

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

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ACS Migration question

15 a. Did this person live in this house or apartment 1 year ago?

☐ Person is under 1 year old → *SKIP to question 16*

☐ Yes, this house → *SKIP to question 16*

☐ No, outside the United States and Puerto Rico – *Print name of foreign country, or U.S. Virgin Islands, Guam, etc., below; then SKIP to question 16*

☐ No, different house in the United States or Puerto Rico

b. Where did this person live 1 year ago?

Address (Number and street name)

Name of city, town, or post office

Name of U.S. county or municipio in Puerto Rico

Name of U.S. state or Puerto Rico

ZIP Code

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

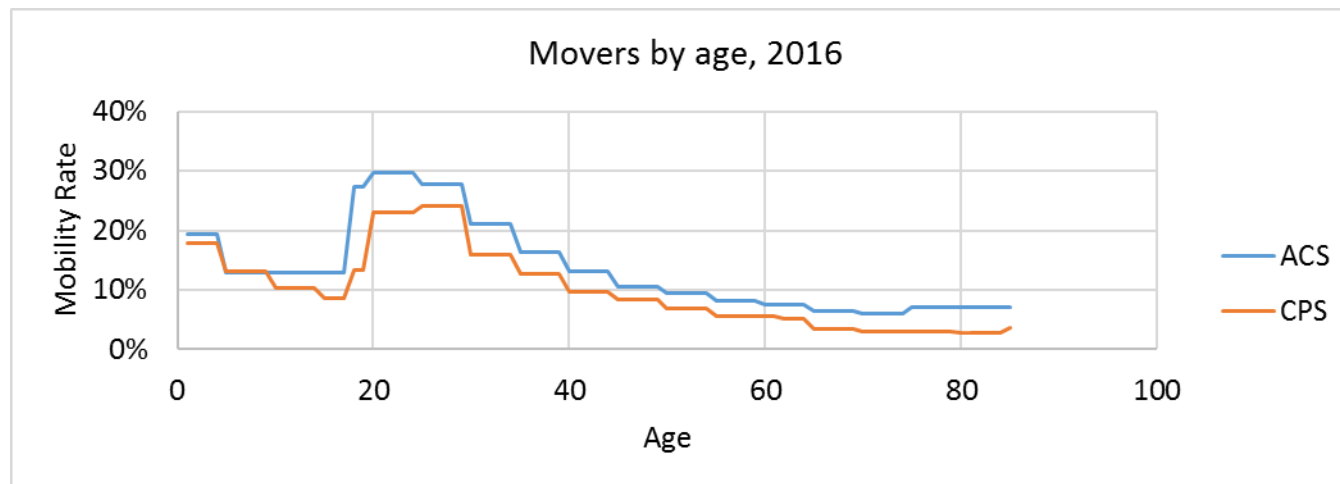
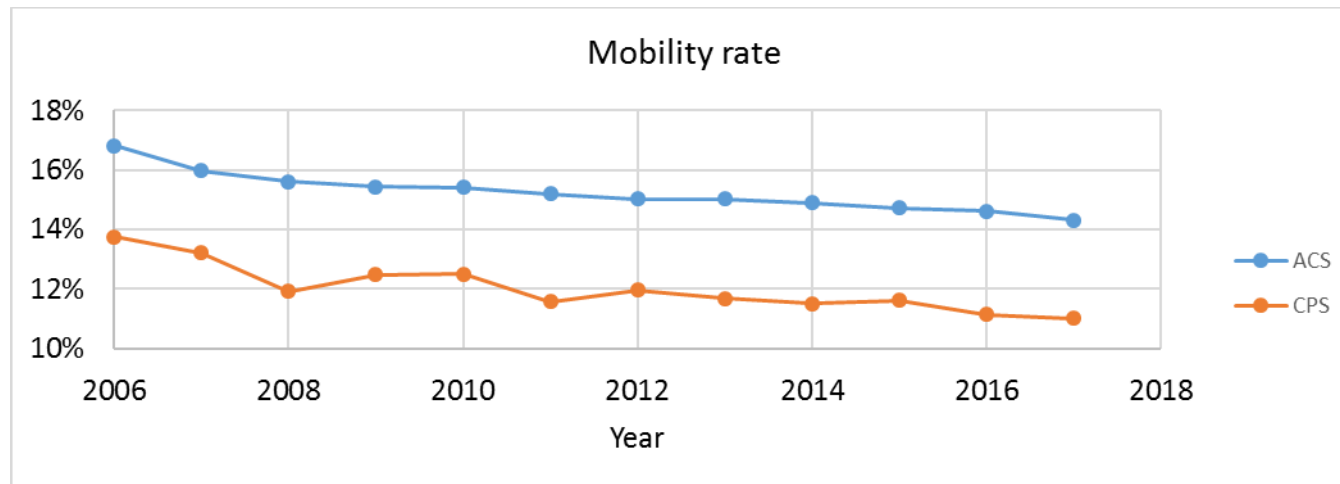
$$DomInRate_{age} = DomesticIn_{age} / Pop_{age}$$

$$DomOutRate_{age} = DomesticOut_{age} / Pop_{age}$$

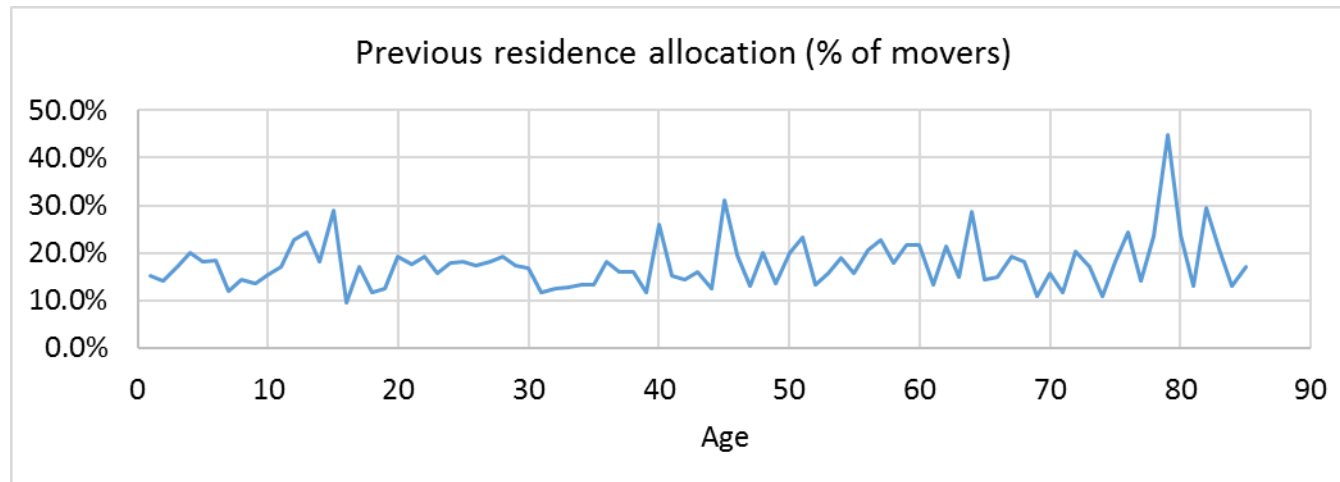
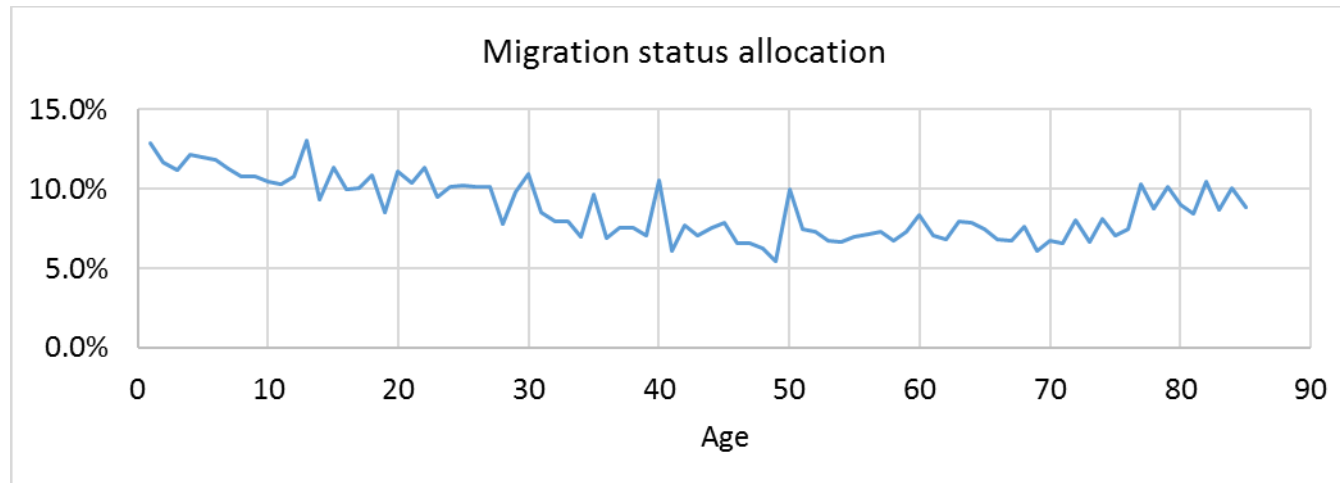
Review and comparisons

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

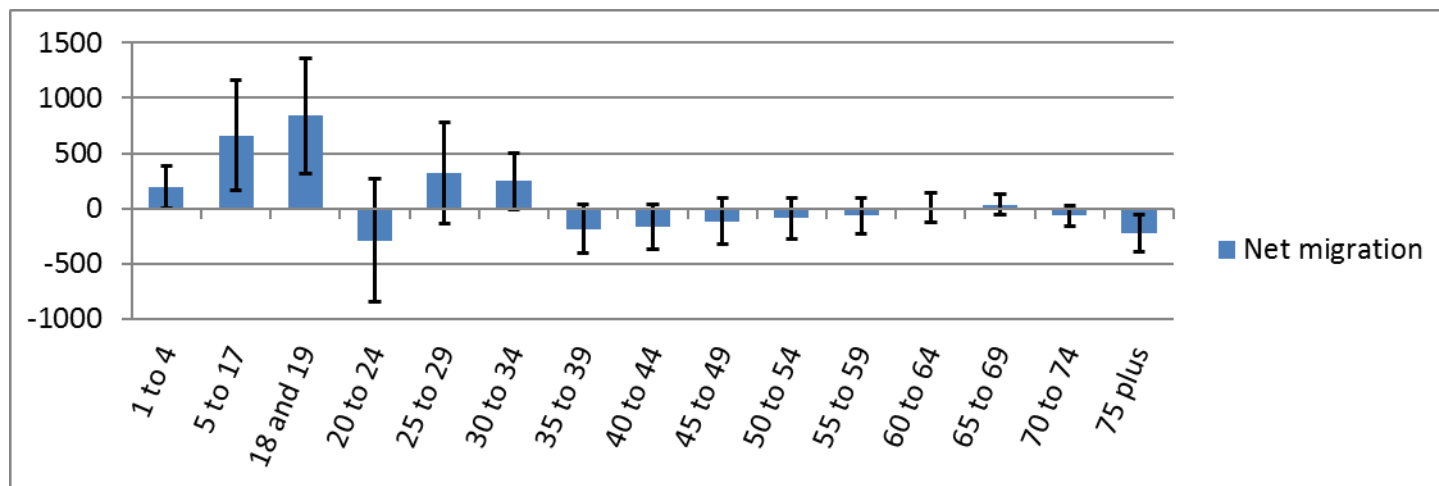
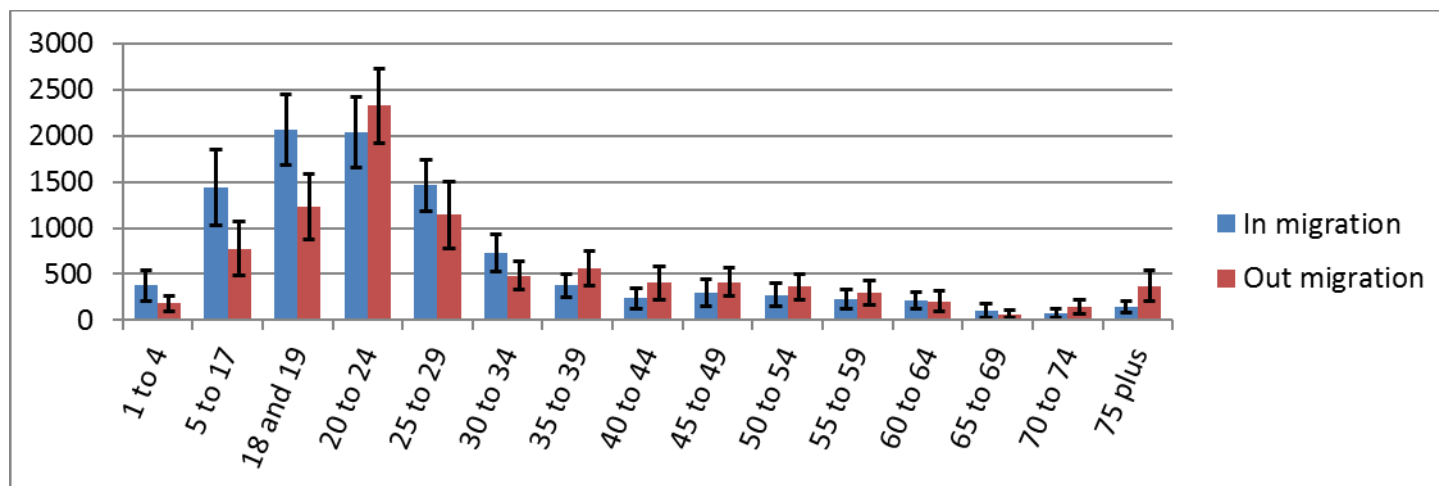
ACS vs CPS



Item allocation by age (NY State)

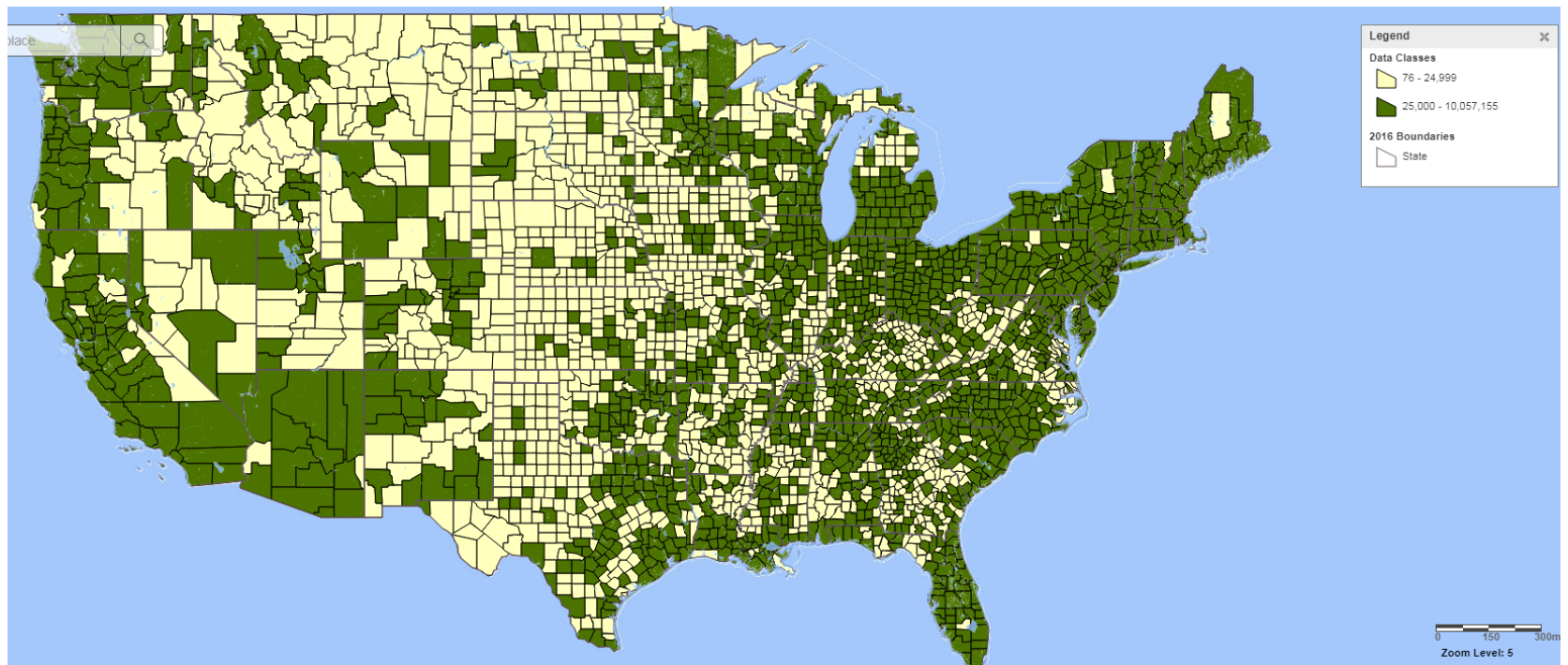


Margins of Error, Broome County

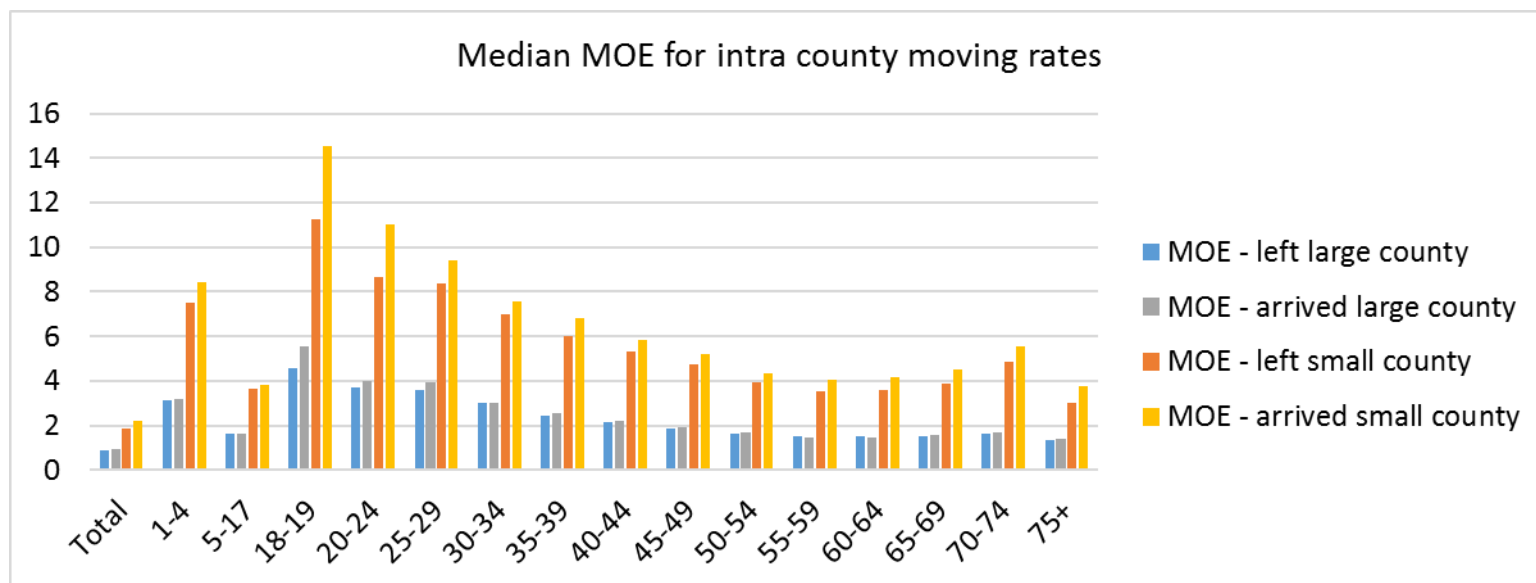


Small and large counties

- 1543 Small counties (<25,000) - yellow
- 1597 Large counties ($\geq 25,000$) - green

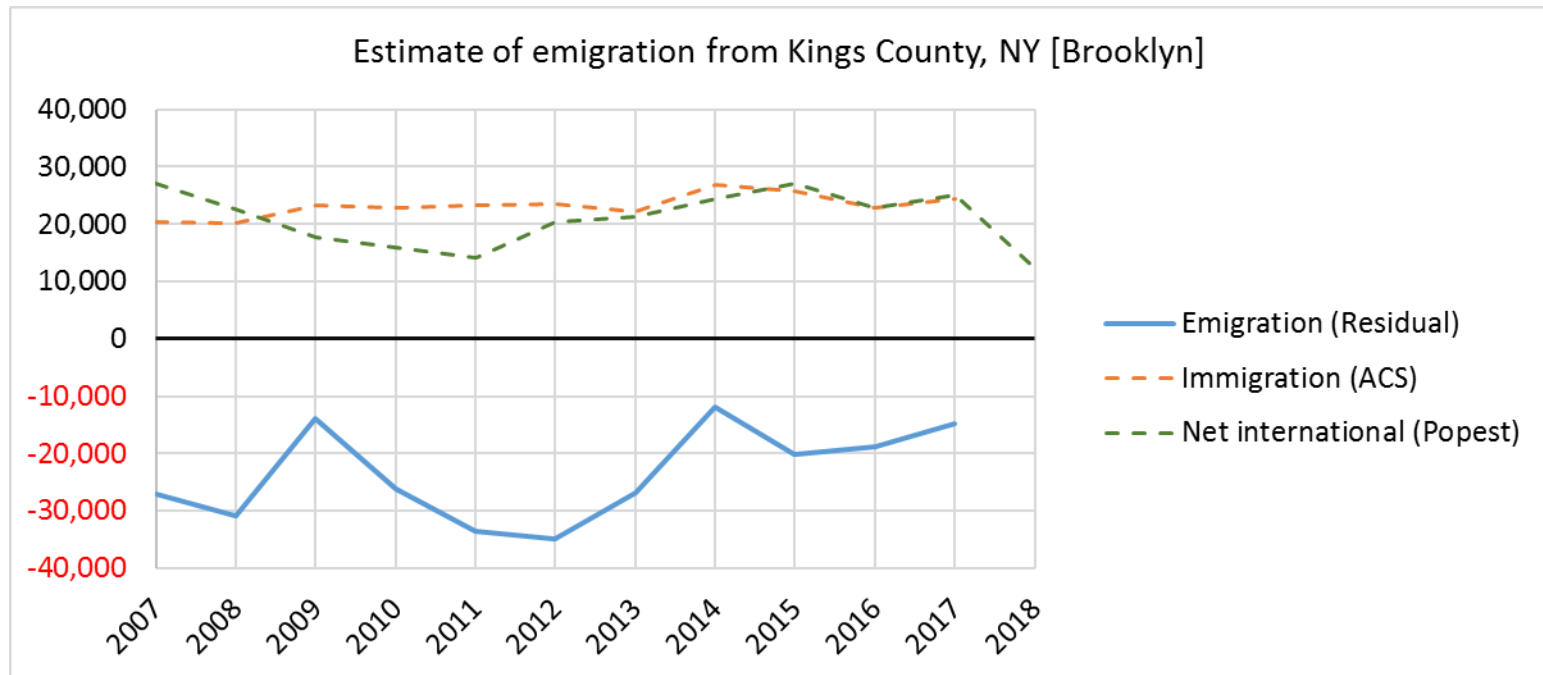


Margins of Error



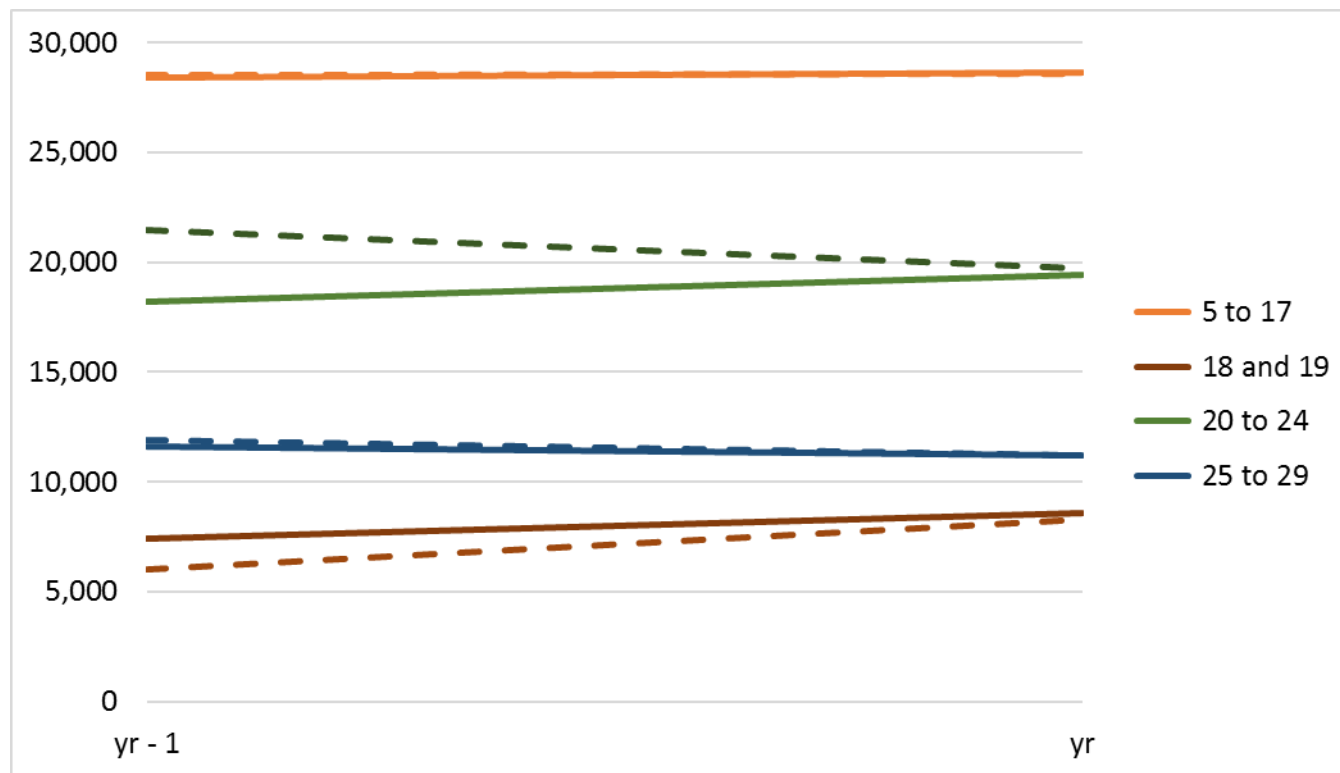
Using ACS to estimate emigration

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

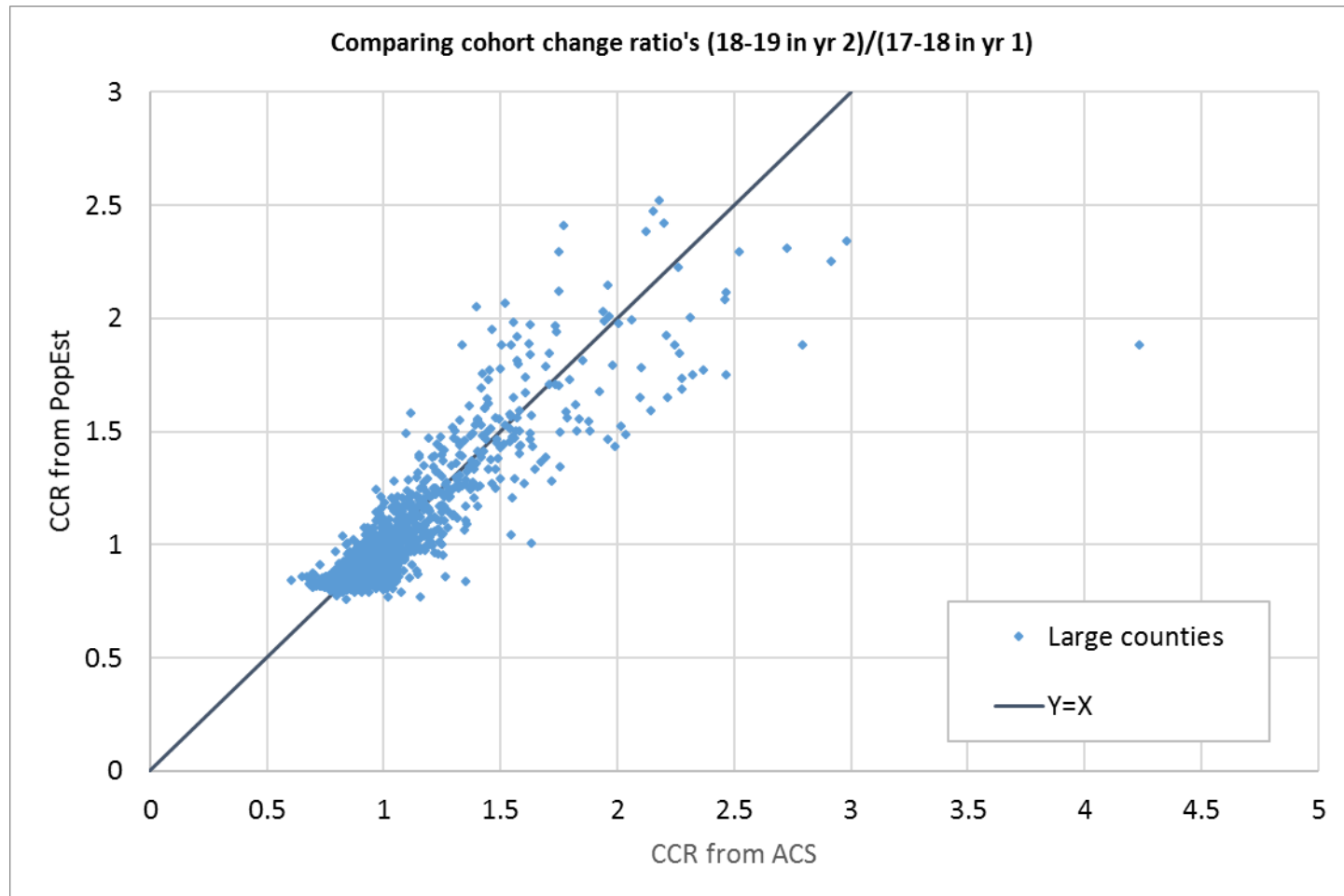


Cohort change, Broome County

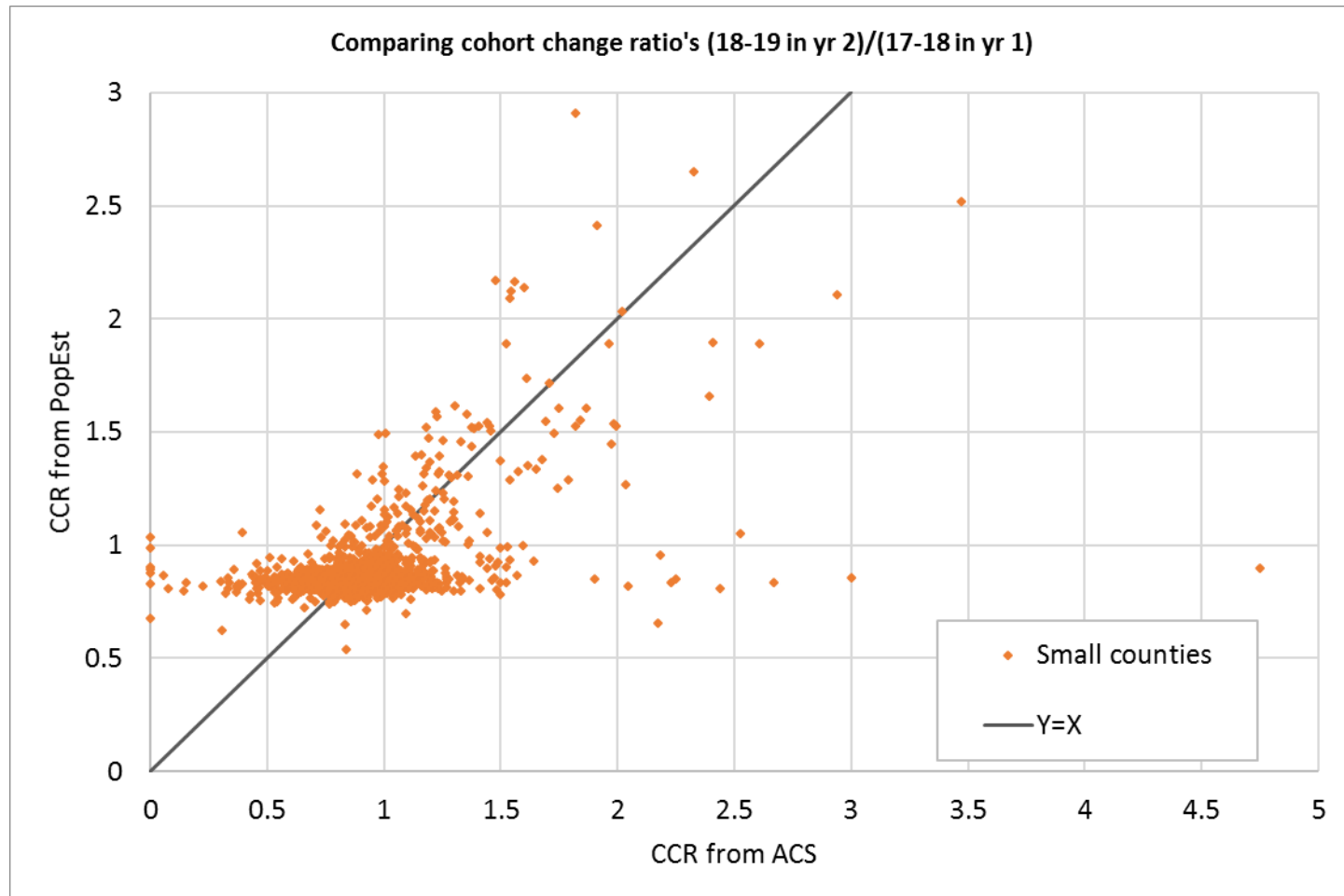
Comparing ACS (solid lines) and Population estimates (dashed)



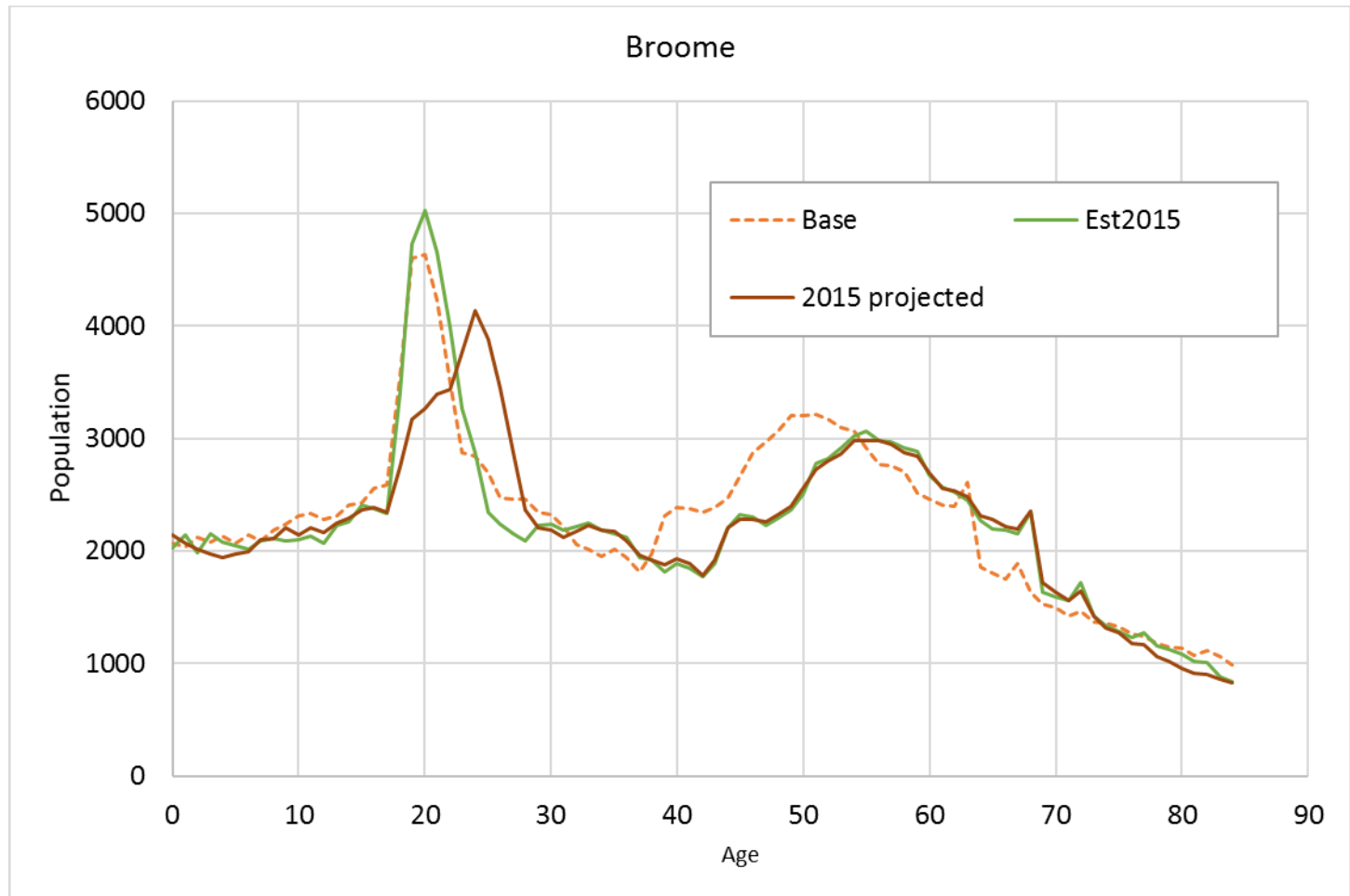
18-19 Cohort change



18-19 Cohort change



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