

**Session 16: Publishing on research methods  
in journals**

**Lessons from the Journal of the Royal  
Statistical Society**

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# **Journal of the Royal Statistical Society,**

Three Series cover the range of statistical areas and level of complexity

## **Series A: Statistics in Society ( 4 per year)**

A subject-matter-based journal with material that is of interest to both specialist and non-specialist readers

## **Series B : Statistical Methodology (5 per year)**

Publishes papers on detailed statistical methodology  
More theoretical than other two

## **Series C: Applied Statistics (5 per year)**

Novel applications of statistical techniques for both academic and non-academic workers.

Data sets and computer code associated with some of the papers published in the journal can be obtained from pages on the publisher's Web site.

Some history:

- Back to 19 Century
- Division evolved
- Merger of RSS and Institute of Statisticians
- Recent terms of reference only 4years old and under review

## Terms of reference mission and scope

Series A publishes papers that demonstrate how statistical thinking, design and analyses play a vital role in all walks of life and benefit society in general. There is no restriction on subject-matter—any interesting, topical and revelatory applications of statistics are welcome. For example, important applications of statistical methods in medicine, business and commerce, industry, economics and finance, education and teaching, physical and biomedical sciences, the environment, the law, government and politics, demography, psychology, sociology and sport all fall within the journal's remit. The journal is therefore aimed at a wide statistical audience and at professional statisticians in particular. Its emphasis is on well-written and clearly reasoned quantitative approaches to problems in the real world rather than the exposition of technical detail. Thus, although the methodological basis of papers must be sound, it need not be innovative. Of particular interest are papers on topical or contentious statistical issues, papers which give reviews or *exposés* of current statistical concerns and papers which demonstrate how appropriate statistical thinking has contributed to our understanding of important substantive questions. Historical, professional and biographical contributions are also welcome, as are discussions of methods of data collection and of ethical issues, provided that all such papers have substantial statistical relevance.

*Series C (Applied Statistics)* promotes papers that both are driven by real life problems and make a novel contribution to the subject, for instance by adapting or developing methodology, or by demonstrating the proper application of new or existing statistical methods to them. Applications should be central to papers, to motivate the work and to justify any methodological developments, and case-studies may therefore be particularly appropriate, including some contextual experimental details if relevant. Papers describing interdisciplinary work are especially welcome, as are those that give interesting novel applications of existing methodology or provide new insights into the practical application of techniques, and papers explaining innovative analysis of generic applied problems but not necessarily focused on a particular data set have also a place in Series C. Short communications may also be appropriate. Methodological papers that are not motivated by a genuine application are not acceptable; nor are papers that include only brief numerical illustrations or that mainly describe simulation studies of properties of statistical techniques. However, papers describing developments in statistical computing are encouraged, provided that they are driven by practical examples. Extended algebraic treatment should be avoided. Papers on design issues (e.g. in relation to experiments, surveys or observational studies) that arise from specific practical problems should feature an adequate description of a substantial application and a justification for any new theory, but they need not include the discussion or analysis of data.

## Mission and Scope of Series A Summary

Series A publishes papers that demonstrate how statistical thinking, design and analyses play a vital role in all walks of life and benefit society in general.

Wide range of subject matter and disciplines and aimed at a wide audience

Emphasis is on clearly written quantitative approaches to problems in the real world rather than the exposition of technical detail.

Papers should generally have a substantial statistical component, but innovative statistical methods are not essential.

Differences between Series A and Series C

## Editorial Panel

2 Joint Editors:

One mainly Social Sciences

One mainly Medical and Biosciences

21 Associate Editors

## Types of submission

- Regular papers (rarely with discussion)
- Read papers ( with discussion)
- Special issues often based on conferences or workshops ( with Guest Editor)
  - Panel data
  - Census issue
  - Missing data and attrition
  - Multilevel structure analysis
- Editorials
- Book reviews
- Correspondence

## Balance in most recent issues

Official statistics, public policy and public trust (the address of the President) (*D. T. Holt*)

A flexible marginal modelling strategy for non-monotone missing data (*I. Jansen and G. Molenberghs*)

Applying discrete choice models to predict Academy Award winners (*I. Pardoe and D. K. Simonton*)

A new approach to investigating spatial variations of disease (*L. Choo and S. G. Walker*)

Cumulative sum schemes for surgical performance monitoring (*T.-C. Chang*)

A response to M. Stone: 'How not to measure the efficiency of public services (and how one might)' (with reply by M. Stone) (*W. W. Cooper and S. C. Ray*)

Identification of *Salmonella* high risk pig-herds in Belgium by using semiparametric quantile regression (*K. Bollaerts, M. Aerts, S. Ribbens, Y. Van der Stede, I. Boone and K. Mintiens*)

Design priorities and disciplinary perspectives: the case of the US National Children's Study (*R. T. Michael and C. A. O'Muirheartaigh*)

Misunderstandings between experimentalists and observationalists about causal inference (*K. Imai, G. King and E. A. Stuart*)

Exit polling in a cold climate: the BBC--ITV experience in Britain in 2005 (with discussion) (*J. Curtice and D. Firth*)

Estimates of human immunodeficiency virus prevalence and proportion diagnosed based on Bayesian multiparameter synthesis of surveillance data (with discussion) (*A. Goubar, A. E. Ades, D. De Angelis, C. A. McGarrigle, C. H. Mercer, P. A. Tookey, K. Fenton and O. N. Gill*)

Design-based analysis of embedded experiments with applications in the Dutch Labour Force Survey (*J. A. van den Brake*)

Household debt and financial assets: evidence from Germany, Great Britain and the USA (*S. Brown and K. Taylor*)

Immigrant wage differentials, ethnicity and occupational segregation (*R. J. R. Elliott and J. K. Lindley*)

High wage workers and low wage firms: negative assortative matching or limited mobility bias (*M. J. Andrews, L. Gill, T. Schank and R. Upward*)

Exploration of associations between governance and economics and country level foot-and-mouth disease status by using Bayesian model averaging (*R. B. Garabed, W. O. Johnson, J. Gill, A. M. Perez and M. C. Thurmond*)

Good item or bad -- can latent class analysis tell?: the utility of latent class analysis for the evaluation of survey questions (*F. Kreuter, T. Yan and R. Tourangeau*)

Qualitative longitudinal analysis of symptoms in patients with primary and metastatic brain tumours (*F. Rijmen, E. H. Ip, S. Rapp and E. G. Shaw*)

Calculating compensation for loss of future earnings: estimating and using work life expectancy (with discussion) (*Z. Butt, S. Haberman, R. Verrall and V. Wass*)

Estimating the intensity of conflict in Iraq (*G. P. Nason and D. Bailey*)

Unemployed, uneducated and sick: the effects of socio-economic status on health duration in the European Union (*D. Cooper, W. D. McCausland and I. Theodossiou*)

Two sides to every story: measuring polarization and inequality in the distribution of work (*P. Gregg and J. Wadsworth*)

Conflicting evidence in a Bayesian synthesis of surveillance data to estimate human immunodeficiency virus prevalence (*A. M. Presanis, D. De Angelis, D. J. Spiegelhalter, S. Seaman, A. Goubar and A. E. Ades*)

Locally dependent latent class models with covariates: an application to under-age drinking in the USA (*B. A. Reboussin, E. H. Ip and M. Wolfson*)

# Basic Statistics

Submission rates:

1998	55
1999	44
2000	84
2001	60
2002	87
2003	97
2004	113
2005	136
2006	130
2007	135

Rejection rate: 78%

The mission: problems barriers and promise  
Related to trends in methodological publishing

- Wider research community not always believing statistical journals are for them
- Wide range at once an attraction and also a barrier
- Competition with discipline based journals
- Jargon tied writing, who is writer writing for?
- Technical writers not always good at making material accessible: researchers good at technical work are not necessarily good communicators
- Belief that methodology has to be path breakingly original
- RAE restrictivity ( the Diamond list for example)
- Wide range of large scale and complex data now more widely available
- Throwing things at computer software packages with little interpretative thought
- Not enough attention given to telling a good story

## Getting published in Series A

### **Writing requires a clear flowing story**

- Practice at being concise
- Does your paper contribute to knowledge?—what does this mean?
- Consult other articles published to establish style and conventions
- Contextualisation of any data analysis: what has been done before – literature review
- Take care to discuss methodology used in an understandable way --- discuss its relevance and why it may be an advance on other approaches
- Flowing arguments structure
- Presentation of tables and figures –very important; computer output directly reproduced is rarely appealing
- Linking discussion of results and conclusions to papers aims
- Attention to style, English and language and important detail

## **Advance preparation is a good thing in general Circulating drafts and/or conference presentation papers beforehand—seeking advice of colleagues**

### **Forms**

- Formal discussion paper series
- Contributed papers at conferences
- Offering seminars
- Asking colleagues both in your own institution and more broadly to comment critically on paper both in content and suitability for targeted journal.
- Posting on personal web pages and informal ways of asking for comment

### **Constraints**

Inter alia

- Time and desire to get in print as quick as possible
- RAE demands

### **Issues**

- Comment may enable you to benefit from others experience on the level and style of the journal you are targeting
- Frequently time is wasted by submitting to totally inappropriate journals (six months before you get a rejection).
- Frequent problem is that other related work is frequently not connected to or referenced ---- prior comment and discussion can amplify these.
- English expression and clarity of arguments
- Concepts and terminology that are highly parochial
- Getting the polish on a paper that gives a right impression to editors and reviewers
- Avoidance of half complete research
- Technical report styles

- Advice on whether it is advisable to submit to journals in the hope of getting some review feedback even for 'not ready' material. This might be more effectively gained by pre-submission circulation

Comments, feedback and advice of one of the forms may ensure these issues are addressed and lead to a more effective submission.