

newsletter

ICOTS 3 1990 at OTAGO

Over the period 19-24 August, the Department of Mathematics and Statistics at Otago will be hosting the Third International Conference on Teaching Statistics (ICOTS 3). This conference, which follows ICOTS 1 in Sheffield, UK, and ICOTS 2 in Victoria, British Columbia, is sponsored by the International Statistical Institute, and supported by many organisations both within and outside New Zealand.

ICOTS 1 attracted 407 registrations with 56 countries represented, while ICOTS 2 attracted 400 registrations from 41 countries. It is therefore interesting to see that with seven weeks to go ICOTS 3 has 419 registrations from 41 countries. It appears that the relative isolation of New Zealand has not seriously affected international participation in the conference.

The programme is in three parts: statistics in schools, statistics in tertiary institutions, and statistical training outside teaching institutions. As might be expected, there will be plenty to interest teachers of statistics at all levels. But there will also be sessions that should attract anyone who uses statistics in any way at all.

Staff and students of Otago university are welcome to take part in the conference without paying a registration fee, although tickets for social events will have to be purchased. However, the Local Organisation Committee, chaired by Bryan Manly, would like everyone attending sessions to be registered and have a name tag. Therefore, if you want to be part of this conference, please send in your registration form. A copy of this form was included in the last *Newsletter*.

NZ STATISTICAL ASSOCIATION ANNUAL CONFERENCE 1990

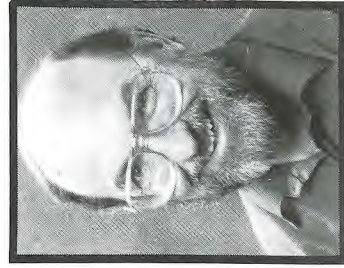
The NZSA Conference will be held at Otago University concurrently with ICOTS 3 on Wednesday 22nd August. The two invited talks in the morning are "Forensic Statistical Aspects of the Educational Assessment Process" - Toby Lewis and "Image Processing" - Tim Brown. Contributed papers follow in the afternoon, and include Alastair Scott, George Seber and a special appearance by Peter Danaher (!) who will talk about his involvement in setting up the new television People Meter panel in N.Z. The conference dinner is in the evening. Anyone wishing to present a contributed talk should send a title and abstract promptly to Malcolm Faddy, Department of Mathematics and Statistics, University of Otago, Box 56, Dunedin, N.Z.

College accommodation should be available up to the time of the conference. Please get onto this very soon as places are running out.

In this issue:

- pp. 2-3 More on ICOTS
- pp. 4-6 List of Email Addresses
- p.7 An Interview with Shayle Searle
- p. 8 A Game of Chance?
- pp. 9-10 Member's news

President's Column



In my last column, I asked for volunteers to fill the key roles of editor of the *NZ Statistician* and convenor of the Publications Committee. I am pleased to say that we had a very good response indeed.

As most of you will be aware by now, Hugh Morton is taking over the editorship of the *Statistician* from Jocelyn Dale. The current issue, which Jocelyn produced more or less simultaneously with a healthy daughter, is her last and all future correspondence should be sent to Hugh at the Department of Mathematics and Statistics at Massey University. He plans to keep up our tradition of a lively, topical journal with a distinctly applied emphasis.

The new Publications Committee, which will be based in Hamilton, will be John Waller (Convenor), Fay Sharples, Phil Allison, Andy Begg and Harold Henderson. They are a diverse group of people with a wide spread of interests. They are looking for new ideas and welcome suggestions, which should be sent to John at Ruakura.

This is my last presidential column as I shall be stepping down at the AGM in Dunedin. I am very conscious that I have had an armchair ride over the last two years as president. The real work of the Association is done by the editors, the committees and a host of unsung members working behind the scenes and I would like to express my gratitude to you all. My term of office has opened my eyes to the amount of work that needs doing.

Thanks, I'll see you at ICOTS.

Alastair Scott

NZSA Children's Census

The NZSA is running a Children's Census in all New Zealand primary schools on Wednesday 1st August 1990. All children up to the age of twelve are being invited to take part in this activity. The Census has been organised for Statistics Day, part of National Mathematics Week and as a forerunner to ICOTS 3.

In the Census children are to answer a few simple questions about themselves and their activities, and take part in a skipping jump, a spider count and a litter collection. The emphasis is on health and awareness of each other and their surroundings.

The aim is to involve as many children as possible in the collection of the data and to encourage them to create displays of the information. No information about individual students or schools is recorded.

Schools will send their totals to the Statistical Association so that the information can be analysed nationally and released to the media for the children to see. Samples of the children's work with the data collected can also be sent, the best received will win copies of the 1990 Year Book for the school and the work will be displayed at ICOTS.

The major funding has come from the Department of Statistics and the Ministry of Education. A number of NZSA members from a variety of organisations have given a great deal of their time so we would appreciate your support for this, whether it be advice to your local school or practical assistance. Thanks.
Sharleen D. Forbes

A Colourful Event Planned by NZSA for ICOTS 3

To provide a little decoration for the corridors and foyers at the ICOTS 3 conference venue the Education Committee is running a nation-wide Statistical Graphics Poster Competition. To the

best of my knowledge this is the first ever National Statistics Graphics Poster Competition. We expect to get 200-300 posters and hope to attract some media attention. Statistics needs an improved public image and the success of an event like this can help.

All schools in New Zealand having pupils in the forms 1 - 4 range have been contacted and invited to participate. Any subject can be chosen and posters will be judged on clear, attractive and informative displays of numerical information. Age level will also be considered in the judging.

We have three major sponsors, the Department of Statistics and DSIR Applied Mathematics, who are jointly providing prize money, and Hewlett Packard (NZ) Ltd who have given us three HP-21S scientific calculators for prizes (see review on p. 9). We also got indirect sponsorship from the Department of Education by combining our mailout to schools with the mailout they sponsored for the Children's Census.

The support for this project at the planning and implementation stages has been really heartening. We sincerely hope the support at the doing end will be as enthusiastic.

I am appealing to members of this Association to get in touch with at least one school in their area with form 1 - 4 pupils and ask how the posters are coming along? If you get a null response, please let me know and I will endeavour to put them in touch with their local Maths Association representative.

Jean Thompson.



New Treasurer-

Antony Gomez

Like many statisticians Antony did not major in statistics, rather he was a physics undergraduate at Vic then did a masters in maths in the area of non-linear differential equations.

He joined the Mathematical Statistics Branch of the Stats Dept. in 1985 and has been there ever since. One interesting holiday job was a period counting bales in a wool store and this may have inspired him to get keen on statistics.

His current area of work is the design of the Household Surveys and in the past has dabbled in time series.

On the lighter side Antony enjoys cosmology, quantum mechanics, his wife and baby daughter, not necessarily in that order! He's also a soccer fanatic and used to play in a team with Alex Neill.

Editorial

The countdown to ICOTS 3 is on. This is a very big conference and already has a lot of support. The team who've organised this event have to be congratulated prematurely for putting so much effort into this conference. It's not too late to register. A form was sent out with the last *Newsletter* and more are available from the conference secretary at Otago University.

Peter Danaher will be wearing an Auckland University hat at ICOTS as he's soon joining the Auckland Statistics Unit. He will continue to work with Harold and may even consult him from time to time on editorial matters.

Murray Jorgensen has gone to some trouble to compile a near complete list of email addresses for N.Z. statisticians. Some of you will already be email experts while others would like to get into it. This is your chance. It's a fabulous way of sending data and programs as well as messages. We use it all the time for *Newsletter* correspondence.

See you at ICOTS.

Peter Danaher and Harold Henderson

Competition for Young Statisticians from Developing Countries

The International Statistical Institute (ISI) announces the Fifth Competition for young statisticians from developing countries. They are invited to submit a paper on any topic within the broad field of statistics, for possible presentation at the 48th Session of ISI to be held in Cairo, Egypt, in 1991.

Participation in the competition is open to nationals of developing countries (including N.Z. I'm sorry to say) who are living in a developing country, and who were born in 1959 or later.

Papers submitted must be unpublished, original works which may include material from participants' university theses.

The papers submitted will be examined by an international jury of distinguished statisticians who will select the three best papers presented in the competition. Their decision will be final.

The authors of the winning papers will be invited to present their papers at the Cairo session of ISI, with all expenses paid (i.e., round trip airline ticket from his/her place of residence to Cairo plus a lump sum to cover living expenses). Manuscripts for the competition should be submitted in time to reach the ISI not later than January 1, 1991.

The rules governing the preparation of papers, applications forms and full details are available on request from the ISI permanent office. The address is: The Director, Permanent Office, International Statistical Institute, 428 Prinses Beatrix-laan, 2270 AZ Voorburg, The Netherlands.

Women and Statistics Seminar

Pre-ICOTS one-day seminar to be held at the Airport Hotel, Wellington on Thursday, 16th August.

Overseas Speakers: Birgitta Hedman, United Nations Statistics Office.

Devaki Jain, Institute of Social studies, Bangalore, India.

For Further Information Contact: Paul Brown, Department of Statistics, Wellington

Electronic Mail

Electronic Mail, or email as it is usually known, has some advantages that make it particularly suitable for use by statisticians. It is cheap and quick: a few minutes within New Zealand, hours or days internationally. Programs or data sets can be sent to a colleague who does not then need to re-enter them. [Is anyone interested in some Minitab macros of mine for Nonlinear Regression ?] Another advantage, if you are communicating with someone who spends a lot of time at a computer terminal, is that your message arrives at that terminal and you are more likely to get a quick response than if they have to get around to writing to you or phoning you.

Sending email varies according to the kind of computer system in use at your workplace. You will have to resort to the usual tactic of asking your local computer resource person or the inevitable 'keen user'.

What now follows is a list of all the email addresses that I have been able to track down of New Zealand statisticians and related professionals. I have grouped people geographically rather than by institution. The site portion of the address is the part that follows the @. If you know the site someone works at but do not know their address it is OK to guess and the list should help you try to think of a decent address to try. If this fails then try sending a message to the address "postmaster@site-portion" eg "postmaster@waikato.ac.nz". Each site on the network has a user of this name who is in charge of the local implementation of the mail system.

Please let Harold Henderson know of any omissions from the list, or any errors in the addresses given. [Harold, because I'm going on leave shortly.] The Department of Statistics will shortly be added to the email network and I hope to report on this in the next Newsletter.

Murray Jorgensen
m.jorgensen@waikato.ac.nz

Auckland

au = aukuni.ac.nz

Craig Ansley
Rod Ball
Jocelyn Dale
Patrick Graham
Lynn Gilmore
Peter Danaher
Alan Lee
Cathy Macken
Roger Marshall
John Maindonald
Brian McArdle
George Seber
Alastair Scott
Alistair Stewart
Joanna Stewart
Chris Triggs
Chris Wild

Hamilton

r = ruakura.maf.govt.nz

Dieter Adam
Earl Bardsley
Bill Bolstad
Neil Cox
Peter Danaher
Barbara Dow
Dave Duganzich
Mary Foster
Les Foulds
Isabelle Gravett
Harold Henderson
Warren Hughes
Nye John
Dave Johnson
Murray Jorgensen
Ray Littler
Judi McWhirter
Ian Pool
John Scott
Fay Sharples
Martin Upsdell
John Waller
David Whitaker

Manurewa

f = mof.govt.nz

Ian Andrew
Oscar Garcia
Michael Hong
Mark Kimberlin

Palmerston North

m = massey.ac.nz

Greg Arnold
Paul Austin
Dick Brook
Howard Edwards
Don Esslemont
Rob Fletcher
S. Ganesalingham
Jeff Hunter
Chin Diew Lai
Charles Lawoko
Jenni Madgwick
Terry Moore
Hugh Morton
Gordon Smith
Doug Stirling
Gary Thomas
Siri Wewela

Wellington

iv = isor.vuw.ac.nz

am = am.dsir.govt.nz

fr = fr.maf.govt.nz

Andrew Bruce
Elizabeth Bradford
Patrick Cordue
Robert Davies
Brian Dawkins
Deborah Donnell
Ian Doonan
Chris Francis
Dave Gilbert
Fraser Jackson
Selwyn Gallot
Sarah Harper
Doug Harvie
Stephen Haslett
Donnel Krouse
Kelly Mara
Steve Marshall
Phillip Morrison
Alex Neill
Shirley Pledger
Gordon Purdie
Ross Renner
David Rhoades
Leigh Roberts
Clare Salmond
Tapas Sarkar
Peter J. Smith
Jean Thompson
Peter Thomson
David Vere-Jones
Tony Vignaux
Ian West
Kit Withers
Zheng Xiao Gu

p = pmv.dsir.govt.nz

g.arnold@m
p.austin@m
r.brook@m
h.edwards@m
d.esslemont@m
sprmhf@p
s.ganesalingam@m
j.hunter@m
c.lai@m
c.lawoko@m
drpmej%dr@p
t.moore@m
h.morton@m
g.smith@m
w.stirling@m
spmvt@p
srpmgsww@p

wm = wmv.dsir.govt.nz

wmm = wmmeds.ac.nz

andrew@iv
srwmxeb@wm
plc@frc
srwmrbd@wm
brian@iv
deborah@am
ijd@frc
poccf@frc
podjg@frc
jackson@rs1.vuw.ac.nz
selwyn@am
sarahh@am
doug@iv
stephen@iv
srwmdp@wm
srwmmk@wm
comhsm1@wmm
phiz4523@rs1.vuw.ac.nz
srwmwan@wm
shirley@iv
purdie@wmm
ross@iv
srwmdar@wm
leigh@iv
salmond@wmm
tapas@iv
jeff@iv
srwmcjt@wm
peter@iv
dvj@iv
vignaux@iv
ifw@frc
srwmcsw@wm
zheng@iv

Christchurch

c = canterbury.ac.nz
cm = cmv.dsr.govt.nz
f = mof.govt.nz

David Baird
Easaw Chacko
John Deely
Chris Frampton
David Giles
Lyn Holland
R. Harrison
Frank Lad
George Love
Peter McNaughton
Steve Ranford
Bruce Robson
Dave Saville
Philip Schluter
Dick Sedcole
Murray Smith
Elizabeth Stevenson
Andrew Wallace
Bert Ward
Elisabeth Wells
Graham Wood

l = lincoln.ac.nz
chm = chmeds.ac.nz

d.baird@l
pec@math.c
jjd@math.c
framptoc@f
d.giles@c
l.holland@l
r.harrison@c
frl@math.c
g.love@l
p.mcnaughton@l
PSI%3000047::ranford
b.robson@l
d.saville@l
stats3@chm
d.sedcole@l
mhs@math.c
srcmels@cm
srcmarw@cm
b.ward@l
stats1@chm
grw@math.c

Dunedin

i = invermay.maf.govt.nz

Ken Dodds
Malcolm Faddy
Peter Herbison
Peter Johnstone
Lairmonis Kavalieris
Fred Lam
Roger Littlejohn
Bryan Manly
Brian Niven
John Rayner
Katrina Sharples
George Spears
Sheila Williams

o = otago.ac.nz

ken@i
mathmjf@o
prev12@o
peter@i
mathlk@o
math19@o
roger@i
math05@o
math30@o
math23@o
katrina@o
prev1@o
prevsmw@o

and DSIR colleagues underlined the importance of the topic. After our two days of tuition, discussion and a little experimenting we all felt much more at home with resolvable designs, row-column designs, mixed models, incidence matrices, contrast information matrices, cyclic designs, adjusted orthogonality, alpha designs, REML, and even GENSTAT.

The first morning was devoted to REML (REsidual Maximum Likelihood), which is especially useful for analysing experiments with complex block structures and for combining the results of a series of trials. Desmond Patterson, from Edinburgh, led us through the author's and (most importantly) a practitioner's view of the procedure, and illustrated its usefulness with tests of various possible models for the results of a row-column variety trial, and with some typical data.

The remainder of the workshop was largely devoted to experimental design, with row-column designs featuring strongly. Emlyn Williams, John Eccleston and Ken Russell from Australia gave us a useful insight into the problems, and some solutions for dealing with situations where unequal replication and blocks of unequal size are needed, and where nuisance factors also occur in two dimensions - situations where a standard Graeco-Latin Square is a shade out of its depth. Nye John, Dave Whitaker and Chris Triggs demonstrated a very fast interactive program for generating efficient cyclic designs; and David Fletcher and Adrienne Kirby demonstrated an innovative approach, using a spreadsheet to improve an 'ab initio' design draughted by the biometrician for awkward design problems.

Overall, the workshop provided a stimulating break from the daily biometric work of the participants. We left, encouraged to try innovative designs, with the reassurance that new

Workshop on the Design and Analysis of Complex Experiments

This workshop, held at the Ruakura Agricultural Centre on 29-30 March 1990, showed what can be achieved when an enthusiastic group of biometricians gets a chance to interact together. A full muster of MAF biometricians and a good turnout of their university

efficient designs were within reach of all of us. My thanks go to all the Ruakura team for putting on this workshop and for their hospitality.

Andrew Wallace

Statistics at the Auckland Maths Colloquium

Although the number of statistical talks at the 1990 Mathematics Colloquium were fewer than previous years, there were a number of interesting talks and it was a pity that the audience wasn't larger! George Seber discussed some of the problems with presenting statistical ideas in a way that is correctly understood and appreciated by the legal profession and members of the jury. He showed how Bayesian ideas could correctly combine information coming from different types of evidence to produce a resulting weight of evidence against the accused. Ideas concerning prior information enabled juries to put P values into proper perspective. Murray Jorgensen showed how a process, in which the number of individuals in one year depended only on the number of individuals in the previous year, could produce time series with complicated cycles and epicycles, thus raising the possibility that these processes could represent some times series better than Box-Jenkins models with large numbers of parameters. John Maindonald discussed some of the thoughts that might be going through the mind of a wasp deciding whether or not to lay her eggs in a particular housefly pupa. John Revfeim showed some of the problems that could arise in analysing extreme value distributions. Kit Withers gave some future predictions for the Aids epidemic. Jeff Hunter gave an invited address on generalised inverses and their application to problems in applied probability. On the philosophical side, Bill Thompson, after examining the data on how science has actually progressed, came to the conclusion that scientists do not objectively use the "scientific method", but rather are very much influenced in their actions and conclusions by the prevailing social climate.

Martin Upsdell

An Interview with Shayle Searle

-Harold Henderson asks the questions

HH: How did you get into statistics?

SS: All my life I've enjoyed mathematics - from the "sums" of schoolboy days to the algebra and calculus of Stage I at Victoria University in Wellington in 1946. What really fascinated me was matrix algebra, taught by Professor J C Campbell, as part of my Master's degree. At that time I thought I'd train to be an actuary, so spent more than a year working as an actuarial assistant at Colonial Mutual Life Assurance in Wellington. That introduced me to statistics, and I went off to the Statistics Laboratory at Cambridge, run by John Wishart, where I had David Lindley as tutor, and in 1953, completed the Diploma in Mathematical Statistics. David Cox, Frank Anscombe and Henry Daniels were the other teaching staff at that time. In 1953, I returned as Research Statistician with the NZ Dairy Board, in Wellington, from where I went to Cornell University in 1956. I returned to the Dairy Board in 1959 with a PhD then went back to Cornell in 1962 on a three year appointment - and have been there ever since.

HH: Where does animal breeding come into the picture?

In my work at the Dairy Board, and in my PhD work at Cornell. Formally, my PhD is in Animal Breeding, but that discipline at Cornell has always been almost entirely statistics. That was due to the influence of the late C R Henderson, who started the animal breeding programme at Cornell in 1947 and who, incidentally, had his only sabbatical leave in New Zealand, in 1955/56, where, to my good fortune, he shared my office with me at the Dairy Board.

HH: What started your long-standing research interest in variance components and linear models?

SS: My Dairy Board work involved estimating genetic and environmental variances, and C. R. Henderson's 1953 paper on estimating variance components contained the phrase "sampling

variances of these estimates are unknown". That incited me to action - and led to my first paper in the *Annals of Mathematical Statistics*, in 1956.

HH: You've written five books -three on matrix algebra and two on linear models-with a sixth on variance components nearly complete. How did you get into book writing?

SS: As a graduate student at Cornell, I was asked in 1957 to teach an informal summer course on matrix algebra. In 1963, the acting head of the Biometrics Unit noticed the typists were low on work so asked me, "Don't you have some matrix algebra notes that could be typed? In fact", he said, "why don't you write a book?" Our typists have not been out of work since!

HH: Do you enjoy writing books?

SS: Yes, I do. I've always enjoyed expository writing. In later years, I have found that writing is hard work but enjoyable. It is very satisfying doing one's best at trying to explain the theory of difficult statistical methodology to an audience thought of as including practitioner statisticians who need explanations that are as easily understood as possible, and not necessarily shrouded in the language of the wide generality that is so appealing to pure mathematicians.

We need the mathematics, of course, but those who need to use it on real-life data prefer, and can handle, for example, the mathematics of matrices but have great difficulty with the language of vector spaces, projections and orthogonal complements and so on. Agronomists, psychologists, and pomologists, for example, are simply not trained for the latter but they can manage algebra!

I also enjoy writing because it is a quiet and peaceful activity. It has a kinship with gardening, which I also enjoy: unsuccessful algebra and unsuccessful plants both end up in the trash; and neither ever answer back.

HH: Thank you Shayle.

A Game of Chance?

What is chance? Is chance to be distinguished from probability? What is a 'game of chance'? Is the game of betting on a game of chess a game of chance? Are football 'pick-a-score' competitions games of chance? All these questions surfaced in the Gisborne District Court in June when Gary Thomas (AMD, Palmerston North) appeared for the defence and John Maindonald for the crown, in an unsuccessful pyramid game prosecution.

This variety of pyramid had 1, 2, 4, and 8 people on the four successive levels. The eight people on the lowest level pay \$750 each to the person on the top level, who leaves with his/her \$6000. The remainder of the pyramid then splits down the middle. Each of the two new pyramids require 8 new participants for their completion.

The charges were laid under Section 6 of the Gaming and Lotteries Act 1977. Section 2 of the act defines a Game of Chance as a game: a) 'in which direct or indirect consideration is paid to participate'; b) 'that is played with a view to winning money or money's worth'; c) 'the outcome of which depends wholly or partly on chance, but does not include an athletic game, or a sporting event, or a prize competition . . .'. Section 3 of the act further defines an Illegal Game of Chance as including a game of chance 'such that the chances are not equal as between all the participants . . .'. .

The potential pool of new participants will be used up quickly, as the number of people required to complete the lowest level of the pyramids doubles with each successive split. The population of New Zealand would be exhausted after 21 splits. New participants will have little knowledge of the extent to which the pool of potential recruits has been exhausted, or of the recruiting skills of others on whose assistance they will rely in the successive pyramids of which they will be part. Do these uncertainties make it 'wholly or partly a game of chance'?

The *Gisborne Herald* reported that Judge I.D. Thomas "conceded that the scheme was a game, but one that stretched the definition. However, in his view it was not a game of chance."

John Maindonald.

Review of the HP-21S

The HP-21S is a scientific calculator intended for students who study Statistics or use statistics in Biology, Physics, Economics, Social Sciences etc. It uses the common algebraic entry system, meaning you type in the expressions mostly as they appear on paper. The feature that distinguishes it from other scientific calculators is its extra statistics functions. These include probability functions for the Normal, Student's t, F, Chi-Squared and Binomial distributions and their inverses (except Binomial). Like most calculators, it does not support grouped data intrinsically but the manual shows how it can be done. Incidentally, the manual is superb with good examples and a good index.

The HP-21S can be programmed, with provision for 99 steps having conditional statements. Unfortunately a typed-in programme is wiped when you use a built-in program. Numbers and error messages are displayed on a very easy to read 12 digit LCD 7-segment display. The exponent ranges from -499 to +499 and numbers are stored to a precision of 12 digits.

The 21S retails at \$101 + GST, slightly more expensive than other calculators of its type, but it offers robust construction, a better keyboard feel and the extra statistics functions that most of the competition lack.

Andrew Thompson

Auckland University

Cathy Macken's replacement, Steve Thompson, has arrived from the University of Alaska to be with us for 3 years. His speciality is ecological data. Chris Triggs is now well integrated into the Mathematics and Statistics Department operation although his copious files have threatened to sink our computer system.

The dynamic duo who edit this august publication is about to be split up with Peter Danaher

coming to Auckland. We have been drumming up business to keep him employed and already have about a double teaching load (I know it-ed).

Chris Wild

DSIR Physical Sciences (Applied Mathematics) Mt Albert.

Along with the rest of the former Applied Mathematics Division, we now belong to DSIR Physical Sciences.

John Maindonald returned from four months at Rothamsted Experimental Station (U.K.) where he worked adding distribution fitting, as in Gavin Ross's MLP program, to Genstat.

The substitution has been overtaken by dramatic and traumatic changes. Sue Cammell left soon after John returned in January, to go to New Zealand Insurance. In May David Whitaker moved to Waikato University and Chris Triggs to Auckland University. Jocelyn Dale left recently to take 6 months' parental leave. She has given birth to a daughter, Esther Elizabeth.

John Maindonald.

VUW-ISOR

The last three months have been relatively quiet at ISOR - perhaps this is the lull before the ICOTS storm! On the other hand there have been some notable events.

Ross Renner has been awarded a PhD degree for his thesis "On the Resolution of Compositional Data Sets into Convex Combinations of Extreme Vectors".

David Vere-Jones has obtained a user code on the ISOR Computing System and for the first time ever is available to the world on email.

The ICOTS organization continues with Brian Manly and John Rayner spending a couple of

days here, just in time to coincide with an ISOR lunch at a local brasserie. There have also been a few visiting speakers including Douglas Stirling (Massey) and Professor Oral (Quebec).

Over the May holiday Tony Vignaux continued his work on genetic algorithms with Michalewicz at the University of North Carolina.

Finally, we are sorry to be losing Helen Mills from the office. Helen will be hard to replace and we wish her well as she moves from Wellington to Woollongong.

Peter Smith

Stats Dept-Maths Stats Branch

There have been two new arrivals, Martin Hamilton in Christchurch (I thought Hamilton was in the North Island-ed) and Roger Macky in Wellington. Rosemarie Africa returns to the Philippines. Robert Templeton will be presenting a paper at the International Meeting for Official Statistics in Macao in October.

Lately we've had several visitors from the ABS come over to discuss marketing and consulting services as well as the Census work that is going on in Christchurch.

Antony Gomez

Massey

A completely new set of course numbers will confront our students next year. They now all look different from the mathematics numbers, but as well as asserting our independence symbolically some third year papers can be taken with only a second year data analysis paper as a prerequisite. We hope that these will attract people who want to learn what statistical procedures are doing to their data without being blinded by mathematics.

Our first Sun workstation has just arrived. It is a

Sparc 1+ with O/S 4.01. What that means we have not yet learnt, but it does crunch numbers very fast.

Recent seminars include one from Shayle Searle, removing any grounds for confidence in variance component estimation programs. Hugh Morton and Gary Thomas described their experiences on the opposite sides of a courtroom. As a result of Gary's careful definition of a game of chance a group of Aeroplane Game organisers were acquitted, rather against the run of play in other parts of the country. Siri Wewala removed the glamour from DNA fingerprinting in an account of her recent work. Any reader in danger of being convicted on the basis of a DNA test should give her a call. Indeed anyone in danger of being convicted on any charge should contact AMD, Palmerston Nth. - if it can still be found.

Greg Arnold

Waikato and Ruakura

The biometrians have been busy with a MAF STAT conference and a Design of Experiments Workshop in March. Now Harold Henderson, Neil Cox, Dave Johnson and Ken Jury have taken off to Budapest for the IBC conference. They are there to publicise the 1992 IBC on the heights of Hamilton." They're also trying to fire up some interest in kiwi fruit!

Nye John has arranged for **George Box** to visit N.Z. in July. He's giving two seminars including one on Taguchi methods in Auckland on 16 July.

Call for Help

Anyone with experimental experience on graphic design for visual displays please contact Frank Lad at Canterbury University.

Intl Assoc. of Surveys Statisticians

The ISI has an adjunct called the International Association of Survey Statisticians. It provides worthwhile benefits for all survey statisticians. For more information write to Steve Kuzmich at the Department of Statistics

New Zealand Statistical Association (Inc)

1989 Publications Catalogue

Statistics at work (1982; edited by S. Gubbins, D.A. Rhoades and D. Vere-Jones) \$13.50

A handbook of statistical studies for the use of teachers and students. Includes eleven case studies accompanied by exercises, numerous references for further reading together with suggestions for class work and projects. Illustrates the practical importance of statistical ideas in a range of applications in a New Zealand context.

StatLab (1987; by W. Douglas Stirling)
(NZ or US) \$99.00

StatLab is a computer program for teaching statistical concepts to students in introductory statistics courses. StatLab runs on the Apple Macintosh and covers most topics in such courses and can be used by students in practical classes or by teachers in classroom demonstrations. It is sold with a 180 page book containing detailed instructions for 16 practical classes and a full manual about the program. Site licences are available.

Understanding Surveys (1988; edited by V. Duoba and J.H. Maindonald) \$10.00

This booklet provides a non-technical introduction to sample surveys and the many ways in which surveys are used. The focus is on the design of a survey and on the collection of survey data. It has been adapted for New Zealand needs from a document prepared by the American Statistical Association and contains many examples of New Zealand surveys. It includes exercises and can be used in statistics, social science and other courses to give students a brief introduction to sample surveys.

Quotes, Damned Quotes, and ... (2nd edition 1986; compiled by John Bibby) \$7.00

An anthology of sayings, epithets, and witticisms - several of them something to do with statistics!

Notes Towards a History of Teaching Statistics (1986; compiled by John Bibby) \$12.50

This book examines the development of a subject and the evolution of a profession. Three key themes relate to the institutional development of numeracy, continual "identity

crises" in statistics, and the agonising emergence of a new profession. These themes are illustrated using a wide variety of episodes including Florence Nightingale's designs for an Oxford professor, Karl Pearson, and many, many more. Useful historical background.

Further information on these publications can be obtained from NZSA Publications, Department of Mathematics and Statistics, Otago University, PO Box 56, Dunedin.

NZSA Membership

Applications are invited from any persons, firms or organisations interested in furthering the aims and objectives of the Association.

For further information write to the Secretary, New Zealand Statistical Association (Inc), PO Box 1731, Wellington.

MEMBERSHIP APPLICATION

The Secretary
New Zealand Statistical Association (Inc)
PO Box 1731
WELLINGTON

I wish to join the New Zealand Statistical Association (Inc).

Name:

Address:

.

.

Occupation:

Membership category:
(Ordinary, Corporate, Student, Library)

.

My membership subscription is enclosed.

Signature:

Date:

The 1989/90 subscription rates are \$37 (Ordinary), \$74 (Corporate), \$18.50 (Student), \$37 (Library).

Members! Photocopy this page and give it to a friend!

Lecturer in Statistics- Waikato

The University of Waikato invites applications for a lectureship in Statistics within the Department of Mathematics and Statistics. The Department of Mathematics and Statistics has 17.5 full-time equivalent staff, and approximately 2500 course enrolments across all Schools of Study. Teaching and research supervision is done at undergraduate, Masters, and Doctoral levels.

The Statistics section of the Department currently consists of five statisticians who, together with other university staff of related interests and nine statisticians from the nearby Ruakura Agricultural Research Centre, constitute the Waikato Centre for Applied Statistics (WCAS). Also within the WCAS is the Unit for Quality and Productivity Improvement, led by Professor J.A. John. Within the framework of WCAS there is collaboration in research projects and interchange of teaching and consulting.

Applicants for the post should preferably have completed Doctoral studies, and have broad, active research interests. They should be experienced communicators of statistical ideas and willing to participate fully in our introductory statistics program. Consulting experience is also highly valued.

Current research interests in statistics include Experimental Design, Survey Methodology, Statistical Computation, Dynamic Linear Models, Mixture Models, Generalised Linear Models, Operations Research, and Industrial Statistics.

The salary is \$NZ36,000 - \$NZ47,200.

Information on the conditions of appointment and details of the method of application are available from the Academic Staff Registrar, The University of Waikato, Private Bag 3105, Hamilton. **Applications close on 18 July 1990.**



MASSEY
UNIVERSITY

Lectureships in Mathematics and Statistics

The Department of Mathematics and Statistics has vacancies for lecturers in Mathematics and in Statistics. Applicants should possess a higher degree in Mathematics or Statistics. The Department is particularly interested in seeking candidates with expertise in one or more of the following areas: applied analysis, mathematical programming, mathematics education, applied probability, applied statistics and statistical consulting. However candidates with qualifications in other areas are encouraged to apply. The Department teaches undergraduate, postgraduate and service courses and supervises research degrees to the PhD level. Courses are also taught by correspondence throughout New Zealand. The appointee would be expected to contribute to the research and consultancy activities of the Department, to interact in a substantial way with one or more of the research groups in the Department and to participate fully in its teaching programs. Further information can be obtained from the Head of Department.

Salary: \$36,000 - \$47,200.

Applications including a full curriculum vitae and the names and addresses of three referees should be sent to Mrs V B Bretherton, Personnel Section, Massey University, Palmerston North, **before 31 August 1990.**