

HOUSEHOLD SPENDING PATTERNS:

An Investigation of the Structural Changes in U.S. Retail Spending

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Overview

Competing at retail has been a real challenge over the last decade. It has been terribly difficult to survive, and darned near impossible to thrive as a retailer in the 1990s. The structure of consumer spending has changed, wreaking havoc on the structure of retailing in the United States and confounding shopping center development. This study looks at changes in consumers' spending patterns using summary and household data from the Consumer Expenditure Survey conducted by the Census Bureau for the Bureau of Labor Statistics. A broad look at historical spending since the mid-1930s shows how spending on food as a percent of total household expenditures has declined, as has apparel spending. On the other hand, the proportions of the budget given to food away from home, housing, and transportation have increased. Four years of data — 1973, 1984, 1990 and 1994 — were selected for a more detailed analysis. Within these years a number of spending pattern changes emerge. A deeper look at the data using cluster analysis reveals two similar spending groups in 1973 and in 1994. These groups, which we've labeled "Got Money, Let's Go" and "Just Getting By," seem to represent opposite ends of the spending continuum.



■ Background

Competing at retail has been a real challenge over the last decade. The Christmas seasons especially have been less than jolly for retailers the past few years. Despite high levels of employment and consumer confidence, Christmas season sales have been somewhat less than spectacular for most retailers. Consumers have grown more value conscious (Sack, 1995) and have been conditioned to expect frequent discounts.

Competition for consumers' retail expenditures is raging and is likely to intensify greatly. Retail space per capita has increased from 9 square feet in 1975 to 18 square feet in 1990 (Roulac, 1994). Constant dollar (1992) retail sales per square foot have fallen from more than \$230 in 1972 to less than \$170 in 1994. That represents a *real* decline of more than 25%. Simply put, every retailer is competing with every other retailer and new forms of retail competition (e.g., telemarketing, interactive television, shopping on the Internet) are emerging. Direct mail marketing of retail products has been growing by 8% to 12% per year in the U.S., as well as throughout Europe and Australia.

Mergers and acquisitions of mid-sized or "middle-market" companies in 1996 broke all previous records in the number of transactions. In 1980, the Fortune 50 largest retailers in the U. S. accounted for 35% of retail sales. In 1995, that group accounted for 43% of all sales. Concentration is growing dramatically. Boutiques and giants are thriving, but the mid-sized companies are struggling to stay alive.

The U.S. marketplace, once called a "melting pot" in which principally western Europeans were assimilated into an *American culture*, has changed. Hispanic, Asian and African-American segments are growing at such a pace that the "melting pot" is fast becoming a "patchwork quilt" with tremendous differences in patronage patterns and cultural influences across the several "ethnic patches." The cultural landscape of America is becoming much more diverse and this will continue into the next century. Of a total population of 267 million in the U.S. today, about 25 million are Hispanics. The Hispanic population is forecast to grow to nearly 40 million by the year 2010 and to exceed the African-American population at that time. By 2050, Hispanics are projected to represent 22.5% of the U.S. population (Bogie, 1996).

The Asian-American population more than doubled in the 1980s to its present level of more than eight million and is projected to grow by the year 2000 by an additional 40%. That will raise the Asian-American population to 11 million. By the year 2010, demographers predict that more than one-third of the U.S. population will be black, Asian or Hispanic. Further, by 2030, 40% of the U.S. population will be nonwhite.

The U.S. is fast becoming much more multicultural and this is impacting retail and shopping center development strategies.

From 1990 to 1994, average annual household expenditures fell 10.4% for apparel, 9.4% for food, 17.3% for food away from home, and 2.8% for entertainment, while spending increased by less than 5% for health care, transportation, and cash contributions (Edmondson, 1996). Consumers' *spending patterns* appear to be changing dramatically. Projections for the year 2000 are not very optimistic with indications that spending in the average U.S. household will increase by less than 2%; nevertheless, with the total number of households increasing, aggregate spending is forecast to be more than \$3.2 trillion (*American Demographics*, 1995). This puts an optimistic spin on the facts, for the U.S. population is growing by less than 1% per year and retail spending is not likely to exceed that by much, if at all.

That the demography and culture (e.g., lifestyles) of U.S. households is changing dramatically is clear. Between 1995 and 2005, the number of persons aged 40 to 60 years will increase by 60%. The 20- to 30-year-old segment of the population will decline. As the front edge of the baby boomers turns 50, will there be a concomitant shift in their spending habits? Du and Apfel (1995) indicate that "demographic and lifestyle shifts that drive shopping behavior tend to be gradual and long-lasting." Much of the change in spending patterns over the past 30 years has been attributed to the lifestyles and preferences of the "baby boomers," persons born during the 20 years following World War II. Will the next 20 years see a continuing impact by this age cohort? Most certainly, "yes." Perhaps more importantly, will their spending patterns be similar to their parents' during the same stage in life? The likely answer is "no."

There have been other changes in American culture over the past couple of decades. The concept of *business casual* dress, unknown in 1973, has become common on at least an occasional basis and some companies have shifted to this style on a daily basis. The term "downsizing" has been introduced to the vocabulary of workers and management alike. This impacts worker perceptions of job security, consumer confidence, and ultimately consumer willingness to spend what little discretionary income is available on non-essentials. Technology has made possible tremendous efficiencies in consummating transactions and mass customization. For example, satellites, inventory information systems and express transportation have made possible the explosive growth in catalog/direct mail retailing. What the future holds for electronic retailing or retailing on the Internet is likely to emerge within 10 years.

In the midst of all of these "changes," retail expenditure patterns by households have changed. How have they changed? That is the research

question we addressed. This research examines how American households have *changed* their expenditure allocations in the past two decades. The focus is on the percentage of the budget allocated by households to various expenditure categories, in lieu of a strictly dollars orientation. Clearly, household expenditures have grown; however, consumers' proportionate allocations of their disposable incomes have shifted away from some and toward other categories of goods and services. We examine demographic variables to see how they have been related to allocation shifts. Our hypothesis is that there has been a shift in spending patterns across the U.S. We believe that consumers are allocating their disposable incomes to different sorts of goods and services than they have in the past and that these different allocations are not being captured by traditional reports of retail sales activities. Further, we believe that the structures of spending patterns among U.S. households have changed.

■ Literature Review

The spending habits of American consumers have been studied for over 100 years. The Bureau of Labor Statistics (BLS) in the U.S. Department of Labor first surveyed American families about their spending in 1888 in connection with setting tariffs in BLS Bulletin 1684, (U.S. Department of Labor, 1971). Urban surveys in 1901 and 1917–19 were used to develop the Cost of Living Index, now known as the Consumer Price Index.

The data from the BLS surveys through the years have served as the foundation of many studies on consumer behavior. Data from the 1972–73 Consumer Expenditure Surveys (CEX) have been used to determine the predictive ability of family life cycles (Wagner and Hanna, 1983); to compare spending patterns of older (65+) versus younger (<65) consumers (Fareed and Riggs, 1982); and to estimate the impact of demographic variables on demand (Ketkar and Cho, 1982; Barnes and Gillingham, 1984; Ketkar and Ketkar, 1987).

Studies using later years of the CEX looked at expenditures for urban consumers (Giese and Rogers, 1986); variations in spending for metropolitan and non-metropolitan cities (Banta, 1989); the impact of working wives on family expenditures (Jacobs, Shipp and Brown, 1989); the impact of married women's employment on clothing expenditures (DeWeese and Norton, 1991); spending for services (Soberon-Ferrer and Dardis, 1991); spending for clothing by individual household member (Nelson, 1989); expenditures by singles (Shipp, 1988); leisure expenditures (Dardis, Soberon-Ferrer and Patro, 1994); contrasting renters' ver-

sus homeowners' expenditures (Paulin, 1995); the impact of various household life-cycle stages on expenditures (Wilkes, 1995); the pattern of expenditures for families receiving public assistance (Passero, 1996); and the impact of health care costs on consumer spending (Paulin and Weber, 1995).

These studies looked at many categories but used only single year or adjacent years' data from the CEX. The BLS has prepared a number of bulletins that provide a summary of longitudinal data. Further, economists with BLS have published a few studies using data from several years of surveys. For example, Gray (1992) looked at spending for durables and services from 1980–1990; Rogers (1988) compared spending by urban and rural customers in 1972–73 and 1985; and Lippert (1985) studied travel spending for the years 1972–73 and 1980–81.

Other published studies using longitudinal CEX data include a comparison of spending for 1972–73 versus 1982–83 (Bloom and Korenman, 1986); spending on necessities for elderly households as compared to nonelderly households in 1980–81 versus 1989–90 (Rubin and Koelin, 1996); and estimation of Euler equations using 1980–87 data (Lusardi, 1996).

■ Research Method

The greatest hurdle facing researchers interested in consumer expenditure pattern changes over time has been the difficulty of accessing valid and reliable data. Collecting contemporary data is extremely expensive. Gathering primary data on long past expenditures is not likely to yield valid data. We turned to the BLS Consumer Expenditure Survey.

The Consumer Expenditure Survey

This study uses data from the Consumer Expenditure Survey (CEX)¹ which is conducted by the Census Bureau for the BLS. Using a combination of interview surveys and diary surveys, the CEX provides a continuous flow of data on expenditures of consumers. The CEX accounts for approximately 95% of all consumer expenditures. The survey was developed and is still used to determine the Consumer Price Index in the United States.

A national probability sample is generated from Census files, augmented to ameliorate recognized Census deficiencies. The overall response rate for 1994 (based on eligible housing units) was 83%; other years have similar response rates. Beginning in 1972, the CEX was de-

signed to collect expenditure data using two approaches — a quarterly personal interview and a diary-method survey. The two approaches were developed to balance countervailing research concerns. The quarterly interview is particularly suited to gather information on larger and more easily recalled expenditures. The diary method is particularly adept at capturing small, less expensive items on a day-to-day basis. Persons in approximately 5,000 households are interviewed each quarter for the interview portion of the survey. An interviewer visits each household in the panel every three months over a period of 15 months. The diary survey has a completely independent sample that is sent a diary to record all expenditures for two consecutive one-week periods. Both approaches have consumers indicate the amount paid (including sales and excise taxes) for goods and services purchased during the study time frame, even if payment is not actually made at the time of purchase (for example, credit card purchases).

Business-related expenses and expenses on items for which the household will be reimbursed are not included in either survey. Results from the two surveys are integrated to provide an overall assessment of consumer spending.

The BLS provides summary tables of the weighted integrated data. The individual household data are weighted to ensure the total sample is representative of the U.S. population. Information in the BLS summary tables reflects averages for consumer units with particular characteristics such as family size, age of family head, race, etc. We will be showing some information from these tables in order to explain changes in spending over time.

To understand how household demographics may affect levels of expenditures for particular categories, this study uses individual household data from the interview portion of the CEX for in-depth analysis. We will discuss specifics of the data we used in the Data section.

The CEX has been conducted on an annual basis since 1980. Prior to 1980, it was conducted in 1972–73, 1960–61, and roughly every 10 years before that. Because of changes in the survey methodology with the two-approach survey method begun in 1972, the data for 1960–61 are presented in summary form; they are not included in the detailed analysis conducted for this study. All CEX surveys prior to 1980 automatically used the husband as head of household and may not fully represent single women- or student-headed households.

From year to year some changes are made in the survey. Often this involves changes to coding categories to allow for more detailed reporting as products become more prevalent. For example, in 1994 the code for “water and miscellaneous sports equipment” was subdivided into “water sports equipment” and “other sports equipment.” Other changes

may include re-coding particular answers for a variable. For example, in 1994 the variable INCNONWK was changed to show “retired” as a code “1,” whereas in 1993 it had been a code “5.” Such changes are examples of why many researchers chose to use a single year of data. Nevertheless, the BLS works to ensure that the surveys provide continuity with the *content* of their previous studies.

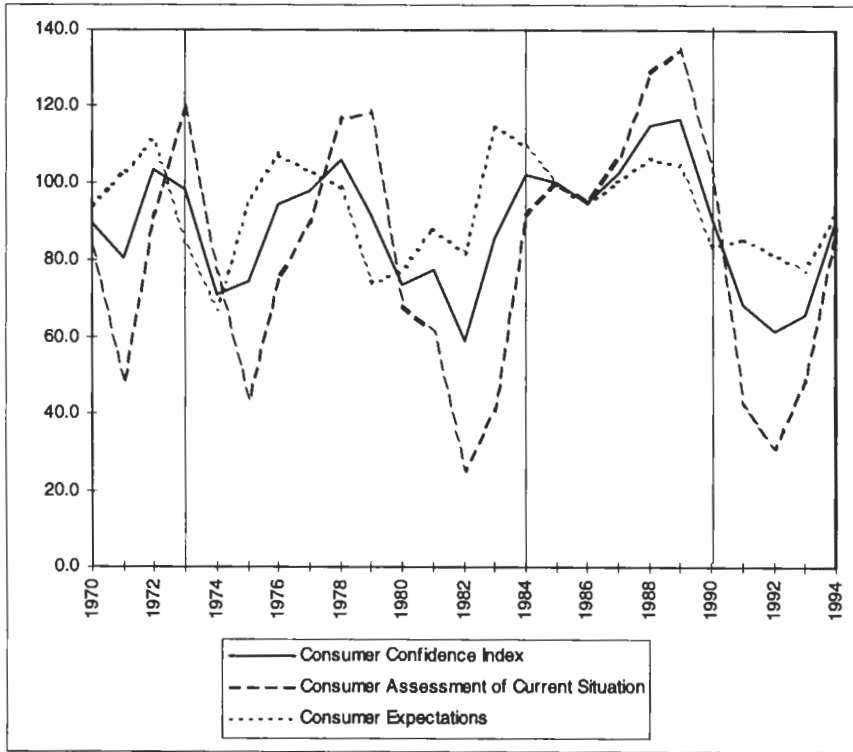
Because of the enormous amount of data involved and the many checks that are taken to ensure the integrity of the data, it has often been several years after the survey before results have been made available. The 1972–73 integrated summary tables were published in a bulletin from the Department of Labor in 1978. The 1984–86 results were published in 1989. As technology has advanced, the delay in availability of results has decreased. The 1994 individual data and the summary tables were available in the last half of 1996. Some data can be accessed now on the BLS Web site on the Internet (www.bls.gov).

We’ve identified the years that the CEX has been conducted. Now we will define how we chose the four years used in our detailed analysis. When one studies changes in expenditure allocations over time, a potential confound is “economic climate.” In other words, overall consumer spending may be distinctly different in particular years due to economic conditions. Katona (1975) has indicated that consumer expectations/sentiment impact expenditures. This is especially true for expenditures for discretionary goods — those over which consumers exercise considerably more control. Consumers who lack confidence about the future may delay the purchase of a new automobile or clothing; however, their food and home mortgage payments are not likely to be greatly affected by their concerns about the economy.

To compare household expenditures over relatively comparable time periods and eliminate the potential “economic confound,” we examined three economic indicators that are published by The Conference Board: Consumer Confidence Index, Consumer Assessment of Current Situation and Consumer Expectations. These measures are reported monthly by The Conference Board and aggregated into annual estimates. While not the only indicators of economic performance that we might have assessed, these three measures are certainly reliable indicators.

Chart 1 shows the level for each measure for 1970–1994. We balanced concern for the impact of economic conditions with the need to represent the time span within the limitations of the data availability. The BLS conducted CEX studies only in 1972 and 1973 during the decade of the 1970s. Because of governmental budget cuts, the 1980–83 studies were limited to urban areas; for this reason these years were not considered for this study. Four discrete years were selected for detailed analysis (1973, 1984, 1990, and 1994). The three Conference Board in-

**Chart 1. Economic Climate Indicators:
Conference Board Measures**



icators are very similar for each of these years. Thus, the impact of economic climate confound for consumer spending patterns in these years should be minimal.

Data

The previous section provided details of the history of the CEX and our rationale for the years of data that we selected for further analysis. In this section we will discuss the nature of the data that are available and identify what data are used in our detailed analysis.

Prior to 1996, CEX summary data were available in bulletins and in the late-80s on computer diskettes. Individual household data were available only on tapes for mainframe computers. In 1996 the BLS began releasing data on CD-ROM. This makes the information much more ac-

cessible to researchers and is likely to result in many more research projects using these data.

Nevertheless, even dealing with one year of data on major categories is not for the faint of heart. The CD-ROM for 1994 contains four directories with a total of 103 files for the 1994 Interview and Diary surveys, as well as a folder of summary data for several years. This represents 131,070 KB of information. We used data from three CD-ROMs, for 1994, 1990, and 1984, together with data from a computer tape for 1973. The interview portion of the survey was used since it provides detail on both ongoing expenditures as well as occasional purchases. Information from the BLS indicates that the Interview survey provides a good understanding of consumer spending.

A key concern associated with the use of published, secondary data such as the CEX data is the accuracy and integrity of the data. Because the CEX is used in determining CPI, which has a major impact on the national economy, this survey and its data have been subjected to numerous integrity checks. Comparisons with independent data sources to check the accuracy of consumers' reports show that the CEX typically performs well in accounting for consumers' spending (Gieseman, 1987; Branch, 1994). The CPI itself has been the center of some debate lately, but this controversy essentially focuses on the nature of consumer substitution and the improvements in products and services, rather than on any concerns with the integrity of the data (Passell, 1996).

For 1984, 1990, and 1994 the data are provided for individual quarters. To provide an annual assessment of spending for these years, one may analyze by quarters, but no quarter would be directly comparable to the 1973 data, which are available only for the entire year. Another option is to attempt to annualize and weight the data so that the summed data represent average household annual expenditures. Such data are available in summary form and will be presented for trend analysis. We are concerned, however, with trying to get beyond overall trends to a better understanding of consumer behavior. For this reason, we determined that additional analysis of household data provided for all four quarters of the survey would allow us to identify similar consumer spending groups by using cluster analysis. Then we determine how clusters may be changing and how particular group behavior may be changing over time. Using data for households that provide four quarters of data also ensures that any spending seasonality is not washed out.

To identify our sample, data files for the four quarters were merged and household identifiers were used to select those households that completed four quarters of interviews. Since some respondents are changed off the panel each quarter and some households fail to complete

the survey for some quarters, the annual samples are reduced to about 1,000 cases. The data for 1973 are different because the survey was done only once that year rather than quarterly. For 1973 we included households who reported data for the entire year. This eliminated the few part-year households and left a sample of 9,734 households.

CEX survey respondents report expenditures for the quarter of the interview as well as expenditures for the previous quarter. Since the timing of the interview (i.e., first month of quarter versus last month of quarter) could distort the reported expenditures, we analyze the data on previous quarter expenditures.

There have been some changes in the specific products/services that are represented. Because of these differences, this analysis focuses on the major categories of expenditures. Appendix A includes a full description of the specific items included in each category of the interview.

In looking at expenditure data across time, the changing value of the dollar is an issue. In other words, nominal dollar expenditures are reported and these do not reflect the impact of inflation on prices or expenditures. This can be treated in two ways. We could have expressed all expenditures in constant dollars or as a percentage of total household expenditures. Since our major research objective is to discern differences in consumers' patterns of expenditures over time, we elected to analyze categorical expenditures as a percentage of total household expenditures for each year. So for each individual household in our sample, we summed the expenditures for each category across the four quarters and then divided this sum by the household's total annual expenditures. Charts that do show dollar expenditures in this report are expressed in nominal amounts, unadjusted for inflation.

■ Results

In this section we look at historical data to see how consumer budget allocations for major categories have changed over the past 60 years. We will then examine spending trends for more specific categories for the four years in our study, showing both average dollars spent and spending as a percentage of total expenditures. All of these summaries are based on weighted summary tables from BLS.

Next, we will look at the demographic characteristics of our sample data — households that provided expenditure data for a full year. We follow this with a review of spending patterns for these households. These data are unweighted; they represent the actual expenditures of the sample. In the finale to this section clusters of consumers are identified

by spending patterns for 1973 and 1994. The nature of the clusters is elucidated and variations between the two decades are discussed.

■ An Historical Perspective on Consumer Spending

Malthus' prediction of "the perpetual struggle for room and food" (Cohen and Cohen, 1993) was perhaps not out of place for the United States in the 1930s. However, the spending patterns have changed substantially since then. BLS data on average household consumption expenditures for 1935–36, 1960–61, 1987–88 and 1993–94 are shown in Table 1. The data reported here are based on surveys of a very large number of households during each time period. Nearly 40,000 U.S. households participated in the 1935–36 survey and this grew to more than 100,000 participating households in 1993–94.

Nearly two-thirds of consumers' expenditures were for food (33.6%) and housing (32.3%) in the mid-1930s. The U.S. and Europe were in the midst of a great depression and a large percentage of American consumers struggled to survive.

The American economy was boosted by the war effort (World War II) and later by the explosion of pent-up demand following the war. Also, as a result of improved techniques in agriculture and food distribution, which drove food prices down, the allocation of household expenditures changed considerably. In 1960–61, food accounted for one-fourth of the typical consumer's expenditures. By 1993–94, it represented just 16.4% of the total. The average U.S. household's spending for food fell consistently from 33.6% of all expenditures during the depression years to only 16.4% of all expenditures in 1993–94.

The proportionate amount of all expenditures Americans spend on food away from home has increased, however. In the early 1960s and 1970s, Americans spent slightly less than 5% on food away from home. In 1987–88, this rose to 7.3% and was 6.2% of all expenditures in 1993–94. While a 1% change might seem inconsequential, consider that 1% of the average consumption expenditures for 1993–94 was \$263.76 (1% of \$26,376). Multiply this by the number of households in the U.S. (101,130,000) and notice that a 1% change in the average household's spending in a category represents roughly \$26.6 billion — a somewhat consequential amount. What remains to be seen is whether the slight decline in 1993–94 was an anomaly or the beginning of a return to previous levels.

TABLE I. AVERAGE CONSUMPTION EXPENDITURES AND PERCENT DISTRIBUTION²

	1935-36	1960-61	1972-73	1987-88	1993-94
Number of consumer units (in thousands)	39,458	55,306	71,220	94,506	101,130
Income before taxes	\$1,502	\$6,253	\$11,726	\$27,934	\$35,854
Consumer unit size	3.2	3.2	2.9	2.6	2.5
Current consumption expenditures	\$1,273	\$5,056	\$7,920	\$21,443	\$26,376
Percent distribution of consumption:					
Food	33.6	24.4	21.2	17.0	16.4
Food at home		19.6	16.5	9.7	10.2
Food away		4.9	4.8	7.3	6.2
Housing	32.3	29.0	31.4	35.5	36.5
Clothing	10.4	10.3	8.2	5.9	5.3
Transportation	9.3	15.2	22.0	22.4	21.6
Medical care	4.4	6.7	5.4	5.5	6.5
Insurance		1.8	1.9	2.0	3.1
Other medical care		4.9	3.5	3.5	3.5
Recreation	3.3	4.0	4.7	5.6	5.7
Other	10.0	14.3	11.8	13.8	13.7

The increase in spending on food away from home may be due in part to the increase in two-earner households. In 1950, only 23.8% of the wives in households with married couples worked. This grew to 30.5% in 1960, 42.2% in 1973, 54.2% in 1985 and reached 60.6% in 1994 (U.S. Bureau of Labor Statistics, Bulletin 2340, 1995). The incidence of two earners in a household is likely to increase household income and this makes more discretionary income available. The incidence of two workers in households is also likely to impact the time available for preparing meals at home. Thus, persons living in dual income households may spend disproportionately more on food eaten away from home because of the hectic pace of their work lives.

There is mixed evidence on this phenomenon. Rubin, Riney and Molina (1990) found that spending differences were more affected by income rather than the wife's working status when they analyzed expenditures for 1972–73 and 1984. A study of 1989 consumer expenditures by Pol and Pak (1995), however, showed that both income and race impact the level of spending on food away from home. The rise in single-person households may also be influencing this consumption category in the 1990s. Braus (1993) showed that single women under the age of 35 and all ages of single men spend more on food away from home than for food at home. The increased spending on food away from home may also reflect the greater variety of options available to Americans. Consider the extreme proliferation of fast food restaurants that has occurred in the past few decades.

After falling from 32.3% of household expenditures in 1935–36 to only 24.4% in 1960–61, the portion of budget spent on housing has been increasing. This category accounted for 36.5% of all expenditures in 1993–94. (See Table 1.) This could be due to the rising cost of housing or may reflect a tendency for people to use increases in income to “trade-up” by buying bigger houses. For whatever reason, probably for several reasons, Americans are spending an increasingly higher amount of the household budget on housing. Particularly startling is that food and housing expenditures each accounted for about a third of household expenditures in the mid-1930s; today, housing expenses are more than double the proportionate expenditures on food (36.5% on housing versus 16.4% on food).

Spending on clothing has shown a steady decline as a percentage of all household expenditures, with the 1993–94 level (5.3%) at roughly one-half the average level of 1935–36 (10.4%). Articles in *The New York Times* have suggested that this decline may be attributable to changes in the market for women's apparel (White, 1996; Steinhauer and White, 1996). Specifically, they suggest that fashion has lost touch with the

large baby-boomer market; that women are no longer as driven by fashion; and that trends toward casual clothes for work have driven sales down. Too, the glut of retail space has forced many retailers to lower prices. Heightened competition has squeezed almost all retailers' margins. Many retailers have shifted to either high/low pricing or everyday low pricing (EDLP) strategies. The high/low strategists set prices above their competition but promote sales frequently. The EDLP strategists seek price continuity and set prices between regular non-sale prices and the deep discount prices of the high/low retailers. Both strategies lead to lowered gross profit margins on sales and lower prices for average consumer purchases.

Expenditures on transportation grew dramatically from the depression years level of 9.3% to 22% of household expenditures in the early 1970s. Since 1972–73, transportation has accounted consistently for over one-fifth of household expenditures. This category includes the purchase, rental, maintenance, gasoline, and insurance for vehicles, local public transportation, and transportation expenses for trips including air, bus, train, ship, and taxi.

Spending on medical care as a percentage of household expenditures grew by more than 50% between the mid-1930s and the early 1960s (from 4.4% to 6.7%) and then fell as a percentage of total household expenditures to 5.4% in the early 1970s. In the last decade, however, medical expenditures have grown again from 5.5% to 6.5% of all household expenditures. Insurance costs have accounted for the bulk of that increase.

The average U.S. household was spending only 3.3% of its total expenditures on recreation in the mid-1930s. This grew to 4% in 1960–61. By 1993–94, this had grown to 5.7%. This represents a greater than 70% increase in the proportion of household expenditures allocated to recreation between 1933 and 1994.

Clearly, consumers' spending patterns have changed over this century. In summary, these significant changes have occurred. Consumers spend:

- More on food away from home and considerably less on food at home
- More on housing
- Less on clothing
- Much more on transportation
- More on medical care
- More on recreation.

This might seem to be intuitively obvious to some. It is unlikely that the average consumer has recognized that while food prices have risen, this

category continues to represent an ever-smaller portion of their total budget. Probably most consumers would be surprised that total medical care is roughly the same portion of the spending dollar in 1993–94 as it was in 1960–61. Our purpose was to document the character and magnitude of the changes that have occurred.

■ More Recent and Detailed Trends

We've reviewed the historical trends and will now take a closer look at the four years that we use in our detailed analysis (1973, 1984, 1990, and 1994). First, we will look at summary data for the four years to examine spending trends for more detailed categories, such as furniture, major appliances, apparel and services for men 16 and older, women 16 and older, and pets, toys and playground equipment. Table 2 provides information on average dollars spent for each category and Table 3 gives spending per category as a percentage of total expenditures.

Average annual expenditures (nominal dollars) for the major spending categories as well as several sub-categories are reported in Table 2. These dollar figures are actual and do not account for inflation that occurred over time. The following categories experienced a **decline in nominal dollars** spent in 1994 when compared to 1990:

- food away from home
- alcoholic beverages
- housekeeping supplies
- apparel and services for men 16 and over
- apparel and services for women 16 and over
- tobacco products and smoking supplies
- other supplies, equipment and services for entertainment.

Since the dollar amounts reported in Table 2 are not adjusted for inflation, these represent really significant reductions in spending. Given the changing value of the dollar from 1973 to 1990, it is not surprising that nearly all the categories show increases in dollar expenditures over this 17-year time span. There are two exceptions: average dollar spending on household operations was lower in 1984 than in 1973; average spending for apparel and services for boys 2 to 15 was unchanged between 1984 and 1990 (\$70).

By looking at consumer expenditures as a percent of average total expenditures as reported in Table 3, the impact of inflation is no longer a factor and changes in patterns of spending become evident. These nine product categories all show a downward pattern as a percent of overall

TABLE 2. AVERAGE ANNUAL EXPENDITURES: DETAILED CATEGORIES (WEIGHTED DATA)

	1994	1990	1984	1973*
Number of consumer units (in thousands)	102,210	96,968	90,223	71,220
Income before taxes 1/	\$36,838	\$31,889	\$23,464	\$11,419
Income after taxes 1/	\$33,755	\$28,937	\$21,237	\$9,731
Average annual expenditures	\$31,751	\$28,381	\$21,975	\$8,253
Food	4,411	4,296	3,290	1,625
Food at home	2,712	2,485	1,970	1,181
Food away from home	1,698	1,811	1,320	426
Alcoholic beverages	278	293	275	115
Housing	10,106	8,703	6,674	2,531
Shelter	5,686	4,836	3,489	1,302
Utilities, fuels, and public services	2,189	1,890	1,638	404
Household operations	490	446	315	442
Housekeeping supplies	393	406	307	135
Household furnishings and equipment	1,348	1,125	926	383
Household textiles	100	99	86	50
Furniture	318	310	270	130
Floor coverings	120	92	78	41
Major appliances	149	147	143	90
Small appliances, miscellaneous housewares	81	75	67	19
Miscellaneous household equipment	581	402	282	54

Apparel and services	1,644	1,618	1,319	554
Men and boys	395	393	350	213
Men, 16 and over	305	324	280	-
Boys, 2 to 15	90	70	70	-
Women and girls	652	673	524	302
Women, 16 and over	552	586	444	-
Girls, 2 to 15	100	87	79	-
Children under 2	80	70	50	14
Footwear**	254	225	185	-
Other apparel products and services	264	258	211	-
Transportation	6,044	5,120	4,304	1,588
Health care	1,755	1,480	1,049	528
Health insurance	815	581	370	196
Medical services	571	562	454	275
Drugs	286	252	167	-
Medical supplies	83	85	58	-
Entertainment	1,567	1,422	1,055	-
Fees and admissions	439	371	313	-
Television, radios, sound equipment	533	454	322	-
Pets, toys, and playground equipment	289	276	190	74
Other supplies, equip., and services	306	321	230	-
Personal care products and services	397	364	289	165
Reading	165	153	132	48
Education	460	406	303	100
Tobacco products and smoking supplies	259	274	228	129

1/ Components of income and taxes are from complete income reporters.

*1973 data from U.S. Department of Labor Statistics, *Consumer Expenditure Survey: Integrated Diary and Interview Survey Data*, Bulletin 1992, 1972-1973, Washington, D.C., U.S. Government Printing Office, 1978. All other data from BLS summary tables on CD-ROM.

**Footwear for 1973 is included in each subgroup of apparel.

TABLE 3. AVERAGE EXPENDITURES AS PERCENT OF AVERAGE TOTAL EXPENDITURES (WEIGHTED DATA)

	1994	1990	1984	1973
Average annual expenditures	\$31,751	\$28,381	\$21,975	\$8,253
	%	%	%	%
Food	13.89	15.14	14.97	19.69
Food at home	8.54	8.76	8.96	14.31
Food away from home	5.35	6.38	6.01	5.16
Alcoholic beverages	0.88	1.03	1.25	1.39
Housing	31.83	30.66	30.37	30.67
Shelter	17.91	17.04	15.88	15.78
Utilities, fuels, and public services	6.89	6.66	7.45	4.90
Household operations	1.54	1.57	1.43	5.36
Housekeeping supplies	1.24	1.43	1.40	1.64
Household furnishings and equipment	4.25	3.96	4.21	4.64
Household textiles	0.31	0.35	0.39	0.61
Furniture	1.00	1.09	1.23	1.58
Floor coverings	0.38	0.32	0.35	0.50
Major appliances	0.47	0.52	0.65	1.09
Small appliances, misc. housewares	0.26	0.26	0.30	0.23
Miscellaneous household equipment	1.83	1.42	1.28	0.65
Apparel and services	5.18	5.70	6.00	6.71
Men and boys	1.24	1.38	1.59	2.58
Men, 16 and over	0.96	1.14	1.27	-
Boys, 2 to 15	0.28	0.25	0.32	-
Women and girls	2.05	2.37	2.38	3.66
Women, 16 and over	1.74	2.06	2.02	-
Girls, 2 to 15	0.31	0.31	0.36	-
Children under 2	0.25	0.25	0.23	0.17
Footwear	0.80	0.79	0.84	-
Other apparel products and services	0.83	0.91	0.96	-
Transportation	19.04	18.04	19.59	19.24
Health care	5.53	5.21	4.77	6.40
Health insurance	2.57	2.05	1.68	2.37
Medical services	1.80	1.98	2.07	3.33
Drugs	0.90	0.89	0.76	-
Medical supplies	0.26	0.30	0.26	-
Entertainment	4.94	5.01	4.80	-
Fees and admissions	1.38	1.31	1.42	-
Television, radios, sound equipment	1.68	1.60	1.47	-
Pets, toys, and playground equipment	0.91	0.97	0.86	0.90
Other supplies, equip., and services	0.96	1.13	1.05	-
Personal care products and services	1.25	1.28	1.32	2.00
Reading	0.52	0.54	0.60	0.58
Education	1.45	1.43	1.38	1.21
Tobacco products and smoking supplies	0.82	0.97	1.04	1.56

expenditures. That is, expenditures in these categories are shrinking as a percentage of total spending.

- food at home
- alcoholic beverages
- household textiles
- furniture
- major appliances
- apparel and services (overall, as well as some sub-groups)
- medical services
- personal care products and services
- tobacco.

For example, the proportion of total spending for food eaten at home declined consistently from 1973 (14.31%) to 1984 (8.96%) to 1990 (8.76%) to 1994 (8.54%). Simply, Americans are spending less as a percentage of their total expenditures in this category. While it might surprise some, this is also true of spending for medical services, which has declined from 3.33% of all spending in 1973 to only 1.8% in 1994. This may reflect an increased coverage of services by medical insurance.

In contrast, shelter, miscellaneous household equipment, health insurance, and television, radios and sound equipment have shown a pattern of increased expenditures. In the housing category, for example, spending on shelter has increased from 15.78% to 17.91% of total spending. That is a 13.5% increase in the proportion of spending in this category. Entertainment expenses were not reported in 1973 but have held steady at around 5% of all spending in the 1984, 1990 and 1994 periods. Spending on utilities has grown from 4.9% of all spending to 6.89%, a 41% increase in this category's proportion of total spending since 1973.

Granted, some of the proportionate changes seem quite minor, but when multiplied by all U.S. households (more than 100 million) even a 0.1% change represents a substantial impact in terms of dollars.

■ Detailed Findings

In this section we report the demographics of the sample for each year. Then we look at a chart of expenditures for major categories. We conclude with an analysis of customer spending clusters for 1973 as compared to 1994.

The previous sections were based on summary data from the BLS that were weighted and included all participants. To delve further into the spending changes over time, individual household data were used

TABLE 4. DEMOGRAPHICS OF DATA SAMPLES**

Sample Size	1973	1984	1990	1994
	(9,734) %	(937) %	(975) %	(978) %
Urban	83.9	87.9	88.2	88.1
Rural	16.1	12.1	11.8	11.9
Married	68.8	62.1	61.7	60.7
Single, widowed, divorced	31.2	37.9	38.3	39.3
Male	77.6	67.9	63.9	64.8
Female	22.4	32.1	36.1	35.2
Elementary (1-8)	22.1	14.7	10.9	8.4
High school, less than grad	16.1	13.1	12.2	11.5
High school grad	31.9	30.4	32.5	30.6
College, less than grad	13.5	18.6	21.9	24.3
College grad or more	16.5	23.3	22.4	25.2
Under 25	6.8	3.4	2.3	2.8
25-34	20.2	20.1	20.5	16.0
35-44	17.0	20.3	21.8	25.2
45-54	19.2	16.9	17.0	20.8
55-64	17.0	15.9	15.5	12.2
65-74	12.0	14.5	14.1	12.7
75 and older	7.8	9.0	8.8	10.5
Single household	22.1	21.9	23.1	22.3
2 person household	28.4	31.9	30.1	30.0
3 person household	16.0	17.1	19.6	16.6
4 person household	15.7	16.5	15.7	18.7
5+ household	17.9	12.6	11.6	12.5

** Note specific information such as age, sex, education is for the reference person.

for the analyses that are discussed below. Unweighted data for households that completed four quarters of interviews were used for our analyses. This allows for expenditures that evidence a great deal of seasonality to be properly represented.

Demographic profiles of the respondents in our sample from the four surveys are presented in Table 4. When compared to respondents in 1973, the respondents in 1994 are more likely to be urban, a bit more educated, and older. They are slightly less likely to be married and to live in large households. In 1973, the head of household was more likely to be identified as male. The method for identifying head of household was changed in 1980; the increase in females represented is quite likely due at least in part to this data collection change.

In Table 5, all respondents are classified by nominal income into "approximate quintiles" from the lowest to the highest 20% of all households. The nominal incomes of the highest two quintiles have grown

TABLE 5. INCOME QUINTILES OF DATA SAMPLES

Year	1973	1984	1990	1994
Sample Size	9,339	937	975	978
	Income Range/%	Income Range/%	Income Range/%	Income Range/%
1	<\$3,500 18.9	<\$4,500 16.9	\$6,000 15.5	<\$6,000 15.2
2	\$3,500-7,000 20.1	\$4,500-10,500 17	\$6,000-15,000 19.1	\$6,000-15,500 18.2
3	\$7,001-10,600 19.9	\$10,501-19,000 20.6	\$15,001-25,500 19.2	\$15,501-28,500 20.1
4	\$10,601-15,000 20.8	\$19,001-30,000 21.5	\$25,501-42,500 22.6	\$28,501-47,000 22.7
5	\$15,001+ 20.2	\$30,001+ 24.1	\$42,501+ 23.7	\$47,001+ 23.7

much more than the incomes of the lower quintiles. For example, in 1973, households in the lowest quintile (actually 18.9% of all households surveyed) earned income less than \$3,500. By 1994, 15.2% earned less than \$6,000. In contrast, at the upper end, the top 20.2% earned an average of \$15,000 in 1973 but that amount more than tripled to \$47,000+ in 1994. In other words, the incomes of the highest income families have grown faster than the incomes of lower income families.

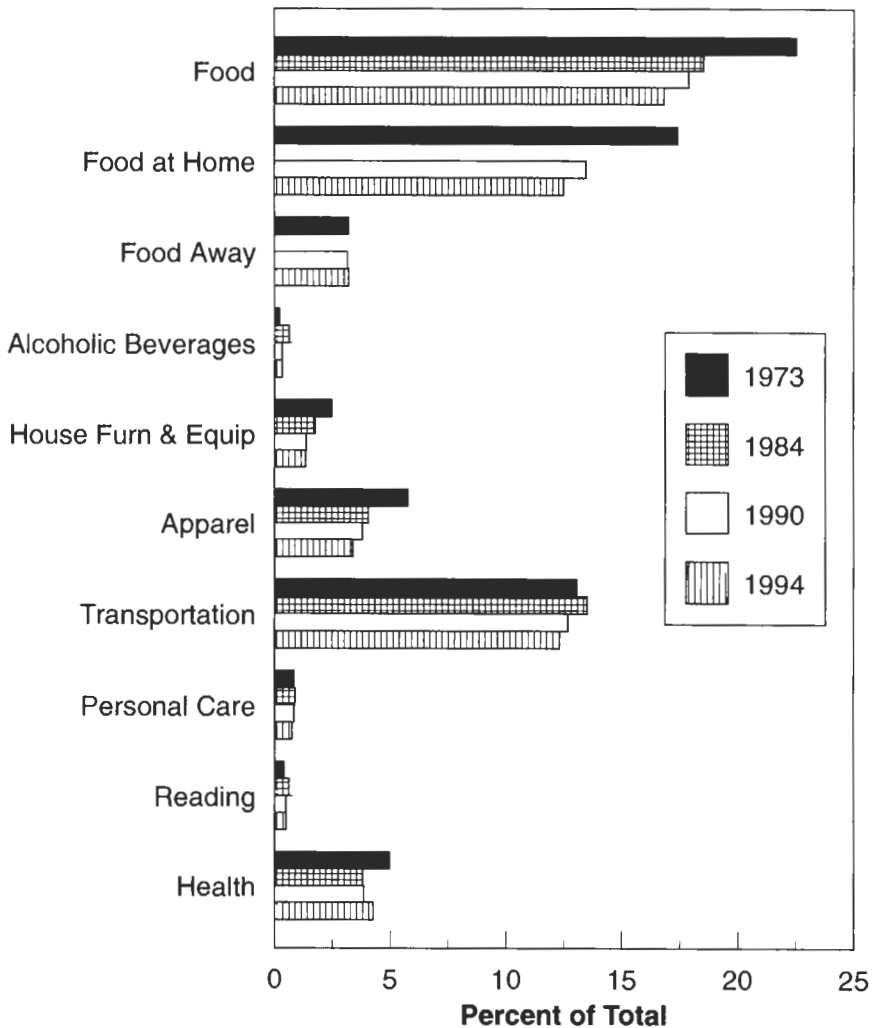
A picture of the changes that have occurred in the major expenditure categories across the four years is shown in Chart 2. Consistent with the full data sets, most expenditures as a percent of total spending in these categories declined from 1973 to 1994. Most households spent proportionately less in each of these major spending categories in 1994 than they spent in 1973.

To get a better understanding of consumer spending patterns, we used cluster analysis to study household spending across the major expenditure categories. Cluster analysis is a statistical technique that is used to combine observations, in this case households, into groups such that (1) observations within each cluster are similar (homogeneous) and (2) observations within each cluster are different from those in other clusters.

A separate analysis was run on the data for 1973 and 1994 using the information on each household's spending on the major categories as a percent of their overall spending. The four-group solution provided the most interpretable and interesting findings. Cross-tabulations of demographics by cluster group were run to evaluate what factors distinguish or define each cluster. Then, the median spending amounts for each category among the four clusters were determined. Two clusters with similar spending patterns appeared in both the 1973 and the 1994 cluster analysis. We've called them "Got Money, Let's Go!" and "Just Getting By." They appear to represent the outer limits of the spending continuum.

The median age of the "Got Money, Let's Go" group cluster was 44 in 1973 and 47 in 1994. Over three-fourths of the group were married. In 1973, 33% were under 35; in 1994, 54% were 35–54. This group may be very appealing to many retailers because of its relatively high level of household income and expenditures.

The "Got Money, Let's Go" cluster is comprised of the wealthiest households and they allocate over one-third of their spending to transportation. In 1973, households in this cluster accounted for 20.94% of all households. They enjoyed a median after-tax income of \$11,439. They spent a disproportionately high amount on transportation, 37.1% of their expenditures (\$4,270). This group also spent disproportionately on food away from home.

Chart 2. Major Expenditures

In 1994, this group earned a median after-tax income of \$40,661, and in that year they spent \$17,324 on transportation. This cluster in 1994, however, accounted for only 13.29% of the households, a much smaller group than existed in 1973.

It is possible that some of the households in this "Got Money, Let's Go" segment purchased a new vehicle during the interview time frames and/or spent a considerable amount on recreational travel. When considering the dollar values of expenses, this group spent more on nearly every category.

TABLE 6. 1973 CLUSTER GROUPS

	Got Money, Let's Go!	Middle of the Road	Young and Fun	Just Getting By
Median age	44	51	41	59
Count per cluster	2038	3743	3010	943
% of Total	20.94	38.45	30.92	9.69
Median income, after tax	\$11,439	\$8,757	\$9,128	\$4,264
Median values, % of total				
Food	16.67	28.66	15.52	44.82
Food at home	12.25	23.29	10.42	41.15
Food away	3.09	3.65	3.40	0.72
Alcoholic beverages	0.22	0.17	0.38	0.00
Household equipment	2.35	2.31	3.68	0.88
Apparel	4.89	6.08	6.52	4.26
Transportation	37.10	11.86	10.27	5.35
Personal care	0.68	0.96	0.76	0.72
Reading	0.33	0.44	0.45	0.18
Health	3.67	6.19	4.91	4.45
Median \$ values				
Food	\$1,746	\$1,909	\$1,104	\$1,809
Food at home	1,324	1,530	731	1,690
Food away	341	250	273	30
Alcoholic beverages	24	12	32	0
Household equipment	258	154	315	35
Apparel	535	400	522	150
Transportation	4,270	785	792	221
Personal care	70	62	60	30
Reading	37	30	38	7
Health	405	402	409	156

In 1994 the households in the "Got Money, Let's Go" cluster spent about 10% of their budget on food and about one-third of those expenditures (\$927) was for food away from home. While they spent nearly \$1,100 on apparel, this represented only 2.8% of their total expenditures as compared to 4.89% spent by the comparable group in 1973. Thus, the households with money that spent a great deal on transportation spent a relatively small percentage of their money on apparel.

The "Just Getting By" clusters in 1973 and 1994 were headed by persons who averaged 59 and 53 years old, respectively. These respondents devote a large portion of their total spending to food, but their expenditures on food as a percent of total has declined. In 1973, 44.82% of the group's expenses were for food. For a similar segment in 1994, only 31.77% of expenditures were for food. However, in both years their dol-

TABLE 7. 1994 CLUSTER GROUPS

	Got Money, Let's Go!	Most of America	Seniors	Just Getting By
Median age	47	44	70	53
Count per cluster	130	593	127	128
% of Total	13.29	60.63	12.99	13.09
Median income, after tax	\$40,661	\$37,000	\$17,986	\$12,549
Median values, % of total				
Food	10.26	16.47	18.11	31.77
Food at home	6.80	11.69	14.10	28.52
Food away	2.54	3.73	2.24	2.34
Alcoholic beverages	0.33	0.49	0.00	0.00
Household equipment	1.20	1.86	0.71	0.25
Apparel	2.81	3.89	2.35	2.97
Transportation	42.76	12.47	8.58	6.19
Personal care	0.56	0.76	0.88	0.83
Reading	0.31	0.51	0.70	0.31
Health	3.03	3.55	18.83	4.80
Entertainment	3.20	4.65	2.56	2.98
Median \$ values				
Food	\$3,536	\$2,854	\$1,672	\$2,225
Food at home	2,668	1,971	1,482	1,947
Food away	927	645	200	150
Alcoholic beverages	128	90	0	0
Household equipment	383	392	86	18
Apparel	1,093	730	216	192
Transportation	17,324	2,118	776	335
Personal care	205	134	96	67
Reading	100	94	65	18
Health	1,187	624	2,101	278
Entertainment	1,218	841	271	192

lar expenditures for food were the second highest, even though their median incomes were considerably lower than all other clusters. When so much of the budget is required for basics, little is left for other spending. Significantly, however, this segment has grown from 9.69% of 1973 respondents to 13.09% of the 1994 sample. The proportion of American households that are "just getting by" is growing. In 1973, about half were married and 40% were headed by a female. In 1994, only 38% of the households had married couples and 56% were headed by a female. The national trend toward single-person households headed by women is evidenced in this data.

The two other clusters for 1973 were labeled “Middle of the Road” and “Young and Fun.” The first group is the largest of the four 1973 groups, with 38% of the respondents classified here. Their spending on food in 1973 was second only to those “Just Getting By” and in actual dollars, they had the highest spending (\$1,909 on average for the year). While all groups except “Just Getting By” spent about \$400 on health expenses in 1973, the “Middle of the Road” group was hardest hit, with health taking 6.19% of their budget. This group had a mix of ages and education levels; 72% were married.

The final cluster from 1973, “Young and Fun,” made up slightly under one-third of the sample. In this group, 40% were under 35 and this was the most educated group, as 27% had a college degree. They spent 6.5% of their budget on apparel, more than any other group. In terms of percent and actual dollars, they spent more on household equipment than other groups.

In 1994, two different clusters appeared. What was labeled “Most of America” represented 61% of the sample, with over half of this group in the 35–54 age group. The group’s average household income after tax was \$37,000. Of all their expenditures, 3.89% went to apparel, representing an average of \$730 per year. As a percent of budget, they also spent the most on food away from home, alcohol, household equipment, and entertainment.

The last cluster for 1994 was “Seniors,” with 65% of the households headed by persons who were 65 or older. It’s not surprising that this group spent more on health than any other group in terms of dollars (\$2,101) and percent of budget (18.83%). They also allocated more of their budget to reading and personal care than did the other groups. The median income for “Seniors” was relatively low, only \$17,986. This was more than was earned by the “Just Getting By” households, but just slightly over half of the income for “Most of America.” This group of households was roughly split between male and female household heads; Half were married and they represented a broad range educationally.

■ Summary and Conclusions

Knowledge of expenditure pattern changes should enhance retailers’ abilities to anticipate and adjust to new market realities. The demand for retail space in shopping centers is derived from consumer demand for goods and services. Consequently, developers who can gain a better appreciation of retail spending patterns are prepared better to plan appropriate store assortments in their centers. Specifically, we hope that

the information presented here can be used to influence tenant mixes in future shopping center developments as well as to assist current tenants in meeting the challenges of changing consumer needs and desires. Information is power and developers and retailers who are armed with accurate information about trends in consumer expenditures are prepared better to anticipate sales and profit opportunities.

■ Notes

¹ U.S. Department of Labor, Bureau of Labor Statistics, Consumer Expenditure Survey, Interview Survey, 1973, 1984, 1990, 1994. 1973 data tape made available by the Inter-university Consortium for Political and Social Research.

² Data from U.S. Department of Labor, Bureau of Statistics, Report 910.

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■ Appendix A

Major Expenditure Categories³

Expenditures

Expenditures consist of the transaction costs, including excise and sales taxes, of goods and services acquired during the interview or recordkeeping period. Expenditure estimates include expenditures for gifts, but exclude purchases or portions of purchases directly assignable to business purposes. Also excluded are periodic credit or installment payments on goods or services already acquired. The full cost of each purchase is recorded even though full payment may not have been made at the date of purchase. The order of the expenditures listed here follows the order of presentation in the reference tables.

Food

Food at home refers to the total expenditures for food at grocery stores or other food stores and food prepared by the consumer unit on trips. It excludes the purchase of nonfood items.

Cereals and cereal products includes ready-to-eat and cooked cereals, pasta, flour, prepared flour mixes, and other cereal products such as cornmeal, corn starch, and rice.

Bakery products includes bread (white and other than white), crackers and cookies, biscuits and rolls, cakes, cupcakes, bread and cracker products, pies, tarts, sweet rolls, coffee cakes, doughnuts, and other frozen and refrigerated bakery products such as cookies, bread and cake dough, and batter.

Beef includes ground beef, roasts, steaks, veal, and other cuts of beef, excluding canned beef.

Pork includes bacon, pork chops, ham (including canned), roasts, sausage, and other cuts of pork.

Other meats includes frankfurters; lunch meats such as bologna, liverwurst, and salami; also lamb, mutton, goat, game, and organ meats.

Poultry includes fresh and frozen chickens and other fresh and frozen poultry (Cornish hens, turkey, duck, etc.).

Fish and seafood includes canned fish and seafood and fresh or frozen finfish and shellfish.

Eggs includes fresh eggs as well as powdered eggs and egg substitutes.

Fresh milk and cream includes fresh whole milk and other fresh milk such as buttermilk and fresh cream (including table cream, whipping cream, fresh sour cream, and fresh sour cream dressing).

Other dairy products includes butter, cheese, ice cream products, yogurt, powdered milk, condensed and evaporated milk, liquid and powdered diet beverages, malted milk, milk shakes, chocolate milk, and other specified dairy products.

Fresh fruits includes all fresh fruits.

Fresh vegetables includes all fresh vegetables.

Processed fruits includes all frozen fruits and fruit juices, canned and dried fruits, and canned or bottled fruit juices.

Processed vegetables includes canned, dried, and frozen vegetables, and vegetable juices.

Sugar and other sweets includes sugar, candy and chewing gum, artificial sweeteners, jams, jellies, preserves, fruit butters, syrup, fudge mixes, icings, and other sweets.

Fats and oils includes margarine, shortening and salad dressings, nondairy cream substitutes and imitation milk, and peanut butter.

Miscellaneous foods includes frozen prepared meals and other foods, canned and packaged soups, potato chips, nuts and other snacks, condiments and seasonings, olives, pickles, relishes, sauces and gravies, baking needs and other specified condiments, other canned and packaged prepared foods, salads, desserts, and baby foods.

Nonalcoholic beverages includes diet and nondiet carbonated drinks (cola, fruit, and other carbonated drinks), coffee (roasted, instant, and freeze dried), tea (loose, instant, and ready-to-drink), and other nonalcoholic beverages, including noncarbonated fruit drinks, breakfast substitutes, chocolate flavored powders, and other specified nonalcoholic beverages.

Food away from home includes all meals (breakfast, lunch, brunch, and dinner) at restaurants, carryouts, and vending machines, including tips, plus meals as pay, special catered affairs such as weddings, bar mitzvahs, and confirmations, and meals away from home on trips.

Alcoholic beverages includes beer and ale, wine, whiskey, gin, vodka, rum, and other alcoholic beverages.

Housing

Owned dwellings includes interest on mortgages, property taxes and insurance, refinancing and prepayment charges, ground rent, expenses for property management/security, homeowners' insurance, fire insurance and extended coverage, expenses for repairs and maintenance contracted out, and expenses of materials for owner-performed repairs and maintenance for dwellings used or maintained by the consumer unit. Mortgage principal repayments are payments of loans and are shown in Other financial information.

Rented dwellings includes rent paid for dwellings, rent received as pay, parking fees, maintenance, and other expenses.

Other lodging includes all expenses for vacation homes, school, college, hotels, motels, cottages, trailer camps, and other lodging while out of town.

Utilities, fuels, and public services includes natural gas, electricity, fuel oil, wood, kerosene, coal, bottled gas, water, garbage and trash collection, sewerage maintenance, septic tank cleaning, telephone charges, and other public services.

Domestic services includes babysitters, day care tuition, care of invalids, and domestic and other duties.

Other household expenses includes housekeeping services, gardening and lawn care services, coin-operated laundry and dry-cleaning (non-clothing), termite and pest control products, moving, storage, and freight expenses, repair of household appliances and other household equipment, repair of computer systems for home use, reupholstering and furniture repair, rental and repair of lawn and gardening tools, and rental of other household equipment.

Housekeeping and garden supplies includes laundry and cleaning supplies, cleaning and toilet tissues, stationery supplies, postage, miscellaneous household products, and lawn and garden supplies.

Household textiles includes bathroom, bedroom, kitchen, dining room, and other linens, curtains and drapes, slipcovers and decorative pillows, and sewing materials.

Furniture includes living room, dining room, kitchen, bedroom, nursery, porch, lawn, and other outdoor furniture.

Floor coverings includes installation and replacement of wall-to-wall carpets, room-size rugs, and other soft floor coverings.

Major appliances includes refrigerators, freezers, dishwashers, stoves, ovens, garbage disposals, vacuum cleaners, microwaves, air-conditioners, sewing machines, washing machines and dryers, and floor cleaning equipment.

Small appliances/miscellaneous housewares includes small electrical kitchen appliances, portable heating and cooling equipment, china and other dinnerware, flatware, glassware, silver and other serving pieces, nonelectric cookware, and plastic dinnerware. Excludes personal care appliances.

Miscellaneous household equipment includes typewriters, luggage, lamps and other light fixtures, window coverings, clocks, lawnmowers and gardening equipment, other hand and power tools, telephone answering devices, telephone accessories, computers and computer hardware for home use, computer software and accessories for home use, calculators, office equipment for home use, floral arrangements and house

plants, rental of furniture, closet and storage items, household decorative items, infants' equipment, outdoor equipment, smoke alarms, other household appliances, and small miscellaneous furnishings.

Apparel and services

Men's and boys' apparel includes coats, jackets, sweaters, vests, sportcoats, tailored jackets, trousers, slacks, shorts and short sets, sportswear, shirts, underwear, nightwear, hosiery, uniforms, and other accessories.

Women's and girls' apparel includes coats, jackets, furs, sportcoats, tailored jackets, sweaters, vests, blouses, shirts, dresses, dungarees, culottes, slacks, shorts, sportswear, underwear, nightwear, uniforms, hosiery, and other accessories.

Apparel for children under 2 includes coats, jackets, snowsuits, underwear, diapers, dresses, crawlers, sleeping garments, hosiery, footwear, and other accessories for children under 2.

Footwear includes articles such as shoes, slippers, boots, and other similar items. It excludes footwear for children under 2 and special footwear used for sports such as bowling or golf shoes.

Other apparel products and services includes material for making clothes, shoe repair, alterations and repairs, sewing patterns and notions, clothing rental, clothing storage, dry cleaning, sent out laundry, watches, jewelry, and repairs to watches and jewelry.

Transportation

Vehicle purchases (net outlay) includes the net outlay (purchase price minus trade-in value) on new and used domestic and imported cars and trucks; other vehicles include attachable campers, trailers, motorcycles, and private planes.

Vehicle finance charges includes the dollar amount of interest paid for a loan contracted for the purchase of vehicles described above.

Gasoline and motor oil includes gasoline, diesel fuel, and motor oil.

Maintenance and repairs includes tires, batteries, tubes, lubrication, filters, coolant, additives, brake and transmission fluids, oil change, brake adjustment and repair, front-end alignment, wheel balancing, steering repair, shock absorber replacement, clutch and transmission repair, electrical system repair, exhaust system repair, body work and painting, motor repair, repair to cooling system, drive train repair, drive shaft and rear-end repair, tire repair, other maintenance and services, and auto repair policies.

Vehicle insurance includes the premium paid for insuring cars, trucks, and other vehicles.

Public transportation includes fares for mass transit, buses, trains, airlines, taxis, private school buses, and boats.

Vehicle rent, licenses, and other charges includes leased and rented cars, trucks, motorcycles, and aircraft, inspection fees, State and local registration, drivers' license fees, parking fees, towing charges, and tolls.

Health care

Health insurance includes health maintenance plans (HMO's), Blue Cross/Blue Shield, commercial health insurance, Medicare, Medicare supplemental insurance, and other health insurance.

Medical services includes hospital room and services, physicians' services, service of a practitioner other than physician, eye and dental care, lab tests, X-rays, nursing, therapy services, care in convalescent or nursing home, and other medical care.

Drugs includes prescription and nonprescription drugs, internal and respiratory over-the-counter drugs.

Medical supplies includes topicals and dressings, antiseptics, bandages, cotton, first aid kits, contraceptives, syringes, ice bags, thermometers, sunlamps, vaporizers, heating pads, medical appliances such as braces, canes, crutches, and walkers, eyeglasses, and hearing aids, rental and repair of medical equipment.

Entertainment

Fees and admissions includes fees for participant sports; admissions to sporting events, movies, concerts, plays; health, swimming, tennis and country club memberships, and other social recreational and fraternal organizations; recreational lessons or instruction; rental of movies, and recreation expenses on trips.

Television, radio, and sound equipment includes television sets, video recorders, video cassettes, tapes, disks, disk players, video game hardware, video game cartridges, cable TV, radios, phonographs, tape recorders and players, sound components, records and tapes, and records and tapes through record clubs, musical instruments, and rental and repair of TV and sound equipment.

Pets, toys, hobbies, and playground equipment includes pet food, pet services, veterinary expenses, toys, games, hobbies, tricycles, and playground equipment.

Other entertainment equipment and services includes indoor exercise equipment, athletic shoes, bicycles, trailers, campers, camping equipment, rental of campers and trailers, hunting and fishing equipment, sports equipment, winter sports equipment, water sports equipment, boats, boat motors and boat trailers, rental of boats, landing and docking fees, rental and repair of sports equipment, photographic equip-

ment, film and film processing, photographer fees, repair and rental of photo equipment, fireworks, pinball and electronic video games.

Other expenditures

Personal care products and services includes products for the hair, oral hygiene products, shaving needs, cosmetics and bath products, electric personal care appliances, other personal care products, personal care services for males and females.

Reading includes subscriptions for newspapers, magazines, and books through book clubs; purchase of single copy newspapers and magazines, newsletters, books, and encyclopedias and other reference books.

Education includes tuition, fees, textbooks, supplies, and equipment for public and private nursery schools, elementary and high schools, colleges and universities, and other schools.

Tobacco products and smoking supplies includes cigarettes, cigars, snuff, loose smoking tobacco, chewing tobacco, and smoking accessories such as cigarette or cigar holders, pipes, flints, lighters, pipe cleaners, and other smoking products and accessories.

Miscellaneous includes safety deposit box rental, checking account fees and other bank services, legal fees, accounting fees, funerals, cemetery lots, union dues, occupational expenses, and finance charges other than for mortgage and vehicles.

Cash contributions includes cash contributed to persons or organizations outside the consumer unit including alimony and child support payments, care of students away from home, and contributions to religious, educational, charitable, or political organizations.

Life, endowment, annuities, and other personal insurance includes premiums for whole life and term insurance; endowments; income and other life insurance; mortgage guarantee insurance; mortgage life insurance; premiums for personal liability, accident and disability, and other nonhealth insurance other than for homes and vehicles.

Retirement, pensions, and Social Security includes all Social Security contributions paid by employees; employee's contributions to railroad retirement, government retirement, and private pension programs; retirement programs for self-employed.

■ Note

³ The definitions are from the 1994 CEX CD-ROM from the U.S. Department of Labor Bureau of Statistics