

# ECONOMIC PERSPECTIVE

Discussion of Recent Economic Developments  
Publication 329

Volume XVII, Number 2  
May 2011

## Characteristics of Ecommerce Buyers and Sellers

### Remote Sales and Tax Administration

Sales made by electronic shopping and mail order houses (defined as remote sales for the purposes of this discussion) are very important to tax administrators and policy makers. If remote sales are made to California residents from vendors located outside of California with no physical presence in this state, federal law prevents California from requiring the vendor to collect use tax from the consumer. The responsibility to remit taxes due falls upon individual California consumers rather than out-of-state vendors.<sup>1</sup>

### Top 500 Internet Retailers

U.S. Bureau of Census data indicate that about 60 percent of remote sales are electronic.<sup>2</sup> About 94 percent of these online sales are accounted for in an annual publication called the *Top 500 Guide: Profiles and Statistics of America's 500 Largest Retail Web Sites Ranked by Annual Sales (Top 500 Guide)*.<sup>3</sup> By analyzing data obtained in the 2010 edition of the *Top 500 Guide*, which has sales and other data for these retailers, and combining them with other data from federal and state sources, we are able to determine some important characteristics of ecommerce sellers and buyers, and taxpayers.

### Characteristics of the Top 500 Internet Retailers and Their Customers

According to the *Top 500 Guide*, these U.S. retail websites combined had about 2.6 billion visits per month in 2009, an average of over 13 visits per month by each U.S. Internet user. The "conversion rate" of website visits into sales averaged 4.3 percent of visits. Sales made by these retailers totaled \$126.4 billion in 2009, about \$660 per U.S. household with an Internet connection. There were about 602 million transactions, with sales averaging \$210 per transaction. A typical ticket averaged \$197 per transaction after excluding the highest and lowest categories.

<sup>1</sup> For Board of Equalization estimates of use tax revenue losses from remote sales, [www.boe.ca.gov/legdiv/pdf/e-commerce-11-10.pdf](http://www.boe.ca.gov/legdiv/pdf/e-commerce-11-10.pdf)

<sup>2</sup> For a more complete discussion of the percentage of electronic remote sales and other trends in remote sales, see the February 2011 issue of the Board of Equalization Economic Perspective newsletter, [www.boe.ca.gov/news/pdf/EP2-11.pdf](http://www.boe.ca.gov/news/pdf/EP2-11.pdf)

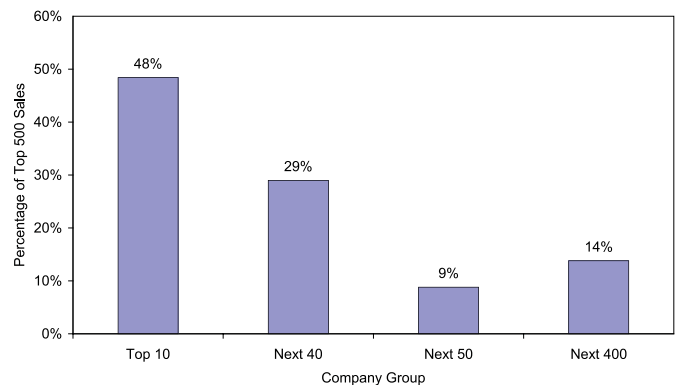
<sup>3</sup> Published by Internet Retailer, [www.internetretailer.com/home](http://www.internetretailer.com/home)

### Sales Concentrated in Largest Retailers

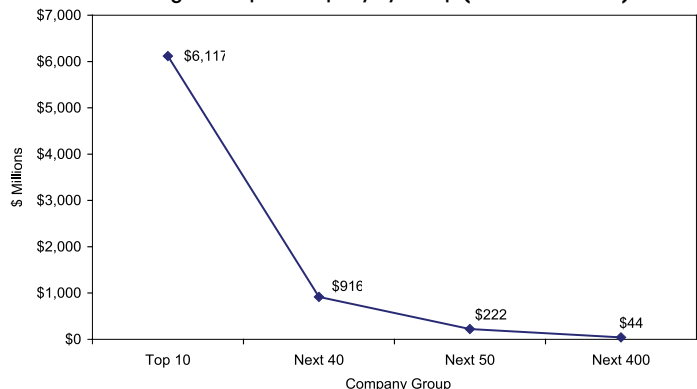
The *Top 500 Guide* shows that ecommerce sellers are very concentrated. A relatively small number of the 500 firms account for a large percentage of sales. As shown in Chart 1, the top ten ecommerce firms account for 48 percent of sales of all 500 companies. The next 40 companies account for another 29 percent, so the top 50 companies combined comprise 77 percent of sales made by all 500 companies.

Such a disproportionate concentration of sales by the largest ecommerce companies would also suggest that sales per company are much greater for the largest ones. This is certainly the case, as shown in Chart 2. The top ten companies average ecommerce sales of \$6.117 billion per company. At the other extreme, the smallest 400 companies of the 500 average sales of \$44 million each, a factor of 139 times less sales than the top ten average.

**Chart 1**  
Percentages of Top Internet 500 Sales by Company Group



**Chart 2**  
Average Sales per Company by Group (Millions of Dollars)



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Not only are sales concentrated in the largest Internet retailers, but concentration appears to be growing over time. Sales made by the top 100 companies rose nine percent in 2009, while sales by the smallest 100 of the 500 companies rose just two percent.

### Sales by Household Income Group

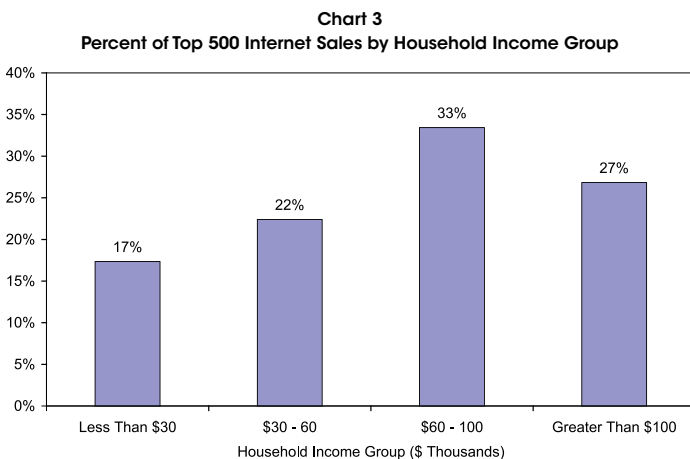
The *Top 500 Guide* includes information about the customers of these companies. One sales characteristic published is annual income, with households placed into one of the following four groups:

- (1) Less than \$30,000
- (2) \$30,000 to \$60,000
- (3) \$60,000 to \$100,000
- (4) Over \$100,000

In terms of numbers of households, these groups approximate Bureau of Labor Statistics (BLS) consumer expenditure data which indicate that close to 40 percent of U.S. households have household incomes under \$30,000, while the other three groups each account for about 20 percent of U.S. households.<sup>4</sup>

### Sales Highest to Upper Middle Income Group

As shown in Chart 3, the largest percentage of *Top 500* ecommerce sales are made to the upper middle income group; about 33 percent of all *Top 500* ecommerce sales are to households with incomes between \$60,000 and \$100,000. The highest earning group, which accounted for over 50 percent of 2008 adjusted gross income according to U.S. Treasury Department statistics, made 27 percent of purchases.

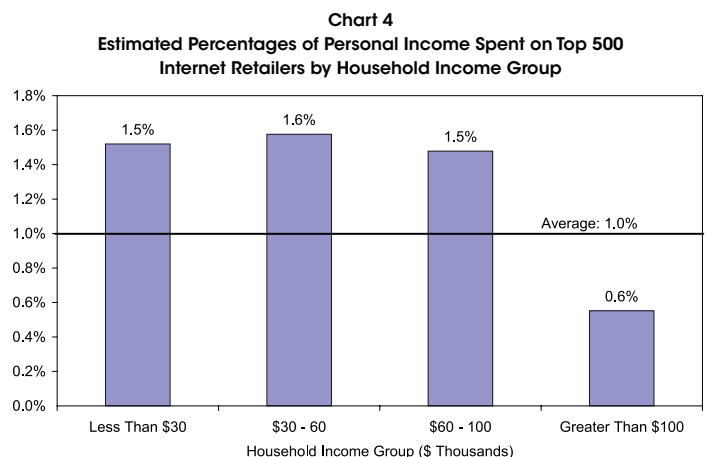


<sup>4</sup> The income groups published in the BLS *Consumer Expenditure Surveys* do not precisely match these income groups. The BLS data for spending by quintiles indicate that the bottom two quintiles of households (40 percent of households) have annual incomes less than about \$36,000, the next quintile is households with incomes between \$36,000 and \$57,000, the next one between \$57,000 and \$94,000, and the highest quintile more than \$94,000.

### Top 500 Spending Percentages of Income

Using data from the U.S. Bureau of Economic Analysis and the Bureau of Labor Statistics we estimated personal income for each group. With these data we calculated percentages of Top 500 Internet retailer spending by each income group, which are shown in Chart 4.

As shown in the chart, average *Top 500* Internet retailer spending is about one percent of income. The lowest three income groups have very similar spending to income ratios of close to 1.5 percent. These three income groups represent close to 80 percent of U.S. households, indicating how pervasive Internet shopping is among Americans. Low income households spend proportionately similar percentages of their incomes online as middle and upper middle class households. Only the highest income group appears to have a significantly different spending pattern. The highest income group spends proportionately much less of their income online, 0.6 percent.



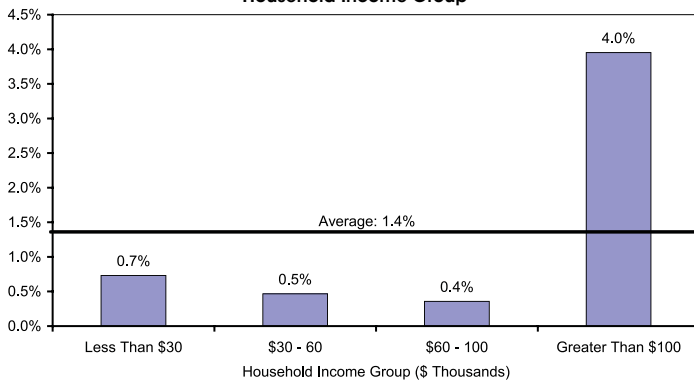
### Consumer Use Tax Payments

California Franchise Tax Board data indicate that about 0.4 percent of personal income taxpayers pay use tax related to remote sales on their personal income tax returns. These tax payments are for remote purchases made from companies located outside the state that have no legal obligation to collect California sales tax from their customers. Using these data, our remote sales revenue loss estimates, and sales by income group from the *Top 500 Guide* discussed earlier, we were able to estimate compliance with use tax liabilities related to remote sales by income group.

### Use Taxes Paid by Income Group

The results are summarized in Chart 5. We determined that taxpayers are paying an average of about 1.4 percent of the total use tax liabilities they owe related to purchases made from out-of-state retailers who do not collect sales tax. Compliance is much less than one percent of liabilities for all household income groups except the highest-earning group. High-income taxpayers paid an average of four percent of their liabilities, much more than average.

**Chart 5**  
**Estimated Percentages of Use Tax Paid on Liabilities Owed by Household Income Group**



**Use Tax Liabilities by Income Group**

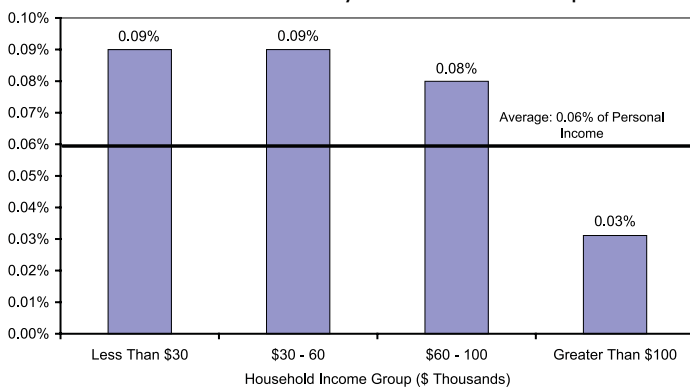
Our last analysis of these data was to estimate remote sales with use tax liabilities in relation to income. We did this analysis using the average statewide tax rate that will be in effect on July 1, 2011 under current law.<sup>5</sup>

As shown in Chart 6, California households, on average, owe use taxes of approximately 0.06 percent of incomes. The average is close to 0.09 percent for the three bottom income groups, but only 0.03 percent for the highest income group.

**Summary**

Internet sales are highly concentrated in large sellers. These online sales and their associated use tax payments vary greatly according to household income group.

**Chart 6**  
**Estimated Use Tax Revenues From Remote Sales As Percentages of Personal Income by Household Income Group**



<sup>5</sup> A temporary increase in the state portion of the sales and use tax took effect April 1, 2009. The state portion of the sales and use tax rose from 5 percent to 6 percent, and will be in effect until June 30, 2011.

**Contact Us**

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

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[www.boe.ca.gov/news/epcont.htm](http://www.boe.ca.gov/news/epcont.htm)

Taxpayers' Rights Advocate: 888-324-2798

To contact your Board Member, see  
[www.boe.ca.gov/members/board.htm](http://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](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  
[www.bea.gov](http://www.bea.gov)

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

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