

Changes in the Use of Electronic Means of Payment: 1995-2013
An Update Using the Recently Released 2013 Survey of Consumer Finances

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This article updates the tables published in an article by Loretta Mester in the March/April 2000 issue of Federal Reserve Bank of Philadelphia's *Business Review* and last updated in the Third Quarter 2012 issue.

“The Changing Nature of the Payments System: Should New Players Mean New Rules?” (*Business Review*, Federal Reserve Bank of Philadelphia, March/April 2000) presented some data from the 1995 Federal Reserve Survey of Consumer Finances on the use of electronic banking. This survey of now more than 6,000 households is designed to be representative of all households in the U.S. and is retaken every three years.¹ The Federal Reserve recently released the results from the 2013 survey. Attached are updates of the statistics indicating how the usages of various means of electronic payment have changed between 1995 and 2013.

Exhibit 1 and the accompanying charts show that the percentage of households using electronic forms of payment, which includes ATMs, debit cards, automatic bill paying, and smart cards, continues to increase, rising from about 78 percent in 1995 to 97 percent in 2013. Over 80 percent of households now use ATMs, debit cards, and/or direct deposit, and over 50 percent use automatic bill paying. The percentage of households using software to manage their money remains relatively low at about 20 percent and only slightly above the 18 percent reported in 2001. Such software was more likely to be used by younger households, those with higher income, and those with higher education. Indeed, although not shown in the table, software is used by about 45 percent of households whose head is under age 30, is in the upper income category, and has a college degree. (Slightly more than 1 percent of households fall in this category.) This compares with software being used by 5 percent of households whose head is over 60 years old, with low income and without a college degree. (Nearly 9 percent of households fall in this category.)

Despite the increasing use of electronic means of payment, as seen in Exhibit 2 and the accompanying charts, for households that do business with at least one financial institution, 84 percent report that one of the main ways they deal with at least one of their financial institutions is in person. This is down only slightly from 2007 and 2010. The proportion of households that use the mail as one of the main ways of doing business is waning and is now less than 50 percent. Overall use of electronic

¹For more information on the survey, see Bricker, Jesse, et al., “Changes in U.S. Family Finances from 2010 to 2013: Evidence from the Survey of Consumer Finances,” *Federal Reserve Bulletin*, 100, September 2014, <http://www.federalreserve.gov/pubs/bulletin/2014/pdf/scf14.pdf>.

means as a main way of doing business – either ATM, phone, fax, direct deposit and payment, other electronic transfer, and/or computer – continued to increase. In 2013, nearly 96 percent of households used an electronic method as one of their main ways of conducting business, and differences by income, education, and age continued to become less pronounced.

As was true in many of the prior surveys, the largest growth in 2013 was seen in the percentage of all households that use a computer, the internet, or an online service as a main way to do business with at least one of their financial institutions. This is now over 65 percent. As with the other methods, the differences by household age, income, and education are narrowing, but they remain the most pronounced among the various methods. For example, 38 percent of low-income households report using the computer as a main method of doing business, compared with 86 percent of high-income households. Less than half of households with heads over 60 years old use the computer as a main method, while three-fourths of households with heads under 30 years old do. And about 83 percent of college-educated households use the computer, while only 53 percent of those without a college degree do.

Exhibit 1, Part 1
Percent of U.S. Households That Use Each Instrument^a

	ATM ^b							Debit Card							Direct Deposit							
	1995	1998	2001	2004	2007	2010	2013	1995	1998	2001	2004	2007	2010	2013	1995	1998	2001	2004	2007	2010	2013	
All Households	62.5%	67.4%	69.8%	74.4%	79.7%	83.4%	87.0%	17.6%	33.8%	47.0%	59.3%	67.0%	78.4%	80.3%	46.7%	60.5%	67.3%	71.2%	74.9%	75.9%	82.6%	
By Age:																						
Under 30 years old	72.3%	75.6%	78.1%	83.0%	84.8%	88.7%	92.9%	24.4%	45.0%	60.6%	74.4%	78.3%	88.5%	91.8%	31.0%	45.2%	48.8%	54.0%	61.3%	63.2%	71.4%	
Between 30 and 60 years old	68.6%	76.1%	76.8%	82.3%	85.9%	88.4%	90.7%	19.7%	38.6%	53.4%	67.6%	74.9%	84.1%	85.2%	42.8%	58.0%	64.8%	68.2%	72.6%	73.4%	78.8%	
Over 60 years old	44.2%	41.9%	48.9%	51.6%	63.5%	70.6%	77.7%	9.6%	16.0%	24.6%	32.5%	43.9%	62.3%	66.7%	63.3%	74.8%	83.2%	87.0%	86.4%	86.7%	93.9%	
By Income:																						
Low Income	38.5%	45.9%	46.8%	53.0%	58.8%	67.5%	74.7%	7.0%	19.7%	29.2%	41.2%	48.1%	64.5%	70.7%	32.5%	44.3%	51.9%	54.8%	60.5%	58.7%	69.6%	
Moderate Income	61.5%	64.4%	67.4%	73.4%	78.5%	82.4%	85.5%	16.0%	31.6%	46.3%	57.4%	68.0%	78.3%	79.2%	42.9%	58.8%	63.1%	64.0%	68.5%	72.3%	78.2%	
Middle Income	70.9%	72.0%	75.2%	78.3%	87.5%	87.4%	91.6%	20.5%	36.6%	50.0%	64.3%	75.0%	83.5%	86.3%	48.3%	66.1%	65.7%	73.2%	76.8%	79.8%	85.9%	
Upper Income	77.2%	82.3%	83.7%	86.5%	91.0%	93.2%	94.7%	25.1%	43.8%	57.8%	69.3%	75.8%	86.0%	85.2%	58.3%	70.4%	80.2%	83.6%	86.6%	88.2%	92.8%	
By Education:																						
No college degree	54.7%	60.1%	63.7%	67.4%	74.0%	78.1%	82.9%	14.3%	29.2%	42.3%	54.9%	63.7%	75.0%	78.2%	40.3%	54.4%	61.8%	64.3%	68.9%	70.4%	77.7%	
College Degree	80.4%	82.1%	81.6%	86.4%	90.3%	92.3%	93.4%	25.2%	43.1%	56.2%	67.0%	72.9%	84.2%	83.5%	61.0%	72.6%	78.0%	83.2%	85.9%	85.2%	90.2%	

^aThe percentages reported are based on the population-weighted figures using the revised Kennickell-Woodburn consistent weights for each year. (For further discussion, see the Survey of Consumer Finances codebooks at <http://www.federalreserve.gov/econresdata/scf/scfindex.htm>.) This exhibit reports percentages for all households.

^bThe question on ATMs asked whether any member of the household had an ATM card and not whether the member used it. The other questions asked about usage. Note that previous updates of this report included statistics on smart cards. That question was dropped after the 2001 survey.

^cLow income is defined as less than 50 percent of the median household income; moderate income is 50 to 80 percent of the median; middle income is 80 to 120 percent of the median; and upper income is greater than 120 percent of the median. Each survey refers to income in the previous year. Median income in current dollars was \$32,264 in 1994; \$37,005 in 1997; \$41,990 in 2000; \$43,318 in 2003; \$48,201 in 2006; \$49,777 in 2009; and \$51,017 in 2012.

Source: 1995, 1998, 2001, 2004, 2007, 2010, 2013 Survey of Consumer Finances data as of September 4, 2014, Federal Reserve System, and authors' calculations.

Exhibit 1, Part 2
Percent of U.S. Households That Use Each Instrument^a

	Automatic Bill Paying							Software ^b					Any of the Methods: ATM, Debit Card, Smart Card, Direct Deposit, Automatic Bill Paying, or Software							
	1995	1998	2001	2004	2007	2010	2013	2001	2004	2007	2010	2013	1995	1998	2001	2004	2007	2010	2013	
All Households	21.8%	36.0%	40.3%	47.4%	45.5%	48.3%	53.4%	18.0%	19.3%	19.1%	18.5%	19.7%	77.7%	85.5%	88.9%	90.7%	91.8%	93.7%	96.9%	
By Age:																				
Under 30 years old	17.7%	30.5%	32.1%	36.5%	35.7%	42.9%	43.9%	17.0%	20.4%	21.4%	22.3%	23.3%	76.3%	80.2%	83.8%	87.6%	88.6%	92.2%	96.6%	
Between 30 and 60 years old	24.4%	38.6%	44.1%	50.3%	48.8%	49.8%	55.6%	22.0%	21.9%	21.6%	20.3%	21.2%	78.7%	87.5%	89.9%	90.9%	92.4%	93.9%	96.2%	
Over 60 years old	18.2%	33.0%	35.9%	46.5%	42.9%	47.5%	52.9%	9.0%	12.8%	12.3%	13.0%	15.5%	76.1%	83.7%	89.4%	92.0%	92.1%	94.0%	98.2%	
By Income:																				
Low Income	9.7%	17.1%	18.2%	24.6%	23.8%	29.4%	34.1%	6.1%	6.8%	7.7%	9.0%	9.7%	56.7%	69.3%	74.3%	78.0%	79.7%	84.6%	91.5%	
Moderate Income	17.5%	30.5%	35.1%	40.5%	37.8%	42.3%	45.8%	10.7%	11.1%	10.7%	11.2%	12.0%	78.4%	87.2%	88.6%	88.7%	91.1%	93.4%	97.3%	
Middle Income	23.4%	42.8%	45.1%	52.8%	50.2%	52.9%	59.8%	16.3%	17.8%	18.8%	17.0%	18.8%	85.1%	89.4%	92.5%	95.5%	96.4%	96.7%	99.1%	
Upper Income	32.1%	49.3%	55.2%	62.4%	61.6%	62.5%	68.4%	29.9%	31.4%	30.5%	29.4%	31.1%	89.6%	94.9%	97.1%	97.5%	98.4%	98.9%	99.7%	
By Education:																				
No college degree	18.1%	30.2%	33.7%	39.5%	38.0%	40.8%	45.8%	10.9%	12.4%	11.9%	11.2%	13.2%	71.4%	80.7%	85.1%	86.6%	88.4%	90.9%	95.3%	
College Degree	30.1%	47.7%	53.2%	61.1%	59.3%	61.0%	65.3%	31.8%	31.3%	32.2%	30.7%	29.9%	91.8%	95.1%	96.4%	98.0%	98.2%	98.4%	99.5%	

^aThe percentages reported are based on the population-weighted figures using the revised Kennickell-Woodburn consistent weights for each year. (For further discussion, see the Survey of Consumer Finances codebooks at <http://www.federalreserve.gov/econresdata/scf/scfindex.htm>.) This exhibit reports percentages for all households.

^bThe question on software asked whether the respondent or spouse/partner uses any type of computer software to help in managing their money.

^cLow income is defined as less than 50 percent of the median household income; moderate income is 50 to 80 percent of the median; middle income is 80 to 120 percent of the median; and upper income is greater than 120 percent of the median. Each survey refers to income in the previous year. Median income in current dollars was \$32,264 in 1994; \$37,005 in 1997; \$41,990 in 2000; \$43,318 in 2003; \$48,201 in 2006; \$49,777 in 2009; and \$51,017 in 2012.

Source: 1995, 1998, 2001, 2004, 2007, 2010, and 2013 Survey of Consumer Finances data as of September 4, 2014, Federal Reserve System, and authors' calculations.

Exhibit 2, Part 1
Percent of U.S. Households with at Least One Financial Institution Using Each Method
Among the Main Ways of Conducting Business with at Least One of Their Financial Institutions^a

	In Person							Mail							ATM/Debit Card ^b							
	1995	1998	2001	2004	2007	2010	2013	1995	1998	2001	2004	2007	2010	2013	1995	1998	2001	2004	2007	2010	2013	
All Households	85.5%	79.5%	77.2%	77.4%	84.9%	84.9%	83.5%	56.5%	54.1%	50.4%	50.5%	58.9%	52.1%	49.6%	33.8%	52.6%	56.7%	64.4%	73.6%	77.5%	79.9%	
By Age:																						
Under 30 years old	77.0%	73.7%	71.5%	72.9%	79.3%	80.1%	76.4%	58.2%	51.9%	50.5%	44.5%	52.4%	45.4%	42.6%	53.0%	68.8%	72.6%	79.3%	86.2%	89.8%	90.3%	
Between 30 and 60 years old	86.8%	81.8%	78.6%	77.3%	84.8%	84.6%	83.7%	62.1%	60.4%	56.6%	56.8%	62.7%	54.0%	51.0%	37.7%	61.5%	65.0%	72.0%	82.2%	83.3%	85.0%	
Over 60 years old	86.7%	77.2%	76.8%	79.6%	87.7%	87.6%	85.8%	44.0%	39.9%	36.0%	39.2%	53.5%	51.0%	49.8%	16.2%	22.3%	29.8%	39.9%	49.5%	60.4%	66.7%	
By Income:																						
Low Income	81.2%	70.3%	68.2%	71.2%	80.9%	81.1%	78.3%	32.8%	33.4%	24.7%	28.9%	40.4%	39.5%	38.1%	19.6%	34.7%	35.6%	46.6%	53.9%	63.7%	67.1%	
Moderate Income	85.9%	80.4%	76.9%	75.0%	83.0%	83.6%	84.2%	48.5%	46.9%	42.0%	42.8%	52.5%	47.8%	44.9%	29.6%	47.8%	50.5%	62.3%	71.4%	74.9%	75.6%	
Middle Income	85.7%	81.4%	78.6%	77.8%	86.4%	87.0%	84.0%	56.9%	56.4%	58.4%	56.4%	63.0%	56.7%	52.3%	37.7%	54.1%	60.7%	65.9%	80.5%	80.6%	86.2%	
Upper Income	87.7%	84.1%	81.8%	81.5%	87.4%	87.1%	86.5%	74.3%	69.1%	64.9%	63.0%	70.9%	60.1%	58.5%	42.3%	65.2%	69.6%	74.4%	83.3%	86.0%	87.8%	
By Education:																						
No college degree	85.8%	79.2%	75.1%	76.9%	84.0%	84.3%	83.0%	49.4%	48.2%	43.5%	44.3%	53.8%	47.8%	45.6%	27.4%	45.1%	50.1%	59.2%	69.0%	74.2%	76.1%	
College Degree	84.8%	80.2%	81.1%	78.0%	86.5%	85.9%	84.3%	71.2%	65.2%	63.0%	60.6%	67.7%	59.2%	55.7%	46.7%	66.7%	68.8%	72.9%	81.7%	82.8%	85.7%	

^aThe percentages reported are based on the population-weighted figures using the revised Kennickell-Woodburn consistent weights for each year. (For further discussion, see the Survey of Consumer Finances codebooks at <http://www.federalreserve.gov/econresdata/scf/scfindex.htm>.) Referring to each financial institution with which the household does business, the survey asked: "How do you mainly do business with this institution?" Respondents could list multiple methods, with the main method listed first. This exhibit reports for all households with at least one financial institution all the methods a respondent listed for each of the household's financial institutions. Note, the percentages do not add up to 100 percent across columns, since households could list more than one method and more than one financial institution. Versions of this chart prior to 2006 reported for 1998 and 2001 on the main ways respondents did business with their depository financial institutions (i.e., commercial banks, trust companies, thrifts, and credit unions) rather than with any of their financial institutions.

^bIn 1995, the question did not include debit cards

^bLow income is defined as less than 50 percent of the median household income; moderate income is 50 to 80 percent of the median; middle income is 80 to 120 percent of the median; and upper income is greater than 120 percent of the median. Each survey refers to income in the previous year. Median income in current dollars was \$32,264 in 1994; \$37,005 in 1997; \$41,990 in 2000; \$43,318 in 2003; \$48,201 in 2006; \$49,777 in 2009; and \$51,017 in 2012.

Source: 1995, 1998, 2001, 2004, 2007, 2010, and 2013 Survey of Consumer Finances data as of September 4, 2014, Federal Reserve System, and authors' calculations.

Exhibit 2, Part 2
Percent of U.S. Households with at Least One Financial Institution Using Each Method
Among the Main Ways of Conducting Business with at Least One of Their Financial Institutions^a

	Phone							Computer							Electronic ^b						
	1995	1998	2001	2004	2007	2010	2013	1995	1998	2001	2004	2007	2010	2013	1995	1998	2001	2004	2007	2010	2013
All Households	25.7%	49.7%	48.9%	49.0%	61.8%	61.4%	62.8%	3.7%	6.2%	19.6%	33.7%	51.5%	60.5%	65.4%	56.2%	81.7%	87.0%	89.2%	93.3%	94.8%	96.3%
By Age:																					
Under 30 years old	20.8%	45.4%	45.9%	43.2%	52.9%	58.6%	61.2%	5.2%	8.3%	22.9%	42.2%	61.7%	73.9%	75.8%	66.7%	81.0%	85.2%	89.2%	94.6%	96.9%	97.5%
Between 30 and 60 years old	28.1%	54.3%	52.4%	51.5%	64.8%	62.2%	64.0%	4.5%	7.6%	24.2%	39.9%	60.5%	67.9%	73.7%	59.9%	85.1%	89.4%	90.9%	95.1%	96.1%	97.3%
Over 60 years old	23.0%	40.6%	42.4%	46.0%	59.3%	60.7%	61.2%	1.2%	1.6%	7.3%	15.4%	27.4%	40.0%	46.3%	43.4%	73.9%	82.4%	85.4%	88.7%	91.2%	94.1%
By Income:																					
Low Income	13.5%	28.8%	29.2%	30.0%	46.8%	50.0%	52.5%	1.3%	1.5%	4.8%	14.0%	23.9%	33.1%	38.0%	35.3%	65.4%	73.8%	78.7%	83.7%	87.4%	90.4%
Moderate Income	18.6%	42.5%	42.8%	44.8%	59.6%	59.6%	60.6%	1.8%	2.7%	11.2%	22.5%	38.1%	48.5%	54.9%	48.5%	80.1%	84.2%	84.8%	92.1%	94.2%	96.5%
Middle Income	22.6%	51.7%	51.7%	50.7%	62.8%	64.4%	64.3%	4.0%	4.3%	17.8%	32.5%	53.0%	64.1%	71.4%	59.2%	85.2%	89.7%	92.1%	96.6%	97.0%	98.6%
Upper Income	37.9%	64.9%	61.4%	60.4%	71.2%	68.1%	70.2%	5.9%	11.5%	32.5%	49.5%	72.9%	82.1%	86.2%	70.8%	91.0%	94.5%	95.6%	98.1%	98.7%	99.2%
By Education:																					
No college degree	19.7%	41.9%	41.7%	43.4%	58.1%	57.1%	58.3%	2.8%	2.7%	11.3%	24.0%	39.8%	48.8%	53.3%	47.8%	76.5%	83.2%	85.7%	90.3%	92.8%	94.6%
College Degree	38.1%	64.3%	61.9%	58.0%	68.2%	68.3%	69.6%	5.6%	12.8%	34.8%	49.4%	71.8%	79.4%	83.5%	73.5%	91.4%	94.0%	94.9%	98.4%	98.0%	98.9%

^aThe percentages reported are based on the population-weighted figures using the revised Kennickell-Woodburn consistent weights for each year. (For further discussion, see the Survey of Consumer Finances codebooks at <http://www.federalreserve.gov/econresdata/scf/scfindex.htm>.) Referring to each financial institution with which the household does business, the survey asked: “How do you mainly do business with this institution?” Respondents could list multiple methods, with the main method listed first. This exhibit reports for all households with at least one financial institution all the methods a respondent listed for each of the household’s financial institutions. Note, the percentages do not add up to 100 percent across columns, since households could list more than one method and more than one financial institution. Versions of this chart prior to 2006 reported for 1998 and 2001 on the main ways respondents did business with their depository financial institutions (i.e., commercial banks, trust companies, thrifts, and credit unions) rather than with any of their financial institutions.

^bIn 1995, electronic refers to ATM, phone, payroll deduction and direct deposit, electronic transfer, or computer. In 1998, 2001, 2004, 2007, 2010, and 2013, electronic refers to ATM, phone (via voice or touch-tone), direct deposit, direct withdrawal/payment, other electronic transfer, computer/internet/online service, or fax machine.

^cLow income is defined as less than 50 percent of the median household income; moderate income is 50 to 80 percent of the median; middle income is 80 to 120 percent of the median; and upper income is greater than 120 percent of the median. Each survey refers to income in the previous year. Median income in current dollars was \$32,264 in 1994; \$37,005 in 1997; \$41,990 in 2000; \$43,318 in 2003; \$48,201 in 2006; \$49,777 in 2009; and \$51,017 in 2012.

Figures 1.1-1.6 illustrate the data in Exhibit 1 on the percent of U.S. households that use each instrument

Figure 1.1a
Exhibit 1 ATM: By Age

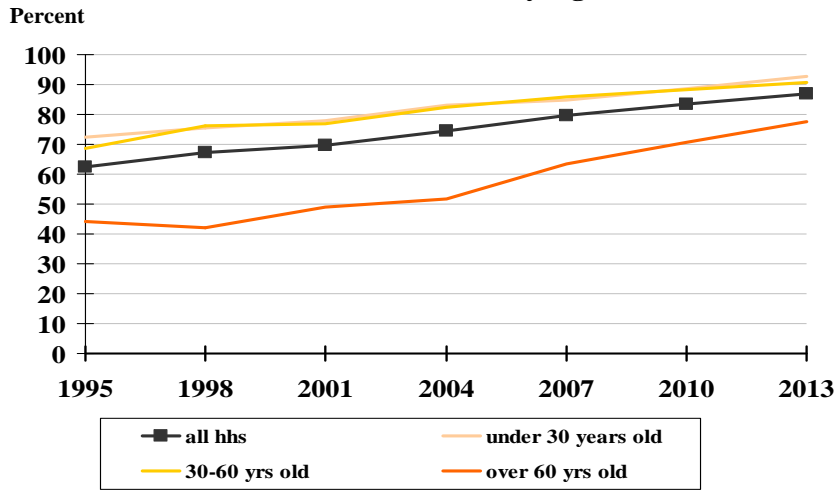


Figure 1.1b
Exhibit 1 ATM: By Income

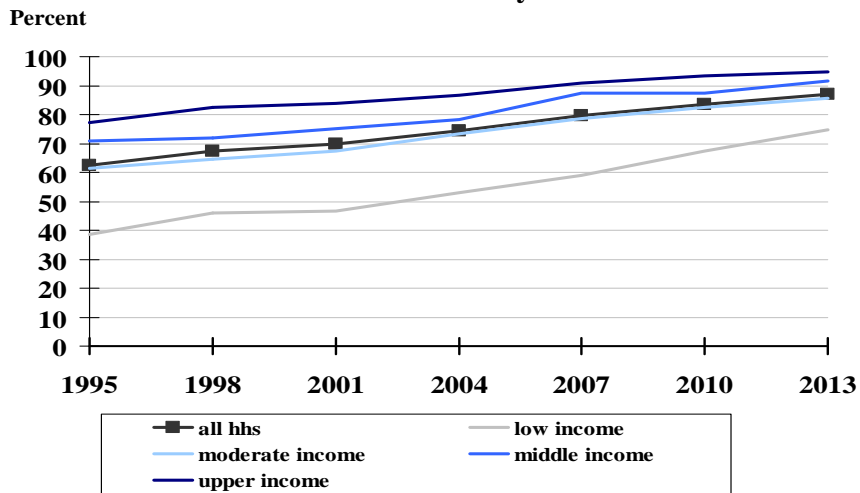


Figure 1.1c
Exhibit 1 ATM: By Education

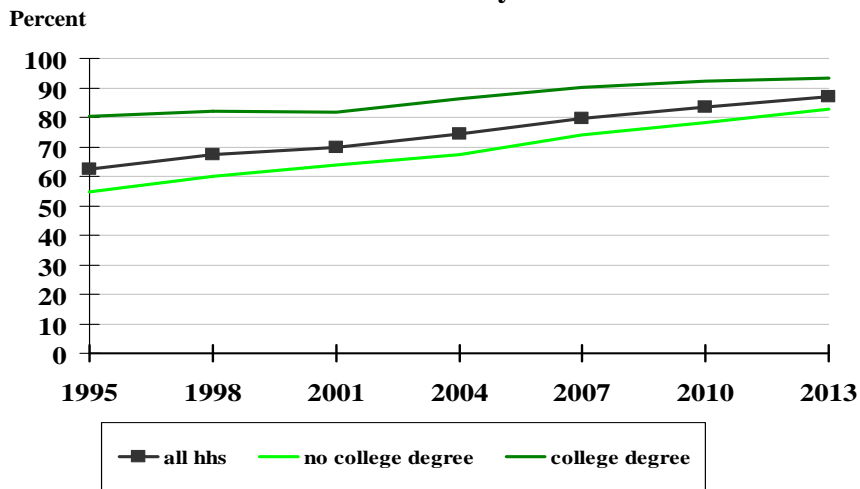


Figure 1.2a
Exhibit 1 Debit Card: By Age

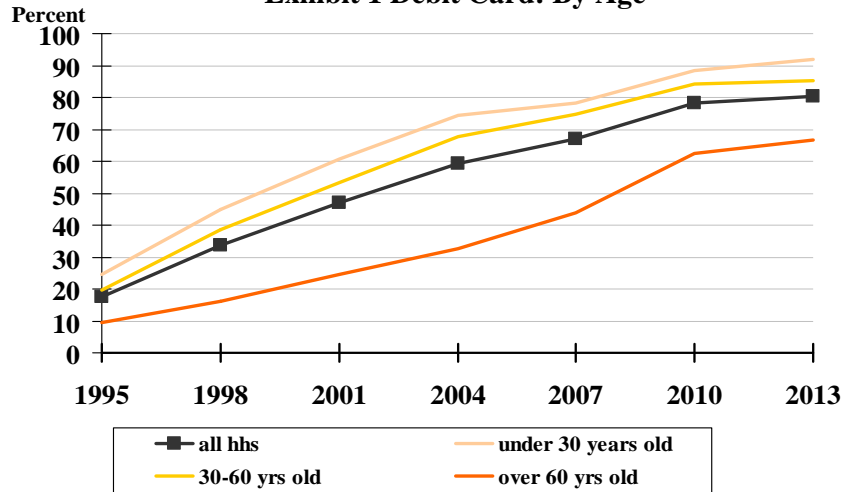


Figure 1.2b
Exhibit 1 Debit Card: By Income

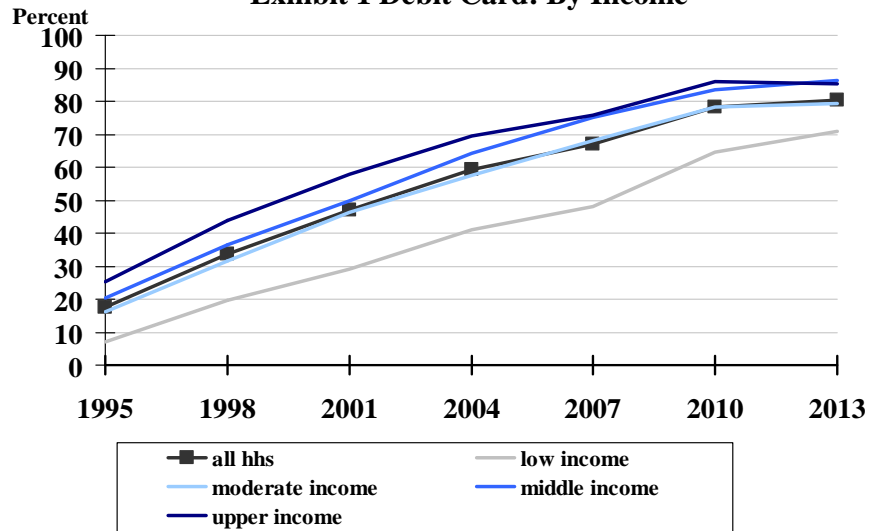


Figure 1.2c
Exhibit 1 Debit Card: By Education

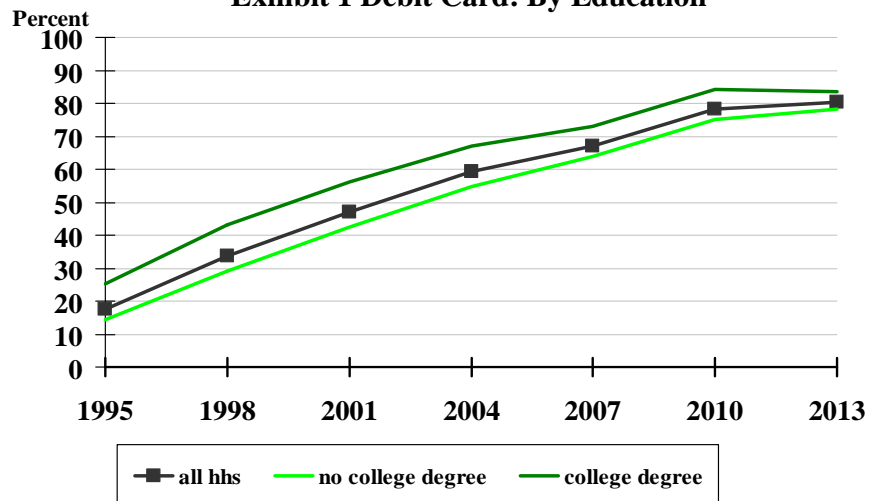


Figure 1.3a
Exhibit 1 Direct Deposit: By Age

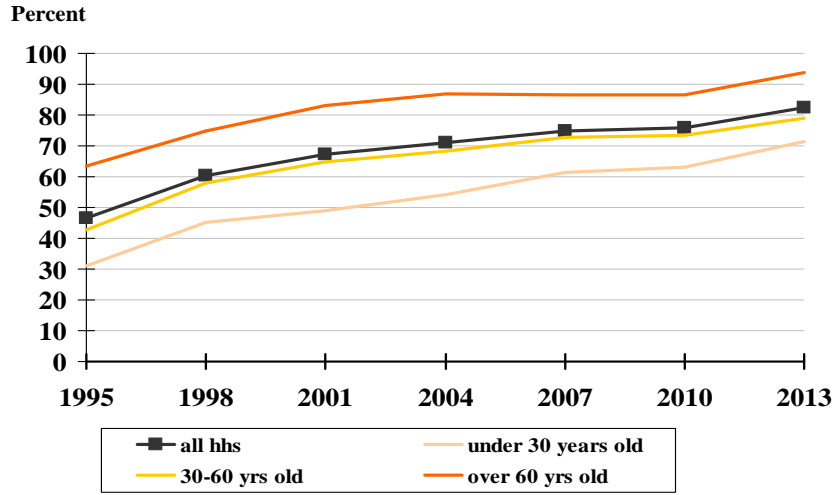


Figure 1.3b
Exhibit 1 Direct Deposit: By Income

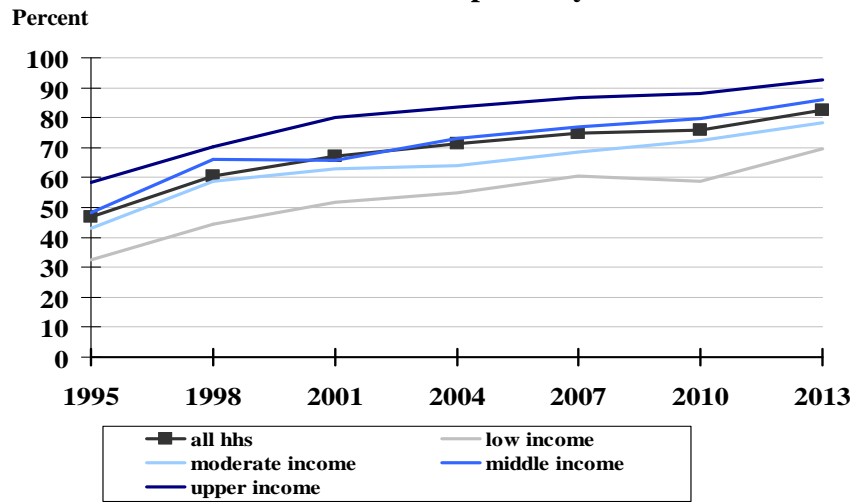


Figure 1.3c
Exhibit 1 Direct Deposit: By Education

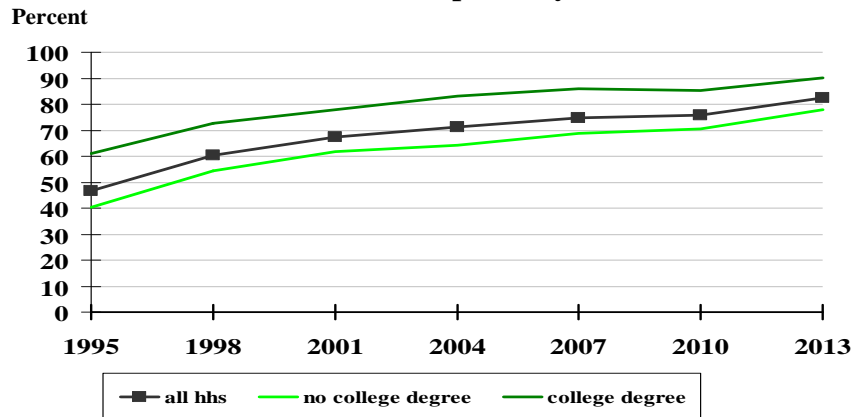


Figure 1.4a
Exhibit 1 Automatic Bill Paying: By Age

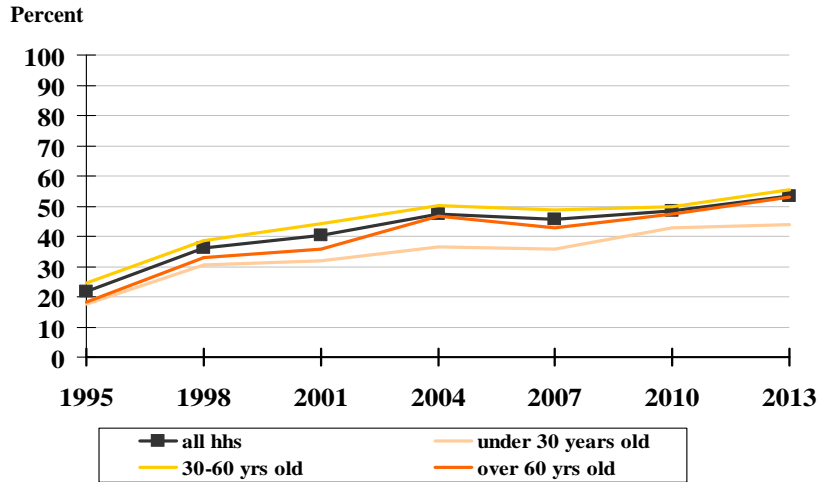


Figure 1.4b
Exhibit 1 Automatic Bill Paying: By Income

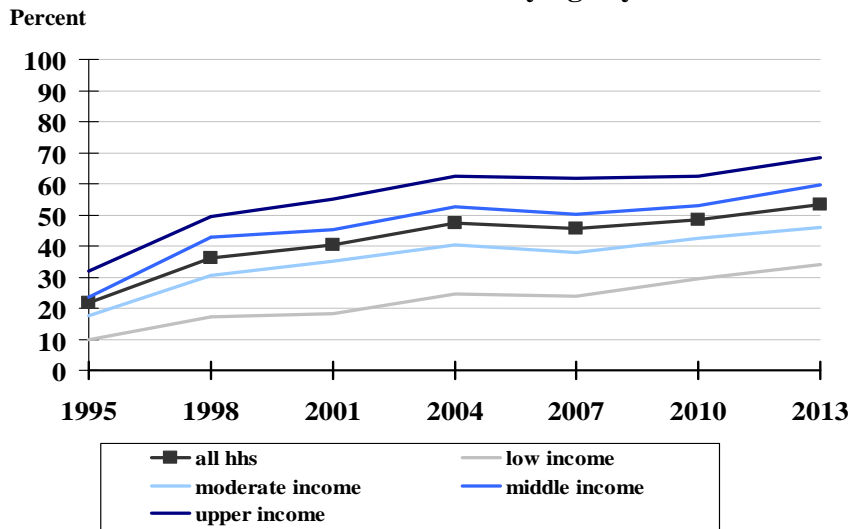


Figure 1.4c
Exhibit 1 Automatic Bill Paying: By Education

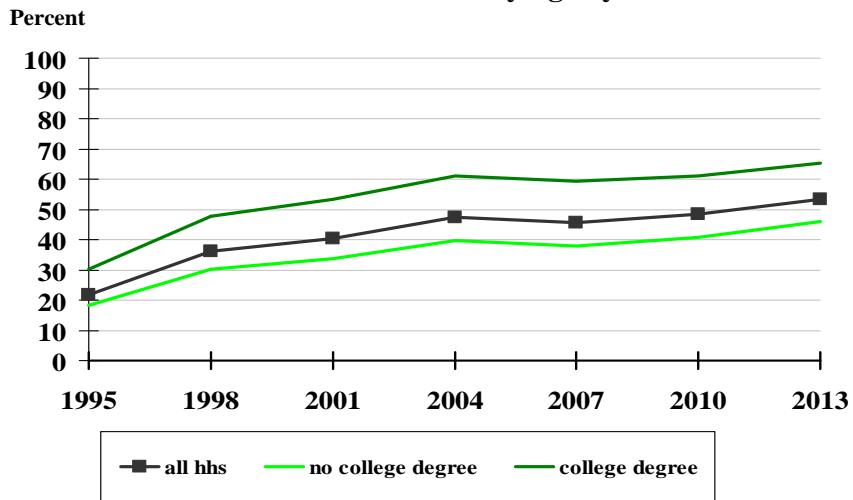


Figure 1.5a
Exhibit 1 Software: By Age

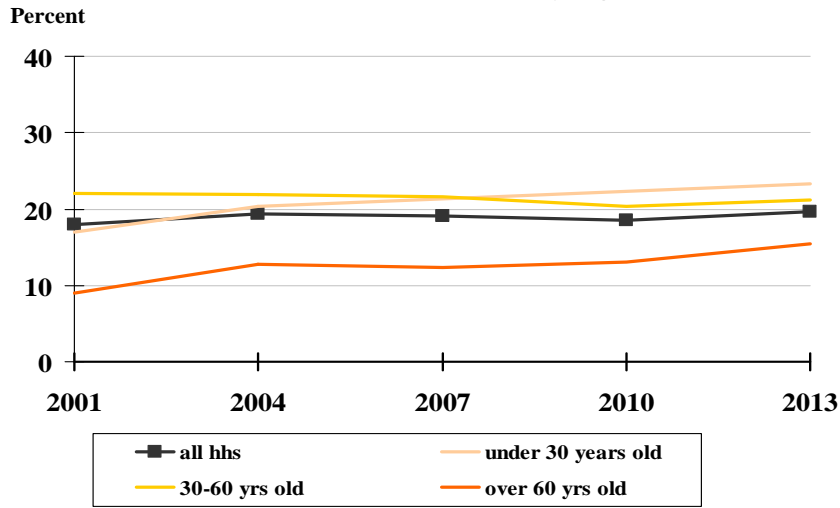


Figure 1.5b
Exhibit 1 Software: By Income

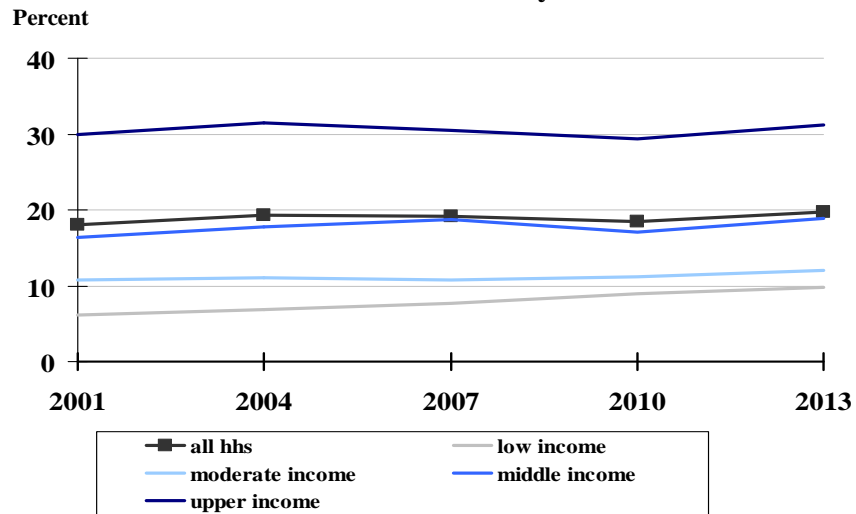


Figure 1.5c
Exhibit 1 Software: By Education

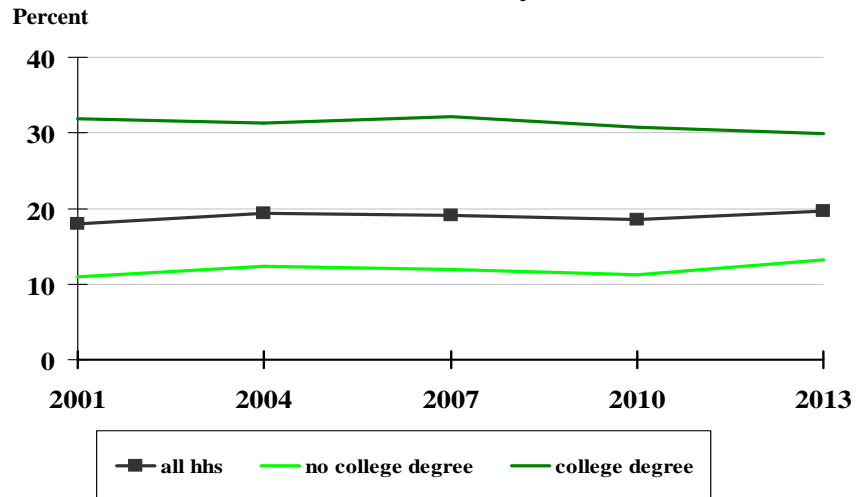


Figure 1.6a
Exhibit 1 Any of the Methods: By Age
 ATM, Debit Card, Smart Card, Direct Deposit,
 Automatic Bill Paying, or Software

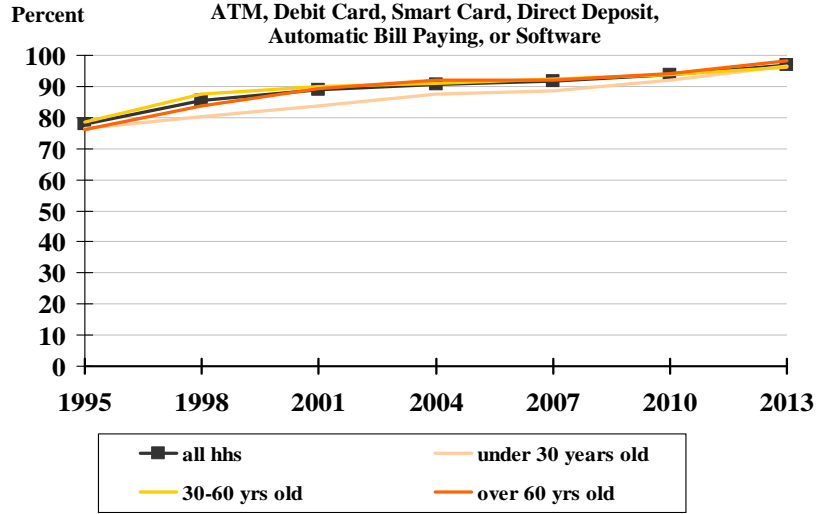


Figure 1.6b
Exhibit 1 Any of the Methods: By Income
 ATM, Debit Card, Smart Card, Direct Deposit,
 Automatic Bill Paying, or Software

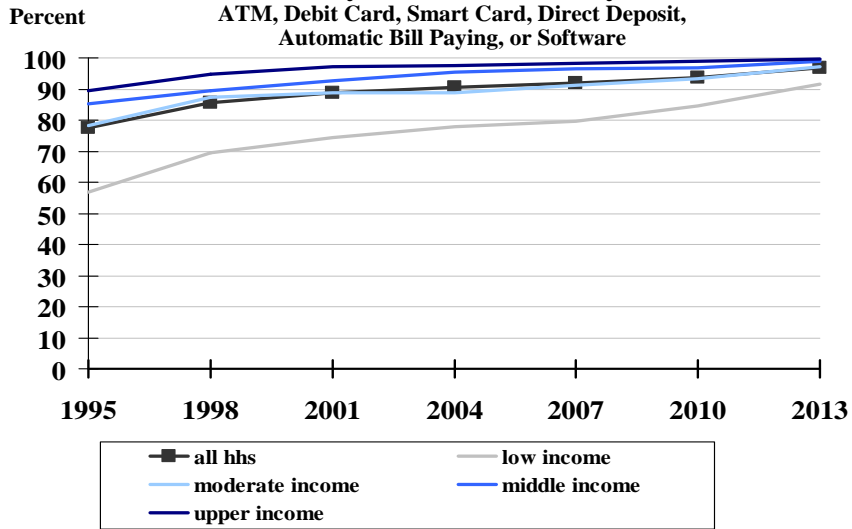
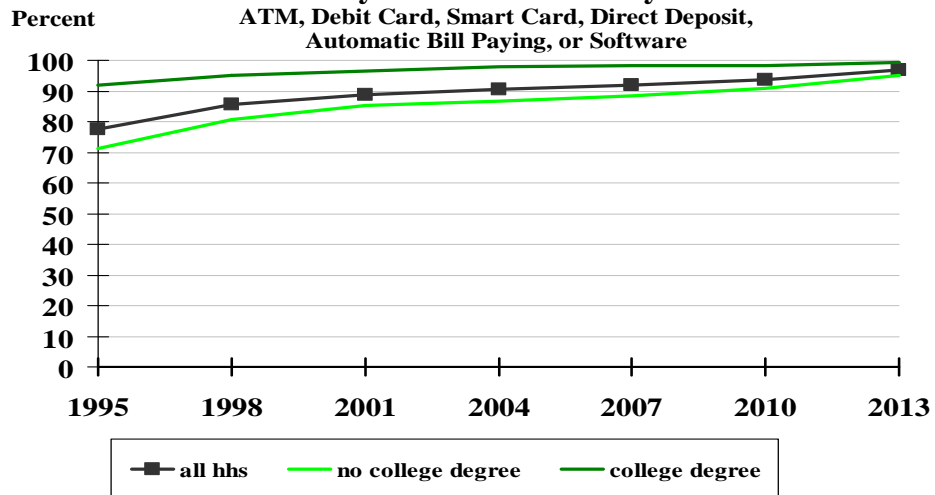


Figure 1.6c
Exhibit 1 Any of the Methods: By Education
 ATM, Debit Card, Smart Card, Direct Deposit,
 Automatic Bill Paying, or Software



Figures 2.1-2.6 illustrate the data in Exhibit 2 on the percent of U.S. households with a financial institution that use each instrument among the main ways of conducting business with at least one of their financial institutions

Figure 2.1a
Exhibit 2 In Person: By Age

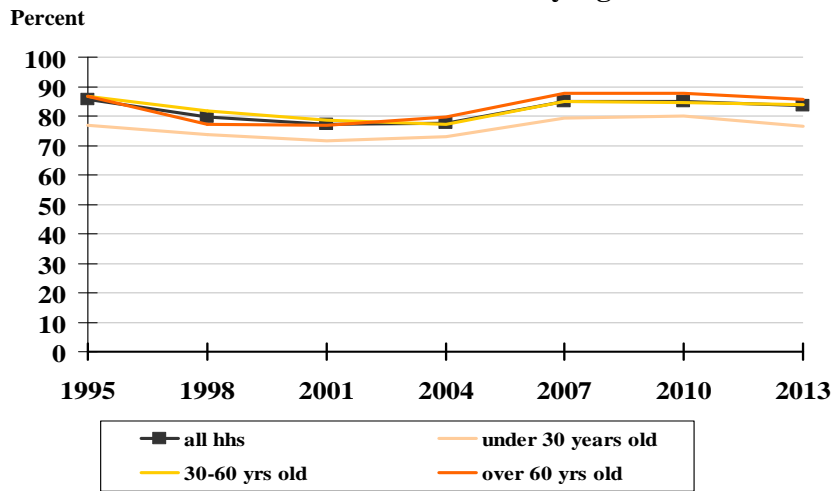


Figure 2.1b
Exhibit 2 In Person: By Income

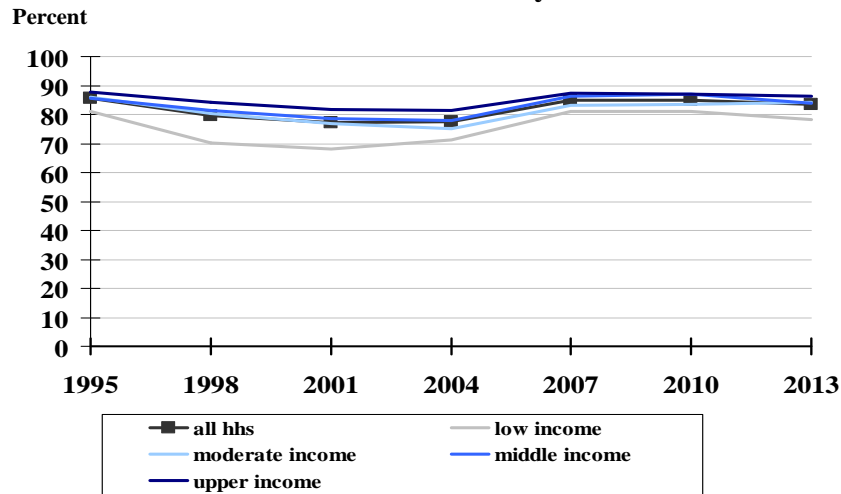


Figure 2.1c
Exhibit 2 In Person: By Education

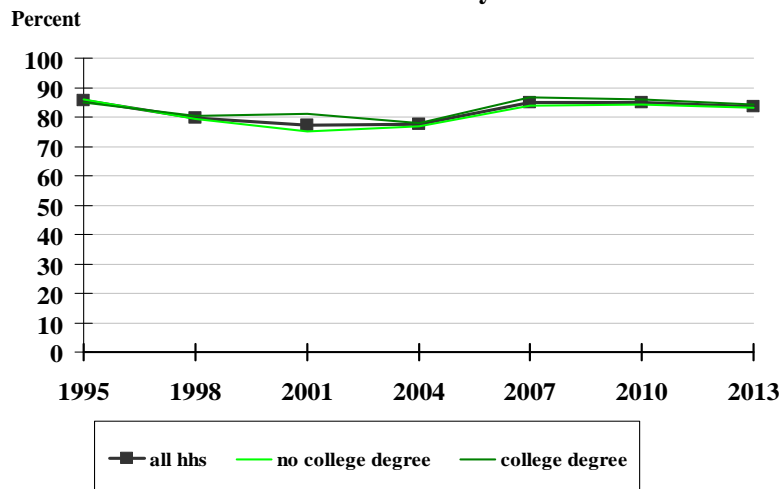


Figure 2.2a
Exhibit 2 Mail: By Age

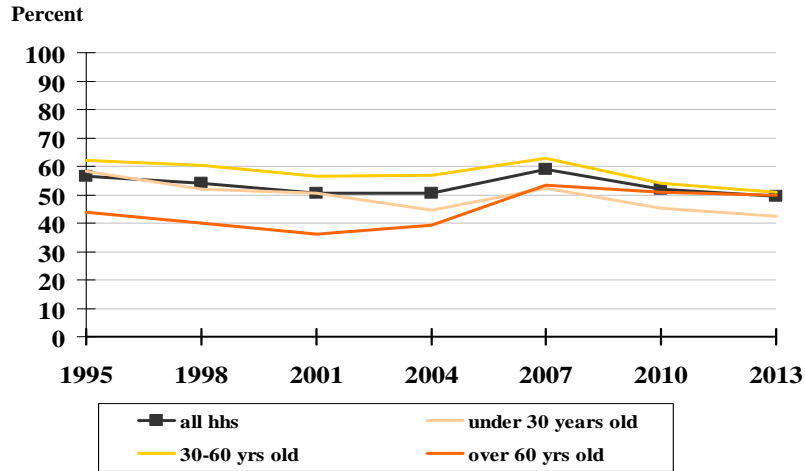


Figure 2.2b
Exhibit 2 Mail: By Income

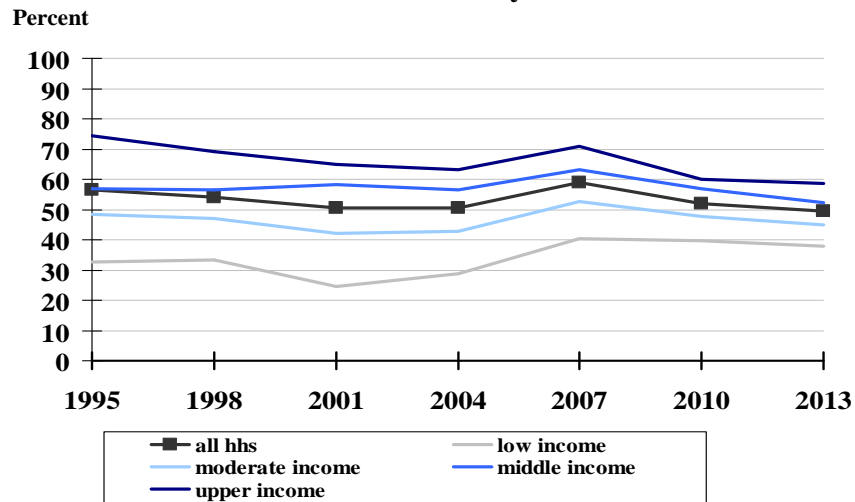


Figure 2.2c
Exhibit 2 Mail: By Education

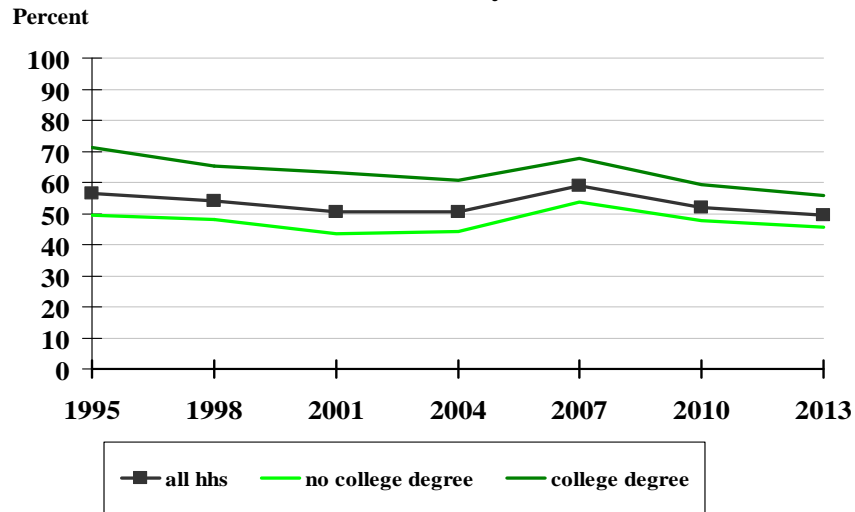


Figure 2.3a
Exhibit 2 ATM/Debit: By Age

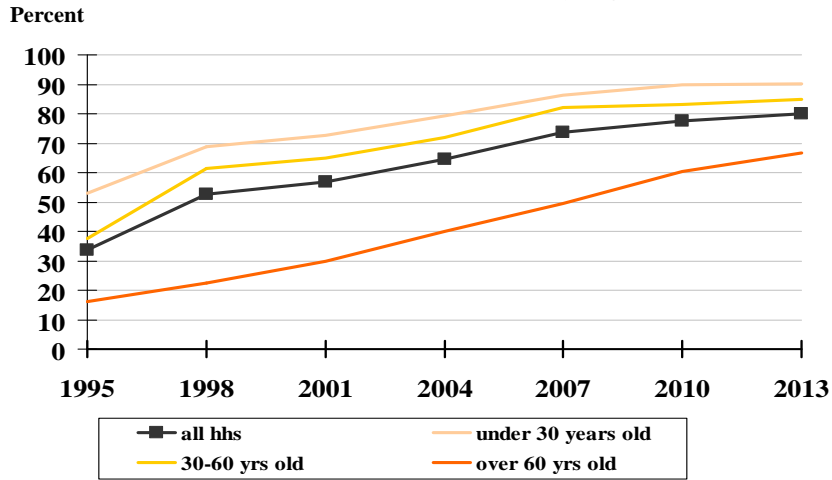


Figure 2.3b
Exhibit 2 ATM/Debit: By Income

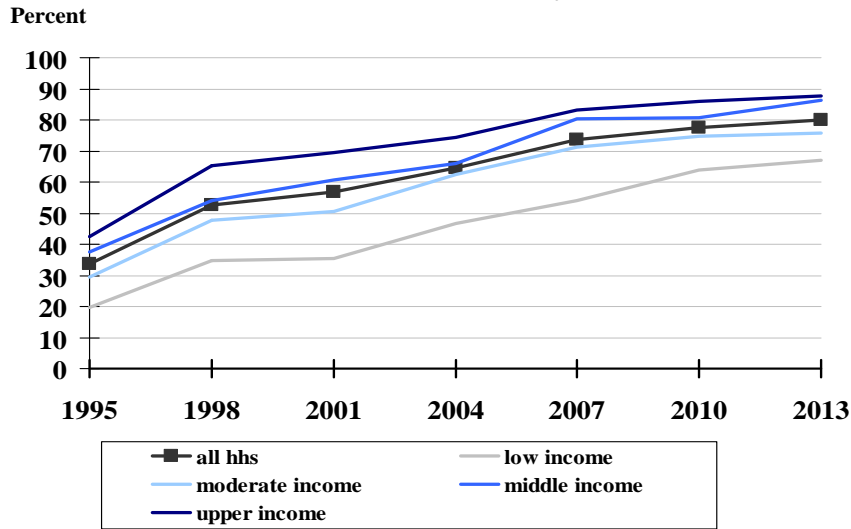


Figure 2.3c
Exhibit 2 ATM/Debit: By Education

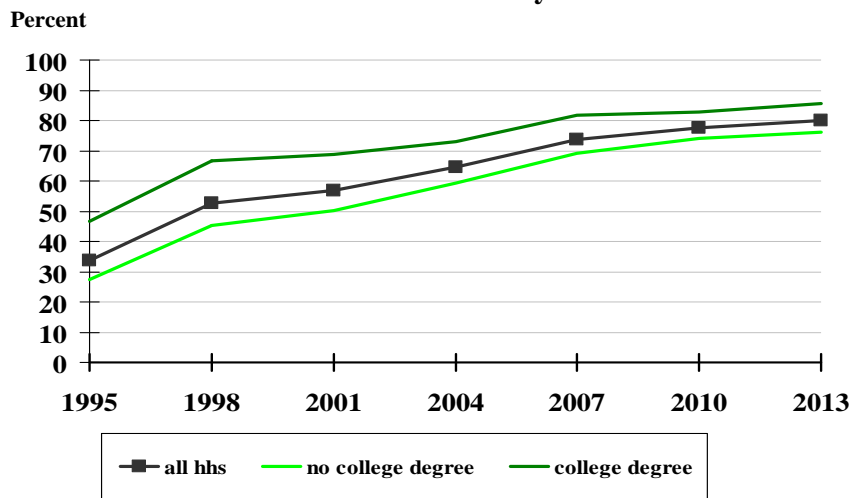


Figure 2.4a
Exhibit 2 Phone: By Age

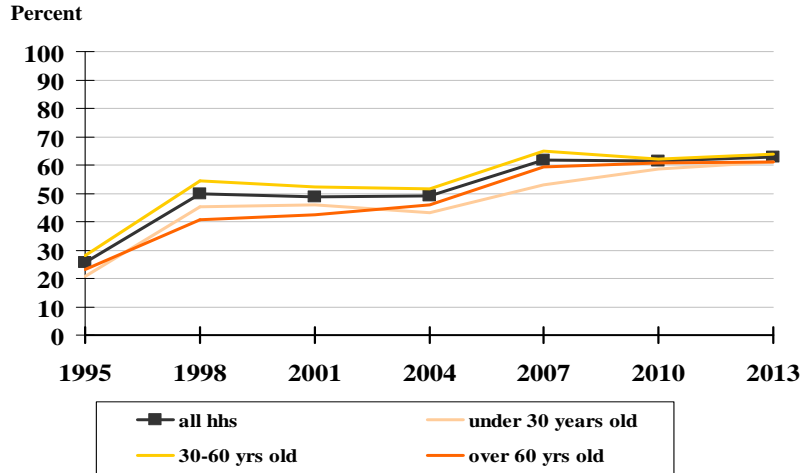


Figure 2.4b
Exhibit 2 Phone: By Income

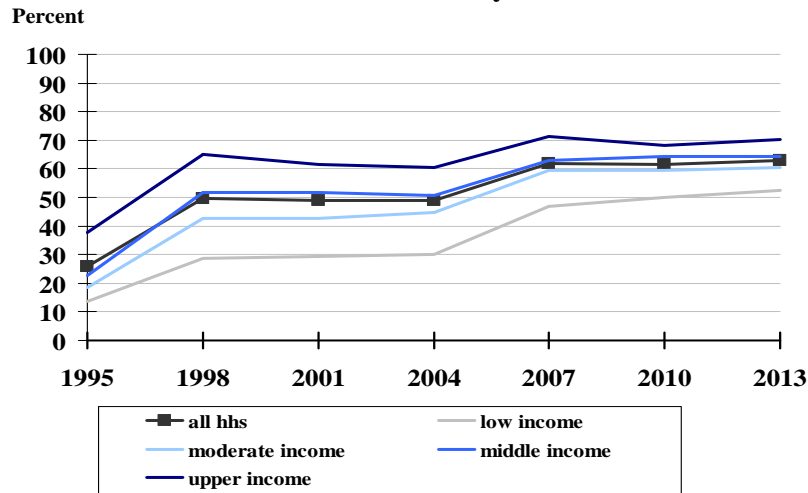


Figure 2.4c
Exhibit 2 Phone: By Education

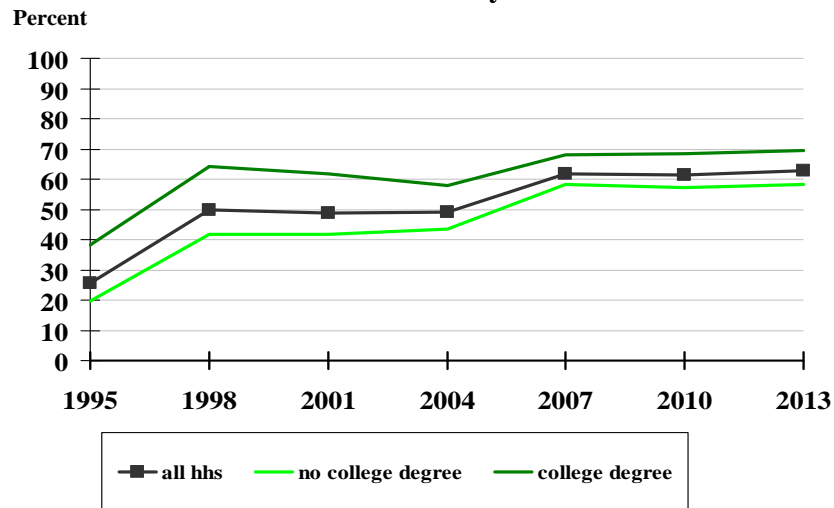


Figure 2.5a
Exhibit 2 Computer: By Age

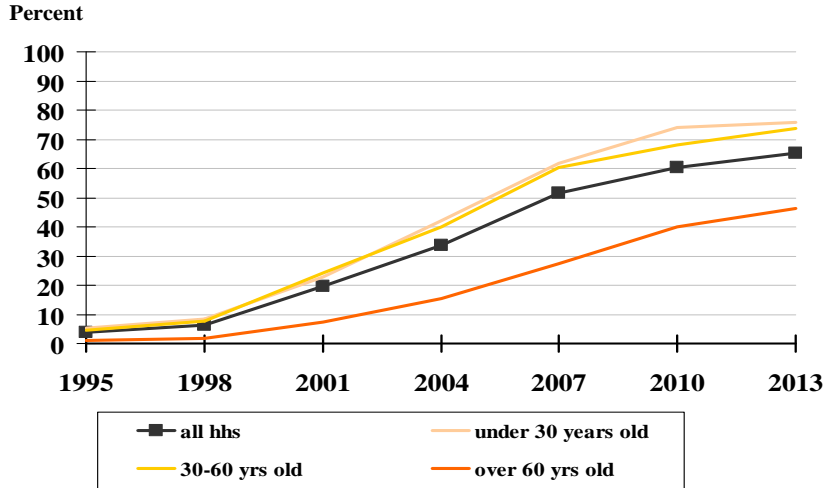


Figure 2.5b
Exhibit 2 Computer: By Income

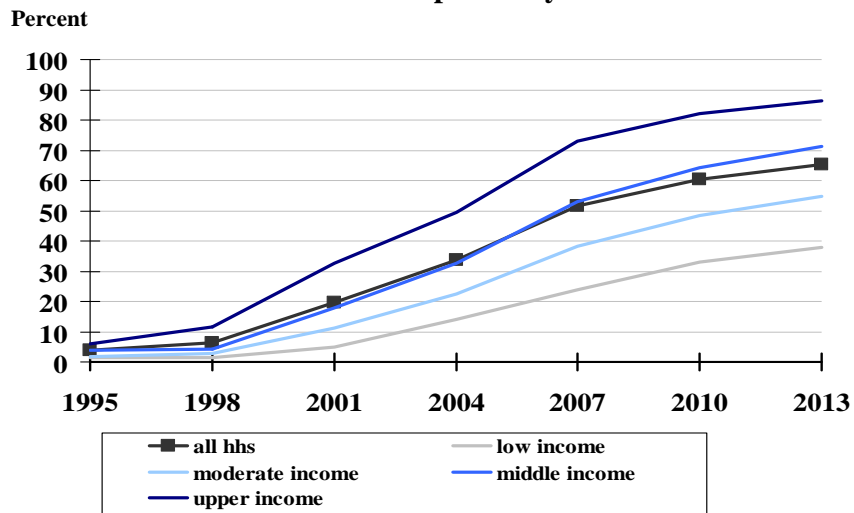


Figure 2.5c
Exhibit 2 Computer: By Education

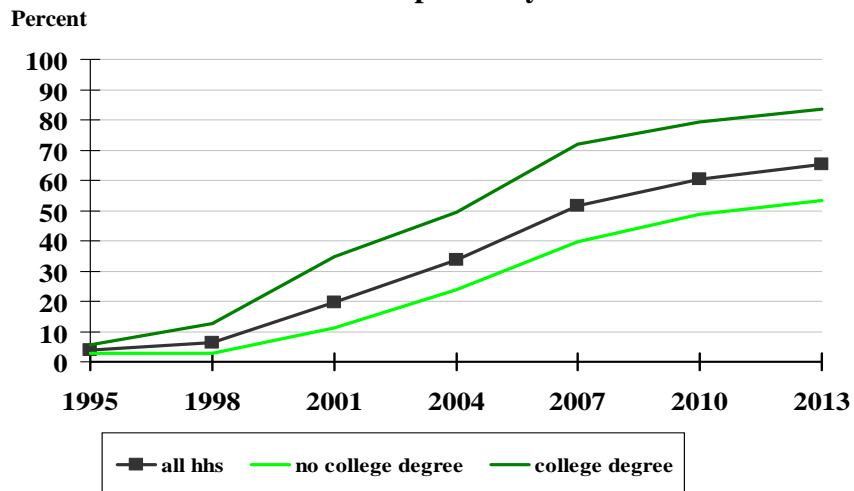


Figure 2.6a
Exhibit 2 Electronic: By Age

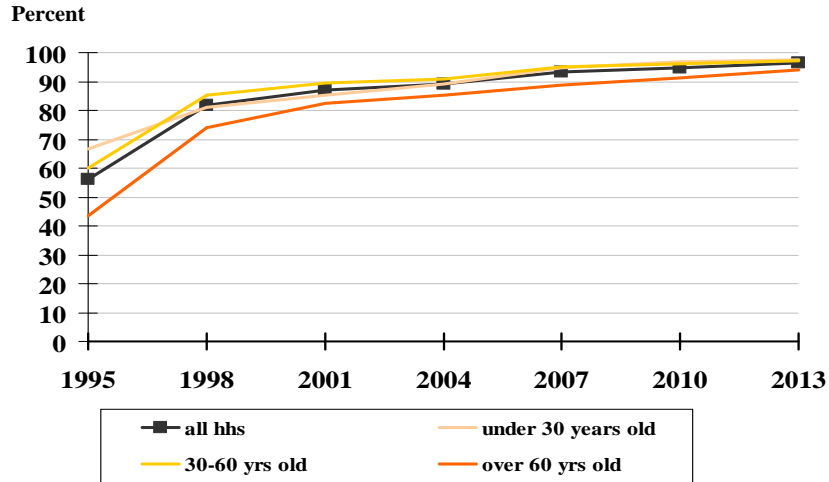


Figure 2.6b
Exhibit 2 Electronic: By Income

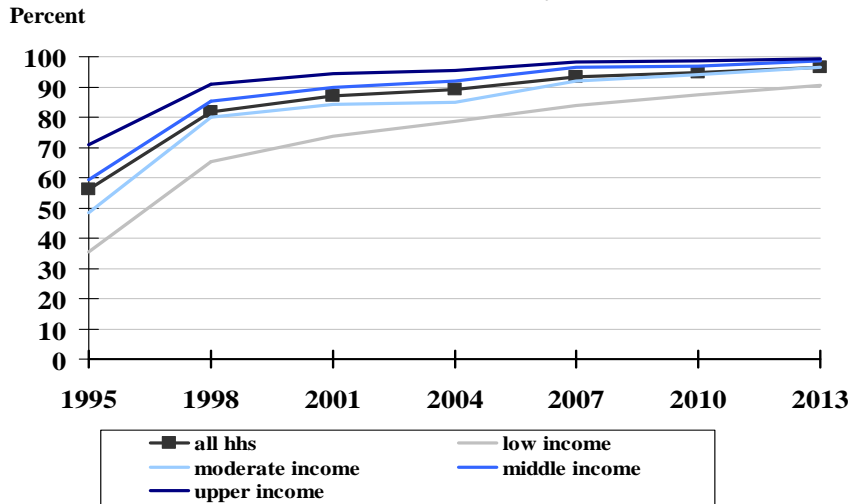


Figure 2.6c
Exhibit 2 Electronic: By Education

