

# Contributing to the accessibility of quantitative skills

The efforts of COMPASS since 2004

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# Overview

- Reporting on the problem
  - Social Science Reference Group (2001 & 2005)
  - Economic & Social Research Council (2009)
  - Centre of Methods and Policy Application in the Social Sciences (2010)
- Formulating a response
  - New Zealand Social Statistics Network (NZSSN)
  - New Zealand Social Science Data Service (NZSSDS)
  - Teaching – SPSS workbooks; UoA courses in Sociology / Political Studies



# Improving the knowledge base for social policy

*To ensure social science research can better inform social policy development and implementation ... [by] ... improving connections, increasing resources, and enhancing capacities.*

*What needs to be done to support exchanges of people between universities and government departments ... [and] ... how universities can respond to the need of social policy agencies for graduates with project management, quantitative, and evaluation skills.*

**Social Science Reference Group report to MoRST (2001)**

# Improving connections

- University research project managers to monitor research grants more effectively; findings to be disseminated more appropriately
- Social Science Research Centres & Social Policy Research Centres
- Virtual Research Environments – the challenges of uptake
- Centres of Research Excellence – pushing both policy relevance and academic rigour



## Increasing resources

- NZ *science* publications agriculture and social science heavy, also above average in citations
- MoRST & Royal Society to establish an independent, web-based, peer-reviewed social science journal
- Less than optimal use of NZ data sets – Stats NZ's CURFs for research purposes; Treasury's academic linkages

## Enhancing capacities

- Tertiary training of social scientists to provide more hands-on experience of analysis of quantitative databases
- FRST funding in 2001: 31 bids for \$600,000 total, maybe half as much again spent by bidders – collaboration versus competition
- **Bottom line:** mechanisms already exist to meet the need for more and better research, but more funding is required!



## Coming of age of the social sciences

- Social Policy Evaluation and Research Committee (SPEaR, 2003)
- Building Research Capability in the Social Sciences (BRCSS, 2004)
- New Zealand Journal of Social Sciences Online (Kōtuitui, 2005)
- Social Policy Research and Evaluation Conference (MSD, 2003)
- Better coordination between the FRST and the HRC in funding

## Contributions to wealth and wellbeing

- Still minimal interdisciplinary, minimal academic-government
- Still a poor view of social science research in other areas
- Performance-based funding discouraging NZ publication
- Social sciences century: contributing to wealth and wellbeing
- Indigenous knowledge: Ngā Pae, 2002; Vision Mātauranga, 2005



# Enquiry into use of numeric data in learning & teaching

*British universities and colleges are not producing quantitatively competent social scientists in sufficient numbers.*

Gordon Marshall, CEO, Economic and Social Research Council (2001)

*Getting through statistics and quantitative methods was necessary but unappealing, and made difficult by a lack of enthusiasm in teachers.*

Economic and Social Research Council project report, Williams M, et al. (2008)

*Promote subject-based statistical literacy for students, and support staff who wish to incorporate empirical data into substantive courses.*

Joint Information Systems Committee project report, Rice R, et al. (2001)

# Proposals to improve quantitative teaching in the UK

- Cost pressures, lack of skilled staff, student hostility to numbers
- Specific lack of secondary data analysis in teaching
- Proposed teaching framework in quantitative methods

*Only by virtue of the methodologies [can social sciences] lay claim to a specifically scientific status. Weakness [in methodology] has been caused by the neglect of quantitative methods.*

**MacInnes J (strategic advisor), report to the ESRC (2009)**



# A qualification in the use of quantitative evidence

- Support teachers; reward effort and innovation
- ESRC pilot projects – time-consuming interventions in existing courses; improving the image of “quants”
- A degree programme with certification, possibly a prerequisite for postgraduate study
- Be popular; set exacting but achievable standard; be prestigious

## Addressing the quantitative skill shortage in the social sciences

- Lack of quantitative skills among NZ social science graduates; training for academia while many will work in the public sector
- Limits postgraduate study if overseas universities require quantitative methods
- Teachers on short-term contracts due to lack of skills in-house
- Already in 2004, we had begun to address these issues locally



# New Zealand Social Statistics Network

- Based on the model of, and initial consultation with, ACSPRI
- Mixed Methods short course in Auckland in February 2005
- Annual summer short course programme established starting in 2006, usually in Wellington

	2005	2006	2007	2008	2009	2010
<b>Courses</b>	1	4	3	5	6	9
<b>Enrolments</b>	17	27	20	58	68	93
<b>Average per</b>	17	6	6	11	11	10

# NZSSN course timing

- In 2011 a winter programme in Auckland was added; in 2013 we transitioned to an alternative summer timing

	2011 Feb	2011 Jul	2012 Feb	2012 Jul	2013 Feb	2013 Nov	2014 Nov
Courses	11	5	11	2	5	9	7
Enrolments	107	37	104	11	43	80	45
Average per	9	7	9	5	8	8	6

- We are currently planning courses for November 2015, so watch this space: <http://www.nzssn.org.nz>
- **Bottom line:** not intended to make money – *a responsibility*



# New Zealand Social Science Data Service

- One-year funded project in 2007 to set up an online data archive
- Consultation with Australian Social Science Data Archive and setup of NESSTAR software on the Advanced Network
- NZ Election Study, International Social Survey Programme, World Internet Project NZ, and projects internal to COMPASS
- **Bottom line:** NESSTAR licence fee \$US12,000 p.a.; poor uptake

## NZSSDS other resources

- Enhanced publications – journal articles presented with data sets and program code used to produce outputs
- SPSS workbooks – case studies from NZSSDS using reduced ‘teaching data sets’ and aimed at self-teaching
- Project outputs – inline HTML versions of reports and working papers, allowing for potential updates



## Research methods teaching

- SOCIOL701 Advanced Research Skills offered in 2005; we instructed students in Excel, SPSS, and NVivo
- In 2010, options to do only quantitative, only qualitative, or both
- Peter lectures for the quantitative and I instruct in the labs
- Lab exercises assessed, albeit very lowly weighted, as motivation
- Main project involves constructing and testing a hypothesis

# Quantitative instruction

- Data manipulation in SPSS interfaces; sorting and filtering data
- Coding variables; formats and types; recoding variables
- One-way and two-way tables; measures of association
- Accounting for a third variable in tables and measures
- Students choose a data set from NZSSDS for their projects
- **Bottom line:** we as COMPASS do not get paid for this at all. Politics and International Relations pays Sociology for the EFTS



## Putting it all together

- NZSSN and teaching: ensuring social sciences can inform policy, enhancing capacities among both students and the labour force
- NZSSDS: supporting staff who wish to teach with empirical data; increasing availability of data and use of secondary data analysis
- Teaching: helping universities respond to the increasing demand for quantitative skills
- **Bottom line:** as ever, doing what we can, with what we have