

# Amenities and the attractiveness of New Zealand cities

Arthur Grimes, Kate Preston, David Maré, Stuart Donovan

*Presentation to RSA Conference  
Christchurch*

*February 2019*

*Funded by MBIE NSC11*



# Questions:

- Prior work\* compiled indicators for **quality of life (QL)** & **quality for business (QB)** for NZ settlements from 1976-2013
- That work examined which amenities affect QL & QB
- This analysis tests the influence of QB & QL on internal migration decisions (using census data)



\*See Preston et al (2018) Motu WP18-14

# QL & QB: Intuition

(Roback 1982 1988; Gabriel & Rosenthal 2004; Chen & Rosenthal 2008)

- Urban economists derive measures for QL and QB based on wages & rents
  - A place with high rents but low wages must have amenities that yield a high **quality of life** otherwise people would move elsewhere & newcomers would not arrive (“sunshine wages”)
  - A place with high rents and high wages must have amenities that yield a high **quality for business** otherwise firms would move elsewhere & new firms would not be established (“productive”)



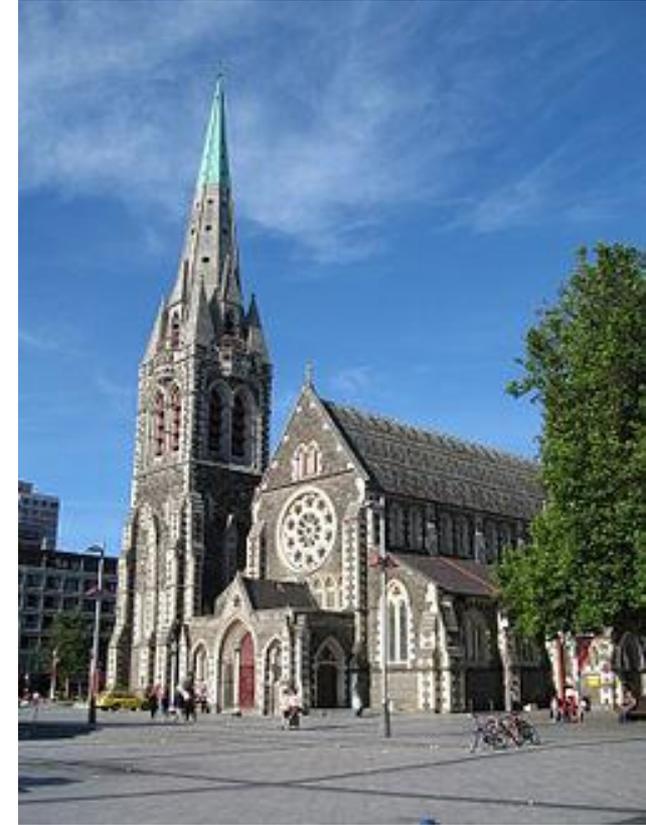
# Data

**Disclaimer:** Access to the data used in this study was provided by Statistics New Zealand under conditions designed to give effect to the security and confidentiality provisions of the Statistics Act 1975. The results presented in the study are the work of the authors, not Statistics New Zealand.

- Census unit record data used to estimate (quality-adjusted) rents and (quality-adjusted) wages for 133 settlements over 1976–2013
- QL and QB compiled for each settlement from rents & wages
  - with new robustness checks based on place of work vs place of residence
- Census data used to determine bilateral migration flows between each of the largest 31 urban areas for **25-54 yr olds** over 1986 – 2013 (5,580 bilateral migration observations)

# Modelling

- **Gravity model** used to model bilateral migration flows
  - Includes origin & destination: (log) population, QL, QB; plus distance and same island dummies
  - Also includes a range of fixed effects (i.e. dummy variables to control for unchanging city characteristics)
- Supplemented by tests of whether effects differ for migration decisions from Christchurch following 2010/11 earthquakes



\*See Preston et al (2018) Motu WP

# (Preliminary) results

- Origin & destination population both increase bilateral migration
  - as does being in the same island
  - while distance reduces bilateral migration
  - consistent with most gravity models of migration
- **Destination QL is a strong drawcard**
  - But (to a lesser extent) people also *leave* places with high QL & high QB
    - possibly to cash in on high property values in those places
- Post-Christchurch earthquake decisions are very similar
  - with some evidence that 'Christchurch refugees' favoured larger destinations (possibly reflecting city-dwellers' tastes)

## Next stages

- Modelling dynamic effects of amenity changes on population and employment flows for different 'types' of resident
- Testing how QL and QB have influenced choice by tertiary students of where to live after graduation

