Developing an Analysis System for Agricultural Surveys and Censuses

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In 1996, responsibility for conducting the Census of Agriculture was transferred from the Bureau of the Census to the United States Department of Agriculture, National Agricultural Statistics Service (NASS). Since planning activities were well underway for the 1997 Census of Agriculture, legacy systems were used for data processing. These systems were somewhat antiquated and differed greatly from those used to process NASS survey data. As a result, NASS initiated a Project to Re-engineer and Integrate Statistical Methods (PRISM). The goal of this project was to develop methodology and systems to more effectively process census and survey data.

The existing census analytical review process used static listings that were not very user friendly. As a result, the need for a new data analysis system was recognized and became part of the PRISM effort. Development was done in SAS AF and focused on meeting desires for a more dynamic, graphically based system. It was designed to allow analysts' access to data earlier in a processing cycle and provide an easier interface for resolving data problems.

The analysis system includes five tool sets. The first is a series of listings designed to highlight records with data problems that must be resolved or should be reviewed because there is a high likelihood that they will affect published aggregates. The second includes micro level analysis tools and the third macro level analysis tools. The fourth tool set is for optional use and contains ad-hoc queries that are more flexible and powerful, but also less user friendly. The fifth tool set provides management features to track the analysis process and ensure proper data review.

There will be a demonstration of analysis tools used for the 2002 Census of Agriculture. There will also be an opportunity to discuss the challenges encountered during development/implementation of the system and plans for using this new system for future NASS surveys.