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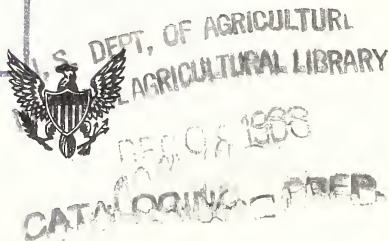
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THE 1972-73 CONSUMER EXPENDITURE SURVEY

(By Eva E. Jacobs, Chief, Division of Living Conditions Studies,
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Spending by consumers has recently been receiving even more attention than usual as a key element in the process of recovery from the recession. Although personal consumption expenditures constitute about two-thirds of the gross national product, detailed data on such expenditures by type of consumer have not been available since the 1960-61 Survey of Consumer Expenditures.

In the interim analysts of consumption patterns have been using annual aggregate estimates based largely on production and retail sales data. But aggregate data changes and their economic and social significance vary with the socioeconomic characteristics of a family—the amount of income it has, its size, the stage in the life cycle of the family, the number of earners, the amount of education of the head and the spouse. Information about trends in expenditures by different kinds of families has been sorely lacking. Such information is now becoming available as the results of the 1972-73 Consumer Expenditure Survey are released.

USES OF CONSUMER EXPENDITURE SURVEY

The Consumer Expenditure Survey data are used extensively by Government agencies, private industry, university research workers, and families. In considering Government policy on the energy problem, various proposals are made to increase the tax on crude oil. In order to know what the impact of a tax will be on different income groups, the policymaker must first know how much is spent on fuel oil and gasoline at different income levels. Early in the energy crises the only data BLS could supply to the Federal Energy Administration and others were from the 1960-61 Survey in order to permit estimates of the relative burden to be borne. Now the data from the 1972-73 Survey are available.

The 1972-73 Survey data will also provide an input into determination of poverty thresholds and income adequacy. Families are affected by the decision on these levels because some federally administered programs are aimed at adjusting poverty base benefits to need—with variations according to family size.

Still another important administrative use of Survey data is made by the Internal Revenue Service. The standard tables of sales tax allowances set forth by IRS are based on the 1960-61 Survey.

Market analysts use the data as a guide to what to make or distribute or where to market what they already make.

Researchers use the data widely for analyzing consumption in economic models and simulating the economy for making forecasts.

Families use the data for comparing their expenditures with other families with similar characteristics.

The Survey is the responsibility of the Bureau of Labor Statistics because one of the most important uses of these data is to bring up-to-date the weights for the components of the Consumer Price Index. The data are also used in developing the family budget estimates and for general analysis of consumption. These applications of the data will be discussed after a brief description of the collection methodology of the 1972-73 Consumer Expenditure Survey which was different from that of previous surveys.

The 1972-73 Consumer Expenditure Survey consisted of two separate surveys, each with its own questionnaire and sample. (1) A quarterly panel survey in which each consumer unit in the sample was interviewed every 3 months over a 15-month period, and (2) a diary or recordkeeping survey, completed at home by the respondent for two, 1-week periods. This design differed markedly from that of all previous surveys, including the most recent (1960-61) one. In the earlier survey, total expenditures, income, and changes in assets and liabilities for the entire year were reconstructed during lengthy household interviews. The annual recall data were supplemented by a 7-day recall interview covering detailed food expenditures.

The 1960-61 Survey of Consumer Expenditures, like its forerunners, was conducted by BLS itself. The 1972-73 Consumer Expenditure Survey was conducted by the Bureau of the Census. In addition to its expertise in conducting household surveys, the Census Bureau had an experienced nationwide collection organization in place, since it had recently completed the 1970 Census of Population. Previously, BLS had to hire and train a survey staff and then disband it.

During the planning period of the 1972-73 Survey, research on different forms of collection methodology was done by the Bureau of Labor Statistics, the Survey Research Laboratory of the University of Illinois, and the Census Bureau. From these studies, and the experience of other nations, it was concluded that higher quality data could be obtained on large, less frequently purchased items such as appliances and cars if the data were collected by periodic recall and on small, frequently purchased items such as milk and toothpaste by day-to-day recordkeeping. This conclusion led to the creation of two questionnaires.

Separate samples for each survey were divided into two representative subsamples, one for 1972 and one for 1973. Two years were used in an effort to reduce the risk of covering a period of abnormal economic conditions.

The sample characteristics were the same for both surveys in terms of geographic location of respondents and socioeconomic characteristics of the population. Though the stratifying variables were the same for both interview and diary surveys, the same families were not asked to participate in order to minimize the burden of reporting upon any particular family.

INTERVIEW SURVEY

The initial quarterly interview provided socioeconomic characteristics of the consumer unit, an inventory of major durable items, and data covering a great variety of regularly purchased items bought since the first of the year. Expenditures for clothing and utilities were

collected every 3 months, a 6-month recall period was used for small appliances, and 12-month recall for major appliances, motor vehicles, and real estate.

The fifth and final interview yielded information on housing expenses, work experience, changes in assets and liabilities, expenditures for most goods and services requested in previous quarters, and detailed estimates of family income.

DIARY SURVEY

The diary was designed to augment the quarterly survey by obtaining detailed expenditures which were not covered in the quarterly interview. The major components were food, household supplies, personal care products, and nonprescription drugs. However, the respondents were requested to report all expenses so that they need not decide what to include and what to leave out. Each family was requested to keep two consecutive 1-week diaries. An interviewer collected information on the socioeconomic characteristics of the consumer unit when at the beginning and end of the 2-week period.

The diary questionnaire was divided by day of purchase and by broad classification of goods and services. Under food and beverages, for example, was a breakdown for dairy and bakery products (with the notation "indicate if milk is delivered"); meat, fish, and poultry (with the notation "indicate the cut of meat") fruits and vegetables and whether fresh, frozen or canned. The results were entries such as "skim milk," "T-bone steak," "dried apricots," "all-purpose flour," "saltines," etc. Also included were meals and snacks purchased at a restaurant or carryout, school lunches, etc.

To further ease reporting and improve response, a diary was printed in Spanish for those areas with large Spanish-speaking populations.

Cooperation with both surveys exceeded anticipations. Census reports that, for the quarterly survey, nearly 90 percent of sample units participated in each year, resulting in nearly 10,000 annual records for each year. For the diary survey, response rates were 80 percent the first year and 90 percent the second, with over 20,000 completed 1-week diaries in each year. These response rates, of course, indicate the amount of cooperation only. They do not reflect the quality of the response. Evaluation of the quality of the data is now being undertaken as a joint Census-BLS project.

Reporting was voluntary, and we are frequently asked whether the respondents were paid. The answer is "no." A brief experiment in paying for diary cooperation was conducted by Census, but it was concluded that response rates were not significantly improved by payment of \$5 or \$10.

DISSEMINATION OF DATA

The data will be disseminated in publication of tables and public use tapes. The publication of tables has been taking place as the data become available. Data from both years of the diary and selected components of the interview have been published. A list of publications is attached. There will be two sets of tapes, one for the diary and one for the interview. We hope the diary tape will be available by the end of 1976 and the interview in 1977.

BLS ACTIVITIES

Now to return to the BLS activities concerned with these data.

First, the revision of the Consumer Price Index. The index serves two major functions. It is a yardstick for revising wages, salaries, and other income payments to keep in step with rising prices and it is an indication of inflation in the U.S. economy. The CPI is currently being updated and revised for the first time since 1963.

This revision is the first since the early 1960's and constitutes a large-scale effort to: (1) update the weights assigned to the various spending categories, such as food, clothing, shelter, medical care, and so on; (2) update the sample of items priced each month in the ongoing CPI; (3) update the sample of retail stores; and (4) modernize the conceptual basis and statistical methods employed in the CPI.

These improvements will be accomplished through a series of innovations introduced in the revision process.

The most obvious innovation is the addition of a new Consumer Price Index for all urban households. One of the major problems related to the revision program has been to determine just who should make up the index population. The present index represents the experience of wage earners and clerical workers, and therefore is, strictly speaking, appropriate for only this group. However, a more comprehensive consumer price index is needed to escalate the income payments for other population groups and to measure inflation and guide monetary and fiscal policy. Therefore, the Bureau of Labor Statistics will issue two indexes starting in April 1977—the traditional index and a new index that covers all urban households. Both indexes will incorporate improvements being developed as part of the revision program.

Monthly or quarterly indexes will be published for 28 cities compared with 24 at present; regional indexes will be available for urban areas of different population-size classes; and some index components reported will be of a more general character, covering a type of good or service instead of a very specific item.

In addition to these visible changes in the CPI, there will be some less obvious improvements: (1) The fixed market basket will be a more accurate reflection of purchases; (2) the outlets surveyed will be more representative of those actually frequented; (3) there will be some increase in monthly pricing, and quarterly pricing will, by and large, be replaced by bimonthly pricing; and (4) the measurement errors will be substantially lower than those of the current CPI.

The Consumer Expenditure Survey provides the basis for determining what people buy. The second step, determining where people buy marks another innovation in this revision.

A "Point-of-Purchase" survey has been conducted to provide data on the retail stores, mail houses, bowling alleys, doctors' offices, and other places where goods and services are bought. Approximately 20,000 families were asked in 1974 where they purchased various types of goods and services. From the survey results, a full probability sample of retail stores and other outlets to be used in collecting data for the monthly index will be developed for the first time. Here again the Bureau of the Census served as collection agent, under contract with BLS.

No one today can tell what difference all of these improvements and innovations will have on the CPI for wage and clerical workers computed using the revised methods in 1977. Nor can we predict the comparative movement of the urban CPI and the wage earner CPI. Both indexes will be calculated for at least 3 years during which time the empirical evidence will be studied.

FAMILY BUDGETS

The other BLS program that has made extensive use of consumer expenditure survey data is the urban family budget program. The current estimates of budget costs for a hypothetical 4-person family at three levels of living were first constructed for 1967 and have since been updated only for price change using the CPI.

A brief review of the estimating procedure is in order. Budget quantities and pricing specifications were derived from two sources: (1) Scientific or technical judgments concerning the requirements for physical health and social well-being; and (2) analytical studies of the choices of goods and services made by consumers in successive income groups, as reported in the 1960-61 Survey of Consumer Expenditure. Scientific standards for food, specifically the USDA food plans, and housing were adopted. For other components, quantities were derived from the application of statistical estimating techniques to derive the point of maximum elasticity. The quantities were then priced using direct pricing and CPI prices. Without going into all the details, it is sufficient to state that the quality of the price data in the current budgets have serious shortcomings.

The availability of the 1972-73 Consumer Expenditure Survey data and the CPI revision has stimulated a review of the entire program. Considerations in this revision process will be similar to that for the CPI: (1) Use of more recent data; (2) application of improved statistical techniques; and (3) improved pricing procedures. This work has begun. In the meantime, the existing updating procedure will be continued.

SOME SURVEY RESULTS

The Bureau has been working hard to make as much data available as possible and has been releasing data by component as soon as processing, correction and review have been completed. Analysis activity has been limited because the first priority has been preparation of the data for the public. However, some examples of the various ways the data can be looked at can be presented from the data already published. Researchers and other users will find many more and we hope that extensive use will be made of the tables and the tapes.

One way of examining the data is to look just at the 1972-73 results and examine the differences in consumption patterns among different family types. Another is to make comparisons with data from the 1960-61 Survey and see what changes have taken place. Still another is to compare with other sources of expenditure information which requires great care. Obviously, if a set of expenditure data associated with socioeconomic characteristics were readily available from another source there would be no need to have a BLS survey. We are instead limited to making imperfect comparisons between series that are different in concept, coverage, and methodology.

It is a well-known observation that as income rises, the proportion of income spent on food falls. A comparison of the food at home to income ratios in 1960-61 and the 2 years of the diary confirms this relationship within each period and between the periods.

FOOD AT HOME AS A PERCENTAGE OF INCOME BEFORE TAXES 1ST-YEAR AND 2d-YEAR DIARY

Food expenditure	1960-61	1st year diary ¹	2d year diary ²
Total reporting income.....	15.8	11.6	12.1
Lowest 10 percent.....	36.8	58.2	57.3
2d.....	26.9	29.2	30.3
3d.....	22.6	22.1	22.1
4th.....	20.7	17.5	17.9
5th.....	18.6	14.9	15.1
6th.....	18.1	12.9	14.0
7th.....	16.6	12.1	12.0
8th.....	15.4	10.5	10.8
9th.....	13.9	9.1	9.5
Highest.....	9.7	6.2	6.5

¹ May 15, 1967 release.

² BLS Report 480 2.

Note that the decline has taken place for every income group except the lowest 20 percent with the third decile staying the same. This contrary movement of the ratio at the low end of the income range can probably be attributed in part to the food stamp program, which supplements incomes of low-income families by an increment that is not reported as income but appears in expenditures for food.

The data can also be looked at in the cross section to examine the behavior of different kinds of families at a point in time. The average family with age of head 45-54 spends about 20 percent more on clothing than the 25-34 group. I emphasize these age groups because by 1980 the households headed by age group 45-54 is expected to decline in absolute numbers and even more as a proportion of the growing total. The younger group is projected to constitute almost one-quarter of all households. Families in the declining age group have higher incomes and expenditures in general, spending 50 percent more on domestic new cars in 1972 than did the younger group. Differences in spending patterns by age of head, combined with Census projections of age of population, may have implications for the demand for particular industries and products.

Changes in the size of family also influence changes in spending patterns. The average family size in the surveys has declined from 3.2 to 2.9. One- and 2-person families now constitute more than 50 percent of total families. One of the interesting observations from the diary data is that since 1960-61 food away from home has increased significantly as a proportion of total food, from 17 percent to 27 percent. Part of this increase results from the relative increase in younger household heads who spend a higher than average proportion of their food budgets on food away from home. Additional factors in the shift to food away from home, which is found throughout the income distribution, are the greater participation of married women in the labor force and the development of the fast food industry.

One more interesting note about another newsworthy product, gasoline. The diary shows an increase of 38 percent in real consumption of gasoline per consumer unit since 1960-61, accompanied by an increase in the average number of vehicles from 1.0 to 1.3. A somewhat star-

ting indication of the importance of gasoline in the average family budget is that expenditures for gasoline in 1972-73 were an amount equal to about 30 percent of the amount spent for food at home.

These observations are only the tip of the iceberg. The vast amount of data to be available will generate a good deal more research in the future. However, it is clear that even more current data are needed for all the uses stated earlier. To serve this need BLS is proposing a continuing consumer expenditure survey. Planning for this activity has begun but final funding has not yet been received. We are hoping that the administration and the Congress agree with us to the importance of continuous expenditure data and that the work can go ahead.

CONSUMER EXPENDITURE SURVEY PUBLICATIONS

Date of publication	Publication No.	Coverage
DIARY SURVEY		
August 1976.....	BLS report, 448-3.....	2d-yr diary data, cross tabulations, selected average weekly expenditures, covering the period July 1973 to June 1974.
April 1976.....	BLS report, 448-2.....	2d-yr diary data, 1-way tabulations, selected average weekly expenditures covering the period July 1973 to June 1974.
November 1975.....	BLS report, 448-1.....	1st-yr diary data, cross tabulations, selected average weekly expenditures covering the period July 1972 to June 1973.
May 1975.....	USDL press release 75-276.....	1st-yr diary data, 10 1-way tabulations, selected average weekly expenditures covering the period July 1972 to June 1973.
April 1975.....	USDL press release 75-212.....	1st-yr diary data, 10 1-way tabulations, selected average weekly expenditures covering the period July 1972 to June 1973, including a narrative by Julius Shiskin, Commissioner of BLS, discussing preliminary findings from the dairy survey.
INTERVIEW SURVEY		
December 1976.....	BLS report, 455-3.....	A report on average annual expenditures classified by family characteristics, 1972 and 1973.
May 1976.....	BLS report, 455-2.....	Average annual expenditures for selected commodity and service groups classified by family characteristics, 1972 and 1973.
February 1976.....	BLS report, 455-1.....	Motor vehicle purchases and repairs selected average annual data from 2-yr interview survey for 1972-73.

Note: Also available upon request, selected data on food stamp participants in machine tabulation form.

OTHER PUBLICATIONS

Carlson, Michael, The 1972-73 Consumer Expenditure Survey, MLR Reprint 3018.

Shiskin, Julius, Updating the Consumer Price Index—An Overview, MLR, Reprint 2979. The Consumer Price Index: How Will the 1977 Revision Affect it? BLS Report 449.

Family Budgets, BLS Handbook of Methods, Bulletin 1711, Chapter 9.

Jacobs, Eva E., Progress Report on the 1972-73 Consumer Expenditure Survey, 1972 Proceedings of the Business and Economic Section, American Statistical Association.