Two examples of refinements that should be possible to the design of future samples are the better allocation of sample units to industries and the better use of employment data in the design. When we are able to produce estimates of the sampling errors of the PPIR industry indexes, we will be able to evaluate the success of our allocation of primary sample units to the industries. Adjustments can be made to the algorithm if we find that it is not resulting in comparable reliability among the industry indexes and acceptable reliability at summary levels.

Examination of initial employment figures versus collected value of shipments data will help us evaluate the effectiveness of using the former as a proxy for the latter.

B. Quality Assurance

A quality assurance project team has been created recently, with the goal of implementing a QA system on all aspects of production.

C. Management Information System

Within the project, an effort is being made to construct a minimal management information system to track cost. If that information could be related to benefits derived from a specific activity within the project, then a great deal will have been accomplished toward making more informed decisions.

D. Resampling

Once Mining and Manufacturing has been completely surveyed, a recycling process will be implemented. We plan to resurvey each industry every five years. This is expected to keep costs manageable and the estimates reasonably in line with reality.

E. Composite Estimation

Composite estimators have been used successfully in several statistical programs in recent years (e.g., the Current Population Survey and the Consumer Price Index Revision). Perhaps it would be an applicable and beneficial technique in this program. We need to investigate this possibility.

REFERENCES


DISCUSSION

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I appreciate the efforts made in the papers to develop a set of understandable definitions for the universe of interest, basic analysis units (the production unit), and the sampling frame. Conceptually, I found the papers sound, logically developed, and easy to comprehend. Perhaps the most appalling point (buried somewhat in both papers) was the admission that today’s Consumer Price Index, published by the Bureau of Labor Statistics and a measure with which many labor contracts rely for cost of living increases, is not based upon sound statistical principles but rather depends heavily upon commodity experts in the Bureau. It is gratifying to learn that efforts are being made in developing the new indexes to correct this serious flaw.

At this time several alternatives suggest themselves for this resampling. "Keyfitzing" can be considered for the purpose of reducing initiation costs by increasing the chance of retaining current sample members. Rotational sampling (creation of panels) could be a new design if the respondent burden is considered to be a serious problem. The simplest solution operationally would be to select new independent samples, disregarding the fact that a unit was in the previous sample for the industry.

There are too many initials used in the papers without proper definitions. The non-Bureau of Labor Statistics person would have trouble with the PPIR, WPI, ISPI, POPI, CPI, PFU, and CPIR initials.

And, finally, the papers generate quite a few questions which must be answered before the revised indexes can be considered as statistically based: what about the variance estimates? what was specifically learned about estimation problems? what are the criteria for sample size determination?

Considering the significance of the current indexes, let’s hope that the revisions will have some sensible measures of statistical reliability.