# us on Prices and Spending

## Consumer Expenditures: 2008

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### Current Spending Topics More than 75 Percent of American Households Own Computers

Home computers are playing an increasingly important role in our lives. In a short time, it seems that home computers have gone from an expensive luxury item to a necessity, but how many households actually own computers—and who is likely to own a computer? Data from the Consumer Expenditure Survey (CE) program at the U.S. Bureau of Labor Statistics (BLS) show that the percentage of U.S. households owning computers (desktops and laptops) has increased steadily over the past decade, reaching 75.6 percent in 2008. This summary provides two sets of data showing averages for all consumer units (CUs)<sup>1</sup> and for those that own at least one computer. The percentage of computer ownership and the average number of computers owned are also classified by age group and by education level for CUs.



About 3 of every 4 CUs owned a home computer in 2008, compared with less than half of all CUs in 2000. (Chart 1 tracks the percentage of CUs that owned a computer from 2000 to 2008). From 2000 through 2004, there was a large increase in the percentage of CUs that owned a computer, jumping from 48.2 percent in 2000 to 67.5 percent in 2004. After 2004, the computer ownership percentages continued to rise, but did so at a decreasing rate. In coming years, it will be interesting to see whether the 80-percent level is a plateau, the point at which those CUs that want to own a computer already own one.

The CE data on computer ownership are comparable to the U.S. Census Bureau's data from the Current Population Survey (CPS) Computer Use and Ownership Supplement for available years.<sup>2</sup> For example, in 2003 the CE data shows that computer ownership was 62.4 percent, compared with 61.8 percent for the CPS data. The data were also comparable in 2001 and 2000.

The number of computers owned per household also has increased over the past decade. Table 1 shows the average number of computers owned each year between 2000 and 2008. The table also shows the average number of computers owned for all CUs, including computer owners and non-owners (that is, those respondents who do not own a computer), and for only those CUs that own at least one computer. In 2008, all CUs owned an average of 1.16 computers, more than double the average of .54 computers in 2000. For those CUs that owned at least one computer, the average increased from 1.25 computers in 2000 to 1.55 computers in 2008.

#### Age

Younger age groups are more likely to own computers. The data classified by the age of the reference person reveals that by 2008 the five youngest age groups<sup>3</sup> had computer ownership rates of around 80 percent. Chart 2 shows the percentage of computer ownership by age group for 2000 and 2008. In 2008, the 35-to-44 age group had the highest percentage of computer ownership, with 84.2 percent owning at least one computer. The 45-to-54 age group followed, with 81.5 percent owning at least one computer. The 75-and-older age group had the lowest computer ownership percentage in 2008, with 41.9 percent owning at least one computer. The age group that had the highest percentage-point increase from 2000 to 2008 was the 55-to-64 age group, with 45.4

Table 1: Average number of computers owned, Consumer Expenditure Survey, 2000–08											
Characteristic	2000	2001	2002	2003	2004	2005	2006	2007	2008		
Mean number of computers - all consumer units	0.54	0.62	0.69	0.79	0.91	0.97	1.03	1.09	1.16		
Mean number of computers - owners only	1.25	1.26	1.31	1.34	1.36	1.43	1.46	1.50	1.55		

percent owning at least one computer in 2000, compared with 78.7 percent in 2008, an increase of 33.3 percentage points. This was closely followed by the 65-to-74 age group, which increased their ownership from 31.4 percent in 2000 to 64 percent in 2008, a 32.7-percentage-point increase. Based on these trends, it will be interesting to see in future studies if the older groups end up approaching the computer ownership levels of the five younger groups.

Table 2 provides the average number of computers owned by age group for 2000 and 2008. Among all CUs including non-owners, the 35-to-44 age group owned the highest average number of computers in 2008, with 1.39 computers. The 75-and-older age group owned an average of 0.51 computers, the lowest among all age groups. Among CUs that owned at least one computer, the 45to-54 age group owned the highest average number of computers, with 1.7 computers in 2008, followed closely by the 35-to-44 age group, with 1.67 computers.

#### Education

Analyzing the data by the education level<sup>4</sup> of the reference person reveals that higher levels of educational attainment correspond to an increasing likelihood of owning a computer. Chart 3 shows the percentage of computer ownership by education level for 2000 and 2008. Consumer units with reference persons having an advanced degree had the highest level of computer ownership in 2008, with 94.2 percent owning at least one computer. CUs that include reference persons with bachelor's degrees have a computer ownership rate of 90.3 percent. CUs with reference persons that have less than a high school education reported computer ownership of 42.2 percent in 2008, the lowest among all education levels. CUs with reference persons that had some college or associate degrees had the highest percentage-point increase from



2000 to 2008, rising from 55.7 percent in 2000 to 84.3 percent in 2008. This was followed closely by CUs with reference persons who were high school graduates, increasing from 37.7 percent in 2000 to 66 percent in 2008.

Table 2 provides the average number of computers owned, classified by the education level of the reference person for 2000 and 2008. The table shows the average number of computers owned for all CUs (including computer owners and non-owners) and for only those CUs that own at least one computer. Among the education groups, all CUs (including computer owners and non-owners) whose reference persons had an advanced degree owned 1.7 computers in 2008, the highest average number of computers. CUs with reference persons who had bachelor's degrees followed with 1.54 computers. CUs whose reference person did not have a high school degree owned with 0.52 computers the lowest average number of computers in 2008.

For CUs who owned at least one computer, those with reference persons who had an advanced degree owned the highest average number of computers in 2008, with 1.81 computers. This was followed by CUs with reference persons holding bachelor's degrees, with an average of 1.72 computers. The group with less than a high school education owned 1.27 computers, the lowest average number of computers in 2008.

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Characteristic	Average compute	number of ers owned	Average number of computers owned – owners only							
Age	2000	2008	2000	2008						
Under 25	0.50	1.10	1.21	1.44						
25-34 years	0.57	1.20	1.21	1.49						
35-44 years	0.69	1.39	1.25	1.67						
45-54 years	0.71	1.37	1.32	1.70						
55-64 years	0.51	1.17	1.24	1.50						
65-74 years	0.33	0.87	1.18	1.37						
75 years and older	0.14	0.51	1.12	1.24						
Education										
Less than high school graduate	0.16	0.52	1.11	1.27						
High school graduate	0.39	0.88	1.15	1.35						
Some college or associates degree	0.62	1.28	1.23	1.54						
Bachelor's degree	0.84	1.54	1.33	1.72						
Advanced degree	0.95	1.70	1.36	1.81						

# **Table 2.** Average number of computers owned, by age and education of the reference<br/>person, Consumer Expenditure Survey, 2000 and 2008

These data are derived from an unpublished inventory of durable goods collected during the first interview in Section 1, Part C of the Consumer Expenditure Interview Survey questionnaire. This section is used to create an inventory of household appliances, including major kitchen appliances, washers and dryers, televisions, and computers. During this portion of the interview, a field representative asks the respondent how many computers the CU owns. Using this information, tables showing the percent of CUs that report owning selected durables, including computers, are generated annually. These tables

are available upon request from the Division of Consumer Expenditure Surveys. The data that are used to create the tables are also included in the CE public-use microdata files. BLS sells CD-ROMs containing annual CE public use microdata. Information about the microdata, including an order form, is available at **http://www.bls.gov/cex/ csxmicro.htm**.

Data tables, CE publications, a glossary, survey forms, and other information are available at **www.bls.gov/cex**. For further information, please contact Steve Henderson at 202-691-5124 or e-mail at **Henderson\_S@bls.gov.** 



#### Chart 3. Percentage of computer ownership by education level, Consumer Expenditure Survey, 2000 and 2008

#### Notes

<sup>1</sup> A consumer unit is defined as members of a household related by blood, marriage, adoption, or other legal arrangement; a single person living alone or sharing a household with others but who is financially independent; or two or more persons living together who share responsibility for at least 2 out of 3 major types of expenses—food, housing, and other expenses. For the purposes of this summary, the terms consumer unit and household are used interchangeably.

<sup>2</sup> U.S. Census Bureau, Current Population Survey: Computer Use and Ownership Supplement http://www.census.gov/population/ www/socdemo/computer.html.

<sup>3</sup> Age group is determined by the age of the reference person, who is the first person mentioned by the respondent when asked to "start with the name of the person or one of the persons who owns or rents the home." It is with respect to this person that the relationship of the other CU members is determined.

<sup>4</sup> Education level is defined as the number of years of formal education of the reference person, on the basis of the highest grade completed. If enrolled at time of the interview, the interviewer records the grade currently attended. Persons not reporting the extent of their education are classified under no school or not reported. The category of no school or not reported was not included in this analysis.