

IMMIGRANTS' GEOGRAPHIC MOBILITY IS HIGHER THAN YOU THINK EVIDENCE FROM FRANCE



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MOTIVATIONS

Immigrants are defined according to their geographic mobility. But most studies about the residential mobility in France do not distinguish immigrants from natives and the few studies doing so omit the people who leave the country.

OBJECTIVES

The aim of this study is to compare the geographic mobility of immigrants and natives in France over 30 years taking into account the effect of emigration

1. show the limits of cross-sectional retrospective analysis to study immigrants
2. show that administrative panel data can be a substitute for population register
3. highlight the interactions between demographic phenomena

DATA

INSEE's Permanent Demographic Sample (EDP)

- Data constructed from census-linked data and civil registers in France since 1968
- 5 exhaustives censuses until 1999
- Large longitudinal panel data: 900,000 individuals tracked over 30 years
- No sample distortion over time: remains representative of the population in France
- Place of birth and nationality at birth ⇒ Immigrant status
- Residential location at the municipality level: over 36,000 areas ("communes")

GENERAL METHOD

Inter-municipality mobility btw 2 consecutive censuses in Metropolitan France (1968-1999)

- comparison of age-specific mobility ratios for native and immigrants
- cross-sectional retrospective analysis (traditional analysis) evaluated against longitudinal analysis using panel data
- corrected ratios based on the latter

UNDERREPORTING OF MIGRATION

Accuracy test of the reported mobility

- Retrospective estimation of the mobility based on the census question:
Where were you staying on 1st January of the previous year's census?
- Evaluation of the validity of the ex-post reported mobility in regards to the observed residential location trajectory

Major underreporting of the inter-municipality mobility for immigrants

- 1/5 remain unreported (10% for natives), 3/4 of them reporting to have lived in the same municipality (whereas we observe the contrary)

⇒ We only use the observed residential mobility

BIASED ANALYSIS DUE TO EMIGRATION & DEATH

Cross-sectional retrospective analysis is restricted to the people that can still be observed at the end of the period (*stayers* in France). This partial analysis excludes all the individuals initially present ($c_t = 1$) who left ($c_{t+1} = 0$) due to death or emigration (*non-stayers*). Thus, it only reflects the situation of a selected sub-group of immigrants rather than the actual internal mobility of immigrants within France.

$$E(M_t | c_t = 1) = P(M_t = 1 | c_t = 1 \cap c_{t+1} = 1) (1 - P(c_t = 1 \cap c_{t+1} = 0 | c_t = 1)) + P(M_t = 1 | c_t = 1 \cap c_{t+1} = 0) P(c_t = 1 \cap c_{t+1} = 0 | c_t = 1)$$

1. Average proportion of movers btw t and t+1:
 $E(M_t | c_t = 1)$
2. Retrospective approach only gives:
 $E(M_t | c_t = 1 \cap c_{t+1} = 1)$

2. is not equivalent to 1. from the moment there are:

- non-stayers (attrition)
 $P(c_{t+1} = 0 | c_t = 1) \neq 0$ see Table 1
- selective attrition based on internal mobility
 $P(M_t = 1 | c_t = 1 \cap c_{t+1} = 0) \neq P(M_t = 1 | c_t = 1 \cap c_{t+1} = 1)$

Uncertainty induced by attrition

The interval that comprises the proportion of internal movers is based on the extreme scenarios about the mobility of the *non-stayers* (Horowitz & Manski, 1998):
Lower bound: $P(M_t = 1 | c_t = 1 \cap c_{t+1} = 0) = 0$
Upper bound: $P(M_t = 1 | c_t = 1 \cap c_{t+1} = 0) = 1$

The proportion of internal movers can either be lower or higher for immigrants than natives depending on internal migrations of the *non-stayers*.

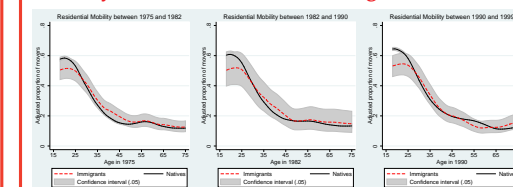
Horowitz J. L., Manski C. F., 1998, "Censoring of outcomes and regressors due to survey nonresponse: Identification and estimation using weights and imputations", *Journal of Econometrics*, 84 (1), pp.37-58

CORRECTION STRATEGY

Imputation of the correlations estimated on fully observed trajectories (*stayers*) on the characteristics of censored observations (*non-stayers*) using Logit models based on their initial individual and family characteristics (for 18-75 year-old adults).

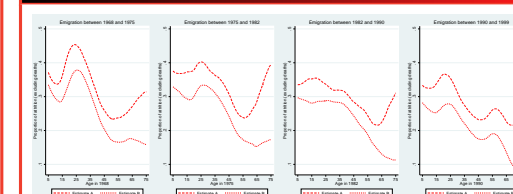
ADJUSTED INTERNAL MOBILITY

The correction slightly decreases the ratio for natives whereas it increases for immigrants
⇒ no significant difference between the internal mobility ratios of natives and immigrants



Beyond the average: the heterogeneity among immigrants. Calculation for each group at each period: ratios lie from 14.8% for Polish btw 1990-1999 to 65.5% for American btw 1982-1990.

APPROXIMATE EMIGRATION



Estimate A: proportion of censored immigrants not reported dead
Estimate B: proportion of censored immigrants - proportion of natives reported dead

CONCLUSION

- Underestimation by 30% of the internal mobility ratio among immigrants using the traditional cross-sectional approach
- Importance of the immigrant population renewal through emigration and its selective effect

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