NAPCS Discussion Paper*

NAPCS Application in the United States Statistical System:
A Proposal

Discussion Paper
for

U.S. Economic Classification Policy Committee
December 2002

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* NAPCS Discussion Papers are provided to foster and facilitate professional exchange on matters related to the development and implementation of NAPCS.

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Proposal: Limit the NAPCS development and implementation efforts to the coordination of product statistics collected from businesses. Under this proposal, The purpose and objective of NAPCS should be limited at this time to providing a coherent framework for identifying, defining, and classifying the products produced by businesses as outputs, the products used by businesses as inputs, and the product data needed to develop producer price indexes for products and industry output. Improving the comparability of business output, input, and price statistics is both an achievable goal and one that will greatly facilitate the usefulness of product data for a broad spectrum of data users. In particular, the successful implementation of this more targeted goal for NAPCS will increase the product detail available for national accounts programs and independently allow that data to be systematically concorded to the existing product structures used in the accounts.

Background and Justification:

The North American Product Classification System (NAPCS), a joint effort among the Bureau of Economic Analysis (BEA), the Bureau of Labor Statistics (BLS), the Census Bureau, Statistics Canada, and INEGI in Mexico, is providing the vehicle for much needed improvements in the identification and definition of the outputs of service industries. In future phases of the development initiative, the entire universe of outputs will be identified, defined, and crafted into a comprehensive product classification system. A stated goal of the NAPCS initiative is to provide a demand based view of the outputs of NAICS industries.

The NAPCS initiative is somewhat different in intended use and application than the North American Industry Classification System (NAICS) introduced in 1997. Industry classification systems have been in place for over 70 years and have been widely adopted in a variety of statistical, regulatory, and business applications. The broad use and acceptance of industry classification systems assures implementation of revisions and changes to the industry classification systems over time. There is not an existing constituency for a comprehensive product classification system. Most product detail in statistical programs and business applications, such as procurement systems, has developed independently and the products have been tailored to meet the needs of specific data programs. Literally hundreds of product groupings and systems are in place for a variety of uses. Some major examples of unrelated product classification systems that are in use include the Consumer Price Index's product details, the Consumer Expenditure Survey categories, the Personal Consumption Expenditures groupings, The Numerical List of Manufactured and Mineral Products used by the Economic Census, the Harmonized System and the GNS/120 used in trade statistics. Linkages among these systems are tenuous and while very useful for their individual purposes, these systems are application specific and do not easily transfer to use in other programs with other data needs.

The examples provided above highlight three different and often conflicting uses of product groupings. The three identified above are business production and expenditure statistics, consumer expenditure or consumption statistics, and trade statistics. All three of these uses currently rely on different product classification practices.

In order to focus the effort on manageable coordination goals, the NAPCS development initiative should initially focus on improving the relationships and comparability of business production and expenditure data.

In recent years, the Bureau of Labor Statistics and the Census Bureau reached agreements to coordinate the product detail available from the Economic Census with the price index detail provided by the Producer Price Index Program. This coordination has allowed deflators to be developed and weighted using a common set of product definitions, currently based on the Census Bureau's Numerical List of Manufactured and Mineral Products. This coordination has benefited BEA by easing data comparison problems that existed when output was defined using one set of definitions and the price indexes were defined using a different set of definitions. Efforts for coordination of this type have considerable potential for improvement of broad economic statistics.

One major data comparison problem that still exists is linking expenditure data for businesses with output data and price data. The expenditure categories used by the Census Bureau in the Economic Census, the Business Expenditures Survey, the Annual Capital Expenditures Survey and others are not easily compared to existing price indexes or production data. NAPCS is one possible way to improve the comparability of expenditure data, production data, and price index data.

The industry classification collects the outputs of homogenous groups of units. For example, the paper industries report the output of products from paper mills and the converted paper products made from purchased paper. Many of these products are packaging products. From an industry standpoint, the production of paper packaging products is easily collected and reported.

A demand-based product classification system will provide a bridge for coordinating the collection and organization of comprehensive (goods and services) product data collected from business units as suppliers and product expenditures data collected from business units as users of these products. In addition, it will provide a coherent conceptual framework for the organization of products generally and allow the detailed products in the system to be uniquely identified and concorded to PCE and other existing consumer expenditure classifications. Building on the paper packaging products example, the expenditure categories currently used in the Economic Census are broader than paper packaging products. Census collects expenditure data from businesses for packaging materials which includes (at least in theory) outputs from the paper industries, the plastics industries, the glass industries, the wood industries, the metal industries, etc. The NAPCS system, in this application, should provide the means to take detailed output and price data for paper packaging products, plastic packaging products, glass packaging

products etc. and combine it to form a packaging products expenditure grouping. The PPI could then be used directly to adjust expenditure data for producer price inflation.

Coordination of production, expenditure, and price data for business statistics programs would greatly improve the quality of input data for the national accounts and the limited focus of this coordination is more attainable than an approach that attempts to coordinate business and household statistics, national accounts data, trade data, and other uses of product data. A limited approach will improve the chances for success in both the short and long term while opening the door for the elimination of a major discontinuity that currently exists for statistics collected from businesses.

This course of action will require the application of inputs from all three ECPC agencies to ensure that the results will be appropriate for collection and use by BEA, BLS, and the Census Bureau.