



The New Zealand Statistical Association
nzsarsnz.org

Newsletter

Number 64 September 2006



Conference Report: ASC/NZSA 2006

Conference Aims

ASC/NZSA 2006, the joint conference of the Statistical Society of Australia Inc (SSAI) and the New Zealand Statistical Association (NZSA) was held at SKYCITY Convention Centre, Auckland, from July 3 to 6, 2006. The aim of the conference was to bring together statisticians from Australia and New Zealand, offering a rich program of invited and contributed talks, led by top class keynote speakers. The conference was intended to be attractive to young statisticians and students, with special events and heavily reduced student prices. The Organising Committee also promoted the running of workshops around the time of the conference.

Attendance

Overall attendance was 290 broken down as:

	Aust.	NZ	Other	Total
Full	102	99	43	54
Student	13	26	7	46
Total	115	125	50	290

These registrations include 19 exhibitors.

Conference Program

William Dunsmuir and the Program Committee provided a superb array of speakers. David Donoho (Stanford), Xiao-Li Meng (Harvard) and Peter Hall (ANU) were the Keynote Speakers, and Ray Chambers (Southampton) gave the Foreman Lecture. There were 48 invited talks, of 45 minutes plus additional question time, 150 contributed talks allotted

20 minutes and 16 poster presentations. The invited speakers were of very high quality, including many from outside Australasia, including Alan Agresti, Steve Buckland, Christian Robert and Kirk Wolter amongst the better known.

Tuesday, July 4 was designated Official Statistics day and featured the Foreman Lecture (right), invited talks of particular interest to official statisticians, and the Official Statistics Forum with talks by the Australian Statistician, Dennis Trewin, and the New Zealand Government Statistician, Brian Pink.



Besides official statistics, other special interest groups of the SSAI were catered for with invited and contributed sessions.

Social Activities

The Welcome Reception was held on Monday evening, sponsored by SAS. After the Welcome Reception, there was an evening for young statisticians. The Conference Dinner was held on Tuesday at SKYCITY with an attendance of 117. A trio of student musicians from the University of Auckland played classical music to accompany the dinner. The Conference Organisers, Tour Hosts, also offered tours to local attractions such as the Waitakeres and Waiheke Island.

Society Activities

Meetings were held of the SSAI and ASPAI (responsible for publishing the ANZ Journal of Statistics) and the NZSA, and a joint meeting of the SSAI and the NZSA. Jean Thompson was presented with Life Membership for her contribution to the NZSA. John Darroch was presented with the Pitman Medal for 2005 and Daryl Daley the Pitman Medal for 2006 for contributions to SSAI and Australian Statistics. Murray Jorgensen (President of the NZSA) and Kaye Basford (President of the SSAI) gave short presentations as part of the final session of the Conference.

Sponsorship and Display

SAS was the Principal Sponsor for the Conference, and Roche Pharmaceuticals was a Major Sponsor. Other sponsorship was received from the Australian Bureau of Statistics, Statistics New Zealand, the Royal Society of New Zealand, Eli Lilly, the Australian Mathematical Sciences Institute (AMSI), the New Zealand Institute for Mathematics and its Applications (NZIMA), and Agmardt. Data Sciences Australia provided funding for early career statisticians from Australia to attend the conference. A number of universities provided funding for speakers. The NZSA funded young statisticians from New Zealand to attend the conference. Ray Hoare from Hoare Research Software provided a prize for the best talk

by a New Zealand student, won by Stephen Miller (right) of the University of Auckland. Equal second prizes were awarded to Matthew Schofield and Janine Wright,



both from Otago University. SSAI provided funding for the EJ Pitman Prize for the best talk by a young statistician at the Australian Statistical Conference, which was won by Jonathan Tuke from the University of Adelaide.

In the area for lunch and morning and afternoon teas there was an exhibition with 13 booths displaying books and software or promoting organisations with an interest in statistics. Exhibitors were: SAS; Blackwell Publishing; Thomson Learning; Palisade; SPSS Australasia Pty Ltd; Hoare Research Software Ltd; Eli Lilly Australia Pty Ltd; Space-Time Research; SolutionMetrics; SSAI and NZSA; Alexander Technology; Statistics New Zealand; and CSIRO. Eli Lilly were undoubtedly the most popular since they were offering free espresso coffee!



A serious statistical discussion taking place at the ASC/NZSA conference

Organisation

Tour Hosts Australia were the Conference Organisers, led by Felicity Kent and Alana Sanburg. The Organising Committee comprised David Scott, William Dunsmuir, Neville Bartlett and Harold Henderson. William Dunsmuir was Chair of the Program Committee, with members David Scott, Kerrie Mengersen, Beatrix Jones, Marti Anderson and Chris Carter.

Workshops

Three workshops were held in conjunction with the conference. Steve Buckland presented a workshop on Distance Sampling, organised by Marti Anderson. R-Fest was a series of workshops on S, R and Bioconductor with presenters Bill Venables, Paul Murrell and Robert Gentleman. A stochastic processes workshop was organised by Ilze Ziedins.

Thanks

I hope I don't miss out anybody here: it would be easy to do because many people assisted in varying degrees. I truly appreciated the help and cooperation of you all. I am most grateful to the sponsors, the Organising Committee, the Program Committee and workshop organisers. Others who contributed were session organisers, invited speakers and presenters of contributed papers and posters. Statistics New Zealand and the Australian Bureau of Statistics were strong supporters. Both the NZSA and the SSAI backed the holding of a joint conference. My own department, the Statistics Department at the University of Auckland, helped financially and administratively, and gave me strong encouragement. Lastly, thanks to all those who attended.

David Scott

Is this some sort of food-tasting experiment?



NZSA/ASC: A Student's View

I still hold vivid memories from two months ago, when I shrank myself into a 12-inch dwarf apologising to our departmental manager for my 20-day-late request to participate in the NZSA/ASC conference. To this day, while I still feel apologetic about that incident, the decision was undoubtedly a good one as the conference actually exceeded my highest expectations. Since presentations are mostly targeted to more experienced researchers, it is not uncommon for a first time participant to lose track of the talks shortly after the background ideas were introduced. As one of these clueless individuals 5 years ago, I was comforted by my lecturers that we were in to discover or to remind ourselves how little we know. During this conference however, be it a matter of luck in choosing the talks, or be it due to experience, there were a number of talks which I found accessible and I found myself learning something. I have to say, this is a great feeling knowing that instead of attending a conference just to broaden our ignorance, there are actually gold snippets (and delicious oysters too!) to be picked up on the way.

And while many of the talks I attended were nothing short of illuminating, the one presentation worth particular mention though has to be the plenary session by Professor Xiao-Li Meng (right). Ever since I began my studies in statistics back in 1997, we were almost always taught about the idea



that “sample size - the larger the better”. The only exception happened a couple of years ago, when I was given a 5-minute session about why meta-analysis is less attractive than one might think. However, this did not go to the extreme of saying data can be “contaminated” by some other data. So there I sat in the conference room, trying to follow Professor Meng’s argument to debunk this well accepted truth. At the end when he concluded - “Large size is good, but only if you know how to use it”, I was shaking my head in wonder, with a big smile.

It had also been a great pleasure to meet up with old friends, many of whom I could only see rarely – partly because of the nature of my research, and partly because most of them had gone into the workforce or had left New Zealand to pursue further studies. Further, I was introduced to several researchers from other universities, most notably Professor Nakano from the Institute of Statistical Mathematics in Tokyo.

He and his team are amongst the very rare individuals who conduct research on 3D statistical visualisations. Being another researcher in this slowly emerging field myself, I did not place high hopes on meeting anyone who shared my research interest. So this time being able to meet Professor Nakano was a very pleasant surprise indeed. We spent an afternoon discussing our own softwares, and I was delighted to be given some very constructive advice on how I can further my research.

Finally, having been given the opportunity to write this article, I would like to express my heart-felt gratitude for all the hard work the organising committee had put in to make this conference a great success. I am also very grateful to NZSA and Statistics Department of Auckland University for generously subsidising our registrations so we poor students could participate in such a worthwhile event. Last but not least, I need to thank Sharon for not kicking me out of the office window when I made that last minute request to participate in the conference, as I would not be here sharing my joy with my fellow statisticians.

Derek Law

NZSA 2007



Canterbury Trails

NZSA 2007 Conference followed by Conference in Honour of Professor John Deely

The NZSA 2007 Conference will be hosted by the University of Canterbury in Christchurch. The conference is to be held on Wednesday 4 July in the Mathematics, Statistics and Computer Science Building. The local organising committee are busy putting together the details of the conference program. The website for the conference will be released soon with more information, but any of you eager to find out more can email us at nzsa2007@gmail.com.

We are also pleased to announce a tandem conference in honour of Professor John Deely, former Chair of Statistics at Canterbury, to be held on 5-6 July 2007. This promises to be a well-attended and lively event, with many of John’s students, colleagues and friends from around the world expressing a strong desire to join in honouring a much-loved member of the international statistical community. The conference organiser Mik Black can be contacted at mik.black@stonebow.otago.ac.nz.

Carl Scarrott

President's Column



I am on record as having a somewhat sceptical view of SMART objectives. They are not exactly in tune with an environment of creative thinking, and quite incongruous in the context of statistical consulting. I went so far as to write a satirical essay on the subject several years ago

(which can be read on the web version of the newsletter, and is, of course, entirely fictional).

Thus, it is a reality check for me to find that there are no fewer than three issues on the Association's agenda that need "Specific, Measurable, *et cetera*", attention. The contribution of the Education Committee to the Curriculum project has come to fruition, and they have requested feedback by November. The management structure and operational contract for the ANZJS need to be evaluated and reconstituted by December, carrying long term implications. Further, the process of inspecting the Association's constitution (<http://nzsa.rsnz.org/constitution.shtml>), which has been set in place over the last year, needs to produce a potential revision for our next AGM (July 2007).

In addition there are financial challenges, in relation to which the term *measurable* comes to mind more readily than *attainable*.

Each of these issues is described in its own right in this newsletter, leaving me to muse here on the ironies of life. Is it time to 'get smart' – or simply to do what needs to be done?

Roger Littlejohn

Editorial

The more observant reader will have already noticed that Roger Littlejohn, Editor of the NZSA Newsletter for the past four years, has now been demoted to President. His last act as Editor was to catch me off guard and trick me into taking over. This was no mean feat, as my only previous



involvement with the Association was as the famous "Claytons" Treasurer of 2003/4 (when my only act was to second the nomination of my successor).

Actually, to be fair, Roger did spend a bit of time training me in the use of PageMaker and passing on his accumulated knowledge and wisdom, in particular the one over-arching principle that *the Newsletter must be a multiple of four pages in length*. An awareness of the operation of this principle should give you, the reader, an added insight into what is going on, somewhat akin to that of the statistical analyst who knows something about how their data were collected. So if you come across a page or two of irrelevant rubbish, or if you are a contributor wondering why your carefully constructed passage of purple prose has been brutally hacked, know that you are witnessing the Rule of Four in action. It's nothing to do with me!

I'd like to thank all the members who have contributed articles and photographs. Included in this issue are two extensive reports (one "official", one not) on the recent ASC/NZSA conference in Auckland, and a brief outline of our next conference to be held at the University of Canterbury next year. This will be a one-day affair, scheduled for 4th July, but it is being organized in conjunction with a two-day conference on 5-6th July in honour of John Deely, Professor of Statistics at UC for many years. This promises to be a very enjoyable event, particularly if the skiing season starts early again next year.

Other highlights in this issue include a contributed article by Graeme Bremner on Statistics in the Courtroom. We also have a number of issues on which your feedback is sought, including the new school Statistics curriculum, the future of our journal, the society's financial position, and the graphical standards of Statistics New Zealand. It occurs to me that my position as Editor gives me unprecedented power to comment on these and ... damn - run out of space!

Geoff Jones

Accessing ANZJS online

Blackwell Synergy

Members were emailed (1 February, 2006) instructions and their password from Blackwell Publishing on how to log-on to the *Australian and New Zealand Journal of Statistics* online directly through Blackwell Synergy (www.blackwell-synergy.com).

Alternatively, check with your library about access to ANZJS online through the subscriber-based providers Ingenta, Ebsco, SwetsWise or OCLC.

Submissions to the Newsletter

The Newsletter welcomes any submissions of interest to members of the NZSA. News about New Zealand statisticians, statistical meetings, statistical organisations, statistics in education, or statistical curiosities are suitable for inclusion. Letters that raise issues of importance to statistics in New Zealand are also welcomed. Photographs of recent gatherings and new appointees are of particular interest. Electronic submissions are preferred.

Next deadline 23 February, 2007.

Advertising In the Newsletter

The Newsletter accepts advertising of interest to statisticians in New Zealand. Advertising is placed subject to space considerations. Personal advertising by NZSA members will be published free. Other advertising is \$250 per page, \$140 per half page, and \$75 per quarter page. Other sizes can be quoted on request. All advertising requests should be directed to the editor.

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Newsletter on Web

An online version of this newsletter is available at <http://nzsa.rsnz.org/Newsletter64/index.htm>
It will be regularly updated with information and your letters.

Email: g.jones@massey.ac.nz

NZSA Membership rates

Given rates apply from April 2006 - March 2007 and are in NZ\$.

	NZ	Overseas
Ordinary	60	65
Student & Retired	30	35
No paper journal (electronic only - see Page 9)	-5	-5
SSAI Member (journal funded from SSAI membership)	30	35

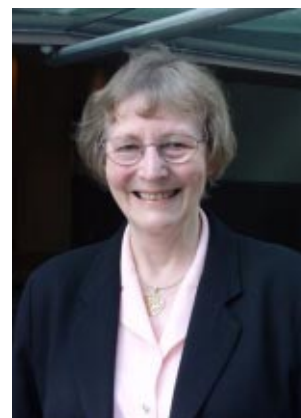
Join the NZSA

A membership application / change of address form is available at <http://nzsa.rsnz.org/form.php>

Awards

Honorary Life Membership of NZSA - Jean Thompson

Jean Thompson has been granted Honorary Life Membership of the NZSA. Jean has made an outstanding contribution to the Association over many years and in many roles, including President (1991-93) and Secretary (1962-63, 1987-88). She has also served for many years on the Education Committee.



Campbell Estate Fund

The NZSA was the recipient of a very generous donation (\$48,000) from Professor Campbell's estate.

There is roughly \$1500 funding available each year for special projects that are in the realm of Professor Campbell's interests. Refer to <http://nzsa.rsnz.org/funding.shtml> for more details.

The fund has now grown to over \$59,000 with accumulated interest since 2001.

Applications are received twice a year (April/October) and are invited for funding for projects in 2006/07. There is no formal application process but please supply details of your project, the full project budget, the amount you are requesting, a short statement about why your project is within Professor Campbell's interests, and your full contact details.

Please send your applications to the Secretary, (judi@stats.waikato.ac.nz), NZSA, PO Box 1731, Wellington. For more details contact Jennifer Brown (j.brown@math.canterbury.ac.nz) or Harold Henderson (harold.henderson@agresearch.co.nz).

Jennifer Brown

New members

A warm welcome to 26 new members of the NZSA, taking our membership to 401.

Regular members: Anapapa Mulitalo, Colleen Kelly, Fiona Cooke, Gang (John) Xie, Gareth James, Jamas Enright, Jason Rabbitt, John Pearson, Karla H Helgason, Katrina Young, Marcus Davy, Mark Meerschaert, Nellie Yang, Neville Bartlett, Rebecca Bangma, Rene Kroon, Sha Sha Guo, Soon Song, Victoria Wei.

Student members: Anthea Fiolitakis, Deborah Brunning, Janine Wright, Jannah Terpstra, Jennifer Wilcock, Sanat Pradhan, Thomas Tran.

NZSA Education Committee

From “Mathematics” to “Mathematics and Statistics”

A new draft curriculum has been released by the Minister of Education, Steve Maharey. Statistics has seen its profile dramatically increase, as the learning area previously entitled Mathematics is to be renamed Mathematics and Statistics. This reflects the differences between stochastic, statistical, data-driven thinking on the one hand, and deterministic, analytical mathematical thinking on the other. These two are not, of course, entirely different entities.

Members of our Education Committee have been actively involved in the process of producing this draft. Maxine Pfannkuch has been actively involved on the mathematics curriculum reference group to represent the statistical aspects and is continuing to write and refine aspects of the draft achievement objectives.

Now it's your turn! You can read the draft curriculum online, and you can make submissions on it. To do this, there are two main URLs that will help:

<http://www.tki.org.nz/r/nzcurriculum/pdfs/curriculum-framework-draft.pdf>

http://www.tki.org.nz/r/nzcurriculum/index_e.php

The first of these gives you the main curriculum document. You may wish to read all of this, but if your time is limited I suggest that you go to page 19 which tries to encapsulate in a few words the essence

of mathematics and statistics. You may also wish to consider the interaction between statistics and the other learning areas, particularly science, social science, technology, and health and physical education. Statistics needs to be integrated across the whole curriculum, and not just reside in mathematics.

An alternative is to ask for a hard copy. This is elegantly produced, with colour-coding (the Maths and Stats is in Burgundy) and fold-out pages, and can be obtained from Learning Media on 04 472 5522 or orders@learningmedia.co.nz.

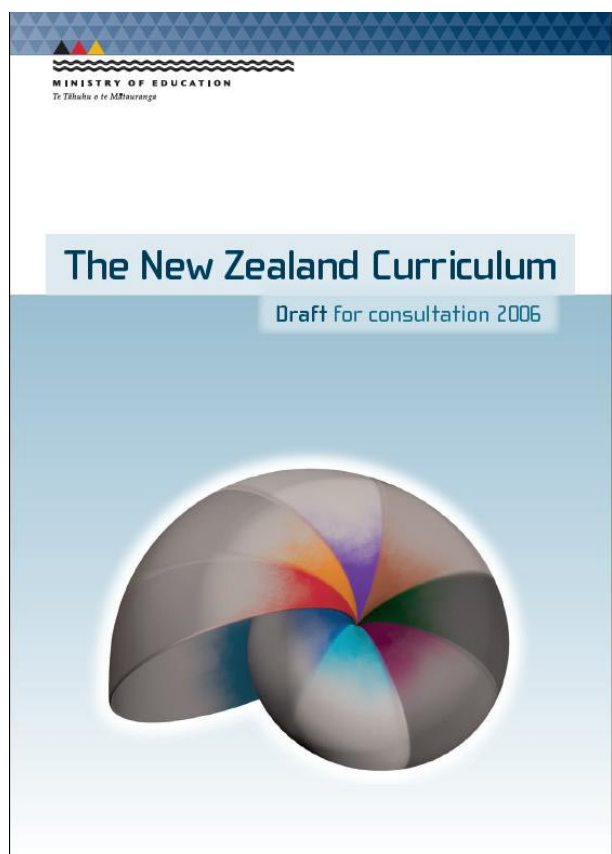
If you wish to see the details of what is actually to be taught in mathematics and statistics all in one place, then you need to go to the second of these websites. Once you are in this, click on *Achievement Objectives* in the first blue box, then click on *Mathematics and statistics curriculum achievement objectives*. You can then peruse the objective for students. Roughly speaking Level 1 to 3 is what is done in primary school, Level 4 is typically covered in intermediate school, Levels 5 and 6 are done in the first 3 years of secondary school, with level 7 being Year 12 (sixth form) and Level 8 being covered in the final year of schooling.

Having read this material you may well have strong views you wish to express. We certainly hope you do. To make a submission, go to the second blue box under the second of these URLs. Or alternatively you may wish to contact Maxine (maxine.pfannkuch@auckland.ac.nz) or Alex Neill (alex.neill@nzcer.org.nz).

The authors of the Draft have been very careful to make sure that it is about the whole learning process, and not just about the seven subject-groups. There is plenty about this whole process on pages 3-12 and 24-34. There is much in the sections on Vision, Principles, Values and Key Competencies that involve Statistics. The section on Effective Pedagogy is very much in line with our views on the teaching and learning of Statistics.

The Statistics-specific parts of the document have had varied amounts of input from ourselves. Here they are:

1. *The subject name: Mathematics and Statistics*
This suggests that NZ's mathematics educators have made a major paradigm shift in thinking about the role of mathematics (the third of the 3 R's). There is now the task of enabling the whole education community to make this shift.
2. *The one-sentence statement (p 13)*
See the burgundy box.
3. *The one-page introduction statement (p 19)*
The Education Committee (together with our Auckland-based colleagues) suggested substantial



changes to the wording about statistics, and these changes are incorporated in this draft. We hope you like it!

4. *The Achievement Objectives for the eight Levels*
The Statistics 'strand' consists of three 'substrands' or 'threads'. The Education Committee (and Auckland colleagues) have had varied amounts of input into these three so far:

Statistical Investigation (Thinking)

We've put lots of work into this, and the results are in this Draft. Comments welcome.

Statistical Literacy

The words in the Draft are a very early version. We are working on a submission that will replace them, and align them with the rest of the subject.

Probability

The words in the Draft are a very early version. We've put lots of work into a new version, and will submit this to the Ministry. We'll send a copy to members on request.

There are two major issues about Statistics in the Curriculum:

- getting the words and concepts right in this document;
- resourcing and supporting schools so that they can action these concepts.

You may like to comment on those two issues.

The Ministry seeks responses by 30 November.

Alex Neill

**One Day Meeting
of
Palmy-STATISTICIANS
Presented by
AgResearch Grasslands
Palmerston North
&
Institute of Information Sciences and
Technology
Massey University, Palmerston North.
Date: 27 Oct. 2006 (Friday)
Time: 9 am - 5 pm**

Lunch and Refreshments will be provided on the day.

Keynote speaker: **Dr David Baird**

The purpose of this forum is to bring Statisticians in and around Massey University together for a day at our Institute for the presentation of their current research work and group discussion on issues relevant to applications. Those who wish to make a presentation, please send your abstract to us at your earliest.

Coordinators:

Ganes (s.ganesalingam@massey.ac.nz)

Alasdair (a.d.noble@massey.ac.nz)

*** Please feel free to pass this invitation to anyone else in the local area who might be interested.**

Statistics Education News

International News

ICOTS7, Working Cooperatively in Statistics Education, Salvador (Bahia), Brazil, July 2-7, 2006.

The International Association for Statistical Education (IASE) and the International Statistical Institute (ISI) successfully organized the Seventh International Conference on Teaching Statistics (ICOTS7), which was hosted by the Brazilian Statistical Association (ABE) in Salvador (Bahia), Brazil, July 2-7, 2006. Despite problems with the Brazilian airline Varig many New Zealanders attended and presented at this conference. John Harraway and John Shanks, Otago University, were on the International Program Committee and were congratulated on their exceptional contribution to the conference. New Zealand featured prominently in the plenary speeches with Chris Wild presenting an outstanding talk on how to grow statistics student numbers in Universities, Bryan Manly giving case studies of environmental statistics in New Zealand, and Len Cook giving a humorous talk at the conference dinner. Other New Zealanders present were: Matt Regan, Mike Forster, Joss Cumming, Christine Miller, Maxine Pfannkuch, Murray Black, Tim Burgess, Sashi Sharma, Lynda Merriman, Rachel Cunliffe, Doug Stirling, Jennifer Brown.



Joint ICMI/IASE Study, Statistics Education in School Mathematics: Challenges for teaching and Teacher Education. The International Commission on Mathematics Instruction (ICMI) Executive committee invited IASE to cooperate in a joint study focused on statistics. The invitation was accepted by IASE, which proposed to merge the Study Conference with IASE's next Roundtable Conference to be held in 2008 in Monterey, Mexico. Carmen Batenero is chair of the International Programme Committee (IPC) of the joint study. Planning is underway for this study, which will result in a book being published in 2010. Meetings of the IPC were held at ICOTS7 and further meetings are planned for ISI-56. For more information see: http://www.ugr.es/~icmi/iase_study/

SRTL-5 Forum. The 5th International Forum on Statistical Reasoning, Thinking and Literacy will be held in England at the University of Warwick, 11-17 August 2007. The focus of the Forum will be on Reasoning about Statistical Inference. For more information see: <http://srtl.stat.auckland.ac.nz/>

Maxine Pfannkuch

ANZJS - Editorial Matters

This report is an edited version of material supplied by Prof Kerrie Mengersen, Managing Editor, ANZJS

Editorial Board

The final changes to the Editorial Board of the Journal have been confirmed. The Editorial Board now comprises Kerrie Mengersen (Managing Editor), Stephen Haslett (Theory and Methods), Jeff Wood (Applications) and Ken Russell (Technical). The contributions to the Journal made by the former members of the Editorial Board are warmly acknowledged.

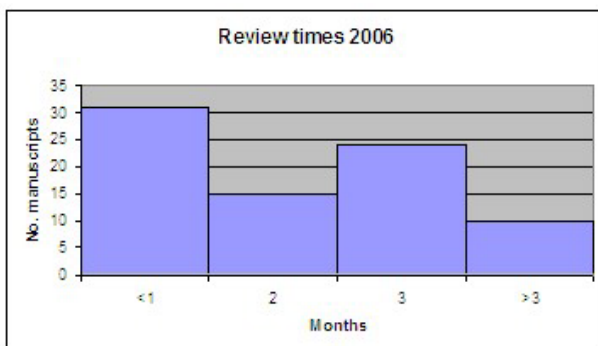
Communication and interaction will continue to be consolidated among the Editorial team. Increased communication between the Society and the Editorial Board will continue to be subject of discussion. An assistant Technical Editor will be appointed. The review of Associate Editors will be completed with the Editorial team. The new board of Associate Editors will be confirmed with the Editors before being published on the website and in future issues.

Submissions

More than 80 manuscripts have been submitted to the Journal since January 2006. This is a pleasing rate of submission and gives opportunity for careful selection of papers on the basis of quality, composition and attractiveness to our readership.

As initiated by the previous Editorial team, the backlog of papers has been substantially reduced, so that time between acceptance and publication of papers is now much more reasonable.

Review times continue to be monitored. A summary of review times for manuscripts submitted in 2006 is given in the following plot. It is clear that some manuscripts are still subject to unacceptably long delays of more than three months.



Another issue under consideration by the Editorial team is the length of time for revisions of manuscripts. At present there is no limit to this, which means that Associate Editors and reviewers may be asked to remember and reconsider manuscripts that were submitted more than twelve months ago.

Operations

Interaction between the Editorial team and Blackwell, as the publisher of the Journal, has been very positive. The web-based production system used by Blackwell appears to be working well. As described by the publishers, "Using Author Services, authors have the ability to track the progress of their manuscripts from receipt at Blackwell through the production process to publication online and in print. Registered authors benefit from free access to the full text of their papers in Blackwell *Synergy* as well as a 20% discount on Blackwell publications... Author Services will be further enhanced in 2006 to include readership and citations per article in Blackwell *Synergy*."

A number of issues continue to be pursued with Blackwell. Online Open is a service provided by Blackwell whereby accepted manuscripts are made available electronically by the Publisher prior to formal publication, thus facilitating faster access to papers. A web-based submission service is also provided.

Copyright remains a topic of active discussion among authors, the Editorial team and the publisher. These have also been motivated by changing demands by funding bodies and employers. Blackwell has responded positively with a range of options, including (i) an Exclusive Licence Form that allows authors to retain the copyright of their article while granting the journal the exclusive rights to publish it; (ii) self-archiving the final version of an article on personal websites or institutional repositories after an embargo period with a link to the definitive published version on Blackwell *Synergy* for citation, and (iii) Online Open services; see above.

Profile

The online readership of the journal continues to grow. As reported by Blackwell, "in 2005, ANZJS articles were downloaded 14,795 times through Blackwell *Synergy* and other online hosts. This compares with 10,263 in 2004; an increase of 44%."

The 2005 Journal Citation Reports from the ISI's Science Citation Index reveal that the Australian and New Zealand Journal of Statistics has seen a 48% increase in its Impact Factor, from 0.387 in 2004 to 0.573 in 2005. This is the third year running that the journal has seen an increase and 2005 sees the second highest impact factor the journal has achieved. The 2005 Impact Factor is derived from articles published in 2003 and 2004.

Despite this impressive rise, the journal remained ranked 59th in the Statistics & Probability category for the third consecutive year, albeit from a larger pool of journals (75 in 2003, 77 in 2004 and 81 in 2005). The profile of the Journal continues to be the topic of discussion among the Editorial Board.

Stephen Haslett

ANZJS - Organizational Matters

The article below is a discussion paper by Neville Bartlett of the Australian Statistical Association, outlining the areas that will be under discussion between the two societies over the next few months. If you have any questions about these proposals or comments that you would like to make, please get in touch with Roger Littlejohn and/or myself. We are keen that the final arrangement gets the broadest possible support - Murray Jorgensen.

Summary

This discussion paper outlines the current configuration of SSAI-ASPAAI and their role in the publication of The Australian and New Zealand Journal of Statistics (ANZJS). It is proposed that this structure be reviewed in an effort to provide the New Zealand Statistical Association (NZSA) with a more direct role in the management of ANZJS and to simplify the working within SSAI. Any such changes will not be allowed to adversely affect the autonomy of the editorial decisions made by ANZJS editorial team.

Introduction

The Statistical Society of Australia has two central registered organisations, namely, the Statistical Society of Australia Incorporated (SSAI) and Australian Statistical Publishing Association Incorporated (ASPAAI). ASPAAI was originally setup to carry out publication of the journal (the Australian Journal of Statistics) and the SSAI Newsletter.

Since 1998 the Australian and New Zealand Journal of Statistics (ANZJS) has been jointly produced with the NZSA via an agreement with the publisher Blackwell. ANZJS replaced the Australian Journal of Statistics published by ASPAAI and the New Zealand Statistician published by NZSA. A memorandum of understanding between NZSA and SSAI governs how the Journal is funded and the structure of the editorial team. A journal capitation fee per member paid to ASPAAI funds ANZJS publication.

Current Configuration

SSAI and ASPAAI are two separate bodies that require separate accounts and meetings. SSAI and ASPAAI have the same central councils made up of representatives from the Branches (with the number of delegates related to branch membership numbers) and Sections as well as an Executive made up of the President, Secretary, Treasurer and ANZJS Editor. NZSA has no representation on ASPAAI even though ASPAAI's primary purpose is the publication of ANZJS and the SSAI Newsletter.

Funds to support SSAI are raised by charging each branch an annual capitation fee per member and part of this capitation fee is forwarded onto ASPAAI to cover

the ANZJS capitation fee and the cost of publishing the SSAI Newsletter.

Since ASPAAI was first created many things have changed and these include:

- Incorporated bodies in Australia are subject to increased regulation;
- ASPAAI currently does not employ people to carry out copy editing and typesetting;
- The publisher (Blackwell) looks after collection of all institutional subscriptions and almost all of the publication process from the point of acceptance of papers;
- The introduction of a goods and service tax (GST) in Australia has increased the need for disciplined financial recording and regular lodgement of GST returns;
- The financial position regarding the journal is much more stable and assured.

There are two areas of difficulty with the current structure:

1. NZSA has an indirect role in the (non-editorial) management of ANZJS that is structurally inappropriate as well as being vulnerable to unnecessary 'surprises'.

2. The structure/working of the SSAI/ASPAAI relationship in its current form does not seem to offer any benefits to SSAI members and works against providing NZSA with up-to-date and relevant financial information regarding ANZJS.

Each of these aspects is sufficient on its own to warrant a review of alternatives.

Potential Future Structure

Objectives:

- Provide NZSA with a more direct and equitable role with regard to the overall and financial management of ANZJS and the relationship with its publisher without decreasing the autonomy of the ANZJS editorial team.
- Simplify the structure of SSAI/ASPAAI so that it is easier to manage as well as being clearer to the SSAI membership.
- Put in place a board of management for ANZJS that enables appropriate consideration of short and longer term publication issues as well as providing the ANZJS editorial team with a forum to raise general issues.
- Facilitate the financial management of ANZJS in a way that is much more transparent to both NZSA and SSAI.
- Provide a structure that keeps options open regarding how the ANZJS is published in the future.

A board could be established with:

- 6-8 people with at least 3 from each of NZSA and SSAI;

- 1-2 others with particular and relevant skills/experience;
- Membership will be for 4 years and renewable in 1 year increments so that a good balance is struck between maintaining knowledge while ensuring some new minds are introduced;
- Chair would be for 2 years at a time and would be expected to alternate between NZSA and SSAI representatives;
- Editorial team members will have an open invitation to all board meetings;
- The board will be based in Australia under the auspices of SSAI unless substantial benefits can be shown for it to be a subcommittee of NZSA.

The role of the board would be to:

- Manage the relationship with the publisher (currently Blackwell);
- Consider alternative forms of publication and relationship with publishers;
- Appoint people to the editorial team;
- Co-ordinate the financial affairs of ANZJS including recommendation of capitation fees and regular reporting of financial status. Formal approval of all recommendations would still rest with SSAI and NZSA but the board's role will be to ensure that all recommendations are debated appropriately and well constructed;
- Keep members of both NZSA and SSAI up to date with journal related matters.

Financial Management of ANZJS

Audited annual financial statements will be supplied to NZSA and SSAI in suitable time for annual general meetings and other relevant meetings. Funds required for the publication of ANZJS from NZSA and SSAI will be calculated on a per member basis (as currently) or by agreement between the two societies. Any refunds will also be calculated on the same basis unless otherwise agreed by both NZSA and SSAI. It is expected that the management board will have a modest reserve of funds available to use at its discretion. The publication of festschrifts and the reduction of publication backlogs by publishing bumper issues would be two examples of appropriate uses of such a reserve.

Editorial Management of ANZJS

The current autonomy of the ANZJS editorial team will be protected. There has been a long tradition of allowing maximum autonomy for the editorial team to handle editorial issues and this tradition will be maintained. Any new structure/arrangement regarding ANZJS must provide the editorial team with clear financial guidelines and act as a forum for the editorial team to raise general policy issues and actions that would require extra funds or other forms of support.

Conference Brief

See Gordon Smyth's Australasian conference list
<http://www.statsci.org/conf/index.html>

Spring Bayes

Brisbane, Australia

September 27-29, 2006

Web: <http://www.maths.qut.edu.au/asba/docs/sb/>

Email: c.alston@qut.edu.au

Bioinformatics Australia 2006

Sydney, Australia

November 21-22, 2006

Web: <http://ba.angis.org.au/>

Email: scattley@angis.org.au

BioInfoSummer 2006: ICE-EM Summer Symposium in Bioinformatics

Canberra, Australia

December 4-8, 2006

Web: [http://www.maths.anu.edu.au/events/](http://www.maths.anu.edu.au/events/BioInfoSummer06/)

[BioInfoSummer06/](http://www.maths.anu.edu.au/events/BioInfoSummer06/)

Email: Bioinfosummer@yin.anu.edu.au

Australasian GenStat/StatGen Conference 2006

Victor Harbour, Australia

December 5-8, 2006

Web: <http://www.biometricssa.adelaide.edu.au/genstat2006/>

Email: genstat2006@adelaide.edu.au

Directions in Statistical Computing (DSC 2007)

University of Auckland, New Zealand

February 14-15, 2007

Email: paul@stat.auckland.ac.nz

Modelling Invasive Species and Weed Impact

Hanmer, Canterbury

April 16-20, 2007

Web: <http://www.math.canterbury.ac.nz/bio/NZIMA/>

Email: J.Brown@math.canterbury.ac.nz

NZSA 2007 & Conference in Honour of Prof John Deely

University of Canterbury, New Zealand

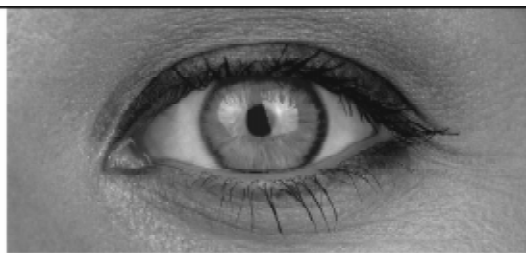
July 4 & 5-6, 2007

Email: nzsa2007@gmail.com

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CLINICAL STATISTICIANS UK and Switzerland

You will be responsible for all statistical tasks for assigned clinical trials ensuring timeliness & quality of deliverables. You need BSc/ MSc Statistics, minimum 2 years experience in pharma development and clinical research, strong statistical skills, knowledge of clinical trial methodology & SAS. Excellent salaries & benefits. Ref. NZSA 01

CLINICAL SAS PROGRAMMERS UK and Switzerland

Required for clinical trial analysis and reporting. Candidates should have BSc/ MSc degrees (post graduates preferred) and minimum 2 years experience in SAS programming for pharmaceutical projects. You need time and resource management skills and strong SAS programming expertise. Excellent salaries & benefits available. Ref. NZSA 02

STATISTICS BUSINESS PROCESS MANAGER Hertfordshire UK

You will propose, plan, and execute new procedures for improvement of quality within PDM Biostatistics globally. Candidates need PhD/ MSc in statistics, computer science or related areas or equivalent experience with software development. 5 years experience with SAS software & programming ability. Overall knowledge of the Drug Development process & regulatory requirements. Genuinely competitive salary & benefits. Ref. NZSA 10993

BIostatISTICS APPLICATIONS MANAGER Hertfordshire, UK

You will support, enhance and develop processes used within the Biostatistics Computing Environment (BCE), used for the statistical analysis of clinical trial data. You need 5 years minimum experience in computer programming, business analysis, or technical support role, preferably in pharmaceutical drug development. Expert knowledge of software development process and validation and SAS for clinical trials analysis. Competitive salary & excellent benefits. Ref. NZSA 10990

COMPUTER SCIENCE STATISTICIAN Hampshire UK

A leading supplier of statistical data analysis software and services requires a statistician to participate in the design and implementation of customised statistical and reporting applications based around S-Plus. You need MSc/ PhD in statistics or related area. Good understanding/ experience of general software systems, knowledge of statistical languages: S-Plus, R or SAS. Experience of statistical modelling. Competitive remuneration & benefits. Ref. NZSA 10341

To apply for any of these roles or talk confidentially about developing your career contact: **Den Lowpetch**, Senior Account Manager on +44 (0)1273 722366 or email your CV to den@fforde-management.com

www.fforde-management.com

Professor Campbell - Request for Information

From John Mack at the University of Sydney (j.mack@usyd.edu.au):

For some years now, a colleague and I have been collecting archival and other information relevant to Signals Intelligence activities that occurred within Australia during the Pacific War years, against the Japanese. Our initial stimulus came from learning that Professor T.G. Room, who taught mathematics to both of us as undergraduates, played a major role in this work, particularly as part of General MacArthur's Central Bureau in Brisbane. Whilst obtaining data on interactions between Australian and New Zealand personnel involved in this work, we have found a top secret report which, inter alia, lists the staff in the New Zealand unit, as at mid-1942, as :

“Lieut. Philpott RNZN, in charge; Mr Campbell, investigation as requisite; Mr Boulter, half-time translator; and two women assistants both of whom are above average ability and one of whom knows quite a bit of Japanese”.

Elsewhere in this report, Mr Campbell is described as

“formerly professor of mathematics at Wellington University who accompanied me on my return to Melbourne and who remained there for a period of six weeks in order to gain general experience. He is a

most promising student and may well be useful in the future in tackling more important problems.”

We will be delighted to receive any information on Mr Campbell's subsequent work in this field, or on the work done by the others mentioned above.

Below is appended a biographical excerpt from: A History of Statistics in New Zealand, published by Bateson Publishing in 1999, with funding from the New Zealand Statistical Association and the Lotteries Commission of New Zealand. H S (Stan) Roberts edited the history, and wrote substantial sections. This book is now out of print - we are hoping to put a pdf version online in due course.

“James Towers Campbell (1906-1994)

R M Williams, Former Director, Applied Mathematics Division, DSIR

When in 1941 I went from Christchurch to Wellington, also to go into radar, I was advised by my professor that if I wanted to keep in touch with mathematics, to go and see Campbell. To my disappointment, Campbell was warm and friendly but about to leave for the Navy. His next four years were spent mainly in Australia, on decoding work, which he found mathematically unrewarding. He returned with relief to Victoria University in 1946.”

Statistics in the Courtroom – a personal view

Last year, Peter Johnstone and I became involved in a major fisheries case called Operation Mini. The allegation was that several large foreign factory trawlers fishing in NZ waters were illegally dumping large numbers of small hoki. There was no eyewitness evidence since these trawlers were not carrying government observers. However, there were a number of similar vessels fishing in the same area at the same time with identical gear, and we had data on the length-frequency composition of the catches from 527 observed tows. During the hoki spawning season the trawl fleet are fishing almost on top of one another, competing for the same spawning aggregations.

The length frequency of the landings from the suspect vessels was very different from the length frequency of the catches taken by the vessels carrying observers. Monte Carlo simulation suggested that it was highly improbable that a trip of 41 tows could catch no small fish; and the difference between the observed and unobserved vessels could not be explained by any of the variables for which we had data. The details will mainly be of interest to fisheries scientists: anyone who is curious will have to wait for us to publish the results or attend the 18th International Forensic Science Symposium.

The case was abandoned before it went to court due to legal concerns over the admissibility of probabilistic evidence and concerns about “novel science”.

Science and law have always been uneasy bedfellows, and the interface between statistics and the law is particularly vexed. There is a large literature on the topic, but here are a few comments for those who unfamiliar with it. I’ll begin with one of my favourite quotations.

It is now generally recognised, even by the judiciary, that since all evidence is probabilistic – there are no metaphysical certainties – evidence should not be excluded merely because its accuracy can be expressed in explicitly probabilistic terms.

Posner, R.A. (1999) An economic approach to the law of evidence. Stanford Law Review 51: 1477 – 1508

Justice Posner seems to have had a sheltered career – or maybe his comments apply only in America! It has been a common experience of statisticians that evidence presented in explicitly probabilistic terms is regarded with grave suspicion

by judges and is frequently excluded entirely. As usual with expert testimony, though, admissibility rulings have been haphazard. Consider the following pair of North American judgements delivered within a couple of months of each other in 1991. Both concern DNA matches to a suspect.

Without the probability assessment the jury does not know what to make of the fact that the patterns match: the jury does not know whether the patterns are as common as pictures with two eyes or as unique as the Mona Lisa.

US v Lee 134 FRD 161, 181

There is a real danger that the jury will use the evidence as a measure of the probability of the accused’s guilt or innocence and thereby undermine the presumption of innocence and erode the value served by the reasonable doubt standard..... I would, therefore, rule admissible the DNA testing evidence but not the statistical probabilities.

R v Bourguignon O.J. No. 2670 Flanigan J.

Operation Mini was about deviation from a base rate. A base rate is the relative frequency with which an event occurs or an attribute is present in some reference population. Base rates simply provide factual background information – e.g. the percentage of Maori in the general population; the proportion of people with a particular blood type; or the proportion of the general population with some specified DNA profile across a range of loci.

The legal profession seem to have enthusiastically accepted base rate statistics for some purposes but not others. Few would now follow Justice Flanigan in a DNA case, but more general application remains haphazard. Cases involving claims of discrimination on the grounds of gender or race almost invariably involve comparison of complainant’s circumstances to a base rate, and the evidence always seems to be admissible. Cases involving claims of medical malpractice routinely have base rates ruled irrelevant, even though the medical profession themselves rely heavily on base rates to monitor and improve their practice.

There can of course be reasoned arguments about the accuracy of any base rate presented, or whether the reference population is representative. There have also been arguments that use of base rates as evidence is inherently immoral, since they encourage inference about a defendant’s behaviour and conflict with the concept of “individualised justice”.

Jonathon Koehler recently studied hundreds of high court judicial opinions in the USA. He concluded

that “sometimes courts regard probability evidence to be relevant and sometimes they do not”, and noted that there were

.. conditions under which courts are likely to view base rates as relevant. This tends to occur when base rates (a) arise in cases that appear to have a statistical structure, (b) are offered to rebut an it-happened-by-chance theory, (c) are computed using reference classes that incorporate specific features of the focal case, or (d) are offered in cases when it is difficult or impossible to obtain evidence of a more individuating sort..... From a strategic standpoint, attorneys who wish to introduce base rates might try defending their relevance in terms of one or more of these factors..... Attorneys who oppose base rates may succeed merely by suggesting that base rates concern other people in other situations and tell us nothing about what happened in this case.

Koehler, J.J. (2002) When do courts think base rate statistics are relevant? Jurimetrics Journal 42: 373-402

Where would our evidence sit? I don't think anyone can really say. We would argue that our work met all four of Koehler's conditions. However, the relevance of the data obtained from the observed vessels would certainly be challenged by the defence. It may or may not have been admitted by the judge depending on his or her personal proclivities.

The fate of Operation Mini is immaterial in the overall scheme of things. However, it is symptomatic of an unhelpful gulf between professions. Both statisticians and judges are interested in making decisions in the face of uncertainty. Both are (or should be) interested in concepts of probability and logic; and both are (or should be) approaching the issues under discussion without bias. There is much to be gained by an interchange of ideas, and I think this is recognised by both sides.

In New Zealand there has already been a call for the legal profession to undertake more training in statistics.

...court lawyers and judges will find it worth adding an elementary understanding of probability theory to their armoury. It will help in the basic tasks of identifying what evidence is relevant, assessing the extent to which it makes factual allegations more probable, and considering the combined effect of multiple items of evidence. Judges are not immune to criticism in this area. It will be increasingly difficult for lawyers and judges to follow

the growing body of statistically based evidence without a rudimentary understanding of probability theory.

Justice Robert Fisher, LexisNexis Professional Development Criminal Law Conference 2003

In the USA, the Federal Judicial Centre has produced an excellent reference manual on scientific evidence, which includes a 96 page reference guide on statistical evidence in US courtrooms co-authored by David Freedman. The American Association for the Advancement of Science also has a programme to make independent experts available to assist judges with any difficult technical case, including those involving statistical issues. In Britain, the Royal Statistical Society has been actively campaigning to improve statistical standards in the courtroom following recent court cases where the interpretation of statistics has been of concern. They have also established a working party on Statistics and the Law, chaired by Colin Aitken.

What can we, as individuals and as a learned society, do to bridge the gap in New Zealand?

Graeme Bremner

Statistical Graphics - Request for Feedback

Statistics New Zealand is currently reviewing its table, graph and map guidelines. As part of this project they are attempting to consult as widely as possible with interested agencies and those with expertise in the area of statistical graphics. They would be most interested in receiving feedback from readers of the newsletter on what they think of current publications, both those on the web and those produced in hardcopy, as well as any information/expertise they have in regard to what is considered best practice for statistical graphics. SNZ's current graphic guidelines are available on the web at <http://www.stats.govt.nz/about-us/policies-and-guidelines/data-use/graphics-guidelines.htm>. These are quite dated, hence the undertaking of this project, but they may be a good place to start for people wishing to provide feedback.

Any advice, assistance, comments etc. will be gratefully received. Please contact:

Catherine Taylor (Project Manager)

By mail: Statistics New Zealand

PO Box 2922

Wellington

Email: consultation@stats.govt.nz

Fax: 04 931 4079

Please attention all correspondence to: Catherine Taylor- Standards Project

Comments on our Financial Position - Roger Littlejohn

Many members will be aware that this year's conference, ASC/NZSA 2006, ran at a substantial loss. I am writing here to reassure members that we are able to cover the estimated loss from current resources and that our Exec will be giving vigilant attention to our financial situation.

To describe our current (pre-conference) financial position, the NZSA has built up a current reserve of about \$20,000, and, in the Campbell Fund, has a resource of about \$60,000 that is managed in relation to Professor Campbell's interests. Our annual turnover is about \$20,000, which is the basis for calculating our target reserve.

There are three factors that put pressure on our accounts:

- the need to rebuild reserves to pre-conference levels;
- the need to increase reserves to a safe level, insofar as we are not permitted to borrow money (see Clause 13 of our Constitution);
- the need to buffer ourselves against fluctuations in the exchange rate.

The loss incurred through the conference for which NZSA is liable is likely to be about \$NZ20,000. Attendance was 290 compared to a break-even level of 400. Of these, more than expected were students (46), for whom registration was discounted. Thus, there was a shortfall in income, rather than an excess in expenditure. In fact, measures were taken to curtail expenditure on certain items, preventing a greater loss, for which we are grateful to the organizing committee, David Scott, Harold Henderson, William Dunsmuir and Neville Bartlett. They delivered an international class conference through which we were able to 'build statistical connections'.

It is also important to realise that the best (in some cases, only) options were taken in choosing the venue and management arrangements within the constraints that were set. I still imagine that some members will be feeling a degree of negativity about the level of quality (or 'indulgence', as I have heard it expressed more than once) involved in the conference. If there is no other way to relieve your angst, send me an email - but read to the end of this article first!

I had always been under the impression that the Association operated on a break-even basis. The Friday before the conference I was made aware of the dreaded Clause 13 ("The Association shall not have the power to borrow money."). Now a random walk with zero drift and a positive start will reach zero with probability one, while with positive drift there is a positive probability that it will not reach zero. Of course our 'walk' isn't random, as we are

able to intervene. But my suggestion is that, to avoid a reactive situation, we need to tune our finances towards making a small profit, and may need to set our target reserve at greater than one year's transactions.

Our exposure to the exchange rate comes through the journal, for which we pay a capitation of \$A27.50. In \$NZ terms, this would cost us \$1600 more with the drop in our currency from the beginning to the middle of this year, an extra \$4 per member.

What to do?

This situation was discussed at the AGM, and there was a definite sense that we could take the loss in our stride, that there was no need to worry.

The AGM approved an increase in subscriptions for regular members from \$60 to \$75, as of April 2007, with rates for other membership classes mapping in the usual way. (Note that the SSAI core subs went from \$A99 to \$A140 at the same time.) It is likely that those whose subs are in arrears will be dropped from the list of members.

Our Exec has the responsibility to manage our accounts, control financial risks, plan budgets, and, hopefully, restore us to our previous position over 4-5 years. This is likely to be a process of many small gains to offset a single larger loss, not an unfamiliar scenario.

Future conferences are likely to be run on a more traditional basis (University venue, DIY management), not to exclude hotel venues, which we have used successfully in the past.

We have been pointed to measures taken by the Meteorological Society to avoid risk in an international situation. It is in the nature of being involved with bigger players (in our case SSAI and Blackwells) that the risks are greater.

Contributions from members are welcome - opinions, ideas, new initiatives, donations (they're tax-deductible!). Email them to me at roger.littlejohn@agresearch.co.nz.



Our President refusing to try the yoghurt at ASC/NZSA 2006.

Local Scene

University of Otago

Professor Mark Meerschaert, Chair of Applied Mathematics, University of Otago has left the department to return to America to take up the position of Chairperson, Department of Statistics and Probability, Michigan State University.

John Harraway attended ICOTS7 in Salvador Bahia, Brazil in July. The conference was very worthwhile with 550 registered but about 15 not able to attend because of the collapse of the Brazilian Airline, Varig. A further 100 high school teachers from Bahia attended workshops in the two days before the conference. John presented a paper on Item Response Theory, took part in an invited debate about the teaching of statistics in context and organised the session on multivariate statistics within the tertiary education topic. He was Scientific Secretary for ICOTS7 and has been asked to Chair the International Programme Committee for ICOTS8 which will take place in Slovenia in 2010. John also visited the Federal University of Santa Catarina in Florianopolis where he is working with Dalton Andrade on a project in Brazil.

David Fletcher is enjoying all the delights of sabbatical this year, and is currently visiting Byron Morgan at the University of Kent in England. He has already been to CNRS in Montpellier, France, to work with Jean-Dominique Lebreton, and will visit there again before returning to Dunedin in September. He will be giving a seminar at Kent at the end of August entitled "Mark-Recapture Models and Population Dynamics". This will be broadcast via video-link to St. Andrews and Cambridge, as statisticians at these three universities run the National Centre for Statistical Ecology. David arrived in England just after the heatwave across Europe was coming to an end, so felt quite at home arriving to find summer consisted of rain and 12 degrees Celsius temperatures (much like Dunedin!). It was quite a change from the 35-degree climate he had earlier enjoyed in Montpellier.

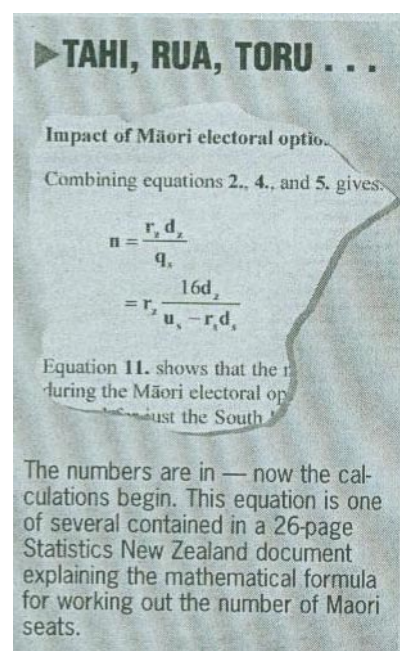
Irene Goodwin

Department of Conservation

The statistical staff at DOC is back up to two full-timers. Carla Meurk has left our shores for redder pastures to undertake a PhD at the University of Queensland, but I am back on the force on a one-year contract based in Wellington. I submitted my MSc thesis to the University of Auckland in July, the

subject of which was a multivariate evaluation of the Marine Environment Classification for coastal reef fishes, supervised by Marti Anderson. My new project with the department is to assess DOC's needs for methods of longitudinal data analysis, and to boost our capacity in this area. I invite discussion and collaboration from anyone with expertise in this branch of statistics. Meanwhile, Ian Westbrooke has spent a couple of months living in Auckland, where he attended the 2006 ASC/NZSA conference, and returns to Christchurch soon. He recently received quite a surprise when he opened the Dominion Post one morning to find some equations he had written some years ago featured on page two, in the illustration for a news article on the Maori Electoral Option (see below).

Adam Smith



Dominion Post
8-12-06

Fonterra

With fewer arrivals (Hayley Knox) than departures (Maree Luckman, Dongwen Luo and Hayley Knox) over the last year or so our current statistical staffing sits at three (or three and a half depending on how it's counted) - Rob Crawford and Roger Kissling (Hamilton) and Barbara Kuhn-Sherlock and Catherine Lloyd-West (Palmerston North). A recent restructuring has resulted in the formation of a Calibration and Statistics team, the first time statistics has received any structural recognition within Fonterra. Rob Crawford has taken over management of the combined group, which includes some 20 calibration staff, as well as continuing as a half-time statistician. Subject to negotiations, we are hopeful of recruiting at least one more statistician in the near future.

Roger Kissling

University of Auckland

We have had some comings and goings recently. We have said a fond farewell to Mik Black, who has departed for his native South Island and is now a member of the Bioinformatics Group in the Biochemistry Department of the University of Otago. We are delighted to welcome Associate Professor Catherine Loader, who has joined our department from Case Western Reserve University in Ohio. Yuichi Hirose, who completed his PhD last year, has taken up a lectureship in Applied Statistics at Victoria University of Wellington. Carl Donovan has successfully defended his PhD thesis and continues as a lecturer at the University of St Andrews in Scotland. And a warm welcome to Jacob Miller: the newest family member for Arden and wife Mel, born on May 8th.

2006 has been the Year of the Workshop. Russell Millar spent a week in St John's, Newfoundland in May, participating in a workshop on Bayesian methods for stock assessment. Russell stopped off in Seattle on the way, enjoying temperatures as high as 25C. On the Atlantic coast he endured temperatures below freezing. Rachel Fewster noted similar temperature fluctuations in April while attending a workshop on Uncertainty in Ecological Analysis, organised by Noel Cressie at Ohio State University. Rachel also co-presented an Auckland workshop on distance sampling, with Steve Buckland and David Borchers of the University of St Andrews. Paul Murrell gave a workshop on R Graphics following the ASC/NZSA conference in Auckland in July, and the department also hosted two further workshops by Bill Venables (S Programming) and Robert Gentleman (Bioconductor).

Continuing the workshop theme, Marti Anderson gave a workshop on multivariate analysis for ecologists at the University of Western Australia in July. The workshop was the inauguration of commercial versions of Marti's multivariate software, which will soon be available as an add-on package to the existing PRIMER software (standing for Plymouth Routines in Multivariate Ecological Research), developed by a company based in Plymouth, UK. Marti's next workshop will be at the University of Pisa in Italy in September, followed by another at the National Centre for Ecological Analysis and Synthesis in Santa Barbara, California. The official release of the program is scheduled for early 2007.

PhD student James Russell, whose failure to catch an absconding rat shot him to fame (and a Nature publication) in October 2005, was selected to represent the university for the state visit of the Crown



Princess of Thailand, Her Royal Highness Maha Chakri Sirindhorn, in March. James (above) gave one of two talks to the Princess and diplomatic delegation, aimed to showcase research at the University of Auckland on the theme of conservation and environmental science. The star of the show, athletic Norway rat Razza who swam across 400m of ocean to escape from James's research attentions, declined to attend for personal reasons.

With more ratty tales, this time about a genetic study of rat invasions among New Zealand islands, PhD student Steven Miller won the NZSA student prize at the conference in Auckland in July. He then went to the International Biometric Conference in Montreal, also attended by Chris Wild and Chris Triggs. And finally, two Statistics grad students had a memorable stroke of luck in March. After parking in Parnell and walking to campus, they were aghast to see their own car driving past them in central Auckland. At times like this, what better phenomenon to rely upon than the trusty Auckland gridlock. The car was halted at a traffic light long enough for the owner to sprint the length of the street and jump into his car next to the thief. In his stoned state, the thief took a moment to catch on, but then his jaw dropped and he 'sort of fell out the driver's door.' Having calculated the odds of such good fortune as being somewhat less than those of winning Lotto, the student Dougal Greer was then faced with the less welcome challenge of having to find another parking space in central Auckland.

Rachel Fewster

Crop & Food

Once again, Crop & Food is farewelling a biometrician - but this time we're hopeful she will come back. Esther Meenken is off to the UK for seven months, to do a Masters in Biometry at the University of Reading, with funding from QEII Technicians Award, Allan & Grace Kay Overseas Scholarship, and Crop & Food.

Duncan Hedderley

AgResearch

In April our group had its annual 3-day retreat/advance in Hamilton (picture below), together with guests Esther Meenken, Andrew McLachlan and Duncan Hedderley from Crop & Food. The first day was spent flying in during a break in the fog, having morning tea and lunch amid speculation as to what other planes had landed where, then a late start to our in-house presentations by those folk whose planes had landed. At 6.30pm the last, largest contingent landed, and “Little India” was visited for the first full gathering. Next day got off to a much better start, and was spent at Geoff McLachlan’s workshop on microarrays followed by dinner at “The Station”. On the final day, the remaining presentations from the first day were given, with our team-building exercise, petanque, being sacrificed in the interests of science!

Re comings and goings. With the relocation of the AgResearch Wallaceville staff to the soon-to-be-created Hopkirk Institute (Palmerston North) and Invermay, Lilian Morrison, biometrician at Wallaceville, is finishing with us mid December 2006 after many years of service to AgResearch and MAF (Lilian is interested in any job offers in Wellington or Hutt Valley!). All the best, Lilian!

Re conferences, it all happened in July. Six of us attended the ASC/NZSA 2006 conference in Auckland. Martin Upsdell talked on “Comparison of methods for analyzing fluorescent spectral data”, Dave Saville on “Replication and randomisation – lost arts?” and Roger Littlejohn on “Analysis of bite force time series”. An even luckier trio (Peter Johnstone, Fred Potter and Roger Littlejohn) went further afield, to the International Biometric Conference in Montreal, Canada, where Fred spoke on “Segmented regression: some methods and case studies” and Roger on “A semi-markov model for biting time series”. Fred celebrated his 60th birthday by crossing the International Date Line at 10 pm, thus making the ‘day’ last for 42 hours, then having a swim in the Pacific Ocean at Manhattan Beach, Los Angeles (photo available, but censored by Fred!).

Dave Saville



University of Canterbury

Jennifer Brown presented two papers at ICOTS7 in Brazil in July. One was with Richard Penny and Marco Reale on the links between Statistics NZ and UC in developing the department’s teaching programme. The other paper was on teaching environmental statistics to environmental managers.

The NZIMA programme on Modelling Invasive Species and Weed Impact is underway. A postdoctoral fellow has been appointed and scholarships have been offered to 2 PhD students. A 3rd PhD student is starting soon. The students will be jointly based at UC and Lincoln University, working on developing population models for weed spread and for designing monitoring and management strategies. More information can be found at <http://www.math.canterbury.ac.nz/bio/NZIMA/>

Marco and Carl recently presented papers at the IWSM2006 in Galway, Ireland. They were kindly hosted by John Newell of the National University Ireland, who recently spent a few months on sabbatical with our department. The conference organisers tried to persuade us that the 28-30C temperatures during the conference were entirely as expected, rather than a statistical outlier. After many adventures enroute, the poster presented by Marco (joint work with Jennifer and Bill Rea, their joint Masters student) won second prize in the poster competition.

The Merry Adventures of a Poster – A True Story. Marco volunteered for the taxing duty of flying to the other side of the world to give the presentation. However, on checking in at Christchurch International Airport he realized he’d left the poster in the carpark, so a friend was dispatched to find it. Then, at Changi Airport in Singapore, he lost the poster again...this time no luck (presumably taken away by the bomb disposal team). The poster was reprinted enroute in Naples, courtesy of the University of Naples Federico II. Unfortunately, when Marco left Rome for Ireland, he lost the poster at Fiumicino Airport! The poster was finally reprinted in Galway, the day before the presentation. At which point Marco left his memory stick with the printers, thankfully returned later that day, shame we can’t say the same about his main memory bank!

John Newell made such an impression on the department that we are in the process of setting up an adjunct position for him, which is part of plans to foster greater links and cooperation between our respective departments.

Easaw and his PhD student, Issarest Weeraprajak, attended the International Conference on Time Series, Econometrics, Finance and Risk in Perth from 29 June

to 1 July. They presented a paper entitled “New Learning Algorithm for Adaptive Network-based Inference System in Application of Forecasting Chaotic Time Series”.

As part of an on-going study with researchers based at Christchurch Women’s Hospital, Dominic will present a paper entitled “Developing hidden Markov models for aiding the assessment of preterm babies’ health” at the International Conference of Biomedical Pharmaceutical Engineering in Singapore from 11-14 December 2006.

Professor Christian Robert recently visited us for 6 weeks hosted by Dominic Lee. Christian is an internationally renowned expert in Bayesian and Computational Statistics from the Universite Paris Dauphine in France, and has made a substantial contribution to our Bayesian statistics course.

Carl Scarrott

Wellington Statistics Group

The Wellington Statistics Group (WSG), a local group of the NZSA, continues to meet regularly (although a little less frequently so far this year than we would have liked). The Group receives regular sponsorship from the Ministry of Social Development, Statistics New Zealand, Statistics Research Associates Ltd, and Victoria University of Wellington. Recent WSG talks have been:

- July 2006: Edith Hodgen, Rachel Dingle and Hilary Ferral, New Zealand Council for Educational Research, “Statistics: a growth area for NZCER”

- June 2006: Ian Westbrooke, Department of Conservation, Research Development and Improvement Division, Christchurch, “Meeting statistical needs in a conservation management organisation”

- March 2006: Geoff Chambers, Cell and Molecular Biosciences, VUW, “Out of Taiwan? Genetics sheds new light on Maori origins”

There are a couple of ‘promised’ talks in the pipeline, but with no confirmed dates yet I won’t drop any names! Anyone who does not presently receive WSG announcements and who wishes to be informed of future events should contact the WSG Convenor, John.Haywood@mcs.vuw.ac.nz.

John Haywood

Victoria University

The most exciting news from the Statistics and Operations Research (STOR) Group at VUW is that we have a new staff member, who arrived (with perfect timing!) just before the deadline for this newsletter, at the end of August. Yuichi Hirose came

to us from Auckland, where he completed his PhD under supervision from Alan Lee. His PhD research considered the efficiency of semiparametric maximum likelihood estimation in a variation of case-control sampling that was originally proposed by Alastair Scott and Chris Wild. Currently Yuichi is adapting this theory for GEE and Bayesian estimating function situations. Yuichi has filled the previously mentioned new position with a focus on ‘Applied Statistics’, that we created following our external review in 2005.

In other news, Dong Wang is overseas on sabbatical, from July 2006 to April 2007. Richard Arnold gave a talk at the 8th Valencia Bayesian statistics meeting in Spain in July, and Richard jointly ran a course in longitudinal data analysis for Statistics New Zealand in May, along with Ivy Liu. Ivy and Richard also presented work at the ASC/NZSA 2006 conference in Auckland in July, as did John Haywood and Estate Khmaladze. Victoria University sponsored Hira Koul's invited talk in the “Modern Goodness of Fit Methods” session that Estate organised, and in which Estate also spoke. Hira (Michigan State University) then spent some time working at VUW with Estate following the conference. At the end of June, John Haywood presented a talk at the Time Series Econometrics, Finance and Risk conference in Perth (UWA). John also gave an invited presentation to Statistics New Zealand at the end of August, and was an invited speaker at a workshop organised by the Reserve Bank of New Zealand in March.

Stefanka Chukova visited Japan and South Korea in August. In Japan, Stefanka worked with Yu Hayakawa (in Tokyo), and gave an invited seminar on some joint work of hers with Srinivas Chakravarthy and Harry Perros. In Busan (Korea), Stefanka organized a special session on Advanced Warranty Modeling at the 2006 Asian International Workshop on Advanced Reliability Modeling (AIWARM 2006). Stefanka also visited Bulgaria in June, where she attended the 12th International Summer Conference on Probability and Statistics in Sozopol and gave a talk on Warranty Repair Strategies, which is joint work with Mark Johnston. Mark has been busy since joining us last year, and he’s having an exciting time: in the same week in April he got engaged (to Emily) and bought a house. In addition to his work with Stefanka, Mark gave a talk on adding rewards in combinatorial optimization at the ANZAM Operations Management Symposium held at Victoria University in June.

We’ve had quite a few visitors to the group too. Bhramar Mukherjee (from University of Florida) visited Ivy Liu for a month (in May) and worked with Ivy and Dong Wang. Estate Khmaladze hosted Jon Wellner (University of Washington) for three weeks in August/September, in addition to Hira Koul for a

fortnight in July. Daryl Daley did some work with David Vere-Jones here in Wellington after the ASC/NZSA conference, where Daryl received his (surprisingly heavy!) Pitman Medal. Christian Robert (Universite Paris Dauphine and Visiting Erskine Fellow at Canterbury) visited the group briefly in early August. Not surprisingly, Christian's talk drew a large and diverse audience, with several computer science representatives, along with those from stats/OR and maths. Harry Perros (North Carolina State University) visited Stefanka Chukova from February to April. Stefanka and Harry co-taught a graduate class on Computer Networks and Reliability, and they did some research on issues related to computer networks. Stefanka is also hosting Dimitar Christozov (American University in Bulgaria) from August to October. Stefanka and Dimitar are jointly researching warranty issues linked to malfunctioning and misinforming.

John Haywood

Massey University, Turitea

Mark Bebbington was peacefully minding his own business, giving a short presentation on the modelling of eruption intervals at Mt Taranaki, when he incautiously advanced the estimate of a $1/3 - 1/2$ probability of an eruption within the next 50 years. Within the hour he was being interviewed on Radio New Zealand, and was tracked down by a TVNZ crew the following day. He says that the most interesting experience was doing Radio Live with Graeme Hill - having words like "pyroclastic flow" tossed at you by an interviewer at 7.20am requires more than the one cup of coffee beforehand. Jonathon Godfrey also made the news, appearing very briefly on TV1 news in March (already on the NZSA web site) and a Radio NZ item on Morning Report around the same time. Interestingly neither Jonathan nor Mark was credited in the media with being a statistician: Mark was designated as "vulcanologist" and Jonathan as "blind man". Clearly "statistician" isn't sexy enough.

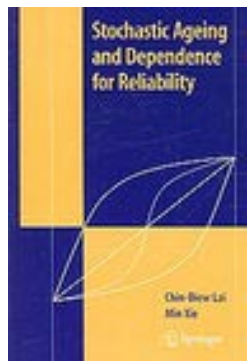
Our new Professor, Martin Hazelton, was at the ASC/NZSA conference in Auckland to give an invited presentation on density deconvolution, and was pleased to be able to meet a number of members of the NZ statistical community for the first time. He has recently been awarded, jointly with Nigel French, professor of veterinary epidemiology, a Massey University award to fund a postdoctoral research fellow for 2007 & 2008.

Quite a number of us made, one way or another, the long trek to Auckland for the ASC/NZSA conference in July. Ganesh hired a van for the weekend roadtrip along with Ganes, Greg and Alasdair. They



met with some interesting weather conditions on the desert road (pictured above). Chin Diew and Geoff opted for the potentially quicker method of flying up on the Monday morning, but after circling the fog around Auckland airport a few times were diverted to Rotorua, to arrive by bus just in time for lunch.

Chin Diew Lai's new book "Stochastic Ageing and Dependence for Reliability" with M. Xie of Singapore has just been published by Springer. Chin Diew delivered an invited talk at the ASC/NZSA conference in Auckland, on "Compliance inspection and conformity testing in the presence of measurement or inspection errors".



Doug Stirling attended ICOTS7 in Salvador, Brazil in early July. He has recently started developing experimental design material for CAST as part of a contract with Nestlé.

Geoff Jones spent two weeks in the UK and one in California in July, first attending MOLS 2006 at the University of Essex to learn something about longitudinal surveys, then meeting with veterinary epidemiologists at the University of Liverpool, and finally spending a week with Wes Johnson at the Centre for Animal Disease Monitoring of the University of California, Davis. We hosted Wes briefly at Massey in August, and he will be returning to New Zealand next year for the Conference in Honour of John Deely in Christchurch.

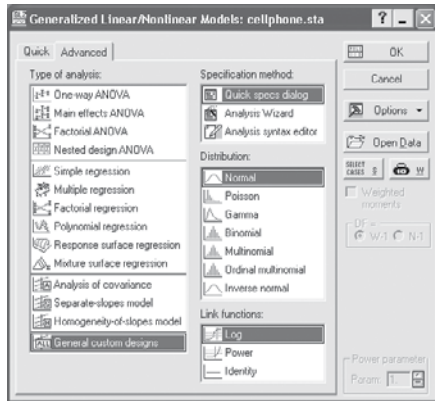
Ganes and Alasdair are organizing another one-day Stats Forum of Palmy-Statisticians at Massey, on Friday October 27, in conjunction with AgResearch Grasslands. The keynote speaker this year will be David Baird, from AgResearch Lincoln. More details are on page 7.

Geoff Jones

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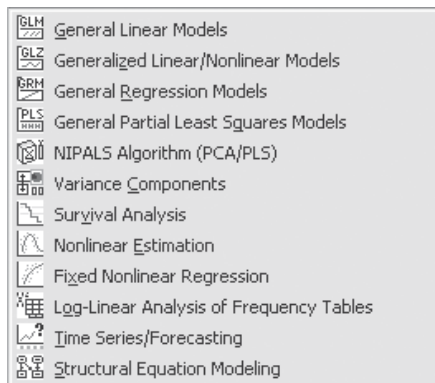


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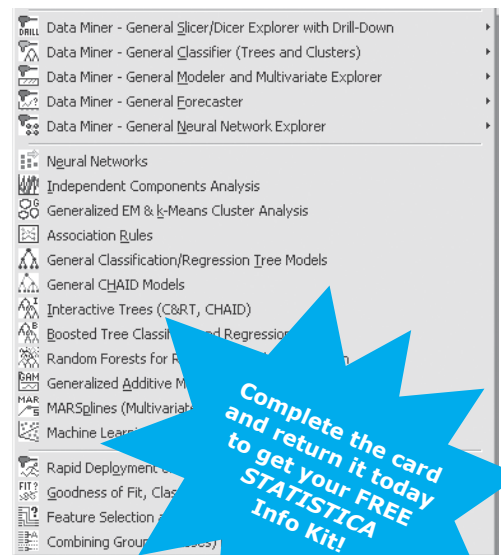
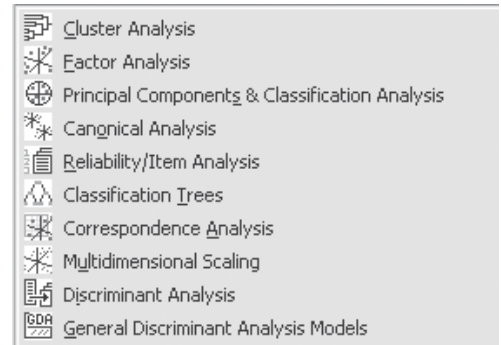
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