

# ECONOMIC PERSPECTIVE

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## Taxable Consumer Spending by Quintile Over the Past Decade

In this issue of *Economic Perspective*, some surprising facts are revealed in connection to the economic changes that occurred between 2000 and 2010, a decade that included what some have termed the “Great Recession.” Despite extreme economic stresses, U.S. household spending jumped 27 percent. Not only that, spending on pets rose a whopping 81 percent and housing spiked 42 percent during that 10 year period. What happened? The Board of Equalization researchers say, while it’s not totally clear cut, they do point to a few revealing factors.

You will also learn that over the past decade:

- Total household spending rose much more than taxable spending from 2000 to 2010.
- Over this decade average taxable spending declined for the bottom four income quintiles, which comprise 80 percent of all households.
- All of the increase in taxable purchases over the 2000 to 2010 period was accounted for by households in the highest-earning quintile.
- Increases in gasoline costs were nearly offset by decreases in vehicle purchases for most income quintiles.
- Apparel spending declined for all income quintiles, reflecting lower prices.
- Payments for pets increased for all income quintiles, indicating gains in both real spending and prices.
- Tobacco costs rose for the bottom four quintiles, caused by large price increases of cigarettes and tobacco products. This occurred despite overall declines in cigarette consumption.

## Ten-Year Change in Taxable Sales

Over the ten-year period from 2000 to 2010 California taxable sales increased 8.0 percent. This gain is only a fraction of the 56.8 percent growth of the previous decade (1990 to 2000). Much of the most recent decade was a difficult period in U.S. economic history, as there were two recessions, including the most recent “Great Recession.”

## Questions on Long-Term Taxable Sales

Several questions come to mind in examining such long-term trends in taxable sales. What has happened to total household consumer spending over the most recent ten-year period? Has growth in taxable purchases kept pace with growth of nontaxable spending for households? Are there trends evident in the kinds of taxable goods consumers are buying now compared to the turn of the century? Are trends for poorer households similar or different from those with higher earnings?

## BLS Consumer Expenditures Survey

Many of these questions can be answered from national data collected by the U.S. Bureau of Labor Statistics (BLS). The BLS conducts an ongoing survey of thousands of U.S. households to collect information on the buying habits of American consumers.

## U.S. Household Income Quintiles

One way that the BLS publishes consumer survey expenditure data is by U.S. household income quintiles. After households are ranked from lowest to highest-earning ones, they are divided into five income groups called quintiles. Each quintile has the same approximate number of households.

## Survey Data From 2000 and 2010

Board of Equalization Research staff compared BLS survey results by income quintile from the 2000 survey and the 2010 survey. We also compared overall spending averages for all U.S. households over this period.

## California-Taxable U.S. Spending By Quintile

The BLS does not consider California sales and use taxes in how its data are tabulated and 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 BLS spending data.<sup>1</sup>

<sup>1</sup> 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 taxable spending data tabulated for this article are subject to these data limitations, and are meant only to analyze general trends.

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## Increases in Housing Dominate Spending Gains for All Households From 2000 to 2010

For all households total spending increased 26.5 percent from 2000 to 2010. However, most spending categories had increases much less than the average. As shown in Table 1, spending on housing, a relatively large component of household spending, rose 42.1 percent. Other than health care and food, most spending categories increases were much less than ten percent. Spending on reading materials and apparel declined.

## Taxable Spending for all Households Increases Much Less Than Total Spending

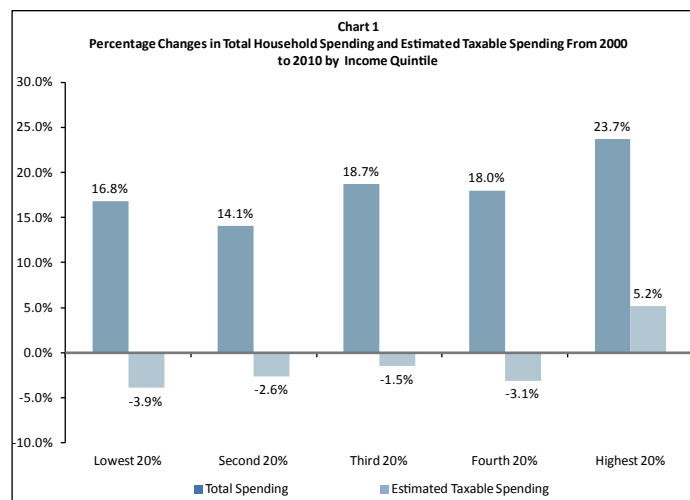
Estimated taxable spending for all households rose only 5.2 percent from 2000 to 2010, much less than the 26.5 percent gain in total spending.

Table 1

Percentage Changes in Spending from 2000 to 2010 for all Households, Selected Goods and Services	
Housing	42.1%
Total household spending	26.5%
Health care	10.8%
Food	9.6%
Entertainment	6.4%
Education	4.4%
Transportation	2.6%
Miscellaneous	0.7%
Tobacco products	0.4%
Alcoholic beverages	0.4%
Personal care	0.2%
Reading	-0.5%
Apparel	-1.6%

## Spending by Quintile

Chart 1 shows average total spending and estimated California-taxable spending by quintile for U.S. households. As shown in the chart, total spending went up for all

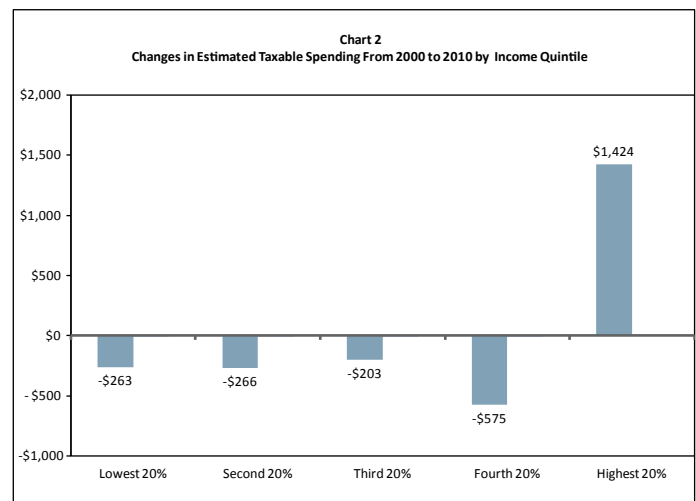


households over the decade 2000 to 2010, ranging from a low of 14.1 percent for the second quintile to a high of 23.7 percent for the highest-earning quintile.

## Taxable Spending Declines For Bottom Four Quintiles

Estimated taxable spending by quintile show a much different picture than for total spending. Average household taxable spending decreased from 1.5 percent to 3.9 percent for the four lowest-earning quintiles (80 percent of all households). Taxable spending went up only for the highest-earning quintile, rising 5.2 percent.

Chart 2 shows average changes in taxable spending by quintile in dollars per household. These data indicate that the bottom four quintiles paid from \$203 to \$575 less in taxable goods spending in 2010 than they did in 2000. The highest-earning quintile spent \$1,424 more on taxable goods in 2010 than they did in 2000.



## Inflation From 2000 to 2010 Varies Among Kinds of Taxable Goods

The data in Table 1 and Charts 1, 2 and subsequent charts are unadjusted for inflation. Consumer prices increased 27 percent from 2000 to 2010, closely matching the increase in spending. Table 2 shows changes in the overall consumer price index (CPI) and selected taxable goods. Prices increased the most for tobacco and gasoline over the decade. A large part of the increase in tobacco prices was from excise tax increases in many states.

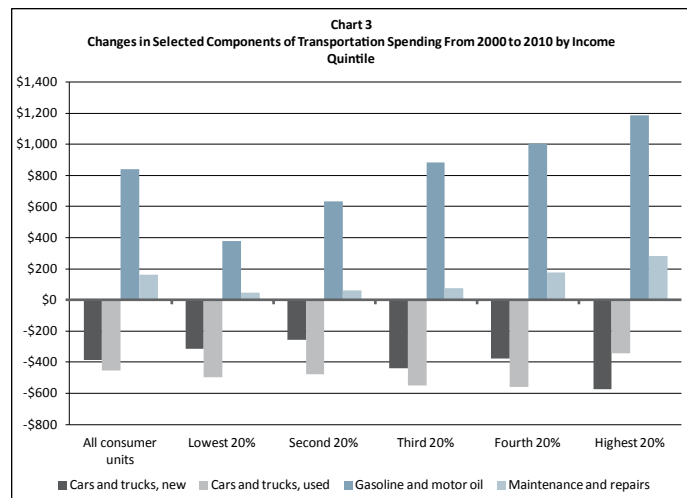
## Prices Declined For Some Goods

Table 2 also shows that prices for some goods, such as apparel and new and used cars, dropped over the decade. Some price increases, those for “quality improvements,” such as ABS brakes and air bags for cars, are not measured as price increases by the BLS. The CPI is designed to measure price changes for the same level of quality of products. Not adjusting for quality changes, the average

price of a new car increased by 11.2 percent from 2000 to 2010. In 2010 the average new car purchased by households cost \$23,827.<sup>2</sup>

Table 2

Changes in Consumer Price Indices, Selected Taxable Expenditure Categories, 2000 to 2010	
Tobacco and smoking products	104%
Gasoline (all types)	86%
Pets, pet products and services	45%
Food away from home	34%
All Items	27%
Household furnishings and operations	-2%
New vehicles	-3%
Used cars and trucks	-8%
Apparel	-8%



### Vehicle Spending Variable For Components

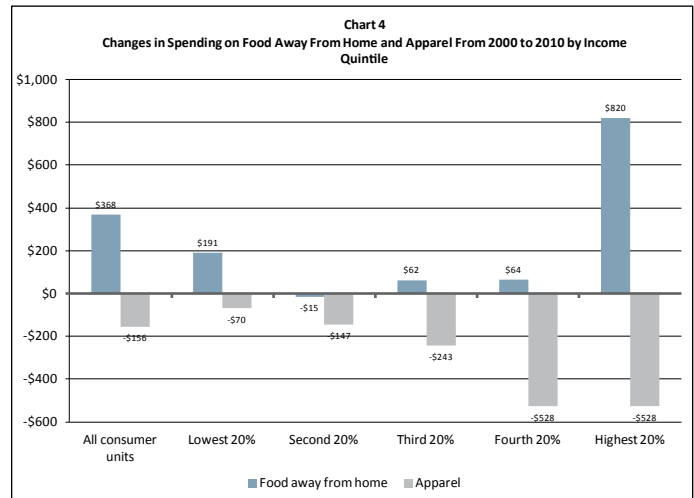
Vehicle spending is an important category of total taxable household spending, accounting for at least one-third percent of it for all households in 2010. Overall vehicle spending changed relatively little from 2000 to 2010 for most households. However, there were dramatic changes in subcategories of vehicle spending, as shown in Chart 3. Spending on gasoline increased greatly for all households, a minimum of \$378 for the lowest-earning quintile, and up to a maximum of \$1,187 for the top-earning household quintile. These increases are not surprising with an 86 percent increase in gas prices (see Table 2).

### Spending on Cars Declines

What may be surprising is that spending on new and used cars declined for all households from 2000 to 2010. As mentioned earlier, average car prices (unadjusted for quality) rose 11.2 percent from 2000 to 2010. So if

<sup>2</sup> U.S. Bureau of Economic Analysis, National Economic Accounts, Supplemental Estimates, Underlying Detail Tables, "Table 7.2.5S. Auto and Truck Unit Sales, Production, Inventories, Expenditures, and Price."

households were to purchase the same number of new cars in 2010 as they did in 2000, we would expect new car spending to rise, not fall. However, households are buying cars less frequently today than they were a decade ago. The average age of cars owned by households rose from 8.9 years in 2000 to 10.6 years in 2010. One reason for the aging of the average car is the recent recession; many consumers delayed purchasing cars. However, an increasing average car life is a long-term trend; cars are lasting longer. The average age of cars has been rising since the mid-1990s.<sup>3</sup>



### Restaurant Meals and Apparel

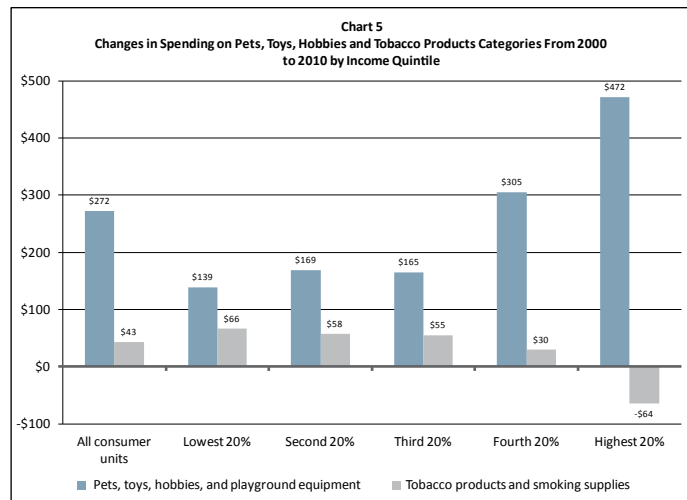
Chart 4 shows spending by quintile for two important selected categories of taxable spending, food away from home (restaurant meals) and apparel. Restaurant meal spending increased most dramatically for the highest-earning quintile, rising by \$820 per household over the decade. Somewhat surprisingly, the next largest increase in spending for restaurant meals was for the lowest-earning quintile, \$191 per household. Apparel spending declined for all income groups over the decade, reflecting declines in apparel prices over the decade. (As shown in Table 2, apparel prices declined 8 percent.)

### Pets and Tobacco

Chart 5 shows spending by quintile for two additional selected categories of taxable spending as defined by the BLS: (1) pets, toys, hobbies and playground equipment, and (2) tobacco products and smoking supplies.

Spending increased for pets by all quintiles, generally rising with income. Overall spending on pets rose 81 percent, while prices for this category of goods rose 45 percent.

<sup>3</sup> "Average age of U.S. cars up again in 2011, may now head down," January 17, 2012, *USA Today*.



Tax-paid U.S. cigarette sales declined 28 percent from 2000 to 2010.<sup>4</sup> However, as shown in Chart 5, with higher tobacco prices, spending on tobacco rose for the four lowest income quintiles. Spending rose for these groups despite an overall trend of declining cigarette smoking. Tobacco spending declined for the highest-earning quintile, reflecting declines in tobacco consumption for this group that more than offset increases in tobacco prices.

## Contact Us

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

Joe Fitz, Chief Economist, MIC:67  
 State Board of Equalization  
 PO Box 942879  
 Sacramento, CA 94279-0067  
 916-323-3802  
[research@boe.ca.gov](mailto:research@boe.ca.gov)

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## Online Resources

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California Department of Finance  
[www.dof.ca.gov](http://www.dof.ca.gov)

California Employment Development Department (EDD),  
 Labor Market Conditions in California  
[www.labormarketinfo.edd.ca.gov](http://www.labormarketinfo.edd.ca.gov)

Federal Reserve Bank of Philadelphia, Survey of  
 Professional Forecasters  
[www.phil.frb.org/econ/spf/index.html](http://www.phil.frb.org/econ/spf/index.html)

National Association for Business Economists  
[www.nabe.com](http://www.nabe.com)

U.S. Bureau of Economic Analysis  
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U.S. Bureau of Labor Statistics  
[www.bls.gov/cpi](http://www.bls.gov/cpi)

U.S. Census Bureau  
[www.census.gov](http://www.census.gov)

<sup>4</sup> Source: *The Tax Burden on Tobacco: Historical Compilation*, Volume 46, 2011, Orzechowski and Walker, Arlington, VA