Demographic processes

- Population dynamics: fertility, mortality, migration
- Family dynamics: other vital and non-vital events
- Formal demography
- Inter-disciplinary approaches
Demographic transitions

- The demographic transition: mortality and fertility
- Second demographic transition: individualization & increasing diversity in family forms
- Mobility transition?
Demographic data

- Always involve time: demographic rates
- occ / exp rates
- ASFR
- rates that aren’t rates: TFR, TFMR, TDR, CBR, CDR
- period and cohort data
- Lexis diagram
Transition rates

- Fertility measures: TFR
- Longitudinal data: specify transition, calculate occurrence/exp rates
- Survival function
- Life table
Survival function et al.
Event-history analysis

- regression analysis: explanatory variables
- regression analysis on duration data: intensity regression, Cox-regression, proportional hazards
- multiplicative effects
multiplicative intensity-regression model for entry to motherhood:

\[ \phi_c(t) = a_m d_k y_j i_n \]

based on the number of first births and exposures of childless women by each combination of factor levels
Standardized first-birth rates of immigrant women, by duration in Sweden (in years)
Demographic behavior of immigrants

- aggregate time data (TFR, CDR, etc) particularly un-informative for migrant subgroups

- **Time** data need to be handled carefully

- also necessary to consider **space**: demographic data typically refer to the dynamics in one single geographical area

- ex: very high fertility of immigrants?

- ex: very low mortality of immigrants?
Ex: mortality of immigrants

- immigrant low mortality
- migration and return migration
- primary healthy migrant effect?
- secondary un-healthy migrant effect?
- something with the situation of being a migrant?
Selection effects

- sorting: who comes and who stays?
- unobserved characteristics?
- or just “time-window” effects?
Fertility of migrants

- childbearing and family formation over time and space
- ex: local migration in the Stockholm area
- Hill: fertility and internal migration, internal migration and fertility
Fertility of immigrants

• immigrant high fertility?

• mainly due to newly arrived migrants

• "migration effects"

• disruption, adaptation, assimilation?
Fertility of immigrants

- Swedish longitudinal data: strong migration effects
- Similar patterns found in the Netherlands, France (Toulemon), Germany (Nadja)
- France: fertility by citizenship
- France: male and female fertility patterns
- Important to control for time since migration in demographic studies on immigrants’ behavior
Ex: labor-market attachment and motherhood in Sweden

• sub-cultural norms: more conservative modes of behavior for groups of immigrants?

• minority-group status: depressed fertility when trying to enhance labor-market position?

• or pre-dominant effect of the common institutional factors in society?
Time and space

- **Time**: time since migration, time since last vital event, calendar time, etc
- Accurate longitudinal data needed, but rarely available for demographic analyses

- **Space**: true problem for demographic analyses
Some puzzles in immigrant fertility

• Higher fertility of Mexicans in the US than in Mexico
• Relatively low fertility of sub-saharan Africans in Europe?
• High fertility of Turkish immigrants in Europe?
• but no longer high fertility in Turkey itself (Sutay)