Do immigration and diversity boost firm performance?

Dave Maré and Jacques Poot
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
  - $P[\text{a random meeting reveals difference}]: F = 1 - \sum_i \left(\frac{n_i}{N}\right)^2$

- 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
Maré & Fabling (2013)

Between Labour Market Areas

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

## Diversities – what are they good for?

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

Capturing the Diversity Dividend of Aotearoa/New Zealand

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