Do co-ethnic neighbourhoods affect the labour market outcomes of immigrants? Longitudinal evidence from Australia

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[2]This presentation is based on a paper co-authored with Neil Argent, Aude Bernard, Rennie Lee, and Tom Wilson.

Introduction

- Understanding of the impact of residential settlement and mobility decisions on labour market outcomes is important
  - ”integration of immigrants into the labour market is of major importance for overall integration of immigrants into the society.” see Damm (JOLE, 2009)
- Need to better understand the issues in the Australian context

Research Aim

- Objective: Evaluate the impacts of co-ethnic communities on the labour market outcomes of immigrants in Australia
- Approach:
  - Use longitudinal micro census data, 2006, 2011, 2016
  - Address long-standing methodological issues around reversed causality and migration selectivity
- Estimate the impacts on four immigrant labour market outcomes: labour force participation, employment, hours worked and income of immigrants

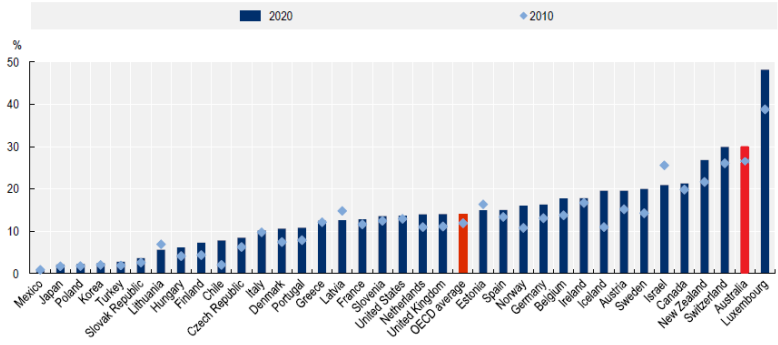
Summary of Results

- Finding 1 : There is no evidence for any causal impacts of co-ethnic communities on labour market outcomes of immigrants.
- Finding 2 : Results remain similar at 10-year period

Why do we need to study this issue in the Australian context?

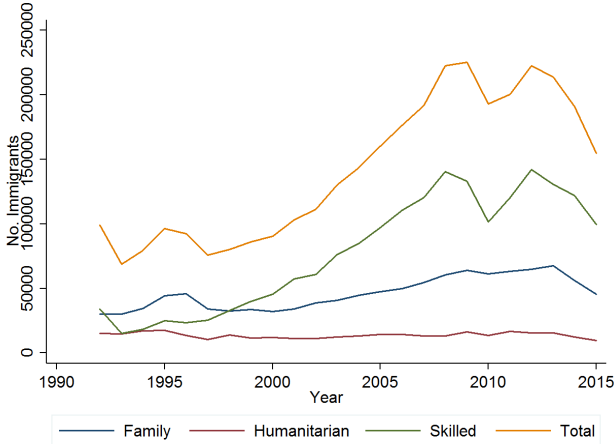
- Australia is a high migration country by international standards
- "Ethnic segregation in Australia is lower than in other countries (Forrest and Poulsen 2003), but
  - Some groups particularly many from Asia stay closer to their compatriots
  - Others, especially northwest European migrants, tend to follow patterns of settlement close to the Australian population (Hugo 2011)"
- Location-based immigration policies e.g. regional visas

Figure 1: The foreign-born as a percentage of the total population in OECD countries, 2010 and 2020



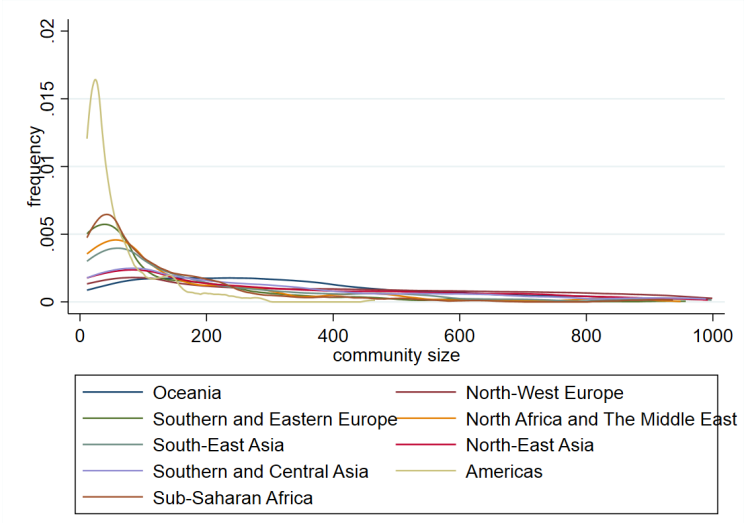
Source: OECD International Migration Outlook 2021

Figure 2: Composition of permanent migration to Australia: 1992-2015



Source: Duncan_et_al (EER, 2020)

Figure 3: Where did immigrants settle in Australia?



Literature Review- positive impacts

- Evidence from Sweden and Denmark suggests that living in co-ethnic communities has a positive impact on immigrant's earnings, particularly low-skilled migrants (Edin et al. (2003,QJE); Damm (2009, JOLE)).
  - The role of ethnic networks in disseminating information about labour market opportunities, which in turn facilitates access to employment, improves occupation-skill matching (Damm 2009)
  - And fosters self-employment (Andersson 2020)
  - Living in co-ethnic neighbourhoods can provide job opportunities in co-ethnic firms or businesses to immigrants who otherwise are discriminated from the primary labour market (see Portes and Bach)
- The strength of this relationship seems to be moderated for high-skilled migrants (Edin et al. 2003; Aslund et al. 2011).

Literature Review- negative impacts

- Some studies finding a negative association with co-ethnic community size and earnings in the United Sates (Xie and Gough (2011)) and Canada (Warman, 2007)
  - The role of ethnic networks in impeding language acquisition, particularly for females (Danzer and Yaman 2016, Laliberte 2019)
  - Co-ethnic concentration occurs among those with fewer socioeconomic resources and few opportunities to reside in more affluent neighbourhoods
- Discrepancies between different studies stem, to some extent, from differences in the type of datasets, methods, and the characteristics of the co-ethnic communities.

Literature Review - Australian context

- Understanding of the impact of co-ethnic communities on labour market outcomes of immigrants in the Australian context has been hindered by data access
  - Early studies that drew on cross-section datasets (Chiswick and Miller 1996) showed that co-ethnic community living was more prevalent among migrants with low English fluency
  - The recent use of longitudinal data from the Household, Income and Labour Dynamics in Australia (HILDA) survey has revealed that a positive association between co-ethnic community living and earning, including for skilled migrants (Wang et al. 2021).

Data

- Australian Census Longitudinal Dataset (ACLD)
- Probabilistically links data from the 2006, 2011, and 2016 of censuses
- Tracks individuals' residential and employment trajectories over a 10-year period
- Five-percent random sample of the Australian population

Data

- Co-ethnic communities are measured at the Statistical Areas Level 2 (SA2) level using full censuses 2006, 2011, and 2016 data drawn from ABS Table Builder
- Total 2,310 SA2s, population size of each SA2 ranging between 3,000 and 25,000
- Australian census does not collect information on ethnicity, we use country of birth as a proxy and we define Co-ethnic communities as the number of individuals from the same country of birth, expressed in a logarithmic form

Empirical Strategy

$$Y_{mjk(t+p)} = \beta lne_{jk(t+p)} + \alpha X_{m(t+p)} + \lambda_{t+p} + \sigma_k + \gamma_m + \epsilon_{mjkt} \quad (1)$$

- Y : real income, unemployment, labour force participation, and hours worked
- m, j, k, t : stand for migrant, country of birth, SA2 of residence, and year
- λ_{t+p} , σ_k, γ_m : Year, suburb, and individual fixed effects
- $X_{m(t+p)}$: is a vector of individual time-varying characteristics, including age, marital status, educational attainment and number of children ever born
- $e_{m(jk(t+p)}$: is the size of community formed by country of birth j in suburb k in year t, hereafter referred to as co-ethnic community size $\rightarrow \beta$: is our coefficient of interest

Figure 4: Lower-income immigrants tended to locate in larger co-ethnic communities in 2006

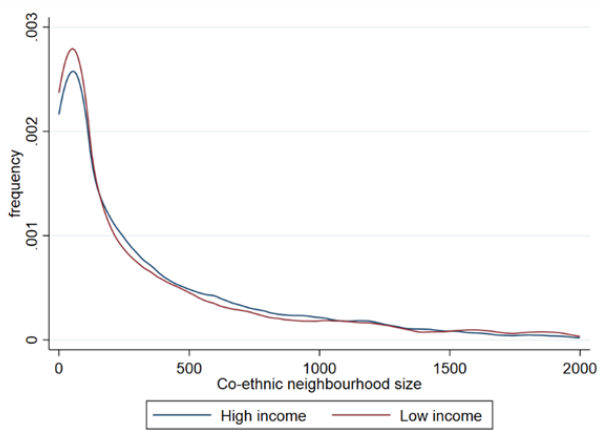


Figure 5: Immigrants settled in larger co-ethnic communities tended to have higher probability of being employed in 2006

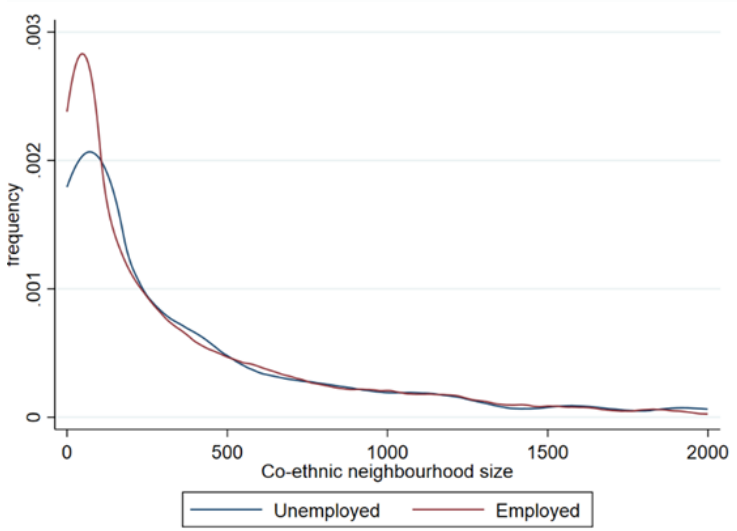


Figure 6: Immigrants settled in larger co-ethnic communities tended to have higher probability of ”not participate” in the labour force in 2006

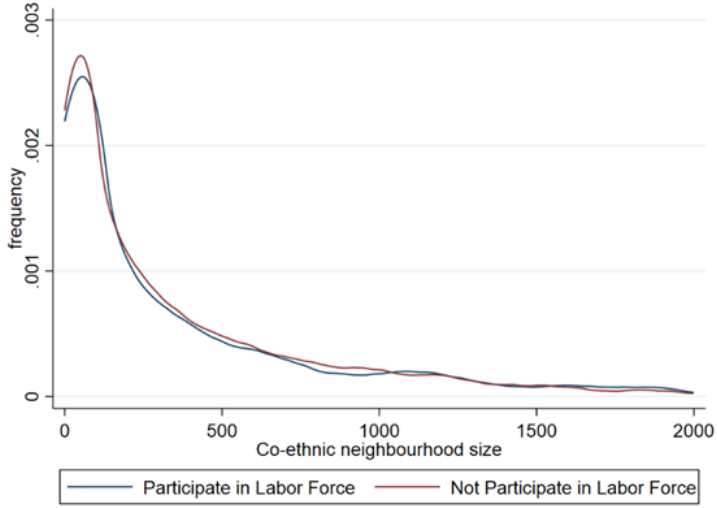


Figure 7: Immigrants settled in larger co-ethnic communities tended to have lower weekly hours worked in 2006

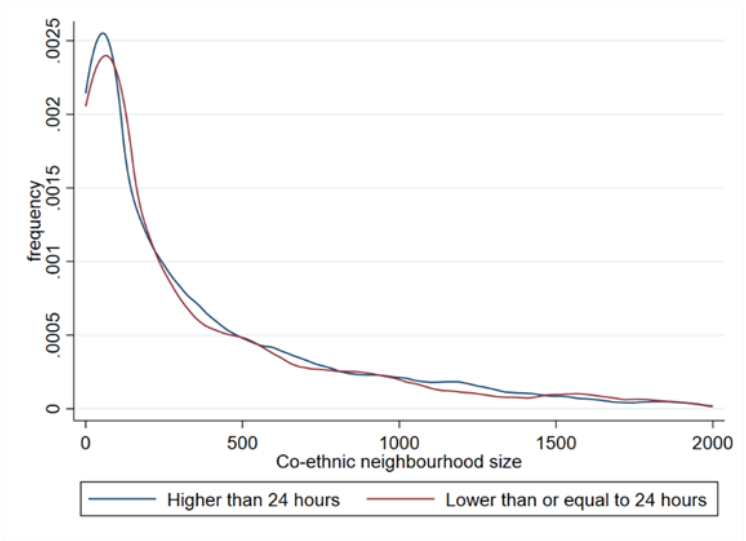


Figure 8: Immigrants with higher level of English proficiency settled in smaller co-ethnic communities in 2006

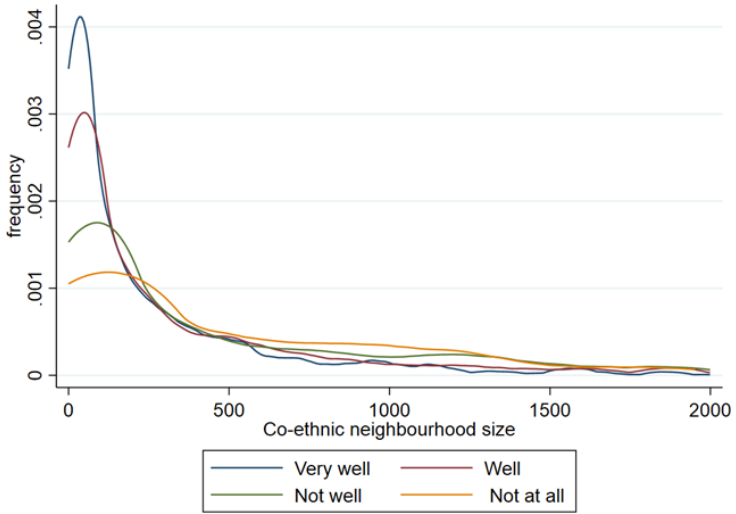


Table 1: Immigrants changed their address after initial settlement

	Overall	Bachelor	Diploma	High school
Moved to larger co-ethnic community (2011)	.20 [.40]	.23 [.42]	.22 [.41]	.18 [.39]
Moved to smaller co-ethnic community (2011)	.24 [.43]	.35 [.48]	.31 [.46]	.28 [.45]
Moved to larger co-ethnic community (2016)	.30 [.46]	.26 [.44]	.25 [.43]	.23 [.42]
Moved to smaller co-ethnic community (2016)	.41 [.49]	.44 [.50]	.40 [.49]	.39 [.49]
Number of observations	18,205			

Note : standard deviations are in the brackets.

Table 2: Immigrants changed their address after initial settlement

	Higher than average income in 2006	Lower or equal to average income in 2006
Moved to larger co-ethnic community (2011)	.229 [.420]	.185 [.388]
Moved to smaller co-ethnic community (2011)	.313 [.463]	.298 [.457]
Moved to larger co-ethnic community (2016)	.268 [.443]	.222 [.416]
Moved to smaller co-ethnic community (2016)	.401 [.490]	.411 [.492]
Number of observations	18,205	

Note : standard deviations are in the brackets.

Empirical Strategy

- To quantify the effect of ethnic networks on labour market outcomes, three issues needs attention
  - Problem 1: individual sorting stems from the fact that migrants' choice of place of residence often depends on individual characteristics, which are correlated with labour market outcomes
  - Problem 2: migrants change residential location in year t+5 and year t+10.
  - Problem 3: reversed causality caused by a feedback loop between immigration to Australia during the observation period and labour market outcomes, all which may bias estimations

Empirical Strategy

- Solution to problem 1
  - Restrict our analytical sample to recently-arrived migrants who settled in Australia between 2001 to 2006
  - Apply propensity score matching (PSM) (see more at (Khandker, B. Koolwal, Samad, 2009) and (Imbens Wooldridge, 2009))
  - This technique consists of weighting individuals based on socio-economic characteristics linked to the choice of initial palace of settlement

Empirical Strategy

- Solution to problem 2
  - Take into account the type of suburbs into which migrants move

$$Y_{mjk(t+p)} = \beta_1 lne_{jk(t+p)} + \beta_2 lne_{jk(t+p)} * ML_{ik(t+p)} + \beta_3 lne_{jk(t+p)} * MS_{ik(t+p)} + \alpha X_{m(t+p)} + \lambda_t + \sigma_k + \gamma_m + \epsilon_{mjkt} \quad (2)$$

- $ML_{ik(t+p)}$: takes the value of 1 if individual i moved to a suburb k with a larger co-ethnic community k between t and t+p
- $MS_{ik(t+p)}$: takes the value of 1 if individual i moved to a suburb k with a smaller co-ethnic community k between t and t+p

Empirical Strategy

- Solution to problem 3: Use an instrumental variable similar to Kerr and Lincoln (2010,JOLE)

$$e_{jk(t+p)} = e_{jkt} + share_{jk,t} * inflows_{j(t+p)} \tag{3}$$

where

$$share_{jk,t} = Size_{jkt} / Size_{jt} \tag{4}$$

- Size of co-ethnic community size in t+p = sum of the co-ethnic community size in year t and the product of migration in-flows from country j between the years t and (t+p) and the share of co-ethnic community in the suburb in year t

Results

Table 3: Effects of co-ethnic neighborhood size on immigrants' labour market outcomes of immigrants, 2011, and interaction with residential mobility

	Log real weekly income		Hours worked	
RF-CNS	0.030 [0.033]	0.016 [0.036]	0.005 [0.034]	-0.026 [0.038]
RF-CNS *migrate to larger CNS	0.008 [0.030]	0.024 [0.032]	0.014 [0.030]	0.031 [0.032]
RF-CNS *migrate to smaller CNS	-0.039 [0.022]	-0.037 [0.024]	-0.008 [0.022]	-0.006 [0.025]
Migrate to larger CNS	-0.014 [0.183]	-0.082 [0.193]	0.085 [0.184]	0.060 [0.198]
Migrate to smaller CNS	0.453** [0.131]	0.409** [0.140]	0.185 [0.132]	0.134 [0.144]
SA2 fixed effects	No	Yes	No	Yes
Controls	Yes	Yes	Yes	Yes
Number of observations	31913			

Note : standard deviations are in the brackets. Controls include age, education, marital status, number of children.** indicates the result is significant at the 0.01 level.

Results

Table 4: Effects of co-ethnic neighborhood size on immigrants' labour market outcomes of immigrants, 2011, and interaction with residential mobility

	Unemployment		Not participate in labour force	
RF-CNS	0.003 [0.004]	0.001 [0.004]	0.000 [0.005]	-0.003 [0.006]
RF-CNS *migrate to larger CNS	-0.004 [0.003]	-0.003 [0.004]	-0.003 [0.005]	-0.004 [0.005]
RF-CNS *migrate to smaller CNS	-0.004 [0.002]	-0.002 [0.003]	0.010** [0.004]	0.010** [0.004]
Migrate to larger CNS	0.010 [0.020]	0.008 [0.021]	0.022 [0.030]	0.029 [0.032]
Migrate to smaller CNS	0.010 [0.015]	0.006 [0.016]	-0.066** [0.022]	-0.067** [0.023]
SA2 fixed effects	No	Yes	No	Yes
Controls	Yes	Yes	Yes	Yes
Number of observations	31913			

Note : standard deviations are in the brackets. Controls include age, education, marital status, number of children.

** indicates the result is significant at the 0.01 level.

Robustness Checks

- Exercises with and without propensity score matching
- Exercises with and without instrumental variable
- Results remain unchanged in 5-year (2006-2011) sample and 10-year sample (2006-2016)
- Results are similar when changing the measurement of key variable of interest

Concluding Remarks

- Longitudinal approach combined with robust methods resulted in smaller impact than previous studies
- Need to look at variation by country of birth/ancestry and visa type (e.g. specifically focus on Pacific migrants)
- Regional migrants should not be an economic disadvantage

Thank you for your attendance

- Questions & Answers