statistical society of australia incorporated

newsletter

31 may 1991   **number 55**

STATCOMP/BIOSTATS 91

Coolangatta, 1 - 5 July 1991

STATCOMP/BIOSTATS 91 is the biennial meeting of the Statistical Computing and Biological Statistics Sections of the Statistical Society, being held in conjunction with the Biometric Society (Australasian Region), the International Association for Statistical Computing (IASC) and the CSIRO Biometrics Units. The second circular (including registration form) has been distributed through the branch secretaries and the registration form should be returned by 31 May to the conference secretary.

The Conference will be held in the week 1 to 5 July, from Monday morning to Friday lunchtime, at the Greenmount Resort Hotel, Coolangatta on the Queensland/New South Wales border. STATCOMP will occupy the first half of the programme and BIOSTATS the second half.   The keynote speakers and their topics are:

STATCOMP

Julian Besag: Computational aspects of image & spatial analysis.

Peter Hall: Computational techniques for the bootstrap.

Peter Thomson: Smoothing algorithms for time series.

Sanford Weisberg: Dynamic graphical techniques in diagnostics.

BIOSTATS

Kaye Basford: Three-way methods for multi-attribute GxE data.

Chris Glasbey: Image analysis in agricultural research.

Charles McGilchrist: Mixed models for discrete data.

Roger Mead: Measurement scales and self adjustment.

Richard Morton: Over-dispersion in generalised linear models.

For additional information:
Dr. R.J. Wilson
Conference Secretary
STATCOMP/BIOSTATS 91
Department of Mathematics
University of Queensland
QLD   4072.
Phone: (07) 365 3328
Fax: (07) 870 2272
E-mail: rjw@axiom.maths.uq.edu.au.

BRANCH REPORTS

New South Wales

1991 H O Lancaster Lecture

The Branch AGM was held on 19 March 1991. The H O Lancaster Lecture was presented by Professor Niels Becker (La Trobe University) who spoke on "A Method for Predicting AIDS cases".

Professor Becker began with a discussion of why prediction is important in AIDS research, and described the type of data available. The several methods that are in use fit a model to the observed counts of AIDS cases and then extrapolate.

The methods require the distribution of incubation period; this has been estimated from transfusion related AIDS cases.

The method of back-projection was described. Parameter estimates were obtained from an EM algorithm with smoothing. Examples were provided for Australian data, for US data and for Haemophiliac data from Japan.

Professor Becker also discussed the effect of treatment on the incubation period and also the effect of age.

Council for 1991

Office-bearers and Council for 1991 are:

President: Prof John Robinson, USydney

Past-President: Dr Ron Sandland, CSIRO, DMS

Treasurer: Mr Dennis Reid, NSW Agriculture & Fisheries

Secretary: Dr Ann Eyland, Women's College, USydney

Assist Secretary: Prof Geoff Eagleson, AGSM, UNSW

Council: Dr Nick Fisher, CSIRO DMS
                  Dr Sam Huxham, UTS
                  Dr Julian Leslie, Macquarie Univ
                  Dr Simon Sheather, AGSM UNSW
                  Dr Debbie Street, UNSW
                  Dr Neville Weber, USydney

Modern Regression Methods

The Branch held a two-day symposium "Modern Regression Methods" on 2-3 April. Speakers were R.J. Carroll (Texas A&M), D. Ruppert (Cornell), R.G. Staudte (La Trobe), S. Weisberg (Minnesota) and A.H. Welsh (ANU).

Victoria

The New VCE Mathematics

Rob Money from the Victorian Curriculum Assessment Board explained that under the structure of the new VCE all year 11 and year 12 students have to study some subjects from the Mathematics, Science & Technology area. He outlined the organization of the Mathematics syllabus into three blocks of areas of study and four units within each block. Units 3 & 4 contain some external assessment while units 1 & 2 do not. Common Assessment Tasks can be used for calibrating performance and these are externally assessed for unit 3 & 4 study modules. One change is that at least 20% of each unit is by project work. There is a possibility that students will do a substantial amount of Statistics at school, but because of the flexibility of the course, they may do none at all.

John Dowsey, Institute of Education, Melbourne University outlined the problems that will occur for Statistics with the new structure. One problem is that Statistics is poorly perceived in the schools and by school teachers. There is inadequate preparation for teaching Statistics since teachers can teach year 12 Mathematics with only 1/4 of first year and 1/4 of second year of their training being Statistics. There is inadequate resourcing of the teaching profession to help them adjust to the changes, this applies both to resource people and to materials.

Ray Watson, Department Statistics, Melbourne University said the changes were too much, too quickly. A stated aim of the change had been to remove the exam bogey and keep children at school longer. What had happened was that a well tried system had been replaced by the CATS which were poorly organized, with the multiple choice CAT3 too simple and CAT4 having absurdly long questions. The changes had been underfunded so that teachers could not be adequately retrained and did not have the backup they needed. Data on the pilot programmes were unavailable and people with experience in HSC Mathematics examining were not being consulted.

BLUP and RELM: Keys to Understanding the Great Mixed Model Muddle.

The retiring president, Dr Geoff Robinson, addressed members following the AGM on 26 March. Using examples from the dairy industry and other area, Geoff explained the problems that arise when one has unbalanced data covering both fixed and random effects, such as the genetic worth of a bull, from information that might be highly selected, such as the milk yields of that bull's daughters. The restricted or residual maximum likelihood (REML) is actually a maximum likelihood estimation modified by integrating out the fixed effects, and it is used to estimate the random variance components. Since people don't often want to estimate the variance of random effects, situations in which this is important can lead to the Mixed Model Muddle, where people are confused about the distinction between the fixed and random effects. Geoff suggested that many of the difficulties understanding and interpreting BLUP and RRML in these cases could be resolved if one took a Bayesian point of view, in which the unbalanced - and perhaps highly selected - data were to be used to refine estimates from quite simple prior probabilities.

Queensland

Modelling Two Parallel Streams of Observations with Multiracial Response Models

Our Annual General Meeting, held on March 4 this year, was followed by a seminar presented by Dr Pieter Kroonenberg of Leiden University, The Netherlands, on "Modelling Two Parallel Streams of Observations with Multiracial Response Models". The problem Pieter presented arose in a study on the interaction between children and their therapists. Behaviours of both were scored every five seconds in one of four categories. The central problem was who influences whom, and how can one describe the mutual influences and possibly their changes over time. Because of the nature of the information being collected the difficulties inherent in handling very large data sets, in this case over 71,000 observations, also have to be addressed.

Pieter was the guest of the Department of Agriculture, coming particularly to work with Dr Kaye Basford, from early February to mid April. He is currently a senior lecturer at the Department of Education at Leiden University. His major research interest is in three-way data-analytic methods, but he has also worked on exact testing in contingency tables, and modelling high-dimensional contingency tables. During his sojourn with The University of Queensland, Pieter gave a series of lectures for the Department of Mathematics, and also presented seminars for the Departments of Agriculture and Psychology.

Professors in the News

We are sorry to see him go but congratulations are in order for Professor Richard Tweedie's recent appointment as Professor of Statistics at Colorado University.

Professor Anne Street has recently been awarded the honour of a five year Senior Research Fellowship from the Australian Research Council. The Fellowship pays her full professorial salary for five years enabling her to work full time on her research interest of combinatorics. In 1987 Anne published a book in conjunction with her daughter Dr Debbie Street on combinatorics of experimental design.

South Australia

Annual General Meeting

The Branch held its AGM on March 12th, 1991. The new Branch Council is as follows.

President: Bob Hall, UniSA, North Terrace

Vice-president: Ari Verbyla, University of Adelaide

Immediate Past President: John Field, DMS, CSIRO

Secretary: Alan Branford, Flinders University

Treasurer: Barbara Trudinger, DMS, CSIRO

Councillors: Teresa Dickinson, DMS, CSIRO
Trevor Hancock, Waite
Sandra Pattison, University of Adelaide
Sue Taylor, Flinders University.

How can missing an episode of Hinch help prevent bushfires?

The retiring President, John Field (CSIRO Division of Mathematics and Statistics) addressed the AGM: "How can missing an episode of Hinch help prevent bushfires?"

Following the disastrous 1983 Ash Wednesday bushfires, the Electricity Trust of SA (ETSA) has been working hard to reduce the likelihood of fires starting from powerlines. A major part of this effort has gone into the replacement of bare wires in critical areas with insulated ones. The talk described joint work with Ray Correll, in which a model has been developed to assist ETSA with the efficient allocation of available resources in the replacement programme.

The Analysis of Multistratum and Spatially Correlated Repeated Measures Data

On April 10th, 1991, the Branch was addressed by Brian Cullis (NSW Agriculture and Fisheries, Wagga Wagga, NSW) on the Analysis of Multistratum and Spatially Correlated Repeated Measures Data

The aim of the talk was to address the analysis of repeated measures data when the experimental units are correlated. Repeated measurements over time are correlated and, in addition, in many experimental situations the experimental units are also correlated. Spatial or between unit correlation can arise through the design, for example as in split-plot designs, or be induced by field trends as in the nearest neighbour methodology. Both complete and incomplete data were considered with estimation based on residual maximum likelihood. The procedures were illustrated using data on soil moisture.

Western Australia

The Statistician and the Law

At the first Branch meeting for 1991, Dr John Henstridge of Data Analysis Australia Pty Ltd presented a very interesting talk discussing two recent consulting projects which involved interactions between Statistics and the Law.

The first of these was to do with forecasting the future demands on a court system. John explained that his approach was to break down the problem into component parts, and investigate: numbers of offenders (in location categories), the nature and numbers of charges per offender and the rates of court time usage per change. This was a complex task involving demographic projections, queuing issues, simulation methods and the analysis of data from a variety of sources (notably the ABS, The State Planning Commission and courtroom surveys). John's talk highlighted a number of the fresh insights this detailed work yielded, eg, the extent to which projections for crime rates are reduced by allowing for the aging population, the predicted high crime rate areas in Perth ten years from now, and the importance to planning of the large case time variations between magistrates. The forecasts finally produced were quite different to those from high level modelling and extrapolation of aggregate time series, and

clearly demonstrated the value of the understanding John had developed.

The second project was part of a commercial dispute where statistical issues were argued by expert witnesses. This raised a number of issues of the acceptability of statistical evidence in court, concentrating on the difficulties in using survey results to argue a case. For instance, barristers may argue that affidavits should be produced from survey respondents. In addition, survey execution standards may become very onerous, especially on questions of sample selection, non-response, call-backs, etc. John's conclusion was that much more stringent and expensive methods than usual are needed in planning and executing surveys for legal purposes.

After John's entertaining talk, the evening concluded with an enjoyable meal at a local restaurant.

Canberra

Estimating Undercount in the USA

Expatriate Australian Noel Cressie, on sabbatical from Iowa State University and visiting the Centre for Mathematics and its Applications (CMA) at ANU, kicked off 1991 for the Canberra Branch of the Society with a talk in February. With the 1991 Australian Census coming up in August this year, and with many Canberra statisticians involved in preparations for the big event, Noel knew that the topic he chose (his work at the U.S. Bureau of the Census on estimating the undercount in the U.S. Decennial Census) would generate a fair bit of interest — and he wasn't wrong. Aside from providing some interesting insights on the politics that have played such a large part in U.S. deliberations on whether or not to allow 'statistical' adjustments to the Census, Noel described how the Census undercount in the U.S. is differentially distributed across the nation and across racial and ethnic groups. This differential undercount can lead to a corresponding loss of financial and political power, since apportionment of such power in the U.S. is made according to census counts. Noel talked about model-based methods for adjusting census counts based on data collected in a post-enumeration survey and also pointed out some of the problems associated with practical implementation of these models, particularly the need to use estimation techniques which allow for 'missed variables' (eg via inclusion of spatial correlation structures) and the need to use adjustment models which are 'level consistent' and hence can be aggregated up (eg from Counties to States) or disaggregated down (from States to Counties) without losing efficiency.

Annual General Meeting

The AGM of the ACT Branch was held on 26 March 1991, at the Plant Industry Lecture Theatre at the CSIRO. The office bearers elected at the meeting were:

President: Dr Jeff Wood, CSIRO, Biometrics

Secretary: Mr Eden Brinkley, ABS

Treasurer: Dr Emlyn Williams, CSIRO, Biometrics

Councillors: Ms Justine Gibbings, DSS
Dr Graham Pollard, Canberra University
Mr Ross Cunningham, ANU
Mr Greg Griffiths, ABS
Ms Caroline Bowles, ABS
Dr Alan Welsh, ANU, immediate Past President.

Switzerland through Media Graphics

Retiring president Alan Welsh regaled the March Annual General Meeting with his particular version of a statistician's holiday slides. Just back from a six month sabbatical spent mainly in Switzerland, Alan demonstrated that he did more than just enjoy the view and carry out esoteric research in that time. He also read the papers — and took careful note of how, unlike in Australia, the Swiss really do believe that 'a picture is worth a thousand words' and make extensive use of statistical graphics in their newspapers, both for making presentations more attractive and 'scientific' as well as for conveying information. In a wide-ranging, non-technical and highly idiosyncratic talk, Alan used an extensive range of graphics collected during his stay to illustrate that, while many of these would not be highly regarded by statisticians (being mainly of the "presentation graphics" type), their extensive use reveals a lot about the Swiss psyche, and particularly its current preoccupation with German unification, the EEC, the Swiss Army, the environment and health issues.

Transformations in Kernel Density Estimation

In April, David Ruppert from Cornell University, also visiting the CMA at ANU, talked to the Branch about the use of transformations in kernel density estimation. Referring to the well known fact that fixed bandwidth kernel density estimators do not perform that well with data which require different amounts of smoothing at different locations (eg highly skewed data), David suggested that such data be first transformed so that a fixed global window width is appropriate for estimating the density of the transformed data distribution. The density estimate of the original data is then obtained by back-transforming this estimated transformed data density via the usual change of variables formula. Based on joint work with Matt Wand and Steve Marron, David's talk explored data-based rules for deciding on an appropriate transformation (from a family of power transformations) as well as the issue of choice of the window width for the transformed data. An application to 'bump-hunting" in some income data provided a good illustration of the possible efficiency gains in applying the transformation approach to density estimation with highly skewed data. A published version of this talk is due to appear in JASA in the not too distant future.

The Illawarra Statistical Group

The Illawarra Statistical Group is now in its second year of existence, and continues to prove that you don't need to live in a capital city to be able to mix with statisticians outside your own immediate work place.

At the Annual General Meeting in February, the following people were elected to the principal positions:

President: Greg Knight, BHP

Secretary: Lynn Morris, RTA of NSW

Treasurer: Shahab Ghahreman, University of Wollongong

Following the AGM, members heard a talk by David Hughes of the Port Kembla Coal Terminal Ltd. David spoke on "Quality Control and Maintenance Management".

The April meeting will be addressed by Dr Ivor Francis on the topic of "Statistics, Truth, Science, Models and why Chief Executives aren't interested in Quality", while Dr Ken Russell will speak about statistical consulting at the May meeting. Other speakers are being arranged for the rest of the year, and visitors are welcome. Enquiries to Greg Knight on (042) 75-7014 or Ken Russell on (042) 21-3815.

Ken Russell

Visit by J.S. Hunter

J.S. (Stu) Hunter visited Sydney last August to present short courses on Experimental Design and on Statistical Process Control, and to participate in a one-day meeting with local statisticians. The Total Quality Management Institute Limited is currently arranging for Stu to return to Australia for a longer visit in October 1991, during which it is expected that he will deliver short courses in several Australian cities.

The Industrial Statistics Section of the Statistical Society is participating in the planning of the visit; more details will be provided to members as they become available.

Doug Shaw

NJ TYPE	(02) 904-1122	
Unit/Volume/Group:	WD2/aRecruitment/Uni.New-Eng	
Output by:	shell	
Output On:	4/5/91 - 11:00	
Job Desc.		
File name/Rev. Date:	a908427	10950845

What does the Society do with your money?

The Society and its publishing arm, The Australian Statistical Publishing Association Incorporated, now have substantial income and assets, which most members are unaware of.

The accompanying tables give an abbreviated version of the 1990 accounts. Your branch members of Central Council should have the full accounts.

Table 1: Statistical Society of Australia Incorporated, 1990 accounts

Receipts	
Capitation fees	4716.12
Interest on investments	5139.89
Conferences	
Statcomp 89	2810.47
ASC10/PSC2	29371.59
AIDAB grant for overseas visitors	6700.00
Miscellaneous	6.50
Total	48744.57
Payments	
Arrears of capitation fees to ASPAI	12.50
Conferences	
Statcomp 91	3000.00
ASC10/PSC2 (Insurance)	303.75
Pitman Medal	2100.00
Travel grants to students attending ASC10/PSC2	2350.00
Travelling expenses	3493.60
Subscriptions	
ISI	993.12
Federation of Australian Social Science Organizations	500.00
FASTS	2880.50
National Mathematical Sciences Council	4986.00
Incorporation expenses (legal advice, etc.)	947.00
AIDAB overseas visitors	5852.11
Miscellaneous	297.98
Total	27716.56
Excess of receipts over payments	21028.01
Assets	
At call	38565.15
Term investments	29313.00
Total	67878.15

Table 2: Australian Statistical Publishing Association Incorporated, 1990 accounts

Receipts	
Capitation fees	
Current	20787.50
Arrears	837.50
AJS subscriptions	
Current	11108.036
Arrears	478.31
In advance	22382.11
Back issues	1807.93
Reprints	2885.07
Newsletter subscriptions	151.30
Newsletter advertising	2697.00
Interest on investments	12400.55
Miscellaneous	73.00
Total receipts	75608.30
Payments	
AJS printing and despatch	
Vol. 31, No. 3	8802.16
Vol. 32, Nos 1,2,3	30638.03
Reprints	786.32
Editorial expenses	530.00
Newsletter printing and despatch	8753.42
Secretarial assistance and expenses	9120.21
Travelling expenses	863.90
Miscellaneous	1020.67
Total	60514.71
Excess of receipts over payments	15093.59
Liquid assets	
At call	51543.59
Term investments	69440.09
Total	120983.68

The 1990 conference made a spectacular profit of about $22000, after allowing for advances. Unfortunately the division of these profits between SSAI, NZSA and the Australasian Region of the Biometric Society remains unresolved.

The level of reserves which the Society should maintain is an important issue. These are necessary to cover existing commitments, to provide working capital, and to provide for unexpected expenses or loss of income. A rule of thumb is that reserves should cover one to two years' operating expenses. On this basis the assets level is high, but not alarmingly so.

Jeff Wood
Honorary Treasurer

SPECIAL INTEREST SECTION
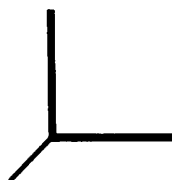
Medical Statistics

Consideration is being given to a workshop preceding the 1992 Statistical Conference in Perth. One idea that is being floated concerns "the use of statistical analyses and arguments for resolving issues of causation in the law, government policy and public health". Recent examples include determination of the number of deaths caused by drug use, a possible link between power lines and cancer, and the health effects of passive smoking.

In all these debates, meta or overview analysis has been used to pool information across epidemiological and other studies. This concept has been exploited in the behavioural sciences, and more recently applied to randomised intervention studies by Richard Peto and others. The aim of a meta analysis is to objectively and quantitatively combine results from comparable studies to give a more precise estimate of effect. This estimate can then be used with population data on an exposure to calculate the proportion of all cases "attributable" to the exposure. Needless to say, the results of such calculations, especially when presented as a valid scientific process carried out by

respected statisticians, has the potential to carry great weight in resolving issues in government policy, the law, and public health strategy. Furthermore, the process is not purely a statistical exercise, and cannot be successfully conducted without an understanding of the scientific issues involved, the social and political forces underlying the research and its publication and reporting, and the interpretations of statistical analyses by non-statisticians. Statistical issues include the appropriateness of meta analysis to epidemiology, weighting according to "quality" of study, and the sensitivity and precision of estimates.

At this early stage it would be useful to know if this topic is of general interest to members of the Society. I would also be interested in any other suggested topics for a workshop, either in Perth or at any other time and place. My telephone number is (03)-344-6991, and FAX is (03)-344-7014.

John Hopper
The University of Melbourne
Faculty of Medicine Epidemiology Unit
151 Barry Street, Carlton VIC 3053.

AUSTRALIAN BUREAU OF STATISTICS

RESEARCH FELLOWSHIPS AND ASSOCIATESHIPS 1991/92

The ABS seeks senior researchers and advanced graduate students or recently qualified postgraduates to conduct research relevant to the ABS. A number of Research Fellowships and Associateships will be available during 1991/92 and applications for these awards are invited. Research proposals by applicants should fall into one or more of the four broad categories:

- **STATISTICAL METHODOLOGY**
- **SOCIAL AND DEMOGRAPHIC STUDIES**
- **ECONOMIC STUDIES**
- **APPLICATIONS OF TECHNOLOGY**

Applicants are encouraged to put forward proposals they believe to be relevant to the ABS. At present the ABS has as its objectives, amongst others

- **the measurement and reduction of non-sampling errors**
- **increasing the amount of objective statistical analysis and interpretation of its data**
- **improving the efficiency and productivity of its operations**

Proposals consistent with these objectives are espescially encouraged.

The awards will usually be for 12 months, although shorter awards may be considered. Successful applicants will usually be expected to move to Canberra for the duration of the award and be able to work full-time on research. The salary will be commensurate with qualifications and experience, for Research Associates: $28,690-$39,700 p.a. and Research Fellows: $33,445-$65,644 p.a.

Applications are due by **19th July 1991**. Further details regarding the awards, including application forms and information on research topics, can be obtained by contacting

G.E. Griffiths
W32b
Australian Bureau of Statistics
PO Box 10
BELCONNEN ACT 2616

or telephoning **(06) 252 6600**

ABS is a smoke-free work environment

THE LATEST ON THE 1991 CENSUS

Australia's twelfth national Census of Population and Housing will be taken on 6 August 1991 by the Australian Bureau of Statistics and final preparations are now being made.

What the Census Form looks like

In April, the ABS published an information paper *How Australia Takes a Census* (ABS Catalogue No. 2903.0). The paper contains a copy of the household form to be used in the 1991 Census and covers the steps taken by the ABS to ensure high quality data is collected. If you would like a copy of this free publication, order one from ABS Subscription Services (number below).

Recruitment

In March the campaign to recruit 32,000 Collectors and their Supervisors was launched. Over 70,000 applications have been received to date and positions are expected to be finalized by the end of July.

Census User Seminars

A series of population census user seminars has recently been held in each capital city. The ABS used these seminars to table the products and services proposed for release from the census for user comment. Approximately 600 users in total attended these seminars, bringing the number of users consulted on a face to face basis in the last six months to around 1,000. All comments and suggestions will be evaluated and, where feasible, implemented.

If you would like more information about proposed 1991 Census products, please contact your local ABS office.

Census Early Bird Promotion

Commencing in May a special promotion of the census consultancy service will be undertaken - the Early Bird offer. Early birds will be those clients requiring customised census matrixes to be produced and who order their tables and pay a deposit by the end of September this year. The main advantage of being an early bird is that your tables will be produced at the same time as standard products are being prepared, and so you will get your tables much earlier than clients who order after the promotion.

Key dates for the promotion are:

May 1991 - details of the promotion and a kit of reference material will be forwarded to clients. If you would like to receive a kit, please contact your local ABS office.

June 1991 - order forms and supporting documents will be forwarded to clients.

September 1991 - closing date for receipt of orders with a 25% deposit. Production of the matrixes will commence upon receipt of specifications and deposit.

How to keep in touch

If you want to keep informed of developments in 1991 Census products and services, you can subscribe to *Census Update* (ABS Catalogue No. 2902.0). *Census Update* will be a quarterly newsletter commencing in September 1991. The price for the newsletter will be $5.00 per issue. Copies can be ordered by contacting the ABS Subscription Services on 008 020546 or 008 020608.

AUSTRALASIAN CONFERENCES

CONFERENCE SUMMARY

Combined Statcomp/Biological Statistics Meeting, 1 - 5 July 1991, Coolangatta, Queensland. (Full details Newsletter 51, 53 and this issue.)
Prof. Tony Pettitt, School of Mathematics, QUT, GPO Box 2434, BRISBANE QLD 4001, Telephone (07) 223 2309, Fax (07) 229 1510, email zsmapettitt@qut.edu.au.

Data Analysis Workshop on Design of longitudinal studies and analysis of repeated measures data, 10-12 July 1991, ANU, Canberra. (Full details Newsletter 53 and this issue.)
Dr Sue Wilson, CMA, ANU, GPO Box 4, CANBERRA ACT 2601.

Australasian Meeting of the Econometric Society, 10-13 July 1991, UNSW, Sydney, NSW. (Full details Newsletter 53.)
Programme Co-Chairmen: Ross Milbourne and Ronald Bewley, School of Economics, University of New South Wales, PO Box 1, KENSINGTON NSW 2033.

Workshop on Saddlepoint Methods in Statistics, 17-19 July 1991, ANU, Canberra. (Full details Newsletter 53 and 54.)
Dr Jim Booth, CMA, ANU, GPO Box 4, CANBERRA ACT 2601, tel. 249 4575, fax 249 5549, email jim@srs1.anu.edu.au.

Twelfth International Joint Conference on Artificial Intelligence (IJCAI-91), 24-30 August 1991, Sydney.
Information: Joseph Katz, MITRE Corporation, MS-K318, Burlington Road, Bedford, MA 01730, USA.

ANZAAS Congress 1991, 1-3 October 1991, Adelaide. (Full details Newsletter 54.)
Professor David Boyd, University of Adelaide, GPO Box 498, Adelaide, SA 5001, tel (08) 228 5843, fax (08) 223 7650.

11th Australian Statistical Conference, 6-13, July 1992, University of Western Australia, Perth, WA. (Full details Newsletter 53 and 54.)
Chairman of Programme Committee, Prof. Ian James, Mathematics, Murdoch University, Murdoch WA 6150, tel. (09) 332 2480, fax (09) 310 1711, email james@prodigal.murdoch.edu.au.

DATA ANALYSIS WORKSHOP II, 10 - 12 July 1991

Longitudinal Studies

The Second Data Analysis Workshop has for its theme, the design of longitudinal studies and analysis of repeated measures data. It will be held from Wednesday 10 to Friday 12 July at The Australian National University.

Invited Speakers include

Professor Murray Aitkin	University of Tel Aviv
Dr Chris Glasbey	University of Edinburgh
Professor David Hand	The Open University
Professor Roger Mead	University of Reading

The Workshop is (partly) supported by the Department of Industry, Technology and Commerce (DITAC) Bilateral Science & Technology Programs.

This Data Analysis Workshop (DAW) is part of a series designed to define the state of the art in applied statistics. The theme has been chosen for continuity with the first, successful, DAW, on latent variable and structural models, and for its wide applicability. It will bring together, in Australia, scientists and researchers with experience both in the design of longitudinal studies and in the development and application of analytic methods for repeated measurements data from many scientific and technological areas, including agriculture,, epidemiology and medicine (including researchers involved in cohort studies and in clinical trials), education, demography, economics, sociology and psychology, among others. Contributions from all these disciplines are encouraged.

Our Special Guest and Keynote Speaker, Professor David Hand, has provided data sets to stimulate discussion. These can be briefly summarised as follows:

. a study of the effect of a vitamin E diet supplement on the growth of guinea pigs (three groups, continuous variable at six time points);

. part of a clinical trial of a treatment for sprains (two groups, categorical ordinal scale with missing values, four presentations);

. part of a larger study to explore the effects of predictability and control on the anxiety experienced by phobics (two groups, two continuous measures at six presentations);

. a study of patients who suffer from panic attacks and control subjects (a more complicated continuous variable data set with missing values and three variables measured at 11 times, with a structure of conditions over time).

Further data sets for distribution to interested participants are also welcome.

Space at DAW is limited and preference will be given to those making a contribution, such as analysis of some Workshop data, or description of their own longitudinal study (and any problems experienced) or a methodological contribution.

Further details and information available from Sue Wilson, DAW Co-ordinator, CMA, ANU, GPO Box 4, Canberra ACT 2601; phone (06) 249 4460; fax (06) 249 5549; email srw308@csc2.anu.edu.au.

OVERSEAS CONFERENCES

The 11th International Conference on Decision Support Systems, 3-5 June 1991, Manhatten Beach, CA, USA.
Information: Julie Eldridge, Associate Director, The Institute of Management Sciences, 290 Westminster Street, Providence, RI 02903, USA.

11th International Symposium on Forecasting (ISF'), 9-12 June 1991, New York, USA.
Information: Dr Lilian Shiao-Yen Wu, Mathematical Sciences Dept., IBM-Thomas J. Watson Research Centre, PO Box 218, Yorktown Heights, NY 10598, USA.

Bernoulli Society 20th Conference on Stochastic Processes and their Applications, 10-14 June 1991, Nahariya, Israel.
Information: R. Adler, Industrial Engineering and Management, Technion, Haifa 32000, Israel.

Symposium on Longitudinal Data Analysis, 19-21 June 1991, Fort Lauderdale, FL USA.
Information: Murray Selwyn, Statistics Unlimited, 2000 Commonwealth Ave., Auberndale, MA 02166, USA.

International Research Conference on Reliability, 19-22 June 1991, Columbia, MO, USA.
Information: Asit P. Basu, Conference Coordinator, 328 Mathematical Sciences Building, University of Missouri-Columbia, Columbia, MO 65211, USA.

International Conference on Game Theory, 25-27 June 1991, Fiosole (Florence), Italy.
Information: Piero Tani, Dipartimento di Scienze Economiche, Universita di Firenze, via Curtatone 1, 50123 Firenze, Italy.

Eighth meeting of European Association for Research on Plant Breeding (EUCARPIA), 1-6 July 1991, Brno, Czechoslovakia, entitled "Biometrics in Plant Breeding".
Information: Dr Josef Pesek, PO Box 120 Lidicka 25-27, CS 657 20 BRNO, Czechoslovakia.

International Summer School of IASC (International Association for Statistical Computing), 1-14 July 1991, Prague, Czechoslovakia.
Information: Jaromir Antoch, Department of Statistics, Charles University, Sokolovska 83, 186 00 Praha 8, Czechoslovakia.

International Graduate Summer Session in Epidemiology, 7-26 July 1991, MI, USA.
Information: Dr David Schottenfeld, Professor and Chairman, Department of Epidemiology, The University of Michigan, School of Public Health, 109 Observatory Street, Ann Arbor, MI 48109-2029, USA.

Joint Meeting of the Society for Clinical Trials and International Society for Clinical Biostatistics, 8-12 July 1991, Brussels, Belgium.

Information: Ms D. Eeckhoudt, EORTC Data Center, Avenue E, Mounier 83-B11, 1200 Brussels, Belgium.

International Conference on Industrial and Applied Mathematics (SIAM), 8-12 July 1991, Washington, DC, USA.
Information: SIAM, 3600 University City Science Center, Philadelphia, PA 19104-2688, USA.

International Workshop on Statistical Modelling and Latent Variables, 15-17 July 1991, Trento, Italy.
Information: K. Haagen, Istituto di Statistical, Università di Trento, Via Verdi 26, 38100 Trento, Italy, Fax (*39)-461-881499 or Hans Schadee, Dipartimento di Politica Sociale, Università di Trento, Via Verdi 26, 38100 Trento, Italy, email CONF91@ITNCISTI or SCHADEE@ITNCISTI.

The 6th International Workshop on Statistical Modelling, 15-19 July 1991, Utrecht, The Netherlands.
Information: W. Jansen, VOS, Methods Section, University of Utrecht, Postbus 80.140, 3508 TC Utrecht, The Netherlands.

1991 Joint Statistical Meetings, 19-22 August 1991, Atlanta, GA, USA.
Information: ASA, 1429 Duke Street, Alexandria, VA 22314-3402, USA.

The 8th International Conference on the New Quality Philosophy in Statistical Research, 19-22 August 1991, Atlanta, GA, USA.
Information: V. Shvyrkov, IS-SSE, 536 Oasis Drive, Santa Rosa, CA 95407, USA.

IMSIBAC-4, 4th International Meeting of Statistics in the Basque Country, 4-7 September 1991, Bilbao, SPAIN.
Information : J.P. Vilaplana, P.O Box 32, 48940 LEJONA/LEIOA, SPAIN.

International Statistical Institute, 48th Biennial Session; 9-17 September 1991, Cairo, Egypt.
Information: ISI Permanent Office, 428 Prinses Beatrixlaan, PO Box 950, 2270AZ, Voorburg, The Netherlands.

7th International Genstat Conference, 23-27 September 1991, Papendal (near Arnhem, Holland).
Information: Roger Payne, Rothamsted Experimental Station, Harpenden, Herts, United Kingdom, AL5 2JQ.

Statistics in Public Resources and Utilities, and in Care of the Environment (SPRUCE), 7-10 April 1992, Lisbon, Portugal.
Information: V. Barnett, Dept. Probability & Statistics, The University, Sheffield, S3 7RH, UK; Phone (44) 742 768555, ext. 4297; Fax(44) 742 739826; e-mail IVB@UK.AC.SHEF.PA

Fifth International Symposium on Statistical Decision Theory and Related Topics, 14-20 June 1992, West Lafayette, USA.
Information: Shanti S. Gupta, Dept. of Statistics, Purdue University, West Lafayette, IN 47907, USA.

International Conference on Computers and Learning, ICCAL'92, 17-20 June 1992, Nova Scotia, Canada.
Information: Dr Ivan Tomek, Jodrey School of Computer Science, Acadia University, Wolfville, Nova Scotia, Canada, B0P 1X0.

The 5th International meeting on Statistical Climatology (5IMSC), 22-26 June 1992, Toronto, Canada. Held jointly with the 12th Conference on Probability and Statistics in Atmospheric Science.
Information: Francis W. Zwiers, Numerical Modelling Division, Canadian Climate Centre, 4905 Dufferin Street, Downsview, Ontario, Canada M3H 5T4, phone 1-416-739-4415, fax 1-416-739-4521, e-mail acrmfz@cid.acs.doe.ca.

1992 Joint Statistical Meetings, 10-13 August 1992, Boston, MA, USA.
Information: ASA, 1429 Duke St., Alexandria, VA 22314-3402.

Royal Statistical Society Full Conference, 9-11 September 1992, Sheffield, United Kingdom.
Information: Prof. P.J. Diggle, Mathematics Department, Lancaster University, Lancaster LA1 4YF, UK.

SOCIETY AND BRANCH PRESIDENTS AND SECRETARIES

Central Council

President: Dr T.C. Brown

Secretary: Dr H. MacGillivray
Queensland Univ. of Technology
GPO Box 2434
Brisbane QLD 4001

New South Wales

President: Prof J. Robinson

Secretary: Dr A. Eyland
Women's College
University of Sydney
NSW 2006

Victoria

President: Dr G. Robinson

Secretary: Dr G. Clayton
Department of Statistics
University of Melbourne
Parkville VIC 3052

Queensland

President: Dr K. Swain

Secretary: Mr W. Robb
Qld. Department of Primary Industry
GPO Box 46
Brisbane QLD 4001

South Australia

President: Dr R. Hall

Secretary: Dr A.J. Branford
School of Information Science &
Technology
Flinders University of S.A.
GPO Box 2100
Adelaide SA 5001

Western Australia

President: Dr G. Riley

Secretary: A/Prof. A.G. Pakes
Department of Mathematics
University of Western Australia
Nedlands WA 6009

Canberra

President: Dr J. Wood

Secretary: Mr E. Brinkley
Australian Bureau of Statistics
PO Box 10
Belconnen ACT 2616

SECTION CHAIRS

Statistics in the Medical Sciences

Dr J. Hopper
University of Melbourne
Faculty of Medicine Epidemiology Unit
151 Barry Street
Carlton VIC 3053

Statistics in the Biological Sciences

Dr B.R. Cullis
NSW Dept. of Agriculture & Fisheries
c/o Agricultural Research Institute
PMB Wagga Wagga NSW 2650

Survey and Management

Mr D.J. Trewin
c/- Australian Bureau of Statistics
PO Box 10
Belconnen ACT 2616

Statistical Education

Dr K. Sharpe
Department of Statistics
University of Melbourne
Parkville VIC 3052

Statistical Computing

Prof. A.N. Pettitt
Queensland Univ. of Technology
GPO Box 2434
Brisbane QLD 4001

Industrial Statistics

Dr J.B.F. Field
CSIRO, DMS
Private Bag No. 2
Glen Osmond SA 5064

SUBSCRIPTIONS AND ADVERTISING

The Newsletter of the Statistical Society of Australia is supplied free to all members of the society. Any others wishing to subscribe to the Newsletter may do so at an annual cost of A$8.00 (A$6.00 if also a subscriber to the AJS), for an issue of four numbers.

Enquiries and subscriptions should be sent to:
Statistical Society of Australia,
GPO Box 573,
CANBERRA, ACT 2601.

Advertising will be carried in the Newsletter on any matters which the Editors feel are of interest to the members of the Society. In particular, advertisements of statistical vacancies, statistical literature and calculators will be welcome. For details of advertising rates etc. contact either the Editors or Dr J.T. Wood at the same address.

Members are requested to notify their local branch secretaries (see this page of the Newsletter) of change of address, so that Newsletters and Journals can continue to be despatched to them.