



CaDDANZ

Capturing the Diversity Dividend
of Aotearoa/New Zealand

Do immigration and diversity boost firm performance?

Dave Maré and Jacques Poot



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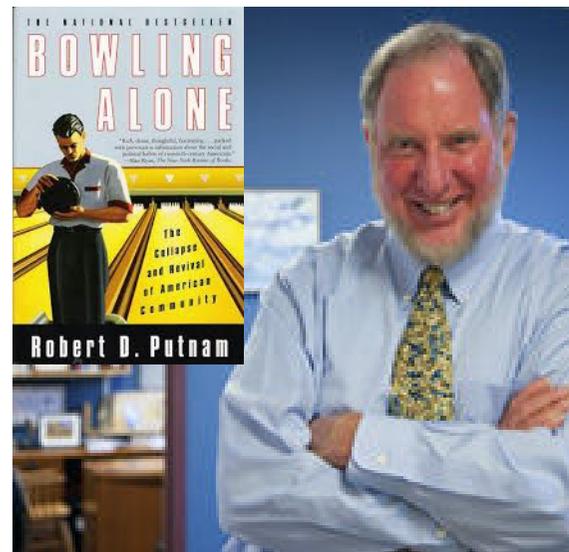
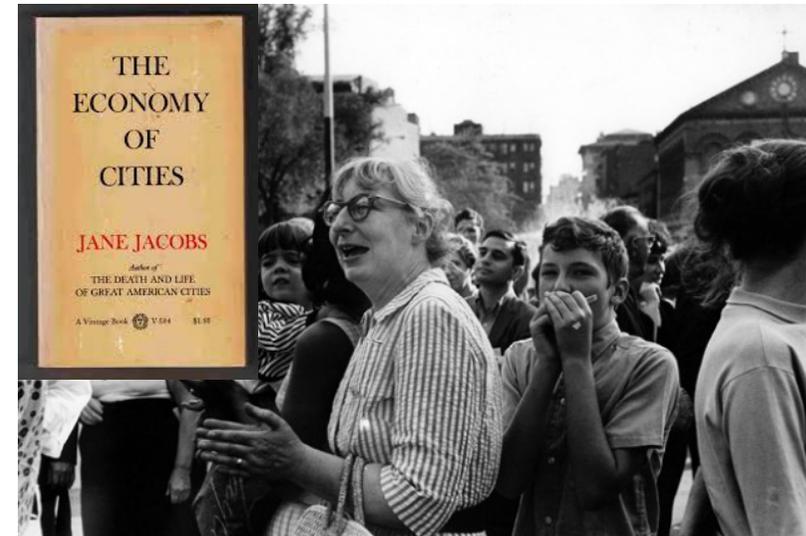
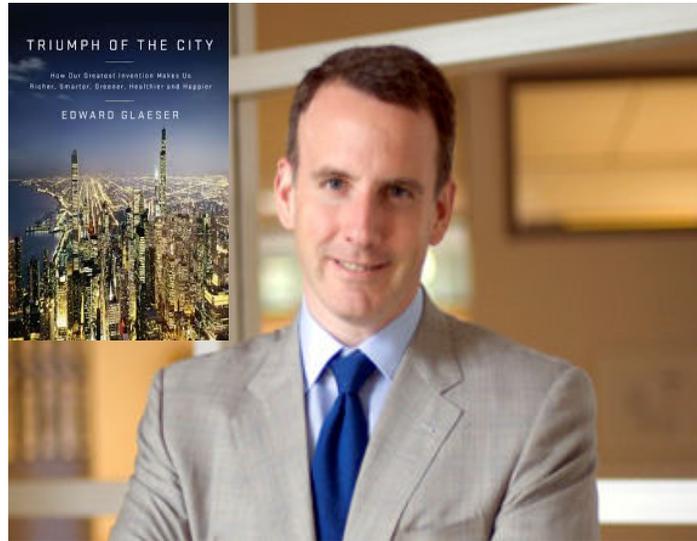
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Research Question



- Does (demographic) diversity boost productivity?
 - Distinguish ‘immigration’ effects from ‘diversity’ effects
 - Consider multiple types of diversity
- Context
 - Part of the CaDDANZ programme:
 - ‘how NZ can better prepare for, capture, and maximise the benefits of an increasingly diverse population’
 - Builds on a growing evidence base of NZ and international research
 - Complemented by qualitative research in schools, public services, policy-setting environments, etc.

Economic impacts of cultural diversity: inspiring work on benefits... and costs



Costs and benefits of diversity



- Conflict of preferences, racism, prejudices often lead to policies which are suboptimal from the point of view of society as a whole, and to the oppression of minorities which may then explode in civil wars or at least in disruptive political instability.
- But an ethnic mix also brings about variety in abilities, experiences, cultures which may be productive and may lead to innovation and creativity.

Alesina & La Ferrara (2005)

Evidence: Impacts on country economic growth *Alesina & La Ferrara (2005)*



- Measuring diversity: Fractionalisation
 - P[a random meeting reveals difference]: $F = 1 - \sum_i \left(\frac{n_i}{N}\right)^2$
- Fractionalisation (ethnolinguistic) associated with:
 - Slower country growth
 - But less negative for higher income/ democratic places
 - Less redistribution
 - Less provision of productive public goods
 - Less social capital (political participation and trust)

Evidence: Area-level diversity and productivity



- More diverse places generally have higher productivity, innovation, growth
- Areas with (birthplace) diversity have higher wages *and* rents, so firms must be more productive to afford this (*Ottaviano & Peri, 2006*)
- But: other characteristics of people (Bakens et al., 2013; Longhi, 2013) or firms (Ozgen et al., 2015; Maré et al., 2014) account for much of this relationship

NZ evidence on migrant shares & innovation/productivity

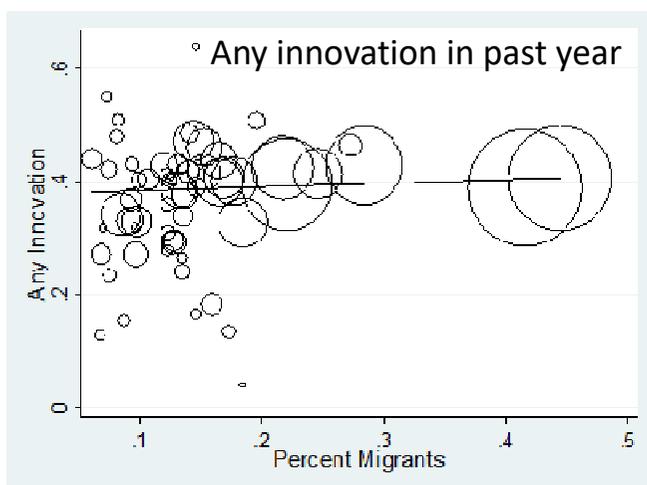
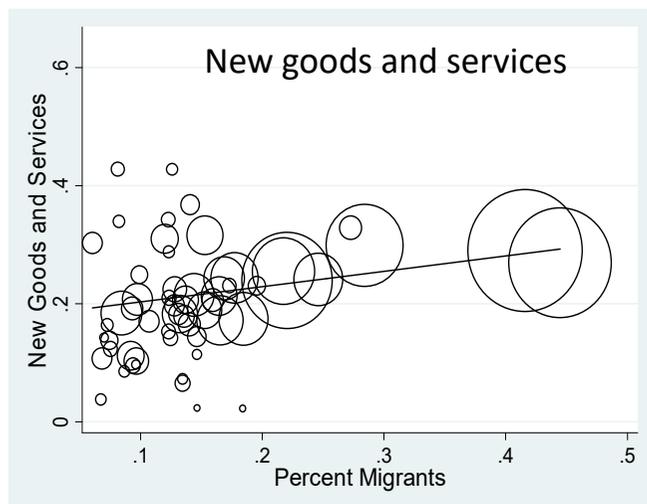
Maré, Fabling & Stillman (2011); & *Papers in Regional Science* 93(1), 2014

McLeod, Fabling & Maré (2014) *Hiring New Ideas: Motu WP 14-14*

Maré & Fabling (2013)



Between Labour Market Areas



	Small-Area diversity	Small-Area diversity w/ controls	Firm diversity w/ controls
<u>New Goods&Serv</u>			
• Migrants	0.165**	0.092	0.103
• High Skills	0.275**	0.082	0.071**
<u>Any innovation</u>			
• Migrants	0.205**	0.022	-0.110
• High skills	0.308**	-0.099	0.093**
<u>Productivity (mfp)</u>			
• Migrants	0.036	0.006	
• High skills	0.204**	0.114*	

Firm-level evidence on diversity and performance



“We conclude from the literature synthesis and the new comparative evidence that cultural diversity of employees can make a positive, but modest and context dependent, contribution to innovation” (Ozgen, Peters et al., 2014)

The elusive effects of workplace diversity on innovation (Ozgen et al., 2015)

- Few firm-level studies look directly at productivity
 - Often use wage as proxy for productivity: Do your wages depend on the diversity around you?
 - Firm performance (share price, ROI) depends on diversity of management
 - But: Frijns et al. (2016) find poorer performance by UK finance firms with more diverse boards (weaker effect in more complex firms)
- Even if the average effect is small, diversity may be advantageous in some contexts and for some firms

Immigration & diversity



- They are not exactly the same thing
 - Birthplace is only one dimension of diversity
 - Immigrants contribute to diversity in multiple ways
 - Culture, language, knowledge, skills, values
 - Immigration can affect outcomes other than through diversity
 - More/less productive skills or Complementary skills
 - with or without social interactions
 - Labour market; housing market

Does migrant diversity boost international trade?



- Permanent and temporary migrants (including foreign students!) can be trade facilitators:
 - They lower transaction costs
 - They help to build trust between traders
 - Migration encourages cross-border travel (tourism & business travel) in both host and home countries
- Imports: Migrants have a ‘home goods bias’ and locals love the increased availability and variety of ‘ethnic goods’
- Exports: Remittances to the home country may increase trade, particularly exports from the host country
- NZ work, e.g. Law et al. *The World Economy*, 2013 and Sin et al. (2014) Motu Working Paper

Diversities – what are they good for?



	Identity diversity	Cognitive diversity
	<i>Preferences</i> <i>Perspectives</i>	<i>Knowledge</i>
Problem solving		
• Complex tasks	Positive Different angles	Positive Different knowledge
• Routine tasks	?	?
Prediction	?	Positive
Decision-making	Fundamental PrefDiv – Negative	Positive
Ease of interaction	Negative	Negative(?)

See: Page, S (2007) *The Difference: How the power of diversity creates better groups, firms, schools and societies*

Where might we see benefits of diversity?



- Complex settings
 - Complex tasks (Cooke & Kemeny, 2016a)
 - Complex systems (cities)
- Inclusive institutions (Cooke & Kemeny, 2016b)
 - Facilitates ‘bridging’ social capital
 - High variance
 - “we just haven’t quite figured out how to get along, and when we do, diversity improves performance”

Page (2008, p. 328)

Taking the questions to the data



- $y = f \left(\{Share_{Group_j}\}, Diversity_{groups} \right)$
 - Observation = enterprise (with ‘enough’ workers)
 - Outcomes (y): productivity, innovation
- Relevant group definitions
 - Country of birth, qualifications
- Estimate different effects across firms
 - Complexity of tasks; industry dynamism; urban

Conclusions



- Empirical research on the economic impacts of diversity identifies
 - Costs *and* benefits at the country/ city level
 - Modest net positive benefits in local areas and in firms
- Recent work has focused on:
 - Distinguishing different types of diversity
 - Identifying contexts in which diversities may have different impacts
- Our research will
 - Focus on firm-level variation in productivity performance
 - Examine links with the diversity of the firm's employees
 - Distinguish different dimensions of diversity
 - Compare the strength of the links across different types of firms
- This could help to identify the specific “channels” of impacts of cultural diversity. In turn, this may assist in designing effective management or policy responses
- However, identifying a causal relationship from observed partial correlations remains challenging



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- Alesina, Alberto, and Eliana La Ferrara. 2005. "Ethnic Diversity and Economic Performance." *Journal of Economic Literature* 43 (3): 762–800.
- Bakens, Jessie, Peter Mulder, and Peter Nijkamp. 2013. "Economic Impacts of Cultural Diversity in the Netherlands: Productivity, Utility, and Sorting." *Journal of Regional Science* 53 (1): 8–36.
- Cooke, Abigail, and Thomas Kemeny. 2016a. "Immigrant Diversity and Complex Problem Solving." *US Census Bureau Center for Economic Studies Paper No. CES-WP-16-04*.
- ———. 2016b. "Urban Immigrant Diversity and Inclusive Institutions." *US Census Bureau Center for Economic Studies Paper No. CES-WP-16-07*.
- Frijns, Bart, Olga Dodd, and Helena Cimerova. 2016. "The Impact of Cultural Diversity in Corporate Boards on Firm Performance." *Journal of Corporate Finance*.
- Law, David, Murat Genç, and John Bryant. 2013. "Trade, Diaspora and Migration to New Zealand." *The World Economy* 36 (5): 582–606.
- Maré, David C, and Richard Fabling. 2013. "Productivity and Local Workforce Composition." In *Geography, Institutions and Regional Economic Performance*, edited by Ricardo Crescenzi and Marco Percoco, 59–76. *Advances in Spatial Science - The Regional Science Series*. Berlin & Heidelberg: Springer-Verlag.
- Maré, David C, Richard Fabling, and Steven Stillman. 2011. "Immigration and Innovation." Motu Working Paper 11-05. Wellington: Motu Economic and Public Policy Research.
- ———. 2014. "Innovation and the Local Workforce." *Papers in Regional Science* 93 (1): 183–201.
- McLeod, Keith, Richard Fabling, and David C Maré. 2014. "Hiring New Ideas: International Migration and Firm Innovation in New Zealand." Motu Working Paper 14-14. Wellington: Motu Economic and Public Policy Research. http://www.motu.org.nz/publications/detail/hiring_new_ideas_international_migration_and_firm_innovation_in_new_zealand.
- Ottaviano, Gianmarco I.P., and Giovanni Peri. 2006. "The Economic Value of Cultural Diversity: Evidence from US Cities." *Journal of Economic Geography* 6 (1): 9–44.
- Ozgen, Ceren, Peter Nijkamp, and Jacques Poot. 2015. "The Elusive Effects of Workplace Diversity on Innovation." *Papers in Regional Science*.
- Ozgen, Ceren, Cornelius Peters, Annekatrien Niebuhr, Peter Nijkamp, and Jacques Poot. 2014. "Does Cultural Diversity of Migrant Employees Affect Innovation?" *International Migration Review* 48 (s1): S377–416.
- Page, Scott E. 2007. *The Difference: How the Power of Diversity Creates Better Groups, Firms, Schools, and Societies*. Princeton University Press.
- Sin, Isabelle, Richard Fabling, Adam B Jaffe, David C. Maré, and Lynda Sanderson. 2014. *Exporting, Innovation and the Role of Immigrants*. Motu Working Paper 14-15.

