Monitoring Social Change with Existing Data: The Family and Whanau Wellbeing Project



Te Whare Wananga o Tamaki Makaurau

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#### The Family and Whanau Wellbeing Project

- Introduction
- Data access and preparation
- Definitions of families and households in the census
- Building family-level indicators

Preliminary indicator results

#### The Family and Whanau Wellbeing Project (FWWP)



- Multidisciplinary
  - Sociology
  - Statistics
- Funded by FRST for five years
- Creating a social monitor
  - Focus on households and families
  - Constructing social indicators of wellbeing
  - Using existing time-series data (mainly Census)
- Adding analytical value to official data sources
  - Can they form the basis for a data platform?

## What we want to do in the project



#### **Objectives**

- 1. Develop standard measures
  - Household/family composition
  - Socio-economic status
  - Family wellbeing
- 2. Analyse family wellbeing in context
  - Wellbeing by family type and social location
- 3. Set time-series analysis of social indicators
  - Interrelationships over time
- 4. Explore feasibility of routine monitoring
  - Data platform, data linkage and "fusion", pseudo cohort



# **Data Preparation**



- Data obtained through Statistics NZ Data Laboratory •
  - Access to the data used in this study was provided by Statistics New Zealand in a ٠ secure environment designed to give effect to the confidentiality provisions of the Statistics Act 1975.
- Indicator validity is partly dependent on the quality of source data •
- Time-series analysis of 20 years of data from 5 censuses an ambitious task, • tried here for the first time
- Required data dictionaries and detailed variable assessments ⊡
  - Sources already available •
  - Existing resources enhanced, new ones created. ٠
- Project team was advised by Statistics NZ in this process •
- Outlined in Family Wellbeing Indicators from the 1981–2001 Censuses ⊡ (Milligan et al., 2006)



- Major component of data assessment process
- Significant for time-series validity of indicators
- Eighteen different factors affecting variable comparability were identified
- Each variable used in the indicators was assessed using a comparability scale
  - Comparability: Total -> High > Broad -> Limited
  - (Milligan et al., 2006, pp.46–50)

#### **Census Families**



- Wellbeing indicators at the level of the family
- The census definition of family is limited to nuclear families consisting of 'parents' and 'children':
  - 'Parent'  $\equiv$  'Guardian', a person in a parenting role
  - parents need not be married nor in an official union, nor biological parents of their 'children'
- Parents and children must live in the same dwelling
- Certain types of 'family' cannot be identified in census records

## Families not identifiable



## Multi-dwelling families, e.g.,

separated parents have dual custody

# Extended families

 characteristic of families in some cultures, e.g., Māori and Pacific Peoples





- Families with children living away from home, e.g,
  - tertiary students living in halls of residence or flats



New Zealand

# Family Types



- Family structures can be classified for comparative analysis
- SNZ family type classification modified and extended
- Added some 'household' groups for informative comparisons e.g.,
  - One-person households excluded from definition of 'family'
- Couples without children and one-person households were further classified as 'retired' or 'non-retired'
  - *Retired*: Both partners either over 65 yrs or in receipt of NZ Super
  - Non-retired: Neither or only one partner over 65 yrs or in receipt of NZ Super
  - Classification is operational rather than definitive

# **Selected Family Types**



#### Couples with children

- 1. Couple with dependent children
- 2. Couple with only independent children
- One parent families
  - 3. One parent family with dependent children
  - 4. One parent family with only independent children
- Families/households without children
  - 5. Couple without children (non-retired)
  - 6. One-person household (non-retired)
  - 7. Retired family/household
  - 8. Non-family household







#### Using Census Data to Construct Wellbeing Indicators



- The advantages of using Census data
  - Identification of core positive outcomes with objective living conditions
  - Ability to assess change over time
  - Population coverage rather than sample
- The limitations of using Census data
  - Limited range of information coverage by Census
  - Lack of data for some indicators
  - Lack of in-depth information for some indicators



Wellbeing Component	Indicator selected	Definition
Income	Equivalised family income	The median value of all equivalised family income
	Income source	The proportion of all families with one or more family member receiving any type of government transfer, except family benefit or New Zealand Superannuation
	Proportion of families with low incomes	The proportion of all families whose equivalised gross family income is less than 60 percent of the median equivalised gross family income
	Income inequality	The X proportion of all families who earn Y percentage of the total income of all families (Gini index, Lorenz curve)
Education	Secondary educational attainment	The proportion of all families who have one or more family member(s) aged 15 or over with any secondary qualifications
	Post-secondary educational attainment	The proportion of all families who have one or more family member(s) aged 15 or over with any post-secondary qualifications

# Wellbeing Indicators cont.



Wellbeing Component	Indicator selected	Definition
Work	Unemployment	The proportion of all families containing at least one family member aged 15 or over who is unemployed
	Hours worked	The proportion of all families containing at least one family member who works more than 48 hours a week
Housing	Tenure	The proportion of all families that do not live in owner- occupied dwellings
	Rental affordability	The proportion of all families in rented dwellings where weekly rent is greater than 25 percent of the gross equivalised household income
	Crowding	The proportion of all families living in households that require at least one additional bedroom to meet the sleeping needs of the household
Health	Health related benefits	The proportion of all families/households with one or more member receiving either a sickness or invalid's benefit

# Median equivalised gross income by family type







The results presented in this study are the work of the author, not Statistics New Zealand.

Low income families



## Household crowding









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#### Secondary school qualifications





# Post secondary school qualifications





# **Concluding comments**



- Time-series can be constructed from historical census data, subject to some limitations, e.g.:
  - Comparability imposes certain restrictions
  - Families restricted to the same household
- Census as a data source has its own strengths
  - Unparalleled breadth of contextual information available
  - Long running
  - Mandatory for all New Zealanders
- On-going/future research
  - Wellbeing for different ethnic groups and family types
  - Feasibility of family-level cohort studies from census data
  - Potential for further fine-grained analysis at family level

# **FWWP-related Publications**



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http://www.spear.govt.nz/ publications/ http://www.stats.govt.nz/ analytical-reports/default.htm