State Board of Equalization

ECONOMIC PERSPECTIVE

Discussion of Recent Economic Developments
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Taxable Spending and Income

It is a well-established economic theory that, as income increases, consumer spending on most goods also increases. Quantifying this relationship is important to any taxable sales analysis because the results indicate relative tax burdens for various income groups.

BLS Consumer Expenditures Survey

The U.S. Bureau of Labor Statistics (BLS) conducts an ongoing survey of thousands of U.S. households that is useful for this analysis. The survey assesses consumer buying habits, calculating relationships between spending and income, among other variables. The results provide extensive information on household incomes and spending, as well as spending data by educational level, region, age, ethnicity, and type of housing.[1]

California data is not distinguished separately. However, several federal government agencies provide similar, state-specific reports that indicate California spending habits tend to be similar to those of the nation as a whole.

Household Income

Income is defined relatively broadly to include public assistance and food stamps. The BLS publishes income and spending relationships:

(1) **Nine income groups**. The income groups range from $0 - $15,000 to $200,000 and more per household.

(2) **Quintiles**. Incomes are ranked from high to low, and each group of five contains the same approximate number of households.

(3) **Deciles**. Incomes are ranked from high to low, and each group of ten contains the same approximate number of households.

California-Taxable U.S. Spending

The BLS does not take into account California sales and use taxes in how their data are displayed. However, BOE staff approximate California-taxable BLS expenditure categories and tabulate this estimate by household income group.[2]

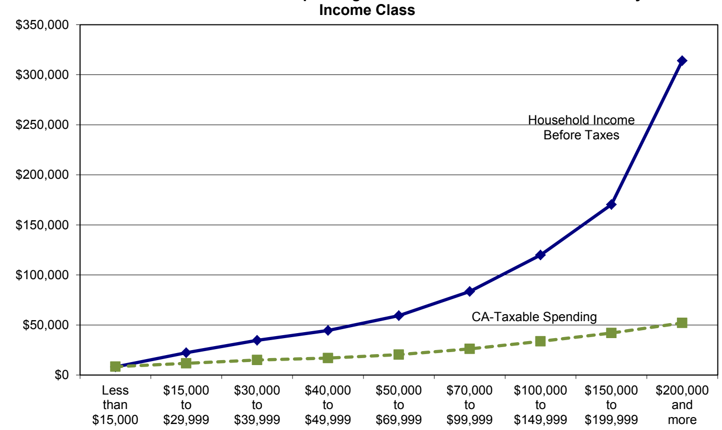
Income Variation by Household Group

Average household income in 2015 was $69,627.[3] The lowest-earning households (incomes less than $15,000) averaged income of $8,169, while the highest-earning households (incomes of $200,000 or more) averaged income of $314,010. This implies that the highest-earning group of households averaged incomes over 38 times greater than the lowest earning class.

Spending Increases with Incomes

As incomes rise, so does spending. Chart 1 shows that the highest average income group spends six times more than the lowest average income group. The lowest income group spends on average $8,358, and the highest income group spends on average $52,019 per year. The chart also shows that incomes grow faster than spending.

Chart 1
U.S. Household Income and Spending on California-Taxable Goods in 2015 by Income Class



[1] U.S. Bureau of Labor Statistics, Consumer Expenditure Survey, *www.bls.gov/cex/*

[2] Spending in some BLS expenditure categories, such as "drugs" and "food away from home," cannot accurately be placed into taxable and nontaxable categories. Prescription drugs and certain types of food purchases are exempt, and more detailed data required to delineate taxable from nontaxable purchases is unavailable. The data used to create the charts in this section are subject to these data limitations, and are meant only to analyze general trends.

[3] In analyzing household incomes, averages are much higher than typical income, which is better represented by median income. High-earning households tend to bring the average up proportionally much more than the number of high-earning households would indicate. According to U.S. Census Bureau, median income of U.S. households was estimated to have been $56,516 in 2015 *(Income and Poverty in the United States: 2015)*.

Percentages of Spending Fall as Incomes Rise

Chart 2 displays California-taxable spending as a proportion of income. U.S. households on average spend 30.5 percent of their income on goods taxable in California. However, income percentages spent on California-taxable items ranges from a high of 102.3 percent for the lowest-income group, to a low of 16.6 percent for the highest-income class.[4]

Western Region Spending Close to U.S. Average

The BLS publishes survey data for four major U.S. regions. BOE staff tabulated this regional data in the same manner as national data. The results in Chart 3 show that household spending for California-taxable goods in the West is 29.5 percent of income, very close to the national average of 30.5 percent. Spending in the Midwest and the South is a little higher than average, while spending in the Northeast is lower.

Chart 2
U.S. Taxable Spending to Income Ratios for California-Taxable Goods by Household Income Class

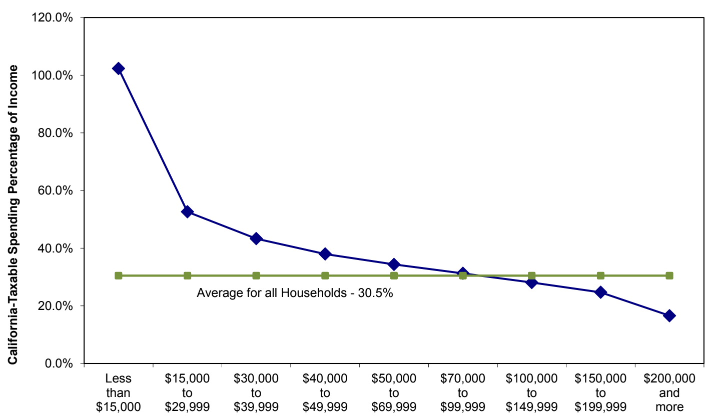
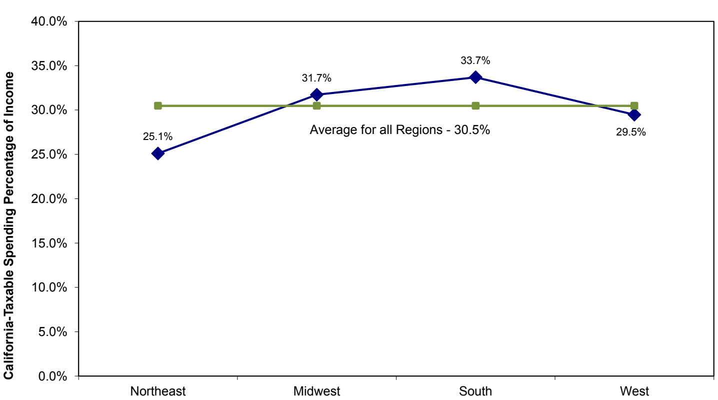


Chart 3
U.S. Taxable Spending to Income Ratios for California-Taxable Goods by Region



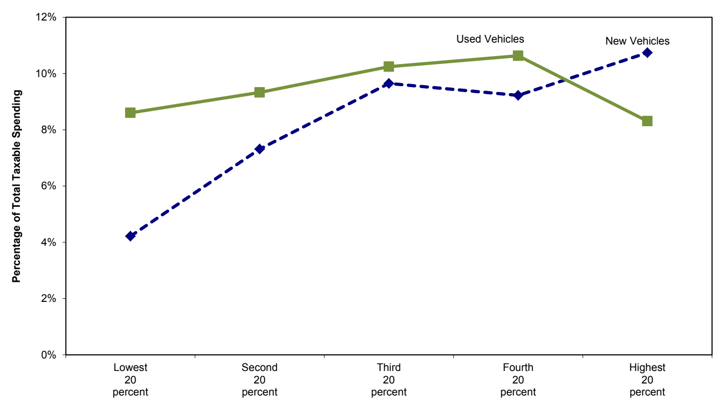
Variation Among Spending Categories

While spending on California-taxable goods increases as incomes rise (Chart 1), spending on individual commodities varies greatly. Economists define goods as normal, luxury, and inferior. Normal goods spending increases proportionately less than income. By contrast, luxury goods spending increases proportionately more than income, and inferior goods spending declines with income gains. Luxury commodities do not appear in the BLS spending categories. Most items purchased in the BLS spending categories appear to be normal goods, except for cigarettes and other tobacco products, which are inferior goods.

New and Used Vehicles

New vehicles are a normal good where spending generally rises with income. As shown in Chart 4, spending on new vehicles rose from 4.2 percent of total taxable spending for the lowest-earning quintile, to 10.7 percent of total taxable spending for the highest-earning quintile. Spending on used vehicles also rises with income, except for those in the highest quintile. Notably, households in the lowest four income quintiles spend more on used cars than new cars, and the highest quintile households spend more on new cars.

Chart 4
U.S. Household Spending on New and Used Vehicles as Percentages of Total California-Taxable Spending by Income Class



Cigarette and Tobacco Spending Decline with Income

Unlike any other BLS category, the percentage of income spent on cigarettes and tobacco products consistently decreases as incomes rise, as noted in Chart 5. The average U.S. household applies 1.6 percent of their total taxable spending to cigarettes and tobacco products. The lowest-income group allocates 3.7 percent of their total taxable spending to these products, while the highest-earning quintile spends only 0.4 percent.

[4] Spending can be more than one hundred percent of income to the extent that households borrow, receive gifts of cash not counted as income, or spend from accumulated savings.

Cigarette and Tobacco Spending by Educational Level and Other Categories

Purchases of cigarettes and tobacco products show other distinctive characteristics under various tabulations. As shown in Chart 6, heads of household with more education tend to spend less on cigarettes and tobacco, following a similar pattern as the spending to income relationship. U.S. regional tabulations show that households in the West spend 1.1 percent far less than the average, 1.6 percent of total taxable spending. By contrast, the Midwest and South spend more on these products, as shown in Chart 7.

Chart 5
U.S. Household Spending on Cigarettes and Tobacco Products as a Percentage of Total California-Taxable Spending by Income Class

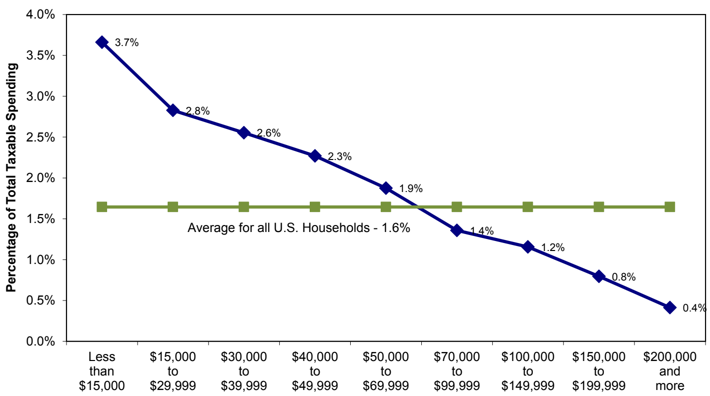


Chart 6
U.S. 2008 Household Spending on Cigarettes and Tobacco Products as a Percentage of Total California-Taxable Spending by Educational Attainment

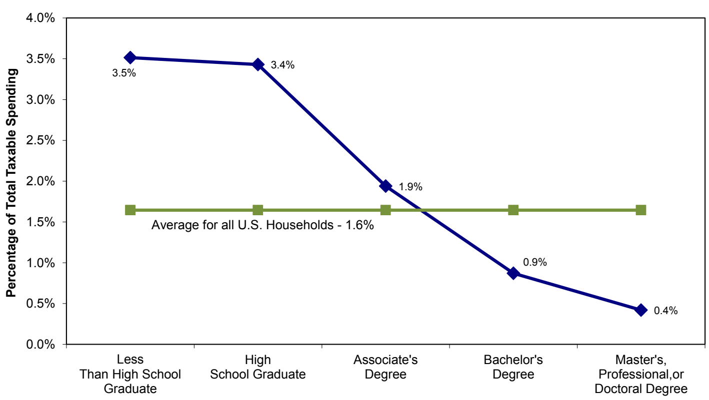
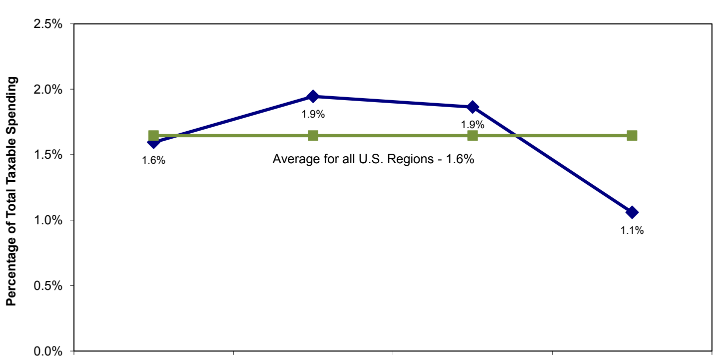


Chart 7
U.S. Household Spending on Cigarettes and Tobacco Products as a Percentage of Total California-Taxable Spending by Region



Those over age 65 devoted 1.3 percent of their total taxable spending to cigarettes and tobacco, which is less than average (Chart 8). Asians and Hispanics also spend much less than average, 0.7 percent and 0.8 percent, respectively (Chart 9). However, rural dwellers and renters spend significantly more than average, 2.7 percent and 2.6 percent, as shown in Chart 10.

Chart 8
U.S. 2008 Household Spending on Cigarettes and Tobacco Products as a Percentage of Total California-Taxable Spending by Age Group

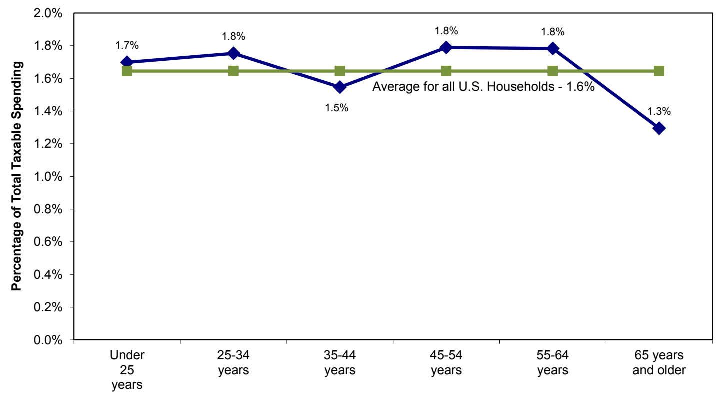


Chart 9
U.S. Household Spending on Cigarettes and Tobacco Products as a Percentage of Total California-Taxable Spending by Ethnic Group

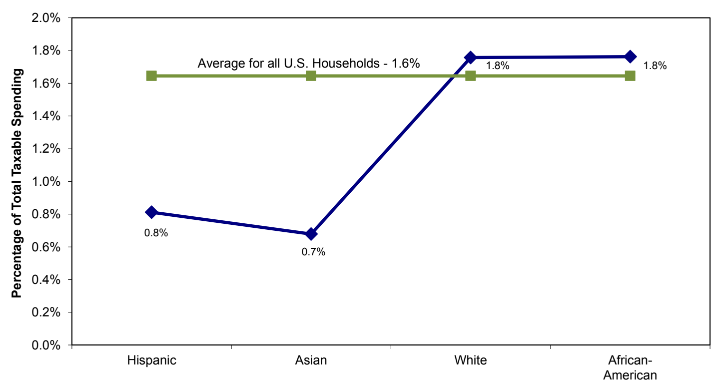
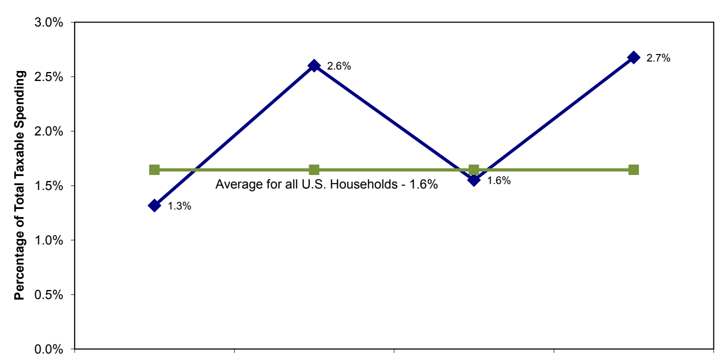


Chart 10
U.S. Household Spending on Cigarettes and Tobacco Products as a Percentage of Total California-Taxable Spending by Housing Type



Summary

The BLS provides a rich data with its surveys analyzing taxable sales made to various demographic groups. The data shows that:

- Purchases of taxable goods generally rise in conjunction with increases in household income, but at a much slower rate for the higher income groups.
- The share of taxable goods spending in relation to income in the West is similar to the national average.
- Cigarette and tobacco spending decline as income and education increase.
- People living in the West, older households, Asians, and Hispanics spend less on cigarettes and tobacco than others do. In contrast, rural dwellers and renters spend more on cigarettes and tobacco products.

Contact the BOE

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www.bls.gov

U.S. Bureau of Economic Analysis
www.bea.gov

U.S. Census Bureau
www.census.gov