Internal Migration and Education
Toward Consistent Data Collection Practices for Comparative Research

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Background

Significance of internal migration
- 763 million people worldwide (4 times the # of international migrants)
- 10-14 times moves over the lifetime
- Young adults are the most mobile
- Linked to key life-course transitions, including education
- Integral to human development
- Main driver of population change

Key features
- Most volatile component of population change
- Difficult to measure – no international standards
- Theoretically challenging
Variations in levels of internal migration

Spatial patterns of movement

Charles-Edwards et al. (2016)
Education as a reason for moving

- Level of education-related migration varies significantly between countries
- Accounts for a small proportion of all moves
- Few countries collect reasons for moving at their census
- Sample size from surveys often too small to disaggregate by age

Bernard et al. (forthcoming)
Educational selectivity of migrants

- Probability of moving increases sharply with education
- Holds across all world regions
- Educational gradient less pronounced in Latin America

Bernard et al. (forthcoming)
Educational selectivity of migrants

- Significant variations between countries
- The impact of tertiary education is what strongly differentiate countries
- Reasons for this are poorly understood

Bernard et al. (forthcoming)
Impact of migration on children’s education

- Chronic mobility is detrimental to educational performance
- Need to better understand
  - Type of moves (rural vs. urban)
  - Duration (temporary versus permanent)
  - Frequency of movement
  - Impact of regulatory framework (e.g. China’s Hukou system)
  - Impact on both enrolment and performance

Lu and Zhou (2013) Rural-to-urban migration & language score in primary school in Beijing
Educational composition of migration flows and their impacts

- Educational selectivity varies with flow types
- The volume of particular flows affects the redistribution of human capital
- Limitation of current data sources
  - Few countries collect urban status of previous place of residence
  - Definition of urban areas not consistent
  - Limited geographic detail

Bernard et al. (forthcoming)
Economic Returns to Internal Migration

Positive effect of migration on earnings increase with education

Limited understanding how it varies over time and across countries
  ◦ Need comparable longitudinal datasets or retrospective residential histories
  ◦ Need high spatial and temporal resolution
  ◦ Urban status at both origin and destination
Internal migration data collection practices

Most countries collect some form of migration data
- 179/183 countries since 1995

Different collection instruments
- Census (88%)
- Population register or administrative source (28%)
- National surveys (61%)
  - e.g. Demographic and Health Surveys (90 countries since 1980)

6 in 10 countries draw data from multiple sources

Bell et al. (2014) – IMAGE Repository
Measuring internal migration

Different forms of data
- Transition
- Event
- Duration

Spatial framework
- All changes of address
- # of zones

Time interval
(2000 UN Census round)
- 1 year interval (20%)
- 5 year interval (37%)
- Undefined (23%)
- Lifetime (86%)

Characteristics of migrants
- Sex
- Age
- Education
## Strength of each data source

<table>
<thead>
<tr>
<th>Census</th>
<th>Survey</th>
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<tbody>
<tr>
<td>- Enumeration of full the population</td>
<td>- Can collect detailed migration histories</td>
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<tr>
<td>- High spatial resolution</td>
<td>- Can collect reasons for moving</td>
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<tr>
<td>- Long historical time series</td>
<td>- Large range of covariates, including education</td>
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<tr>
<td>- Large range of covariates, including education</td>
<td>- Information on place of origin</td>
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<tr>
<td>- Individual-level migration data for 60 countries available in IPUMS</td>
<td>- Representative of whole population or tailored to particular groups (youths, refugees, ..)</td>
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<tr>
<td></td>
<td>- Ability to modify questions</td>
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<td>- Detailed temporal coverage (longitudinal data collected annually or retrospective life histories)</td>
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Limitations of each data source

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<tr>
<td>- Covariates measured at the end observation of period</td>
<td>- Spatial detail often coarse</td>
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<tr>
<td>- Do not pick up return or multiple moves</td>
<td>- Variability in format limits comparability of migration</td>
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<tr>
<td>- Coarse temporal coverage (most censuses are decennial)</td>
<td>- Ongoing national surveys rare in developing countries</td>
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<td>- Cross-sectional data</td>
<td>- Longitudinal data collected over many years</td>
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<td>- Limited information on place of origin</td>
<td>- Small sample size limits disaggregation by age or region</td>
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<td>- Some countries do not disseminate data</td>
<td>- Sampling error</td>
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<td></td>
<td>- Recall error</td>
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<td>- Panel attrition</td>
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## Utility of each data source

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<tr>
<td><strong>Migrant selectivity</strong></td>
<td>- Large range of covariates, including education but measured at the end of observation period</td>
<td>- Large range of covariates, including education - Analysis of causal relationships</td>
</tr>
<tr>
<td><strong>Spatial analysis &amp; redistribution of human capital</strong></td>
<td>- High spatial resolution - Enumeration of the full population permits spatial disaggregation - Limited information on place origin</td>
<td>- Limited spatial resolution - Sample size restricts spatial disaggregation - Information on place of origin</td>
</tr>
<tr>
<td><strong>Trend analysis</strong></td>
<td>- Historical trends but infrequent observations and data is cross-sectional</td>
<td>- Recent trends with annual observations</td>
</tr>
<tr>
<td><strong>Cross-national comparisons</strong></td>
<td>- Individual-level migration data for 60 countries available in IPUMS</td>
<td>- Variability in format limits comparability of migration</td>
</tr>
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</table>
Recommendations for cross-national comparisons

Migration data should be collected in a comparable format
- Internal migration best measured as an event or over a fixed interval (ideally 1 or 5 years)
- Changes of address should be collected
- Place of residence, past and present, should be coded to the smallest geographical units feasible
- Usual residence should be defined using a threshold criterion of 6 months.

Longitudinal surveys
- Long-term investment & problem of attrition

Retrospective residential histories
- Cost-effective and immediate results (collected in one wave as part of on-going survey)
- Collect full residential histories (All domestic and international moves since birth, address, date, reasons for moving)
- Collect histories in other life domains (education, employment, family)
- Increasingly common
  - Europe (SHARE, ELSA ), China (CHARLS ) and US (HRS )
  - Comparable questionnaires
  - Life-history grids improve recall

Bell, M, Charles-Edwards, E, Kupiszewska, D, Kupiszewski, M, Stillwell, J & Zhu, Y 2015, 'Internal Migration Data Around the World: Assessing Contemporary Practice', Population, Space and Place, vol. 21, no. 1, pp. 1-17. This paper reviews contemporary migration data collection practices around the world and provides a set of recommendations to enhance the utility and comparability of internal migration data.

Bell, M, Charles-Edwards, E, Kupiszewska, D, Kupiszewski, M, Stillwell, J & Zhu, Y 2015, 'Internal migration and development: comparing migration intensities around the world', Population and Development Review, vol. 41, no. 1, pp. 33-58. This paper proposes a robust method to compare levels of internal migration between countries and assembles a league table of 96 countries.

Bernard A., Bell, M, & Cooper J. (Forthcoming) Internal migration and education: A cross-national comparison Background paper prepared for the 2018 Global Education Monitoring Report, UNESCO, Paris This paper examines the links between education and internal migration in 58 countries from around the world.

Bernard, A 2017, 'Cohort Measures of Internal Migration: Understanding Long-Term Trends', Demography, vol. 54, no. 6, pp. 2201-21. This paper proposes a set of cohort measures of internal migration to can be applied to retrospective survey data to analyses migration trends and patterns between successive cohorts and countries. It demonstrates the utility of a cohort approach by applying the proposed measures to retrospective residential histories collected in England.

Bernard, A 2017, 'Levels and patterns of internal migration in Europe: A cohort perspective', Population Studies, vol. 71, no. 3, pp. 293-311. This paper uses retrospective survey data from 14 European countries to explore cross-national variations in the level and patterns of internal migration. It reveals the demographic mechanism underpinning enduring regional variations in migration level.


Vidal, Sergi, and Janeen Baxter. For the sake of the children? A longitudinal analysis of residential relocations and academic performance of Australian children. Life-Course Centre Working Paper Series No. 2016-14, Brisbane, Australia This paper assesses the effect of residential relocation on the academic performance of children in Australian and found a very limited impact.