On the Use of the ACS to Estimate County Migration Flows by Age

Jan Vink
Cornell Program on Applied Demographics
ACS Migration question

Answers tabulated by:

- Place of **current** residence
  - Answers: “Where did you move to?”

- Place of **previous** residence
  - Answers: “Where did you move from?”
Components of population change

\[ Pop_{t+1} = Pop_t + Births - Deaths + NetMigration \]

\[ NetMigration = DomesticIn - DomesticOut + InternationalIn - InternationalOut \]
Age specific migration rates

\[ \text{DomInRate}_{age} = \frac{\text{DomesticIn}_{age}}{\text{Pop}_{age}} \]

\[ \text{DomOutRate}_{age} = \frac{\text{DomesticOut}_{age}}{\text{Pop}_{age}} \]
Review and comparisons

- Compare with CPS and population estimates
- Item allocation
- Margins of Error
- Review of projection results
ACS vs CPS

- Mobility rate
  - Year
  - ACS vs CPS

- Movers by age, 2016
  - Age
  - Mobility Rate
  - ACS vs CPS
Item allocation by age (NY State)
Margins of Error, Broome County
Small and large counties

- 1543 Small counties (<25,000) - yellow
- 1597 Large counties (>=25,000) - green
Margins of Error

Median MOE for intra county moving rates

- MOE - left large county
- MOE - arrived large county
- MOE - left small county
- MOE - arrived small county
Using ACS to estimate emigration

- Residual method:
  ACS Universe of # of persons in area one yr ago = total population one year ago - deaths - emigration
Cohort change, Broome County

Comparing ACS (solid lines) and Population estimates (dashed)
18-19 Cohort change

Comparing cohort change ratio's (18-19 in yr 2)/(17-18 in yr 1)
18-19 Cohort change

Comparing cohort change ratio's (18-19 in yr 2)/(17-18 in yr 1)

CCR from PopEst

CCR from ACS

Small counties

Y=X
Projecting with ACS rates
Conclusions

• Be careful
  • Lots of imputation
  • Review MOE’s
  • Review universe of people in area 1 yr ago
  • Compare ACS cohort change with population estimates
  • Not suitable for projecting highly mobile age groups
Questions?

Email: jkv3@cornell.edu