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Relations Between Measurements of International Migration Statistics

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OUTLINE

- Measurements and data sources
- Comparison of different measures
- Estimates of net migration
- Final remarks

MEASUREMENTS AND DATA SOURCES

- migration (=event)
 - movement approach events are recorded when they happen (continuous time) population register passenger sample survey
- migrant (=person)
 - transition approach attributes are recorded at particular points in time (discrete time)
 census

POPULATION REGISTER *migration*

(Theoretically) all the migratory moves undertaken by an individual are recorded

different rules for reporting changes of place of residence

and/or

different selection rules applied to the raw data when preparing statistics

different duration of stay criteria (various events are counted: short-term, long-term, permanent migration)

	CENSUS migrant	
Question	What is measured?	
Place of usual residence at a specified date in the past (usually one year prior to the census)	Migrants: an individual whose place of residence differs at the beginning and the end of the period (surviving non-return movers)	
Previous place of usual residence	Latest migration=number of migrants by latest migration: period=variable from an individual to another	
Country/place of birth	Lifetime migrants: period=the whole individual lifetime	

Other questions: duration of residence, year (or period) of immigration into the country



COMPARISON OF DIFFERENT MEASURES

	migrants	latest migrants	migration
return moves	—	+	+
multiple moves	-	-	+
followed by internal moves	+	—	+
followed by death	-	—	+
immigration of newborns	—	+	+

DIFFERENT DURATION OF STAY CRITERIA

Comparison of gross migration flows (Immi+Emi) between Sweden (SE) and a partner country (CC) reported by SE and CC, 1990-2003.



SE - one year (UN recommendations)

NET MIGRATION (NM)

Registration:

$$\mathsf{NM}_{\mathsf{I}-\mathsf{E}} = \mathsf{I}_{(\mathsf{t},\mathsf{t}+\mathsf{n})} - \mathsf{E}_{(\mathsf{t},\mathsf{t}+\mathsf{n})}$$

The balancing equation of population change

$$NM_{B} = (P_{t+n} - P_{t}) - (B_{(t,t+n)} - D_{(t,t+n)})$$

$$? \\ NM_{I-E} = NM_{E}$$





FINAL REMARKS

- Migration is a process continuous in time
- Conceptual problems are very often solved pragmatically by defining international migration based on available measures
- Different measures cover different aspects of migration phenomenon
- Some consequences: inconsistent population forecasts, alternative interpretation of mobility levels and migration pattern, different geographic pattern of migration flows