Merging Administrative Records in the Absence of a Register: Data Quality Concerns and Outcomes of an Experiment in Administrative Records Use

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Goals

- Satisfy the need for more periodical SAE (small area estimates)
- Support decennial census activities (I.E.: Replacing NRFU)
- In the future: to replace altogether decennial census demographic estimates for reapportionment and redistricting

Some Clarifications

- AR (administrative records) were used to support census activities in the past
- ARCensus: a census whose <u>primary</u> data source is AR

StARS and AREX2000

- StARS program at the BoC
- AREX2000 as a simulation of an ARCensus

Two Methods

- Top down
- Bottom up

Top Down

- Assembling of different AR files into one combined-AR-file
- Un-duplication
- Geo-coding to census-block level
- Selection of “best” address and demo characteristics

Bottom up

- Link the combined-AR-file to the MAF
- Assignment of individuals to addresses
- Solution of micro level inconsistencies:
  - Individuals in linked addresses - validated

  Special treatment for:
  - AR in not linked addresses
  - MAF address records without AR individuals

AR Records in Not Linked Addresses

- Field address validation (FAV)
  - Yes - in
  - No – out

5% sample + imputation – 61% removed

MAF Address Records Without AR Individuals

- “NRFU” (simulated by census count)
  - 312,000 (12%) individual records added in 117,000 (census) addresses

Some Encouraging Results

	Census 2000	Top-Down		Bottom-Up	
		A-C Diff	%	A-C Diff	%
Total	2,558,212	-212,725	92	-25,763	**99**
Baltimore County	736,652	-40,469	95	-8,447	**99**
Baltimore City	625,401	-54,753	91	11,328	**102**
Douglas County	175,300	-27,030	85	-5,660	**97**
El Paso County	501,533	-44,642	91	-7,280	**99**
Jefferson County	519,326	-45,831	91	-15,704	**97**

Some Comments/Suggestions for Further Discussion

- Extremely encouraging exercise extremely relevant for countries without a reliable CPR
- Need to check for “false positive” when linking the combined-AR-file to the MAF?
- The importance of better geo-coding: for both SAE and HH building
- The central role of age in the ARC coverage analysis
- Limitations of pure ARC for households statistics

Some Comments/Suggestions for Further Discussion (2)

- Combining exhaustive use of administrative data with selective and reduced field operations to replace the traditional Census head-count?

Why not?

Questions and comments

The floor is open!