue of its explicit usage of the words "professional" and "research" as defined in footnotes.
- (ii) The [framework for higher education qualifications in England, Wales and Northern Ireland](#) (commonly referred to as the "FHEQ") published by the Quality Assurance Agency for Higher Education in August 2008. The master's level descriptor is at pages 20 to 23.
- (iii) The [Annex to the Quality Assurance Agency's benchmark statement](#) for bachelor's degrees in mathematics, statistics and operational research that extends this statement to cover master's level work in programmes of MMath type.

The assessment will be on the basis of the report as submitted. The Society will not accept or commission any further material while the assessment is in hand. The Society reserves the right to make enquiries as to authenticity. If a submission is unsuccessful, an applicant may make a new submission at any time, without prejudice.

The Society appreciates that some reports may contain work that is confidential or commercially sensitive, and assures all applicants that all reports will be treated in strict confidence. Reports will be retained by the Society as a matter of record, but will not be published or made public in any way. Applicants who remain concerned in respect of confidentiality should contact the Society for advice.