Evaluating policy-relevant questions using existing data

COMPASS Research Centre

9th. Research Colloquium
Statistics NZ, Conference Room
29 July 2015
10.00 Introduction – Peter Davis

10.15 Current research-funded projects
- The COMPASS “social laboratory” (RSNZ)
- Professor Peter Davis
- A knowledge laboratory of the early life-course (MBIE)
  - Roy Lay-Yee, Senior Research Fellow
- Life-course predictors of mortality inequalities (HRC)
  - Dr. Barry Milne, Senior Research Fellow

12.30 LUNCH BREAK

13.15 Other contributions to the COMPASS work programme
- Income return of education among Asian New Zealanders
  - Liza Bolton, Doctoral Scholar
- Enhancing accessibility of quantitative data analysis skills
  - Martin von Randow, Research Officer
- The New Zealand Election Study (1990-2014)
  - Professor Jack Vowles, Victoria University Wellington

14.45 CONCLUSION
COMPASS – Key Facts

- 2000 - Research group in being
- 2008 - COMPASS formed
  - professional social science serving research & policy
  - Focus: advanced methods, policy application
- 2015 – Faculty review being undertaken
  - Submissions welcome
- Three work streams
  - Simulation
  - Data analysis
  - Research infrastructure
<table>
<thead>
<tr>
<th>Model</th>
<th>Year</th>
<th>Locality</th>
<th>Type</th>
<th>Life stage</th>
<th>Domain</th>
<th>Software</th>
<th>Data</th>
<th>Funder</th>
<th>Collaborators</th>
<th>End-users</th>
</tr>
</thead>
<tbody>
<tr>
<td>MOSC</td>
<td>2005-8</td>
<td>NZ</td>
<td>ABM/MSM</td>
<td>Adults</td>
<td>Marriage market, residential segregation</td>
<td>NetLogo, Repast, Java</td>
<td>Census</td>
<td>Marsden</td>
<td>UOA</td>
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<tr>
<td>PCASO</td>
<td>2005-8</td>
<td>NZ</td>
<td>Static discrete-time MSM</td>
<td>Older people</td>
<td>Health care</td>
<td>SAS</td>
<td>NATMEDCA, NZHS, ANHS</td>
<td>HRC</td>
<td>UOA, NatSem</td>
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<td>BCASO</td>
<td>2009-12</td>
<td>NZ</td>
<td>Dynamic discrete-time MSM</td>
<td>Older people</td>
<td>Health &amp; social care</td>
<td>R</td>
<td>NZHS, NZDS, Census</td>
<td>HRC</td>
<td>UOA, NatSem</td>
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<tr>
<td>MEL-C</td>
<td>2009-13</td>
<td>NZ</td>
<td>Children</td>
<td>Children</td>
<td>Health, education, conduct</td>
<td>Java, R</td>
<td>CHDS, DMDHS, PIFS, THNR, Census2006</td>
<td>MBIE</td>
<td>UOA, NatSem, StatCan</td>
<td>MOE, MOH, MOJ, MSD, Te Punhi Kokiri, SUPERU, Children's Commissioner</td>
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<td>KNOW-LAB</td>
<td>2013-16</td>
<td>World</td>
<td>Children &amp; young people</td>
<td>Health, education, conduct, etc.</td>
<td>Published literature</td>
<td>MBIE</td>
<td>UOA, StatCan</td>
<td>MBIE</td>
<td>UOA</td>
<td>Open-source modelling community</td>
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<td>SOCLAB</td>
<td>2015-17</td>
<td>NZ</td>
<td>Whole society</td>
<td>Social</td>
<td>Modgen/OpenM++</td>
<td>NZLC</td>
<td>Royal Society</td>
<td>UOA</td>
<td>Open-source modelling community</td>
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<td>TPM</td>
<td>2015-20</td>
<td>NZ</td>
<td>Whole society</td>
<td>Social</td>
<td>Census</td>
<td>TEC</td>
<td>UOA, MOTU</td>
<td>TEC</td>
<td>MOTU</td>
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</tbody>
</table>

**LEGEND**

- **Model**: MOSC: Modelling social change, PCASO: Primary care in an ageing society, BCASO: Balance of care in an ageing society, MEL-C: Modelling the early life course, KNOW-LAB: Knowledge laboratory, SOCLAB: NZ social laboratory, TPM CORE: Te Puna Matatini
- **Funder**: HRC: Health Research Council, MBIE: Ministry of Business, Innovation & Employment, Royal Society: James Cook Fellowship, TEC: Tertiary Education Commission
- **Collaborators**: UOA: University of Auckland, NatSem: National Centre for Social & Economic Modelling, University of Canberra, StatCan: Statistics Canada, MOTU: Motu Economic and Public Policy Research
- **End-users**: MOE: Ministry of Education, MOH: Ministry of Health, MOJ: Ministry of Justice, MSD: Ministry of Social Development

- **Model**: ABM: Agent based model, MSM: Micro-simulation model
## COMPASS ‘Data Analysis’ Portfolio

<table>
<thead>
<tr>
<th>Project</th>
<th>Year</th>
<th>Scale</th>
<th>Domain</th>
<th>Data collection</th>
<th>Funder</th>
<th>Collaborators</th>
<th>Stakeholders</th>
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<tbody>
<tr>
<td>NZQHS</td>
<td>1998-2001</td>
<td>National</td>
<td>Hospital quality of care</td>
<td>National survey of hospitals</td>
<td>HRC</td>
<td>UOA</td>
<td>MOH, DHBs</td>
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<tr>
<td>NATMEDCA</td>
<td>2001-2</td>
<td>National</td>
<td>Primary health care</td>
<td>National survey of GPs</td>
<td>HRC</td>
<td>UOA</td>
<td>MOH, PHOs</td>
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<td>HR</td>
<td>2004</td>
<td>National</td>
<td>Hospital performance trends</td>
<td>NMDS 1988-2001</td>
<td>HRC</td>
<td>UOA</td>
<td>MOH</td>
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<tr>
<td>FWWP</td>
<td>2002-7</td>
<td>National</td>
<td>Social indicator trends</td>
<td>Census 1981-2006</td>
<td>MBIE</td>
<td>UOA, SNZ</td>
<td>SNZ</td>
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<tr>
<td>EHO</td>
<td>2008-11</td>
<td>National</td>
<td>Hospital performance trends</td>
<td>NMDS 2001-2009</td>
<td>HRC</td>
<td>UOA, UOtago, VUW</td>
<td>MOH, DHBs</td>
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<td>NZSEI</td>
<td>2011</td>
<td>National</td>
<td>Socio-economic measurement</td>
<td>Census 2006</td>
<td>COMPASS</td>
<td>UOA</td>
<td>SNZ</td>
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<td>MORT</td>
<td>2014-7</td>
<td>National</td>
<td>Health</td>
<td>NZLC 1981-2006, deaths</td>
<td>HRC</td>
<td>UOA, UOtago</td>
<td>SNZ, MOH</td>
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<td>Ngai Tahu</td>
<td>2014-16</td>
<td>Iwi</td>
<td>Social indicators</td>
<td>Census 1981-2013, official data sources</td>
<td>MBIE</td>
<td>UOA, TRONT</td>
<td>Ngai Tahu</td>
</tr>
</tbody>
</table>

### LEGEND

- **NATMEDCA**: National Primary Medical Care
- **NZQHS**: NZ Quality of Healthcare Survey
- **HR**: Hospital Restructuring
- **FWWP**: Family & Whanau Wellbeing Project
- **EHO**: Enhancing Hospital Outcomes
- **NZSEI**: NZ Socio-economic Index
- **MORT**: Life-course predictors of mortality inequalities
- **Ngai Tahu**

- **NMDS**: National Minimum Data Set
- **NZLC**: NZ Longitudinal Census
- **HRC**: Health Research Council
- **MBIE**: Ministry of Business, Innovation & Employment Collaborators
- **UOA**: University of Auckland
- **UOtago**: University of Otago
- **VUW**: Victoria University, Wellington
- **TRONT**: Te Runanga o Ngai Tahu
- **SNZ**: Statistics NZ
- **MOH**: Ministry of Health
- **DHB**: District Health Boards
- **PHO**: Primary Health Organisation
- **Stakeholders**
## COMPASS ‘Research Infrastructure’ Portfolio

<table>
<thead>
<tr>
<th>Project</th>
<th>Year</th>
<th>Purpose</th>
<th>Form</th>
<th>Funder</th>
<th>Collaborators</th>
<th>End-users</th>
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<tbody>
<tr>
<td>NZSSDS</td>
<td>From 2007</td>
<td>Data archiving &amp; sharing</td>
<td>Website</td>
<td>TEC</td>
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<td>Research community</td>
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<td>NZSSN</td>
<td>From 2005</td>
<td>Professionalization</td>
<td>Short courses</td>
<td>COMPASS</td>
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<tr>
<td>SOCIOL701</td>
<td>2005, 2010-2</td>
<td>Teaching research methods</td>
<td>Postgrad courses</td>
<td>UOA</td>
<td>UOA</td>
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<td>STATS740</td>
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<td>From 2013</td>
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<td>STATS705</td>
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<td>Outreach</td>
<td>Annual event</td>
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<td>Ongoing</td>
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<td>Short research projects</td>
<td>UOA</td>
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<td>Undergrad students</td>
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<td>Ongoing</td>
<td>Workforce development</td>
<td>Hons, Masters, PhD projects</td>
<td>UOA</td>
<td>UOA</td>
<td>Postgrad students</td>
</tr>
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<td>NZES</td>
<td>2011, 2014</td>
<td>Data collection of national significance</td>
<td>National survey</td>
<td>UOA, EC, AUT, VUW</td>
<td>UOA, VUW</td>
<td>Research community</td>
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<tr>
<td>ISSP</td>
<td>2013, 2015</td>
<td>Data collection of international significance</td>
<td>National survey</td>
<td>UOA, EUCNetwork</td>
<td>UOA, VUW</td>
<td>Research community</td>
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</tbody>
</table>

### LEGEND

- **Project**
  - NZSSDS: NZ Social Science Data Service
  - NZSSN: NZ Social Statistics Network
  - SOC701:
  - STATS740:
  - POLSTUDS769:
  - Colloquia
  - Seminar series
  - Student projects
  - NZES: NZ Election Study
  - ISSP: International Social Survey Programme

- **Funder**
  - UOA: University of Auckland
  - TEC: Tertiary Education Commission
  - EC: Electoral Commission
  - AUT: Auckland University of Technology
  - VUW: Victoria University, Wellington
  - EUCNetwork: European Union Centres Network

- **Collaborators**
  - UOA: University of Auckland
  - SNZ: Statistics NZ
  - VUW: Victoria University, Wellington
Colloquium Outline

10.00 Introduction – Peter Davis

10.15 Current research-funded projects
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