With the Bureau of Labor Statistics in the early stages of its decennial revision of the Consumer Price Index, the area of price and consumer expenditure data was made a conference topic by the NBER Committee directing its conference series on the Computer in Economic and Social Measurement. It had been about ten years since these data areas had been discussed comprehensively and formally by the Price Statistics Review Committee. Much research and development had been done in those years in the academic world and by the BLS, research and development on concepts, data collection methods and computer usage. It was important to determine the key issues in the area and the ways in which this RD was or could be applied.

A program committee was named which held its first meeting on October 15, 1971.* Faced with a broad area of concern, the committee immediately became aware of the difficulty in delimiting the issues that could be considered in sufficient detail in the time period usually allocated to a conference. It was then decided to conduct the conference in two parts. First, a series of workshops would be convened. Experts in each workshop area would have an opportunity to express their concerns about price and consumer expenditure data. This discussion would then serve as a basis for the program committee’s judgment as to which topics should be the subject of papers to be presented at a more formal conference to be scheduled later.

On April 6 and 7 of 1972, the workshops were convened; more than sixty participants attended from universities, private research institutes, and the government. At a plenary session, the Chairman outlined a broad range of issues and problems. Members of the group then selected to attend two of the following four workshops:

I - Theory and Measurement of Prices (Gary Fromm, Chairman).
II - The Measurement and Analysis of Consumer Expenditure Data (Lester Taylor, Chairman).
III - Dissemination and Use of Price and Expenditure Data (Malcolm Cohen, Chairman).
IV - Collection and Survey Methods for Price and Expenditure Surveys (Robert Ferber, Chairman).

After the workshops concluded, Richard Ruggles summarized the opinions expressed. His summary and the minutes taken at each workshop provided the basis for the program committee to establish priorities in arriving at the issues.

* The Committee consisted of Joel Popkin, Chairman, Malcolm Cohen, Gary Fromm, Nancy Ruggles, Richard Ruggles, Ralph Smith, and Lester Taylor. Robert Ferber joined the committee later. Neville Beharie acted as Secretary and represented the NBER.
that would be made the subject of papers at the conference to follow. The list of important issues was long, too long for one conference, so it was decided to hold two.

The first conference is scheduled for May 3 and 4, 1973, and will take place in Williamsburg, Virginia. It will consist of papers on issues discussed in Workshops III and IV. The first topic for the conference will be on linkages and confidentiality. Two papers have been invited on Confidentiality: one by I. Fellegi, "A Theory of Confidentiality," and another by Richard and Nancy Ruggles. A third paper will be either that by Malcolm Cohen, "Applying Set Theory to Solve Confidentiality and Data Structure Problems," or by Ben Bridges, "Social Security's Link Project."

The second topic is the role of incentive payments in data collection. There will be three papers; one by Jack Abrams, on the effect of paying respondents to provide consumer purchase and expenditure data, one by Seymour Sudman and Robert Ferber, and another by Charles Cannell on the effect of compensation on the accuracy and reliability of data obtained in consumer expenditure surveys.

The third session of this conference will deal with the improvement of consumer expenditure data. Invited papers will be given by Lester Frankel on the means of improving the collection and measurement of food expenditures consumed out of the home, and by Isabelle McWhinney and Harry Champion on the effectiveness of diary versus recall methods in obtaining data on consumer incomes and expenditures.

The fourth session will be on the improvement of collection of price data. Joseph Waksberg, Morris Hansen, and Joseph Steinberg will give a paper on Alternative Approaches to the Sample Design and Collection of Price Data for the CPI. Phillip Musgrove will give one on methods of dealing with missing values and with outliers in surveys of consumer incomes and expenditures.

The second conference is scheduled for late 1973 or early 1974. It will consist of papers on issues discussed in Workshops I and II. The first session will be on Household Behavior. Kelvin Lancaster will give a paper along the lines of his "new theory" of demand. John Cross will present a paper on the theory of household behavior employing systems learning theory. Robert Gillingham will present a paper on some aspects of the empirical implementation of Lancaster's theory.

The second session will deal with the analysis of expenditure systems. It is to consist of papers by Robert Russell on household budgeting process along utility tree lines and by Dale Jorgenson and two co-authors on a sistem of demand functions employing transcendental logarithmic functions. At the third session of this conference, papers will be sought on measuring prices of durable goods in price indexes and on the measurement of government services for cost-of-living indexes that would include all taxes. Individuals interested in either of the Conferences should contact me by April 1, 1973.

Assistant Commissioner—Prices and Living Conditions
Bureau of Labor Statistics
Washington D.C. 20212

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ANNOUNCEMENTS

Workshop on the Matching and Merging of Data Sets
May 5, 1973

At the conclusion of the Conference on Prices and Consumer Expenditure Data (see previous note), a special one-day session on the Matching and Merging of Data Sets will be held. Interested individuals should contact Joel Popkin or Benjamin Okner.

Conference on Research and the Public Use Samples
March 23-24
Emory-Sheraton Inn, Atlanta, Georgia

The above conference will be co-sponsored by the Southern Regional Demographic Group and the NBER Conference on the Computer in Economic and Social Research. Individuals presenting papers include Paul Zeisset, Census Bureau; Hal Winsborough, University of Wisconsin; Richard Rockwell, University of North Carolina; Richard Ruggles, Yale University; Martin Levin and W. W. Pendleton, Emory University; Guy Orcutt, Yale University and Urban Institute; and Charles Laidlaw, Baltimore Regional Planning.

For further information, contact
Ms. Cynthia Tauber
Southern Regional Demographic Group
P.O. Box 117
Oak Ridge, Tennessee 37830
NBER COMPUTER RESEARCH CENTER ABSTRACTS

The NBER Computer Research Center for Economics and Management Science has been engaged, since its formation in 1971, in developing new software systems for quantitative social science research. Prototype systems for mathematical programming, exploratory data analysis, and econometrics are now in various stages of design and implementation. General summaries of research in progress, as well as abstracts of specific Research Reports, will be a regular feature in the Annals, beginning with the two abstracts below. The full text of the reports are available in limited quantity, at $1.00 per copy, from the Computer Research Center, 575 Technology Square, Cambridge, Massachusetts 02139 (Attention: Support Staff).


The optimization scores for Knuth's random sample of inner loops are analyzed to provide a unified comparison of the five optimization levels. The techniques used are those of exploratory data analysis, and their role in the analysis is discussed. As a consequence of the analysis five rough groups of programs with different optimization behavior are identified and tentatively characterized.


The problem of estimating non-constant regression parameters is formulated and its statistical difficulties are examined. A structure is imposed on some of the parameters that allows for a wide class of variations. This structure fixes the number of unknown parameters that must be estimated, and renders the problem amenable to a Bayesian analysis. The solution, with some differences, looks like the Kalman type of estimator. The analysis is also valid for autoregressive processes and random coefficient models. Maximum likelihood is suggested as a way of obtaining estimates of the remaining parameters, and an iterative estimation scheme is presented without numerical tests.

January 16, 1973