Using the LS to investigate: mortality among immigrants and their descendants in England and Wales

Matthew Wallace
Background: PhD

- **Title:** Mortality among immigrants and their descendants in England and Wales
- **Place:** University of Liverpool
- **Tutors:** Hill Kulu, Paul Williamson, Gemma Catney
- **Style:** PhD by publication
- **Dates:** 2012-2016
Background: Postdoc

• Title: Mobility, selectivity and the migrant mortality advantage
• Place: MSE, Ined
• With: Michel Guillot
• Myriam Khlat
• Irma T Elo (UPenn)
• Primarily using the Permanent Demographic Sample
• French equivalent of the EDP!
Background: Research Interests

- Health and mortality of immigrants and descendants of immigrants
- Selection patterns and processes in immigration
- Return migration (the motives for and its effect on mortality rates in terms of bias)
- Socioeconomic characteristics over the lifecourse of immigrants
Focus on: PhD

MIGRANT MORTALITY ADVANTAGE

- Migrant mortality advantage – empirically observed low mortality among migrants relative to natives in high-income destination countries.
- One of most pervasive findings in social sciences literature.
- Causes of it (selection, cultural factors, data biases) poorly understood.

- Aim 1: observe mortality patterns
- Aim 2: advance understanding of causes
Why the LS?

• 1% sample, census + life events data
• Based entirely around the LS data
• Large-scale and representative
• Individual-level longitudinal data
• Information on entries, exits, deaths (and cause of)
• Linked to a wide range of demographic and socio-economic characteristics (age, sex, education level, marital status, deprivation indexes etc...)
• Identifying information (country of birth, ethnicity)
• Suited to method: survival analysis
Results (1)

Mortality among immigrants and their descendants in England and Wales

Figure 1. Immigrant mortality by cause of death

Notes: Authors’ calculations based on the ONS LS data
Results (2)

MORTALITY AMONG IMMIGRANTS AND THEIR DESCENDANTS IN ENGLAND AND WALES

Figure 2. Immigrant mortality according to age

Notes: Authors’ calculations based on the ONS LS data
Table 1. All-cause mortality among descendants

<table>
<thead>
<tr>
<th>Ethnicity by country of birth</th>
<th>Males</th>
<th></th>
<th>Females</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Basic</td>
<td>SEP-adjusted</td>
<td>Basic</td>
<td>SEP-adjusted</td>
</tr>
<tr>
<td></td>
<td>Haz</td>
<td>Sig 95%</td>
<td>Haz</td>
<td>Sig 95%</td>
</tr>
<tr>
<td>Natives</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Immigrants (G1)</td>
<td>0.80</td>
<td>*** 0.77 - 0.84</td>
<td>0.75</td>
<td>*** 0.72 - 0.78</td>
</tr>
<tr>
<td>Descendants (G2+)</td>
<td>1.35</td>
<td>*** 1.14 - 1.59</td>
<td>0.98</td>
<td>0.83 - 1.15</td>
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<td></td>
<td></td>
<td></td>
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<tr>
<td>Natives</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Immigrants (G1)</td>
<td>0.79</td>
<td>*** 0.75 - 0.84</td>
<td>0.71</td>
<td>*** 0.68 - 0.75</td>
</tr>
<tr>
<td>Descendants (G2+)</td>
<td>1.41</td>
<td>*** 1.17 - 1.71</td>
<td>1.03</td>
<td>0.85 - 1.25</td>
</tr>
</tbody>
</table>

Notes: Authors’ calculations based on the ONS LS data
Overall findings

1. Migrant mortality advantage observed in most groups (with variation in its magnitude).
2. Not caused by censoring or selection biases in return migration (not shown – quite boring).
3. Driven by low mortality from cancers in nearly all groups and in some groups by low CVD mortality.
4. Most pronounced at young adult ages and approximates with age.
5. Advantage not observed among descendants (G2+).
Experience of using the LS

• PhD funding only goes so far visited VML ~10 times.
• Largely worked through CeLSIUS (sending do-files from Liverpool and receiving log-files back).
• Requires patience (mostly from CeLSIUS!) and time-consuming if mistakes are made (by me).
• PhD not possible without the CeLSIUS team!
• Overall positive experience (way LS is maintained, documentation provided, commitment of LS team and CeLSIUS to providing a positive experience).
Benefits of using the LS data

• After mastering the LS data, most other datasets will seem tame in comparison!
• It’s a “special” community - already collaborating with two other LS users.
• Spending 4-years working on this kind of data helped me find my current post.
• Good way to become familiar with main statistical organisation in England and Wales.
Future plans for the LS data

- Addition of question on duration of residence at the 2011 Census provides rare opportunity to study the mortality of immigrants according to how long they have lived in UK.
- Comparative work between the LS and the EDP in France.
- Project with Fran looking at the morbidity-mortality paradox among immigrants.
Future reading (if interested...)


Thanks!

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