



**Operations Research Society of
New Zealand (Inc)**
PO Box 6544
Wellesley St
Auckland
New Zealand

ANNUAL REPORT 2012/2013

President's Report

This is my sixth, and last, report that I will be writing as President. Six years is 50% longer than our last President, Professor Ryan, was in this role, and twice as long as Professor Foulds before him, which is a sure sign that it's time for me to hand over the reins. It has been an enjoyable 18 years acting as Treasurer, Webmaster, Vice President and then President.

It has been a privilege to act as President through a period of change that includes a new constitution (and name), recognition as a charity by the Charities, completion of the switch to electronic communication for our newsletter and proceedings, the move to zero annual fees that this has allowed, digitization of all our old paper-based proceedings and newsletters, the rise of Analytics as a new overarching discipline for our work, and our first joint conference with the New Zealand Statistics Association since 1994. Unfortunately, this time has also included the earthquakes in Christchurch and the resulting destruction of the OR group at the University of Canterbury. The OR landscape is now very different to that when I started as President in 2007.

Membership

As detailed in my last report, membership fees have been reduced to zero, but we have a joining fee equivalent to the previous annual membership rates. As a result of this AGM decision, no subscription requests were sent out this year or in 2012.

We have not yet resolved how corporate members should be treated under this new membership model. One approach is that they contribute not as members, but instead as sponsors of the conference. I leave the new Council to resolve this matter.

The table below shows our resulting membership counts at 20/11/2012. The figures show the count of paid up members, while the bracketed figures show the additional count of members who are carrying forward negative subscription balances. Note that some distinctions between membership types now mean very little, and should perhaps be dropped.

	2013	2012	2011	2010	2009	2008	2007	2006	2005	2004	2003
Corporate Sponsors										2	3
Corporate Members	4	4	4	4	3	3	3(1)	3(1)	5(2)	5	5
Corporate Representatives	5	5	5	5	4	3		6	5	8	7
Life Members	1	1	1	1	1	1	1	1	1	2	2
Standard Members	119	43 (69)	43 (69)	53 (23)	42 (30)	50 (23)	52 (19)	62 (17)	77 (13)	91	94
Members (overseas)	22	10 (11)	10 (11)	14 (5)	10 (8)	7 (6)	8 (5)	8 (8)	17 (5)	8	14
Members (no branch)	12	3 (9)	3 (9)	5 (5)	4 (6)	4 (6)	10 (4)	11 (5)	16 (2)	12	13
Retired Members	8	4 (4)	4 (4)	7 (3)	8 (2)	8 (1)	7	5	5	5	4
Student Members	34	1	0	20 (22)	25 (20)	14 (30)	23 (16)	26 (18)	35 (19)	41	51
Total Membership	205	71 (93)	70 (93)	109 (58)	96 (67)	90 (66)	104 (45)	122 (49)	161 (41)	174	193

Table 1: Membership counts. The 2011 data above was correct at 8/2/2012, the 2012 data as at 29/11/2012, and the 2013 data at 21/11/2013.

I propose that we move to a new (free) MailChimp based system that allows anyone to sign up for ORSNZ emails, and also records the membership status for people on the list. Because of this proposed change, our current membership records are in something of a state of flux. However, our 2013 Annual Conference generated 7 new full members, and 11 new student members; these numbers are included above. The 2012 conference generated 23 new student members, and 13 potential full members. The 2012 conference registration form did not make it clear that non-members would be entitled to free membership, and so only student attendees in 2012 have been included as members. However, I propose that all 13 non-member conference attendees in 2012 be invited to join the society at no charge. (These 2012 attendees were all invited to attend this year's conference at members' rates.)

Finances

As you can see in the Treasurer's report, our financial reserves continue to be in a healthy state. I wish to acknowledge the excellent contribution Andrea Raith continues to make as our treasurer. I'd also like to acknowledge, once again, the work of our long standing auditor Paul Rouse, who has risen to the task of ensuring we can have full confidence in our financial records. We are very grateful to Andrea and Paul for their contributions.

Newsletter & Secretary

Many thanks to Tony Downward (Engineering Science, University of Auckland) for acting as newsletter editor this year, and for Geoff Pritchard (Statistics, University of Auckland) for being our secretary.

Council

I wish to thank all the Council members, listed below, for their various contributions over the year.

President Andrew Mason president@orsnz.org.nz	Vice President Ilze Ziedins vicepresident@orsnz.org.nz		
Newsletter newsletter@orsnz.org.nz Anthony Downward	Secretary secretary@orsnz.org.nz Geoff Pritchard	Treasurer treasurer@orsnz.org.nz Andrea Raith	Council (APORS / IFORS Rep) liaison@orsnz.org.nz David Ryan
Council Kevin Ross	Council Ross James	Council Stefanka Chukova	Council Andy Philpott
Council (Industry Representative) Geoff Leyland	Council Paul Rouse	Council John Paynter	Council Fernando Beltran

Auckland Branch Chair auckland@orsnz.org.nz Golbon Zakeri	Christchurch Branch Chair christchurch@orsnz.org.nz Grant Read	Wellington Branch Chair wellington@orsnz.org.nz Mark Johnston	Waikato Branch Chair John Buchanan
(WebMaster) Andrew Mason			

ORSNZ 2012 Conference in Wellington & Daellenbach Prize for Grant Reid

Our colleagues in Wellington ran a very successful conference at Victoria University from December 10-11, 2012. I am very grateful for the many hours provided by Stefanka Chukova, John Haywood, Mark Johnston, and Nokuthaba Sibanda to put all the pieces into place. This small team did an amazing job.

This conference provided an opportunity to formally recognise Professor Read's contributions by presenting him with the 2012 Hans Daellenbach prize. This prize was given by the ORSNZ to recognise Grant's distinguished contributions to OR in NZ, particularly in the electricity sector, over many years. Grant was supported in his prize winning by his daughter Rosemary Reid who was first equal, along with Jingze (Emily) Du, in the undergraduate Young Practitioner Prize (YPP). Other YPP winners included Olga Perederieieva (1st prize, PhD level) and Simon Bull (1st prize, Masters level). I'd like to offer my congratulations to the conference organisers and the prize winners for all their achievements.

Analytics Forum

An important new initiative being supported by the ORSNZ is the creation of the New Zealand Analytics Forum (<http://analytics.org.nz>). To quote the forum web site, "The New Zealand Analytics Forum is for professionals to connect and learn from each other. The community is open to all who use analytical methods to solve business problems. We hope to understand collectively what best practice looks like across different industries, and have a positive influence in New Zealand." The Forum has organised very three successful events in Auckland and one in Wellington, with more coming soon. An important feature of the Analytics Forum is the strong support from industry, with companies such as Fonterra, Beca, Hearne and Mighty River Power all featuring on the Steering Committee. We are very grateful to everyone who has contributed, including Kevin Ross from Fonterra for driving the creation of this forum, Fonterra itself for sponsoring the first two Auckland events which were hosted by the University of Auckland Business School, the Beca team lead by Matthew Ensor for hosting and sponsoring the third Auckland event, and Kim Frew and colleagues from Harmonic Analytics and the Victoria University of Wellington Business School for sponsoring and hosting the Wellington event. We look forward to an ongoing close collaboration with this forum.

Canterbury and Victoria OR

I was recently asked to make a submission on behalf of the ORSNZ to a panel reviewing the OR and Statistics activities at the Victoria University of Wellington. I am confident that this review will be a more positive experience than last year's review of OR at Canterbury University. Despite the ORSNZ making a submission supporting the Canterbury OR group, a decision was taken to remove OR from Canterbury's offerings and lay off many of the

Canterbury OR staff. It was sad to see this happen to a group that has made so many positive contributions to OR in NZ. A small number of ORSNZ members are still at Canterbury working in the Operations Management area. We wish them and our other ORSNZ members in Canterbury all the best as they adapt to this new reality.

Creation of Online ORSNZ Archive

Over the last summer period, we ran an ORSNZ digitisation project in which we tracked down and scanned as many old newsletters and conference proceedings as we could find. We also scanned the ORSNZ's journal, "New Zealand Operational Research", which was published in 14 volumes from 1971 till 1986. We are very grateful to the University of Auckland library for making their scanning equipment and expertise available to us and for hosting the new digital material. I would also like to thank Jim Philpott for doing all the hard work of individually scanning the 1000's of pages in these old documents. You can find the journal volumes at <http://www.thebookshelf.auckland.ac.nz/document/?wid=1468> and the proceedings at <http://www.thebookshelf.auckland.ac.nz/document.php?wid=1470>. The old newsletters, from 1970 onwards, are available at <http://orsnz.org.nz/Newsletters/>. I hope you will enjoy looking back at these records of our early history.

NZSA+ORSNZ 2013 Conference in Waikato

This year's conference is being run jointly with the New Zealand Statistics Association (NZSA). Their members at Waikato have done a great job sorting out all the local details. I have set up and run the ORSNZ online conference registration and payment systems for this joint conference, which has proven to be much easier than the paper systems traditionally used by the NZSA. We have around 55 participants attending who have indicated an OR interest, and 30 OR talks. It has been a joy to work with my Statistics colleagues to organise this conference, which I hope will provide a possible model that future conferences can follow.

I am looking forward to all the conference plenary addresses, which include talks by ORSNZ council member Kevin Ross from Fonterra and ex-ORSNZ President Vicky Mabin from the Victoria University of Wellington. I'm sure these talks will show our statistics colleagues some of the wonders we can achieve through OR and Analytics.

I am very grateful to our conference sponsors, which include Derceto (developers of water optimisation software), Harmonic Analytics, SAS, Catalyst IT, Dragonfly Data Science and NeSI (NZ eScience Infrastructure), the University of Waikato and the Department of Engineering Science at the University of Auckland. It is wonderful to have such a broad base of support for our conference. This sponsorship is essential to ensuring we can continue to offer the Young Practitioner Prize and support our student and recent graduate members with reduced conference fees and travel grants.

I look forward to seeing many of you at the conference.

Andrew Mason
President

Treasurer's Report 2013

The funds available at the start of the period (01/07/2012) were \$59,562.19. The funds at the end of the period (30/06/2013) were \$60,365.27. There is an excess of receipts over expenditure of \$803.08.

The 2012 ORSNZ conference generated significant income of over \$15,000 in subs and \$4,550 in sponsorship. In fact sponsorship is about \$2,000.00 higher than recorded, due to a payment by the Engineering Science Department (UoA) that arrived late and will therefore be included in the next financial year. Related to the conference some travel grants were paid out (\$337.50) to support student travel to the conference, and it should be noted that Engineering Science students from Auckland were all sponsored by their department. Prizes are also part of the conference and a total of \$1,000.00 each were paid out to YPP prize winners and for the Daellenbach Prize. With conference related expenses of under \$15,000.00 the conference generated a healthy profit.

There now is almost no income through subscriptions as no subscription payment requests were sent to ORSNZ members in 2012/2013. The only item here is a member's voluntary payment for several years of outstanding subs.

IFORS subscription costs are as usual. We did not pay RSNZ subscriptions as they appear fairly high considering that the ORSNZ is no longer charging subs for its members.

PO Box rental costs appear to be high as the payment for the 11/12 period was made late and hence fell into the 12/13 period where we paid for two years of PO Box rental. Postage and administration costs dropped to zero as no conference proceedings had to be sent out in 2012/2013. Also, no newsletters were posted.

Visa related charges have increased compared to 11/12, which is expected due to higher income received compared to 11/12 when there was no conference related credit card income. The credit card account comes with a fixed monthly fee of \$35 and an additional charge depending on volume. Andrew Mason re-negotiated a better fixed monthly fee in the 12/13 financial year. Thanks to Andrew the fixed fee is reduced from \$35 to \$15 from February 2013, which will make a big difference in VISA fees in the future. Other bank charges are mainly for an international transfer for IFORS subs (\$25).

A total of \$2009 was paid for digitization of ORSNZ newsletters and proceedings. Website fees of \$64.29 are for domain registration for two years.

\$37,238.48 was held on term deposit at the end of the financial year. It is continuing to be rolled over every 180 days. Interest of \$1,526.83 earned was comparable to the 2012/2013 period.

Thank you to Paul Rouse for auditing the accounts and to Andrew Mason for having answers to all of my accounts-related questions.

Andrea Raith
Hon. Treasurer

Auckland Branch Report 2013

Throughout 2013 we have seen increased activity relating to analytics within the OR group at Auckland. The Analytics Forum was established by Kevin Ross (Fonterra), meets on a regular basis and has led to a department of Engineering Science-based seminar series, organized by Andy Philpott, where industry and academics interested in analytics present problems as well as solutions and advances in analytics.

This year saw the retirement of the University of Auckland Professor of Operations Research, David Ryan and the departure of another OR professor, Matthias Ehrgott who took up a professorship at Lancaster. Even though David and Matthias are not in the department everyday, they both remain intimately connected to the department and are very much a part of ongoing research at Auckland. It is this correspondent's belief that no OR academic will ever retire from his/her career as it is synonymous with having fun. Therefore I very much suspect a sudden increase in David's research allowed by relief from service duties.

We saw a large crop of part iv students specializing in OR this year. We have had over 20 part iv students undertaking their final year project in operations research ranging from Antarctic helicopter scheduling to optimization in the health sector to the electricity industry, and even machine learning for poker!

At INFORMS 2013 (Minneapolis) Andrew Mason, Andy Philpott, Geoff Pritchard and Golbon Zakeri presented their research. For those interested in Energy, a Centre for Mathematical Social Sciences (CMSS) workshop, including a session on energy, is organized for December 11 (details can be obtained from the Electric Power Optimization Centre website located at epoc.org.nz). The workshop includes keynote speakers Frank Wolak, Shmuel Oren and Jim Bushnell.

Wellington Branch Report 2013

On 12th November, Vicky Mabin gave her Inaugural Professorial Lecture, “It’s just common sense, right? So why is it so uncommon?”, to a packed audience in the Hunter Council Chamber at Victoria University of Wellington. I lost count of how many times OR and ORSNZ were mentioned. Vicky also did an invited session “Intro to the TOC Thinking Processes” at the TOCICO 2013 conference in Germany in June (available on the TOCICO website) and an invited talk at the AACSB conference in Phoenix Arizona in March. Vicky also returned to her alma mater, Lancaster, in September for the 50th birthday of OR at Lancaster, the first OR programme at a UK university. John Davies was one of the first OR graduates, as was John Hayes following Vicky. John also attended the 44th Decision Sciences Institute conference in Baltimore where he reports that Business Analytics is now the name of the game.

Stefanka Chukova is relaxing, having stepped down to a half-year position, and spending her new found time going to conference in South Africa and visiting family and friends all over the world. Mark Johnston went to the Genetic and Evolutionary Computation Conference in Amsterdam in July. Two of Bob Cavana’s PhD students have had significant achievements this year: David Rees completed his PhD in system dynamics and health policy and Rodney Scott was runner up in the Dana Meadows student paper award at the International System Dynamics Conference in Boston in July.

Mark Johnston (wellington@orsnz.org.nz)

Sadly, the Canterbury Branch report is as follows:

There has been no ORSNZ branch activity in Christchurch this year. Since Operations Research (as opposed to Operations Management) is no longer taught in Christchurch, and there is virtually no OR activity in the city, no branch activity seems likely in the foreseeable future.

I’d be inclined to propose a motion of dissolution, or however these things are done, but unfortunately I don’t think anyone from Canterbury will be there to speak to it. And perhaps the local membership should be polled first. But, under the circumstances, I feel hesitant to put myself forward for nomination as branch chair.

Grant Read.