State Board of Equalization

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Impacts of the Recession by Income Class and Type of Purchase

Though the "Great Recession" that started in December 2007 officially ended in June 2009, many economic measures indicate that the impacts of the recession continued into 2010 and beyond. While nearly all U.S. households were affected by the recession, there have been few analyses of the income and spending impacts by income class and type of purchase. This article reports the analysis of U.S. Bureau of Labor Statistics (BLS) data by these measures.

BLS Consumer Expenditures Survey

The BLS conducts an ongoing survey of thousands of U.S. households to collect information on the buying habits of American consumers. The data collected are used in the calculation of the consumer price index, among other purposes. The survey provides more detailed information than is available elsewhere on household incomes and spending.

U.S. Household Income Quintiles

The BLS defines income relatively broadly, including public assistance and the value of food stamps. One way that the BLS publishes consumer survey expenditure data is by U.S. household income quintiles (income groups). After households are ranked from lowest-earning to highest-earning, they are divided into five income groups. Each quintile has the same approximate number of households.

Pre and Post-Recession Survey Data

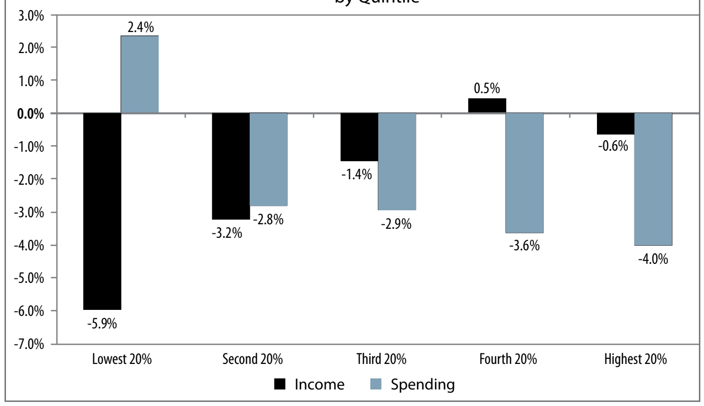
Board of Equalization Research staff compared BLS survey results by income quintile from the 2007 survey (the last year before the recession started) and the 2010 survey, which was released in September. We also compared income and spending by quintile to overall averages for all U.S. households.

Overall Spending and Income Changes

For all U.S. households, BLS data show that income declined an average of 1.0 percent from 2007 to 2010, while spending decreased 3.1 percent over the same period.[1] However as shown in Chart 1, there was great variation among the quintiles around these averages.

[1] These figures are not adjusted for inflation.

Chart 1
Percentage Changes in Income and Spending from 2007 to 2010 Income by Quintile



Income and Spending Changes by Quintile

The changes in incomes ranged from a 5.9 percent decline for the lowest-earning quintile to a 0.5 percent increase for the fourth quintile. Generally, income declines were more pronounced for the lower-income quintiles. As with income, there was a wide variation in changes in spending among quintiles. Changes in spending ranged from a 4.0 percent decline for the highest-income quintile to a 2.4 percent increase for the lowest-income quintile. In percentage terms shown in Chart 1, spending decreased considerably more than income for the top three quintiles.

Inflation Magnifies Losses

The data in Chart 1 and subsequent charts are unadjusted for inflation. Consumer prices increased about 5.2 percent from 2007 to 2010, so average household spending would need to increase this much to maintain the same standard of living as 2007 as measured by the U.S. consumer price index (CPI).[2] Spending in none of the income groups kept up with average inflation as measured by the CPI. Since spending declined for all but the lowest-income quintile, when adjusted for inflation, the decreases would be 5.2 percent greater on average.

[2] One reason we did not adjust the data for inflation is that the types of purchases made by low-income and high-income households (or the "market basket" for each) vary substantially, which could greatly affect measures of inflation for each income class.

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Reasons for Increased Spending by Lowest Quintile

One anomaly in Chart 1 is a 2.4 percent increase in spending for the lowest income quintile. With a deep recession and an associated steep decline in income for this group of households, we would not expect a gain in spending. However, closer examination of the data provides reasons why this result is plausible.

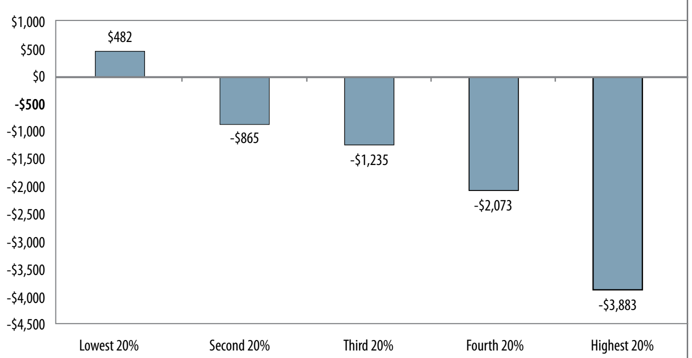
Food prices and rent, some of the more necessary components of consumer spending, increased much faster than the overall CPI during this period. Food prices rose 8.2 percent from 2007 to 2010, while rent rose 6.3 percent. The data show that all of the increase in spending for the lowest-income quintile was more than accounted for by food and housing, areas where low-income consumers have relatively few substitution choices. Low-income consumers could have borrowed or consumed more from savings to meet these increased expenses of necessary spending.

Spending Declines Generally Track With Income

Chart 2 shows total household spending changes between 2007 and 2010 by income quintile in dollar terms. As shown in the chart (and discussed above for the same data shown in percentage terms), spending declined in all but the lowest-earning group. For the top four groups, spending cutbacks were greater for each quintile as income increased.

Chart 2

Changes in Average Annual Expenditures by Income Quintile from 2007 to 2010

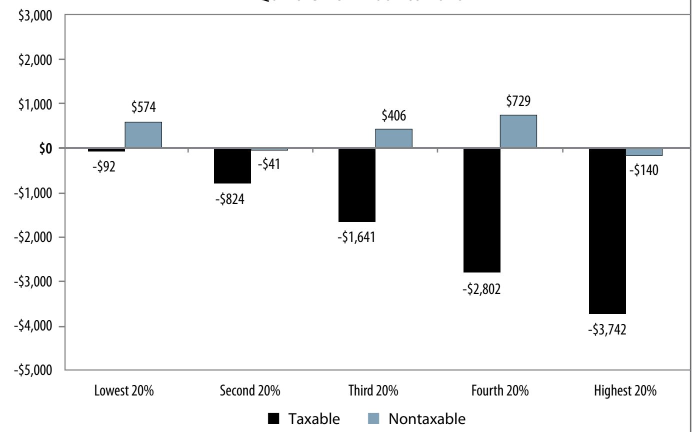


California-Taxable U.S. Spending By Quintile

The BLS does not consider California sales and use taxes in how their data are displayed. However, with knowledge of the California sales and use tax law, it is possible to make a general approximation of California-taxable BLS expenditure categories. We have tabulated such an approximate breakout of the Chart 2 data by household income quintile.[3] The breakout of changes from 2007 to 2010 of spending subject to California sales and use taxes ("taxable spending") and purchases not taxable ("nontaxable") are shown in Chart 3.

Chart 3

Changes in Average Annual Taxable and Nontaxable Expenditures by Income Quintile from 2007 to 2010



Taxable Spending Declines While Nontaxable Spending Rises

As shown in Chart 3, U.S. households in all quintiles reduced spending on California-taxable goods during the recession. Households in three of the quintiles increased spending for nontaxable goods, while two quintiles (the second and the highest) had small decreases. This pattern of larger declines in spending on taxable goods than nontaxable goods and services partially reflects the design of the tax system, which excludes from taxation spending on necessary items such as food for home consumption. During typical recessions, consumers generally do not cut back much, if at all, in spending on food for home consumption. Another factor increasing spending on food consumption is an increase in average prices of foods. Prices of food for home consumption rose 7.3 percent from 2007 to 2010.

Changes in Spending in Relation to Income

In addition to changes in dollar spending, a commonly used way to analyze differences in consumption is to view them in relation to income for each income quintile. Chart 4 shows changes in total spending from 2007 to 2010 (data for Chart 2) as a percentage of 2007 income by quintile. As shown in the chart, households in the top four quintiles cut back on spending by similar percentages, close to three percent of 2007 income. As discussed earlier, the lowest income quintile increased spending sharply (4.6 percent of 2007 income, as shown in Chart 4), but this increase was accounted for by the necessities of food and rent.

[3] Spending in some BLS expenditure categories, such as "drugs" and "food away from home," cannot be accurately placed into taxable and nontaxable categories. Prescription drugs and certain types of food purchases are exempt, and we do not have more detailed data required to delineate taxable from nontaxable purchases. The data used to create Chart 3 are subject to these data limitations, and are meant only to analyze general trends.

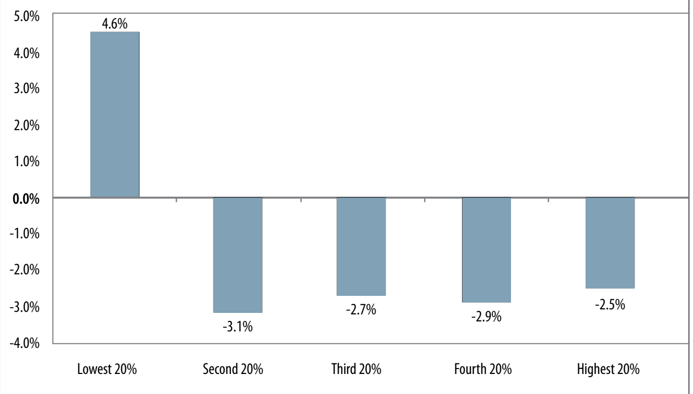


Chart 4
Changes in Total Spending as a Percentage of Income by Quintile from 2007 to 2010

Changes in Selected Spending Categories

In addition to analyzing data of overall spending trends, we also reviewed spending on specific taxable goods. Charts 5 through 8 show changes during the recession for selected categories in relation to incomes by quintile. Most of the categories were chosen based on conventional thinking that they are generally kinds of goods consumers tend to cut back on during recessions.

Restaurant Spending

As shown in Chart 5, the three middle income consumer groups cut their spending at restaurants by similar percentages, and by more than the two extreme income groups. What is not measured by these data are quality levels of restaurant spending. It is likely that many households substituted lower priced meals and beverages for higher priced ones.

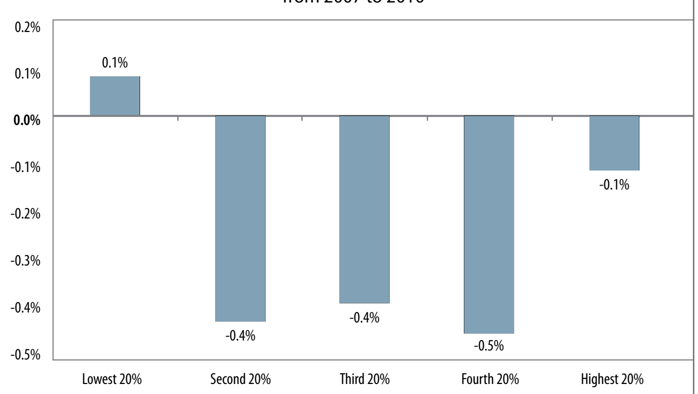


Chart 5
Changes in Restaurant Meal Spending as a Percentage of Income by Quintile from 2007 to 2010

Household Furnishings Spending

Households in every quintile cut back on spending for household furnishings (see Chart 6). In relation to income, the cutbacks in spending on household furnishings were generally greater than for restaurant meals, as every quintile cut spending by at least 0.4 percent of 2007 income. In contrast, as seen in Chart 5, the greatest cutback in restaurant meals was 0.5 percent.

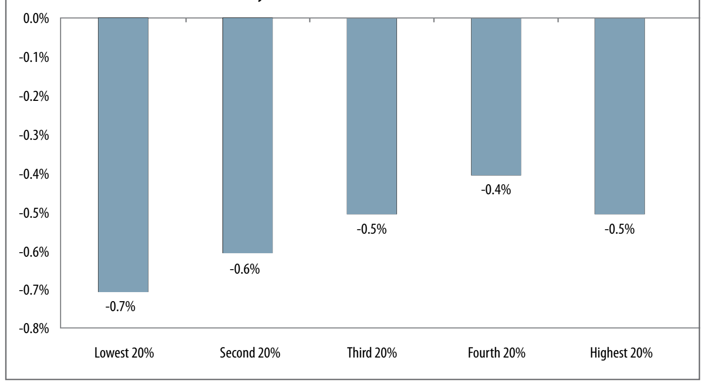


Chart 6
Changes in Household Furnishings Spending as a Percentage of Income by Quintile from 2007-2010

New Car Spending

Households in the lowest-income quintile sharply cut back their spending on new cars compared to households in all the other quintiles. As shown in Chart 7, households in this quintile decreased new car purchases by 2.8 percent of their 2007 income.

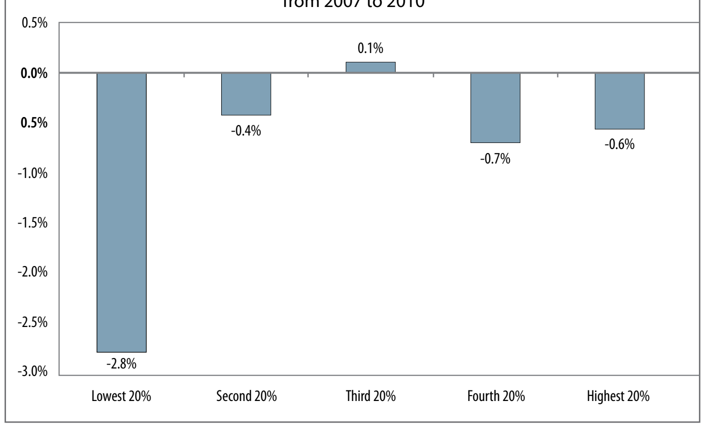
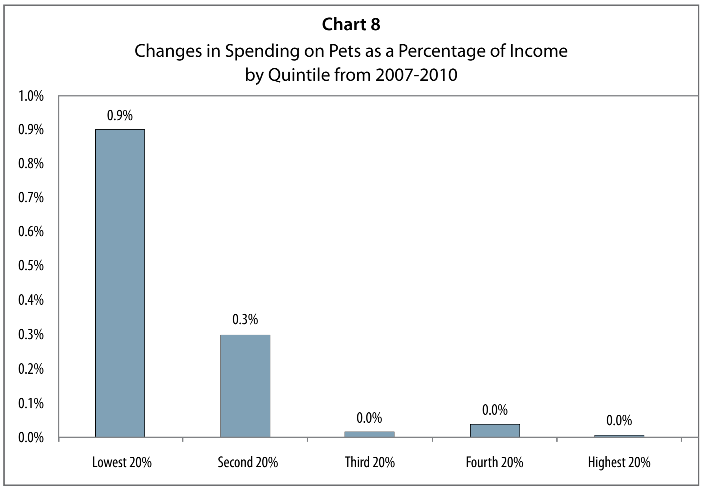


Chart 7
Changes in New Car Spending as a Percentage of Income by Quintile from 2007 to 2010

Pet, Hobby, and Toy Spending "Recession Proof"

One component of consumer spending that seemed to be relatively "recession proof," was spending on pets, hobbies, toys, and playground equipment. Spending for this category (shown in Chart 8) increased for households in every quintile. (The category is labeled "Pets" due to space considerations.) Households in the bottom two quintiles had the largest increases. Rising prices account for some spending increase. On average, about half of the spending increases for this type of purchase can be accounted for by rising consumer prices. Prices for the "pets, hobbies, toys and playground equipment" category rose 15.3 percent from 2007 to 2010.



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Please contact us if you would like to be added to our mailing list, or have questions or comments.

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Taxpayers' Rights Advocate: 888-324-2798

To contact your Board Member, see *www.boe.ca.gov/members/board.htm*.

Online Resources

For more information about topics covered in this publication and previous issues, please visit any of the websites listed below.
California Department of Finance
www.dof.ca.gov

California Employment Development Department (EDD), Labor Market Conditions in California
www.labormarketinfo.edd.ca.gov

Federal Reserve Bank of Philadelphia, Survey of Professional Forecasters
www.phil.frb.org/econ/spf/index.html

National Association for Business Economists
www.nabe.com

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