Migration and Health in England and Scotland: a Study of Migrant Selectivity and Salmon Bias

1. Background & Rationale

- **Background**: Migration is selective by health status. Migrant health tends to be better than the origin population and often the host population. Selection begins prior to the migratory process and effects follow the individual to the host country (Franzini et al., 2001).
- **Return migration** is negatively selective by health status. Salmon Bias proposes that migrants return to their home country through illness (Razum et al., 2006); the healthiest migrants remain in the host country and unhealthier individuals return home. This emphasises the selectivity of those who stay in the host country.
- **Rationale**: The study provides the rare opportunity to compare migrant groups with both origin and host populations. Migrant health is a combination of early formative years in the origin country and current life conditions in the host country (Anson, 2004). Further, the Salmon Bias is under-researched in Europe.

2. Hypotheses

1. Scottish migrants living in England will be in better health than their origin population, it is less clear whether their health is also better than that of English non-migrants.
2. English migrants living in Scotland will be in better health than both origin and host populations.
3. SES characteristics of individuals will explain some initial health differences between migrants and non-migrants.
4. On the basis of previous research, the negative selection of English and Scottish return migrants (Salmon Bias) will not be observed.

3. Data Set & Methods

- **Dataset**: 1991 UK Census Sample Anonymised Records (2% individual-level dataset).
- **Methods**:
  - Binary logistic regression, formalised as follows: \[ \ln \left( \frac{p(Y=1)}{1-p(Y=1)} \right) = \alpha + \sum \beta_j x_j. \]
  - **Binary dependent variable**: Self-assessed limiting long-term illness. **Controls**: (i) Age (1-year) (ii) Ethnicity (White, Black, South Asian, East Asian, Other) (iii) Social class (Upper, Middle, Lower, Not Stated).
  - In the results to follow E-E stands for English native, S-S for Scottish native, E-S for an English migrant living in Scotland and S-E for a Scottish migrant living in England. **Return migrants** are those who have re-migrated to their origin country from the host...

4. Results

Figure 3. Binary logistic regression results working age migrants (18-64).

Figure 4. Binary logistic regression results migrants age (18-29), (30-49), (50-64).

5. Conclusions

- Scottish men and women select positively by health from their origin population, particularly at older working ages.
- English men and women select positively by health from their host population; men at older working ages and women at younger working ages.
- English men at older working ages experience a true healthy migrant effect with significant health advantages displayed over both host and origin populations.
- Female return migrants select positively by health against Scottish natives, challenging the Salmon Bias hypothesis. Male return migrants are reflective of the Salmon Bias hypothesis but produce insignificant results. (Low cell counts; interpret with caution...)

6. Discussion

1. Scotland’s poor health record may affect Scottish migrants’ relative selectivity. While particularly healthy individuals may select out of Scotland (relative to natives) on arrival in the host country migrants may only display similar levels of health to English natives. Their early-life development in a comparatively unhealthier country could go some way to explaining this.
2. English migrants’ selectivity in Scotland but lack of origin selectivity may be a result of (i) no health screening (ii) ease of migration through a long-established stream (iii) lack of major cultural differences and (iv) the benefit of early-life development in a comparatively healthier country. Points (i)-(iii) also apply to Scottish migrants.
3. The positive selectivity of those in older working ages may be through labour market migration within or across companies in high-level management positions.
4. The positive selectivity of younger English females in Scotland may be a result of education migration and consequent settlement in the Scottish labour market.
5. No evidence of Salmon Bias. Both countries operate under the same healthcare system (eliminating access and quality issues) and can be reached within hours (in the case of illness). Negative health re-migration may be rare as in Germany (Razum et al., 2006).

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References: