Remarks by Hugh W. Knox
Bureau of Economic Analysis
at the Federal Committee on Statistical
Methodology Research Conference

Arlington, Virginia

November 15-17, 1999

The remarks reflect the opinion of the author and do not necessarily reflect those of the Bureau of Economic Analysis.

I welcome the opportunity to react to these three very useful papers.[1] I, and my colleagues at the Bureau of Economic Analysis (BEA), have followed the evolution of the American Community Survey (ACS) since the earlier times of continuous measurement and I find it exciting to finally be getting some early and very preliminary results to inform our research strategies. I expect the emerging ACS results to challenge all of us over the next 5 years or so as we re-evaluate how we can use the ACS to improve whatever statistical estimates we currently produce. These three papers are an indication of how those challenges may evolve. They are also an indication that the ACS has evolved from being seen as the new kid of the block to being seen as a potential source of much new and more current source data for us all to use.

In the first paper, by Butani, Alexander, and Esposito, the authors look to the ACS as a way to possibly improve labor force estimates at the state and sub-state levels owing mostly to the greater sample size of the ACS – roughly 5 times that of the Current Population Survey (CPS) – and to the more timely availability of the ACS estimates compared to the decennial census. They further look for feedback on where to oversample certain groups within existing CPS primary sampling units to achieve more precise estimates. But they also express concern about possible data quality issues in terms of the CPS's use of interviewer administration versus the ACS's self-administration and in terms of possible difficulties in timing.

As I read their paper, there is hope running in two directions. The authors assume that the CPS national estimates will be superior to those in the ACS and consequently the ACS estimates will be adjusted to those in the CPS. They further expect that the ACS estimates, because of the larger sample size, will be used to improve the state level CPS estimates and especially the substate estimates. These are not unreasonable expectations but so far they are just that. We need more experience with the actual ACS estimates -- something we are only beginning to get. The comparisons possible after the 2000 Census will probably be our first real chance to evaluate the usefulness of the ACS results.

In the second paper, the Lewis, Creighton, Kindermann, and DeBerry paper on using the ACS to improve the Crime Victimization Survey, the authors cite four primary benefits to the ACS – two expected and two hoped for. (Expectations and hope seem to be a theme of these remarks as they were in Nancy Kirkendall's earlier comments.)

The two expected benefits will accrue to all Census surveys – more efficient and continuing use of field staff through expanded use of C.A.T.I (telephone) techniques and the ability to use sampling weights that are more current.

---

[1]Butani, Shail; Alexander, Charles; and Esposito, James, "Using the American Community Survey to Enhance the Current Population Survey: Opportunities and Issues"; Lewis, Denise; Creighton, Kathleen; Kindermann, Charles; and DeBerry, Marshall, "Possible Improvements to the National Crime Victimization Survey Using the American Community Survey"; and O'Neill, Wendy A., and Hess, Daniel, "Using GIS to Evaluate a new Source of Transportation Census Data: The American Community Survey."

The two hoped for benefits depend on the decennial long form being opened up for additional questions to develop new variables that could be used in expanded modeling exercises and on the use of the increased sample size of the ACS to screen for and target particular populations. As the authors note, each of these benefits must be established through further research – again the notion of a challenge. And budget and reporting burden issues will influence these outcomes. Given the difficulty of maintaining the block of questions in the decennial long form once every ten years, it is not at all clear how oversight committees will react to an expanded block of questions and increased response burden every year.

In the third paper, by O'Neill and Hess, on the evaluation of transportation data from the ACS we finally have some actual estimates to compare -- some generated for Portland, Oregon by aging the 1990 decennial results and some from the experimental phase of the ACS for Multnomah County (Portland). The comparisons, unfortunately, are not especially encouraging to my eye, but it must be stressed that the comparisons are very preliminary and many of the statistical gymnastics necessary to make the comparisons will not be necessary by the time the 2000 decennial census results are available.

To summarize, the authors taken the 1996 ACS results and attempted to assess their validity for local transportation planning. In order to do this the authors have to create a locally-derived data base for 1996 for those variables measured by the ACS. The ACS estimates of items such as household income and journey-to-work are approximated by using the 1994/95 Household Activity Survey for the Portland metro area (in turn based on 1990 decennial results) aged in two different ways – each way a potential contributor to the disappointing results.

The first is to extrapolate to 1996 those variables most similar to those in the ACS. No perfect match here. The second is to try three different ways to map variables based on Transportation Analysis Zones (TAZ's) into areas based on census blocks. Neither technique would be necessary in a year 2000 comparison based on long form results and the ACS. (It wasn't clear from the paper what role the 1990 long form estimates had on the 1994/95 Household Activity survey, and it would be nice to know how the list of local variables changed from 1990 to 1994/95 because the 1990 list will be the one used for both the 2000 long form and the ACS estimates.)

Having created a synthetic 1996 Portland data base the authors investigated whether there was a good match with the ACS. In general there was not, and the match was the least good on journey-to-work information and best on housing characteristics. While disappointing, these results are still very preliminary. It's not obvious if either data base is an accurate depiction of reality.

I think what we are seeing here is that the two data bases compare fairly well on variables that are immobile and whose characteristics can be easily counted – like houses and rooms in a house. They compare less well when the variables can change over time in the same location – such as household income -- or can change in both length and direction – such as journeys-to-work.

For my program at BEA, our most immediate interest is in how the ACS journey-to-work estimates will compare with our current ones based on the 1990 long form aged annually with administrative records from IRS. We use those estimates to make our personal income estimates on a residence basis, and we look forward greatly to being able to compare our estimates for 2000, the long form estimates for 2000, and the ACS estimates for 2000.

So what are we left with? Well, only time will tell. The ACS is a major change in how housing, social, and economic data will be produced in the U.S. So those of us in other Federal, state and local agencies, and in the broader analysis community have our work cut out to figure out how to best use this new data source from the "new kids on the block." I look forward to the challenge and to many intriguing studies over the next five years as the ACS data become an regular research tool for us all.